



ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE: Prospecting and Sampling Report on the NCu Property

TOTAL COST: \$ 6,948.31

AUTHOR(S): Sassan Liaghat, Ph.D, David Blann, P.Eng

SIGNATURE(S): "sassan liaghat" "david blann"

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):

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

YEAR OF WORK: 2014

PROPERTY NAME: NCu Property

CLAIM NAMES (on which work was done): NCu 1031324

COMMODITIES SOUGHT: Copper, Molybdenum, Gold, Rhenium

MINFILE NUMBERS: 092iSE062

MINING DIVISION: Nicola

NTS / BCGS: 0921.037.0921.047

LATITUDE: 50° 22' 43' North **LONGITUDE:** 120° 38' 14' West (at centre of work)

UTM: 668000E; 5583400N Zone 10

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: Nicola Group, Nicola Horst, Clapperton Fault System, Quesnellia Terrane, conglomerate, tuff, Blacktop Showing, malachite, native copper, Coquihalla Highway, Helmer Lake, Clapperton Creek.

PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 32518,30006, 27476, 26660

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (in metric units)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
Geological Mapping Sampling, Prospecting	515.15 ha	1031324	\$ 5,084.00
GIS Mapping and Report		1031324	\$ 1000.00
Geochemical Analyses	5 rock and 2 silt samples	1031324	\$ 289.31
Accommodation, Communications and Travel	2 days	1031324	\$ 575.00
		Total Cost	\$ 6,948.31

PROSPECTING AND SAMPLING REPORT

on the

NCu PROPERTY

Nicola Mining Division
British Columbia

Map Sheet: NTS 0921.037,0921.047

UTM East: 667200

UTM North: 5583400

UTM Zone 10N

Latitude 50°22'43"N/Longitude 120°38'14"W

for

HAPPY CREEK MINERALS LTD.

#460 – 789 West Pender Street

Vancouver, B.C.

V6C 1H2

by


Sassan Liaghat, PhD.

David Blann, P.Eng.

February 2015

12/29/2014 Government of British Columbia

Tenure Detail

Tenure Number ID 1031324 [View Tenure](#) 

Tenure Type Mineral (M)
 Tenure Sub Type Claim (C)
 Title Type Mineral Cell Title Submission (MCX)
 Mining Division
 Good To Date 2015/oct/02
 Issue Date 2014/oct/02
 Demised To
 Termination Type
 Termination Comments
 Termination Date
 Tag Number
 Claim Name NCU
 Old Tenure Code
 Area In Hectares 515.15

Map Numbers:
[092I](#)

Owners:
[203169](#) HAPPY CREEK MINERALS LTD 100.0%

Tenure Events:	Submitter	Event	Effective Date
	203169 HAPPY CREEK MINERALS LTD	CEXT Claim Registration (Acquisition)(5524993)	2014/OCT/02

SUMMARY

The NCu (Native Copper) Property is located south central of British Columbia, approximately 30 kilometers north of Merritt and 45 kilometers south-southwest of Kamloops, British Columbia. The property consists of one mineral claim in the Nicola Mining District that cover an area of approximately 515.15 ha. The property is located immediately west of Highway # 5, about 6km north of Helmer Lake.

The NCu claim is situated within Upper Triassic, Western Volcanic Facies of the Nicola Group rocks and has a contact with their metamorphosed equivalent and intrusive of the Nicola Horst along a Tertiary fault that runs north-south nearly along and close to the eastern edge of the Property. The Nicola Horst on its western side is covered by alluvium of the Clapperton Creek valley and fault system.

The property is close to a number of historical high-grade zinc-lead-copper-silver-gold prospects dating from around the 1890's. The most recent exploration on the NCu includes geology and geochemical surveys, conducted between 2007 and 2011. This resulted in the discovery of two copper mineral showings. In the central part of the claim at the Malachite Showing, malachite stain presents in cobbles stretching over a distance of about 100 metres along the sides of a recent logging road. Mineralization occurs in weakly altered, fine to medium grained, green, brown and grey colored, variably calcareous, basaltic tuff. On the same logging road, about 600 m west-southwest of the Malachite showing, fine grained native copper occurs disseminated in grey to maroon colored basaltic tuff.

In October, 2014 Happy Creek Minerals completed a geological evaluation on the NCu claim, with prospecting, sampling and a review of the mineral showings. The primary area of interest on the property was a northerly trending airborne magnetic feature underlain by the Malachite and Native Copper showings. A total of 27 rock samples were collected from both float boulders and outcrop that displayed alteration and/or mineralization; these were carefully reviewed, geologically described, and their magnetic susceptibility measured. Five rock and two silt samples were selected and submitted for geochemical analyses.

Three rock samples from the Malachite showing and two samples from Native Copper showing returned high copper content: Sample NCu-14-01: (Cu 1.9%, Zn 50 ppm, Pb 6.7 ppm, Ag 11.5 ppm and Au 0.026 ppm); NCu-14-02: (Cu 1.2%, Zn 57 ppm, Pb 5.2 ppm, Ag 6.19 ppm and Au 0.013 ppm) and NCu-14-05: (Cu 0.02%, Zn 60 ppm, Pb 3.9 ppm, Ag 0.05 ppm and Au <0.005 ppm); NCu-14-06: (Cu 0.05%, Zn 56 ppm, Pb 3.7 ppm, Ag 0.07 ppm and Au 0.013 ppm); NCu-14-08: (Cu 0.01%, Zn 62 ppm, Pb 2.7 ppm, Ag 0.15 ppm and Au <0.005 ppm). Two silt samples returned poor copper values with a maximum 53.5 ppm copper.

The Nicola Group rocks in the area has historically received widespread exploration and some extensive drilling for lead-zinc-silver massive sulphide deposits. However, it appears only limited exploration activities were focussed on copper. The new clear cut logging area and new access trails, is thought to provide a good opportunity to discover additional mineralization to that already identified. The geological prospecting, sampling and historical data confirm potential for base metal deposits in this area. It is recommended that further exploration works consist of an induced polarization geophysical survey, detailed geological mapping, trenching. Drilling would be considered subject to results of this work.

Contents:

Contents:	7
1. Location, Access, Infrastructure and Physiography	9
2. Claim Status	9
3. Exploration and Development History	10
4. Geological Setting.....	11
4.1 Regional Geology.....	11
4.2 Property Geology	15
5. Sampling and Analytical Procedures	16
6. Result and Discussion,	17
7. Conclusions and Recommendations	19
8. Statement of Costs	20
9. References.....	21
10. Statement of Qualifications.....	22

TABLE:

Table 1	Mineral Tenure Detail
Table 2	Rock Sample Descriptions and Summary of Rock Samples Assay

FIGURES:

Figure 1	BC Map, NCu Property, Location Map
Figure 2	Regional Map, Location of NCu Property
Figure 3	Mineral Tenure Map, NCu Property
Figure 4	Regional Geology
Figure 5	Rock Sample Locations
Figure 5a	Rock Sample-Copper Assay
Figure 5b	Rock Sample-Zinc Assay,
Figure 5c	Rock Sample-Lead Assay
Figure 5d	Rock Sample-Silver Assay
Figure 5e	Rock Sample-Gold Assay
Figure 6	Silt Sample- Locations
Figure 6a	Silt Sample-Copper Assay
Figure 6b	Silt Sample-Zinc Assay,
Figure 6c	Silt Sample-Lead Assay
Figure 6d	Silt Sample-Silver Assay
Figure 6e	Silt Sample-Gold Assay
Figure 7	Vertical Magnetic Field Survey

PHOTOS:

Photo 1	General View of Survey Area
Photo 2	Malachite Showing
Photo 3	Malachite Showing Rock
Photo 4	Native Copper Showing
Photo 5	Native Copper Rock
Photo 6	Epidote Alteration in Mineralized Rock

APPENDICES:

Appendix 1	Geochemical Analyses of Rock Samples
Appendix 2	Certificates of Analyses

1. Location, Access, Infrastructure and Physiography

The NCu (Native Copper) property is located in south central of British Columbia (Fig 1), approximately 30 kilometers north of Merritt and 45 kilometers south-southwest of Kamloops, British Columbia (Fig. 2). The property is located immediately west of Highway # 5, about 6km north of Helmer Lake.

The NCu claim is accessible via the Highway 5, Helmer Lake exit and then connect to good-condition unpaved roads that run northward and parallel to the west side of the Highway. From the Highway exit, it is 6.5 km to the Blacktop Showing (lead-zinc-silver) junction, then an additional one km to reach the property. From this point, the property may be accessed by a variety of logging trails. Access along these trails is most easily achieved using all-terrain vehicles. The field exploration season is typically between May and late October. Average temperatures range from +20° in summer to -4°C in winter with extremes of -40° and +40°C.

The claim is situated within rounded hills and shallow, soft topography valley (Photo 1). Elevations vary in a short range from 1500 m above sea level, along creeks at the east end of the property to 1,660 m above sea level in the central portion of the property. Most part of the property has been clear-cut and locally regenerate. Remaining forested areas consist of lodge pole pine, spruce and poplar with denser patches of willows and aspen and are located close to water drainages and swampy areas. On the east side of the property, a small pond about 100m wide is the only water resource inside the claim. Outcrop is sparse and observed locally in some parts of the property, although more common at higher elevations or ridge tops. Glacial till, silt, gravel and sand cover the area in variable thickness.

2. Claim Status

The NCu property comprises one mineral claim (# 1031324), (Table 1) that covers an area of 515.15 ha (Fig. 3). The claims is centered at 667200 East and 583600North, UTM zone 10N on NTS map sheet NTS 0921.037,0921.047, in the Nicola Mining District. This claim is recorded as 100% owned by Happy Creek Minerals Ltd. The claim has not been legally surveyed.

3. Exploration and Development History

Mineral exploration in the area began from 1890's when gold-silver bearing quartz veins were discovered near Stump Lake about 20 km east of the Property. Exploration activities continue through the 1920's and lead to promising discoveries in Iron Mountain, Nicola Lake and Swakum Mountain, all locate south of the Property. The largest of those, the Enterprise-King William veins, operated intermittently until 1942 (Meyers, et al, 1989). The Afton discovery in the Iron Mask batholith north of the property was completed in 1970. From 1970 the mineral exploration attention began to focus in area that contains current NCu claim. Throughout the period from 1972 to 1983 various workers conducted conventional exploration programs in areas, consisting of geological mapping, soil geochemical surveys, and various types of ground geophysics. These studies identified several targets for follow up, such as the quartz-carbonate Zn-Pb-Ag-Au veins in the Helmer Lake area to the south of the Property.

In 1997 International Skyline Gold discovered copper mineralized boulders (assay 1.65%) on the property located just west and south of the yet to be discovered Blacktop Showing. A drilling program was designed to test the area, however assay results returned with uneconomic copper grade (Moore, 1997).

In July 2000 the Zn-Pb-Cu-Ag Blacktop Showing which is located about 800m south east of the NCu property was discovered by Michael Moore. The property which was named "Fox Claims" was optioned by Gitennes Exploration who conducted a program of detailed exploration including over the Showing along with property-wide exploration through 2000 and into 2001 (Cathro, 2001). The work includes: helicopter-borne magnetometer and EM survey; ground IP, HLEM and magnetometer surveys; localized MMI and soil and silt sampling and a drill program at the Blacktop Showing. Although surface trenching returned positive lead, zinc and silver values, drill core analyses from several holes in this area returned more modest results.

In 2007 and 2011, Rich River Exploration Ltd. continued exploring Fox Property including the area of the NCu claim (Williams J.David, 2011). The programs investigated a target near the Blacktop Showing and other targets largely located in the under-explored western and northern parts of the Property. The fieldwork was successful in locating a 90 m long zone of tuff cobbles containing about 5% malachite along the edge of a logging road. A series of eleven selected grab samples of the

mineralization returned assays as high as 1.9% Cu. Another showing was reported 600m west of the malachite also on the edge of a logging road. Here, outcrop of volcanic tuff was found to contain disseminated native copper. Several specimens of this material returned 2,814 ppm Cu (0.28% copper).

4. Geological Setting

The following regional and property geology descriptions are excerpted and modified from 2011 Fox Property Assessment Report (Rich River Exploration Ltd) and from Moore, et al, 1990a. Some new information obtained from prospecting performed by the Happy Creek Company during 2014 are included.

4.1 Regional Geology

The NCu Property lies in Nicola Group rocks comprised of a diverse assemblage of Late Triassic to Early Jurassic submarine and subaerial volcanic, volcanoclastic, and sedimentary rocks that underlie much of the Intermontane Belt of south central British Columbia (Fig. 4). The Nicola Group, part of the Quesnellia tectono-stratigraphic terrane is accompanied by other early Mesozoic volcanic-arc sequences of the Takla and Rosslund Groups (Mortimer, 1987). Several plutons that straddle the Triassic-Jurassic boundary cut the Nicola Group. A Tertiary fault-bounded structure of the Nicola Horst, exposes relatively deep-seated metamorphic equivalents of the Nicola Group, intruded by plutons of Triassic to Paleocene age (Moore, 2000).

Nicola Group

Nicola Group rocks have been divided in a sequence of three belts, each characterized by distinct facies and assemblages. A western belt is an easterly facing succession of calc alkaline, mainly plagioclase phyrlic andesitic flows and breccia, with lenticular interlayers of limestone and bedded volcanoclastic rocks. Although flows are more abundant relative to clastic facies in the western part of the belt, sedimentary facies can be found throughout its entire width in the Swakum Mountain area. The alternation of thick successions of massive uniform green flows and unsorted breccias with bioclastic limestones, volcanic conglomerate and local subaerial volcanic facies, such as maroon scoriaceous breccias, suggests deposition near a rapidly fluctuating shoreline. Local felsic centers contain dacite and rhyolite flows, welded tuff and breccia, with intercalated heterolithic, intermediate to felsic volcanoclastics.

The central belt consists of mainly augite and plagioclase-phyric basaltic flows and associated breccias. These may be considered largely submarine deposits of alkalic composition. Subvolcanic intrusions of diorite and gabbro are abundant. Preto (1977) in the eastern belt, south of Merritt, interpreted similar intrusions may be the erosional remnants of Upper Triassic volcanoes.

The eastern belt consists almost entirely of mafic augite-phyric volcanoclastic rocks, ranging from predominant coarse breccia to more subordinate fine wacke and siltstone. This eastern succession may be an emergent part of the western belt. Regional metamorphism is low greenschist facies.

An unconformable sequence of clastic rocks of the Early and Middle Jurassic Ashcroft Formation overlies the Nicola Group. They are mostly unlayered, poorly sorted coarse conglomerate with discontinuous interbeds of pyritic, rusty weathering sandstone and siltstone. In the Swakum Mountain area a grey, commonly fetid bioclastic limestone up to 200 m thick occurs near the base of the formation. Clasts in the conglomerate are mainly volcanic, resembling Nicola Group rocks, along with boulders of granite and diorite composition. At several localities, a distinctive chert-pebble conglomerate containing green clasts overlies the polymictic conglomerate, occasionally with chert-bearing horizons.

Flat-lying Miocene Chilcotin basalts occur north of the NCu Property and probably in smaller outliers elsewhere. These flows are nearly indistinguishable from Pleistocene and Recent valley basalts that once filled the major drainage channels of the region and now occur only as remnants in the Nicola and Quilchena valleys.

The seven major plutons that intrude Nicola Group rocks are also of Late Triassic to Early Jurassic in age. Principal among them is the Guichon Creek batholith that consists of biotite and hornblende diorite, quartz monzonite, granodiorite and rare granite. The batholith is chemically and mineralogically very similar to lavas of the western Nicola belt. Some of the plutons are zoned, consisting of pyroxenite, gabbro, diorite, monzonite and syenite, while others are composed of biotite and hornblende diorite, quartz diorite, quartz monzonite, granodiorite and rare granite (Mortimer, 1987). Based on the similarity of their chemical signatures to adjacent Nicola volcanic rocks, at least some plutons are considered comagmatic to the volcanic assemblage they intrude.

Nicola Horst

The Nicola Horst is a northerly trending block 40 kilometres in length and entirely detached from the surrounding Nicola Group rocks by Tertiary normal faults. The Horst, often referred to as the “Nicola batholith” in earlier studies, is a complex of Nicola Group rocks, sedimentary rocks of unknown age, tonalite and tonalite porphyry. Those rocks are all strongly deformed, metamorphosed to low amphibolite facies and intruded by granitoid rocks ranging in age from at least Early Jurassic to Paleocene.

Stratified rocks of the Nicola Horst consist of strongly foliated and lineated quartzite metaconglomerate and interlayered graphitic mica schist as well as several units that are closely comparable to Nicola Group rocks except for their relatively high strain and metamorphic grade. The conglomerate and black schist are not comparable to any facies of the Nicola Group. They appear to structurally overlie the Nicola correlatives in the Horst, although they are separated from them by plutonic units. The conglomerate comprises stretched pebble-size clasts mainly of white, grey and black quartzite in a biotite-muscovite-quartz matrix with a few granitoid clasts. Staurolite and garnet accompany andalusite in the schist that suggests uplift during metamorphism.

