



## ASSESSMENT REPORT TITLE PAGE AND SUMMARY

**TITLE OF REPORT:** A GEOCHEMICAL REPORT ON THE SILVERBOSS PROPERTY

**TOTAL COST:** \$22,269.14

**AUTHOR(S):** Dan Meldrum, M.Sc., GIT

**SIGNATURE(S):** "Dan Meldrum"

**NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):** no disturbance (no permit number)

**STATEMENT OF WORK EVENT NUMBER(S)/DATE(S):** 4432588

**YEAR OF WORK:** 2009

**PROPERTY NAME:** SilverBoss

**CLAIM NAME(S) (on which work was done):**

505103, 517552, 537013, 537030, 547671, 547676, 548357, 552474, 553510, 572222

**COMMODITIES SOUGHT:** Molybdenum, Copper, Lead, Zinc, Gold, Tungsten

**MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:** 093A 019

**MINING DIVISION:** Cariboo

**NTS / BCGS:** 093A.006 & 093A.016

**LATITUDE:** 52° 05' 32" N     **LONGITUDE:** 120° 55' 59" W (at centre of work)

**UTM Zone:** 10; 641605 m Easting; 5773323 m Northing

**OWNER(S):** Happy Creek Minerals Ltd. (FMC 203169)

**MAILING ADDRESS:** #460 – 789 West Pender St.; Vancouver, B.C.; V6C 1H2

**OPERATOR(S) [who paid for the work]:** Same as above

**MAILING ADDRESS:** Same as above

### REPORT KEYWORDS:

The Silverboss property is underlain primarily by compositional granodiorite of the Upper Triassic to Lower Jurassic Takomkane batholith. Intrusive rocks range from medium to coarse grained granodiorite to diorite in composition. Porphyritic quartz monzonite of the Cretaceous Boss Mountain stock intrudes the batholith in close proximity to the Silverboss property boundary. Molybdenum deposits of the former Boss Mountain molybdenum mine are located at the periphery of the Boss Mountain stock. Molybdenum mineralization at the mine is related to a complex sequence of rhyolite porphyry and rhyolite dykes, quartz veining and breccias development. Molybdenum mineralization is mainly contained within quartz veins and lesser breccia bodies within the granodiorite phase of the batholith. Rhyolite and basalt dykes cut the batholith and are in proximity to mineralization.

### PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:

13410, 14558, 23677, 24208, 29970, 27755, 28987, 28344, 30830

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (in metric units)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)	0 km		
Ground, mapping	0 km		
Photo interpretation	0 km		
GEOPHYSICAL (line-kilometres)	0 km		
Ground	0 km		
Magnetic	0 km		
Electromagnetic	0 km		
Induced Polarization	0 km		
Radiometric	0 km		
Seismic	0 km		
Other	0 km		
Airborne	0 km		
GEOCHEMICAL			
Soil	1km X 1km 125 samples	552474, 553510	\$14,171.79
Silt	10km X 1.5km 26 samples	505103, 517552, 537013, 537030, 547671, 547676, 548357, 552474, 553510, 572222	\$2,947.73
Rock	3 samples	517030, 552474, 547671	\$340.12
Other	0		
DRILLING (total metres, number of holes, size, storage location)	0		
Core	0		
Non-core	0		
RELATED TECHNICAL			
Sampling / Assaying		505103, 517552, 537013, 537030, 547671, 547676, 548357, 552474, 553510, 572222	\$4,809.50
Petrographic	0		
Mineralographic	0		
Metallurgic	0		
PROSPECTING (scale/area)	0		
PREPATORY / PHYSICAL	0		
Line/grid (km)	0		
Topo/Photogrammetric (scale, area)	0		
Legal Surveys (scale, area)	0		
Road, local access (km)/trail	0		
Trench (number/metres)			
Underground development (metres)	0		
Other	0		
		Total Cost	\$22,269.14

BC Geological Survey  
Assessment Report  
31416

**A GEOCHEMICAL REPORT**

**ON THE**

**SILVERBOSS PROPERTY**

**CARIBOO MINING DIVISION**

**BRITISH COLUMBIA**

**BCGS MAPSHEETS: 093A.006 & 093A.016**

**52°06'02.57" N  
120°16'11.85" W**

PREPARED FOR  
**HAPPY CREEK MINERALS LTD.**  
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February 12, 2010

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## 1. SUMMARY

The Silverboss property is located 85 kilometres, by road, northeast of 100 Mile House in the south-central Cariboo region of British Columbia. The Silverboss property is comprised of 25 contiguous mineral tenures that cover 10,850.4 ha of land on BCGS map sheets 093A.006 and 093A.016. The claim group almost completely envelops the former Boss Mountain molybdenum mine on Big Timothy Mountain. Access to the property is provided by paved and well-maintained gravel roads.

The Silverboss property is underlain primarily by compositional granodiorite of the Upper Triassic to Lower Jurassic Takomkane batholith. Intrusive rocks range from medium to coarse grained granodiorite to diorite in composition. Porphyritic quartz monzonite of the Cretaceous Boss Mountain stock intrudes the batholith in close proximity to the Silverboss property boundary. Molybdenum deposits of the former Boss Mountain molybdenum mine are located at the periphery of the Boss Mountain stock. Molybdenum mineralization at the mine is related to a complex sequence of rhyolite porphyry and rhyolite dykes, quartz veining and breccias development. Molybdenum mineralization is mainly contained within quartz veins and lesser breccia bodies within the granodiorite phase of the batholith. Rhyolite and basalt dykes cut the batholith and are in proximity to mineralization.

The Silverboss property was staked by Happy Creek Minerals Ltd in 2005. Previous exploration dates back to as early as 1915 with the discovery of the Silverboss vein and the large molybdenum deposit which later became the Boss Mountain mine. Noranda Exploration Company Ltd put the mine into production in 1965. The mine operated until 1983 with a suspension of activities from 1972-1974 because of depressed commodity prices. During operations the mine recovered 15,496,034 kilograms of molybdenum from the processing of 5,588,020 tonnes of ore. Unclassified reserves, reported by Noranda at the closure, were 3,838,847 tonnes grading 0.135% molybdenum. Claims covering the Boss Mountain mine workings are now held by Xstrata Plc.

Mineralization on the Silverboss property consists primarily of vuggy quartz veins, quartz stockworks, siliceous breccias, and siliceous fault and shear zones that carry pyrite, chalcopyrite and locally specular hematite. Grab samples and narrow chip samples of mineralization from several zones on the property, dispersed over 1 km by 2 km area, such as the Horse Trail and Silverboss zones, point to the potential for sizeable bulk tonnage gold silver deposit. High grades have been reported from several occurrences, including a sample of vein material from the Dogtooth zone that returned a value of 53.0 g/t Au and 343.0 g/t Ag.

Exploration was conducted during production both on the mine site and on adjacent claims once held by Noranda, however exploration records for the period are scarce. The exploration history of the Silverboss claim group, although intimately associated with the Boss Mountain mine, is brief and incomplete. Recent work by Happy Creek Minerals has re-established the locations for several historic zones, such as the Silverboss vein, and identified several new showings, such as the East Breccia, Horse Trail and Headwall zones. In 2006-2007, Happy Creek conducted mapping, prospecting, more than 80 line-km of grid development, and collected more than 50 rock, 70 silt and close to 1000 soil geochemical samples in the Horse Trail, Dogtooth, and 10 Mile Creek areas. Soil geochemical sampling outlined a molybdenum tungsten- copper anomaly that measured roughly 500 m wide by 3.0 km in length. Gold soil geochemical anomalies were identified proximal to the Horse Tail, Dogtooth and East Breccia zones.

During 2009 Happy Creek Minerals collected numerous geochemical samples including 125 soil samples, 26 stream samples and 3 rock samples. The soils were taken from the Gus extension zone north of the Mine site. The stream and rock samples were taken in the areas directly north and south of the Silverboss Mine.

Recommendations for follow-up include, bedrock mapping, detailed prospecting and rock sampling, 3D IP geophysical surveying, mechanized trenching, and diamond drilling of 1000 m to test coincident geophysical-geochemical targets for both molybdenum+/-tungsten and gold mineralization.

## **2. INTRODUCTION AND TERMS OF REFERENCE**

This report has been prepared in order to satisfy assessment requirements. It discusses the 2009 Soil, Silt and Rock Geochemical sampling program carried out on the Silverboss Property.

The information for the accompanying report was obtained from sources cited under references and from field work conducted during the 2009 work program. The registered owner of the Silverboss property is Happy Creek Minerals Ltd.

This report is supplemented by published and available studies that document bedrock mapping and geological fieldwork conducted by the Geological Survey Branch of the provincial British Columbia Ministry of Energy, Mines and Petroleum Resources.

## **3. PROPERTY DESCRIPTION AND LOCATION**

### **3.1 Accessibility and Infrastructure**

The Silverboss property is a group of mineral claims that almost completely envelope the former Boss Mountain molybdenum mine on Big Timothy Mountain. The property is located 85 kilometres, by road, northeast of 100 Mile House; in the south central Cariboo region of British Columbia (Figure 1). The property boundary on the east side of Timothy Mountain lies within 350 meters of the Boss Mountain open-pit.

Access to the property is by well-maintained paved and gravel roads. To access the centre of the property, travel 2 km north of 100 Mile House on Highway 97 and turn right onto the Canim-Hendrix road. Travel this road to Forest Grove and turn right at the 3 way stop. Continue on the Canim-Hendrix road for a total of 50 km from Highway 97 to Eagle Creek Bridge. Cross the bridge to the start of the Hendrix Lake (6000) road. Travel northerly along the 6000 road for 33 km to the junction with the Boss Mountain mine road; just south of the Hendrix Lake town site. The mine road is followed westerly for 7 km to where a gate is located. Access beyond the gate is either by foot or ATV via several trails that access various parts of Big Timothy Mountain. An alternate route exists and accesses the southern area of the property: via 6000 main road, turn at 6015 km marker onto the 620 or Boss Creek forestry road. ATV access along rough cat trails is possible to higher elevations from the historical Molybdenite Creek road. Helicopter access to the property is favourable; and charter companies are readily available in Williams Lake.

Williams Lake and 100 Mile House, situated on Highway 97, are the nearest major towns and can provide most required services and amenities to support mineral exploration. These towns are resource-based communities and each has a district population in excess of 10,000 persons. Hydro power is accessible 7.0 kilometres to the west at the Hendrix Lake town site.

### 3.2 Mineral Tenure Information

The Silverboss property consists of 51 contiguous mineral tenures that cover 15,695.7 ha of land on BCGS map sheets 093A.006 and 093A.016 in the Cariboo Mining Division (Figure 2). The Silverboss property is located between latitudes 52°09'00" and 51° 59' 00" North and longitudes 120° 57" 00" and 120° 38' 00" West. The centre of the claim block is located at latitude 52°06'02.57" North and longitude 120°16'11.85" West. All of the individual tenures are 100%-owned by Happy Creek Minerals Ltd and are all held in good standing. The status anniversary dates are listed in Table 1.

### 3.3 Physiography and Climate

The Silverboss property is located within the Interior Wet Belt biogeoclimatic zone of the Quesnel Highlands physiographic region. The property wraps, in a large horseshoeshape, almost completely around the mining lease that stills forms the land tenure for the former Boss Mountain molybdenum mine. There is a significant variation in topographic features from west to east across the property. The western claims are centred on and around the base of Mt. Timothy and adjacent to the Boss Mountain mine pit. The eastern claims straddle the Hendrix Creek drainage, with Hendrix Lake standing out as a prominent feature in the centre of the eastern claim group. The northern section of the claim group is transitional from gentle slopes to plateau-like mountaintops.

Elevations on the property range from 1080 m asl near Hendrix Lake in the east to greater than 2140 m asl at the peak of Timothy Mtn. There are a number of more subdued, NW trending peaks and ridge lines in the central and southern parts of the claim group, with elevations from 1700 m asl to 1800 m asl.

Many of the lower slopes have been logged and the remaining forested areas are covered by a mixture of mature and juvenile stands of spruce, lodgepole pine, balsam, Douglas fir, paper birch and aspen. Areas on the property locally consist of western red cedar and white spruce. The ground cover is dominated by alder and willow saplings as well as wild rose, thimbleberry shrubs and fireweed. The upper slopes are vegetated in isolated clumps with sub-alpine fir and a variety of alpine plants. There are several prominent creeks on the property, including Moffat, Molybdenite, Boss and Hendrix. The property also encompasses numerous small creeks, wetlands and lakes.

The climate is typical of the northern interior of British Columbia. Summer temperatures average a daytime high in the 20°C range with occasional temperatures reaching the low 30°C range. October through April sees average sub-zero temperatures with extreme lows reaching -30°C from November through March. The annual precipitation is an average of 50 cm including winter snowfall.



Table 1: List of Mineral Tenures and Status (as of March 17, 2010)

Tenure	Claim Name	Expiry Date	Area (ha)
408035	SB4	2014/dec/31	500.0
505103	SB5	2013/dec/31	436.8
505116	SB6	2012/dec/31	496.7
517552	SB5	2013/dec/31	238.3
518932	SB-NORTHEAST	2014/dec/31	815.7
526510		2012/dec/31	1052.2
526513		2012/dec/31	595.9
539433	SB FRACTION	2010/dec/31	39.7
547671	RB83	2010/dec/31	397.4
547673	RB86	2010/dec/31	477.0
547676	ROSS2	2010/dec/31	496.7
547682	RB90	2010/dec/31	417.2
548357	BOSK 4	2010/dec/31	79.5
552560	SB8	2010/dec/31	456.5
552561	SB10	2011/dec/31	477.0
552562	SB11	2010/dec/31	457.3
552563	SB 12	2010/dec/31	456.7
552564	SB 13	2011/dec/31	496.7
552565	SB 14	2011/dec/31	457.0
552566	SB 15	2010/dec/31	497.0
552567	SB 16	2010/dec/31	477.1
552568	SB 17	2010/dec/31	417.3
552569	SB 18	2010/dec/31	496.5
552570	SB 19	2010/dec/31	357.3
552571	SB 20	2010/dec/31	476.7
552572	SB 21	2010/dec/31	238.5
554084	SB SW	2011/dec/31	158.9
579878	SB22	2010/dec/31	99.3
554324	SV1	2010/dec/31	416.9
554325	SV2	2010/dec/31	238.3
517036	BOSS 1	2010/dec/31	19.9
517058	BOSS 2	2011/dec/31	19.9
531516	BOSS 3	2010/dec/31	19.9
537013	BOSS 4	2010/dec/31	357.1
537023	BOSS 4	2011/dec/31	79.4
537030	BOSS 5	2011/dec/31	178.6

537134	COPPER STRIKE 3	2010/dec/31	357.2
537164	BOSS 5	2010/dec/31	19.9
539414	GUS 2	2010/dec/31	297.6
539415	BUSTER	2010/dec/31	356.9
552075	BOSS 7	2010/dec/31	19.9
552474	GUS	2010/dec/31	258
553516	GUS 3	2010/dec/31	357.2
531517	BOSS 4	2011/dec/31	19.9
552100	B PIT	2010/dec/31	19.9
552149	BOSS 8	2010/dec/31	19.9
552151	BOSS 9	2010/dec/31	19.9
572221		2010/dec/31	19.9
572222		2010/dec/31	19.9
596342	SB23	2010/dec/19	477.1
589368	SB FRAC 2	2011 /aug/01	39.7
<b>TOTAL</b>			<b>15,695.7</b>

**All are in Mapsheet 093A**

**\* optioned from Owner John Bot FMC#102844**

#### 4. HISTORY

The Silverboss property was staked by Happy Creek Minerals Ltd in 2005. Previous exploration dates back to as early as 1915 with the discovery of the Silverboss vein and the large molybdenum deposit which later became the Boss Mountain mine. A summary of previous work is listed in Table 2.

Exploration in the area has been dominated by discovery of molybdenum mineralization and subsequent development of the former Boss Mountain molybdenum mine (MINFILE 093A 001). The earliest recorded exploration dates back to 1915 when copper and peridotite mineralization was discovered by Ryan and Foster at the Silverboss showing (MINFILE 093A 019) on Takomkane Mountain (Big Timothy Mountain). They later discovered molybdenum mineralization about 1.5 kilometres to the east, and managed to pack out 800 pounds of hand cobbled ore. Cominco acquired the property in the 1930's and conducted a large program of trenching, test pits, open cuts and drove two short adits on the Southwest vein zone. The BC Department of Mines drilled approximately 415 m of x-ray drill core on the main breccia zone. H.H. Heustis acquired the property in 1955 and expanded the claim holdings. He then optioned the property to Climax Molybdenum Company who completed several thousand feet of diamond drilling until terminating their option in 1960.

Noranda Exploration Company Ltd. optioned the property from Heustis in 1961 and through significant exploration and development effort managed to put the mine into production by 1965. The mine ran successfully until 1972 when it was forced to close due to depressed commodity prices and failing markets. Through the period of 1965 to 1972 a total of 2,992,425 tonnes was mined and milled, at an average grade of 0.266% molybdenum, with a reported 7,952,789 kilograms of recovered molybdenum (MINFILE 093A 001).

The mine re-started in 1974 and ran continuously through until 1983 when it closed permanently due to declining commodity prices and adverse market conditions. Throughput during this period was a total of 4,595,595 tonnes mined and milled, at an average grade of 0.164% molybdenum, with a reported 7,543,245 kilograms of recovered molybdenum (MINFILE 093A 001). The mine buildings were dismantled and the infrastructure removed or reclaimed by 1986.

Unclassified reserves, reported by Noranda, at the time of permanent closure in 1984, are 3,838,847 tonnes grading 0.135 % molybdenum. Included in this total is an "open pit reserve" of 2,358,460 tonnes grading 0.11 per cent molybdenum reported by Noranda in their annual report (MINFILE 093A 001).

Table 2: Summary of Previous Work

Year	Exploration Activities
1915 - 1917	Ryan and Foster discovered the Silverboss vein system and developed trenches, pits, open cuts, sunk a shaft and drove an adit. They recovered peridotite and attempted but failed to market the material as gem quality emerald.
1969 - 1972	Exeter Mines Limited claim staked the Silverboss vein system and surrounding ground adjacent to the Boss Mountain mine. Exeter conducted at least 1 program of mapping, VLF-EM geophysical survey and a limited soil geochemical survey. Remnant drill core, a few abandoned drill collars (SW end of Silverboss vein system), and evidence of shallow trenching has been discovered around the Silverboss showing and likely dates to the early 1970's; although there are incomplete records of the work or the results.

1969 - 1970	Virgo Explorations Ltd. staked a large claim group adjacent to Exeter and Boss Mountain mine property, on the northern and eastern slopes of Big Timothy Mountain. Exploration work included detailed stream sediment and focused soil geochemical surveys and ground magnetometer surveys. Positive molybdenum anomalies were returned from soil and silt samples at the east end of 10 Mile Creek.
1972	Rio Tinto claimed the Monty ground at the head of Boss Creek, approximately 2.5 km southwest of the Boss Mountain mine property. A soil sampling program was conducted for which no records have survived or were never submitted for claim maintenance.
1972	Exploration work was conducted by Neilson and Gutrath on the Trooper claims located approximately 4.8 km northwest of the Boss Mountain mine. Work consisted of line-cutting, 8.3 km of IP geophysical survey, and blast trenching. Apparently no encouraging results were obtained.
1985	Dave Javorsky conducted a limited excavator trenching program on a large claim grouping at the east end of the mine property. The claims were allowed to lapse soon after.
1993 - 1995	Ridley staked the open ground covering the Silverboss vein system, and together with Pioneer Metals Corporation conducted a limited program of mapping and prospecting and managed to trace the surface expression of the vein system over a strike length of 350m. They also identified several new showings, including the East Breccia zone.
2004	Ridley and David Blann conducted a limited program of mapping, prospecting, rock and silt sampling and identified several new zones, including the Horse Trail and Headwall zones. Rock samples from quartz veins returned anomalous Cu, Au and Ag values.
2005	Noranda (now Xstrata) dropped a number of claims surrounding the main Boss Mountain mine holding and the ground was subsequently staked by Ridley and optioned to Happy Creek Minerals. Happy Creek conducted a limited program of exploration on the east slopes of Big Timothy Mountain. Work included mapping, prospecting, and collection of 47 rock and 8 silt samples. Gold and silver values were returned from quartz veins, as well as anomalous arsenic, bismuth, tungsten and molybdenum values. Samples from the Dogtooth zone returned up to 53.0 g/t Au and 343 g/t Ag. The gold-silver bearing quartz vein system was postulated by Blann to be part of a regional mineral zonation pattern genetically related and proximal to the high-level molybdenum porphyry system hosting the Boss Mountain deposit.
2006	Happy Creek conducted mapping, prospecting, 33.7 line-km of grid development, and collected 36 rock, 8 silt and 965 soil samples in the Horse Trail, Dogtooth, and 10 Mile Creek areas. Soil geochemistry outlined a molybdenum-tungsten-copper anomaly that measured roughly 500 m wide by 3.0 km in length. Gold-in-soil anomalies were identified proximal to the Horse Tail, Dogtooth and East Breccia zones. One rock sample collected at the South Ridge zone returned 7.26 g/t Au and 140 g/t Ag.
2007	Happy Creek carried out mapping, prospecting and collected 17 rock samples, 62 silt samples and 966 soil samples over 48.3 line-km of grid.
2008	Happy Creek carried out prospecting (20 rock samples), a geochemical soils grid of 598 samples, and sampled 43 streams. Large coincident Mo / W anomalies were identified.

Exploration was conducted during the production years both on the mine site and on adjacent claims once held by Noranda. Exploration records are scant and appear to have not been made public except where required to meet minimum claim maintenance requirements. Two drill holes were drilled in 1976 on ground 500 m east of the Headwall zone now held by Happy Creek. Significant values of 0.510% and 0.480% molybdenum were intersected from 1.5m downhole intervals in DDH 76-3 and 76-13, respectively.

The history of exploration on the Silverboss claim group although intimately associated with Boss Mountain mine is brief and broken by incomplete reporting. Very little work is recorded in the public domain but there is field evidence of old workings to suggest exploration work was conducted but never filed for assessment credit.

## **5. GEOLOGICAL SETTING**

### **5.1 Regional Setting**

The regional geology of the area (Figure 3) is comprised of rock assemblages unique to three distinct tectonic terranes identified from east to west as the Kootenay, Slide Mountain and Quesnel terranes. The predominantly fine-grained basin-fill rocks of the Quesnel Terrane structurally overlie a thin, tectonically emplaced oceanic crustal slice known as the Crooked amphibolite, part of the Slide Mountain Terrane. It defines the terrane boundary with the older metamorphic rocks of the Barkerville Subterrane (a subdivision of Kootenay Terrane) to the east. The boundary is defined by the low-angle Eureka thrust (Schiarizza and Boulton, 2006).

#### **Kootenay Terrane**

The Kootenay Terrane is believed to represent an outboard facies of the ancestral North American miogeocline. Rocks of the Kootenay Terrane are represented by an assemblage of Late Proterozoic and Paleozoic siliciclastic, carbonate and volcanic rocks of the Snowshoe Group which consist of quartzofeldspathic gneiss, pelitic schist, sandy marble layers and lenses and minor quartzite, and augen gneiss. Composition of the metasediments range from quartz-rich in the west to more carbonate rich to the east. Quartz veins are ubiquitous and generally follow the strongest foliation.

#### **Slide Mountain Terrane**

The Crooked Amphibolite is an intervening metamorphic assemblage of rocks in thrust contact with the Kootenay Terrane and represents a segment of Middle to Late Paleozoic oceanic basalt and chert assemblage assigned to the Slide Mountain Terrane. The assemblage is comprised of greenstone, basalt-derived mafic schist, gabbro, dunite and serpentinized ultramafic rocks of ophiolitic affinity. The Slide Mountain Terrane has been interpreted as the imbricated remnants of a Late Paleozoic marginal basin along the Eureka Thrust.

#### **Quesnel Terrane**

The Quesnel Terrane is interpreted to be a Late Triassic to Early Jurassic magmatic arc complex that formed along or near the western continental margin of Mesozoic North America. Subsequent northeasterly movement of Quesnellia, during the Lower Jurassic, ended with the accretion of the volcanic arc and associated sedimentary facies, along with underlying oceanic crust (Crooked Amphibolite of the Slide Mountain Terrane), onto the Kootenay Terrane to the east.

The Quesnel Terrane in this region is dominated by the Upper Triassic to Lower Jurassic Takomkane batholith which is a multiphase complex pluton comprised of three main phases: asyenodiorite phase, a granodiorite phase and a porphyritic biotite granodiorite phase. The batholith intrudes Middle to Upper Triassic volcanic and sedimentary rocks of the Nicola Group characterized by an assemblage of basal black phyllite, carbonate, augite-feldspar phyric flows, agglomerate, volcanic conglomerate, monolithic to heterolithic breccia, and tuffs of predominantly basalt to andesite composition. Late Triassic to early Jurassic porphyritic stocks, dykes and sills of syenite to monzonite to granodiorite composition are present and probably coeval with the Nicola Group assemblage.

There are local small Late Triassic to Cretaceous stocks and irregular-shaped plugs and dykes of monzogranite to granodiorite composition that appear to cut most older units, including the Takomkane Batholith. The Cretaceous Boss Mountain stock of porphyritic quartz monzonite composition intrudes the batholith about 450 m northeast of the Boss Mountain molybdenum deposit. Related to this intrusion is a complex sequence of rhyolite porphyry and rhyolite dike emplacement, breccia development and molybdenum mineralization (Soregaroli and Nelson, 1976).

Younger rocks commonly occur to the west and include Eocene alkaline and calcalkaline volcanic rocks and Eocene sediments of the Kamloops Group. Alkaline volcanic rocks of the Miocene to Pleistocene Chilcotin Group also occur to the west. A variable thickness of glacial till, glaciofluvial deposits and lacustrine deposits covers the area, restricting outcrop exposure, particularly at lower elevations or shallower slopes. The youngest rocks in the region are Holocene olivine-bearing alkali basalt of the Takomkane Volcano and may be syn- or postglacial in age (Campbell, 1978).

Structural features in the region developed in response to plate convergence. The deformational history involves two phases of coaxial folding and later overprinting by northeast trending fractures. The first phase of deformation was accompanied by thrust faults and detachment surfaces that developed principally along stratigraphic contacts due to contrasting lithologies. Early Jurassic east-directed thrust faults formed during the latter stages of magmatism and juxtapose Quesnel Terrane above adjacent Kootenay Terrane miogeoclinal rocks. The second phase of deformation consists of west to south west-verging folds, in part of early Middle Jurassic age, that deformed the east-directed thrust faults and tectonic boundaries, and established the regional map pattern. Younger structures include prominent systems of Eocene dextral strike-slip and extensional faults. Regional metamorphism is evidenced by amphibolite facies in the Kootenay Terrane and Slide Mountain terranes, and greenschist facies in the Quesnel Terrane.

## **5.2 Local and Property Geology**

The Silverboss property is mainly underlain by compositional granodiorite of the Upper Triassic to Lower Jurassic Takomkane Batholith (Figure 4; from Blann, 2008). Intrusive rocks vary from medium to coarse grained granodiorite to quartz monzodiorite to monzodiorite to quartz diorite to diorite in composition. The exact nature, distribution and timing of Takomkane batholith-related intrusive rocks on the Silverboss property remain unclear.

The porphyritic quartz monzonite Cretaceous Boss Mountain Stock intrudes the batholith in close proximity to the Silverboss property boundary. Molybdenum deposits of the former Boss Mountain molybdenum mine are located at the periphery of the Boss Mountain stock. Molybdenum mineralization at the mine is related to a complex sequence of rhyolite porphyry and rhyolite dykes, quartz veining and breccias development. Molybdenum mineralization is mainly contained within quartz veins and lesser breccia bodies within the granodiorite phase of the batholith. Rhyolite and basalt dykes are identified from deposit modeling that cut the batholith and are shown to be in close proximity to the mineralization.

The rocks underlying the Silverboss property are probably volumetrically mostly medium to coarse-grained diorite and quartz diorite although significant compositional variation exists. Xenoliths of diorite have been locally noted in granodiorite and tend to form coarse breccias textures in proximity with intrusive contacts. Blann (2007) reports dark, angular magnetic diorite fragments in heterolithic intrusion breccia near the Silverboss shaft. Similarly, Blann (2006) has identified granite/monzonite fragments within biotite-hornblende diorite south of 10 Mile Creek near the inferred contact of the Boss Mountain stock. Diorite is noted in the southern portion of the claim area, and southwest of the Boss Mountain mine (Blann, 2007). All of these rock types are cut by dominantly northwest trending, steeply dipping mafic dikes that range from 0.5-3.0 metres in width, and locally, porphyritic quartz latite or rhyolite dykes are noted.

Mineralogical variation is noted amongst rock types, with 2 - 15% biotite, 0 - 10% quartz, 10 - 50% hornblende and 2 - 3% fine-grained disseminated magnetite and feldspar. Xenoliths commonly contain up to 70% coarse-grained crystalline hornblende.

A possible second diorite unit has been noted, is generally described as fine to medium grained, and contains from 10-20% dark biotite. This biotite-rich unit has been delineated from southwest to northwest of Silverboss Lake; attempts to map this unit have been unsuccessful due to its interspersed nature. Exposures of this unit measure from a few metres to approximately 20 metres in extent.

Diorite has been intruded by abundant, relatively flat-lying quartz feldspar +/- hornblende +/- tourmaline pegmatite dykes or veins. These units range from several millimetres to several metres in thickness, but are usually less than 20 cm thick. Several coarse-grained aplitic dykes and dyke swarms, up to a few metres in width, are noted and may be related to this same phase.

The Takomkane Volcano, which forms the highest part of the claim group, occurs four kilometres northwest of the Boss Mountain mine open pits. It is comprised of vesicular, amygdaloidal and fine-grained lavas, flow breccias, ash to lapilli tuffs and agglomerates of basaltic composition. Genetically associated basaltic dykes, feeders to the subaerial volcanic rocks listed above, cut the diorites (Blann, 2006).

### 5.3 Mineralization and Alteration

The Silverboss property covers seven known zones of mineralization (Figure 5) and includes numerous areas of anomalous float occurrences. The zones are within the 'pyrite halo' that encompasses the Boss Mountain molybdenum deposit (Soregaroli and Nelson, 1976). The information presented below is largely summarized from Blann (2008).

The Silverboss structure is the principal mineralized feature on the property. It is a northeast-trending, steeply dipping vuggy quartz, breccia and stockwork vein system that has been traced for approximately 350 m along strike (Ridley, 1994). The mineralized trend consists of 2 – 20 cm wide quartz veins within a 0.5 to 2 m shear zone comprised of chlorite, epidote, sericite and clay-altered granodiorite and intrusion breccia (Blann and Ridley, 2006). The mineralization is typically adjacent or proximal to andesite dykes. Mineralization consists of comb and dogtooth quartz, fine-grained pyrite, limonite and chalcopyrite with subordinate arsenopyrite, pyrrhotite, galena and sphalerite (Allen, 1970). Anomalous values of manganese, lead, arsenic and antimony are associated with variable gold and silver values (Blann and Ridley, 2005). Sampling of trenches in the vicinity of the underground workings yielded values as high as 4.26 g/t Au, 64.6 g/t Ag across 0.5 m in trench 4, and 215 ppb Au, 390.4 g/t Ag and 3.18% Cu across 0.25 m in Trench 8 (Ridley, 1994).

The East Breccia zone is located approximately 300 m east of the Silverboss shaft. It is characterized by strongly epidote-altered hornblende diorite breccia and is cut by quartz-chalcopyrite-pyrite-specularite veins trending 146° (Blann, 2008). A selected grab sample from the vein graded 1241 ppb Au, 1.21 oz/t Ag and 2.48% Ag. A chip sample across 2 m of altered wallrock averaged 218 ppb Au (Ridley, 1995).

The South Ridge Headwall, Horse Trail and Dogtooth zones consist of mineralized quartz veins hosted by fractured and propylitically altered monzodiorite (Blann, 2008). The South Ridge zone is situated along the southern crest of Big Timothy Mountain where 1 - 3 cm fractures are filled with quartz, minor chalcopyrite and magnetite, and locally traces of molybdenite. Grab samples of this material have returned values up to 7.26 g/t Au and 140 g/t Ag (Blann and Ridley, 2007).

The Headwall zone occurs in a large depression southwest of the Boss Mountain open pits. Float, similar in character to the Silverboss veins, has been traced for approximately 1500 m along strike and grab samples have returned values up to 723 ppb Au, 226 ppm Bi and 230 W (Blann and Ridley, 2005).

The Horse Trail zone consists of a series of variably-oriented, 20 to 30 cm wide fractures and shear zones that cut monzodiorite due west of the Boss Mountain open pits. The structures contain dogtooth quartz intergrown with pyrite-chalcopyrite as well as narrow, sulphide poor, pale grey to white quartz stringers (Blann and Ridley, 2005). A chip sample across a 20 cm vein returned 5642 ppm Cu, 43 ppm Ag and 791 ppb Au (Blann, 2008).

The Dogtooth zone, situated between the East Breccia and Horse Trail zones, is comprised of a northeast-trending quartz vein and northwest-trending shear zone that have been traced for 150 m along strike. Bedrock and float grab samples of silicified quartz monzodiorite cut by narrow quartz stringers, have graded up to 53.01 g/t Au and



343.0 g/t Ag and a 1 m chip sample across a northeast-trending vein averaged 10.06 g/t Au and 26 g/t Ag (Blann, 2008).

The 10 Mile Creek zone is located at the base of a steep east-facing slope below the headwaters of 10 Mile Creek and in proximity to the 10 Mile Creek fault. In this area, fractures filled with quartz, chlorite, epidote, pyroxene, sericite, trace to massive pyrite, and trace scheelite cut moderately to intensely fractured and locally sheared biotite hornblende quartz monzodiorite (Blann, 2008). A 4.0 m chip sample across the zone averaged 9.8 ppm Mo, 0.015% W and 0.21 g/t Au (Blann, 2008).

## 6. 2009 EXPLORATION PROGRAM

The 2009 exploration program consisted of a soil geochemical, stream sediment and rock sampling surveys. The soils were taken from a grid nearly due north, approximately 4 km of the old mine site. The stream sediments and rocks were taken along an approximately 8 km X 1 km NW-SE trending corridor roughly centered on the old mine area.

### 6.1 Geochemical Survey

#### 6.1.1 Soil Geochemical Survey (125 samples)

A total of 125 soil samples were collected in 2009 on the Gus Extension grid. The grid covers an area measuring 1 km east-west by 1 km north-south and is centred approximately 4 km north of the mine workings. The grid consists of 6 north - south lines spaced 200 m apart. Samples were collected at 50 m intervals on all of the lines. Samples were taken from the 'C' soil horizon using either a mattock or tree planting shovel. Figures 5 through 10 illustrate the distribution of molybdenum, tungsten, gold, copper, silver and zinc in soils.

All samples were dried at 60°C and sieved through minus 80 mesh. The resulting 100 g samples were dried again at 60°C and analyzed. The remaining coarse reject portions of the samples remain in storage at Acme Analytical Laboratories (Acme) in Vancouver. The samples were analyzed using Acme's assay procedure 1DX-15; a 1:1:1 Aqua Regia Digestion with an ICP-MS finish. The reader is referred to <http://www.acmelab.com> for details of these analytical procedures. The assay certificates are located in Appendix B.

Table 3: Statistical Results for 2009 Soil Samples

Element	Percentiles					
	minimum	average	80th	90th	95th	maximum
Mo_ppm	0.3	2.8	3.4	4.4	6.2	18.7
Cu_ppm	14.1	66.5	94.8	125.9	141.9	288.3
Pb_ppm	2.9	7.3	8.7	10.0	12.4	26.2
Zn_ppm	13.0	48.8	62.2	67.0	74.0	117.0
Ag_ppm	0.1	0.4	0.5	0.7	0.9	1.1
Ni_ppm	2.5	17.6	23.4	33.5	38.6	53.7
Co_ppm	2.1	10.5	13.2	15.3	17.6	57.7
Mn_ppm	46.0	450.4	533.0	791.4	1055.2	7040.0
As_ppm	0.3	4.6	5.6	8.2	8.8	19.1
Au_ppb	0.3	2.9	3.9	5.3	7.0	45.2
Ba_ppm	40.0	108.4	141.0	171.2	187.2	614.0
W_ppm	0.05	0.88	1.30	1.98	2.84	5.20
Hg_ppm	0.02	0.07	0.10	0.12	0.15	0.19

\*For statistical purposes the below detection limit values are equal to ½ the detection limit based on the detection limit for each element.

## 2009 Soil Geochemical Results

The results from the geochemical survey are complex to interpret. Molybdenum (>5ppm), tungsten (>2ppm), copper (>75ppm) and gold (>5ppb) anomalies all have a similar size and orientation, that is a NW-SE strike, however the Mo and W anomaly is NE of the copper / gold anomaly, also a strong copper in soils anomaly occurs in the SW corner of the grid. Silver is only weakly anomalous (>0.5 ppm) in narrow E-W belts. Zinc (>50ppm) tends to be weakly anomalous over most of the grid – with no distinct pattern.

The NW – SE trend of the Mo / W / Cu / Au anomalies may be related to either a nearly flat lying package of rock / structural zone or a steeply dipping NW-SE striking package / structural zone, or metal zonation surrounding a porphyry type system.

### 6.1.2 Stream Silt Geochemical Survey (26 samples)

A total of 26 stream silt geochemical samples were collected from the Silverboss property in 2009. Samples were collected from a northwest-trending band measuring 10 km by 1.5 km, primarily along the main NNW – SSE drainage that runs just east of the mine site. Samples came from active water channels containing fine-grained sediment that included the silt-sized fraction. Samples were secured in labelled polyethylene bags and shipped to Acme for analysis using ICP-MS methods. Sample locations are shown on Figure 5 and results for selected elements are provided in Appendix A.

All samples were dried at 60°C and sieved through minus 80 mesh. The resulting 100 g samples were dried again at 60°C and analyzed. The remaining coarse reject portions of the samples remain in storage at Acme. The samples were analyzed using Acme's assay procedure 1DX-15; a 1:1:1 Aqua Regia Digestion with an ICP-MS finish.

The reader is referred to <http://www.acmelab.com> for details of these analytical procedures. The assay certificates are located in Appendix B.

### **2009 Silt Geochemical Results**

Silt geochemical results for molybdenum ranged from a low of 0.47ppm Mo to a high of 394.5 ppm Mo. Of particular interest is that the two highest Mo values were not from the creek draining the high grade molybdenum mine site but rather from creeks draining areas several kilometres SE of the mine. Two samples in particular HPY-TRS-03 and 06 were anomalous in several elements, including Cu, Mo, Co, Mn, Bi (sample 03 only), W, Re, and Pd. Results for tungsten ranged from a low of <0.1 ppm W to a high of 47.8 ppm W. The largest W number is associated with the mine site, however three significant W values were obtained from silts north of the mine. Results for silver ranged from 51 - 355 ppb Ag, and copper ranged from 31.3 - 238.9 ppm Cu. Much like molybdenum, the largest numbers for tungsten and silver were not from the mine but rather SE of the mine.

#### **6.1.3 Rock Geochemical Survey (3 samples)**

A total of 3 rock samples were collected from the Silverboss property in 2009. Samples were secured in labelled polyethylene bags and shipped to Acme for analysis using ICP-MS methods. Results for selected elements are shown in Figures 5 through 10. None of the rocks were significantly mineralized.

All rock samples were crushed, pulverized and the resulting sample pulps were analyzed. The rock samples were jaw crushed until 70% passed through a 10 mesh (2 mm) screen. The sample was split and a 250 g riffle split sample was then pulverized in a mild-steel ring-and-puck mill until 95% passed through a 150 mesh (100 µm) screen. The remaining coarse reject portions of the samples remain in storage at Acme. The samples were analyzed using Acme's assay procedure 1DX-15; a 1:1:1 Aqua Regia Digestion with an ICP-MS finish. The reader is referred to <http://www.acmelab.com> for details of these analytical procedures. Locations and descriptions of the rock samples collected and analyzed are provided in Appendix B. Assay certificates are provided in Appendix C.

2009 Limited rock geochemical sampling program has not added significantly to the understanding of the mineralization on the Silverboss property.

Table 4: Statistical Results for 2009 Silt Samples

Element	Percentile					
	minimum	average	80th	90th	95th	maximum
Mo_ppm	0.47	53.45	34.00	216.39	352.73	394.51
Cu_ppm	11.63	75.75	104.00	123.83	182.79	238.85
Pb_ppm	2.44	7.22	7.23	8.19	10.36	33.73
Zn_ppm	23.10	65.82	82.90	98.35	113.60	122.10
Ag_ppb	51.00	152.85	217.00	278.50	326.00	351.00
Ni_ppm	9.20	29.07	37.00	41.65	46.35	59.70
Co_ppm	5.50	23.62	27.90	37.65	56.63	74.00
Mn_ppm	451.00	1798.23	1876.00	4947.00	6759.25	7655.00
As_ppm	2.60	9.31	15.10	16.35	17.05	18.30
Au_ppb	0.50	2.44	4.10	4.70	5.48	6.00
Th_ppm	0.20	0.87	1.20	1.45	1.60	1.70
Sr_ppm	27.90	47.10	53.20	68.05	80.58	95.50
Cd_ppm	0.14	0.70	0.77	1.01	2.56	3.13
Sb_ppm	0.18	0.48	0.64	1.11	1.22	1.62
Bi_ppm	0.04	0.65	0.87	1.49	2.64	4.22
V_ppm	54.00	131.81	155.00	173.50	198.00	253.00
Ba_ppm	42.50	131.00	174.40	206.60	216.38	329.30
W_ppm	0.10	5.98	8.30	15.25	22.55	47.80
Sc_ppm	1.30	3.07	3.40	4.10	4.85	5.00
Tl_ppm	0.02	0.12	0.16	0.37	0.48	0.53
Hg_ppb	10.00	27.15	35.00	40.50	44.00	47.00
Se_ppm	0.10	0.53	0.80	1.05	1.25	1.30
Te_ppm	0.02	0.04	0.06	0.10	0.11	0.11
Ga_ppm	2.20	4.90	5.30	5.85	6.40	8.90
Cs_ppm	0.48	1.67	2.43	3.33	3.96	5.00
Hf_ppm	0.02	0.02	0.02	0.03	0.04	0.08
Nb_ppm	0.20	0.51	0.65	0.75	0.85	0.90
Rb_ppm	2.80	9.89	11.90	17.10	20.88	34.40
Sn_ppm	0.20	0.59	0.80	1.15	1.50	2.50
Zr_ppm	0.40	0.83	1.00	1.30	1.38	3.30
Y_ppm	3.64	6.82	8.67	9.45	11.12	12.87
Ce_ppm	7.30	13.64	15.50	18.25	19.85	20.50
Re_ppb	1.00	2.31	3.00	5.50	8.50	11.00
Li_ppm	4.90	11.97	13.80	17.15	20.15	26.40

## 7. INTERPRETATION AND CONCLUSIONS

Narrow vein, fracture, fault and shear-hosted quartz-sulphide mineralization occurs on the Silverboss property within or near the pyrite alteration envelope that encompasses the Cretaceous Boss Mountain molybdenum deposit. The mineralized structures trend northwest, northeast and east, have variable dips and are hosted by chlorite, epidote, sericite and/or clay altered phases of the Late Triassic to Early Jurassic Takomkane batholith. The Silverboss vein is the principal occurrence on the property and historically was explored by surface trenching and by limited underground developments. The 0.5 to 2.0 m wide structure has been traced for 350 m along its northeasterly trend and sampling of the structure has returned encouraging values including chip samples grading as high as 4.26 g/t Au and 64.6 g/t Ag across 0.5 m. Sampling of other occurrences on the Silverboss property have returned impressive gold-silver grades, including sub-outcrop from the Dogtooth zone that assayed 53.0 g/t Au and 343.0 g/t Ag).

The 2009 soils geochemical exploration program was successful in delineating a new NW-SE striking multi-element (Mo, Cu, Au, W) anomaly that is over a km long (open at both ends) and between 50 and several 100 m wide. The copper anomaly (>100 ppm Cu) also occupies the entire SW corner of the grid. Considering the proximity to the Silverboss moly mine – it seems probable that these anomalies are caused by mineralization associated with the main Copper – Moly porphyry system. It is possible however that the anomalies are caused by NW-SE mineralized structures.

Results from 2009 Silt samples from areas draining the Silverboss mine site and areas to the north and south indicates that areas to the south of the mine have excellent potential for hosting mineralization similar to that of the high grade molybdenum mine.

To date, exploration on the Silverboss property has indicated that potential exists for bonanza grade and bulk tonnage grade gold-silver mineralization in a setting peripheral to a well-developed porphyry molybdenum deposit.

## 8. RECOMMENDATIONS

Recommendations for follow-up include:

- bedrock mapping and prospecting in the area south of the mine site, especially in the drainages associated with samples HPY-TRS-03 and 06.
- detailed prospecting and rock sampling of areas with anomalous soil geochemical patterns.
- 3D IP geophysical surveying to cover the east sides of the 10 Mile and South grids where northeast-trending molybdenum-tungsten soil geochemical anomalies have been outlined.
- mechanized trenching of priority molybdenum-tungsten and gold soil geochemical anomalies, particularly in the East Breccia, Gus Extension, and east South Ridge areas.
- diamond drilling of 1000 m to test coincident geophysical-geochemical targets for both molybdenum +/- tungsten and gold mineralization.

**9. STATEMENT OF COSTS – 2009**

<b>Item</b>	<b>Qty</b>	<b>Price</b>	<b>Amount</b>
<b>Analytical Services</b>	# samples	\$/sample	
Acme Analytical Laboratories Ltd.	131	30.00	\$ 3,930.00
Sample storage and disposal fee			\$ 265.00
			<u>\$ 4,195.00</u>
<b>Misc. expenses and shipping</b>			\$ 614.50
<b>Wages and Geology Consulting</b>	Days	\$/day	
Allnorth Consultants Ltd.			\$ 161.67
Lodestone Explorations Co. Inc.	5.5	600.00	\$ 3,298.50
Darin Black + Truck and ATV	7.3	625.00	\$ 4,550.00
Trevor Ridley	6.0	175.00	\$ 1,050.00
Dan Meldrum, MSc.Geo report writing	8.0	350.00	\$ 2,100.00
Sassan Liaghat, PhD Geo data and mapping	9.0	350.00	\$ 1,500.00
David Blann, P.Eng Project Supervision	2.0	600.00	\$ 1,200.00
			<u>\$ 13,860.17</u>
room/Board	15.0	65.00	\$ 975.00
<b>Mapping software- pro rata, printing, communications</b>			\$ 600.00
Subtotal			\$ 20,244.67
Overhead @10%			\$ 2,024.47
Total			<u>\$ 22,269.14</u>

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## 11 . Statement of Qualifications

### DAN MELDRUM, M.Sc. GIT

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E-mail: [dan.g.meldrum@gmail.com](mailto:dan.g.meldrum@gmail.com)

### CERTIFICATE OF AUTHOR

I, Dan Meldrum, of Port Coquitlam, British Columbia, do hereby certify that:

1. I am a geologist with an office at #460 - 789 West Pender Street, Vancouver, BC, V6C 1H2
2. I graduated from the University of Alberta with a Masters of Science degree in Geology in 1997 and I have practiced my profession continuously since 1992.
3. I am a Geologist in Training with the Association of Professional Engineers and Geoscientists of British Columbia.
4. Since 1997, I have been involved in mineral exploration for base and precious metals. I have conducted this work in Canada, Mongolia, China, and Vietnam.
5. I am presently a contract geologist and have been so since 2003.
6. I am the author of the report titled "A GEOCHEMICAL REPORT ON THE SILVERBOSS PROPERTY" dated 2010 February 24.
7. I have been granted Share options of Happy Creek Minerals Ltd.

Dated at Vancouver, British Columbia, this 24th day of February, 2010.

*"Dan Meldrum"* (Signed)

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Dan Meldrum, M.Sc. GIT.



# **2009 Silverboss Assessment Report**

## **Appendix A**

### **Figures**

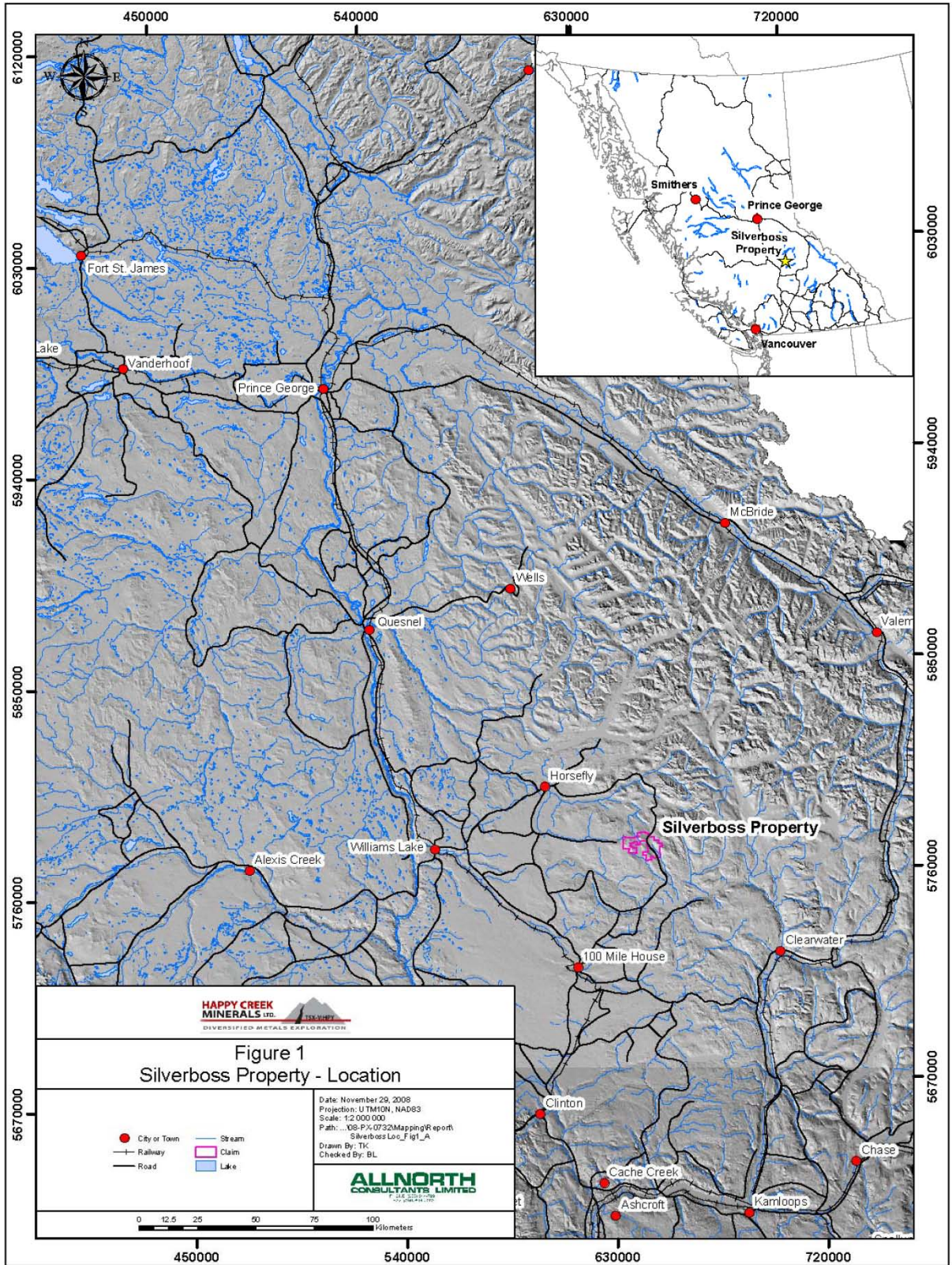
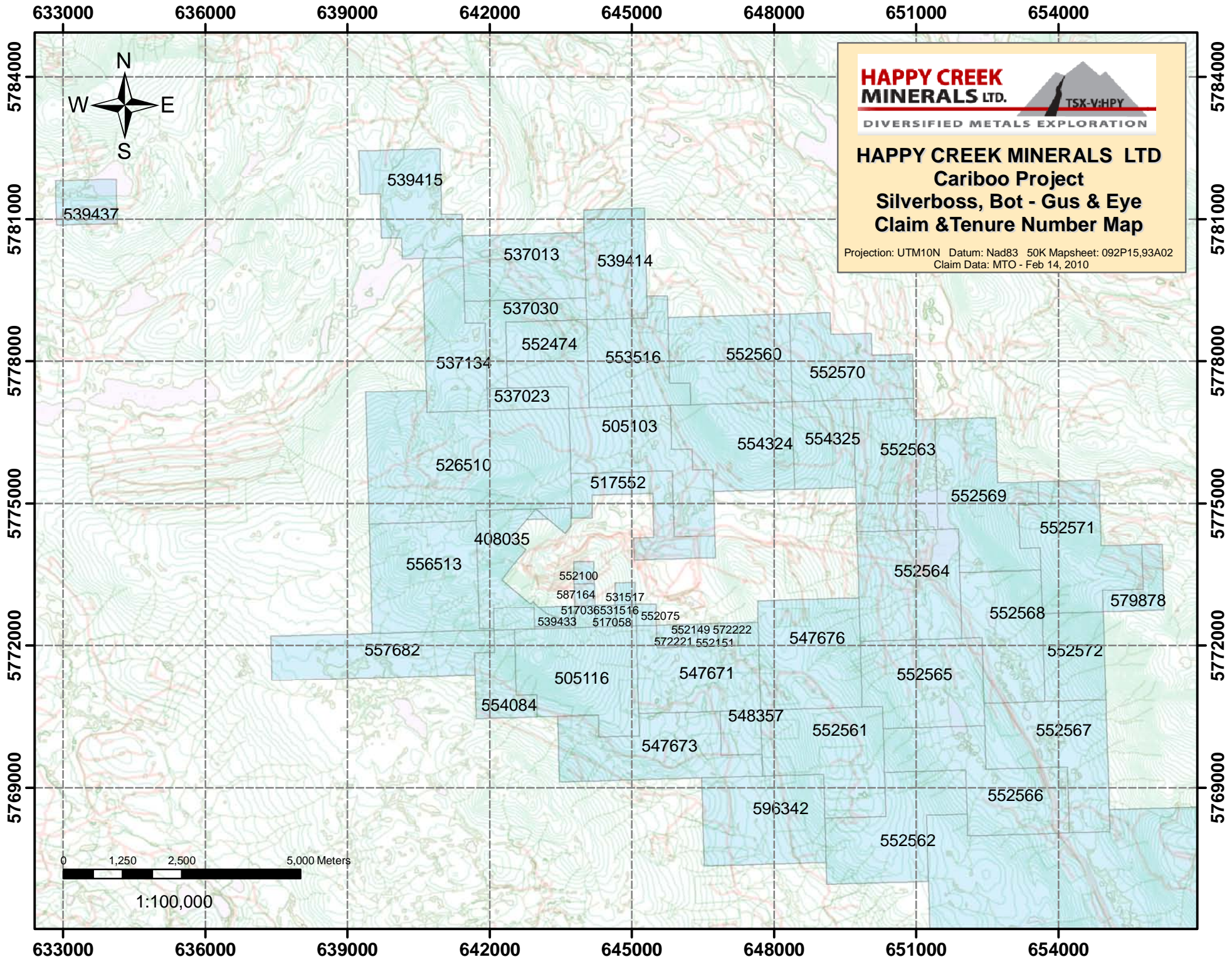


Figure 1: Silverboss Property Location.



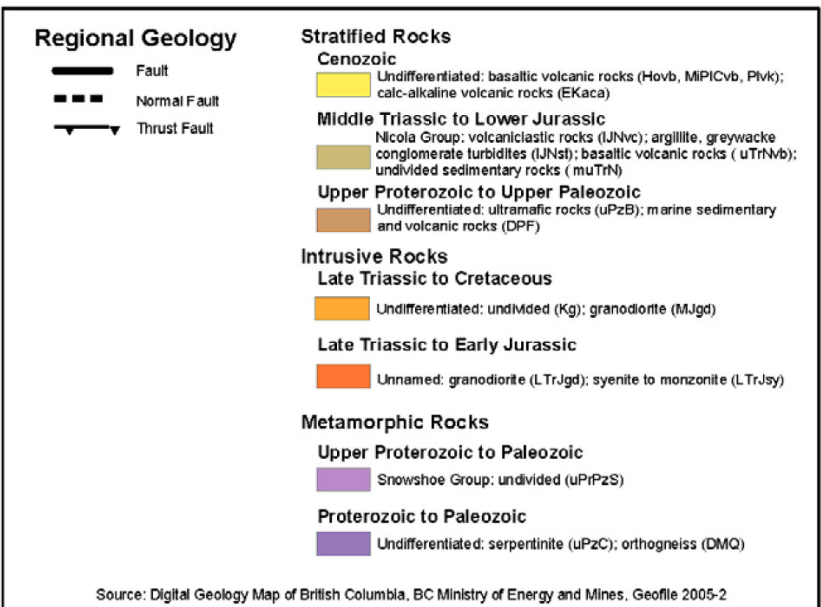
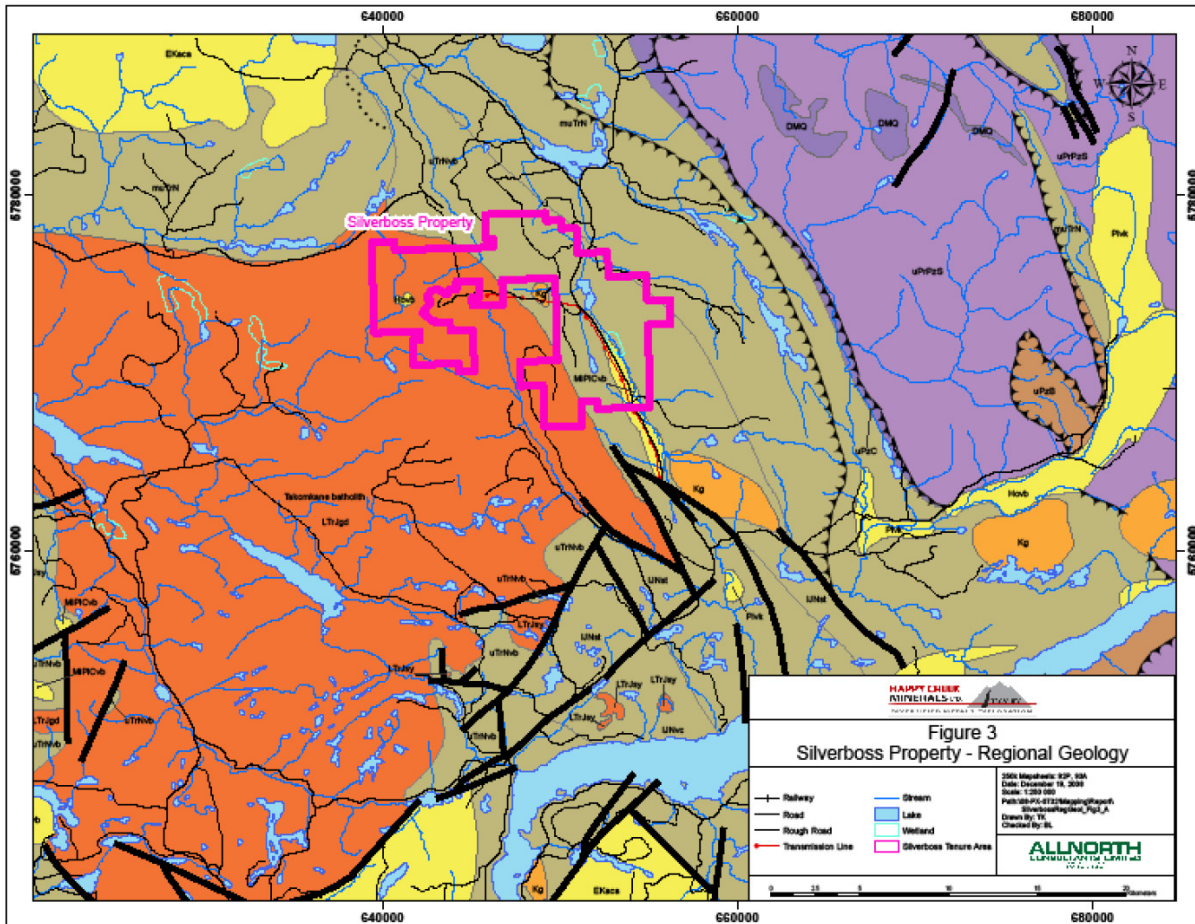


Figure 3: Regional Geology.