The Nicola-like rocks are characterized by hornblende pseudomorphs after augite phenocrysts that resemble units of the central and eastern belts. Those identified with the central belt consist mainly of uniform or meta-augite porphyry while the remainder are mostly layered hornblende and hornblende-biotite schists that appear to be volcanoclastic sediments. In the east-central part of the Horst, these rocks contain relict graded and load-cast beds, but in the north end those primary features are obscured by strain and grain growth.

The most strongly deformed intrusive rocks in the Horst are leucocratic and tonalite porphyry that exhibits strain geometry comparable to the metasediments. Metadiorite, varying to metagabbro and tonalite is generally less penetratively and homogeneously strained. Along the Clapperton Fault system that bounds the west side of the Horst, the metadiorite has been intruded by granodiorite to granite that is also metamorphosed. A lenticular body of metaperidotite is converted to a pale amphibolite assemblage. Two varieties of less-deformed but metamorphosed, coarse biotite granitoid rocks are recognized; the Le Jeune variety containing augen of potassium-feldspar that cuts the Frogmore variety, which is less strongly foliated and more equigranular, containing highly oblate mafic xenoliths. Both of these types vary in composition from granite to tonalite but are predominantly granite and granodiorite. The Le Jeune metagranodiorite has been dated to early Jurassic. The

southern part of the Horst is dominated by the Paleocene Rocky Gulch batholith, a potassium-feldspar megacrystic granodiorite to granite that is superficially similar to the earlier units but is typically coarser and essentially massive and un-deformed. It cuts the older type with which it is intimately mixed in the north-central part of the Horst.

Regional Tectonics & Structure

The tectonic history of the property region is dominated by a complex pattern of brittle deformation. Only in the Nicola Horst are the rocks penetratively deformed – evident as westerly plunging stretching features probably related to accretion of the Nicola arc in Mesozoic time. Most of the Nicola rocks are steeply dipping with stratigraphic tops facing east. Major northwest trending lineaments in Nicola rocks are transected by northerly striking Tertiary extensional fault systems. These systems occupy the Nicola River, Guichon, Clapperton and Quilchena Creek valleys. Eocene sediments are deformed to a near vertical dip and the Nicola Horst elevated relative to its surroundings. Where exposed, these faults exhibit intense shattering, veining and local alteration.

Mineralization:

Historical exploration activity tended to focus on the quartz-carbonate veins near Helmer Lake and Blacktop Showing to the south of the Property.

Helmer Lake Veins:

Above the west and northwest shore of Helmer Lake are a series of six trenches that expose quartz-carbonate veins in altered, sheared andesitic lavas and tuffs (Stadnyk, 1970). Mineralization consists of very fine-grained sulfides, principally pyrite with much lesser chalcopyrite, chalcocite, galena and sphalerite that, in aggregate, can amount to as much as 20% by volume. These minerals occur in quartz-carbonate veins that may exceed a meter wide in places. The sulfides typically occur as short centimeter-long slashes or elongate blebs in a gangue of white to grey, aphanitic to fine grained quartz with widely variable fine grained calcite and/or ankerite. Patches of heavily pitted limonite stain may occur as can rare diffuse malachite stain.

Blacktop Showing:

The Blacktop showing consists of sulfide minerals exposed in shallow trenches over a distance of about 100 meters on the west bank of the Coquihalla Highway #5 (Fig 4). The sulphides occur in bands of up to 1.5 metres in width, and intercalated with bleached and sericite altered rocks that are locally cherty or silicic, banded or foliated fine grained equigranular barite. Host rocks are strongly sericite altered and overlain by volcanic and volcanoclastics of the western facies of the Nicola Group.

Sulfide mineralization consists of foliated to massive and semi-massive, medium grey, very fine grained sphalerite and lesser pyrite and faint wisps of chalcopyrite, traces of tetrahedrite and galena, accompanied by a gangue of barite, carbonate with quartz and sericite. Locally, sericite alteration is in fault contact with overlying generally un-mineralized reddish, maroon or grey-green colored sedimentary and pyroclastic rocks (McArthur, 2001a).

Chip sampling of the zone exposed in trenches returned up to 17% Zn, 1.6% Cu, 0.47% Pb, 76 gm/t Ag and 0.49 gm/t Au over 1.1 m (Gitennes (2001d). Gitennes drilling of eight holes in 2001 intersected significant mineralization in only a single hole, F01-02. That hole encountered 70 cm of tectonized, fine-grained, sphalerite-pyrite-chalcopyrite massive sulfide that assayed 16.5% Zn, 1.18% Cu, 87.4ppm Ag and 0.45 ppm Au (McArthur, 2002).

4.2 Property Geology

The NCu claim is situated within Upper Triassic, Western Volcanic facies of the Nicola Group rocks. These rocks are in contact with their metamorphosed equivalents and intrusive of the Nicola Horst along a Tertiary fault that runs north-south along the eastern edge of the Property. The Nicola Horst on its western side cover by alluvium of the Clapperton Creek valley and Fault system.

On the NCu property, the western facies of the Nicola Group rocks are represented by five lithologic units. Those units are not known to exhibit much continuity and their contacts have rarely been observed. The units consist of andesitic flows, a variety of fragmental types and lenses of grey limestone. Lava flows are most abundant in the western portion of the property. The flows are distinctive for their plagioclase phenocrysts as large as two centimeters across or more, and range to 30 percent by volume. They may also contain a subordinate proportion of augite or hornblende phenocrysts and less than 5 percent amygdules filled with quartz, chlorite and/or calcite. Distinct units of breccia and tuff, epi-volcanoclastic rocks and agglomerate are predominant in the western belt of the Nicola Belt. Breccia and tuff are mono-lithologic, mirroring the composition of andesitic flows

and display no layering or rounding of fragments. Many breccia may be epi-clastic debris from a relatively homogeneous source material. Agglomerates are probably laharic, containing a variety of andesitic and sometimes more felsic varieties in massive, unsorted and angular to sub-rounded fragments up to 5cm in size. Limestone lenses, thin and grey in character, are a minor but distinctive part of the Nicola succession. Typically these units consist of limestone up to a few meters in thickness, intercalated with hetero-lithic volcanic breccia, conglomerate and limestone clasts up to a meter in scale. The limestone is invariably bioclastic, containing well-preserved mollusks and coral fragments. All Nicola volcanic rocks exhibit fine-grained or aphanitic matrices with abundant chlorite and epidote. Their color is usually dark green or purple. The Nicola rocks strike northerly and dip steeply, predominantly to the east and are upright. The Clapperton Fault system is thought to be normal with a net dip slip of at least several kilometers in order to have exhumed the relatively seep-seated rocks of the Nicola Horst.

Mineralization

In the central part of the NCu claim, malachite stain presents in cobbles stretching over a distance of about 100 metres along the sides of a logging road (Photo 2). Malachite occurs in weakly altered, fine to medium grained, green, brown and grey colored, variably calcareous, basaltic tuff (Photo 3). On the same logging road, about 600 m west-southwest of the Malachite Showing, fine grained native copper occurs disseminated in grey to maroon colored basaltic tuff (Photo 4 and 5).

5 Sampling and Analytical Procedures

A total of 27 rock samples were collected from both float boulders and outcrop that displayed alteration and/or mineralization. The primary area of interest on the property was a region of malachite and native copper showings. Rock samples were cleaned to avoid weathered surfaces or organic material and to best represent the mineralization and/or alteration for that location. Sample types were recorded on a sample booklet and field book. The extent of weathering was noted if fresh samples were unavailable. Rock sample size varied depending on whether a float or outcrop sample was taken. On average approximately 4 kilograms of rock was collected from each sample location. Sample bags were labeled with the corresponding sample ID numbers from the sample booklets. The sample ID tag was also inserted into the sample bag prior to sealing. The field sampling site was labeled with the sample ID number. Descriptions of each rock sample were recorded in the sample booklets.

Two silt Samples were collected from sediment of creeks on the west side of the property. Headwaters of those drainages are at slightly higher elevations in the north part of the claim. Sample bags were labeled with the corresponding sample ID numbers from the sample booklets. The sample ID tag was also inserted into the sample bag prior to sealing. The field sampling site was labeled with the sample ID number. Descriptions of each sample were recorded in the sample booklets.

Five rock samples and two silt samples were selected for geochemical analyses. The samples were secured in labelled polyethylene bags and shipped to Met-Solve Analytical Services of Langley British Columbia.

The silt 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 by ICP-MS. for analysis using ICP-MS methods.

The rock samples were crushed in their entirety to 80% passing -10 mesh (2 millimetres) and the crusher was cleaned with barren rock between samples. From the coarse rejects a sub-sample of 250 grams was pulverized to 85% passing -200 mesh (0.074 millimetres). Soil and Sediment samples are dried and then screened to 80mesh. The minus fraction is analyzed and the plus fraction is saved.

The pulveriser was cleaned with silica sand between samples. Analysis was performed using an aqua regia solution to digest the sample, followed by ICP+ ICP-MS finish. Over limit base metals were re-analyzed by assay Atomic Absorption (AA), and gold and silver were fire assayed. Met-Solve has a quality system compliant with the International Organization for Standardization's ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories" and the ISO 9001 series of Quality Management standards.

The remaining coarse reject portions of the samples are in storage at Met-Solve Analytical Services. The reader is referred to <http://www.met-sovelab.com> for details of these analytical procedures. Assay certificates are provided in Appendix 2.

6 Result and Discussion

The NCu property totals 515.15 hectares and is located approximately 30 kilometres north of Merritt, B.C., Canada. There is excellent road access and infrastructure. The property is within the Upper Triassic Western volcanic facies of the Nicola Group and the region contains a number of

historical past-producing precious and base metal mines and developed prospects dating from around the 1890's.

The 2011 exploration program on the Property by Rich River Exploration originally located the mineralization at the Malachite and Native Copper showings, both located within NCu claim. In the Malachite area, the mineralization presents in cobbles stretching over a distance of about 100 m along the sides of a logging road. The mineralized cobbles are fine to medium grained, green, brown and grey colored, variably calcareous, basaltic tuff. The rocks are generally hard and weakly clay altered. The malachite stain occurs in fracture selvages or concentrated in patches up to several centimeters across. Locally malachite accompanied by red-brown colored iron oxides. Primary sulphides are not readily visible, however, native copper occurs locally. On the west side of the property, dissemination of native copper occurs in grey to maroon colored basaltic tuff outcrop. Copper grains are about >1 to 3 mm in diameter and mainly foil-like. Most of the mineralized samples were observed over a short distance of the logging road.

Follow up activity in the area, between October 15th and 19th, 2014 included a geological evaluation of the NCu prospects and general area. Most of the claim area was visited and 27 rock samples and 2 silt samples were collected. Five rock and two silt samples were selected and submitted for assay. Sample numbers and locations for rock and silt are shown on Figure 5 and 6 respectively. The geochemical results for selected elements (Cu, Pb, Zn, Ag, Au) are illustrated in Figures 5a through 5e for rock samples and Figures 6a through 6e for silt samples. A summary of assay results and rock description are provided in Table 2. The list of geochemical assay data is in Appendix 1, and the assay certificate is located in Appendix 2.

Rock samples from the Malachite and NCu showing returned high copper values including NCu-14-01: (Cu 1.9%, Zn 50 ppm, Pb 6.7 ppm, Ag 11.5 ppm and Au 0.026 ppm) and NCu-14-02: (Cu 1.2%, Zn 57 ppm, Pb 5.2 ppm, Ag 6.19 ppm and Au 0.013 ppm). Two silt samples returned poor copper values not excess of 53.5 ppm.

The mineralized samples contain intense epidote, moderate chlorite - sericite alteration in tuffaceous rocks (Photo 6). In other collected rock samples, no visual sign of mineralization was observed. There is no major structural features or quartz veins observed in the area. The extent of the copper mineralization observed in rocks are limited to the copper showing areas. Traverses in different directions or in other areas of the property did not reveal any additional mineralization, however, much of the area is covered by glacial till.

The 1st Vertical Derivative Magnetic Field Survey (extracted from Map Place Web site of BC Government) outlines a potentially important under-lying geological structure and features. A positive magnetic target in the area of the Malachite showing (Fig.7) may reflect potential for a larger mineralized zone on the property.

7 Conclusions and Recommendations

The NCu property is located approximately 30 km north of Merrit B.C. Large areas of recent logging activity allow excellent access and a clear view of the surface conditions, geology and structure on the property. Although areas nearby the NCu claim have historically received widespread surface exploration and some drilling activities, no geophysical surveys or drill testing have been conducted over the Malachite or NCu showings. Samples in 2014 returned values up to 1.9% copper that are part of a mineralized zone observed to extend around 100 metres before being covered by glacial till. The cause and source of copper showings within the Nicola Group rocks remain uncertain. The Malachite showing is coincident with a positive, large scale northerly trending airborne magnetic feature that is sub-parallel to the regional Clapperton fault. It is recommended that further exploration consist of induced polarization and magnetic geophysical survey along with detailed geological mapping trenching and sampling. Drilling would be contingent on results of this work.

Respectfully Submitted,

“Sassan Liaghat”

Sassan Liaghat, Ph.D

“David Blann”

David Blann, P.Eng.

8 Statement of Costs

Happy Creek Minerals
 NCu Project Costs
 October 15-December 16, 2014

Company	Description / Name	# of People	Days	Rate	Total
Standard Metals	Communications cell phones and sat phone				\$ 75.00
AGAT Labs	Assaying	1	7	\$ 41.33	\$ 289.31
Standard Metals	Geological and consulting	1	2.5	\$ 650.00	\$ 1,444.00
Sassan Liaghat	Geological and consulting	1	5.6	\$ 650.00	\$ 3,640.00
Travel	Happy Creek Truck km	1	500	\$ 0.40	\$ 200.00
Accommodation	Hotel and Food 2 nights	1	2	\$ 150.00	\$ 300.00
	GIS, mapping and report				\$ 1,000.00
				Total	<u>\$ 6,948.31</u>

9 References

- Cathro, Michael S. (2001): South Central Region; in Cathro, M.S., Exploration and Mining in British Columbia – 2000; Ministry of Energy and Mines, p.6,
- Gitennes Exploration Inc. (2001d): Fox Property, Blacktop Showing, British Columbia, Trench Sample Location; unpublished map printed from source file Fox5a.dwg, drawing dated 08 Jan 2001, revised 18 Jan 2001, 'Rev No: DS04'.
- Meyers, R.E., Moore, J.M., Hubner, T.B., Pettipas, A.R. (1990): Metallogenic Studies in South-Central British Columbia: Mineral Occurrences in the Nicola Lake Region (92I/SE); in Exploration in British Columbia 1989, Grant, Brian, Newell, John, eds, British Columbia Geological Survey Branch, British Columbia Ministry of Energy and Mines, pages 119-134.
- Moore, John A., Pettipas, A. (1990a): PART A Geological Studies in the Nicola Lake Region (92I/SE); in Nicola Lake Region, Geology and Mineral Deposits, British Columbia Geological Survey Branch, British Columbia Ministry of Energy and Mines, Open File 1990-29, pages 1-13, 2 map sheets,
- Moore, M.J. (1997): Kent 2 Claim Drilling Assessment Report, Nicola Mining Division; International Skyline Gold Corp., British Columbia Ministry of Energy and Mines, Assessment Report 25209, 84 pages.
- Moore, John M. (2000): Nicola Horst: southern British Columbia: window into the pre-Triassic margin of North America?; Natural Resources Canada, Geological Survey of Canada, Current Research, 2000-A16, 8 pages,
- Mortimer, N. (1987): The Nicola Group: Late Triassic and Early Jurassic subduction-related volcanism in British Columbia; Canadian Journal of Earth Sciences, vol. 24, pages 2521-2536.
- McArthur, G.F., Foster, J.R. (2001a): Report on Exploration of the Fox Property, October-December 2000; Gitennes Exploration Inc, 36 pages, 5 appendices, 1 map, unpublished.
- McArthur, G.F., Foster, J.R. (2001b): Report on Diamond Drilling, Fox Property, April 2001; Gitennes Exploration Inc, 28 pages, 5, unpublished.
- McArthur, G.F. (2002): Report on Diamond Drilling, Fox Property, March-April, 2001; Gitennes Exploration Inc., 22 pages, available on SEDAR: www.sedar.com
- Preto, V.A. (1977): The Nicola Group: Mesozoic Volcanism Related to Rifting in Southern British Columbia; in Volcanic Regimes in Canada, Baragar, W.R.A., Coleman, L.C., Hall J.M., eds., The Geological Association of Canada Special Paper Number 16, pages 39-57.
- Stadnyk, M.P. (1970): Report on Geochemical and Geophysical Surveys on the Smokie Aca and Con Mineral Claims, Helmer, British Columbia; Ronrico Explorations Ltd., British Columbia Ministry of Energy and Mines, Assessment Report 02715, 41 pages, 6 maps.
- Williams J.David (2011) Prospecting and Sampling Report on the FOX PROPERTY in 2011 Thompson-Nicola Regional District South-central British Columbia or Craig. A. Lynes Rich River Exploration Ltd. and Great Michael Resources Ltd. by Integrex Engineering J.David Williams, P.Eng. 21 November 2011
- Williams J.David (2008) Prospecting, Trenching and Sampling Report on the FOX PROPERTY in 2007 Thompson-Nicola Regional District South-central British Columbia. For Craig. A. Lynes Rich River Exploration Ltd, and Great Michael Resources Ltd. , by Integrex Engineering J.David Williams, P.Eng. 27 April 2008

10 Statement of Qualifications

I, Sassan Liaghat, Ph.D, of Coquitlam, British Columbia, do hereby certify:

That I am a senior geologist with an office at #460 - 789 West Pender Street, Vancouver, BC, V6C 1H2.