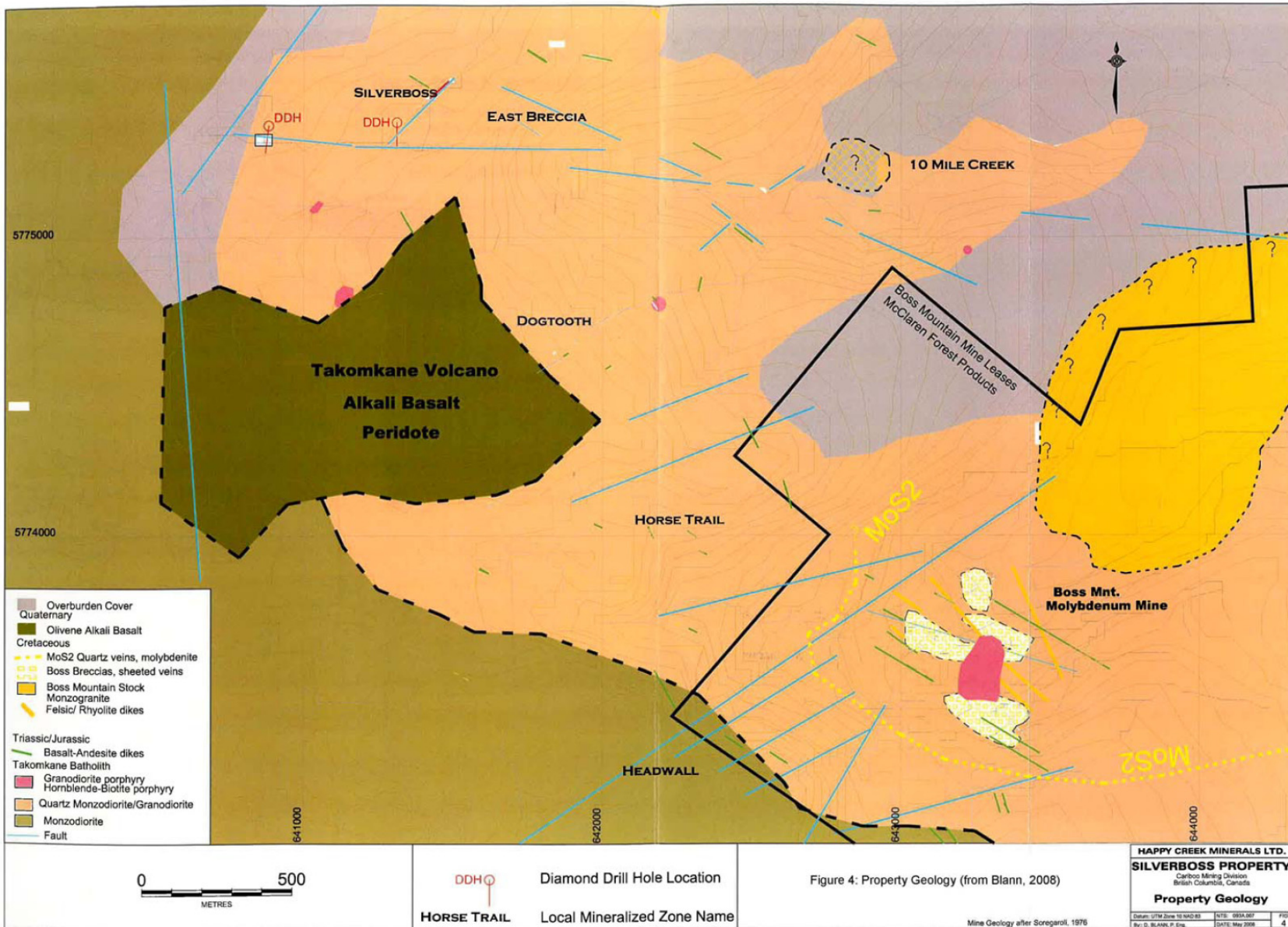
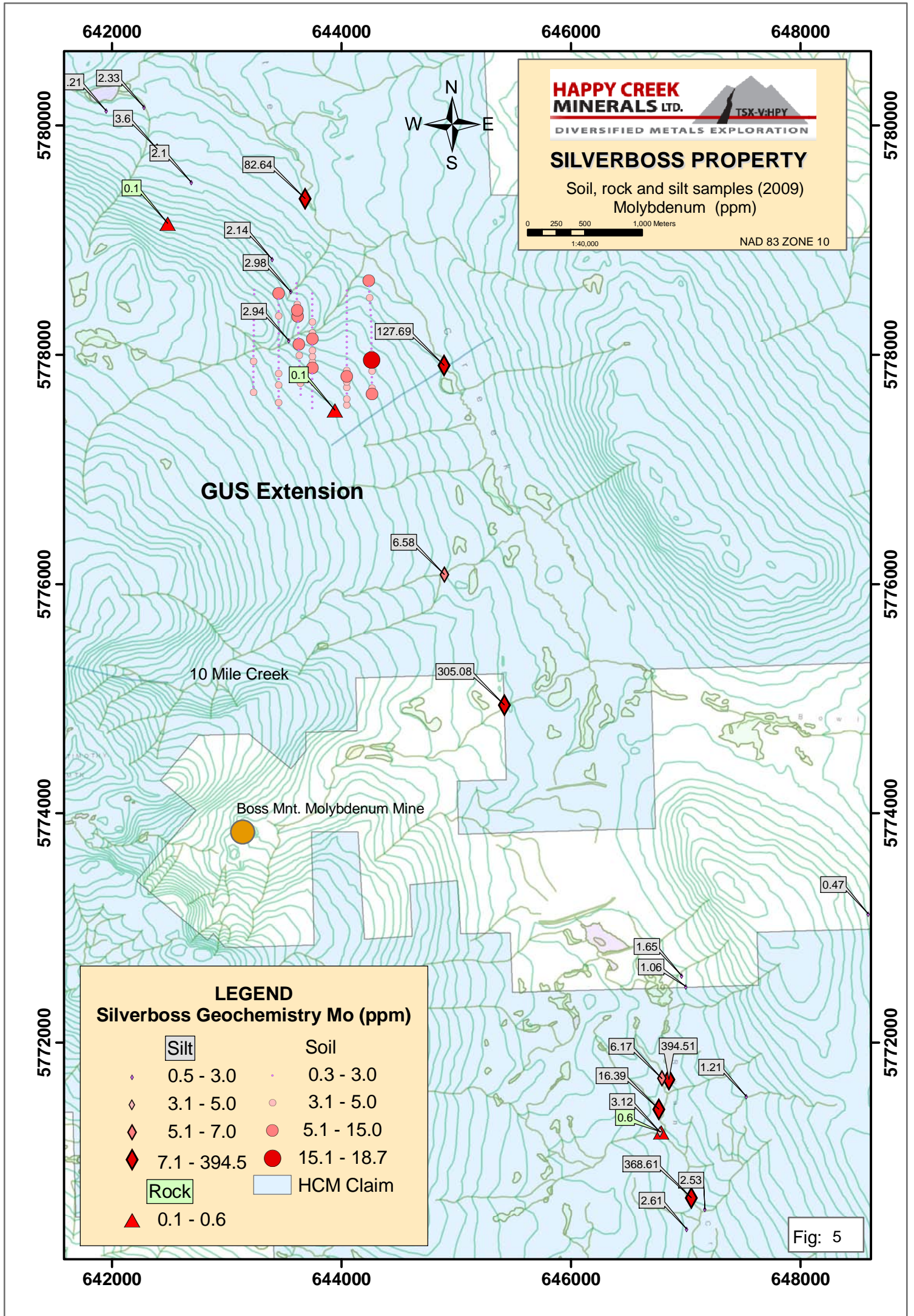


Figure 4. Property Geology



643000

643500

644000

644500



**HAPPY CREEK  
MINERALS LTD.**



DIVERSIFIED METALS EXPLORATION

### SILVERBOSS PROPERTY

Soil, rock and silt samples (2009)  
Molybdenum (ppm)

NAD 83 ZONE 10

5779000

5779000

5778500

5778500

5778000

5778000

5777500

5777500

5777000

5777000

**LEGEND**  
**Silverboss Geochemistry**  
**Mo (ppm)**

**Soil**

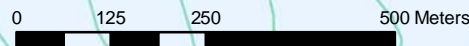
- 0.3 - 3.0
- 3.1 - 5.0
- 5.1 - 15.0
- 15.1 - 18.7

**Silt**

- 0.5 - 3.0
- 3.1 - 5.0
- 5.1 - 7.0
- 7.1 - 394.5

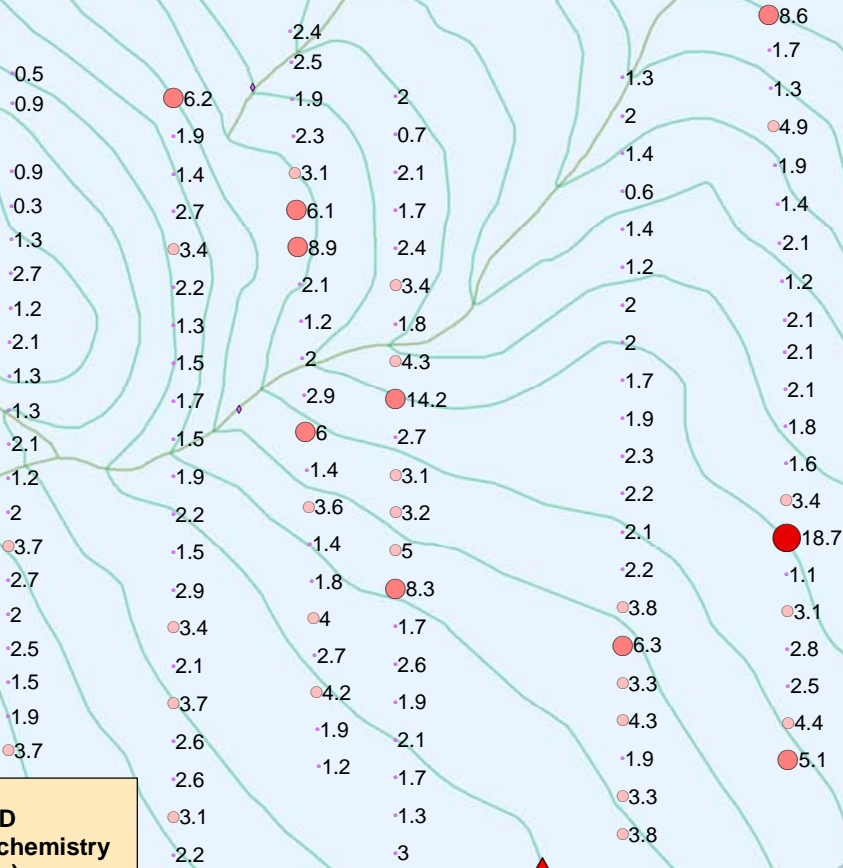
**Rock**

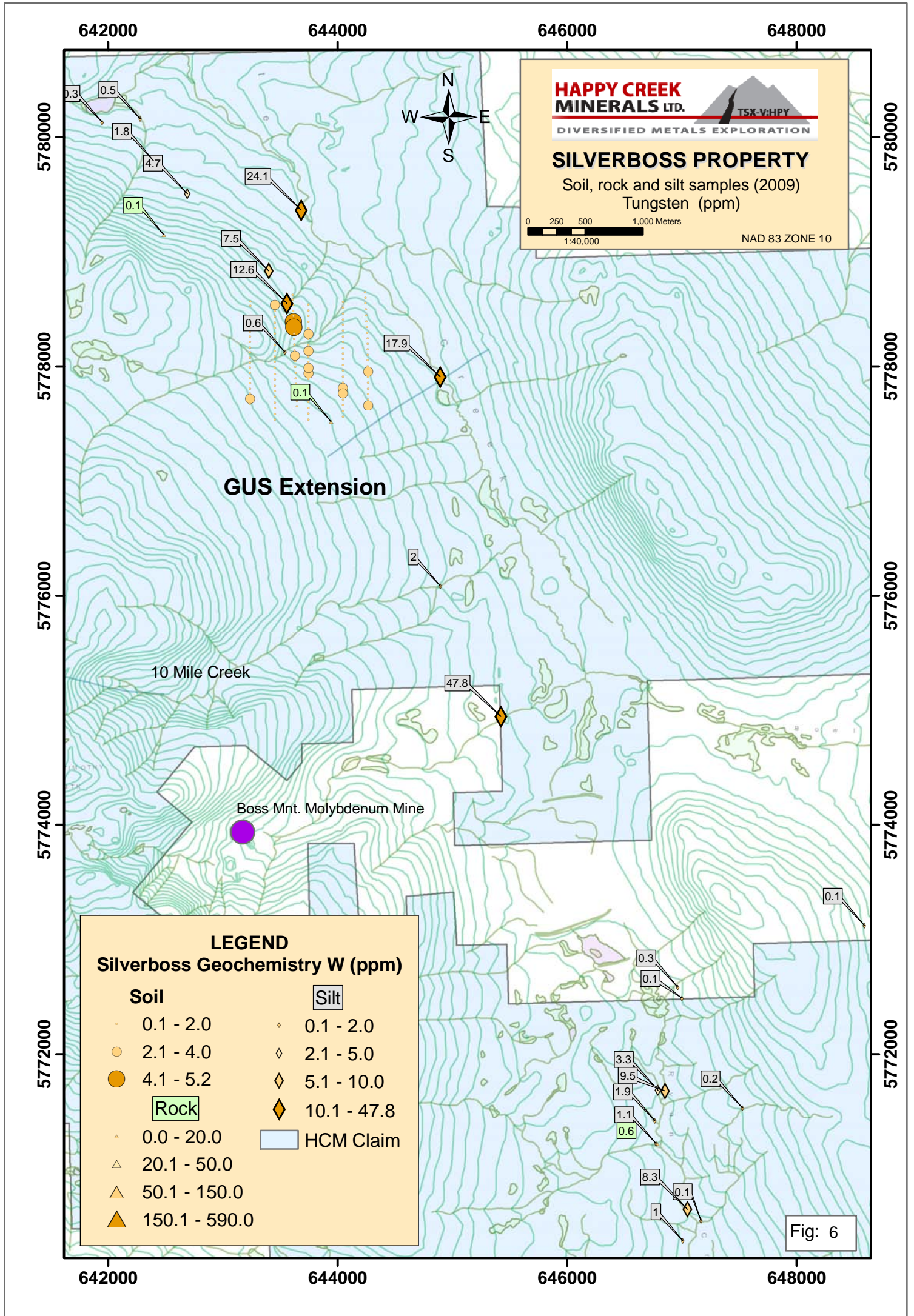
- 0.1 - 0.6
- HCM Claim



1:10,000

Fig: 5a

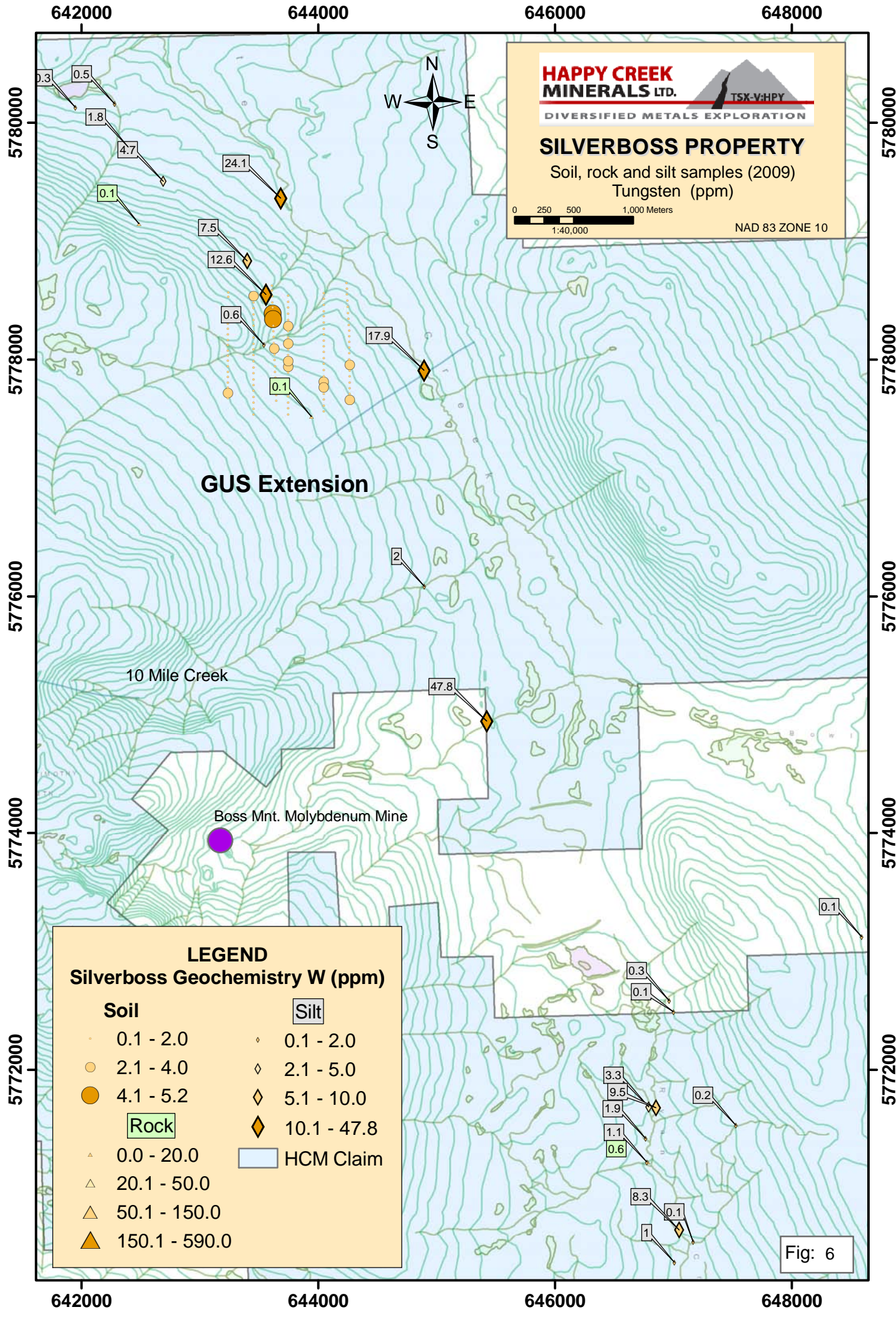




**GUS Extension**

10 Mile Creek

Boss Mt. Molybdenum Mine





643000

643500

644000

644500



**HAPPY CREEK  
MINERALS LTD.**



DIVERSIFIED METALS EXPLORATION

### SILVERBOSS PROPERTY

Soil, rock and silt samples (2009)  
Tungsten (ppm)

NAD 83 ZONE 10

5779000

5779000

5778500

5778500

5778000

5778000

5777500

5777500

5777000

5777000

**LEGEND**  
Silverboss Geochemistry  
W (ppm)

**Soil**

- 0.1 - 2.0
- 2.1 - 4.0
- 4.1 - 5.2

**Silt**

- ◇ 0.1 - 2.0
- ◇ 2.1 - 5.0
- ◇ 5.1 - 10.0
- ◇ 10.1 - 47.8

**Rock**

- △ 0.0 - 20.0
- △ 20.1 - 50.0
- △ 50.1 - 150.0
- △ 150.1 - 590.0

**GUS Extension**

0 125 250 500 Meters

1:10,000

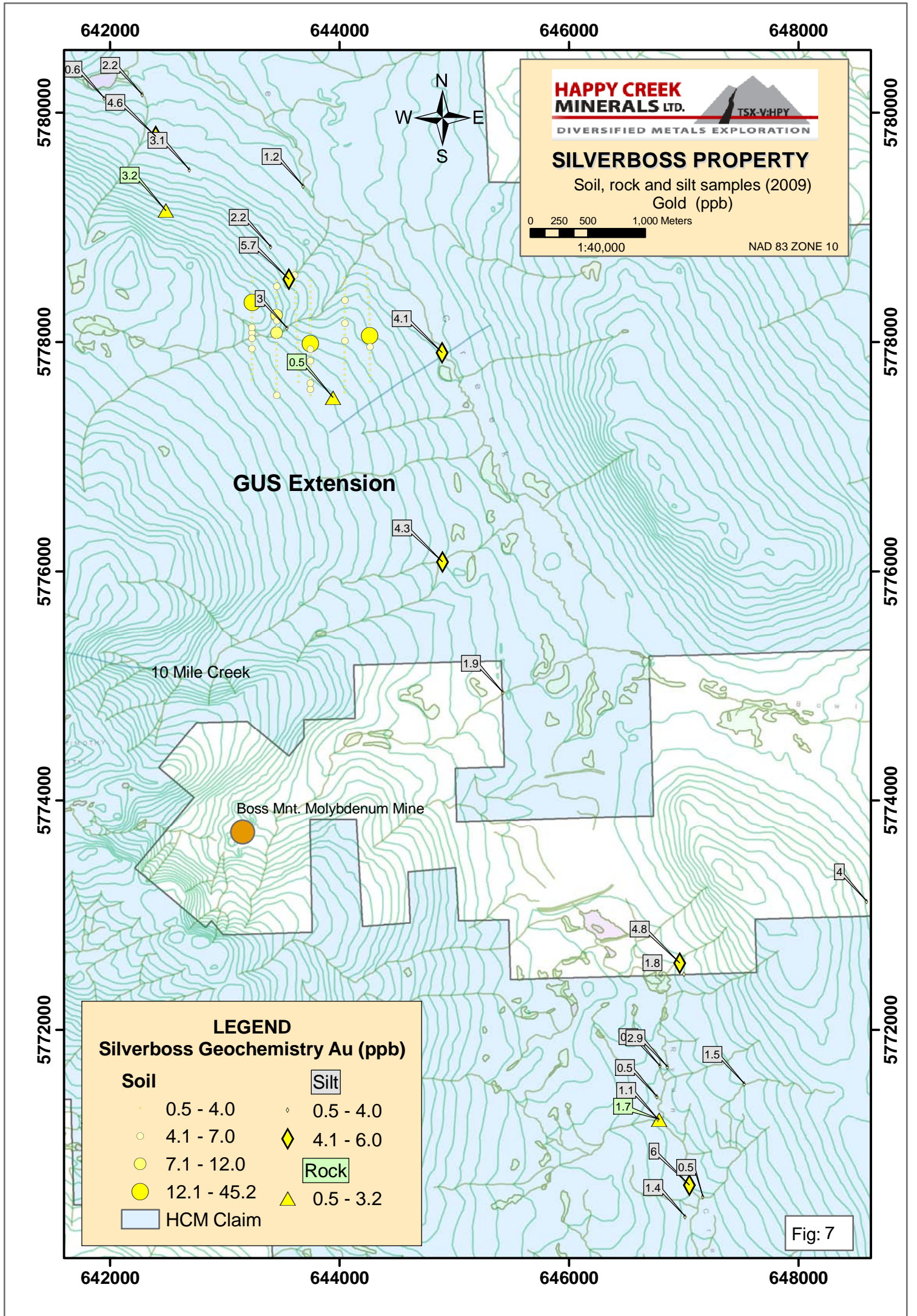
Fig. 6a

643000

643500

644000

644500



643000

643500

644000

644500



**HAPPY CREEK  
MINERALS LTD.**



DIVERSIFIED METALS EXPLORATION

### SILVERBOSS PROPERTY

Soil, rock and silt samples (2009)  
Gold (ppb)

NAD 83 ZONE 10

5779000

5779000

5778500

5778500

5778000

5778000

5777500

5777500

5777000

5777000

#### LEGEND Silverboss Geochemistry Au (ppb)

##### Soil

- 0.5 - 4.0
- 4.1 - 7.0
- 7.1 - 12.0
- 12.1 - 45.2

##### Silt

- ◇ 0.5 - 4.0
- ◇ 4.1 - 6.0

##### Rock

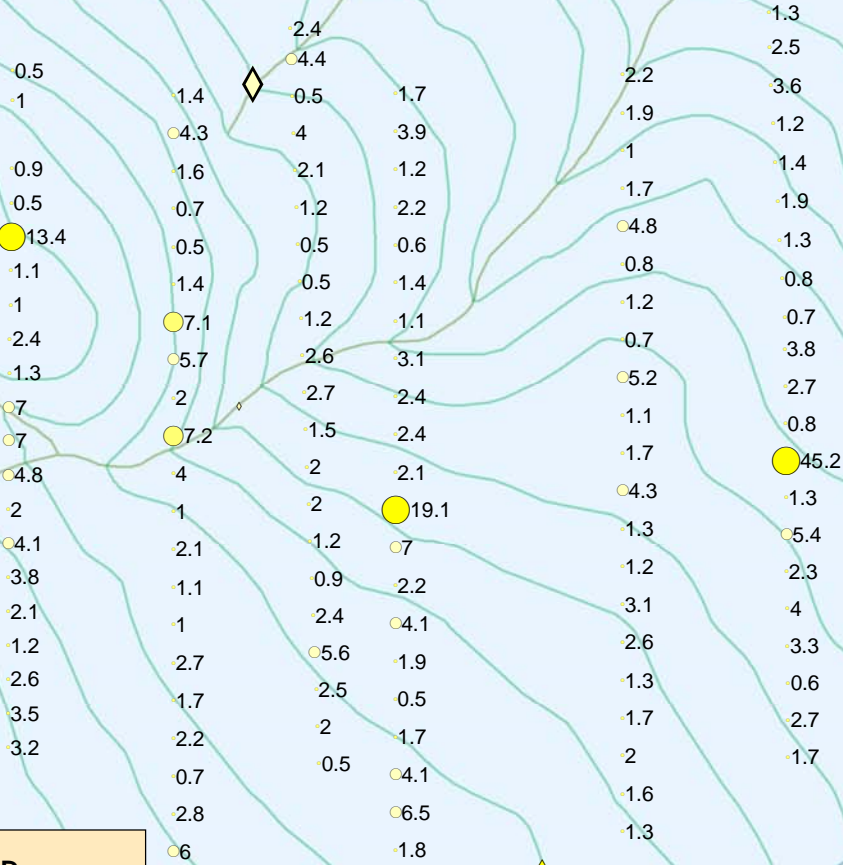
- ▲ 0.5 - 3.2
- HCM Claim

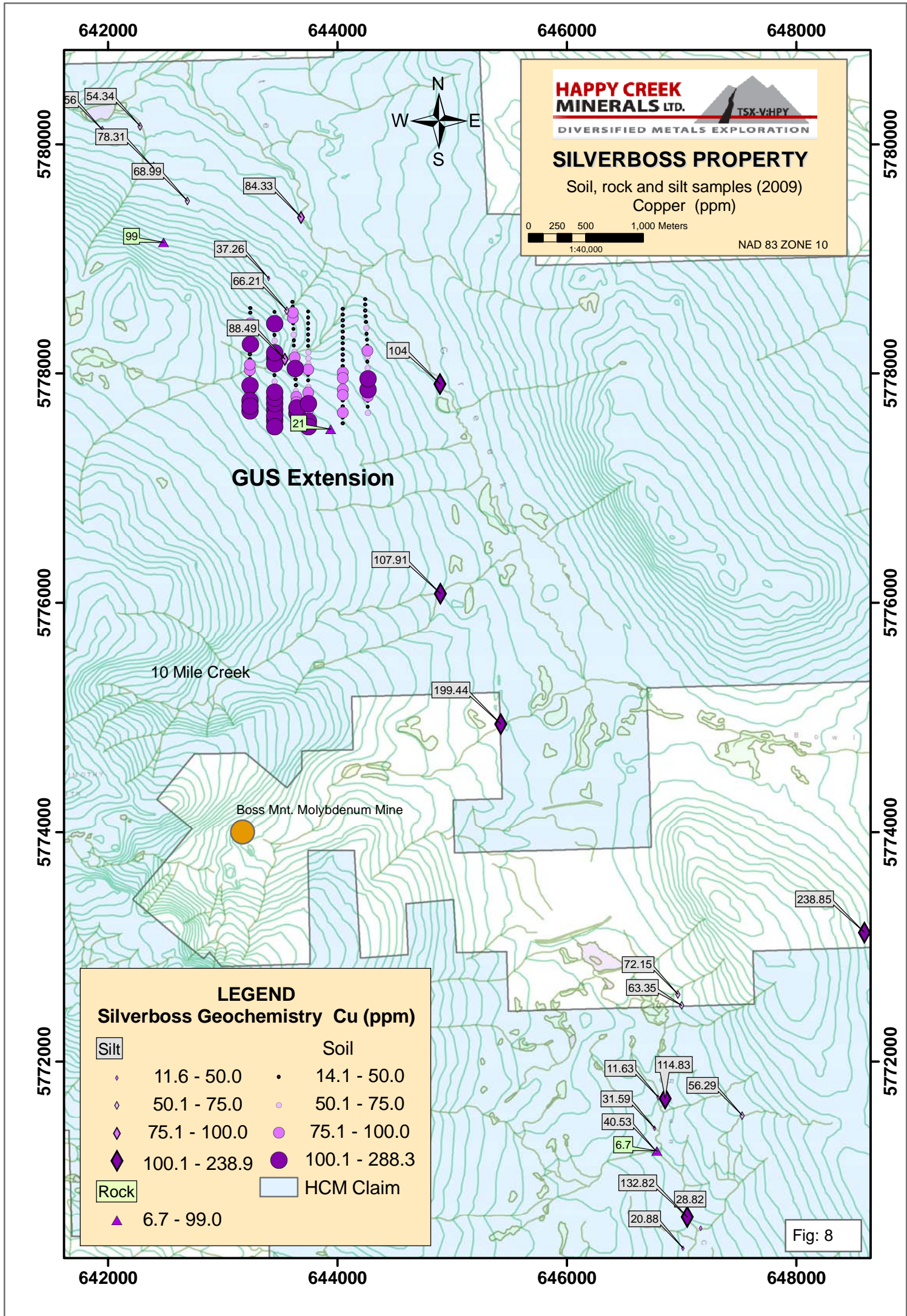
0 125 250 500 Meters

1:10,000

**GUS Extension**

Fig: 7a





**HAPPY CREEK MINERALS LTD.**  
 TSX-V:HPY  
 DIVERSIFIED METALS EXPLORATION

**SILVERBOSS PROPERTY**  
 Soil, rock and silt samples (2009)  
 Copper (ppm)

0 250 500 1,000 Meters  
 1:40,000  
 NAD 83 ZONE 10

**LEGEND**  
**Silverboss Geochemistry Cu (ppm)**

Silt	Soil
◆ 11.6 - 50.0	• 14.1 - 50.0
◇ 50.1 - 75.0	◦ 50.1 - 75.0
◊ 75.1 - 100.0	◐ 75.1 - 100.0
◆ 100.1 - 238.9	● 100.1 - 288.3

**Rock**      **HCM Claim**

▲ 6.7 - 99.0	□ HCM Claim
--------------	-------------

Fig: 8

643000

643500

644000

644500



**HAPPY CREEK  
MINERALS LTD.**



DIVERSIFIED METALS EXPLORATION

### SILVERBOSS PROPERTY

Soil, rock and silt samples (2009)  
Copper (ppm)

NAD 83 ZONE 10

5779000

5779000

5778500

5778500

5778000

5778000

5777500

5777500

5777000

5777000

**LEGEND**  
Silverboss Geochemistry  
Cu (ppm)

**Silt**

- ◇ 11.6 - 50.0
- ◇ 50.1 - 75.0
- ◇ 75.1 - 100.0
- ◇ 100.1 - 238.9

**Rock**

- ▲ 6.7 - 99.0

**Soil**

- 14.1 - 50.0
- 50.1 - 75.0
- 75.1 - 100.0
- 100.1 - 288.3

□ HCM Claim



1:10,000

**GUS Extension**

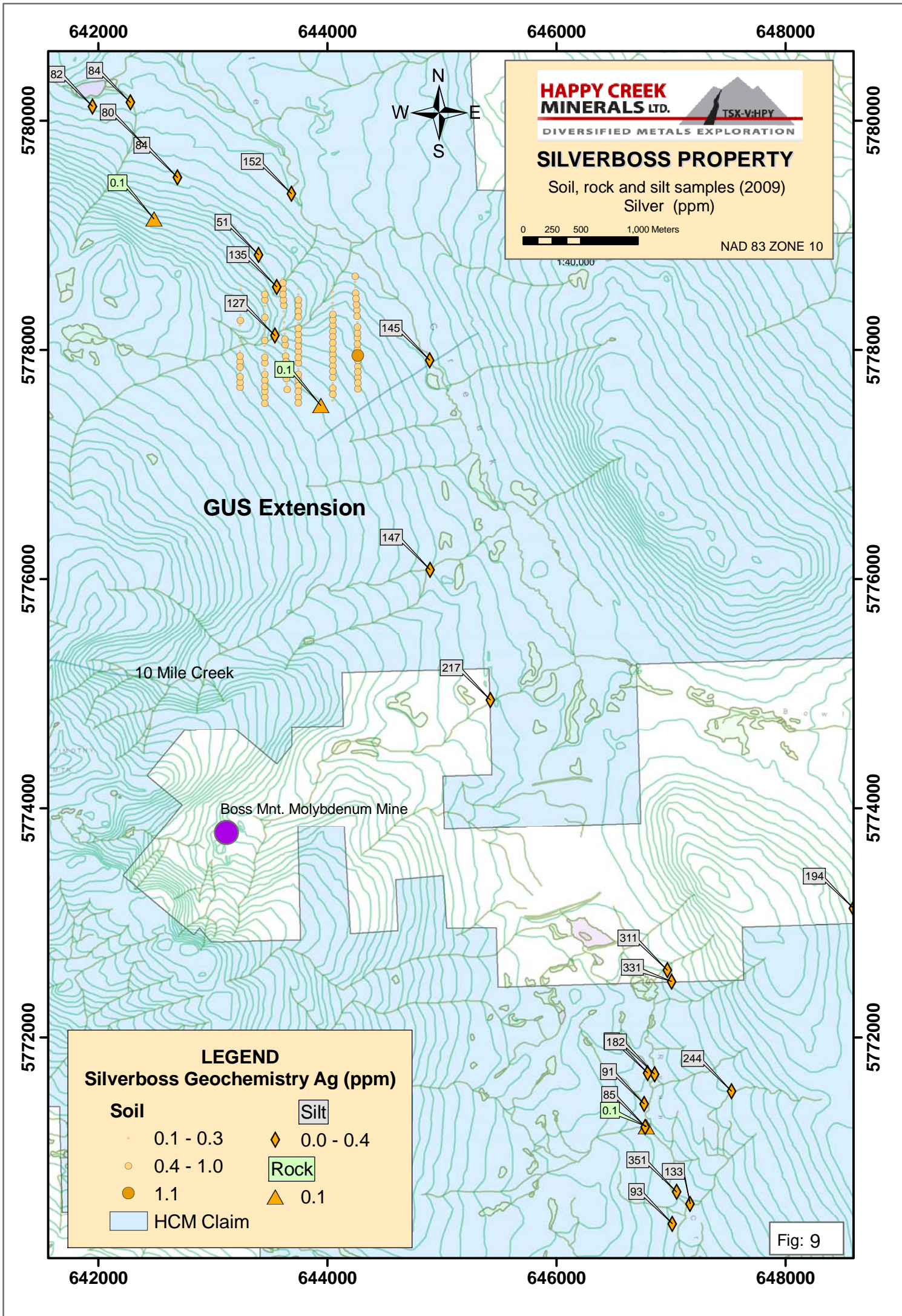
Fig: 8a

643000

643500

644000

644500



643000

643500

644000

644500



**HAPPY CREEK  
MINERALS LTD.**



DIVERSIFIED METALS EXPLORATION

### SILVERBOSS PROPERTY

Soil, rock and silt samples (2009)  
Silver (ppm)

NAD 83 ZONE 10

5779000

5779000

5778500

5778500

5778000

5778000

5777500

5777500

5777000

5777000

#### LEGEND Silverboss Geochemistry Ag (ppm)

##### Soil

- 0.1 - 0.3
- 0.4 - 1.0
- 1.1

##### Silt

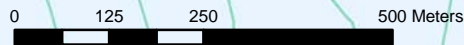
- ◆ 0.0 - 0.4

##### Rock

- ▲ 0.1

□ HCM Claim

**GUS Extension**



1:10,000

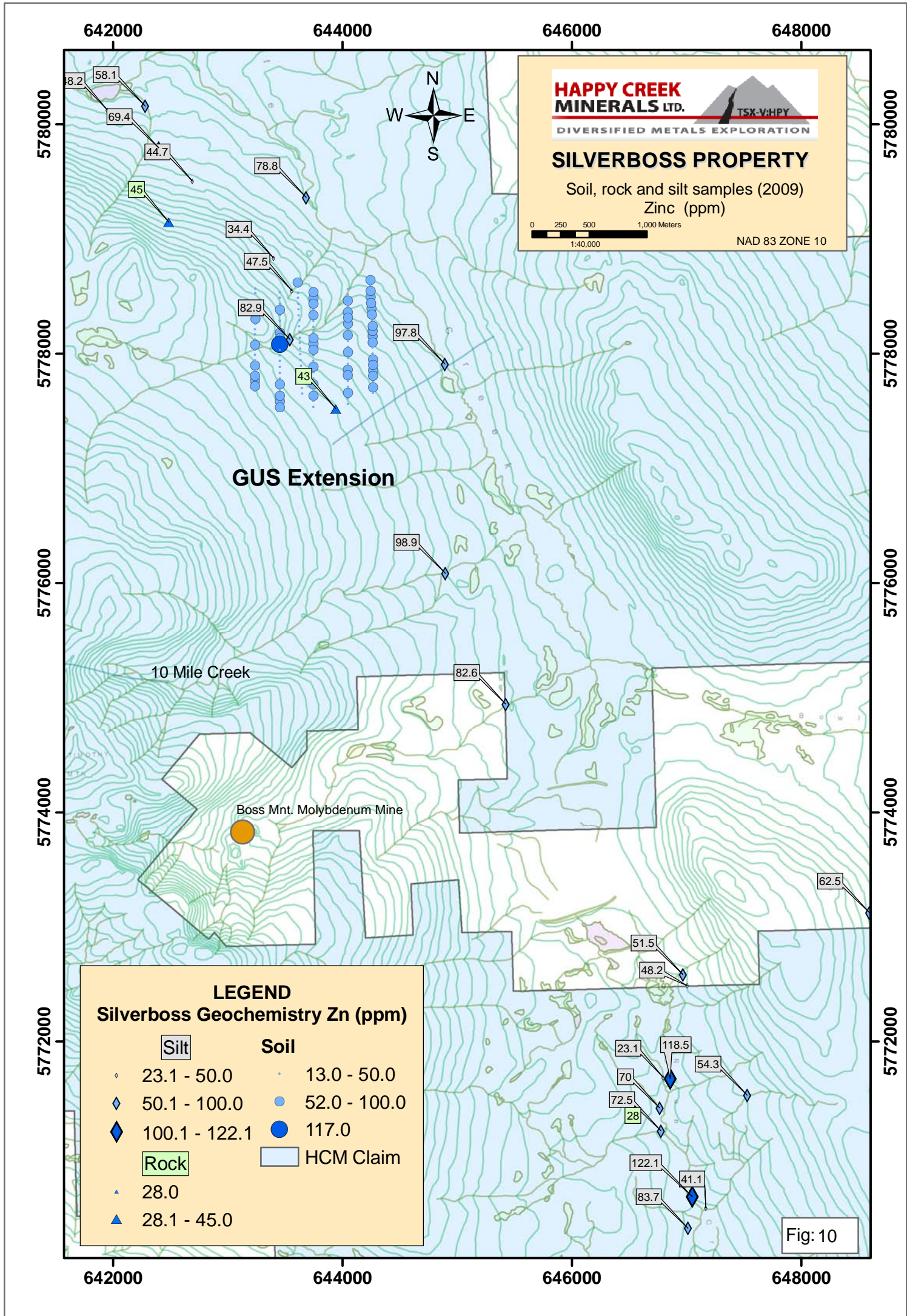
Fig: 9a

643000

643500

644000

644500





643000

643500

644000

644500



**HAPPY CREEK  
MINERALS LTD.**



DIVERSIFIED METALS EXPLORATION

### SILVERBOSS PROPERTY

Soil, rock and silt samples (2009)  
Zinc (ppm)

NAD 83 ZONE 10

5779000

5779000

5778500

5778500

5778000

5778000

5777500

5777500

5777000

5777000

#### LEGEND Silverboss Geochemistry Zn (ppm)

##### Soil

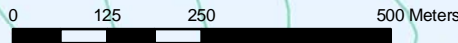
- 13.0 - 50.0
- 52.0 - 100.0
- 117.0

##### Silt

- ◊ 23.1 - 50.0
- ◊ 50.1 - 100.0
- ◊ 100.1 - 122.1

##### Rock

- ▲ 28.0
- ▲ 28.1 - 45.0
- HCM Claim



1:10,000

**GUS Extension**

Fig:10a

**2009 Silverboss Assessment Report**

**Appendix B**

**Soil, Silt and Rock Samples - Locations and Results**

Sample	Easting	Northing	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM
L-40E 82+50N	643236	5777718	1.9	105.9	6	59	1	13.5	9.4	286	2.69	2.8	1.3
L-40E 82N	643236	5777673	3.7	244.4	8	40	1	14	9.4	395	2.88	2.7	1.8
L-40E 83+50N	643236	5777808	2.5	50.1	8.3	60	0.2	9.9	9.1	415	3.87	3.2	0.6
L-40E 83N	643236	5777763	1.5	139.5	4.9	69	0.3	14.4	13.9	553	5.03	4.6	0.8
L-40E 84+50N	643236	5777898	2.7	194.5	26.2	89	0.9	17	20	1237	4.55	11.4	2.2
L-40E 84N	643236	5777853	2	80.9	5.5	40	0.5	13.2	11.3	316	4.28	3.9	0.9
L-40E 85+50N	643236	5777988	2	33.6	7.6	41	0.2	10.2	6.8	197	4.51	4.5	0.5
L-40E 85N	643236	5777943	3.7	61.9	7.3	43	0.3	12.8	9.8	369	3.2	3.3	0.7
L-40E 86+50N	643237	5778078	2.1	75.4	6.2	61	0.2	16.7	12.6	742	3.75	4.6	1.1
L-40E 86N	643236	5778033	1.2	80.2	4.3	41	0.2	14.4	11.3	387	3.45	4.1	0.7
L-40E 87+50N	643238	5778168	1.3	29.2	6.1	34	0.1	6.2	5.1	135	1.79	3.1	0.1
L-40E 87N	643237	5778123	1.3	32.3	7.8	28	<0.1	8.5	6	122	3.39	2.6	0.2
L-40E 88+50N	643239	5778258	1.2	106	9.6	16	0.5	6	4.3	119	1.24	1.1	0.6
L-40E 88N	643238	5778213	2.1	74.7	5.5	37	0.1	14.4	7.5	177	3.15	4.2	0.4
L-40E 89+50N	643240	5778348	1.3	21.6	7.6	24	<0.1	6	3.8	102	1.84	1.9	0.3
L-40E 89N	643239	5778303	2.7	45.7	8.9	55	0.2	13.2	9	274	4.56	4.6	0.5
L-40E 90+50E	643241	5778438	0.9	83.5	6.5	21	0.1	3.7	4.1	469	1.08	0.9	0.5
L-40E 90N	643240	5778393	0.3	21.9	5.7	13	<0.1	2.5	2.1	46	0.75	<0.5	0.1
L-40E 91+50N	643242	5778528	0.9	27.4	7.1	24	0.1	6.2	4.5	141	2.17	1.3	0.2
L-40E 92N	643242	5778567	0.5	14.1	4.5	14	<0.1	2.9	2.3	53	0.95	0.5	0.1
L-42E 8200N	643454	5777535	2.2	100.5	7.9	70	0.5	14.9	11.4	803	3.05	3.2	1.2
L-42E 8250N	643454	5777585	3.1	125.9	7.1	74	0.9	14.5	12.3	1447	3.72	2.9	1.3
L-42E 8300N	643454	5777635	2.6	125.9	3.6	64	0.7	10	13.7	936	4.38	3.1	0.7
L-42E 8350N	643454	5777685	2.6	147.3	6.3	45	0.5	11.7	15	709	3.61	2.4	1.2
L-42E 8400N	643454	5777735	3.7	110.9	8.2	70	0.6	18.5	17.6	878	4.89	3.9	1.1
L-42E 8450N	643454	5777785	2.1	107.2	4.5	41	0.5	13.5	8.7	293	3.15	2.9	1
L-42E 8500N	643454	5777835	3.4	102.5	7.4	49	0.2	13.3	9.4	281	3.26	3	1.2
L-42E 8550N	643454	5777885	2.9	60.4	4.8	37	0.5	10.7	10	442	2.62	2	0.9
L-42E 8600N	643454	5777935	1.5	68.4	4.9	42	0.5	9.2	7.8	242	2.59	2.9	0.8
L-42E 8650N	643454	5777985	2.2	38.5	5	36	0.2	7.6	6.8	231	4.04	3.4	0.5
L-42E 8700N	643454	5778035	1.9	51.6	4.9	50	0.1	11.6	8.5	435	3.04	4.5	0.6
L-42E 8750N	643454	5778085	1.5	130.6	6.4	117	0.5	12.3	17.5	331	4.76	3.6	0.4
L-42E 8800N	643454	5778135	1.7	137.5	5.8	62	0.2	16.6	15.3	212	6.04	4.5	0.3

Sample	Easting	Northing	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM
L-42E 8850N	643454	5778185	1.5	113.7	4.6	76	0.2	34.6	20.8	470	6.61	6.2	0.2
L-42E 8900N	643454	5778235	1.3	49.3	6.8	35	0.2	8.8	4.8	107	2.97	1.9	0.3
L-42E 8950N	643454	5778285	2.2	71.6	5.6	41	0.3	13	8.3	202	3.37	3.6	0.4
L-42E 9000N	643454	5778335	3.4	24.3	7.9	30	0.1	10.3	6	152	3.2	3.7	0.3
L-42E 9050N	643454	5778385	2.7	64.2	4.2	52	<0.1	17.3	9.6	216	3.16	3.8	0.5
L-42E 9100N	643454	5778435	1.4	133.6	5.7	25	0.6	7.5	9.9	878	1.14	3.6	1.1
L-42E 9150N	643454	5778485	1.9	70.8	6.2	46	0.5	11.2	7.3	127	3.88	3.8	0.4
L-42E 9200N	643454	5778535	6.2	33.3	6	45	0.1	18.2	7.5	216	3.2	5.3	0.5
L-44E 8200N	643647	5777652	1.2	205.7	2.9	21	0.7	11.6	14.9	135	3.04	1.8	0.4
L-44E 8250N	643645	5777701	1.9	127.8	5.3	36	0.2	15.8	10.7	246	3.24	3.1	0.6
L-44E 8300N	643643	5777750	4.2	84.8	7.1	42	0.4	13.8	14.4	494	4.43	2.7	1.1
L-44E 8350N	643641	5777799	2.7	88.4	6.2	42	0.2	12.3	9.3	475	3.54	2.3	0.6
L-44E 8400N	643639	5777848	4	60.3	7.7	31	0.2	9.2	18.4	1630	4.73	3	0.6
L-44E 8450N	643637	5777897	1.8	32.3	4.7	40	0.3	9.2	6.8	227	3.92	2.7	0.4
L-44E 8500N	643635	5777946	1.4	41.8	6	24	0.4	6.2	5.1	179	1.44	1	0.5
L-44E 8550N	643633	5777995	3.6	47.5	5	49	0.2	16.7	8.9	362	3.25	2.9	0.6
L-44E 8600N	643631	5778044	1.4	103	5.5	49	0.6	13.5	12.2	352	2.24	3.1	1.1
L-44E 8650N	643629	5778093	6	56.6	6	50	0.3	21.7	9.9	341	3.32	4.4	0.8
L-44E 8700N	643627	5778142	2.9	77.2	5.5	47	0.2	21.7	13.1	374	3.13	5.1	0.6
L-44E 8750N	643625	5778191	2	54.7	7.8	39	0.1	12.5	9.7	498	2.67	2.8	0.4
L-44E 8800N	643623	5778240	1.2	23.3	7.2	41	<0.1	10	7.4	168	3.3	2.7	0.3
L-44E 8850N	643621	5778289	2.1	20.4	6.1	25	0.2	9.6	5.5	105	2.98	3	0.3
L-44E 8900N	643619	5778338	8.9	52.8	6.5	41	0.2	21.6	9.1	214	3.16	5.3	0.5
L-44E 8950N	643617	5778387	6.1	24.2	6.7	34	0.3	15.7	6.5	140	3.22	4.6	0.4
L-44E 9000N	643615	5778436	3.1	27	6.2	49	0.3	11	5	173	3.39	3.8	0.4
L-44E 9050N	643613	5778485	2.3	92.7	5.3	42	0.3	11.3	7.6	181	2.87	3.4	0.5
L-44E 9100N	643611	5778534	1.9	88.4	9.7	28	0.8	6.3	7	169	2.17	3.1	0.9
L-44E 9150N	643610	5778583	2.5	20.6	5.7	35	0.3	12.8	4.6	156	1.26	2.2	0.3
L-44E 9200N	643609	5778623	2.4	44.5	6	53	0.2	24.9	9.7	199	3.35	7.5	0.5
L-46E 8200N	643748	5777537	3	216.1	6.7	43	0.3	16.2	12.7	206	2.89	3	0.4
L-46E 8250N	643748	5777587	1.3	288.3	2.9	48	0.4	35.4	19.8	738	4.7	3.4	0.4
L-46E 8300N	643748	5777637	1.7	72.1	4.9	55	0.3	11.7	13.2	972	3.41	2.3	0.7
L-46E 8350N	643748	5777687	2.1	84.9	5.1	44	0.4	11.7	9.5	125	4.05	2.8	0.5

Sample	Easting	Northing	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM
L-46E 8400N	643748	5777737	1.9	102.5	4.4	64	0.6	13.4	13.9	320	3.95	3.4	0.6
L-46E 8450N	643748	5777787	2.6	71	5.7	42	0.3	12.5	9.1	271	3.82	3.6	0.7
L-46E 8500N	643748	5777837	1.7	76.8	3.4	48	0.2	11.4	9.1	302	3.93	4.6	0.7
L-46E 8550N	643748	5777887	8.3	67.7	6	63	0.6	21.5	13.7	496	3.77	3.4	0.5
L-46E 8600N	643748	5777937	5	25.5	7.5	22	0.3	6.3	2.6	89	1.41	1.7	0.5
L-46E 8650N	643748	5777987	3.2	30.1	7.6	42	0.4	12.4	5	185	2.61	3.4	0.4
L-46E 8700N	643748	5778037	3.1	76.4	6.6	55	0.3	18.9	13.1	736	3.72	5.1	0.8
L-46E 8750N	643748	5778087	2.7	65	6.6	58	0.3	19	11.7	624	3.3	4.8	0.7
L-46E 8800N	643748	5778137	14.2	52.5	6.4	52	0.3	22.5	13.1	430	3.58	5.6	0.6
L-46E 8850N	643748	5778187	4.3	60	6.9	32	0.3	13.3	8.2	233	4.77	5.6	0.9
L-46E 8900N	643748	5778237	1.8	30.2	6	37	0.2	14.8	7.3	145	3.26	4.3	0.4
L-46E 8950N	643748	5778287	3.4	19.3	7.2	40	0.3	14.8	5.6	128	3.08	5.5	0.4
L-46E 9000N	643748	5778337	2.4	34.8	8.9	57	0.4	30.6	11.8	207	4.01	8.8	0.6
L-46E 9050N	643748	5778387	1.7	25.7	7.4	43	0.5	38.9	12.4	141	3.21	8.5	0.4
L-46E 9100N	643748	5778437	2.1	14.4	9.3	62	0.3	13	6.4	248	3.68	5.6	0.2
L-46E 9150N	643748	5778487	0.7	42.6	12.6	90	0.1	35.3	14.5	370	2.53	3.3	0.5
L-46E 9200N	643748	5778537	2	32	6.3	53	0.2	18	11.3	320	2.05	3.9	0.5
L-48E 8200N	644048	5777562	3.8	49.4	8.8	40	0.2	16.1	9.1	258	3.58	3.8	0.5
L-48E 8250N	644048	5777612	3.3	47.6	8.6	42	0.3	11.5	9.1	273	3.88	5	0.6
L-48E 8300N	644048	5777662	1.9	100	13.2	54	0.8	17.5	15.2	412	3.4	19.1	1.1
L-48E 8350N	644048	5777712	4.3	29.9	8.7	46	0.2	27.5	6.9	172	2.97	4.8	0.4
L-48E 8400N	644048	5777762	3.3	42.7	6.6	44	0.4	25.5	7.8	266	2.64	5.6	0.5
L-48E 8450N	644048	5777812	6.3	85.8	8.2	66	0.4	46.4	11.5	337	3.29	8.7	0.6
L-48E 8500N	644048	5777862	3.8	93.5	8.7	74	0.6	29.2	10.7	349	3	5.3	0.9
L-48E 8550N	644048	5777912	2.2	56	9.6	48	0.6	15.5	6.9	208	2.98	4.1	0.5
L-48E 8600N	644048	5777962	2.1	81.6	6.5	36	1	17.1	7.8	327	1.94	2.6	1.1
L-48E 8650N	644048	5778012	2.2	85	8.2	54	0.5	15.1	11	545	3.34	3	0.8
L-48E 8700N	644048	5778062	2.3	22.9	6.4	47	0.3	13.2	5.6	332	3.02	4.6	0.5
L-48E 8750N	644048	5778112	1.9	35.3	7.2	44	0.4	11.3	9.3	566	3.91	3.7	0.5
L-48E 8800N	644048	5778162	1.7	34.9	7.3	63	0.7	11.5	7	190	4.29	3.9	0.4
L-48E 8850N	644048	5778212	2	39.9	7.6	47	0.7	11.5	6.8	596	3.21	3.8	0.4
L-48E 8900N	644048	5778262	2	31.1	7.8	61	0.4	12.8	9.3	1076	4.03	3.6	0.3
L-48E 8950N	644048	5778312	1.2	28.4	6.8	52	0.4	29.2	9.5	278	3.02	7.9	0.5

Sample	Easting	Northing	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM
L-48E 9000N	644048	5778362	1.4	30	6.5	65	0.2	42.4	13.4	302	3.44	10.1	0.4
L-48E 9050N	644048	5778412	0.6	28.3	8.9	50	0.1	31.9	9.7	213	1.83	2.8	0.4
L-48E 9100N	644048	5778462	1.4	26.8	11.2	64	0.2	35.5	15.3	612	2.64	7.4	0.6
L-48E 9150N	644048	5778512	2	44.4	8	48	0.2	24	11.9	693	2.86	7.2	0.7
L-48E 9200N	644048	5778562	1.3	29.7	9.5	45	0.2	37.2	11.1	281	2.81	8.7	0.5
L-50E 8200N	644267	5777660	5.1	56.3	7.4	48	0.7	16.7	7.9	276	2.92	3.1	0.5
L-50E 8250N	644267	5777709	4.4	26.8	7.9	53	0.4	15	8.5	530	3.11	4.9	0.4
L-50E 8300N	644267	5777758	2.5	28.2	6.6	50	0.6	16.3	12.4	1109	3.4	5	0.5
L-50E 8350N	644266	5777807	2.8	78	6.1	67	0.4	17.4	16.6	918	3.83	3.7	0.9
L-50E 8400N	644266	5777856	3.1	142.5	17.6	74	0.9	45.4	17.2	445	2.89	8.7	2.2
L-50E 8450N	644265	5777905	1.1	48.7	10.1	61	0.3	25.1	11.4	337	1.85	3.1	0.8
L-50E 8500N	644265	5777954	18.7	100.3	12.7	81	1.1	41.9	57.7	7040	6.69	14.4	1.4
L-50E 8550N	644264	5778003	3.4	30.7	7.4	46	0.3	15.7	5.7	180	2.76	5.2	0.6
L-50E 8600N	644264	5778052	1.6	54.8	6	33	0.3	14	9.2	299	2.88	4.3	0.5
L-50E 8650N	644263	5778101	1.8	47.5	6.6	58	0.5	10.9	8.7	330	4.37	3.8	0.4
L-50E 8700N	644263	5778150	2.1	61.3	11.8	64	0.3	23.2	9.6	325	2.54	4.7	0.7
L-50E 8750N	644262	5778199	2.1	81.9	6.7	56	0.3	16.8	13	774	3.4	3.1	0.8
L-50E 8800N	644262	5778242	2.1	29.5	10.7	56	0.2	21.5	7.9	218	3.44	6.8	0.4
L-50E 8850N	644259	5778293	1.2	25	9.8	44	0.3	16.7	5.2	167	1.67	4.3	0.4
L-50E 8900N	644256	5778344	2.1	37.8	10.7	65	0.8	36	17	501	2.89	8.4	0.6
L-50E 8950N	644253	5778395	1.4	56.8	9.6	75	0.3	52.1	15.6	363	2.64	6.8	0.9
L-50E 9000N	644250	5778446	1.9	26.8	13.9	63	0.3	31.9	11.2	343	2.47	7.3	0.6
L-50E 9050N	644247	5778497	4.9	24.8	12.6	67	0.4	29.5	22	2461	3.2	14.7	0.6
L-50E 9100N	644244	5778548	1.3	19.6	5.7	66	0.2	22.9	8.3	294	2.4	6.6	0.4
L-50E 9150N	644242	5778599	1.7	39.8	8.6	44	0.2	53.7	15.1	359	2.58	15.5	1.6
L-50E 9200N	644241	5778645	8.6	23.6	10.8	60	0.3	26.4	12.2	499	2.9	8.8	0.5

Sample	Au PPB	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %
L-40E 82+50N	3.5	0.2	73	0.5	0.2	0.2	111	0.64	0.217	8	18	0.49	148	0.049
L-40E 82N	3.2	<0.1	47	0.7	0.2	0.4	97	0.33	0.114	10	23	0.46	107	0.048
L-40E 83+50N	1.2	0.2	37	0.4	0.3	0.3	121	0.39	0.094	5	18	0.37	142	0.089
L-40E 83N	2.6	0.3	73	0.4	0.3	0.2	182	0.66	0.194	7	20	0.67	208	0.096
L-40E 84+50N	3.8	0.4	58	1.6	0.3	0.7	140	0.58	0.195	9	27	0.38	159	0.05
L-40E 84N	2.1	0.2	35	0.4	0.3	0.4	159	0.39	0.114	6	21	0.42	81	0.068
L-40E 85+50N	2.0	0.8	16	0.4	0.3	0.2	143	0.19	0.058	3	20	0.29	67	0.129
L-40E 85N	4.1	0.1	23	0.7	0.2	1.3	108	0.21	0.078	5	20	0.41	92	0.063
L-40E 86+50N	7.0	0.3	41	0.4	0.3	0.3	121	0.49	0.116	7	23	0.54	131	0.089
L-40E 86N	4.8	0.6	37	0.3	0.4	0.1	118	0.42	0.194	7	20	0.49	141	0.083
L-40E 87+50N	1.3	0.3	20	0.1	0.3	0.2	89	0.28	0.043	2	9	0.26	72	0.063
L-40E 87N	7.0	0.8	11	<0.1	0.2	0.3	137	0.11	0.031	3	15	0.27	40	0.123
L-40E 88+50N	1.0	<0.1	26	0.4	<0.1	0.4	42	0.21	0.043	8	15	0.09	46	0.05
L-40E 88N	2.4	0.5	18	0.3	0.3	0.3	92	0.27	0.059	4	22	0.35	68	0.087
L-40E 89+50N	13.4	0.2	10	0.2	0.2	0.2	80	0.12	0.033	3	14	0.17	45	0.084
L-40E 89N	1.1	0.6	33	0.5	0.3	0.4	132	0.38	0.053	5	24	0.34	112	0.149
L-40E 90+50E	0.9	<0.1	38	0.3	0.1	0.3	46	0.31	0.052	7	11	0.11	50	0.032
L-40E 90N	<0.5	<0.1	11	0.1	<0.1	<0.1	32	0.1	0.022	2	5	0.04	60	0.017
L-40E 91+50N	1.0	0.1	14	0.2	0.2	0.2	93	0.09	0.041	4	13	0.11	69	0.059
L-40E 92N	<0.5	<0.1	11	<0.1	<0.1	0.1	44	0.08	0.023	3	7	0.06	54	0.031
L-42E 8200N	6.0	0.1	68	0.7	0.3	0.4	102	0.63	0.149	7	21	0.57	163	0.069
L-42E 8250N	2.8	0.1	83	0.7	0.2	0.4	119	0.61	0.168	9	20	0.51	184	0.047
L-42E 8300N	0.7	0.2	338	0.4	0.1	0.2	153	0.51	0.149	6	13	0.79	614	0.066
L-42E 8350N	2.2	0.1	85	0.5	0.2	0.3	115	0.37	0.132	8	16	0.44	183	0.055
L-42E 8400N	1.7	0.2	52	0.5	0.1	0.4	180	0.41	0.079	6	23	0.57	140	0.062
L-42E 8450N	2.7	0.2	33	0.4	0.2	0.3	99	0.32	0.057	5	19	0.48	69	0.073
L-42E 8500N	1.0	0.1	24	0.4	0.1	0.4	138	0.22	0.072	5	21	0.46	102	0.055
L-42E 8550N	1.1	<0.1	31	0.3	0.1	0.3	97	0.31	0.086	5	15	0.41	82	0.038
L-42E 8600N	2.1	0.1	26	0.3	0.2	0.2	80	0.29	0.045	5	16	0.39	42	0.062
L-42E 8650N	1.0	0.3	10	0.3	0.2	0.2	115	0.13	0.107	3	18	0.29	67	0.076
L-42E 8700N	4.0	0.2	27	0.3	0.3	0.2	105	0.33	0.068	3	20	0.45	119	0.064
L-42E 8750N	7.2	0.6	16	0.6	0.9	0.2	139	0.17	0.083	2	14	0.78	62	0.12
L-42E 8800N	2.0	0.8	11	0.3	0.3	0.2	195	0.17	0.041	2	25	0.7	61	0.177

Sample	Au PPB	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %
L-42E 8850N	5.7	0.5	11	0.1	1.2	0.1	212	0.16	0.039	2	25	1.45	76	0.083
L-42E 8900N	7.1	0.3	15	0.3	0.2	0.3	108	0.18	0.053	2	16	0.2	60	0.075
L-42E 8950N	1.4	1	13	0.2	0.3	0.4	105	0.16	0.06	3	23	0.37	44	0.086
L-42E 9000N	<0.5	0.5	12	0.1	0.3	0.6	110	0.18	0.038	3	23	0.28	75	0.11
L-42E 9050N	0.7	1	14	0.4	0.2	0.3	76	0.18	0.079	3	27	0.37	76	0.08
L-42E 9100N	1.6	0.2	62	1	0.3	0.2	34	0.82	0.127	12	13	0.16	42	0.028
L-42E 9150N	4.3	0.6	38	0.7	0.2	0.2	99	0.41	0.127	2	20	0.29	81	0.088
L-42E 9200N	1.4	0.4	20	0.3	0.3	0.7	82	0.32	0.053	3	33	0.45	88	0.093
L-44E 8200N	<0.5	0.3	160	0.2	<0.1	0.1	92	0.4	0.082	3	10	0.52	137	0.04
L-44E 8250N	2.0	0.2	196	0.2	0.2	0.3	106	0.39	0.094	4	18	0.58	145	0.043
L-44E 8300N	2.5	0.1	43	0.2	0.1	0.3	143	0.29	0.08	6	21	0.5	123	0.05
L-44E 8350N	5.6	0.3	25	0.2	0.2	0.3	147	0.22	0.044	5	21	0.48	69	0.075
L-44E 8400N	2.4	0.2	29	0.3	0.1	0.4	149	0.24	0.038	4	15	0.31	79	0.094
L-44E 8450N	0.9	0.2	17	0.3	0.2	0.3	123	0.23	0.074	4	19	0.3	87	0.09
L-44E 8500N	1.2	<0.1	20	0.2	0.2	0.2	65	0.18	0.043	4	12	0.19	61	0.051
L-44E 8550N	2.0	0.3	32	0.4	0.2	0.7	91	0.33	0.051	5	26	0.53	79	0.088
L-44E 8600N	2.0	0.1	77	0.6	0.2	0.2	71	0.5	0.129	9	19	0.54	124	0.04
L-44E 8650N	1.5	0.3	35	0.3	0.3	1	96	0.34	0.058	5	36	0.64	85	0.094
L-44E 8700N	2.7	0.9	26	0.3	0.4	0.3	103	0.32	0.099	5	26	0.6	133	0.092
L-44E 8750N	2.6	0.5	20	0.2	0.3	0.3	100	0.37	0.07	4	20	0.39	106	0.098
L-44E 8800N	1.2	0.7	11	0.2	0.2	0.2	109	0.18	0.058	2	19	0.36	67	0.124
L-44E 8850N	<0.5	0.7	17	0.2	0.3	0.3	103	0.21	0.046	3	22	0.25	68	0.09
L-44E 8900N	<0.5	0.5	18	0.2	0.5	1	78	0.25	0.103	4	37	0.49	94	0.088
L-44E 8950N	1.2	0.6	17	0.2	0.3	0.6	85	0.24	0.066	3	34	0.35	87	0.101
L-44E 9000N	2.1	0.6	17	0.2	0.3	0.4	88	0.23	0.071	3	29	0.27	84	0.085
L-44E 9050N	4.0	0.7	22	0.6	0.2	0.2	68	0.32	0.111	3	20	0.24	88	0.062
L-44E 9100N	<0.5	0.1	51	1	0.2	0.2	57	0.7	0.068	7	14	0.19	59	0.044
L-44E 9150N	4.4	0.1	19	0.3	0.2	0.4	45	0.31	0.033	3	26	0.36	53	0.07
L-44E 9200N	2.4	0.5	23	0.4	0.5	0.3	81	0.34	0.077	4	37	0.54	150	0.068
L-46E 8200N	1.8	0.2	99	0.3	0.2	0.4	85	0.22	0.06	2	16	0.55	204	0.048
L-46E 8250N	6.5	0.2	188	0.3	0.2	0.1	129	0.32	0.095	1	18	0.99	341	0.039
L-46E 8300N	4.1	<0.1	111	0.3	0.2	0.3	122	0.54	0.136	5	15	0.54	177	0.034
L-46E 8350N	1.7	0.3	47	0.3	0.2	0.2	96	0.2	0.071	3	16	0.25	94	0.066