That I am graduate from the Ecole Polytechnique of Montreal with a Ph. D of Engineering degree in Economic Geology in 1992.

That I am a graduate of the Mineral and Exploration Diploma Program (MINEX) in 1988, and a Master of Science, Economic Geology program in 1989 from McGill University.

That since 1992, I have been involved in research, teaching and mineral exploration activities for base and precious metals in various areas of Canada.

That I have been actively engaged in the mining and mineral exploration industries in British Columbia since 2006.

That, I managed, and worked on the NCu property in October 2014

That I am the author or co-author of more than 70 international scientific papers or local reports.

That I have been granted Share options of Happy Creek Minerals Ltd.

Dated in Vancouver, B.C., January, 2014

"Sassan Liaghat"

Sassan Liaghat Ph.D.

I, David E. Blann, P.Eng., of Squamish, British Columbia, do hereby certify:

That I am a Professional Engineer registered in the Province of British Columbia since 1990.

That I am a graduate in Geological Engineering from the Montana College of Mineral Science and Technology, Butte, Montana, 1987.

That I am a graduate in Mining Engineering Technology from the B.C. Institute of Technology, 1984.

That I have been actively engaged in the mining and mineral exploration industry since 1984.

That I have reviewed and assessed approximately 20 rock samples from the NCu property and am familiar with the Nicola Group rocks.

Dated in Vancouver, B.C., January, 2014

David Blann


David E Blann, P.Eng.

Tables

12/29/2014

Government of British Columbia

Tenure Detail

Tenure Number ID 1031324 [View Tenure](#) 

Tenure Type Mineral (M)
 Tenure Sub Type Claim (C)
 Title Type Mineral Cell Title Submission (MCX)
 Mining Division
 Good To Date 2015/oct/02
 Issue Date 2014/oct/02
 Demised To
 Termination Type
 Termination Comments
 Termination Date
 Tag Number
 Claim Name NCU
 Old Tenure Code
 Area In Hectares 515.15

Map Numbers:
[092I](#)

Owners:
[203169](#) HAPPY CREEK MINERALS LTD 100.0%

Tenure Events:	Submitter	Event	Effective Date
	203169 HAPPY CREEK MINERALS LTD	CEXT Claim Registration (Acquisition)(5524993)	2014/OCT/02

Table 1

Table 2 Ncu Property, Rock Sample Descriptions and Summary of Rock Samples Assay

Sample ID	Easting	Northing	Lab #	Mag Max sus	Type of Sampling	Description	Ag (ppm)	Au (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
NCu-14-01	667545	5583297	5528998	39.4	Rock, Grab	Malachite Showing- Grab sample from cobbles west side of logging road. Hard, fine to medium grained, dark green to dark maroon tuff, malachite and iron oxide stained. Epidote in Groundmass, locally strongly calcareous, patchy and filling fractures. Trace chalcocite, pyrite may present.	11.53	0.026	19411	6.7	50
NCu-14-02	667595	5583299	5528999	29.31	Rock, Chip	Malachite Showing- Chip sample from outcrop in east side of logging road. Very hard, fine grained, dark green-grey, red brown tuff with malachite and iron oxide staining, accompanied by epidote ± chlorite alteration. Rare chalcocite and pyrite may present.	6.19	0.013	12114	5.2	57
NCu-14-03	667630	5583298		20.63	Rock, Chip	Malachite Showing- Chip sample from outcrop in east side of logging road. Hard, dark grey, medium grained tuff. Minor malachite stained fragments host by light green epidote patches					
NCu-14-04	667551	5583247		42	Rock, Chip	Malachite Showing- Chip sample from outcrop in west side of logging road. Hard, fine to medium grained, dark green, brownish tuff. Malachite and iron oxide stained locally					
NCu-14-05	667559	5583217	5529000	51.8	Rock, Chip	Malachite Showing- Chip sample from outcrop in east side of logging road Hard , dark grey-green and brown grey, fine-medium grained tuff. Epidote and carbonate veinlet are oriented in sub parallel features. Malachite and iron oxide are observed in dissemination and patchy.	0.05	<0.005	182.7	3.9	60

Table 2 Ncu Property, Rock Sample Descriptions and Summary of Rock Samples Assay

Sample ID	Easting	Northing	Lab #	Mag Max sus	Type of Sampling	Description	Ag (ppm)	Au (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
NCu-14-06	667021	5582951	5529001	37.99	Rock, Chip	Native Copper Showing- Chip sample from outcrop in east side of logging road. Fine to medium sized, dark brown to dark green, hard tuff containing disseminated pinhead and larger sized (~ 1mm) foil-like native copper. Malachite is also contained in seams and vuggy-sized , iron oxide stains.	0.07	0.013	519.8	3.7	56
NCu-14-07	667023	5583005		23.43	Rock, Chip	50 m north of Native Copper Showing- Chip sample from outcrop in east side of logging road. Fine grained, dark green-grey, red brown tuff with minor disseminated native copper and weak malachite and iron oxide staining					
NCu-14-08	667040	5582951	5529002	39	Rock, Chip	50 m north east of Native Copper Showing - Chip sample from outcrop in east side of logging road. Dark brown-green tuff, fine grained containing fine grained disseminated native copper and weak malachite stain. Epidote with minor amount accompany copper mineralization.	0.15	<0.005	1369.6	2.7	62
NCu-14-09	667453	5583371		49	Rock, Chip	Chip sample from outcrop in south side of logging road. Fine grained, light green tuff, epidote and carbonate are in groundmass and partly replaced mafic minerals, also observed in sub vertical fractures of outcrop. Rocks strike northerly and dip steeply to the west.					
NCu-14-10	667289	5583206		1102	Rock, Chip	Chip sample from strongly fractured exposed outcrop. Epivolcaniclastic , agglomerate, poly lithologics , mainly andesitic composition, multi color, unsorted, angular to subrounded fragments up to 2cm in size. Locally mixed with dark red and green mafic to intermediate tuffaceous breccias . Iron oxide and carbonate are in subvertical fractures.					

Table 2 Ncu Property, Rock Sample Descriptions and Summary of Rock Samples Assay

Sample ID	Easting	Northing	Lab #	Mag Max sus	Type of Sampling	Description	Ag (ppm)	Au (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
NCu-14-11	666988	5582657		0.63	Rock, Chip	Chip sample from strongly weathered, fractured outcrop. Epivolcaniclastic , agglomerate, poly lithologics , mainly andesitic composition, unsorted, angular to subrounded fragments up to 2cm in size. Locally moderate and strongly calcareous. . Iron oxide and carbonate are in fractures.					
NCu-14-12	667056	5582344		0.53	Rock, Chip	Chip sample from coarse grained agglomerate-conglomerate outcrop. Epivolcaniclastic - metasediment, poly lithologics , containing a variety of andesitic and more felsic unit, unsorted, angular to subrounded fragments up to 3cm in size. Sample strongly foliated, deformed, Iron oxide and carbonate are in subvertical fractures.					
NCu-14-13	667000	5583007		32.2	Rock, Chip	50 m east of Native Copper Showing - Chip sample from outcrop in east side of logging road. Fine grained, dark green-grey, red brown tuff with trace disseminated native copper and weak malachite and iron oxide staining, thin carb veins cut through. Epidote in					
NCu-14-14	665842	5584005		9.35	Rock, Chip	Chip sample from outcrop outside of the claim in westside. Hard, fine to medium grained, dark red, brownish tuff. Euhedral epidote, 0.5mm diameter in groundmass.					
NCu-14-15	665976	5583892		2.59	Rock, Chip	Chip sample from outcrop; outside of the claim in westside. Hard, medium angular grained, dark green, brownish tuff. mainly andesitic composition, multi color, unsorted, angular to subrounded fragments up to mm in size.					
NCu-14-16	666188	5583717	5529003	5.21	silt-soil	Soil sample collected from B horizon (25cm depth) of well developed fine to medium grained, dark brown-reddish soil. It seems to be wash out from elevation in southeast. Soil fragments contain tuff and agglomerate debris.	0.02	<0.005	51	3.9	41

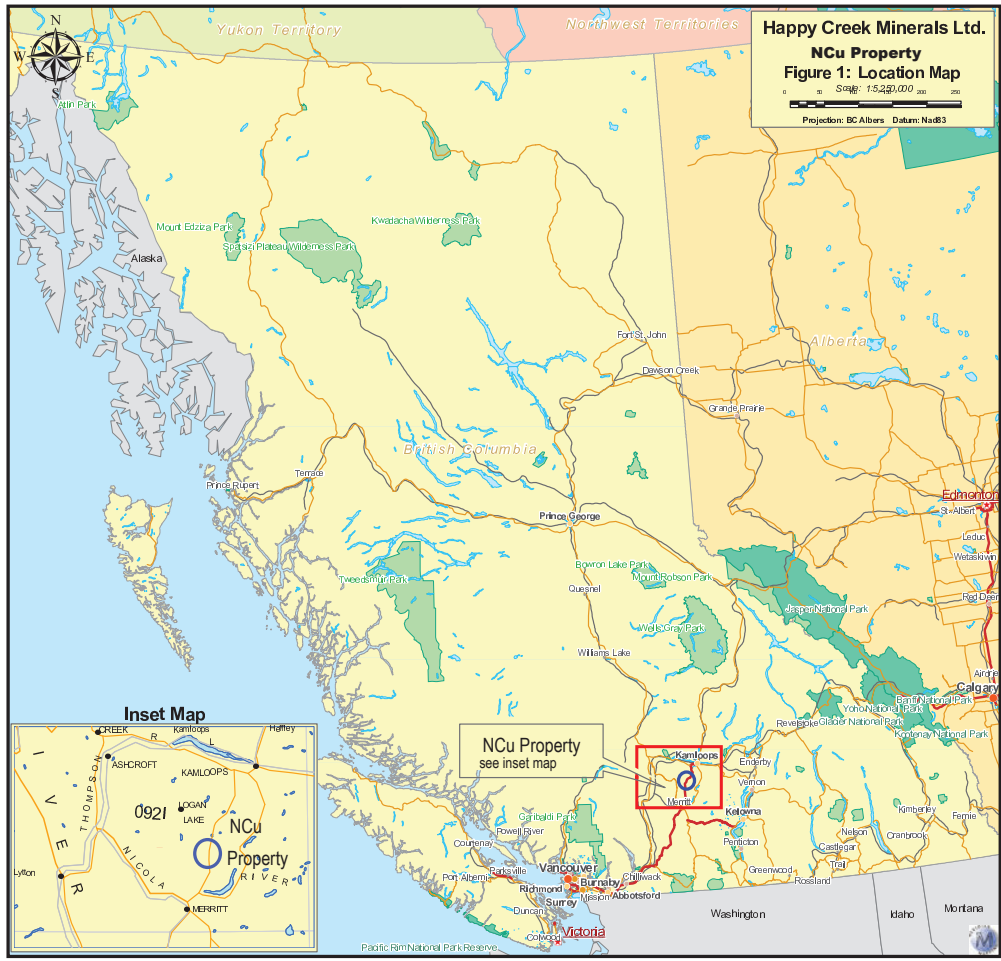
Table 2 Ncu Property, Rock Sample Descriptions and Summary of Rock Samples Assay

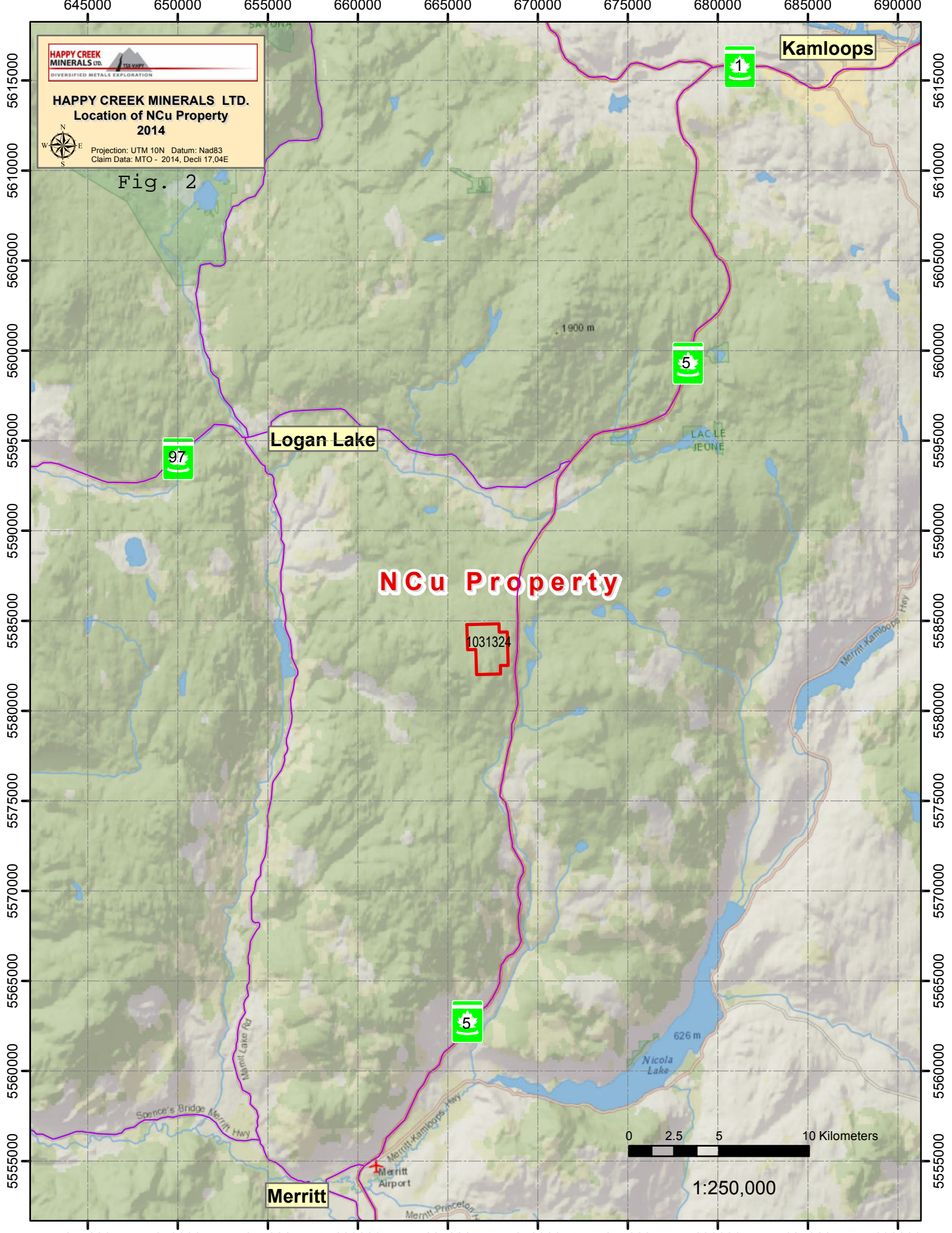
Sample ID	Easting	Northing	Lab #	Mag Max sus	Type of Sampling	Description	Ag (ppm)	Au (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
NCu-14-17	666294	5582842	5529004	3.93	Silt	Silt sample collected from a creek sediment; outside of the claim in westside. Water flows from the elevation in south east. Sediment grains contain fragments of mafic-intermediate tuff and agglomerate.	0.06	<0.005	53.5	3.5	38
NCu-14-18	665990	5582491		30.37	Rock, Chip	Chip sample from outcrop tuff; outside of the claim in south-west side. Rock is weather, broken, medium grained and dark green, brownish colored .					
NCu-14-19	665868	5583933		9.35	Rock, Chip	Chip sample from outcrop in old Cat working site. Fine to medium sized, dark brown to dark green, hard tuff containing quartz carbonate veins in epidote chlorite alteration. Rock variably fractured and broken. Locally iron oxide staining is strong. Rocks strike northerly and dip steeply to the east.					
NCu-14-20	666110	5584313		11.23	Rock, Chip	Chip sample from outcrop north west of claim. Hard, medium angular grained, dark green, brownish tuff.					
NCu-14-21	667589	5584071		33.33	Rock, Chip	Chip sample from outcrop. Hard, fine to coarse grained, dark green, brown tuff. Locally hematite staining					
NCu-14-22	667152	5583982		46.9	Rock, Chip	Chip sample from outcrop. Hard, medium grained, light green, brownish intermediate to felsic lapilli-tuff breccias					
NCu-14-23	668189	5582697		18.53	Rock, Chip	Chip sample from outcrop, east side of claim. Hard, medium coarse grained, dark green, dark brown tuff.					