Sample	Au PPB	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %
L-46E 8400N	<0.5	0.1	168	0.5	0.3	0.2	103	0.44	0.072	3	15	0.58	150	0.051
L-46E 8450N	1.9	0.3	39	0.4	0.2	0.3	113	0.23	0.066	3	18	0.45	166	0.073
L-46E 8500N	4.1	0.4	11	0.2	0.2	<0.1	110	0.27	0.285	5	18	0.45	104	0.046
L-46E 8550N	2.2	0.2	32	0.3	0.2	0.8	125	0.27	0.063	4	27	0.64	122	0.061
L-46E 8600N	7.0	<0.1	12	0.3	0.2	1	50	0.13	0.031	3	16	0.15	63	0.067
L-46E 8650N	19.1	0.2	21	0.5	0.2	1	78	0.24	0.027	3	29	0.26	84	0.101
L-46E 8700N	2.1	0.2	47	0.4	0.3	0.8	121	0.45	0.076	6	29	0.5	126	0.054
L-46E 8750N	2.4	0.1	49	0.3	0.3	0.7	94	0.53	0.065	5	31	0.48	133	0.058
L-46E 8800N	2.4	0.2	41	0.4	0.4	0.5	104	0.36	0.066	5	35	0.5	142	0.07
L-46E 8850N	3.1	0.5	37	0.7	0.3	0.4	145	0.35	0.075	5	26	0.37	128	0.075
L-46E 8900N	1.1	0.5	11	0.2	0.3	0.3	96	0.17	0.123	3	29	0.31	61	0.072
L-46E 8950N	1.4	0.5	12	0.3	0.4	0.6	79	0.18	0.138	3	37	0.3	70	0.078
L-46E 9000N	0.6	0.6	31	0.2	0.4	0.4	98	0.36	0.101	8	48	0.55	116	0.094
L-46E 9050N	2.2	1.2	12	0.3	0.5	0.2	83	0.17	0.088	4	50	0.53	69	0.081
L-46E 9100N	1.2	0.3	18	0.3	0.4	0.4	139	0.3	0.077	2	33	0.26	88	0.081
L-46E 9150N	3.9	0.6	33	0.5	0.4	0.4	84	0.44	0.043	5	57	0.96	97	0.115
L-46E 9200N	1.7	0.1	26	0.3	0.3	0.3	60	0.29	0.046	5	32	0.48	52	0.06
L-48E 8200N	1.3	0.2	43	0.3	0.3	0.6	113	0.4	0.04	3	24	0.49	141	0.089
L-48E 8250N	1.6	<0.1	45	0.6	0.6	0.3	96	0.27	0.121	3	25	0.28	189	0.05
L-48E 8300N	2.0	0.1	140	0.9	0.3	0.4	130	0.7	0.062	6	32	0.38	109	0.055
L-48E 8350N	1.7	0.2	33	0.3	0.4	0.8	82	0.29	0.037	4	65	0.59	51	0.12
L-48E 8400N	1.3	0.2	24	0.4	0.4	0.4	66	0.25	0.063	4	44	0.5	58	0.075
L-48E 8450N	2.6	0.5	49	0.2	0.4	0.8	79	0.41	0.081	5	59	0.77	133	0.073
L-48E 8500N	3.1	0.2	45	0.7	0.4	0.7	73	0.34	0.063	5	45	0.62	83	0.073
L-48E 8550N	1.2	0.2	42	0.5	0.3	0.4	94	0.32	0.046	5	34	0.3	79	0.101
L-48E 8600N	1.3	<0.1	55	0.3	0.2	0.3	55	0.25	0.115	11	21	0.4	117	0.021
L-48E 8650N	4.3	<0.1	86	0.3	0.3	0.3	116	0.47	0.123	6	13	0.58	173	0.046
L-48E 8700N	1.7	0.1	14	0.4	0.4	0.3	75	0.16	0.052	4	37	0.27	64	0.079
L-48E 8750N	1.1	0.2	21	0.2	0.3	0.3	118	0.3	0.357	3	22	0.37	188	0.053
L-48E 8800N	5.2	0.2	22	0.6	0.3	0.3	124	0.32	0.143	3	23	0.32	108	0.089
L-48E 8850N	0.7	0.1	23	0.3	0.3	0.2	117	0.31	0.154	3	21	0.24	118	0.044
L-48E 8900N	1.2	0.3	16	0.1	0.3	0.3	149	0.21	0.085	3	26	0.33	120	0.07
L-48E 8950N	0.8	0.5	18	0.4	0.8	0.1	77	0.27	0.083	6	52	0.6	71	0.094

Sample	Au PPB	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %
L-48E 9000N	4.8	0.5	17	0.4	1	<0.1	74	0.25	0.094	5	85	0.92	96	0.099
L-48E 9050N	1.7	1.2	33	0.2	0.7	0.2	59	0.43	0.055	6	58	0.74	71	0.09
L-48E 9100N	1.0	0.4	43	0.6	0.6	0.2	79	0.48	0.066	7	59	0.66	126	0.074
L-48E 9150N	1.9	0.2	49	0.5	0.5	0.2	87	0.55	0.093	7	35	0.54	115	0.052
L-48E 9200N	2.2	0.4	16	0.2	1	0.1	71	0.22	0.075	5	56	0.65	68	0.074
L-50E 8200N	1.7	0.2	27	0.4	0.3	0.5	88	0.18	0.042	4	29	0.47	83	0.076
L-50E 8250N	2.7	0.2	21	0.3	0.4	0.6	81	0.19	0.076	3	34	0.32	80	0.085
L-50E 8300N	0.6	0.1	20	0.4	0.5	0.2	102	0.2	0.089	4	33	0.3	93	0.073
L-50E 8350N	3.3	<0.1	96	0.4	0.2	0.4	145	0.6	0.126	6	25	0.58	184	0.045
L-50E 8400N	4.0	0.3	67	1.2	0.3	1.2	96	0.64	0.111	9	56	0.8	143	0.059
L-50E 8450N	2.3	<0.1	50	0.5	0.2	0.6	53	0.47	0.065	6	37	0.63	106	0.055
L-50E 8500N	5.4	0.4	53	1.6	0.3	1	154	0.43	0.069	7	52	0.6	172	0.113
L-50E 8550N	1.3	0.1	21	0.6	0.5	0.3	76	0.19	0.052	5	31	0.31	92	0.082
L-50E 8600N	45.2	<0.1	56	0.3	0.3	0.3	109	0.36	0.078	5	26	0.38	90	0.039
L-50E 8650N	0.8	0.2	43	0.5	0.3	0.2	150	0.4	0.078	3	23	0.34	239	0.071
L-50E 8700N	2.7	0.2	38	0.6	0.6	0.4	90	0.34	0.056	6	44	0.6	90	0.079
L-50E 8750N	3.8	0.1	89	0.4	0.3	0.3	123	0.57	0.117	6	17	0.59	170	0.051
L-50E 8800N	0.7	0.2	23	0.5	0.5	0.3	92	0.27	0.053	4	44	0.42	83	0.073
L-50E 8850N	0.8	0.1	23	0.4	0.5	0.2	49	0.24	0.035	6	43	0.29	89	0.085
L-50E 8900N	1.3	0.2	40	0.7	0.8	0.2	67	0.45	0.079	8	65	0.66	100	0.077
L-50E 8950N	1.9	0.5	43	0.9	0.7	0.2	65	0.44	0.047	11	80	0.9	105	0.103
L-50E 9000N	1.4	0.2	18	0.3	0.5	0.2	78	0.25	0.121	6	62	0.59	74	0.065
L-50E 9050N	1.2	0.2	46	0.6	0.7	0.2	125	0.51	0.116	8	62	0.57	107	0.058
L-50E 9100N	3.6	0.2	21	0.3	0.7	0.1	64	0.26	0.046	5	47	0.52	107	0.075
L-50E 9150N	2.5	1.1	26	0.2	1.2	0.1	63	0.37	0.044	10	75	0.77	97	0.093
L-50E 9200N	1.3	0.5	19	0.3	0.7	0.2	79	0.27	0.043	6	55	0.59	80	0.113

Sample	B PPM	Al %	Na %	K %	W PPM	Hg PPM	Sc PPM	Tl PPM	S %	Ga PPM	Se PPM
L-40E 82+50N	<20	2.75	0.016	0.06	3.7	0.12	1.7	<0.1	0.06	7	<0.5
L-40E 82N	<20	3.1	0.017	0.05	0.4	0.1	1.3	<0.1	<0.05	8	<0.5
L-40E 83+50N	<20	1.43	0.01	0.05	0.4	0.04	1.4	<0.1	<0.05	9	<0.5
L-40E 83N	<20	2.1	0.013	0.1	0.3	0.04	2.4	<0.1	<0.05	8	<0.5
L-40E 84+50N	<20	4.87	0.012	0.05	0.6	0.11	2.8	<0.1	0.06	7	0.5
L-40E 84N	<20	1.94	0.011	0.04	0.5	0.05	1.7	<0.1	<0.05	7	<0.5
L-40E 85+50N	<20	1.95	0.007	0.04	0.4	0.07	2.2	<0.1	<0.05	9	<0.5
L-40E 85N	<20	1.99	0.009	0.04	0.9	0.07	1.1	<0.1	<0.05	8	<0.5
L-40E 86+50N	<20	2.24	0.011	0.05	0.5	0.06	2.3	<0.1	<0.05	6	<0.5
L-40E 86N	<20	2.49	0.011	0.08	0.3	0.05	2.4	<0.1	<0.05	5	<0.5
L-40E 87+50N	<20	0.71	0.007	0.03	0.4	0.11	1.1	<0.1	<0.05	5	<0.5
L-40E 87N	<20	1.32	0.008	0.03	0.1	0.03	1.4	<0.1	<0.05	11	<0.5
L-40E 88+50N	<20	1.43	0.01	0.02	0.2	0.05	0.7	<0.1	<0.05	7	<0.5
L-40E 88N	<20	2.36	0.009	0.03	0.9	0.11	1.8	<0.1	0.06	7	<0.5
L-40E 89+50N	<20	0.65	0.008	0.04	0.1	0.03	1.2	<0.1	<0.05	7	<0.5
L-40E 89N	<20	1.38	0.01	0.06	0.6	0.06	2	<0.1	<0.05	11	<0.5
L-40E 90+50E	<20	0.84	0.007	0.02	<0.1	0.04	0.6	<0.1	<0.05	5	<0.5
L-40E 90N	<20	0.26	0.012	0.02	<0.1	0.02	0.4	<0.1	<0.05	2	<0.5
L-40E 91+50N	<20	0.8	0.007	0.03	<0.1	0.06	0.9	<0.1	<0.05	7	<0.5
L-40E 92N	<20	0.41	0.008	0.02	<0.1	0.03	0.5	<0.1	<0.05	3	<0.5
L-42E 8200N	<20	2.95	0.013	0.09	0.4	0.11	1.8	<0.1	0.08	7	<0.5
L-42E 8250N	<20	3.45	0.013	0.06	0.4	0.17	2.2	<0.1	0.11	8	<0.5
L-42E 8300N	<20	3.27	0.016	0.12	0.2	0.08	2.6	<0.1	<0.05	8	<0.5
L-42E 8350N	<20	2.65	0.01	0.07	0.3	0.1	1.8	<0.1	<0.05	8	<0.5
L-42E 8400N	<20	3.28	0.007	0.07	0.5	0.07	1.9	<0.1	0.06	10	<0.5
L-42E 8450N	<20	1.97	0.007	0.05	0.3	0.06	1.5	<0.1	<0.05	7	<0.5
L-42E 8500N	<20	2.71	0.006	0.05	0.6	0.09	1.5	<0.1	0.05	8	<0.5
L-42E 8550N	<20	1.89	0.007	0.04	1.3	0.08	0.9	<0.1	0.06	6	<0.5
L-42E 8600N	<20	1.88	0.008	0.03	0.5	0.06	1.4	<0.1	<0.05	7	<0.5
L-42E 8650N	<20	2.68	0.004	0.02	0.5	0.1	1.8	<0.1	0.05	9	0.9
L-42E 8700N	<20	1.51	0.008	0.04	0.7	0.07	1.2	<0.1	<0.05	5	<0.5
L-42E 8750N	<20	3.8	0.007	0.03	0.4	0.11	2.4	<0.1	<0.05	18	<0.5
L-42E 8800N	<20	2.45	0.004	0.03	0.3	0.06	1.7	<0.1	<0.05	15	<0.5

Sample	B PPM	Al %	Na %	K %	W PPM	Hg PPM	Sc PPM	Tl PPM	S %	Ga PPM	Se PPM
L-42E 8850N	<20	2.83	0.002	0.05	0.2	0.04	4.3	<0.1	<0.05	12	<0.5
L-42E 8900N	<20	1.54	0.007	0.02	1	0.06	1.3	<0.1	<0.05	12	0.5
L-42E 8950N	<20	3.23	0.008	0.02	1.4	0.1	1.8	<0.1	<0.05	8	<0.5
L-42E 9000N	<20	1.66	0.008	0.02	1.4	0.04	1.4	<0.1	<0.05	9	<0.5
L-42E 9050N	<20	4.55	0.007	0.02	1	0.09	2.4	<0.1	<0.05	6	0.7
L-42E 9100N	<20	4.46	0.004	0.02	0.5	0.18	1.5	<0.1	0.14	3	1
L-42E 9150N	<20	5.21	0.009	0.02	0.5	0.13	2.7	<0.1	<0.05	15	0.7
L-42E 9200N	<20	1.68	0.01	0.04	2.2	0.04	1.6	<0.1	<0.05	7	0.6
L-44E 8200N	<20	6.49	0.011	0.04	0.5	0.17	2.6	<0.1	0.05	9	0.8
L-44E 8250N	<20	3.18	0.01	0.06	1.7	0.08	1.4	<0.1	<0.05	6	<0.5
L-44E 8300N	<20	2.94	0.009	0.05	0.6	0.09	1.5	<0.1	<0.05	9	<0.5
L-44E 8350N	<20	2.47	0.009	0.03	0.6	0.06	1.9	<0.1	<0.05	9	<0.5
L-44E 8400N	<20	2.01	0.01	0.03	0.4	0.06	1.4	<0.1	<0.05	10	<0.5
L-44E 8450N	<20	1.85	0.007	0.04	0.7	0.08	1.4	<0.1	<0.05	9	<0.5
L-44E 8500N	<20	1.45	0.009	0.03	0.3	0.09	0.9	<0.1	0.06	6	<0.5
L-44E 8550N	<20	1.89	0.012	0.05	1.8	0.06	1.7	<0.1	<0.05	7	<0.5
L-44E 8600N	<20	4.17	0.016	0.04	0.6	0.12	1.7	<0.1	0.08	6	0.5
L-44E 8650N	<20	2.21	0.013	0.07	2.9	0.05	2.1	<0.1	<0.05	7	<0.5
L-44E 8700N	<20	2.19	0.018	0.1	1.4	0.04	1.9	<0.1	<0.05	5	<0.5
L-44E 8750N	<20	1.42	0.009	0.07	0.7	0.06	1.4	<0.1	<0.05	7	<0.5
L-44E 8800N	<20	1.55	0.008	0.04	0.3	0.04	1.4	<0.1	<0.05	9	<0.5
L-44E 8850N	<20	1.84	0.008	0.03	1	0.05	1.6	<0.1	<0.05	8	<0.5
L-44E 8900N	<20	2.17	0.013	0.05	5.1	0.06	1.8	<0.1	<0.05	7	<0.5
L-44E 8950N	<20	2.04	0.01	0.03	5.2	0.07	1.8	<0.1	<0.05	7	<0.5
L-44E 9000N	<20	2.31	0.007	0.03	1.7	0.1	1.7	<0.1	<0.05	8	<0.5
L-44E 9050N	<20	6.09	0.007	0.02	0.6	0.17	2.7	<0.1	0.1	9	0.8
L-44E 9100N	<20	1.74	0.01	0.03	1	0.1	1.1	<0.1	0.08	7	<0.5
L-44E 9150N	<20	0.91	0.007	0.03	1.6	0.04	0.9	<0.1	0.06	5	<0.5
L-44E 9200N	<20	2.48	0.008	0.04	1	0.07	2	<0.1	0.05	6	0.6
L-46E 8200N	<20	3.19	0.006	0.06	1.2	0.1	1.1	<0.1	0.08	6	0.6
L-46E 8250N	<20	4.39	0.001	0.14	0.2	0.15	2.3	<0.1	0.08	10	<0.5
L-46E 8300N	<20	2.28	0.009	0.06	0.3	0.09	0.9	<0.1	0.08	6	<0.5
L-46E 8350N	<20	3.86	0.001	0.04	0.9	0.15	2	<0.1	0.08	12	0.8

Sample	B PPM	Al %	Na %	K %	W PPM	Hg PPM	Sc PPM	Tl PPM	S %	Ga PPM	Se PPM
L-46E 8400N	<20	2.67	0.004	0.08	0.5	0.08	1.2	<0.1	0.08	9	0.5
L-46E 8450N	<20	2.74	0.005	0.05	1	0.12	1.6	<0.1	0.07	7	0.7
L-46E 8500N	<20	4.19	0.004	0.05	0.3	0.16	1.7	<0.1	0.06	7	0.9
L-46E 8550N	<20	2.54	0.007	0.05	1.8	0.07	1.2	<0.1	0.05	8	<0.5
L-46E 8600N	<20	1.17	0.005	0.03	3	0.07	0.5	<0.1	<0.05	6	<0.5
L-46E 8650N	<20	1.34	0.005	0.03	2.1	0.06	1	<0.1	<0.05	8	<0.5
L-46E 8700N	<20	2.15	0.008	0.06	1.3	0.08	1.5	<0.1	0.06	7	<0.5
L-46E 8750N	<20	2.07	0.006	0.05	1.3	0.06	1.3	<0.1	0.06	7	<0.5
L-46E 8800N	<20	1.64	0.007	0.06	2.6	0.05	1.5	<0.1	0.05	7	0.5
L-46E 8850N	<20	3.84	0.006	0.06	1	0.19	2	<0.1	0.07	8	0.5
L-46E 8900N	<20	2.02	0.005	0.03	0.9	0.07	1.6	<0.1	<0.05	7	0.5
L-46E 8950N	<20	1.58	0.006	0.03	2.6	0.07	1.5	<0.1	<0.05	7	<0.5
L-46E 9000N	<20	2.18	0.007	0.04	1.2	0.06	2.2	<0.1	<0.05	9	<0.5
L-46E 9050N	<20	2.73	0.006	0.04	0.7	0.07	2.5	<0.1	<0.05	5	0.5
L-46E 9100N	<20	0.93	0.006	0.05	0.4	0.04	1.2	<0.1	<0.05	7	<0.5
L-46E 9150N	<20	1.82	0.015	0.08	0.5	0.03	2.4	<0.1	<0.05	6	<0.5
L-46E 9200N	<20	1.38	0.008	0.03	0.9	0.03	1	<0.1	<0.05	5	<0.5
L-48E 8200N	<20	1.76	0.01	0.05	1.4	0.05	1.5	<0.1	<0.05	8	0.7
L-48E 8250N	<20	1.96	0.007	0.05	0.9	0.1	0.9	<0.1	0.05	8	<0.5
L-48E 8300N	<20	2.42	0.01	0.05	0.4	0.09	1.1	<0.1	<0.05	8	<0.5
L-48E 8350N	<20	1.44	0.007	0.04	0.9	0.03	1.5	<0.1	<0.05	9	<0.5
L-48E 8400N	<20	1.88	0.008	0.04	2.1	0.06	1.1	<0.1	<0.05	7	<0.5
L-48E 8450N	<20	2.63	0.01	0.07	2.3	0.07	2	<0.1	<0.05	7	<0.5
L-48E 8500N	<20	2.15	0.012	0.06	1	0.07	1.4	<0.1	0.05	8	<0.5
L-48E 8550N	<20	1.75	0.007	0.05	0.6	0.07	1.5	<0.1	<0.05	8	<0.5
L-48E 8600N	<20	2.33	0.009	0.05	0.6	0.1	0.7	0.1	0.06	5	<0.5
L-48E 8650N	<20	2.58	0.01	0.07	1	0.07	1.3	<0.1	0.06	7	<0.5
L-48E 8700N	<20	1.87	0.008	0.04	0.7	0.09	1.2	<0.1	<0.05	7	0.6
L-48E 8750N	<20	2.27	0.009	0.06	0.4	0.13	1.3	<0.1	0.06	8	<0.5
L-48E 8800N	<20	2.12	0.006	0.06	0.4	0.11	1.4	<0.1	0.05	12	<0.5
L-48E 8850N	<20	1.75	0.009	0.05	0.4	0.1	1	<0.1	0.07	6	0.6
L-48E 8900N	<20	1.49	0.009	0.04	0.6	0.06	1.4	<0.1	<0.05	8	<0.5
L-48E 8950N	<20	2	0.008	0.05	0.3	0.08	1.9	<0.1	0.06	6	<0.5

Sample	B PPM	Al %	Na %	K %	W PPM	Hg PPM	Sc PPM	Tl PPM	S %	Ga PPM	Se PPM
L-48E 9000N	<20	2.5	0.01	0.08	0.2	0.09	2.1	<0.1	<0.05	7	0.6
L-48E 9050N	<20	1.31	0.016	0.05	0.3	0.02	3.1	<0.1	<0.05	4	<0.5
L-48E 9100N	<20	1.78	0.01	0.06	0.2	0.07	2.6	<0.1	0.06	5	<0.5
L-48E 9150N	<20	1.85	0.01	0.05	0.8	0.08	1.5	<0.1	0.06	5	0.6
L-48E 9200N	<20	1.71	0.008	0.05	0.2	0.06	1.8	<0.1	<0.05	5	0.5
L-50E 8200N	<20	1.71	0.008	0.05	3.1	0.04	1.1	<0.1	<0.05	7	<0.5
L-50E 8250N	<20	1.29	0.006	0.04	1.5	0.06	1.1	<0.1	<0.05	7	<0.5
L-50E 8300N	<20	1.96	0.007	0.05	0.4	0.07	1.3	<0.1	<0.05	7	0.5
L-50E 8350N	<20	2.63	0.016	0.08	0.6	0.1	1.3	<0.1	0.08	7	<0.5
L-50E 8400N	<20	3.35	0.014	0.08	0.9	0.07	2	<0.1	0.06	8	<0.5
L-50E 8450N	<20	2.02	0.014	0.06	0.6	0.06	1.2	<0.1	<0.05	6	<0.5
L-50E 8500N	<20	2.77	0.009	0.06	2.9	0.07	2.3	0.2	<0.05	9	0.6
L-50E 8550N	<20	1.58	0.007	0.05	0.5	0.08	1	<0.1	<0.05	8	<0.5
L-50E 8600N	<20	1.43	0.008	0.05	0.4	0.03	1.1	<0.1	<0.05	4	<0.5
L-50E 8650N	<20	2.2	0.009	0.07	0.4	0.07	1.7	<0.1	<0.05	8	<0.5
L-50E 8700N	<20	1.76	0.009	0.06	0.6	0.04	1.7	<0.1	<0.05	7	<0.5
L-50E 8750N	<20	2.41	0.013	0.08	0.5	0.07	1.5	<0.1	0.06	7	<0.5
L-50E 8800N	<20	1.47	0.009	0.04	0.5	0.06	1.3	<0.1	<0.05	6	<0.5
L-50E 8850N	<20	0.99	0.012	0.06	0.1	0.03	1	<0.1	<0.05	6	<0.5
L-50E 8900N	<20	1.82	0.011	0.08	0.2	0.05	2	<0.1	<0.05	7	<0.5
L-50E 8950N	<20	1.98	0.01	0.09	0.3	0.05	3.4	<0.1	<0.05	7	0.6
L-50E 9000N	<20	1.87	0.007	0.07	0.2	0.05	1.9	<0.1	<0.05	7	<0.5
L-50E 9050N	<20	1.52	0.009	0.05	0.1	0.09	1.9	<0.1	0.07	6	0.7
L-50E 9100N	<20	1.33	0.008	0.03	0.2	0.05	1.4	<0.1	<0.05	5	<0.5
L-50E 9150N	<20	1.88	0.015	0.06	0.4	0.04	3.7	<0.1	<0.05	4	0.7
L-50E 9200N	<20	1.71	0.01	0.05	0.2	0.04	2	<0.1	<0.05	7	<0.5

SiltSample09	easting	northing	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb
HPY09-DS-1	640021	5779085	13.28	44.82	6.24	66	116	23	27.9	6307	5.48	15.2	1.3	1.3
HPY09-DS-2	640562	5779585	3.55	46.61	5.84	44.6	101	30	17.4	1220	4.61	12.3	0.8	0.7
HPY09-DS-3	640928	5779802	1.26	74.12	7.1	51.7	246	42	19.7	755	3.27	13.4	1.6	1.6
HPY09-DS-4	641949	5780126	1.21	56.56	6.72	48.2	82	37	20.4	928	3.71	16.6	1	0.6
HPY09-DS-5	642279	5780158	2.33	54.34	7.12	58.1	84	35	22.5	3587	3.3	18.3	0.6	2.2
HPY09-DS-6	642396	5779793	3.6	78.31	8.27	69.4	80	41	19.3	852	3.69	16.1	0.6	4.6
HPY09-DS-7	642691	5779504	2.1	68.99	5.15	44.7	84	34	16	451	4.47	6.6	0.7	3.1
HPY09-DS-8	643398	5778832	2.14	37.26	4.28	34.4	51	23	11.2	548	2.81	3.9	0.5	2.2
HPY09-TRS-1	643559	5778550	2.98	66.21	6.18	47.5	135	28	13.8	536	4.05	5.2	0.5	5.7
HPY09-TRS-2	643541	5778125	2.94	88.49	6.55	82.9	127	19	19.1	1900	4.32	4.5	0.9	3
HPY09-TRS-3	645422	5774945	305.08	199.44	33.73	82.6	217	19	42.9	1623	5.05	2.6	1.8	1.9
HPY09-TRS-4	644893	5777909	127.69	104	11.05	97.8	145	22	32.4	1876	4.61	8.8	1.2	4.1
HPY09-TRS-5	647527	5771533	1.21	56.29	5.98	54.3	244	36	16.2	746	3.32	5.3	0.7	1.5
HPY09-TRS-6	646855	5771680	394.51	114.83	4.32	118.5	182	48	74	7655	3.47	12.7	5.9	2.9
HPY09-TRS-7	646794	5771689	6.17	11.63	2.44	23.1	62	9	5.5	474	1.57	7.6	2.2	0.7
HPY09-TRS-8	647050	5770650	368.61	132.82	7.78	122.1	351	60	61.2	6910	4.06	17.2	9.1	6
HPY09-TRS-9	647166	5770549	2.53	28.82	4.63	41.1	133	19	11.5	782	2.57	5.6	0.8	0.5
HPY09-TRS-10	647010	5770375	2.61	20.88	5.04	83.7	93	23	15	887	2.64	9.8	1	1.4
HPY09-BK S-1	644897	5776083	6.58	107.91	6.26	98.9	147	29	20.7	821	5.23	4.4	0.8	4.3
HPY09-BK S-2	643684	5779362	82.64	84.33	8.11	78.8	152	23	24.4	1281	4.33	8.9	1.1	1.2
HPY09-BK S-3	646966	5772587	1.65	72.15	6.44	51.5	311	19	16.6	978	3.36	3.8	0.6	4.8
HPY09-BK S-4	647003	5772490	1.06	63.35	5.75	48.2	331	16	14.2	602	2.92	2.8	0.6	1.8
HPY09-BK S-5	646776	5771222	3.12	40.53	5.82	72.5	85	37	21.6	1529	4.16	8.6	0.8	1.1
HPY09-BK S-6	646765	5771421	16.39	31.59	4.94	70	91	22	25.2	1647	4.38	15.1	1.4	0.5
HPY09-BK S-7	651269	5762155	34	46.34	4.62	58.3	130	33	16.6	1123	3.79	6.3	2.5	1.8
HPY09-BK S-8	648592	5773126	0.47	238.85	7.23	62.5	194	30	28.8	736	5.54	10.5	0.7	4

SiltSample09	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %
HPY09-DS-1	0.8	38.9	0.86	0.33	0.73	141	0.56	0.085	6.5	30	0.57	210.3	0.077	20	1.79
HPY09-DS-2	0.9	28.9	0.36	0.85	2.92	161	0.6	0.085	5.9	51.3	0.69	81.3	0.102	20	1.55
HPY09-DS-3	0.8	40	0.39	1.23	0.31	100	0.84	0.074	8.6	63.8	0.91	102.3	0.114	20	2.17
HPY09-DS-4	1	29.2	0.31	1.02	0.16	128	0.6	0.063	6.2	61.2	0.8	85	0.123	20	1.63
HPY09-DS-5	0.9	32.1	0.49	1.2	0.26	87	0.56	0.06	6.3	53.1	0.73	121.6	0.117	20	1.75
HPY09-DS-6	1.7	44.2	0.32	1.62	1.81	100	0.73	0.093	7.3	62.2	0.93	126.9	0.147	20	1.91
HPY09-DS-7	1.2	33.5	0.25	0.64	0.35	186	0.61	0.109	6.5	42.7	0.72	90.3	0.091	20	1.23
HPY09-DS-8	1.1	27.9	0.14	0.45	0.38	86	0.47	0.092	5.4	36.6	0.6	53.4	0.086	20	0.98
HPY09-TRS-1	0.6	42.5	0.38	0.41	0.43	160	0.44	0.075	5.6	41.8	0.59	76.2	0.086	20	1.5
HPY09-TRS-2	0.9	48.9	0.77	0.28	0.22	155	0.65	0.133	6.9	23.2	0.66	174.4	0.112	20	2.09
HPY09-TRS-3	1.6	59.2	0.69	0.43	4.22	129	0.62	0.104	7.1	24.4	0.76	159.1	0.113	20	1.97
HPY09-TRS-4	1.1	76.3	0.82	0.33	1.17	130	0.72	0.147	6.4	25	0.82	194.9	0.107	20	2.15
HPY09-TRS-5	0.4	51.2	0.62	0.4	0.1	133	0.68	0.114	10.8	58.1	0.68	108.9	0.077	20	1.76
HPY09-TRS-6	1	32.3	3.13	0.31	0.29	106	0.8	0.164	8.4	40	0.73	202.9	0.085	20	1.5
HPY09-TRS-7	0.2	40	0.16	0.18	0.04	54	0.65	0.111	4	52.8	0.31	42.5	0.046	20	0.63
HPY09-TRS-8	0.9	44.8	3.03	0.36	0.44	127	0.89	0.144	10.5	55.5	0.73	172.2	0.092	20	1.86
HPY09-TRS-9	0.3	44.4	0.38	0.19	0.07	83	0.6	0.072	7.2	45.3	0.46	72.9	0.069	20	1.22
HPY09-TRS-10	0.5	45.5	0.25	0.22	0.1	90	0.59	0.095	8.1	50	0.5	90.2	0.083	20	1.35
HPY09-BK S-1	1.2	82	1.16	0.27	0.87	202	0.81	0.171	8.3	32.1	0.82	218.4	0.12	20	2.17
HPY09-BK S-2	1	59.8	0.67	0.35	1.01	145	0.67	0.123	6.8	33.2	0.69	147.7	0.097	20	1.77
HPY09-BK S-3	0.2	49.1	0.58	0.23	0.1	121	0.52	0.093	6.8	27.1	0.46	97.2	0.08	20	1.69
HPY09-BK S-4	0.2	53.2	0.43	0.24	0.09	123	0.62	0.114	7.5	26.5	0.51	94.1	0.083	20	1.56
HPY09-BK S-5	1.3	43.5	0.38	0.24	0.19	135	0.59	0.105	9.9	51.7	0.75	137.4	0.127	20	1.82
HPY09-BK S-6	0.6	42.3	0.54	0.24	0.16	153	0.6	0.123	6.7	36.8	0.62	97.8	0.086	20	1.5
HPY09-BK S-7	1.6	39.3	0.45	0.24	0.28	139	0.73	0.106	11.7	40.9	0.65	118.8	0.098	20	1.35
HPY09-BK S-8	0.7	95.5	0.73	0.3	0.18	253	0.72	0.145	6.4	37.6	1.07	329.3	0.115	20	4.12