Table 2 Ncu Property, Rock Sample Descriptions and Summary of Rock Samples Assay

Sample ID	Easting	Northing	Lab #	Mag Max sus	Type of Sampling	Description	Ag (ppm)	Au (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
NCu-14-24	667590	5583341		41	Rock, Chip	Chip sample from outcrop located about 50m east side of Malachite Showing. Medium sized, dark brown to dark green tuff; with epidote-carbonate in groundmass, veinlets and fractures.					
NCu-14-25	667616	5583363		8.53	Rock, Chip	Chip sample from outcrop located about 100m east side of Malachite Showing. Medium sized, dark brown to dark green tuff; with minor epidote-carbonate in groundmass.					
NCu-14-26	667697	5583376		11.3	Rock, Chip	Chip sample from outcrop located about 200m east side of Malachite Showing. Medium sized, dark brown to dark green tuff; with minor epidote in groundmass.					
NCu-14-27	667486	5583223		9.72	Rock, Chip	Chip sample from outcrop located about 100m west side of Malachite Showing. Fine to medium sized, dark brown to dark green tuff; with minor epidote in groundmass.					
NCu-14-28	667397	5583200		19.48	Rock, Chip	Chip sample from outcrop located about 200m west side of Malachite Showing. Fine to medium sized, dark brown to dark green tuff; with minor calcareous.					
NCu-14-29	667067	5583015		26.51	Rock, Chip	Chip sample from outcrop in east side of NCu Showing. Fine to medium sized, dark brown to dark red tuff-breccia; containing fine grain (~ 0.3mm) euhedral recrystallized? plagioclase. Matrix or groundmass mainly Iron oxidized with minor epidote.					

Figures





HAPPY CREEK MINERALS LTD.
DIVERSIFIED METALS EXPLORATION

HAPPY CREEK MINERALS LTD.
Location of NCu Property
2014

Projection: UTM 10N Datum: Nad83
Claim Data: MTO - 2014, Decli 17,04E

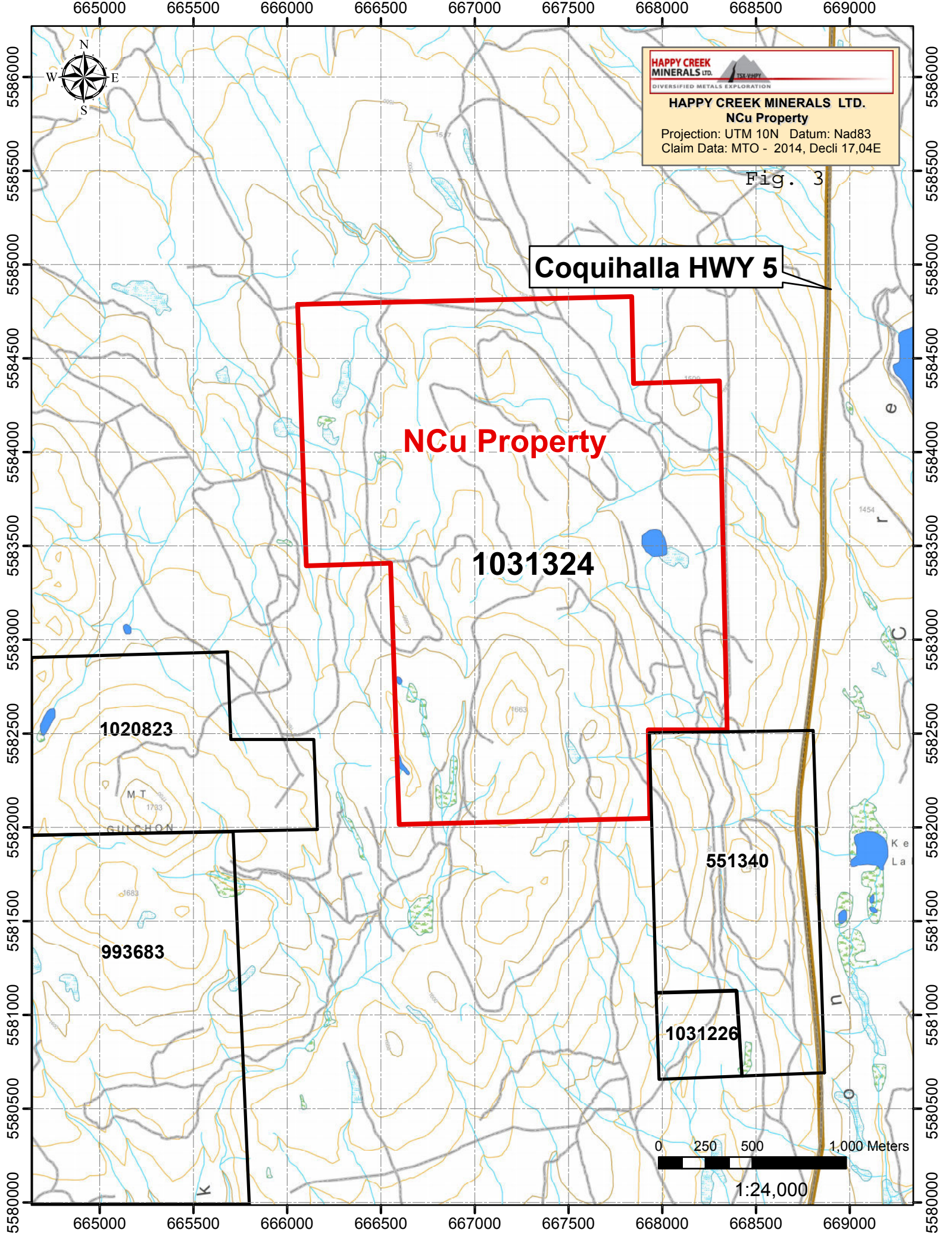
Fig. 2

NCu Property

1031324

0 2.5 5 10 Kilometers

1:250,000



HAPPY CREEK MINERALS LTD.
DIVERSIFIED METALS EXPLORATION

HAPPY CREEK MINERALS LTD.
NCu Property
Projection: UTM 10N Datum: Nad83
Claim Data: MTO - 2014, Decli 17,04E

Fig. 3

Coquihalla HWY 5

NCu Property

1031324

1020823

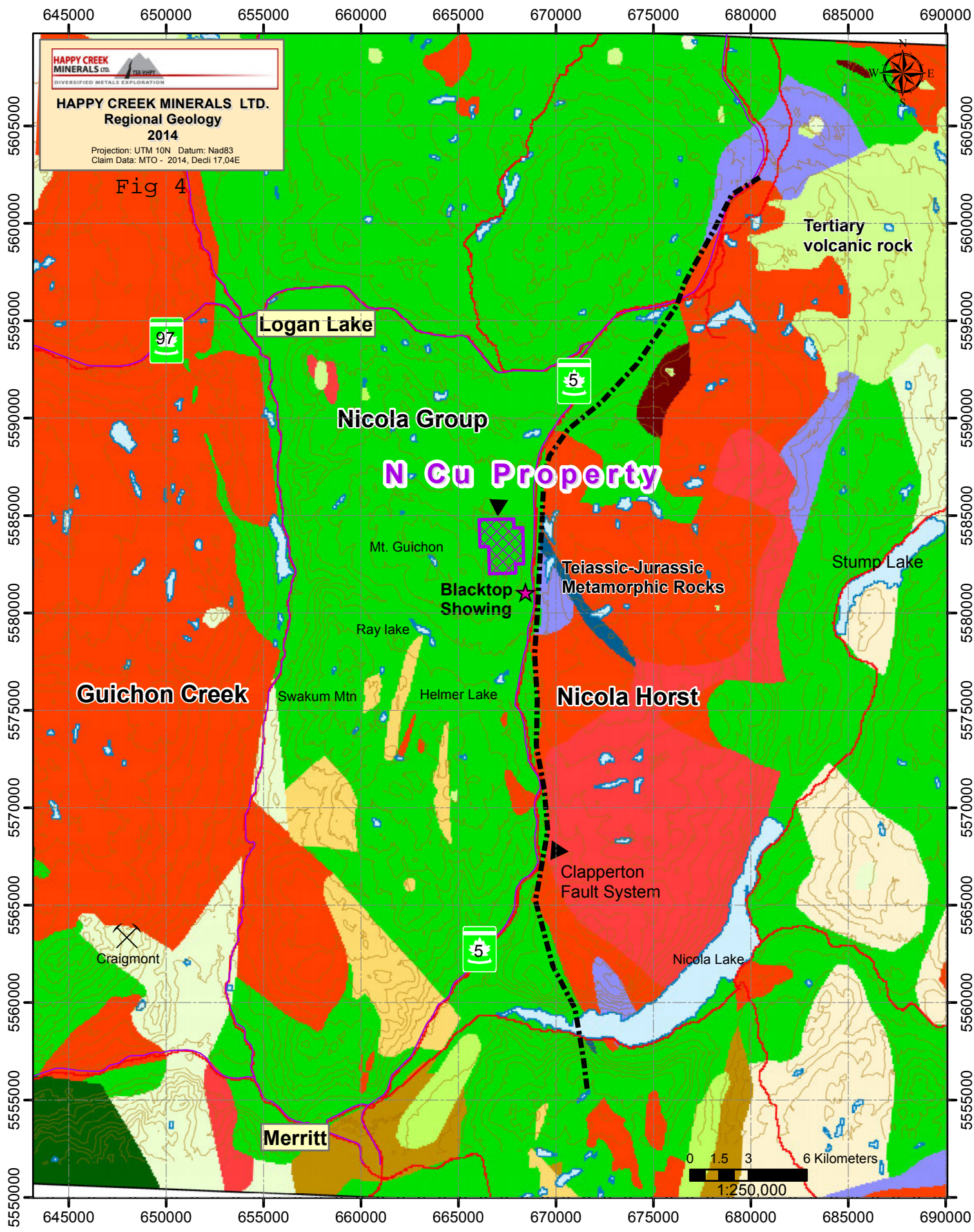
993683

551340

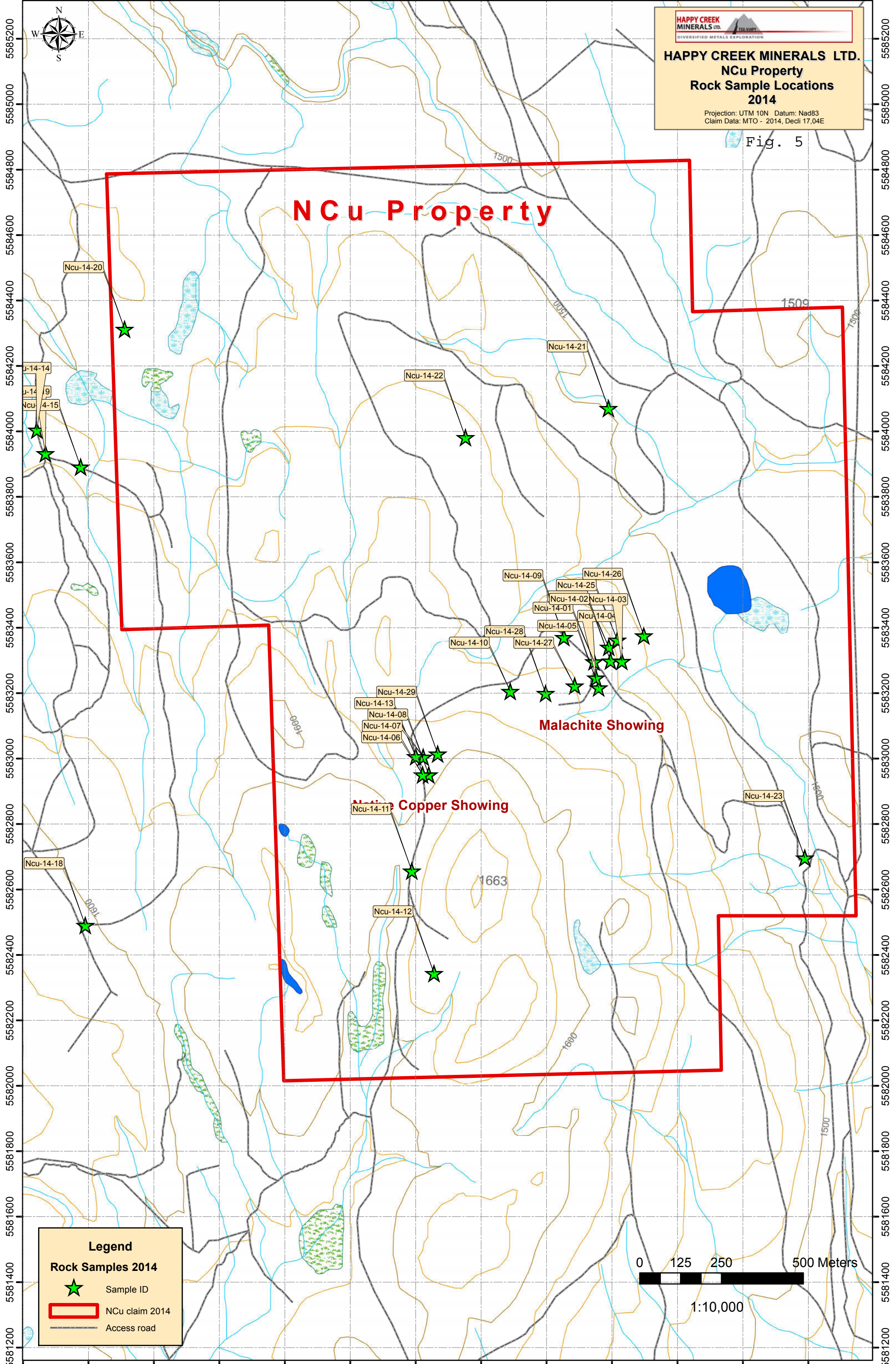
1031226

0 250 500 1,000 Meters

1:24,000



665800 666000 666200 666400 666600 666800 667000 667200 667400 667600 667800 668000 668200



HAPPY CREEK MINERALS LTD.
 DIVERSIFIED METALS EXPLORATION

HAPPY CREEK MINERALS LTD.
NCu Property
Rock Sample Locations
2014

Projection: UTM 10N Datum: Nad83
 Claim Data: MTO - 2014, Decli 17,04E

Fig. 5

NCu Property

Malachite Showing

Native Copper Showing

Legend

Rock Samples 2014

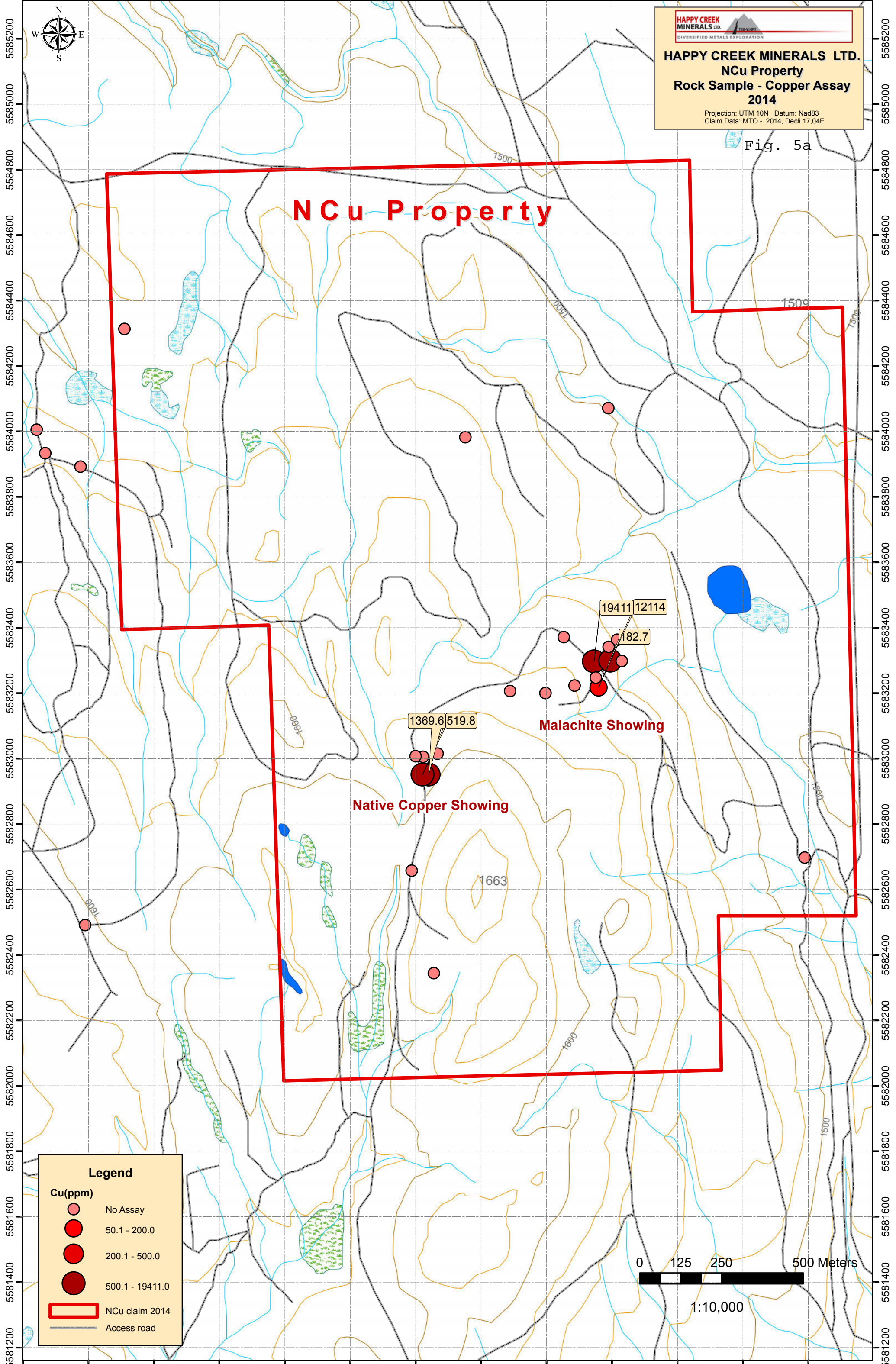
- ★ Sample ID
- ▭ NCU claim 2014
- Access road