SiltSample09	Na %	K %	W ppm	Sc ppm	Tl ppm	S %	Hg ppm	Se ppm	Te ppm	Ga ppm	Cs ppm	Ge ppm	Hf ppm	Nb ppm	Rb ppm
HPY09-DS-1	0.014	0.05	5.4	2.5	0.16	0.02	31	0.4	0.06	4.7	1.38	0.1	0.02	0.45	6.8
HPY09-DS-2	0.014	0.06	2.6	2.9	0.08	0.02	23	0.2	0.04	4.9	1.19	0.1	0.02	0.53	6.9
HPY09-DS-3	0.014	0.07	0.8	4.4	0.06	0.03	45	0.3	0.02	5.2	1.79	0.1	0.04	0.9	8.5
HPY09-DS-4	0.014	0.06	0.3	3.4	0.03	0.02	17	0.2	0.03	5.1	0.75	0.1	0.03	0.69	6.7
HPY09-DS-5	0.013	0.06	0.5	3.4	0.07	0.02	26	0.4	0.02	4.7	0.91	0.1	0.02	0.57	6.7
HPY09-DS-6	0.029	0.12	1.8	5	0.11	0.02	22	0.2	0.09	5.5	1.57	0.1	0.08	0.38	13
HPY09-DS-7	0.02	0.08	4.7	2.7	0.03	0.02	10	0.3	0.05	4	1.03	0.1	0.02	0.31	7.8
HPY09-DS-8	0.015	0.05	7.5	1.9	0.04	0.02	11	0.1	0.02	3.3	1.04	0.1	0.02	0.4	5.7
HPY09-TRS-1	0.013	0.06	12.6	2.2	0.03	0.02	19	0.4	0.02	4.4	1.11	0.1	0.02	0.55	6.2
HPY09-TRS-2	0.017	0.11	0.6	2.5	0.08	0.03	35	0.3	0.04	5	1.64	0.1	0.02	0.53	9.7
HPY09-TRS-3	0.02	0.24	47.8	3.8	0.48	0.05	29	1.1	0.11	6.1	5	0.1	0.02	0.53	34.4
HPY09-TRS-4	0.027	0.19	17.9	3.2	0.26	0.03	20	0.8	0.1	5.6	4.06	0.1	0.02	0.39	19.3
HPY09-TRS-5	0.013	0.09	0.2	3.7	0.04	0.04	40	0.5	0.02	4.7	0.81	0.1	0.02	0.46	7.4
HPY09-TRS-6	0.023	0.09	9.5	2.9	0.48	0.03	16	1	0.02	4.9	2.43	0.1	0.02	0.27	10
HPY09-TRS-7	0.012	0.03	3.3	1.3	0.02	0.06	33	1.3	0.02	2.2	0.48	0.1	0.02	0.34	2.8
HPY09-TRS-8	0.024	0.09	8.3	3	0.53	0.05	34	1.3	0.03	4.8	2.61	0.1	0.02	0.6	11.1
HPY09-TRS-9	0.011	0.04	0.1	2.3	0.03	0.03	30	0.6	0.02	3.7	0.65	0.1	0.02	0.65	4.7
HPY09-TRS-10	0.014	0.05	1	2.4	0.05	0.03	30	0.6	0.02	4.2	0.75	0.1	0.02	0.88	6.5
HPY09-BK S-1	0.027	0.28	2	3.2	0.15	0.02	19	0.4	0.11	6.5	3.67	0.1	0.02	0.41	21.4
HPY09-BK S-2	0.018	0.13	24.1	3	0.19	0.03	27	0.6	0.06	5.1	2.98	0.1	0.02	0.43	14.9
HPY09-BK S-3	0.011	0.08	0.3	2.9	0.02	0.05	47	0.4	0.02	5	1.14	0.1	0.02	0.45	6.6
HPY09-BK S-4	0.012	0.09	0.1	3.1	0.02	0.04	41	0.2	0.02	4.9	1.08	0.1	0.02	0.36	6.2
HPY09-BK S-5	0.023	0.09	1.1	3.3	0.08	0.02	23	0.5	0.02	5.3	1.25	0.1	0.02	0.72	9.1
HPY09-BK S-6	0.015	0.06	1.9	2.4	0.09	0.02	23	0.5	0.02	4.5	1.78	0.1	0.02	0.4	5.4
HPY09-BK S-7	0.017	0.08	0.9	3.3	0.07	0.03	36	0.9	0.02	4.2	1.19	0.1	0.03	0.77	7.5
HPY09-BK S-8	0.016	0.17	0.1	5	0.02	0.02	19	0.3	0.02	8.9	1.17	0.1	0.02	0.2	11.9

SiltSample09	Sn ppm	Ta ppm	Zr ppm	Y ppm	Ce ppm	In ppm	Re ppb	Be ppm	Li ppm	Pd ppb	Pt ppb
HPY09-DS-1	0.2	0.05	0.6	5.35	15	0.02	1	0.4	11.2	10	2
HPY09-DS-2	0.7	0.05	1	4.69	10.2	0.02	1	0.2	9.6	10	2
HPY09-DS-3	0.3	0.05	1.4	7.08	13.5	0.03	1	0.2	12	10	2
HPY09-DS-4	0.7	0.05	1.3	4.95	12.7	0.02	1	0.3	9.7	10	2
HPY09-DS-5	0.2	0.05	1	4.71	12.3	0.02	1	0.2	10.5	10	2
HPY09-DS-6	0.8	0.05	3.3	5.63	13.6	0.02	2	0.3	13.1	10	2
HPY09-DS-7	0.2	0.05	0.9	5.48	12.1	0.02	1	0.2	7.7	10	2
HPY09-DS-8	1.1	0.05	0.6	4.12	9.7	0.02	1	0.1	8.6	10	2
HPY09-TRS-1	0.2	0.05	0.6	4.37	9.6	0.02	1	0.1	8.2	10	2
HPY09-TRS-2	1.6	0.05	0.5	7.33	15.5	0.02	1	0.5	13.8	10	2
HPY09-TRS-3	0.5	0.05	0.6	7.29	13.3	0.02	11	0.6	26.4	22	2
HPY09-TRS-4	1.1	0.05	0.4	7.07	13.2	0.02	4	0.4	20.8	10	2
HPY09-TRS-5	0.3	0.05	0.7	12.87	11.2	0.02	1	0.4	10	10	2
HPY09-TRS-6	1.2	0.05	0.5	8.79	15.6	0.02	7	0.3	16	36	2
HPY09-TRS-7	0.2	0.05	0.4	3.64	7.3	0.02	4	0.1	4.9	10	2
HPY09-TRS-8	2.5	0.05	0.7	8.45	20.5	0.02	9	0.5	18.2	14	2
HPY09-TRS-9	0.3	0.05	0.6	6.99	10.5	0.02	1	0.3	10	10	2
HPY09-TRS-10	0.4	0.05	0.8	4.5	15.3	0.02	1	0.2	10.2	10	2
HPY09-BK S-1	0.3	0.05	0.8	8.67	16.8	0.02	1	0.3	13.1	10	2
HPY09-BK S-2	0.4	0.05	0.5	6.52	13.6	0.02	3	0.4	16.1	10	2
HPY09-BK S-3	0.2	0.05	0.5	9.9	12.4	0.02	1	0.3	9.2	10	2
HPY09-BK S-4	0.2	0.05	0.4	11.53	12.7	0.02	1	0.2	9.2	10	2
HPY09-BK S-5	0.5	0.05	1.3	5.78	19.9	0.02	1	0.4	11.6	10	2
HPY09-BK S-6	0.4	0.05	0.6	5.9	14.3	0.02	1	0.2	10.5	10	2
HPY09-BK S-7	0.4	0.05	0.9	6.59	19.7	0.02	2	0.2	11.1	10	2
HPY09-BK S-8	0.4	0.05	0.7	8.99	14.2	0.02	1	0.4	9.5	10	2

Rock	easting	Northing	Mo (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Ni (ppm)	Co (ppm)	Mn (ppm)	Fe (%)	As (ppm)	U (ppm)	Au (ppb)	Th (ppm)
708712	643942	5777516	0.1	21	1.4	43	0.1	2.3	10.1	552	2.66	1.8	0.2	0.5	0.7
708713	642485	5779145	0.1	99	1.1	45	0.1	13.5	14.7	315	3.37	1	0.2	3.2	0.3
708655	646785	5771223	0.6	6.7	4.8	28	0.1	42.8	16.4	972	3.38	22.2	0.1	1.7	0.3

Rock	Sr (ppm)	Cd (ppm)	Sb (ppm)	Bi (ppm)	V (ppm)	Ca (%)	P (%)	La (ppm)	Cr (ppm)	Mg (ppm)	Ba (ppm)	Ti (%)	B (ppm)	Al (%)	Na (%)	K (%)
708712	39	0.1	0.1	0.1	64	0.9	0.099	3	4	0.91	135	0.091	20	1.68	0.069	0.12
708713	70	0.1	0.1	0.1	197	1.44	0.144	3	27	0.93	213	0.119	20	1.82	0.133	0.14
708655	98	0.2	11.6	0.1	54	6.67	0.032	2	27	2.26	55	0.002	20	0.17	0.002	0.13

Rock	W (ppm)	Hg (ppm)	Sc (ppm)	Tl (ppm)	S (%)	Ga (ppm)	Se (ppm)
708712	0.1	0.04	2.2	0.1	0.05	5	0.5
708713	0.1	0.07	2.3	0.1	0.05	5	0.5
708655	0.6	0.02	8.5	0.1	0.05	1	0.5

**2009 Silverboss Assessment Report**

**Appendix C**

**Acme Lab Certificates for Soil, Silt and Rock Geochemical Samples**



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

Acme Analytical Laboratories (Vancouver) Ltd.

[www.acmelab.com](http://www.acmelab.com)

**Client:** Happy Creek Minerals Ltd.

Suite 2300 - 1066 W. Hastings St.  
Vancouver BC V6E 3X2 Canada

Submitted By: David Blann  
Receiving Lab: Canada-Vancouver  
Received: September 29, 2009  
Report Date: October 09, 2009  
Page: 1 of 6

## CERTIFICATE OF ANALYSIS

VAN09004529.1

### CLIENT JOB INFORMATION

Project: Silverboss  
Shipment ID:  
P.O. Number  
Number of Samples: 125

### SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days  
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.

Invoice To: Happy Creek Minerals Ltd.  
Suite 2300 - 1066 W. Hastings St.  
Vancouver BC V6E 3X2  
Canada

CC: Paul Reynolds

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
SS80	125	Dry at 60C sieve 100g to -80 mesh			VAN
Dry at 60C	125	Dry at 60C			VAN
1DX	125	1:1:1 Aqua Regia digestion ICP-MS analysis	0.5	Completed	VAN

### ADDITIONAL COMMENTS



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.  
\*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



Acme Analytical Laboratories (Vancouver) Ltd.  
 1020 Cordova St. East Vancouver BC V6A 4A3 Canada  
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Client: **Happy Creek Minerals Ltd.**  
 Suite 2300 - 1066 W. Hastings St.  
 Vancouver BC V6E 3X2 Canada

Project: Silverboss  
 Report Date: October 09, 2009

Page: 2 of 6 Part 1

# CERTIFICATE OF ANALYSIS

VAN09004529.1

Method Analyte Unit MDL	WGHT	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX
	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	0.01	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	
L-40E 82+50N	Soil		1.9	105.9	6.0	59	1.0	13.5	9.4	286	2.69	2.8	1.3	3.5	0.2	73	0.5	0.2	0.2	111	0.64
L-40E 82N	Soil		3.7	244.4	8.0	40	1.0	14.0	9.4	395	2.88	2.7	1.8	3.2	<0.1	47	0.7	0.2	0.4	97	0.33
L-40E 83+50N	Soil		2.5	50.1	8.3	60	0.2	9.9	9.1	415	3.87	3.2	0.6	1.2	0.2	37	0.4	0.3	0.3	121	0.39
L-40E 83N	Soil		1.5	139.5	4.9	69	0.3	14.4	13.9	553	5.03	4.6	0.8	2.6	0.3	73	0.4	0.3	0.2	182	0.66
L-40E 84+50N	Soil		2.7	194.5	26.2	89	0.9	17.0	20.0	1237	4.55	11.4	2.2	3.8	0.4	58	1.6	0.3	0.7	140	0.58
L-40E 84N	Soil		2.0	80.9	5.5	40	0.5	13.2	11.3	316	4.28	3.9	0.9	2.1	0.2	35	0.4	0.3	0.4	159	0.39
L-40E 85+50N	Soil		2.0	33.6	7.6	41	0.2	10.2	6.8	197	4.51	4.5	0.5	2.0	0.8	16	0.4	0.3	0.2	143	0.19
L-40E 85N	Soil		3.7	61.9	7.3	43	0.3	12.8	9.8	369	3.20	3.3	0.7	4.1	0.1	23	0.7	0.2	1.3	108	0.21
L-40E 86+50N	Soil		2.1	75.4	6.2	61	0.2	16.7	12.6	742	3.75	4.6	1.1	7.0	0.3	41	0.4	0.3	0.3	121	0.49
L-40E 86N	Soil		1.2	80.2	4.3	41	0.2	14.4	11.3	387	3.45	4.1	0.7	4.8	0.6	37	0.3	0.4	0.1	118	0.42
L-40E 87+50N	Soil		1.3	29.2	6.1	34	0.1	6.2	5.1	135	1.79	3.1	0.1	1.3	0.3	20	0.1	0.3	0.2	89	0.28
L-40E 87N	Soil		1.3	32.3	7.8	28	<0.1	8.5	6.0	122	3.39	2.6	0.2	7.0	0.8	11	<0.1	0.2	0.3	137	0.11
L-40E 88+50N	Soil		1.2	106.0	9.6	16	0.5	6.0	4.3	119	1.24	1.1	0.6	1.0	<0.1	26	0.4	<0.1	0.4	42	0.21
L-40E 88N	Soil		2.1	74.7	5.5	37	0.1	14.4	7.5	177	3.15	4.2	0.4	2.4	0.5	18	0.3	0.3	0.3	92	0.27
L-40E 89+50N	Soil		1.3	21.6	7.6	24	<0.1	6.0	3.8	102	1.84	1.9	0.3	13.4	0.2	10	0.2	0.2	0.2	80	0.12
L-40E 89N	Soil		2.7	45.7	8.9	55	0.2	13.2	9.0	274	4.56	4.6	0.5	1.1	0.6	33	0.5	0.3	0.4	132	0.38
L-40E 90+50E	Soil		0.9	83.5	6.5	21	0.1	3.7	4.1	469	1.08	0.9	0.5	0.9	<0.1	38	0.3	0.1	0.3	46	0.31
L-40E 90N	Soil		0.3	21.9	5.7	13	<0.1	2.5	2.1	46	0.75	<0.5	0.1	<0.5	<0.1	11	0.1	<0.1	<0.1	32	0.10
L-40E 91+50N	Soil		0.9	27.4	7.1	24	0.1	6.2	4.5	141	2.17	1.3	0.2	1.0	0.1	14	0.2	0.2	0.2	93	0.09
L-40E 92N	Soil		0.5	14.1	4.5	14	<0.1	2.9	2.3	53	0.95	0.5	0.1	<0.5	<0.1	11	<0.1	<0.1	0.1	44	0.08
L-42E 8200N	Soil		2.2	100.5	7.9	70	0.5	14.9	11.4	803	3.05	3.2	1.2	6.0	0.1	68	0.7	0.3	0.4	102	0.63
L-42E 8250N	Soil		3.1	125.9	7.1	74	0.9	14.5	12.3	1447	3.72	2.9	1.3	2.8	0.1	83	0.7	0.2	0.4	119	0.61
L-42E 8300N	Soil		2.6	125.9	3.6	64	0.7	10.0	13.7	936	4.38	3.1	0.7	0.7	0.2	338	0.4	0.1	0.2	153	0.51
L-42E 8350N	Soil		2.6	147.3	6.3	45	0.5	11.7	15.0	709	3.61	2.4	1.2	2.2	0.1	85	0.5	0.2	0.3	115	0.37
L-42E 8400N	Soil		3.7	110.9	8.2	70	0.6	18.5	17.6	878	4.89	3.9	1.1	1.7	0.2	52	0.5	0.1	0.4	180	0.41
L-42E 8450N	Soil		2.1	107.2	4.5	41	0.5	13.5	8.7	293	3.15	2.9	1.0	2.7	0.2	33	0.4	0.2	0.3	99	0.32
L-42E 8500N	Soil		3.4	102.5	7.4	49	0.2	13.3	9.4	281	3.26	3.0	1.2	1.0	0.1	24	0.4	0.1	0.4	138	0.22
L-42E 8550N	Soil		2.9	60.4	4.8	37	0.5	10.7	10.0	442	2.62	2.0	0.9	1.1	<0.1	31	0.3	0.1	0.3	97	0.31
L-42E 8600N	Soil		1.5	68.4	4.9	42	0.5	9.2	7.8	242	2.59	2.9	0.8	2.1	0.1	26	0.3	0.2	0.2	80	0.29
L-42E 8650N	Soil		2.2	38.5	5.0	36	0.2	7.6	6.8	231	4.04	3.4	0.5	1.0	0.3	10	0.3	0.2	0.2	115	0.13





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**Project:** Silverboss  
**Report Date:** October 09, 2009

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# CERTIFICATE OF ANALYSIS

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Method	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	
Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	
Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	
MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	
L-40E 82+50N	Soil	0.217	8	18	0.49	148	0.049	<20	2.75	0.016	0.06	3.7	0.12	1.7	<0.1	0.06	7	<0.5
L-40E 82N	Soil	0.114	10	23	0.46	107	0.048	<20	3.10	0.017	0.05	0.4	0.10	1.3	<0.1	<0.05	8	<0.5
L-40E 83+50N	Soil	0.094	5	18	0.37	142	0.089	<20	1.43	0.010	0.05	0.4	0.04	1.4	<0.1	<0.05	9	<0.5
L-40E 83N	Soil	0.194	7	20	0.67	208	0.096	<20	2.10	0.013	0.10	0.3	0.04	2.4	<0.1	<0.05	8	<0.5
L-40E 84+50N	Soil	0.195	9	27	0.38	159	0.050	<20	4.87	0.012	0.05	0.6	0.11	2.8	<0.1	0.06	7	0.5
L-40E 84N	Soil	0.114	6	21	0.42	81	0.068	<20	1.94	0.011	0.04	0.5	0.05	1.7	<0.1	<0.05	7	<0.5
L-40E 85+50N	Soil	0.058	3	20	0.29	67	0.129	<20	1.95	0.007	0.04	0.4	0.07	2.2	<0.1	<0.05	9	<0.5
L-40E 85N	Soil	0.078	5	20	0.41	92	0.063	<20	1.99	0.009	0.04	0.9	0.07	1.1	<0.1	<0.05	8	<0.5
L-40E 86+50N	Soil	0.116	7	23	0.54	131	0.089	<20	2.24	0.011	0.05	0.5	0.06	2.3	<0.1	<0.05	6	<0.5
L-40E 86N	Soil	0.194	7	20	0.49	141	0.083	<20	2.49	0.011	0.08	0.3	0.05	2.4	<0.1	<0.05	5	<0.5
L-40E 87+50N	Soil	0.043	2	9	0.26	72	0.063	<20	0.71	0.007	0.03	0.4	0.11	1.1	<0.1	<0.05	5	<0.5
L-40E 87N	Soil	0.031	3	15	0.27	40	0.123	<20	1.32	0.008	0.03	0.1	0.03	1.4	<0.1	<0.05	11	<0.5
L-40E 88+50N	Soil	0.043	8	15	0.09	46	0.050	<20	1.43	0.010	0.02	0.2	0.05	0.7	<0.1	<0.05	7	<0.5
L-40E 88N	Soil	0.059	4	22	0.35	68	0.087	<20	2.36	0.009	0.03	0.9	0.11	1.8	<0.1	0.06	7	<0.5
L-40E 89+50N	Soil	0.033	3	14	0.17	45	0.084	<20	0.65	0.008	0.04	0.1	0.03	1.2	<0.1	<0.05	7	<0.5
L-40E 89N	Soil	0.053	5	24	0.34	112	0.149	<20	1.38	0.010	0.06	0.6	0.06	2.0	<0.1	<0.05	11	<0.5
L-40E 90+50E	Soil	0.052	7	11	0.11	50	0.032	<20	0.84	0.007	0.02	<0.1	0.04	0.6	<0.1	<0.05	5	<0.5
L-40E 90N	Soil	0.022	2	5	0.04	60	0.017	<20	0.26	0.012	0.02	<0.1	0.02	0.4	<0.1	<0.05	2	<0.5
L-40E 91+50N	Soil	0.041	4	13	0.11	69	0.059	<20	0.80	0.007	0.03	<0.1	0.06	0.9	<0.1	<0.05	7	<0.5
L-40E 92N	Soil	0.023	3	7	0.06	54	0.031	<20	0.41	0.008	0.02	<0.1	0.03	0.5	<0.1	<0.05	3	<0.5
L-42E 8200N	Soil	0.149	7	21	0.57	163	0.069	<20	2.95	0.013	0.09	0.4	0.11	1.8	<0.1	0.08	7	<0.5
L-42E 8250N	Soil	0.168	9	20	0.51	184	0.047	<20	3.45	0.013	0.06	0.4	0.17	2.2	<0.1	0.11	8	<0.5
L-42E 8300N	Soil	0.149	6	13	0.79	614	0.066	<20	3.27	0.016	0.12	0.2	0.08	2.6	<0.1	<0.05	8	<0.5
L-42E 8350N	Soil	0.132	8	16	0.44	183	0.055	<20	2.65	0.010	0.07	0.3	0.10	1.8	<0.1	<0.05	8	<0.5
L-42E 8400N	Soil	0.079	6	23	0.57	140	0.062	<20	3.28	0.007	0.07	0.5	0.07	1.9	<0.1	0.06	10	<0.5
L-42E 8450N	Soil	0.057	5	19	0.48	69	0.073	<20	1.97	0.007	0.05	0.3	0.06	1.5	<0.1	<0.05	7	<0.5
L-42E 8500N	Soil	0.072	5	21	0.46	102	0.055	<20	2.71	0.006	0.05	0.6	0.09	1.5	<0.1	0.05	8	<0.5
L-42E 8550N	Soil	0.086	5	15	0.41	82	0.038	<20	1.89	0.007	0.04	1.3	0.08	0.9	<0.1	0.06	6	<0.5
L-42E 8600N	Soil	0.045	5	16	0.39	42	0.062	<20	1.88	0.008	0.03	0.5	0.06	1.4	<0.1	<0.05	7	<0.5
L-42E 8650N	Soil	0.107	3	18	0.29	67	0.076	<20	2.68	0.004	0.02	0.5	0.10	1.8	<0.1	0.05	9	0.9



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CERTIFICATE OF ANALYSIS

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Method Analyte Unit MDL	WGHT Wgt kg 0.01	1DX Mo ppm 0.1	1DX Cu ppm 0.1	1DX Pb ppm 0.1	1DX Zn ppm 1	1DX Ag ppm 0.1	1DX Ni ppm 0.1	1DX Co ppm 0.1	1DX Mn ppm 1	1DX Fe % 0.01	1DX As ppm 0.5	1DX U ppm 0.1	1DX Au ppb 0.5	1DX Th ppm 0.1	1DX Sr ppm 1	1DX Cd ppm 0.1	1DX Sb ppm 0.1	1DX Bi ppm 0.1	1DX V ppm 2	1DX Ca % 0.01	
L-42E 8700N	Soil		1.9	51.6	4.9	50	0.1	11.6	8.5	435	3.04	4.5	0.6	4.0	0.2	27	0.3	0.3	0.2	105	0.33
L-42E 8750N	Soil		1.5	130.6	6.4	117	0.5	12.3	17.5	331	4.76	3.6	0.4	7.2	0.6	16	0.6	0.9	0.2	139	0.17
L-42E 8800N	Soil		1.7	137.5	5.8	62	0.2	16.6	15.3	212	6.04	4.5	0.3	2.0	0.8	11	0.3	0.3	0.2	195	0.17
L-42E 8850N	Soil		1.5	113.7	4.6	76	0.2	34.6	20.8	470	6.61	6.2	0.2	5.7	0.5	11	0.1	1.2	0.1	212	0.16
L-42E 8900N	Soil		1.3	49.3	6.8	35	0.2	8.8	4.8	107	2.97	1.9	0.3	7.1	0.3	15	0.3	0.2	0.3	108	0.18
L-42E 8950N	Soil		2.2	71.6	5.6	41	0.3	13.0	8.3	202	3.37	3.6	0.4	1.4	1.0	13	0.2	0.3	0.4	105	0.16
L-42E 9000N	Soil		3.4	24.3	7.9	30	0.1	10.3	6.0	152	3.20	3.7	0.3	<0.5	0.5	12	0.1	0.3	0.6	110	0.18
L-42E 9050N	Soil		2.7	64.2	4.2	52	<0.1	17.3	9.6	216	3.16	3.8	0.5	0.7	1.0	14	0.4	0.2	0.3	76	0.18
L-42E 9100N	Soil		1.4	133.6	5.7	25	0.6	7.5	9.9	878	1.14	3.6	1.1	1.6	0.2	62	1.0	0.3	0.2	34	0.82
L-42E 9150N	Soil		1.9	70.8	6.2	46	0.5	11.2	7.3	127	3.88	3.8	0.4	4.3	0.6	38	0.7	0.2	0.2	99	0.41
L-42E 9200N	Soil		6.2	33.3	6.0	45	0.1	18.2	7.5	216	3.20	5.3	0.5	1.4	0.4	20	0.3	0.3	0.7	82	0.32
L-44E 8200N	Soil		1.2	205.7	2.9	21	0.7	11.6	14.9	135	3.04	1.8	0.4	<0.5	0.3	160	0.2	<0.1	0.1	92	0.40
L-44E 8250N	Soil		1.9	127.8	5.3	36	0.2	15.8	10.7	246	3.24	3.1	0.6	2.0	0.2	196	0.2	0.2	0.3	106	0.39
L-44E 8300N	Soil		4.2	84.8	7.1	42	0.4	13.8	14.4	494	4.43	2.7	1.1	2.5	0.1	43	0.2	0.1	0.3	143	0.29
L-44E 8350N	Soil		2.7	88.4	6.2	42	0.2	12.3	9.3	475	3.54	2.3	0.6	5.6	0.3	25	0.2	0.2	0.3	147	0.22
L-44E 8400N	Soil		4.0	60.3	7.7	31	0.2	9.2	18.4	1630	4.73	3.0	0.6	2.4	0.2	29	0.3	0.1	0.4	149	0.24
L-44E 8450N	Soil		1.8	32.3	4.7	40	0.3	9.2	6.8	227	3.92	2.7	0.4	0.9	0.2	17	0.3	0.2	0.3	123	0.23
L-44E 8500N	Soil		1.4	41.8	6.0	24	0.4	6.2	5.1	179	1.44	1.0	0.5	1.2	<0.1	20	0.2	0.2	0.2	65	0.18
L-44E 8550N	Soil		3.6	47.5	5.0	49	0.2	16.7	8.9	362	3.25	2.9	0.6	2.0	0.3	32	0.4	0.2	0.7	91	0.33
L-44E 8600N	Soil		1.4	103.0	5.5	49	0.6	13.5	12.2	352	2.24	3.1	1.1	2.0	0.1	77	0.6	0.2	0.2	71	0.50
L-44E 8650N	Soil		6.0	56.6	6.0	50	0.3	21.7	9.9	341	3.32	4.4	0.8	1.5	0.3	35	0.3	0.3	1.0	96	0.34
L-44E 8700N	Soil		2.9	77.2	5.5	47	0.2	21.7	13.1	374	3.13	5.1	0.6	2.7	0.9	26	0.3	0.4	0.3	103	0.32
L-44E 8750N	Soil		2.0	54.7	7.8	39	0.1	12.5	9.7	498	2.67	2.8	0.4	2.6	0.5	20	0.2	0.3	0.3	100	0.37
L-44E 8800N	Soil		1.2	23.3	7.2	41	<0.1	10.0	7.4	168	3.30	2.7	0.3	1.2	0.7	11	0.2	0.2	0.2	109	0.18
L-44E 8850N	Soil		2.1	20.4	6.1	25	0.2	9.6	5.5	105	2.98	3.0	0.3	<0.5	0.7	17	0.2	0.3	0.3	103	0.21
L-44E 8900N	Soil		8.9	52.8	6.5	41	0.2	21.6	9.1	214	3.16	5.3	0.5	<0.5	0.5	18	0.2	0.5	1.0	78	0.25
L-44E 8950N	Soil		6.1	24.2	6.7	34	0.3	15.7	6.5	140	3.22	4.6	0.4	1.2	0.6	17	0.2	0.3	0.6	85	0.24
L-44E 9000N	Soil		3.1	27.0	6.2	49	0.3	11.0	5.0	173	3.39	3.8	0.4	2.1	0.6	17	0.2	0.3	0.4	88	0.23
L-44E 9050N	Soil		2.3	92.7	5.3	42	0.3	11.3	7.6	181	2.87	3.4	0.5	4.0	0.7	22	0.6	0.2	0.2	68	0.32
L-44E 9100N	Soil		1.9	88.4	9.7	28	0.8	6.3	7.0	169	2.17	3.1	0.9	<0.5	0.1	51	1.0	0.2	0.2	57	0.70

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.