1:10,000

665800 666000 666200 666400 666600 666800 667000 667200 667400 667600 667800 668000 668200

665800 666000 666200 666400 666600 666800 667000 667200 667400 667600 667800 668000 668200



HAPPY CREEK MINERALS LTD.
 DIVERSIFIED METALS EXPLORATION

HAPPY CREEK MINERALS LTD.
NCu Property
Rock Sample - Copper Assay
2014

Projection: UTM 10N Datum: Nad83
 Claim Data: MTO - 2014, Decli 17,04E

Fig. 5a

NCu Property

Native Copper Showing

Malachite Showing

1369.6 519.8

19411 12114

182.7

1663

1680

1500

1500

1509

1500

1500

1500

Legend

Cu(ppm)

- No Assay
- 50.1 - 200.0
- 200.1 - 500.0
- 500.1 - 19411.0

NCu claim 2014

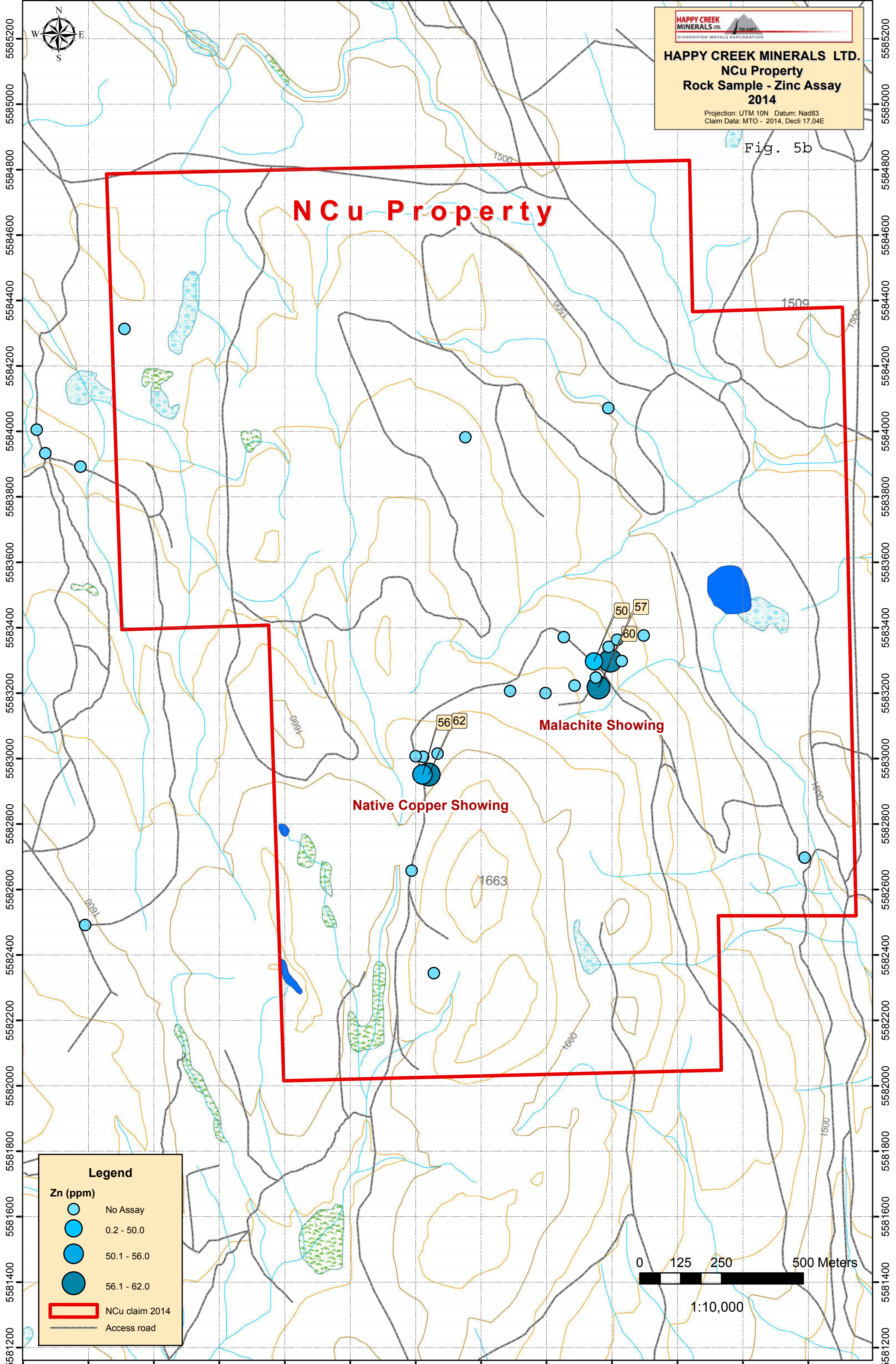
Access road

0 125 250 500 Meters

1:10,000

665800 666000 666200 666400 666600 666800 667000 667200 667400 667600 667800 668000 668200

665800 666000 666200 666400 666600 666800 667000 667200 667400 667600 667800 668000 668200



HAPPY CREEK MINERALS LTD.
 DIVERSIFIED METALS EXPLORATION

HAPPY CREEK MINERALS LTD.
NCu Property
Rock Sample - Zinc Assay
2014

Projection: UTM 10N Datum: Nad83
 Claim Data: MTO - 2014, Decli 17,04E

Fig. 5b

NCu Property

Malachite Showing

Native Copper Showing

Legend

Zn (ppm)

- No Assay
- 0.2 - 50.0
- 50.1 - 56.0
- 56.1 - 62.0

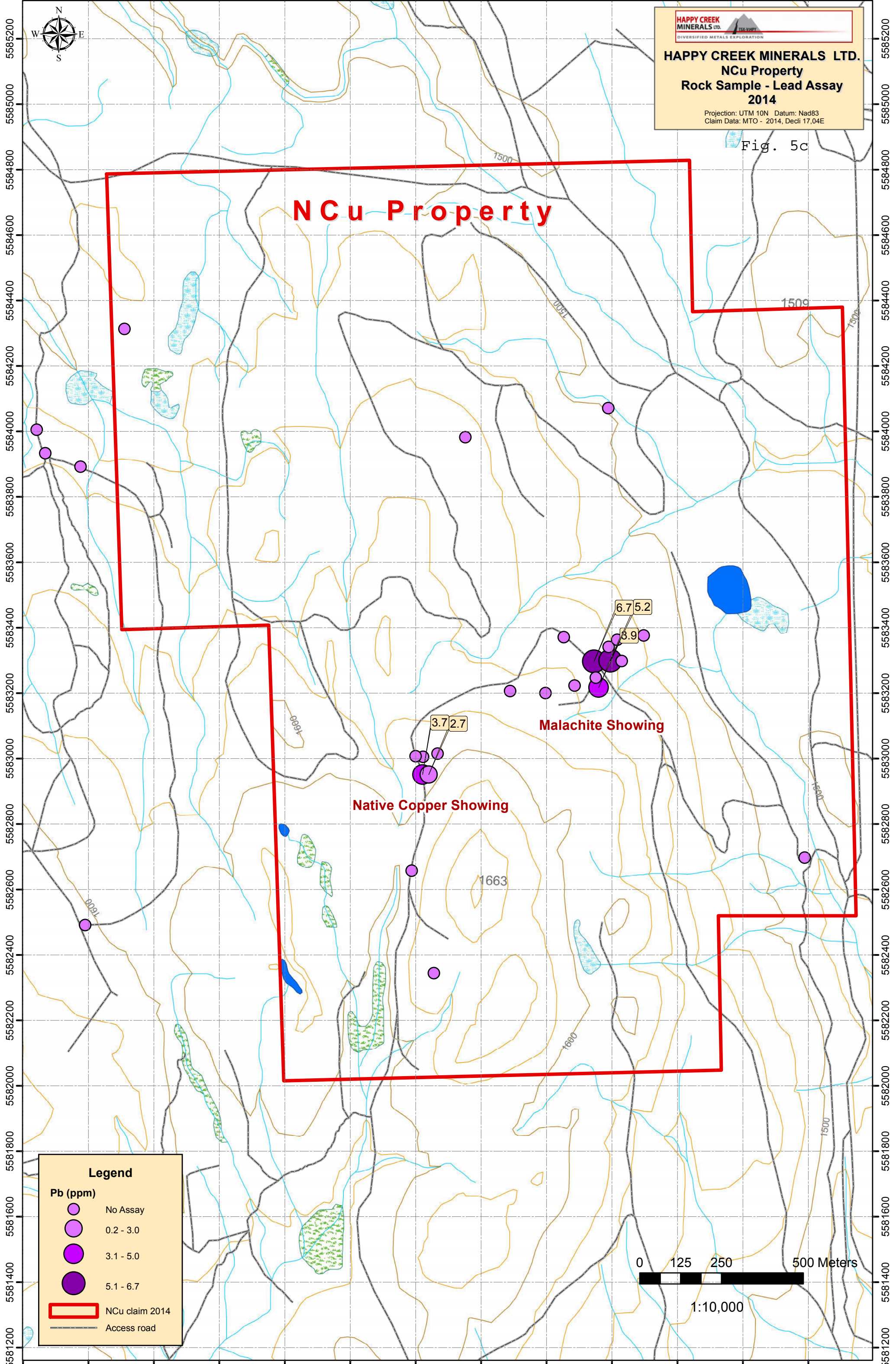
NCu claim 2014

Access road

0 125 250 500 Meters

1:10,000

665800 666000 666200 666400 666600 666800 667000 667200 667400 667600 667800 668000 668200



HAPPY CREEK MINERALS LTD.
 DIVERSIFIED METALS EXPLORATION

HAPPY CREEK MINERALS LTD.
NCu Property
Rock Sample - Lead Assay
2014

Projection: UTM 10N Datum: Nad83
 Claim Data: MTO - 2014, Decli 17,04E

Fig. 5c

NCu Property

Malachite Showing

Native Copper Showing

Legend

Pb (ppm)

- No Assay
- 0.2 - 3.0
- 3.1 - 5.0
- 5.1 - 6.7

NCu claim 2014

Access road

6.7 5.2
3.9

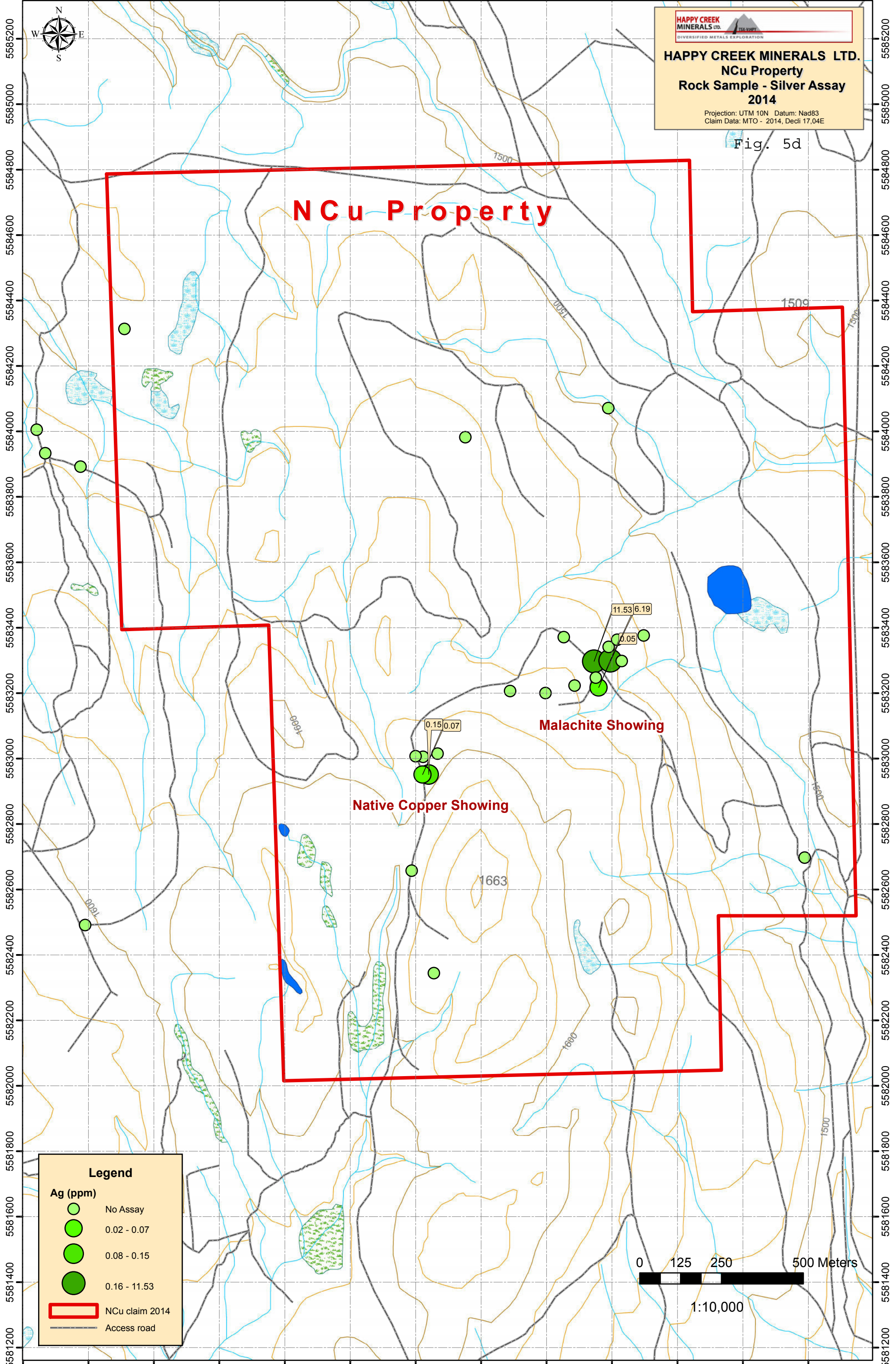
3.7 2.7

0 125 250 500 Meters

1:10,000

665800 666000 666200 666400 666600 666800 667000 667200 667400 667600 667800 668000 668200

665800 666000 666200 666400 666600 666800 667000 667200 667400 667600 667800 668000 668200



HAPPY CREEK MINERALS LTD.
 DIVERSIFIED METALS EXPLORATION

HAPPY CREEK MINERALS LTD.
NCu Property
Rock Sample - Silver Assay
2014

Projection: UTM 10N Datum: Nad83
 Claim Data: MTO - 2014, Decli 17.04E

Fig. 5d

NCu Property

Malachite Showing

Native Copper Showing

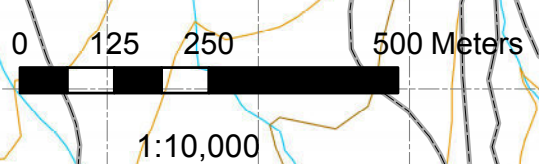
Legend

Ag (ppm)

- No Assay
- 0.02 - 0.07
- 0.08 - 0.15
- 0.16 - 11.53

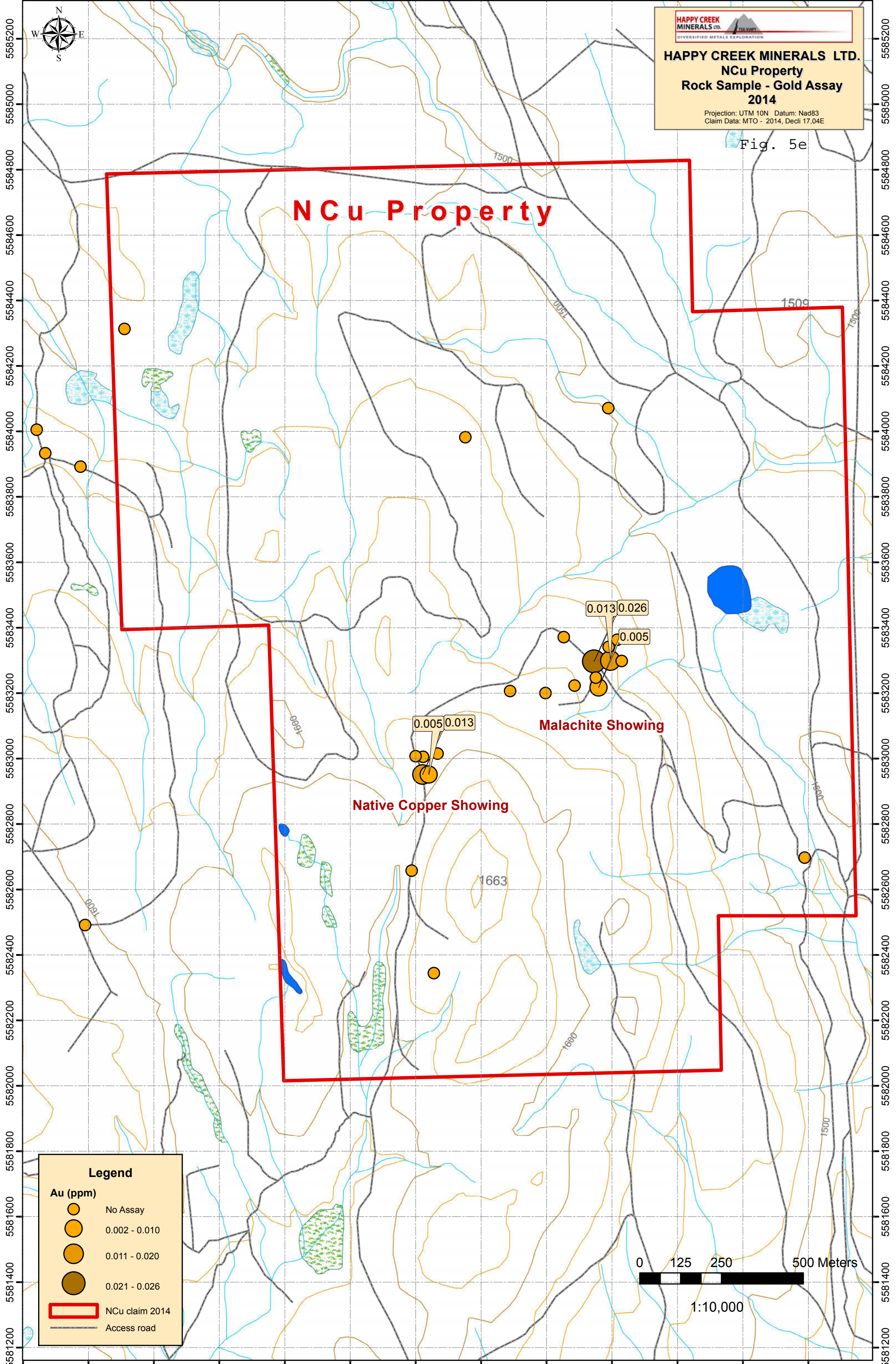
NCu claim 2014

Access road



665800 666000 666200 666400 666600 666800 667000 667200 667400 667600 667800 668000 668200

665800 666000 666200 666400 666600 666800 667000 667200 667400 667600 667800 668000 668200



HAPPY CREEK MINERALS LTD.
 DIVERSIFIED METALS EXPLORATION

HAPPY CREEK MINERALS LTD.
NCu Property
Rock Sample - Gold Assay
2014

Projection: UTM 10N Datum: Nad83
 Claim Data: MTO - 2014, Decli 17,04E

Fig. 5e

NCu Property

Malachite Showing

Native Copper Showing

Legend

Au (ppm)

- No Assay
- 0.002 - 0.010
- 0.011 - 0.020
- 0.021 - 0.026

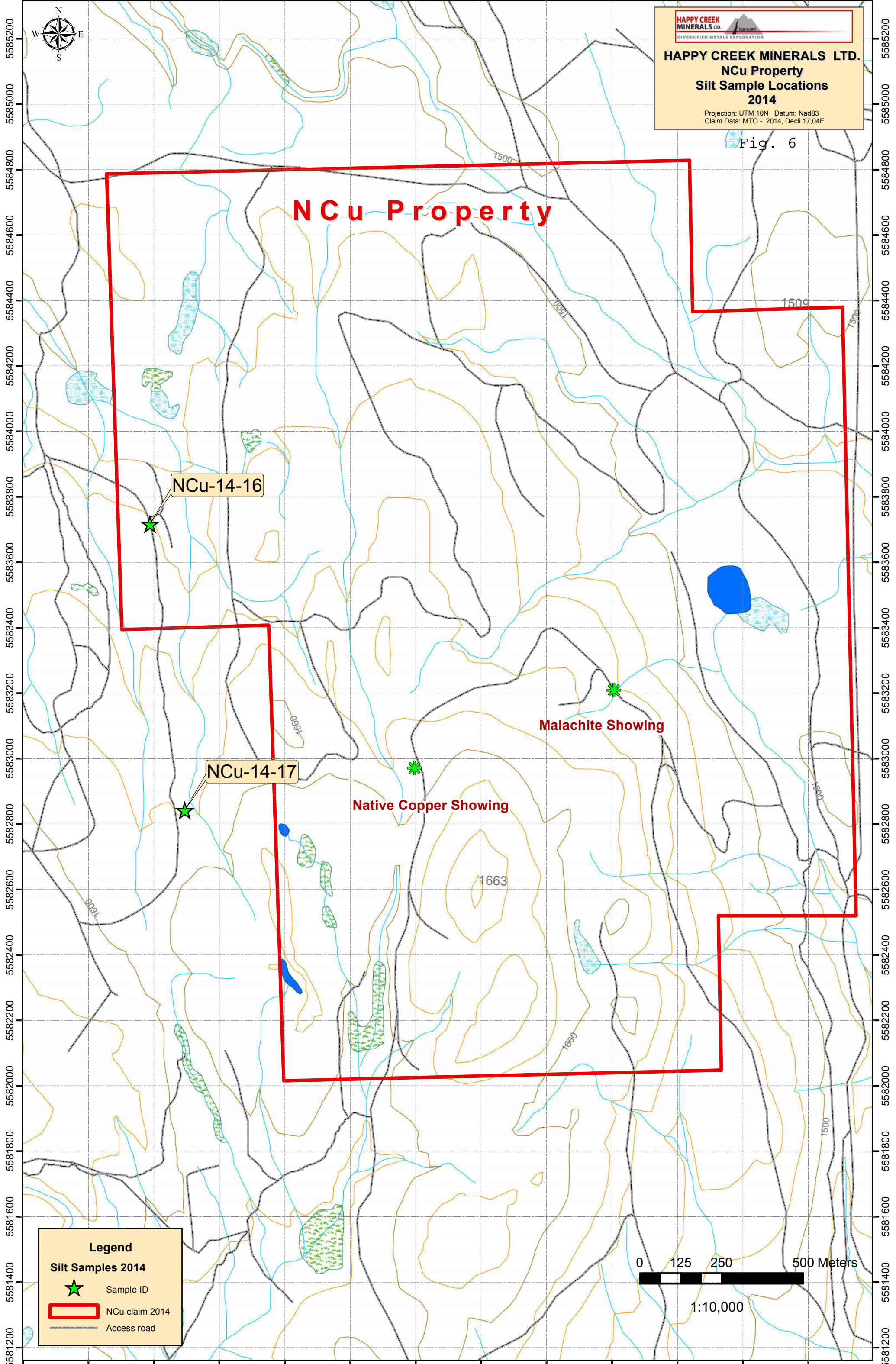
NCU claim 2014

Access road

0 125 250 500 Meters

1:10,000

665800 666000 666200 666400 666600 666800 667000 667200 667400 667600 667800 668000 668200



HAPPY CREEK MINERALS LTD.
 DIVERSIFIED METALS EXPLORATION

HAPPY CREEK MINERALS LTD.
NCu Property
Silt Sample Locations
2014

Projection: UTM 10N Datum: Nad83
 Claim Data: MTO - 2014, Decli 17.04E

Fig. 6

NCu Property

NCu-14-16



NCu-14-17



Malachite Showing



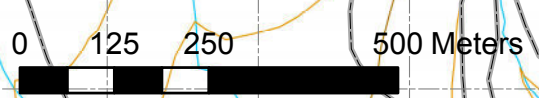
Native Copper Showing



Legend

Silt Samples 2014

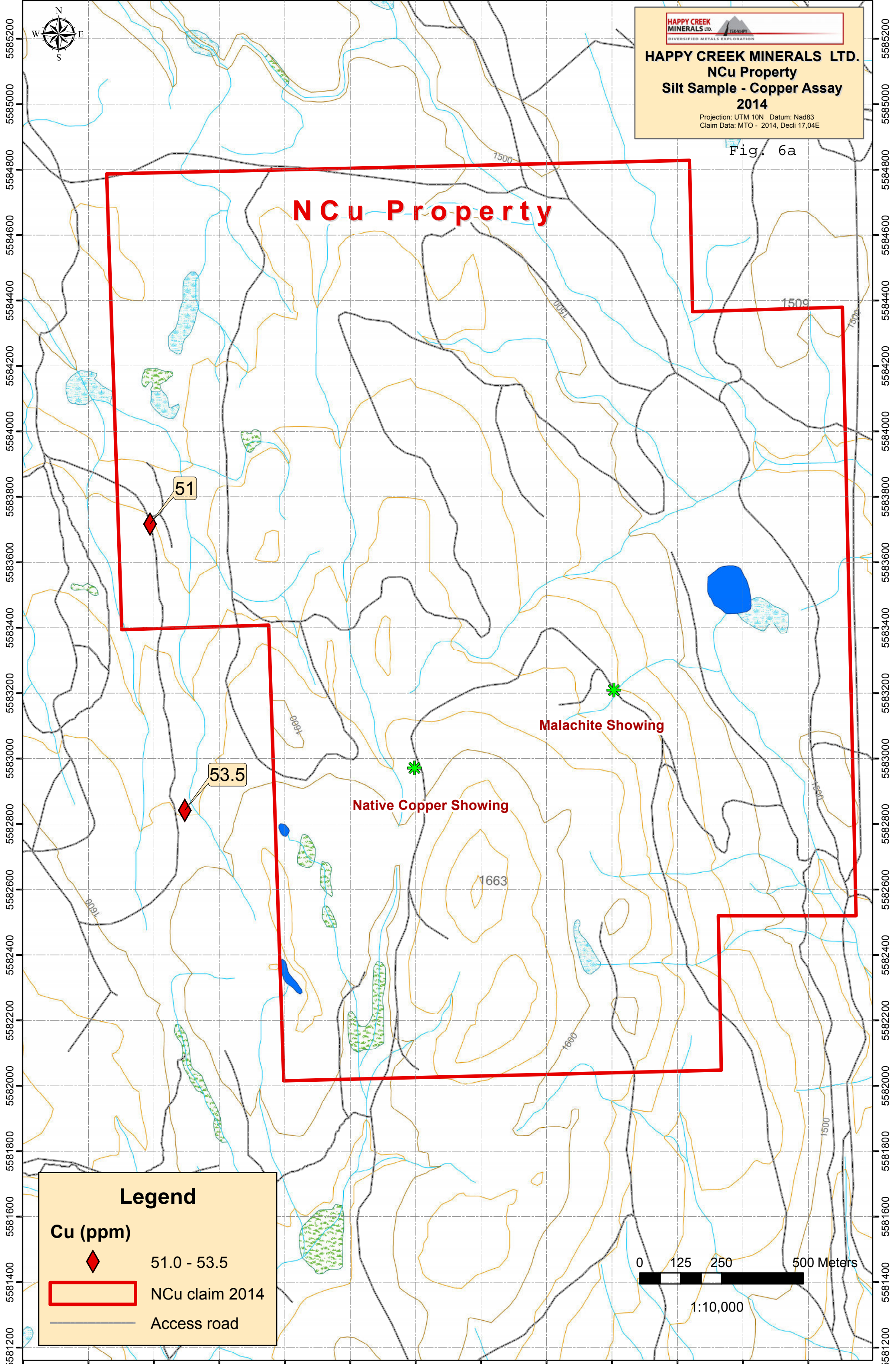
- Sample ID
- NCu claim 2014
- Access road



1:10,000

665800 666000 666200 666400 666600 666800 667000 667200 667400 667600 667800 668000 668200

665800 666000 666200 666400 666600 666800 667000 667200 667400 667600 667800 668000 668200



HAPPY CREEK MINERALS LTD.
 NCu Property
 Silt Sample - Copper Assay
 2014

Projection: UTM 10N Datum: Nad83
 Claim Data: MTO - 2014, Decli 17,04E

Fig. 6a

NCu Property

51

53.5

Malachite Showing

Native Copper Showing

1663

Legend

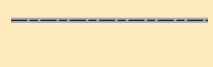
Cu (ppm)



51.0 - 53.5



NCu claim 2014



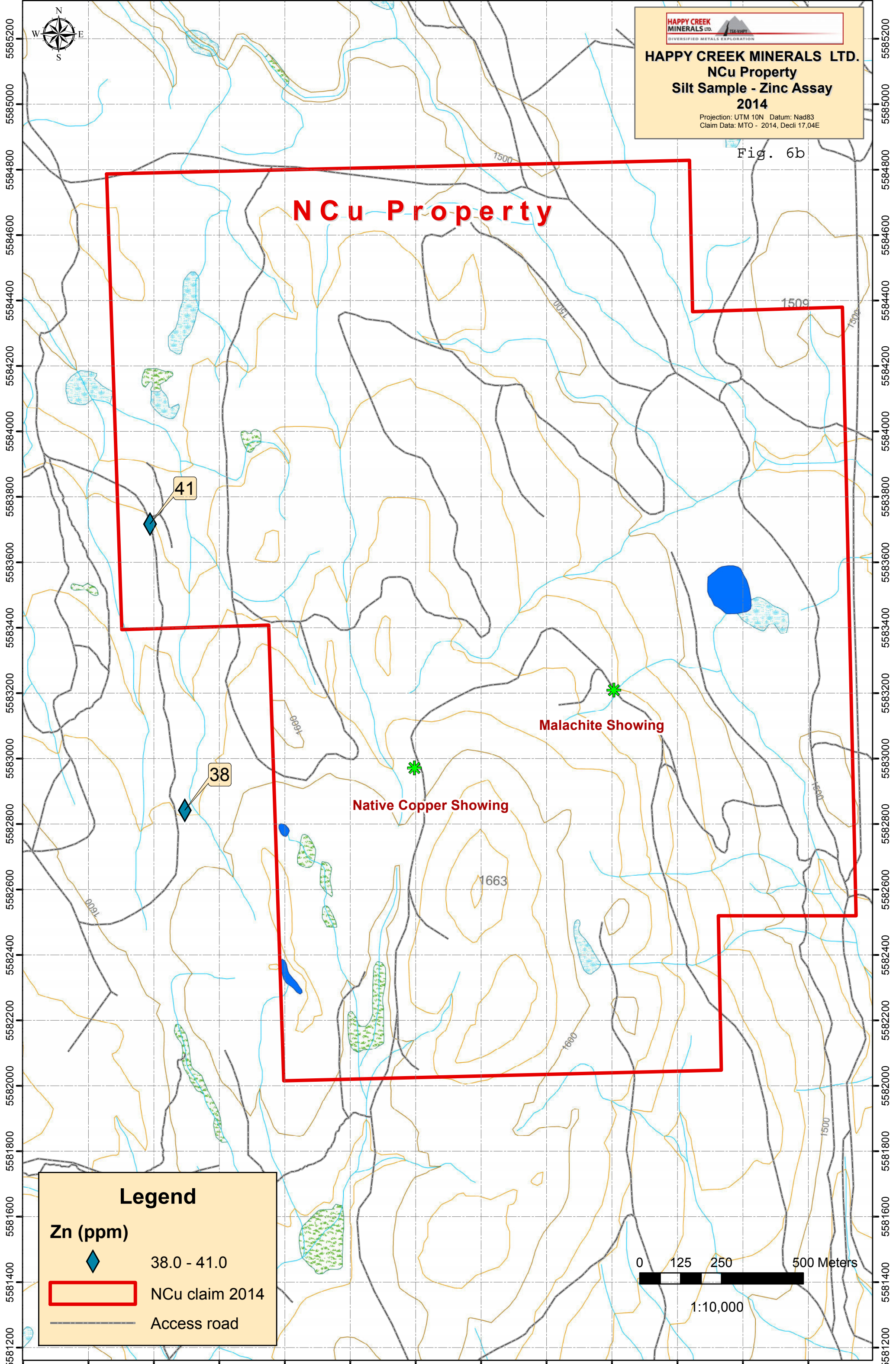
Access road

0 125 250 500 Meters

1:10,000

665800 666000 666200 666400 666600 666800 667000 667200 667400 667600 667800 668000 668200