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Method	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	
Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	
Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	
MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	
L-42E 8700N	Soil	0.068	3	20	0.45	119	0.064	<20	1.51	0.008	0.04	0.7	0.07	1.2	<0.1	<0.05	5	<0.5
L-42E 8750N	Soil	0.083	2	14	0.78	62	0.120	<20	3.80	0.007	0.03	0.4	0.11	2.4	<0.1	<0.05	18	<0.5
L-42E 8800N	Soil	0.041	2	25	0.70	61	0.177	<20	2.45	0.004	0.03	0.3	0.06	1.7	<0.1	<0.05	15	<0.5
L-42E 8850N	Soil	0.039	2	25	1.45	76	0.083	<20	2.83	0.002	0.05	0.2	0.04	4.3	<0.1	<0.05	12	<0.5
L-42E 8900N	Soil	0.053	2	16	0.20	60	0.075	<20	1.54	0.007	0.02	1.0	0.06	1.3	<0.1	<0.05	12	0.5
L-42E 8950N	Soil	0.060	3	23	0.37	44	0.086	<20	3.23	0.008	0.02	1.4	0.10	1.8	<0.1	<0.05	8	<0.5
L-42E 9000N	Soil	0.038	3	23	0.28	75	0.110	<20	1.66	0.008	0.02	1.4	0.04	1.4	<0.1	<0.05	9	<0.5
L-42E 9050N	Soil	0.079	3	27	0.37	76	0.080	<20	4.55	0.007	0.02	1.0	0.09	2.4	<0.1	<0.05	6	0.7
L-42E 9100N	Soil	0.127	12	13	0.16	42	0.028	<20	4.46	0.004	0.02	0.5	0.18	1.5	<0.1	0.14	3	1.0
L-42E 9150N	Soil	0.127	2	20	0.29	81	0.088	<20	5.21	0.009	0.02	0.5	0.13	2.7	<0.1	<0.05	15	0.7
L-42E 9200N	Soil	0.053	3	33	0.45	88	0.093	<20	1.68	0.010	0.04	2.2	0.04	1.6	<0.1	<0.05	7	0.6
L-44E 8200N	Soil	0.082	3	10	0.52	137	0.040	<20	6.49	0.011	0.04	0.5	0.17	2.6	<0.1	0.05	9	0.8
L-44E 8250N	Soil	0.094	4	18	0.58	145	0.043	<20	3.18	0.010	0.06	1.7	0.08	1.4	<0.1	<0.05	6	<0.5
L-44E 8300N	Soil	0.080	6	21	0.50	123	0.050	<20	2.94	0.009	0.05	0.6	0.09	1.5	<0.1	<0.05	9	<0.5
L-44E 8350N	Soil	0.044	5	21	0.48	69	0.075	<20	2.47	0.009	0.03	0.6	0.06	1.9	<0.1	<0.05	9	<0.5
L-44E 8400N	Soil	0.038	4	15	0.31	79	0.094	<20	2.01	0.010	0.03	0.4	0.06	1.4	<0.1	<0.05	10	<0.5
L-44E 8450N	Soil	0.074	4	19	0.30	87	0.090	<20	1.85	0.007	0.04	0.7	0.08	1.4	<0.1	<0.05	9	<0.5
L-44E 8500N	Soil	0.043	4	12	0.19	61	0.051	<20	1.45	0.009	0.03	0.3	0.09	0.9	<0.1	0.06	6	<0.5
L-44E 8550N	Soil	0.051	5	26	0.53	79	0.088	<20	1.89	0.012	0.05	1.8	0.06	1.7	<0.1	<0.05	7	<0.5
L-44E 8600N	Soil	0.129	9	19	0.54	124	0.040	<20	4.17	0.016	0.04	0.6	0.12	1.7	<0.1	0.08	6	0.5
L-44E 8650N	Soil	0.058	5	36	0.64	85	0.094	<20	2.21	0.013	0.07	2.9	0.05	2.1	<0.1	<0.05	7	<0.5
L-44E 8700N	Soil	0.099	5	26	0.60	133	0.092	<20	2.19	0.018	0.10	1.4	0.04	1.9	<0.1	<0.05	5	<0.5
L-44E 8750N	Soil	0.070	4	20	0.39	106	0.098	<20	1.42	0.009	0.07	0.7	0.06	1.4	<0.1	<0.05	7	<0.5
L-44E 8800N	Soil	0.058	2	19	0.36	67	0.124	<20	1.55	0.008	0.04	0.3	0.04	1.4	<0.1	<0.05	9	<0.5
L-44E 8850N	Soil	0.046	3	22	0.25	68	0.090	<20	1.84	0.008	0.03	1.0	0.05	1.6	<0.1	<0.05	8	<0.5
L-44E 8900N	Soil	0.103	4	37	0.49	94	0.088	<20	2.17	0.013	0.05	5.1	0.06	1.8	<0.1	<0.05	7	<0.5
L-44E 8950N	Soil	0.066	3	34	0.35	87	0.101	<20	2.04	0.010	0.03	5.2	0.07	1.8	<0.1	<0.05	7	<0.5
L-44E 9000N	Soil	0.071	3	29	0.27	84	0.085	<20	2.31	0.007	0.03	1.7	0.10	1.7	<0.1	<0.05	8	<0.5
L-44E 9050N	Soil	0.111	3	20	0.24	88	0.062	<20	6.09	0.007	0.02	0.6	0.17	2.7	<0.1	0.10	9	0.8
L-44E 9100N	Soil	0.068	7	14	0.19	59	0.044	<20	1.74	0.010	0.03	1.0	0.10	1.1	<0.1	0.08	7	<0.5

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Project: Silverboss  
 Report Date: October 09, 2009

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CERTIFICATE OF ANALYSIS

VAN09004529.1

Method Analyte	WGHT	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	
Unit	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
MDL	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	
	0.01	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	
L-44E 9150N	Soil		2.5	20.6	5.7	35	0.3	12.8	4.6	156	1.26	2.2	0.3	4.4	0.1	19	0.3	0.2	0.4	45	0.31
L-44E 9200N	Soil		2.4	44.5	6.0	53	0.2	24.9	9.7	199	3.35	7.5	0.5	2.4	0.5	23	0.4	0.5	0.3	81	0.34
L-46E 8200N	Soil		3.0	216.1	6.7	43	0.3	16.2	12.7	206	2.89	3.0	0.4	1.8	0.2	99	0.3	0.2	0.4	85	0.22
L-46E 8250N	Soil		1.3	288.3	2.9	48	0.4	35.4	19.8	738	4.70	3.4	0.4	6.5	0.2	188	0.3	0.2	0.1	129	0.32
L-46E 8300N	Soil		1.7	72.1	4.9	55	0.3	11.7	13.2	972	3.41	2.3	0.7	4.1	<0.1	111	0.3	0.2	0.3	122	0.54
L-46E 8350N	Soil		2.1	84.9	5.1	44	0.4	11.7	9.5	125	4.05	2.8	0.5	1.7	0.3	47	0.3	0.2	0.2	96	0.20
L-46E 8400N	Soil		1.9	102.5	4.4	64	0.6	13.4	13.9	320	3.95	3.4	0.6	<0.5	0.1	168	0.5	0.3	0.2	103	0.44
L-46E 8450N	Soil		2.6	71.0	5.7	42	0.3	12.5	9.1	271	3.82	3.6	0.7	1.9	0.3	39	0.4	0.2	0.3	113	0.23
L-46E 8500N	Soil		1.7	76.8	3.4	48	0.2	11.4	9.1	302	3.93	4.6	0.7	4.1	0.4	11	0.2	0.2	<0.1	110	0.27
L-46E 8550N	Soil		8.3	67.7	6.0	63	0.6	21.5	13.7	496	3.77	3.4	0.5	2.2	0.2	32	0.3	0.2	0.8	125	0.27
L-46E 8600N	Soil		5.0	25.5	7.5	22	0.3	6.3	2.6	89	1.41	1.7	0.5	7.0	<0.1	12	0.3	0.2	1.0	50	0.13
L-46E 8650N	Soil		3.2	30.1	7.6	42	0.4	12.4	5.0	185	2.61	3.4	0.4	19.1	0.2	21	0.5	0.2	1.0	78	0.24
L-46E 8700N	Soil		3.1	76.4	6.6	55	0.3	18.9	13.1	736	3.72	5.1	0.8	2.1	0.2	47	0.4	0.3	0.8	121	0.45
L-46E 8750N	Soil		2.7	65.0	6.6	58	0.3	19.0	11.7	624	3.30	4.8	0.7	2.4	0.1	49	0.3	0.3	0.7	94	0.53
L-46E 8800N	Soil		14.2	52.5	6.4	52	0.3	22.5	13.1	430	3.58	5.6	0.6	2.4	0.2	41	0.4	0.4	0.5	104	0.36
L-46E 8850N	Soil		4.3	60.0	6.9	32	0.3	13.3	8.2	233	4.77	5.6	0.9	3.1	0.5	37	0.7	0.3	0.4	145	0.35
L-46E 8900N	Soil		1.8	30.2	6.0	37	0.2	14.8	7.3	145	3.26	4.3	0.4	1.1	0.5	11	0.2	0.3	0.3	96	0.17
L-46E 8950N	Soil		3.4	19.3	7.2	40	0.3	14.8	5.6	128	3.08	5.5	0.4	1.4	0.5	12	0.3	0.4	0.6	79	0.18
L-46E 9000N	Soil		2.4	34.8	8.9	57	0.4	30.6	11.8	207	4.01	8.8	0.6	0.6	0.6	31	0.2	0.4	0.4	98	0.36
L-46E 9050N	Soil		1.7	25.7	7.4	43	0.5	38.9	12.4	141	3.21	8.5	0.4	2.2	1.2	12	0.3	0.5	0.2	83	0.17
L-46E 9100N	Soil		2.1	14.4	9.3	62	0.3	13.0	6.4	248	3.68	5.6	0.2	1.2	0.3	18	0.3	0.4	0.4	139	0.30
L-46E 9150N	Soil		0.7	42.6	12.6	90	0.1	35.3	14.5	370	2.53	3.3	0.5	3.9	0.6	33	0.5	0.4	0.4	84	0.44
L-46E 9200N	Soil		2.0	32.0	6.3	53	0.2	18.0	11.3	320	2.05	3.9	0.5	1.7	0.1	26	0.3	0.3	0.3	60	0.29
L-48E 8200N	Soil		3.8	49.4	8.8	40	0.2	16.1	9.1	258	3.58	3.8	0.5	1.3	0.2	43	0.3	0.3	0.6	113	0.40
L-48E 8250N	Soil		3.3	47.6	8.6	42	0.3	11.5	9.1	273	3.88	5.0	0.6	1.6	<0.1	45	0.6	0.6	0.3	96	0.27
L-48E 8300N	Soil		1.9	100.0	13.2	54	0.8	17.5	15.2	412	3.40	19.1	1.1	2.0	0.1	140	0.9	0.3	0.4	130	0.70
L-48E 8350N	Soil		4.3	29.9	8.7	46	0.2	27.5	6.9	172	2.97	4.8	0.4	1.7	0.2	33	0.3	0.4	0.8	82	0.29
L-48E 8400N	Soil		3.3	42.7	6.6	44	0.4	25.5	7.8	266	2.64	5.6	0.5	1.3	0.2	24	0.4	0.4	0.4	66	0.25
L-48E 8450N	Soil		6.3	85.8	8.2	66	0.4	46.4	11.5	337	3.29	8.7	0.6	2.6	0.5	49	0.2	0.4	0.8	79	0.41
L-48E 8500N	Soil		3.8	93.5	8.7	74	0.6	29.2	10.7	349	3.00	5.3	0.9	3.1	0.2	45	0.7	0.4	0.7	73	0.34

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 Report Date: October 09, 2009

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# CERTIFICATE OF ANALYSIS

VAN09004529.1

Method	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	
Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	
Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	
MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	
L-44E 9150N	Soil	0.033	3	26	0.36	53	0.070	<20	0.91	0.007	0.03	1.6	0.04	0.9	<0.1	0.06	5	<0.5
L-44E 9200N	Soil	0.077	4	37	0.54	150	0.068	<20	2.48	0.008	0.04	1.0	0.07	2.0	<0.1	0.05	6	0.6
L-46E 8200N	Soil	0.060	2	16	0.55	204	0.048	<20	3.19	0.006	0.06	1.2	0.10	1.1	<0.1	0.08	6	0.6
L-46E 8250N	Soil	0.095	1	18	0.99	341	0.039	<20	4.39	0.001	0.14	0.2	0.15	2.3	<0.1	0.08	10	<0.5
L-46E 8300N	Soil	0.136	5	15	0.54	177	0.034	<20	2.28	0.009	0.06	0.3	0.09	0.9	<0.1	0.08	6	<0.5
L-46E 8350N	Soil	0.071	3	16	0.25	94	0.066	<20	3.86	0.001	0.04	0.9	0.15	2.0	<0.1	0.08	12	0.8
L-46E 8400N	Soil	0.072	3	15	0.58	150	0.051	<20	2.67	0.004	0.08	0.5	0.08	1.2	<0.1	0.08	9	0.5
L-46E 8450N	Soil	0.066	3	18	0.45	166	0.073	<20	2.74	0.005	0.05	1.0	0.12	1.6	<0.1	0.07	7	0.7
L-46E 8500N	Soil	0.285	5	18	0.45	104	0.046	<20	4.19	0.004	0.05	0.3	0.16	1.7	<0.1	0.06	7	0.9
L-46E 8550N	Soil	0.063	4	27	0.64	122	0.061	<20	2.54	0.007	0.05	1.8	0.07	1.2	<0.1	0.05	8	<0.5
L-46E 8600N	Soil	0.031	3	16	0.15	63	0.067	<20	1.17	0.005	0.03	3.0	0.07	0.5	<0.1	<0.05	6	<0.5
L-46E 8650N	Soil	0.027	3	29	0.26	84	0.101	<20	1.34	0.005	0.03	2.1	0.06	1.0	<0.1	<0.05	8	<0.5
L-46E 8700N	Soil	0.076	6	29	0.50	126	0.054	<20	2.15	0.008	0.06	1.3	0.08	1.5	<0.1	0.06	7	<0.5
L-46E 8750N	Soil	0.065	5	31	0.48	133	0.058	<20	2.07	0.006	0.05	1.3	0.06	1.3	<0.1	0.06	7	<0.5
L-46E 8800N	Soil	0.066	5	35	0.50	142	0.070	<20	1.64	0.007	0.06	2.6	0.05	1.5	<0.1	0.05	7	0.5
L-46E 8850N	Soil	0.075	5	26	0.37	128	0.075	<20	3.84	0.006	0.06	1.0	0.19	2.0	<0.1	0.07	8	0.5
L-46E 8900N	Soil	0.123	3	29	0.31	61	0.072	<20	2.02	0.005	0.03	0.9	0.07	1.6	<0.1	<0.05	7	0.5
L-46E 8950N	Soil	0.138	3	37	0.30	70	0.078	<20	1.58	0.006	0.03	2.6	0.07	1.5	<0.1	<0.05	7	<0.5
L-46E 9000N	Soil	0.101	8	48	0.55	116	0.094	<20	2.18	0.007	0.04	1.2	0.06	2.2	<0.1	<0.05	9	<0.5
L-46E 9050N	Soil	0.088	4	50	0.53	69	0.081	<20	2.73	0.006	0.04	0.7	0.07	2.5	<0.1	<0.05	5	0.5
L-46E 9100N	Soil	0.077	2	33	0.26	88	0.081	<20	0.93	0.006	0.05	0.4	0.04	1.2	<0.1	<0.05	7	<0.5
L-46E 9150N	Soil	0.043	5	57	0.96	97	0.115	<20	1.82	0.015	0.08	0.5	0.03	2.4	<0.1	<0.05	6	<0.5
L-46E 9200N	Soil	0.046	5	32	0.48	52	0.060	<20	1.38	0.008	0.03	0.9	0.03	1.0	<0.1	<0.05	5	<0.5
L-48E 8200N	Soil	0.040	3	24	0.49	141	0.089	<20	1.76	0.010	0.05	1.4	0.05	1.5	<0.1	<0.05	8	0.7
L-48E 8250N	Soil	0.121	3	25	0.28	189	0.050	<20	1.96	0.007	0.05	0.9	0.10	0.9	<0.1	0.05	8	<0.5
L-48E 8300N	Soil	0.062	6	32	0.38	109	0.055	<20	2.42	0.010	0.05	0.4	0.09	1.1	<0.1	<0.05	8	<0.5
L-48E 8350N	Soil	0.037	4	65	0.59	51	0.120	<20	1.44	0.007	0.04	0.9	0.03	1.5	<0.1	<0.05	9	<0.5
L-48E 8400N	Soil	0.063	4	44	0.50	58	0.075	<20	1.88	0.008	0.04	2.1	0.06	1.1	<0.1	<0.05	7	<0.5
L-48E 8450N	Soil	0.081	5	59	0.77	133	0.073	<20	2.63	0.010	0.07	2.3	0.07	2.0	<0.1	<0.05	7	<0.5
L-48E 8500N	Soil	0.063	5	45	0.62	83	0.073	<20	2.15	0.012	0.06	1.0	0.07	1.4	<0.1	0.05	8	<0.5

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CERTIFICATE OF ANALYSIS

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Method Analyte	WGHT	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX
Unit	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
MDL	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	
	0.01	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	
L-48E 8550N	Soil		2.2	56.0	9.6	48	0.6	15.5	6.9	208	2.98	4.1	0.5	1.2	0.2	42	0.5	0.3	0.4	94	0.32
L-48E 8600N	Soil		2.1	81.6	6.5	36	1.0	17.1	7.8	327	1.94	2.6	1.1	1.3	<0.1	55	0.3	0.2	0.3	55	0.25
L-48E 8650N	Soil		2.2	85.0	8.2	54	0.5	15.1	11.0	545	3.34	3.0	0.8	4.3	<0.1	86	0.3	0.3	0.3	116	0.47
L-48E 8700N	Soil		2.3	22.9	6.4	47	0.3	13.2	5.6	332	3.02	4.6	0.5	1.7	0.1	14	0.4	0.4	0.3	75	0.16
L-48E 8750N	Soil		1.9	35.3	7.2	44	0.4	11.3	9.3	566	3.91	3.7	0.5	1.1	0.2	21	0.2	0.3	0.3	118	0.30
L-48E 8800N	Soil		1.7	34.9	7.3	63	0.7	11.5	7.0	190	4.29	3.9	0.4	5.2	0.2	22	0.6	0.3	0.3	124	0.32
L-48E 8850N	Soil		2.0	39.9	7.6	47	0.7	11.5	6.8	596	3.21	3.8	0.4	0.7	0.1	23	0.3	0.3	0.2	117	0.31
L-48E 8900N	Soil		2.0	31.1	7.8	61	0.4	12.8	9.3	1076	4.03	3.6	0.3	1.2	0.3	16	0.1	0.3	0.3	149	0.21
L-48E 8950N	Soil		1.2	28.4	6.8	52	0.4	29.2	9.5	278	3.02	7.9	0.5	0.8	0.5	18	0.4	0.8	0.1	77	0.27
L-48E 9000N	Soil		1.4	30.0	6.5	65	0.2	42.4	13.4	302	3.44	10.1	0.4	4.8	0.5	17	0.4	1.0	<0.1	74	0.25
L-48E 9050N	Soil		0.6	28.3	8.9	50	0.1	31.9	9.7	213	1.83	2.8	0.4	1.7	1.2	33	0.2	0.7	0.2	59	0.43
L-48E 9100N	Soil		1.4	26.8	11.2	64	0.2	35.5	15.3	612	2.64	7.4	0.6	1.0	0.4	43	0.6	0.6	0.2	79	0.48
L-48E 9150N	Soil		2.0	44.4	8.0	48	0.2	24.0	11.9	693	2.86	7.2	0.7	1.9	0.2	49	0.5	0.5	0.2	87	0.55
L-48E 9200N	Soil		1.3	29.7	9.5	45	0.2	37.2	11.1	281	2.81	8.7	0.5	2.2	0.4	16	0.2	1.0	0.1	71	0.22
L-50E 8200N	Soil		5.1	56.3	7.4	48	0.7	16.7	7.9	276	2.92	3.1	0.5	1.7	0.2	27	0.4	0.3	0.5	88	0.18
L-50E 8250N	Soil		4.4	26.8	7.9	53	0.4	15.0	8.5	530	3.11	4.9	0.4	2.7	0.2	21	0.3	0.4	0.6	81	0.19
L-50E 8300N	Soil		2.5	28.2	6.6	50	0.6	16.3	12.4	1109	3.40	5.0	0.5	0.6	0.1	20	0.4	0.5	0.2	102	0.20
L-50E 8350N	Soil		2.8	78.0	6.1	67	0.4	17.4	16.6	918	3.83	3.7	0.9	3.3	<0.1	96	0.4	0.2	0.4	145	0.60
L-50E 8400N	Soil		3.1	142.5	17.6	74	0.9	45.4	17.2	445	2.89	8.7	2.2	4.0	0.3	67	1.2	0.3	1.2	96	0.64
L-50E 8450N	Soil		1.1	48.7	10.1	61	0.3	25.1	11.4	337	1.85	3.1	0.8	2.3	<0.1	50	0.5	0.2	0.6	53	0.47
L-50E 8500N	Soil		18.7	100.3	12.7	81	1.1	41.9	57.7	7040	6.69	14.4	1.4	5.4	0.4	53	1.6	0.3	1.0	154	0.43
L-50E 8550N	Soil		3.4	30.7	7.4	46	0.3	15.7	5.7	180	2.76	5.2	0.6	1.3	0.1	21	0.6	0.5	0.3	76	0.19
L-50E 8600N	Soil		1.6	54.8	6.0	33	0.3	14.0	9.2	299	2.88	4.3	0.5	45.2	<0.1	56	0.3	0.3	0.3	109	0.36
L-50E 8650N	Soil		1.8	47.5	6.6	58	0.5	10.9	8.7	330	4.37	3.8	0.4	0.8	0.2	43	0.5	0.3	0.2	150	0.40
L-50E 8700N	Soil		2.1	61.3	11.8	64	0.3	23.2	9.6	325	2.54	4.7	0.7	2.7	0.2	38	0.6	0.6	0.4	90	0.34
L-50E 8750N	Soil		2.1	81.9	6.7	56	0.3	16.8	13.0	774	3.40	3.1	0.8	3.8	0.1	89	0.4	0.3	0.3	123	0.57
L-50E 8800N	Soil		2.1	29.5	10.7	56	0.2	21.5	7.9	218	3.44	6.8	0.4	0.7	0.2	23	0.5	0.5	0.3	92	0.27
L-50E 8850N	Soil		1.2	25.0	9.8	44	0.3	16.7	5.2	167	1.67	4.3	0.4	0.8	0.1	23	0.4	0.5	0.2	49	0.24
L-50E 8900N	Soil		2.1	37.8	10.7	65	0.8	36.0	17.0	501	2.89	8.4	0.6	1.3	0.2	40	0.7	0.8	0.2	67	0.45
L-50E 8950N	Soil		1.4	56.8	9.6	75	0.3	52.1	15.6	363	2.64	6.8	0.9	1.9	0.5	43	0.9	0.7	0.2	65	0.44

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Project: Silverboss  
 Report Date: October 09, 2009

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CERTIFICATE OF ANALYSIS

VAN09004529.1

Method	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	
Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	
Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	
MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	
L-48E 8550N	Soil	0.046	5	34	0.30	79	0.101	<20	1.75	0.007	0.05	0.6	0.07	1.5	<0.1	<0.05	8	<0.5
L-48E 8600N	Soil	0.115	11	21	0.40	117	0.021	<20	2.33	0.009	0.05	0.6	0.10	0.7	0.1	0.06	5	<0.5
L-48E 8650N	Soil	0.123	6	13	0.58	173	0.046	<20	2.58	0.010	0.07	1.0	0.07	1.3	<0.1	0.06	7	<0.5
L-48E 8700N	Soil	0.052	4	37	0.27	64	0.079	<20	1.87	0.008	0.04	0.7	0.09	1.2	<0.1	<0.05	7	0.6
L-48E 8750N	Soil	0.357	3	22	0.37	188	0.053	<20	2.27	0.009	0.06	0.4	0.13	1.3	<0.1	0.06	8	<0.5
L-48E 8800N	Soil	0.143	3	23	0.32	108	0.089	<20	2.12	0.006	0.06	0.4	0.11	1.4	<0.1	0.05	12	<0.5
L-48E 8850N	Soil	0.154	3	21	0.24	118	0.044	<20	1.75	0.009	0.05	0.4	0.10	1.0	<0.1	0.07	6	0.6
L-48E 8900N	Soil	0.085	3	26	0.33	120	0.070	<20	1.49	0.009	0.04	0.6	0.06	1.4	<0.1	<0.05	8	<0.5
L-48E 8950N	Soil	0.083	6	52	0.60	71	0.094	<20	2.00	0.008	0.05	0.3	0.08	1.9	<0.1	0.06	6	<0.5
L-48E 9000N	Soil	0.094	5	85	0.92	96	0.099	<20	2.50	0.010	0.08	0.2	0.09	2.1	<0.1	<0.05	7	0.6
L-48E 9050N	Soil	0.055	6	58	0.74	71	0.090	<20	1.31	0.016	0.05	0.3	0.02	3.1	<0.1	<0.05	4	<0.5
L-48E 9100N	Soil	0.066	7	59	0.66	126	0.074	<20	1.78	0.010	0.06	0.2	0.07	2.6	<0.1	0.06	5	<0.5
L-48E 9150N	Soil	0.093	7	35	0.54	115	0.052	<20	1.85	0.010	0.05	0.8	0.08	1.5	<0.1	0.06	5	0.6
L-48E 9200N	Soil	0.075	5	56	0.65	68	0.074	<20	1.71	0.008	0.05	0.2	0.06	1.8	<0.1	<0.05	5	0.5
L-50E 8200N	Soil	0.042	4	29	0.47	83	0.076	<20	1.71	0.008	0.05	3.1	0.04	1.1	<0.1	<0.05	7	<0.5
L-50E 8250N	Soil	0.076	3	34	0.32	80	0.085	<20	1.29	0.006	0.04	1.5	0.06	1.1	<0.1	<0.05	7	<0.5
L-50E 8300N	Soil	0.089	4	33	0.30	93	0.073	<20	1.96	0.007	0.05	0.4	0.07	1.3	<0.1	<0.05	7	0.5
L-50E 8350N	Soil	0.126	6	25	0.58	184	0.045	<20	2.63	0.016	0.08	0.6	0.10	1.3	<0.1	0.08	7	<0.5
L-50E 8400N	Soil	0.111	9	56	0.80	143	0.059	<20	3.35	0.014	0.08	0.9	0.07	2.0	<0.1	0.06	8	<0.5
L-50E 8450N	Soil	0.065	6	37	0.63	106	0.055	<20	2.02	0.014	0.06	0.6	0.06	1.2	<0.1	<0.05	6	<0.5
L-50E 8500N	Soil	0.069	7	52	0.60	172	0.113	<20	2.77	0.009	0.06	2.9	0.07	2.3	0.2	<0.05	9	0.6
L-50E 8550N	Soil	0.052	5	31	0.31	92	0.082	<20	1.58	0.007	0.05	0.5	0.08	1.0	<0.1	<0.05	8	<0.5
L-50E 8600N	Soil	0.078	5	26	0.38	90	0.039	<20	1.43	0.008	0.05	0.4	0.03	1.1	<0.1	<0.05	4	<0.5
L-50E 8650N	Soil	0.078	3	23	0.34	239	0.071	<20	2.20	0.009	0.07	0.4	0.07	1.7	<0.1	<0.05	8	<0.5
L-50E 8700N	Soil	0.056	6	44	0.60	90	0.079	<20	1.76	0.009	0.06	0.6	0.04	1.7	<0.1	<0.05	7	<0.5
L-50E 8750N	Soil	0.117	6	17	0.59	170	0.051	<20	2.41	0.013	0.08	0.5	0.07	1.5	<0.1	0.06	7	<0.5
L-50E 8800N	Soil	0.053	4	44	0.42	83	0.073	<20	1.47	0.009	0.04	0.5	0.06	1.3	<0.1	<0.05	6	<0.5
L-50E 8850N	Soil	0.035	6	43	0.29	89	0.085	<20	0.99	0.012	0.06	0.1	0.03	1.0	<0.1	<0.05	6	<0.5
L-50E 8900N	Soil	0.079	8	65	0.66	100	0.077	<20	1.82	0.011	0.08	0.2	0.05	2.0	<0.1	<0.05	7	<0.5
L-50E 8950N	Soil	0.047	11	80	0.90	105	0.103	<20	1.98	0.010	0.09	0.3	0.05	3.4	<0.1	<0.05	7	0.6

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**Project:** Silverboss  
**Report Date:** October 09, 2009

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**CERTIFICATE OF ANALYSIS**

**VAN09004529.1**

Method	WGHT	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca
Unit	kg	ppm	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	0.1	0.5	0.1	1	0.1	0.1	0.1	2	0.01
L-50E 9000N	Soil	1.9	26.8	13.9	63	0.3	31.9	11.2	343	2.47	7.3	0.6	1.4	0.2	18	0.3	0.5	0.2	78	0.25
L-50E 9050N	Soil	4.9	24.8	12.6	67	0.4	29.5	22.0	2461	3.20	14.7	0.6	1.2	0.2	46	0.6	0.7	0.2	125	0.51
L-50E 9100N	Soil	1.3	19.6	5.7	66	0.2	22.9	8.3	294	2.40	6.6	0.4	3.6	0.2	21	0.3	0.7	0.1	64	0.26
L-50E 9150N	Soil	1.7	39.8	8.6	44	0.2	53.7	15.1	359	2.58	15.5	1.6	2.5	1.1	26	0.2	1.2	0.1	63	0.37
L-50E 9200N	Soil	8.6	23.6	10.8	60	0.3	26.4	12.2	499	2.90	8.8	0.5	1.3	0.5	19	0.3	0.7	0.2	79	0.27





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# CERTIFICATE OF ANALYSIS

VAN09004529.1

Method	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	
Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	
Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	
MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	
L-50E 9000N	Soil	0.121	6	62	0.59	74	0.065	<20	1.87	0.007	0.07	0.2	0.05	1.9	<0.1	<0.05	7	<0.5
L-50E 9050N	Soil	0.116	8	62	0.57	107	0.058	<20	1.52	0.009	0.05	0.1	0.09	1.9	<0.1	0.07	6	0.7
L-50E 9100N	Soil	0.046	5	47	0.52	107	0.075	<20	1.33	0.008	0.03	0.2	0.05	1.4	<0.1	<0.05	5	<0.5
L-50E 9150N	Soil	0.044	10	75	0.77	97	0.093	<20	1.88	0.015	0.06	0.4	0.04	3.7	<0.1	<0.05	4	0.7
L-50E 9200N	Soil	0.043	6	55	0.59	80	0.113	<20	1.71	0.010	0.05	0.2	0.04	2.0	<0.1	<0.05	7	<0.5



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**Report Date:** October 09, 2009

**Page:** 1 of 1 **Part** 1

QUALITY CONTROL REPORT

VAN09004529.1

Method	WGHT	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca
Unit	kg	ppm	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	0.1	0.5	0.1	1	0.1	0.1	0.1	2	0.01
Pulp Duplicates																				
L-40E 90+50E	Soil	0.9	83.5	6.5	21	0.1	3.7	4.1	469	1.08	0.9	0.5	0.9	<0.1	38	0.3	0.1	0.3	46	0.31
REP L-40E 90+50E	QC	0.9	81.8	6.3	21	0.1	3.9	4.0	482	1.12	0.8	0.5	<0.5	<0.1	37	0.3	0.1	0.3	48	0.30
L-44E 8300N	Soil	4.2	84.8	7.1	42	0.4	13.8	14.4	494	4.43	2.7	1.1	2.5	0.1	43	0.2	0.1	0.3	143	0.29
REP L-44E 8300N	QC	4.0	82.4	7.4	40	0.3	13.3	13.7	453	4.17	2.7	1.0	3.9	0.1	43	0.2	0.2	0.4	138	0.29
L-48E 8500N	Soil	3.8	93.5	8.7	74	0.6	29.2	10.7	349	3.00	5.3	0.9	3.1	0.2	45	0.7	0.4	0.7	73	0.34
REP L-48E 8500N	QC	3.4	88.7	8.7	74	0.6	29.6	10.5	328	2.97	5.4	0.8	2.1	0.2	44	0.6	0.4	0.7	71	0.35
L-50E 8900N	Soil	2.1	37.8	10.7	65	0.8	36.0	17.0	501	2.89	8.4	0.6	1.3	0.2	40	0.7	0.8	0.2	67	0.45
REP L-50E 8900N	QC	2.1	35.8	11.2	62	0.7	35.0	16.4	484	2.78	7.9	0.6	1.5	0.2	40	0.6	0.7	0.2	67	0.43
Reference Materials																				
STD DS7	Standard	21.9	113.5	76.5	407	0.8	58.1	9.0	627	2.38	51.8	5.1	69.3	4.7	74	6.9	5.5	4.8	86	0.94
STD DS7	Standard	19.5	99.0	63.1	387	0.7	51.9	9.1	617	2.27	48.0	4.3	57.2	4.0	65	6.0	4.6	3.7	77	0.87
STD DS7	Standard	18.0	93.8	63.9	368	0.8	52.7	9.3	588	2.31	50.3	4.1	88.5	3.8	58	5.7	4.5	4.1	77	0.89
STD DS7	Standard	20.1	91.7	62.3	383	0.8	51.3	8.9	616	2.33	48.9	4.6	50.3	4.0	66	6.0	4.6	4.2	82	0.93
STD OREAS45PA	Standard	0.8	563.2	19.8	118	0.2	272.1	104.2	1043	15.97	5.0	1.2	43.2	6.6	15	0.1	0.1	0.2	186	0.22
STD OREAS45PA	Standard	0.9	558.0	17.1	108	0.2	275.7	99.0	1048	15.59	4.3	1.1	48.4	5.7	13	<0.1	0.2	0.1	196	0.22
STD OREAS45PA	Standard	1.1	558.5	16.6	107	0.3	261.4	98.8	989	15.13	4.3	1.0	43.5	5.6	11	<0.1	0.1	0.2	207	0.23
STD OREAS45PA	Standard	0.9	579.8	16.2	110	0.2	266.0	99.2	1033	15.28	4.3	1.0	37.2	5.5	13	<0.1	0.1	0.1	215	0.23
STD DS7 Expected		20.5	109	70.6	411	0.9	56	9.7	627	2.39	48.2	4.9	70	4.4	69	6.4	4.6	4.5	84	0.93
STD OREAS45PA Expected		0.9	600	19	119	0.3	281	104	1130	16.559	4.2	1.2	43	6	14	0.09	0.13	0.18	221	0.2411
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
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
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
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

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.