665800 666000 666200 666400 666600 666800 667000 667200 667400 667600 667800 668000 668200



HAPPY CREEK MINERALS LTD.
 NCu Property
 Silt Sample - Zinc Assay
 2014

Projection: UTM 10N Datum: Nad83
 Claim Data: MTO - 2014, Decli 17,04E

Fig. 6b

NCu Property

41

38

Malachite Showing

Native Copper Showing

1663

Legend

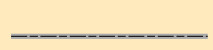
Zn (ppm)



38.0 - 41.0



NCu claim 2014



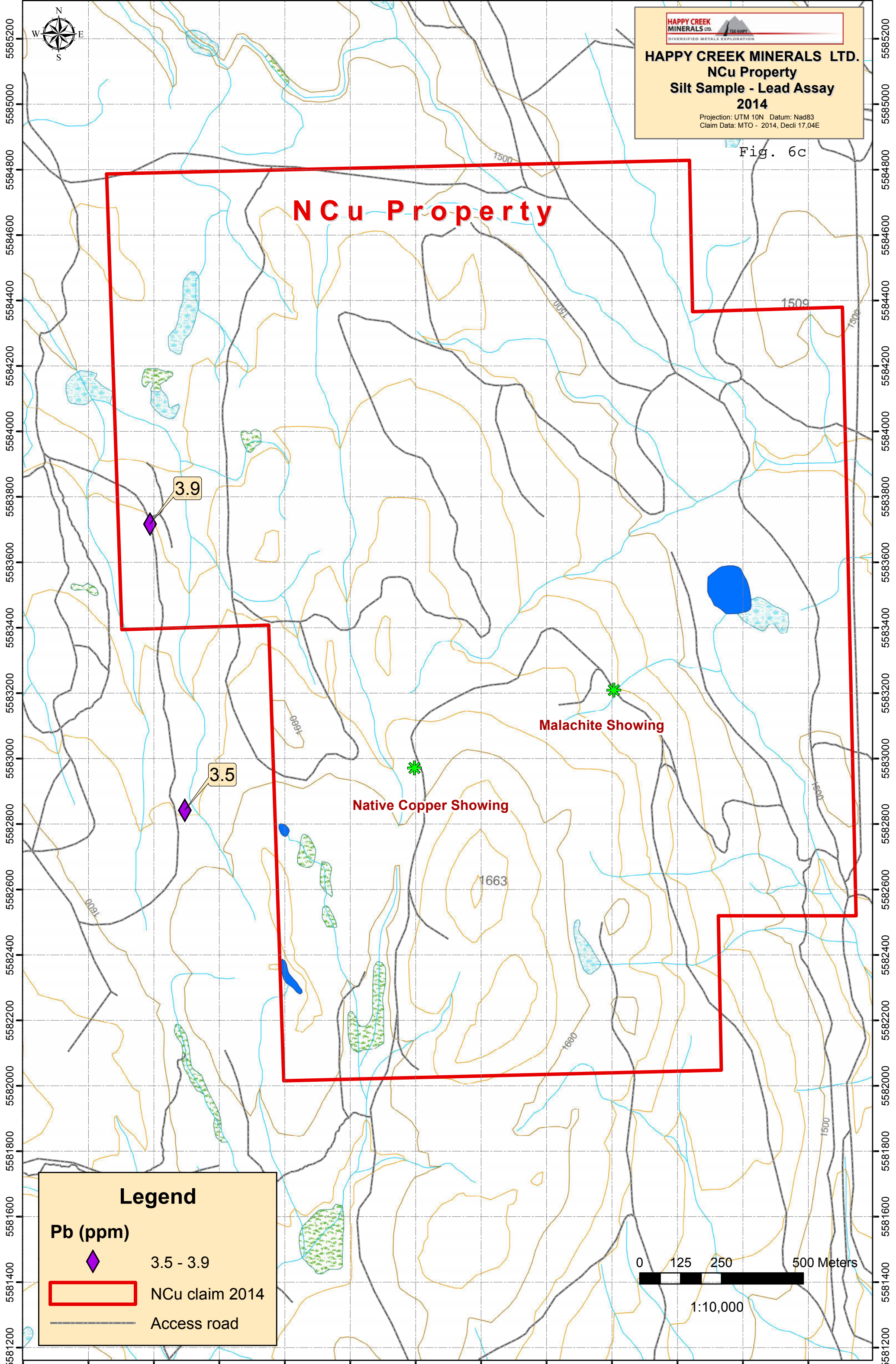
Access road

0 125 250 500 Meters

1:10,000

665800 666000 666200 666400 666600 666800 667000 667200 667400 667600 667800 668000 668200

665800 666000 666200 666400 666600 666800 667000 667200 667400 667600 667800 668000 668200



HAPPY CREEK MINERALS LTD.
 NCu Property
 Silt Sample - Lead Assay
 2014

Projection: UTM 10N Datum: Nad83
 Claim Data: MTO - 2014, Decli 17,04E

Fig. 6c

NCu Property

3.9

3.5

Malachite Showing

Native Copper Showing

1663

Legend

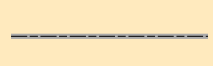
Pb (ppm)



3.5 - 3.9



NCu claim 2014



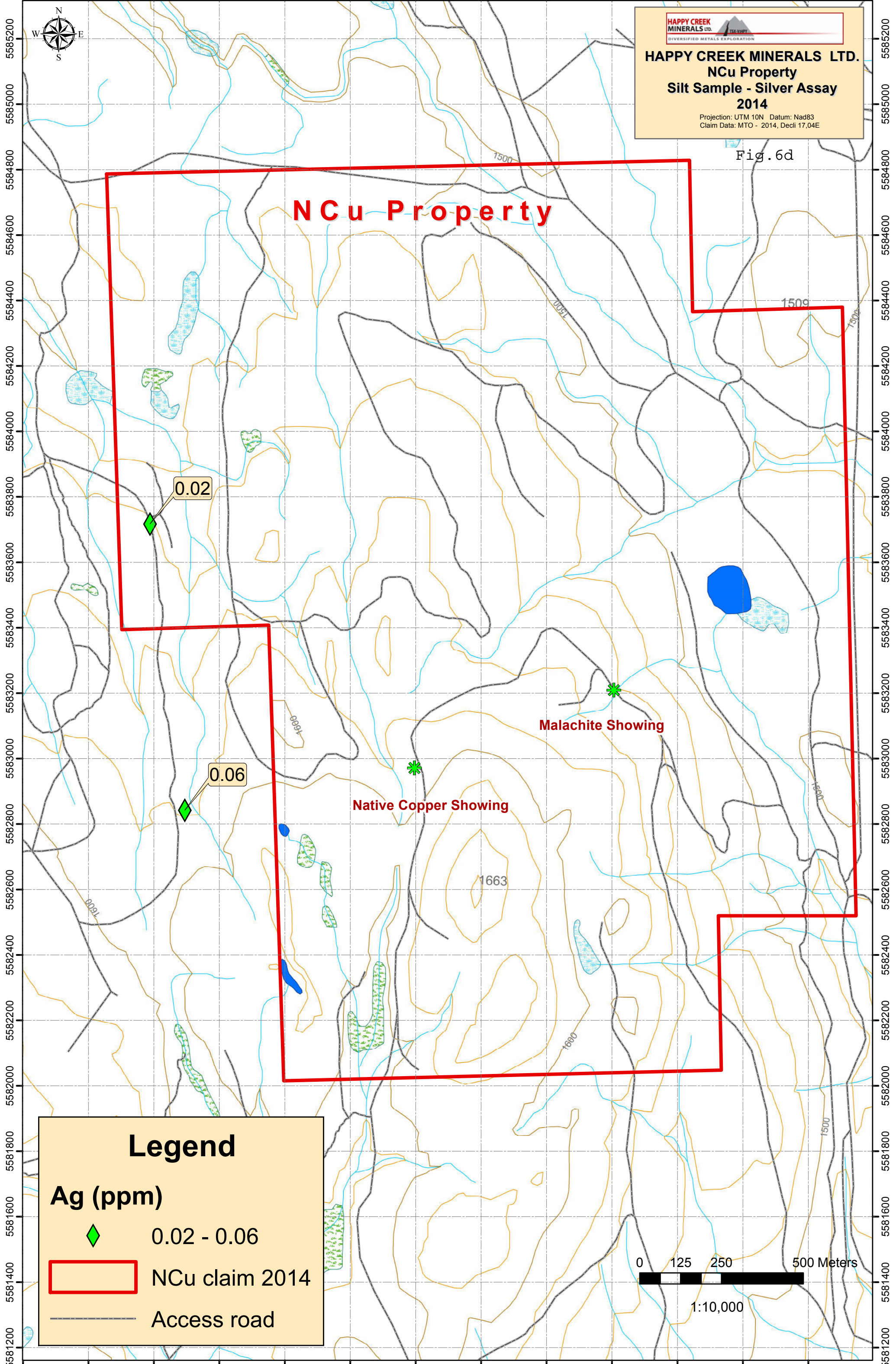
Access road

0 125 250 500 Meters

1:10,000

665800 666000 666200 666400 666600 666800 667000 667200 667400 667600 667800 668000 668200

665800 666000 666200 666400 666600 666800 667000 667200 667400 667600 667800 668000 668200



HAPPY CREEK MINERALS LTD.
 NCu Property
 Silt Sample - Silver Assay
 2014

Projection: UTM 10N Datum: Nad83
 Claim Data: MTO - 2014, Decli 17,04E

Fig. 6d

NCu Property

0.02

0.06

Malachite Showing

Native Copper Showing

1663

Legend

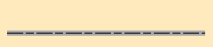
Ag (ppm)



0.02 - 0.06



NCu claim 2014



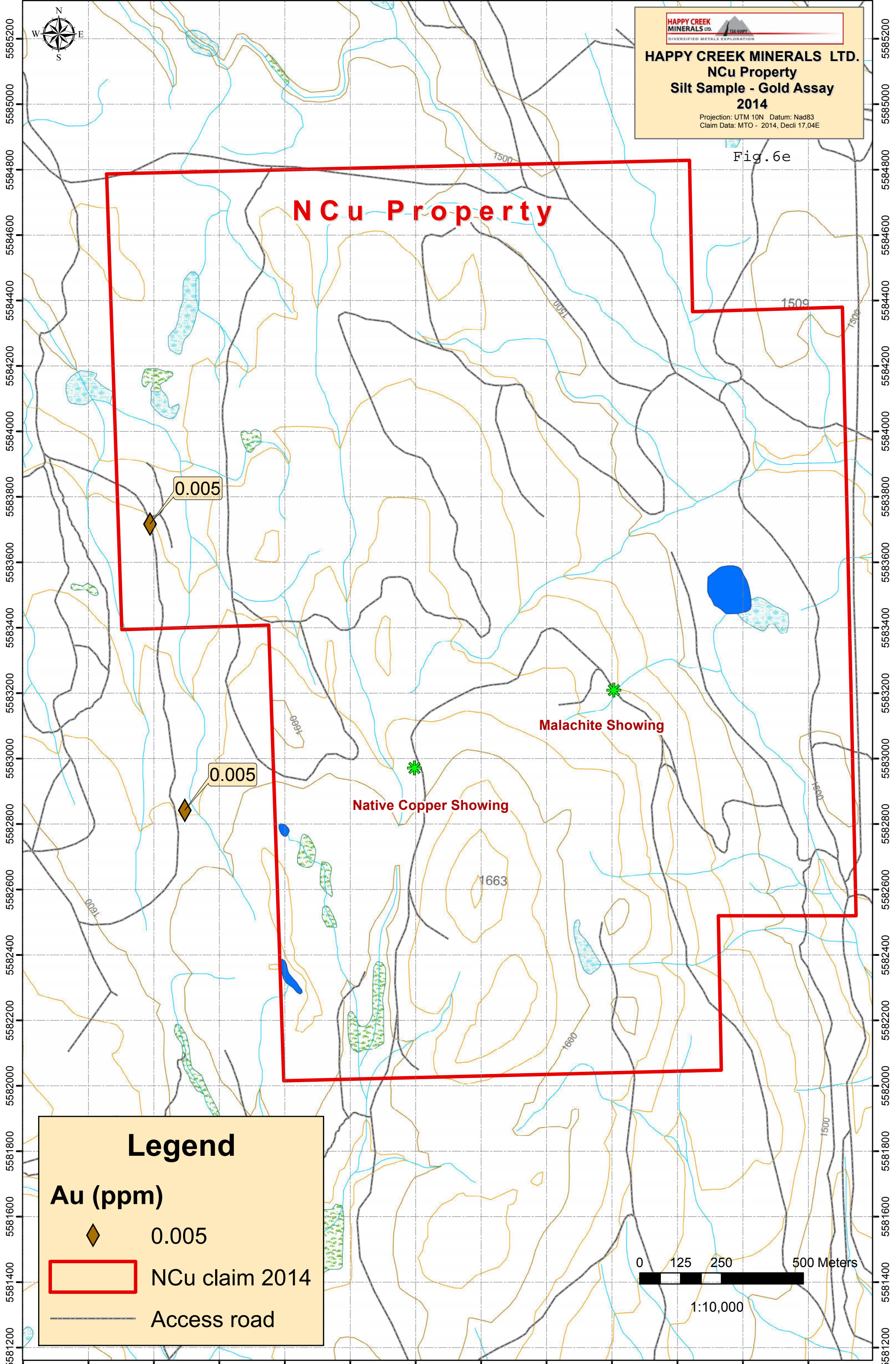
Access road

0 125 250 500 Meters

1:10,000

665800 666000 666200 666400 666600 666800 667000 667200 667400 667600 667800 668000 668200

665800 666000 666200 666400 666600 666800 667000 667200 667400 667600 667800 668000 668200



HAPPY CREEK MINERALS LTD.
NCu Property
Silt Sample - Gold Assay
2014

Projection: UTM 10N Datum: Nad83
 Claim Data: MTO - 2014, Decli 17,04E

Fig. 6e

NCu Property

0.005

0.005

Malachite Showing

Native Copper Showing

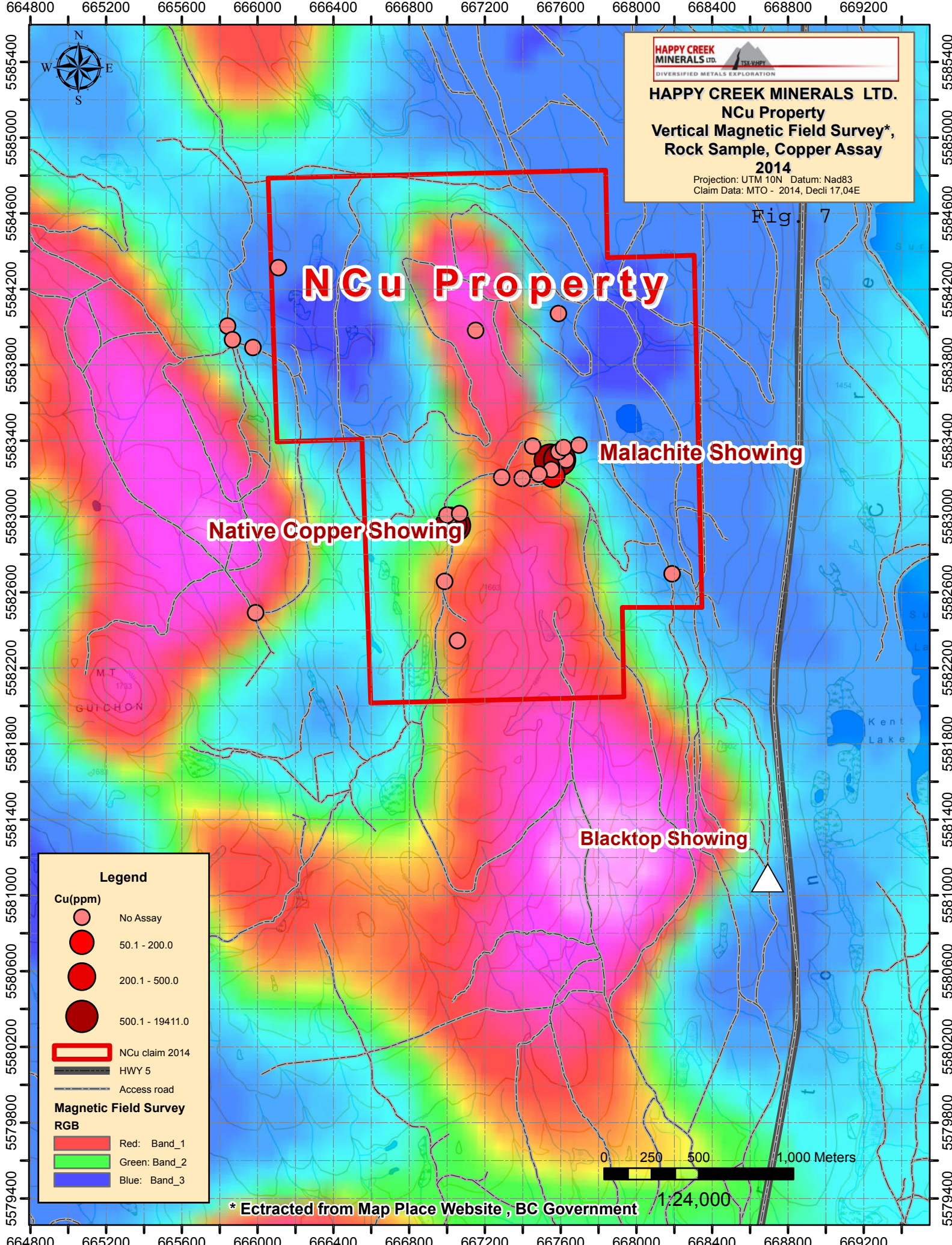
Legend

Au (ppm)