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 Suite 2300 - 1066 W. Hastings St.  
 Vancouver BC V6E 3X2 Canada

**Project:** Silverboss  
**Report Date:** October 09, 2009

**Page:** 1 of 1 Part 2

QUALITY CONTROL REPORT

VAN09004529.1

Method		1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	
Analyte		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	
MDL		0.001	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	
Pulp Duplicates																			
L-40E 90+50E	Soil	0.052	7	11	0.11	50	0.032	<20	0.84	0.007	0.02	<0.1	0.04	0.6	<0.1	<0.05	5	<0.5	
REP L-40E 90+50E	QC	0.052	8	10	0.11	49	0.032	<20	0.87	0.008	0.02	<0.1	0.04	0.6	<0.1	<0.05	4	<0.5	
L-44E 8300N	Soil	0.080	6	21	0.50	123	0.050	<20	2.94	0.009	0.05	0.6	0.09	1.5	<0.1	<0.05	9	<0.5	
REP L-44E 8300N	QC	0.084	5	21	0.50	117	0.047	<20	3.04	0.010	0.05	0.9	0.10	1.5	<0.1	0.07	9	0.8	
L-48E 8500N	Soil	0.063	5	45	0.62	83	0.073	<20	2.15	0.012	0.06	1.0	0.07	1.4	<0.1	0.05	8	<0.5	
REP L-48E 8500N	QC	0.064	5	44	0.66	83	0.072	<20	2.09	0.009	0.06	1.1	0.07	1.5	<0.1	0.05	8	<0.5	
L-50E 8900N	Soil	0.079	8	65	0.66	100	0.077	<20	1.82	0.011	0.08	0.2	0.05	2.0	<0.1	<0.05	7	<0.5	
REP L-50E 8900N	QC	0.075	8	65	0.64	101	0.075	<20	1.79	0.012	0.07	0.2	0.05	1.9	<0.1	<0.05	7	<0.5	
Reference Materials																			
STD DS7	Standard	0.080	13	198	1.03	426	0.130	27	0.99	0.096	0.48	3.6	0.18	2.9	4.0	0.18	5	3.5	
STD DS7	Standard	0.076	11	193	0.98	390	0.111	31	1.04	0.091	0.39	3.5	0.18	2.2	4.1	0.21	5	3.5	
STD DS7	Standard	0.071	10	203	0.94	396	0.097	27	0.92	0.089	0.43	3.3	0.17	2.0	4.2	0.21	4	3.3	
STD DS7	Standard	0.075	12	200	1.04	400	0.101	33	1.00	0.104	0.45	3.6	0.20	2.1	4.4	0.21	4	3.5	
STD OREAS45PA	Standard	0.035	16	729	0.10	192	0.134	<20	3.07	0.011	0.07	<0.1	0.02	42.9	<0.1	<0.05	16	0.7	
STD OREAS45PA	Standard	0.033	14	770	0.10	170	0.118	<20	3.05	0.010	0.07	<0.1	0.03	36.1	<0.1	<0.05	17	1.2	
STD OREAS45PA	Standard	0.031	13	822	0.08	166	0.103	<20	2.78	0.007	0.07	<0.1	0.03	34.2	<0.1	<0.05	15	0.7	
STD OREAS45PA	Standard	0.031	14	829	0.09	170	0.105	<20	2.96	0.009	0.07	<0.1	0.02	35.9	<0.1	<0.05	16	0.9	
STD DS7 Expected		0.08	12	179	1.05	370	0.124	39	0.959	0.089	0.44	3.4	0.2	2.5	4.2	0.19	5	3.5	
STD OREAS45PA Expected		0.034	16.2	873	0.095	187	0.124		3.34	0.011	0.0665	0.011	0.03	43	0.07	0.03	16.8	0.54	
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	



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**Client:** Happy Creek Minerals Ltd.

Suite 2300 - 1066 W. Hastings St.  
Vancouver BC V6E 3X2 Canada

Submitted By: David Blann

Receiving Lab: Canada-Vancouver

Received: September 29, 2009

Report Date: October 15, 2009

Page: 1 of 2

## CERTIFICATE OF ANALYSIS

VAN09004532.1

### CLIENT JOB INFORMATION

Project: Silverboss  
Shipment ID:  
P.O. Number  
Number of Samples: 26

### SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days  
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.

Invoice To: Happy Creek Minerals Ltd.  
Suite 2300 - 1066 W. Hastings St.  
Vancouver BC V6E 3X2  
Canada

CC: Paul Reynold

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
SS80	26	Dry at 60C sieve 100g to -80 mesh			VAN
Dry at 60C	26	Dry at 60C			VAN
1F04	26	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	0.5	Completed	VAN

### ADDITIONAL COMMENTS



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.

\*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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Project: Silverboss  
 Report Date: October 15, 2009

Page: 2 of 2 Part 1

CERTIFICATE OF ANALYSIS

VAN09004532.1

Method	Analyte	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	
		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	ppb	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL		0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	2	0.01	0.001
HPY09-DS-1	Silt	13.28	44.82	6.24	66.0	116	22.5	27.9	6307	5.48	15.2	1.3	1.3	0.8	38.9	0.86	0.33	0.73	141	0.56	0.085	
HPY09-DS-2	Silt	3.55	46.61	5.84	44.6	101	29.6	17.4	1220	4.61	12.3	0.8	0.7	0.9	28.9	0.36	0.85	2.92	161	0.60	0.085	
HPY09-DS-3	Silt	1.26	74.12	7.10	51.7	246	42.3	19.7	755	3.27	13.4	1.6	1.6	0.8	40.0	0.39	1.23	0.31	100	0.84	0.074	
HPY09-DS-4	Silt	1.21	56.56	6.72	48.2	82	37.0	20.4	928	3.71	16.6	1.0	0.6	1.0	29.2	0.31	1.02	0.16	128	0.60	0.063	
HPY09-DS-5	Silt	2.33	54.34	7.12	58.1	84	34.9	22.5	3587	3.30	18.3	0.6	2.2	0.9	32.1	0.49	1.20	0.26	87	0.56	0.060	
HPY09-DS-6	Silt	3.60	78.31	8.27	69.4	80	41.0	19.3	852	3.69	16.1	0.6	4.6	1.7	44.2	0.32	1.62	1.81	100	0.73	0.093	
HPY09-DS-7	Silt	2.10	68.99	5.15	44.7	84	34.4	16.0	451	4.47	6.6	0.7	3.1	1.2	33.5	0.25	0.64	0.35	186	0.61	0.109	
HPY09-DS-8	Silt	2.14	37.26	4.28	34.4	51	22.7	11.2	548	2.81	3.9	0.5	2.2	1.1	27.9	0.14	0.45	0.38	86	0.47	0.092	
HPY09-TRS-1	Silt	2.98	66.21	6.18	47.5	135	28.2	13.8	536	4.05	5.2	0.5	5.7	0.6	42.5	0.38	0.41	0.43	160	0.44	0.075	
HPY09-TRS-2	Silt	2.94	88.49	6.55	82.9	127	19.0	19.1	1900	4.32	4.5	0.9	3.0	0.9	48.9	0.77	0.28	0.22	155	0.65	0.133	
HPY09-TRS-3	Silt	305.1	199.4	33.73	82.6	217	19.4	42.9	1623	5.05	2.6	1.8	1.9	1.6	59.2	0.69	0.43	4.22	129	0.62	0.104	
HPY09-TRS-4	Silt	127.7	104.0	11.05	97.8	145	22.0	32.4	1876	4.61	8.8	1.2	4.1	1.1	76.3	0.82	0.33	1.17	130	0.72	0.147	
HPY09-TRS-5	Silt	1.21	56.29	5.98	54.3	244	36.4	16.2	746	3.32	5.3	0.7	1.5	0.4	51.2	0.62	0.40	0.10	133	0.68	0.114	
HPY09-TRS-6	Silt	394.5	114.8	4.32	118.5	182	47.7	74.0	7655	3.47	12.7	5.9	2.9	1.0	32.3	3.13	0.31	0.29	106	0.80	0.164	
HPY09-TRS-7	Silt	6.17	11.63	2.44	23.1	62	9.2	5.5	474	1.57	7.6	2.2	0.7	0.2	40.0	0.16	0.18	0.04	54	0.65	0.111	
HPY09-TRS-8	Silt	368.6	132.8	7.78	122.1	351	59.7	61.2	6910	4.06	17.2	9.1	6.0	0.9	44.8	3.03	0.36	0.44	127	0.89	0.144	
HPY09-TRS-9	Silt	2.53	28.82	4.63	41.1	133	18.9	11.5	782	2.57	5.6	0.8	0.5	0.3	44.4	0.38	0.19	0.07	83	0.60	0.072	
HPY09-TRS-10	Silt	2.61	20.88	5.04	83.7	93	23.2	15.0	887	2.64	9.8	1.0	1.4	0.5	45.5	0.25	0.22	0.10	90	0.59	0.095	
HPY09-BK S-1	Silt	6.58	107.9	6.26	98.9	147	28.6	20.7	821	5.23	4.4	0.8	4.3	1.2	82.0	1.16	0.27	0.87	202	0.81	0.171	
HPY09-BK S-2	Silt	82.64	84.33	8.11	78.8	152	22.9	24.4	1281	4.33	8.9	1.1	1.2	1.0	59.8	0.67	0.35	1.01	145	0.67	0.123	
HPY09-BK S-3	Silt	1.65	72.15	6.44	51.5	311	18.8	16.6	978	3.36	3.8	0.6	4.8	0.2	49.1	0.58	0.23	0.10	121	0.52	0.093	
HPY09-BK S-4	Silt	1.06	63.35	5.75	48.2	331	16.2	14.2	602	2.92	2.8	0.6	1.8	0.2	53.2	0.43	0.24	0.09	123	0.62	0.114	
HPY09-BK S-5	Silt	3.12	40.53	5.82	72.5	85	37.0	21.6	1529	4.16	8.6	0.8	1.1	1.3	43.5	0.38	0.24	0.19	135	0.59	0.105	
HPY09-BK S-6	Silt	16.39	31.59	4.94	70.0	91	21.6	25.2	1647	4.38	15.1	1.4	0.5	0.6	42.3	0.54	0.24	0.16	153	0.60	0.123	
HPY09-BK S-7	Silt	34.00	46.34	4.62	58.3	130	32.8	16.6	1123	3.79	6.3	2.5	1.8	1.6	39.3	0.45	0.24	0.28	139	0.73	0.106	
HPY09-BK S-8	Silt	0.47	238.9	7.23	62.5	194	29.8	28.8	736	5.54	10.5	0.7	4.0	0.7	95.5	0.73	0.30	0.18	253	0.72	0.145	



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Project: Silverboss  
 Report Date: October 15, 2009

Page: 2 of 2 Part 2

CERTIFICATE OF ANALYSIS

VAN09004532.1

Method	Analyte	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Ti	S	Hg	Se	Te	Ga	Cs	Ge	Hf
Unit		ppm	ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm	
MDL		0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02
HPY09-DS-1	Silt	6.5	30.0	0.57	210.3	0.077	<20	1.79	0.014	0.05	5.4	2.5	0.16	<0.02	31	0.4	0.06	4.7	1.38	<0.1	<0.02
HPY09-DS-2	Silt	5.9	51.3	0.69	81.3	0.102	<20	1.55	0.014	0.06	2.6	2.9	0.08	<0.02	23	0.2	0.04	4.9	1.19	0.1	<0.02
HPY09-DS-3	Silt	8.6	63.8	0.91	102.3	0.114	<20	2.17	0.014	0.07	0.8	4.4	0.06	0.03	45	0.3	0.02	5.2	1.79	<0.1	0.04
HPY09-DS-4	Silt	6.2	61.2	0.80	85.0	0.123	<20	1.63	0.014	0.06	0.3	3.4	0.03	<0.02	17	0.2	0.03	5.1	0.75	<0.1	0.03
HPY09-DS-5	Silt	6.3	53.1	0.73	121.6	0.117	<20	1.75	0.013	0.06	0.5	3.4	0.07	<0.02	26	0.4	0.02	4.7	0.91	<0.1	0.02
HPY09-DS-6	Silt	7.3	62.2	0.93	126.9	0.147	<20	1.91	0.029	0.12	1.8	5.0	0.11	<0.02	22	0.2	0.09	5.5	1.57	0.1	0.08
HPY09-DS-7	Silt	6.5	42.7	0.72	90.3	0.091	<20	1.23	0.020	0.08	4.7	2.7	0.03	<0.02	10	0.3	0.05	4.0	1.03	<0.1	<0.02
HPY09-DS-8	Silt	5.4	36.6	0.60	53.4	0.086	<20	0.98	0.015	0.05	7.5	1.9	0.04	<0.02	11	<0.1	0.02	3.3	1.04	<0.1	<0.02
HPY09-TRS-1	Silt	5.6	41.8	0.59	76.2	0.086	<20	1.50	0.013	0.06	12.6	2.2	0.03	<0.02	19	0.4	0.02	4.4	1.11	<0.1	<0.02
HPY09-TRS-2	Silt	6.9	23.2	0.66	174.4	0.112	<20	2.09	0.017	0.11	0.6	2.5	0.08	0.03	35	0.3	0.04	5.0	1.64	<0.1	<0.02
HPY09-TRS-3	Silt	7.1	24.4	0.76	159.1	0.113	<20	1.97	0.020	0.24	47.8	3.8	0.48	0.05	29	1.1	0.11	6.1	5.00	<0.1	<0.02
HPY09-TRS-4	Silt	6.4	25.0	0.82	194.9	0.107	<20	2.15	0.027	0.19	17.9	3.2	0.26	0.03	20	0.8	0.10	5.6	4.06	<0.1	<0.02
HPY09-TRS-5	Silt	10.8	58.1	0.68	108.9	0.077	<20	1.76	0.013	0.09	0.2	3.7	0.04	0.04	40	0.5	0.02	4.7	0.81	<0.1	<0.02
HPY09-TRS-6	Silt	8.4	40.0	0.73	202.9	0.085	<20	1.50	0.023	0.09	9.5	2.9	0.48	0.03	16	1.0	<0.02	4.9	2.43	<0.1	<0.02
HPY09-TRS-7	Silt	4.0	52.8	0.31	42.5	0.046	<20	0.63	0.012	0.03	3.3	1.3	0.02	0.06	33	1.3	<0.02	2.2	0.48	<0.1	<0.02
HPY09-TRS-8	Silt	10.5	55.5	0.73	172.2	0.092	<20	1.86	0.024	0.09	8.3	3.0	0.53	0.05	34	1.3	0.03	4.8	2.61	<0.1	<0.02
HPY09-TRS-9	Silt	7.2	45.3	0.46	72.9	0.069	<20	1.22	0.011	0.04	0.1	2.3	0.03	0.03	30	0.6	<0.02	3.7	0.65	<0.1	<0.02
HPY09-TRS-10	Silt	8.1	50.0	0.50	90.2	0.083	<20	1.35	0.014	0.05	1.0	2.4	0.05	0.03	30	0.6	<0.02	4.2	0.75	<0.1	<0.02
HPY09-BK S-1	Silt	8.3	32.1	0.82	218.4	0.120	<20	2.17	0.027	0.28	2.0	3.2	0.15	<0.02	19	0.4	0.11	6.5	3.67	<0.1	<0.02
HPY09-BK S-2	Silt	6.8	33.2	0.69	147.7	0.097	<20	1.77	0.018	0.13	24.1	3.0	0.19	0.03	27	0.6	0.06	5.1	2.98	<0.1	<0.02
HPY09-BK S-3	Silt	6.8	27.1	0.46	97.2	0.080	<20	1.69	0.011	0.08	0.3	2.9	0.02	0.05	47	0.4	<0.02	5.0	1.14	<0.1	<0.02
HPY09-BK S-4	Silt	7.5	26.5	0.51	94.1	0.083	<20	1.56	0.012	0.09	<0.1	3.1	<0.02	0.04	41	0.2	<0.02	4.9	1.08	<0.1	<0.02
HPY09-BK S-5	Silt	9.9	51.7	0.75	137.4	0.127	<20	1.82	0.023	0.09	1.1	3.3	0.08	<0.02	23	0.5	<0.02	5.3	1.25	<0.1	0.02
HPY09-BK S-6	Silt	6.7	36.8	0.62	97.8	0.086	<20	1.50	0.015	0.06	1.9	2.4	0.09	0.02	23	0.5	<0.02	4.5	1.78	<0.1	<0.02
HPY09-BK S-7	Silt	11.7	40.9	0.65	118.8	0.098	<20	1.35	0.017	0.08	0.9	3.3	0.07	0.03	36	0.9	<0.02	4.2	1.19	0.1	0.03
HPY09-BK S-8	Silt	6.4	37.6	1.07	329.3	0.115	<20	4.12	0.016	0.17	<0.1	5.0	0.02	0.02	19	0.3	<0.02	8.9	1.17	<0.1	<0.02



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Project: Silverboss  
 Report Date: October 15, 2009

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CERTIFICATE OF ANALYSIS

VAN09004532.1

Method	Analyte	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	
		Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
Unit	MDL	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
		0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
HPY09-DS-1	Silt	0.45	6.8	0.2	<0.05	0.6	5.35	15.0	<0.02	<1	0.4	11.2	<10	<2
HPY09-DS-2	Silt	0.53	6.9	0.7	<0.05	1.0	4.69	10.2	<0.02	<1	0.2	9.6	<10	<2
HPY09-DS-3	Silt	0.90	8.5	0.3	<0.05	1.4	7.08	13.5	0.03	<1	0.2	12.0	<10	<2
HPY09-DS-4	Silt	0.69	6.7	0.7	<0.05	1.3	4.95	12.7	<0.02	<1	0.3	9.7	<10	<2
HPY09-DS-5	Silt	0.57	6.7	0.2	<0.05	1.0	4.71	12.3	0.02	<1	0.2	10.5	<10	<2
HPY09-DS-6	Silt	0.38	13.0	0.8	<0.05	3.3	5.63	13.6	<0.02	2	0.3	13.1	<10	<2
HPY09-DS-7	Silt	0.31	7.8	0.2	<0.05	0.9	5.48	12.1	<0.02	<1	0.2	7.7	<10	<2
HPY09-DS-8	Silt	0.40	5.7	1.1	<0.05	0.6	4.12	9.7	<0.02	<1	0.1	8.6	<10	<2
HPY09-TRS-1	Silt	0.55	6.2	0.2	<0.05	0.6	4.37	9.6	<0.02	<1	0.1	8.2	<10	<2
HPY09-TRS-2	Silt	0.53	9.7	1.6	<0.05	0.5	7.33	15.5	<0.02	1	0.5	13.8	<10	<2
HPY09-TRS-3	Silt	0.53	34.4	0.5	<0.05	0.6	7.29	13.3	<0.02	11	0.6	26.4	22	<2
HPY09-TRS-4	Silt	0.39	19.3	1.1	<0.05	0.4	7.07	13.2	<0.02	4	0.4	20.8	<10	<2
HPY09-TRS-5	Silt	0.46	7.4	0.3	<0.05	0.7	12.87	11.2	<0.02	1	0.4	10.0	<10	2
HPY09-TRS-6	Silt	0.27	10.0	1.2	<0.05	0.5	8.79	15.6	<0.02	7	0.3	16.0	36	<2
HPY09-TRS-7	Silt	0.34	2.8	0.2	<0.05	0.4	3.64	7.3	<0.02	4	0.1	4.9	<10	<2
HPY09-TRS-8	Silt	0.60	11.1	2.5	<0.05	0.7	8.45	20.5	<0.02	9	0.5	18.2	14	<2
HPY09-TRS-9	Silt	0.65	4.7	0.3	<0.05	0.6	6.99	10.5	<0.02	1	0.3	10.0	<10	<2
HPY09-TRS-10	Silt	0.88	6.5	0.4	<0.05	0.8	4.50	15.3	<0.02	<1	0.2	10.2	<10	2
HPY09-BK S-1	Silt	0.41	21.4	0.3	<0.05	0.8	8.67	16.8	<0.02	<1	0.3	13.1	<10	<2
HPY09-BK S-2	Silt	0.43	14.9	0.4	<0.05	0.5	6.52	13.6	<0.02	3	0.4	16.1	<10	<2
HPY09-BK S-3	Silt	0.45	6.6	0.2	<0.05	0.5	9.90	12.4	<0.02	1	0.3	9.2	<10	<2
HPY09-BK S-4	Silt	0.36	6.2	0.2	<0.05	0.4	11.53	12.7	<0.02	<1	0.2	9.2	<10	<2
HPY09-BK S-5	Silt	0.72	9.1	0.5	<0.05	1.3	5.78	19.9	0.02	<1	0.4	11.6	<10	<2
HPY09-BK S-6	Silt	0.40	5.4	0.4	<0.05	0.6	5.90	14.3	<0.02	<1	0.2	10.5	<10	<2
HPY09-BK S-7	Silt	0.77	7.5	0.4	<0.05	0.9	6.59	19.7	<0.02	2	0.2	11.1	<10	<2
HPY09-BK S-8	Silt	0.20	11.9	0.4	<0.05	0.7	8.99	14.2	0.02	<1	0.4	9.5	<10	<2



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Project: Silverboss

Report Date: October 15, 2009

Page: 1 of 1 Part 1

QUALITY CONTROL REPORT

VAN09004532.1

Method	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F
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	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	2	0.01	0.001	
Pulp Duplicates																					
HPY09-BK S-2	Silt	82.64	84.33	8.11	78.8	152	22.9	24.4	1281	4.33	8.9	1.1	1.2	1.0	59.8	0.67	0.35	1.01	145	0.67	0.123
REP HPY09-BK S-2	QC	88.31	88.55	8.30	82.7	129	23.4	25.0	1273	4.14	8.9	1.1	2.6	1.0	61.8	0.70	0.35	0.99	136	0.67	0.125
Reference Materials																					
STD DS7	Standard	22.36	116.0	71.71	398.6	788	61.1	10.0	640	2.40	50.3	5.0	49.8	4.6	70.8	6.51	4.61	4.62	81	0.94	0.076
STD OREAS45PA	Standard	0.97	608.7	20.21	119.8	255	308.5	116.6	1147	16.73	4.0	1.2	44.6	7.0	14.0	0.10	0.11	0.20	237	0.23	0.032
STD DS7 Expected		20.5	109	70.6	411	890	56	9.7	627	2.39	48.2	4.9	70	4.4	68.7	6.38	4.6	4.51	84	0.93	0.08
STD OREAS45PA Expected		0.9	600	19	119	300	281	104	1130	16.559	4.2	1.2	43	6	14	0.09	0.13	0.18	221	0.2411	0.034
BLK	Blank	<0.01	<0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<2	<0.01	<0.001





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**Project:** Silverboss  
**Report Date:** October 15, 2009

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QUALITY CONTROL REPORT

VAN09004532.1

Method	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	
Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge	Hf	
Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm	
MDL	0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02	
Pulp Duplicates																					
HPY09-BK S-2	Silt	6.8	33.2	0.69	147.7	0.097	<20	1.77	0.018	0.13	24.1	3.0	0.19	0.03	27	0.6	0.06	5.1	2.98	<0.1	<0.02
REP HPY09-BK S-2	QC	6.8	32.4	0.70	139.8	0.098	<20	1.79	0.023	0.13	13.5	2.9	0.19	0.03	18	0.6	0.07	5.2	2.99	<0.1	<0.02
Reference Materials																					
STD DS7	Standard	12.8	214.6	1.05	384.9	0.129	34	1.02	0.095	0.43	3.5	2.6	4.16	0.20	185	3.4	1.23	4.7	5.98	0.1	0.10
STD OREAS45PA	Standard	17.2	857.1	0.10	182.0	0.147	<20	3.56	0.010	0.07	<0.1	44.7	0.08	0.02	24	0.8	0.03	16.5	1.06	0.1	0.51
STD DS7 Expected		11.7	179	1.05	370.3	0.124	38.6	0.959	0.089	0.44	3.4	2.5	4.19	0.19	200	3.5	1.08	4.6	6.36	0.1	0.11
STD OREAS45PA Expected		16.2	873	0.095	187	0.124		3.34	0.011	0.0665	0.011	43	0.07	0.03	30	0.54		16.8	1		0.51
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1	<0.02	<0.1	<0.02



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Project: Silverboss

Report Date: October 15, 2009

Page: 1 of 1 Part 3

## QUALITY CONTROL REPORT

VAN09004532.1

Method		1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F
Analyte		Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
MDL		0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
Pulp Duplicates														
HPY09-BK S-2	Silt	0.43	14.9	0.4	<0.05	0.5	6.52	13.6	<0.02	3	0.4	16.1	<10	<2
REP HPY09-BK S-2	QC	0.43	15.1	0.4	<0.05	0.5	6.46	13.3	<0.02	3	0.3	16.8	<10	<2
Reference Materials														
STD DS7	Standard	0.38	36.7	5.0	<0.05	5.7	5.44	34.3	1.60	6	1.8	27.5	49	35
STD OREAS45PA	Standard	0.20	9.6	1.7	<0.05	20.9	8.09	34.2	0.10	<1	0.8	6.1	44	65
STD DS7 Expected		0.71	35.8	4.61		5.4	5.18	36	1.57	4	1.6	29.3	58	37
STD OREAS45PA Expected		0.21	8.9	1.6		20.5		34	0.09		0.6	5.8	54	72
BLK	Blank	<0.02	<0.1	<0.1	<0.05	<0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2



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Submitted By: David Blann

Receiving Lab: Canada-Vancouver

Received: September 29, 2009

Report Date: October 15, 2009

Page: 1 of 2

## CERTIFICATE OF ANALYSIS

VAN09004528.1

### CLIENT JOB INFORMATION

Project: Silverboss  
Shipment ID:  
P.O. Number  
Number of Samples: 3

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	3	Crush, split and pulverize 250 g rock to 200 mesh			VAN
1DX1	3	1:1:1 Aqua Regia digestion ICP-MS analysis	0.5	Completed	VAN

### SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days  
DISP-RJT Dispose of Reject After 90 days

### ADDITIONAL COMMENTS

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

Invoice To: Happy Creek Minerals Ltd.  
Suite 2300 - 1066 W. Hastings St.  
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Canada

CC: Paul Reynold



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.  
\*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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**Project:** Silverboss  
**Report Date:** October 15, 2009

**Page:** 2 of 2 Part 1

**CERTIFICATE OF ANALYSIS**

**VAN09004528.1**

Method	WGHT	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppm	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	0.1	0.5	0.1	1	0.1	0.1	0.1	2	0.01	
708712	Rock	1.41	0.1	21.0	1.4	43	<0.1	2.3	10.1	552	2.66	1.8	0.2	<0.5	0.7	39	0.1	<0.1	<0.1	64	0.90
708713	Rock	1.34	0.1	99.0	1.1	45	<0.1	13.5	14.7	315	3.37	1.0	0.2	3.2	0.3	70	<0.1	<0.1	<0.1	197	1.44
708655	Rock	0.86	0.6	6.7	4.8	28	<0.1	42.8	16.4	972	3.38	22.2	0.1	1.7	0.3	98	0.2	11.6	<0.1	54	6.67



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**Report Date:** October 15, 2009

**Page:** 2 of 2 Part 2

**CERTIFICATE OF ANALYSIS**

**VAN09004528.1**

Method	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	
Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	
Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	
MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	
708712	Rock	0.099	3	4	0.91	135	0.091	<20	1.68	0.069	0.12	0.1	0.04	2.2	<0.1	<0.05	5	<0.5
708713	Rock	0.144	3	27	0.93	213	0.119	<20	1.82	0.133	0.14	<0.1	0.07	2.3	<0.1	<0.05	5	<0.5
708655	Rock	0.032	2	27	2.26	55	0.002	<20	0.17	0.002	0.13	0.6	0.02	8.5	<0.1	<0.05	<1	<0.5



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Report Date: October 15, 2009

Page: 1 of 1 Part 1

QUALITY CONTROL REPORT

VAN09004528.1

Method	WGHT	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppm	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	0.1	0.5	0.1	1	0.1	0.1	0.1	2	0.01	
Reference Materials																					
STD DS7	Standard	20.6	106.0	63.9	382	0.8	56.9	9.2	604	2.40	45.9	4.8	55.2	4.2	60	5.3	3.4	3.9	81	0.95	
STD OREAS45PA	Standard	1.0	627.8	19.2	115	0.3	314.4	113.0	1182	17.19	3.7	1.1	45.1	6.4	12	<0.1	<0.1	0.2	238	0.24	
STD DS7 Expected		20.5	109	70.6	411	0.9	56	9.7	627	2.39	48.2	4.9	70	4.4	69	6.4	4.6	4.5	84	0.93	
STD OREAS45PA Expected		0.9	600	19	119	0.3	281	104	1130	16.559	4.2	1.2	43	6	14	0.09	0.13	0.18	221	0.2411	
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	
Prep Wash																					
G1	Prep Blank	<0.01	0.1	2.8	3.1	48	<0.1	3.2	4.5	577	1.96	<0.5	1.5	<0.5	4.7	51	<0.1	<0.1	<0.1	38	0.52



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**Project:** Silverboss  
**Report Date:** October 15, 2009

**Page:** 1 of 1 Part 2

QUALITY CONTROL REPORT

VAN09004528.1

Method	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	
Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	
Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	
MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	
Reference Materials																		
STD DS7	Standard	0.064	11	202	1.01	372	0.105	32	1.02	0.093	0.41	3.4	0.19	2.4	4.4	0.20	5	3.5
STD OREAS45PA	Standard	0.031	16	944	0.10	177	0.119	<20	3.62	0.003	0.07	<0.1	0.03	45.6	<0.1	<0.05	17	<0.5
STD DS7 Expected		0.08	12	179	1.05	370	0.124	39	0.959	0.089	0.44	3.4	0.2	2.5	4.2	0.19	5	3.5
STD OREAS45PA Expected		0.034	16.2	873	0.095	187	0.124		3.34	0.011	0.0665	0.011	0.03	43	0.07	0.03	16.8	0.54
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5
Prep Wash																		
G1	Prep Blank	0.077	12	9	0.54	166	0.124	<20	0.95	0.078	0.48	0.1	<0.01	2.0	0.4	<0.05	5	<0.5