- 0.005
- NCU claim 2014
- Access road

0 125 250 500 Meters

1:10,000





HAPPY CREEK MINERALS LTD.
 NCu Property
 Vertical Magnetic Field Survey*,
 Rock Sample, Copper Assay
 2014
Projection: UTM 10N Datum: Nad83
 Claim Data: MTO - 2014, Decli 17,04E

Fig. 7

NCu Property





Native Copper Showing


Malachite Showing


Blacktop Showing


Legend

Cu(ppm)

-  No Assay
-  50.1 - 200.0
-  200.1 - 500.0
-  500.1 - 19411.0




 NCu claim 2014

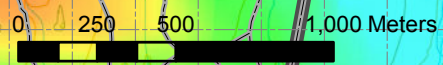
 HWY 5

 Access road

Magnetic Field Survey

RGB

-  Red: Band_1
-  Green: Band_2
-  Blue: Band_3



* Extracted from Map Place Website, BC Government 1:24,000

Photos



Photo1: General View of Survey Area



Photo 2: Malachite Showing. Photo looks north

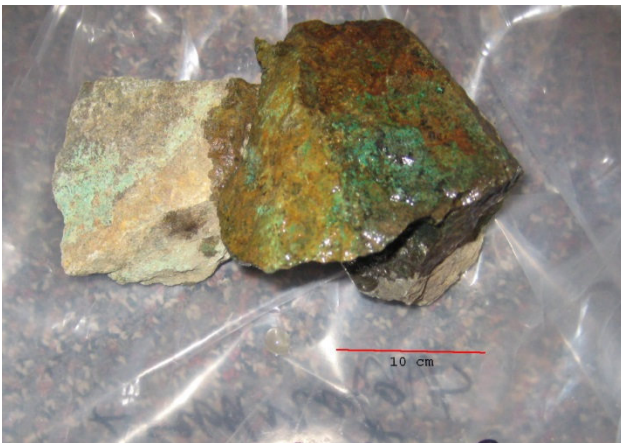


Photo 3: Malachite Showing Rock



Photo 4: Native Copper Showing.



Photo 5: Native copper Showing Rock



Photo 6: Epidote alteration in mineralized rocks

Appendix 1

Geochemical Analyses of Samples

Appendix 1

Ncu Project 2014, Geochemical Analyses of Samples														
Sample ID	lab #	Type	Ag	Al	As	Au	Ba	Be	Bi	Cd	Ce	Cs	Cu	Fe
			ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
NCu-14-01	5528998	Rock	11.53	2.56	3.1	0.026	14	1.03	0.1	0.38	12.24	0.31	19411	5.88
NCu-14-02	5528999	Rock	6.19	2.5	2.8	0.013	16	0.89	0.1	0.21	11.84	0.47	12114	6.03
NCu-14-05	5529000	Rock	0.05	2.13	2.1	<0.005	38	0.64	0.08	0.04	11.55	0.46	182.7	5.42
NCu-14-06	5529001	Rock	0.07	2.57	4.6	0.013	22	0.84	0.07	0.06	13.08	0.15	519.8	5.61
NCu-14-08	5529002	Rock	0.15	2.98	6.7	<0.005	19	0.58	0.05	0.08	10.33	0.06	1369.6	5.23
NCu-14-16	5529003	Silt	0.02	1.71	3	<0.005	90	0.5	0.1	0.06	16.85	0.98	51	4.6
NCu-14-17	5529004	Silt	0.06	1.82	2.6	<0.005	98	0.45	0.11	0.06	13.85	0.8	53.5	3.87
Sample ID	lab #	Type	Ge	Hf	In	Mo	Nb	P	Pb	Rb	Re	S	Sb	Sc
			ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm
NCu-14-01	5528998	Rock	0.24	0.56	0.026	5.86	0.22	1236	6.7	2.5	0.004	0.07	0.34	14.5
NCu-14-02	5528999	Rock	0.23	0.51	0.025	1.07	0.15	1353	5.2	2.9	0.002	0.09	0.41	11.2
NCu-14-05	5529000	Rock	0.16	0.39	0.019	0.85	0.11	1304	3.9	6.6	<0.001	0.02	0.12	7.7
NCu-14-06	5529001	Rock	0.24	0.43	0.025	1.34	0.18	1223	3.7	1.8	<0.001	0.02	0.09	7.2
NCu-14-08	5529002	Rock	0.22	0.51	0.025	1.72	0.21	1039	2.7	0.5	<0.001	0.03	0.07	7.2
NCu-14-16	5529003	Silt	0.13	0.13	0.023	0.8	0.62	954	3.9	7.8	<0.001	0.01	0.5	9.2
NCu-14-17	5529004	Silt	0.11	0.13	0.021	0.71	0.97	687	3.5	6.1	<0.001	0.01	0.29	8.1
Sample ID	lab #	Type	Sn	Sr	Te	Th	Tl	U	V	W	Y	Zn	Ga	Se
			ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
NCu-14-01	5528998	Rock	0.7	64.4	0.03	0.8	0.02	0.54	240	0.95	11.04	50	12.84	0.6
NCu-14-02	5528999	Rock	0.6	52.8	0.02	0.7	0.03	0.45	231	0.73	10.11	57	10.2	0.3
NCu-14-05	5529000	Rock	0.7	145.6	0.01	0.7	0.02	0.44	184	0.73	8.95	60	9.37	<0.2
NCu-14-06	5529001	Rock	0.6	29.9	<0.01	0.8	<0.02	0.46	203	0.86	10.39	56	13.01	<0.2
NCu-14-08	5529002	Rock	0.5	31.7	<0.01	0.6	<0.02	0.35	183	1.13	11.37	62	14.41	<0.2
NCu-14-16	5529003	Silt	0.5	68.2	0.02	1.2	0.03	0.55	155	0.41	8.63	41	6.11	<0.2
NCu-14-17	5529004	Silt	0.6	54.7	0.02	1.2	0.03	0.59	127	0.41	8.71	38	5.95	<0.2

Appendix 2

Certificates of Analyses



Met-Solve Analytical Services
Unit 1, 20120 102nd Avenue
Langley, BC V1M 4B4
Phone: +1-604-888-0875

To: **Happy Creek Minerals**
460-789 West Pender St
Vancouver BC
V6C 1H2

CERTIFICATE OF ANALYSIS: MA0108-OCT14

Project Name: Ncu Project
Job Received Date: 29-Oct-2014
Job Report Date: 06-Nov-2014
Report Version: Final

COMMENTS:

Test results reported relate only to the samples as received by the laboratory. Unless otherwise stated above, sufficient sample was received for the methods requested and all samples were received in acceptable condition. Analytical results in unsigned reports marked "preliminary" are subject to change, pending final QC review. Please refer to Met-Solve Analytical Services' *Schedule of Services and Fees* for our complete Terms and Conditions

SAMPLE PREPARATION	
METHOD CODE	DESCRIPTION
PRP-910	Dry, Crush to 2mm, Split 250g, Pulverize to 85% passing 75µm
PRP-757	Dry, Screen to 80 mesh, save plus fraction

ANALYTICAL METHODS	
METHOD CODE	DESCRIPTION
ICA-6Cu	Cu, Aqua Regia, ICP-AES, Ore Grade
MS-130	Multi-Element, Aqua Regia, ICP-MS/AES, Ultra Trace Level

Signature:

Jimbo Zheng BSc., PChem, BC Certified Assayer
Senior Analytical Chemist
Met-Solve Analytical Services Inc.



Met-Solve Analytical Services
 Unit 1, 20120 102nd Avenue
 Langley, BC V1M 4B4
 Phone: +1-604-888-0875

To: **Happy Creek Minerals**
460-789 West Pender St
Vancouver BC
V6C 1H2

CERTIFICATE OF ANALYSIS:	MA0108-OCT14
---------------------------------	---------------------

Project Name: Ncu Project
 Job Received Date: 29-Oct-2014
 Job Report Date: 06-Nov-2014
 Report Version: Final

Sample ID	Sample Type	PWE-100 Rec. Wt. kg	Method Analyte Units	ICA-6Cu Cu ppm	MS-130 Ag ppm	MS-130 Al %	MS-130 As ppm	MS-130 Au ppm	MS-130 B ppm	MS-130 Ba ppm	MS-130 Be ppm	MS-130 Bi ppm
		0.01	LOR	5	0.01	0.01	0.1	0.005	10	10	0.05	0.01
5528998	Rock	1.53		19411	11.53	2.56	3.1	0.026	18	14	1.03	0.10
5528999	Rock	2.00		12114	6.19	2.50	2.8	0.013	20	16	0.89	0.10
5529000	Rock	2.39			0.05	2.13	2.1	<0.005	19	38	0.64	0.08
5529001	Rock	1.33			0.07	2.57	4.6	0.013	24	22	0.84	0.07
5529002	Rock	1.12			0.15	2.98	6.7	<0.005	27	19	0.58	0.05
5529003	Soil	1.04			0.02	1.71	3.0	<0.005	16	90	0.50	0.10
5529004	Silt	0.86			0.06	1.82	2.6	<0.005	13	98	0.45	0.11
DUP 5529000					0.04	2.26	2.0	<0.005	20	36	0.59	0.05
DUP 5528998				19081								
STD BLANK					<0.01	<0.01	<0.1	<0.005	<10	<10	<0.05	<0.01
STD BLANK				<5								
STD OREAS 24b					0.06	3.15	8.4	<0.005	<10	145	1.81	0.73
STD MP-1b				30832								

***Please refer to the cover page for comments regarding this certificate. ***



Met-Solve Analytical Services
 Unit 1, 20120 102nd Avenue
 Langley, BC V1M 4B4
 Phone: +1-604-888-0875

To: **Happy Creek Minerals**
460-789 West Pender St
Vancouver BC
V6C 1H2

CERTIFICATE OF ANALYSIS: MA0108-OCT14

Project Name: Ncu Project
 Job Received Date: 29-Oct-2014
 Job Report Date: 06-Nov-2014
 Report Version: Final

Sample ID	MS-130 Ca %	MS-130 Cd ppm	MS-130 Ce ppm	MS-130 Co ppm	MS-130 Cr ppm	MS-130 Cs ppm	MS-130 Cu ppm	MS-130 Fe %	MS-130 Ga ppm	MS-130 Ge ppm	MS-130 Hf ppm	MS-130 Hg ppm
	0.01	0.01	0.02	0.1	1	0.05	0.2	0.01	0.05	0.05	0.02	0.01
5528998	2.37	0.38	12.24	30.6	92	0.31	>10000.0	5.88	12.84	0.24	0.56	0.02
5528999	2.04	0.21	11.84	30.7	75	0.47	>10000.0	6.03	10.20	0.23	0.51	0.01
5529000	1.76	0.04	11.55	33.6	79	0.46	182.7	5.42	9.37	0.16	0.39	<0.01
5529001	2.72	0.06	13.08	29.9	84	0.15	519.8	5.61	13.01	0.24	0.43	<0.01
5529002	3.42	0.08	10.33	29.5	114	0.06	1369.6	5.23	14.41	0.22	0.51	0.02
5529003	1.07	0.06	16.85	17.7	119	0.98	51.0	4.60	6.11	0.13	0.13	0.02
5529004	1.03	0.06	13.85	16.1	94	0.80	53.5	3.87	5.95	0.11	0.13	0.02
DUP 5529000	1.85	0.03	10.85	30.8	82	0.44	187.7	5.61	8.96	0.12	0.39	<0.01
DUP 5528998												
STD BLANK	<0.01	<0.01	<0.02	<0.1	<1	<0.05	<0.2	<0.01	<0.05	<0.05	<0.02	<0.01
STD BLANK												
STD OREAS 24b	0.45	0.05	69.32	16.6	100	9.11	37.8	3.86	10.87	0.22	0.59	0.01
STD MP-1b												

***Please refer to the cover page for comments regarding this certificate. ***



Met-Solve Analytical Services
 Unit 1, 20120 102nd Avenue
 Langley, BC V1M 4B4
 Phone: +1-604-888-0875

To: **Happy Creek Minerals**
460-789 West Pender St
Vancouver BC
V6C 1H2

CERTIFICATE OF ANALYSIS:	MA0108-OCT14
---------------------------------	---------------------

Project Name: Ncu Project
 Job Received Date: 29-Oct-2014
 Job Report Date: 06-Nov-2014
 Report Version: Final

	MS-130 In ppm	MS-130 K %	MS-130 La ppm	MS-130 Li ppm	MS-130 Mg %	MS-130 Mn ppm	MS-130 Mo ppm	MS-130 Na %	MS-130 Nb ppm	MS-130 Ni ppm	MS-130 P ppm	MS-130 Pb ppm
Sample ID	0.005	0.01	0.2	0.1	0.01	5	0.05	0.01	0.05	0.2	10	0.2
5528998	0.026	0.06	5.3	13.0	1.98	835	5.86	0.10	0.22	39.8	1236	6.7
5528999	0.025	0.07	5.1	15.3	2.27	931	1.07	0.09	0.15	36.5	1353	5.2
5529000	0.019	0.16	5.1	11.9	2.19	903	0.85	0.09	0.11	52.0	1304	3.9
5529001	0.025	0.07	5.8	9.4	1.70	899	1.34	0.10	0.18	44.0	1223	3.7
5529002	0.025	0.03	4.4	5.5	1.96	672	1.72	0.10	0.21	64.3	1039	2.7
5529003	0.023	0.12	7.2	9.1	1.12	529	0.80	0.06	0.62	41.8	954	3.9
5529004	0.021	0.08	6.3	9.8	1.09	477	0.71	0.05	0.97	43.2	687	3.5
DUP 5529000	0.019	0.17	4.8	11.4	2.28	938	0.83	0.10	0.13	47.5	1364	3.4
DUP 5528998												
STD BLANK	<0.005	<0.01	<0.2	<0.1	<0.01	<5	<0.05	<0.01	<0.05	<0.2	<10	<0.2
STD BLANK												
STD OREAS 24b	0.044	1.15	33.3	49.6	1.36	341	3.85	0.11	0.38	60.6	611	9.0
STD MP-1b												

***Please refer to the cover page for comments regarding this certificate. ***



Met-Solve Analytical Services
 Unit 1, 20120 102nd Avenue
 Langley, BC V1M 4B4
 Phone: +1-604-888-0875

To: **Happy Creek Minerals**
460-789 West Pender St
Vancouver BC
V6C 1H2

CERTIFICATE OF ANALYSIS: MA0108-OCT14

Project Name: Ncu Project
 Job Received Date: 29-Oct-2014
 Job Report Date: 06-Nov-2014
 Report Version: Final

Sample ID	MS-130 Rb ppm	MS-130 Re ppm	MS-130 S %	MS-130 Sb ppm	MS-130 Sc ppm	MS-130 Se ppm	MS-130 Sn ppm	MS-130 Sr ppm	MS-130 Ta ppm	MS-130 Te ppm	MS-130 Th ppm	MS-130 Ti %
5528998	2.5	0.004	0.07	0.34	14.5	0.6	0.7	64.4	<0.01	0.03	0.8	0.295
5528999	2.9	0.002	0.09	0.41	11.2	0.3	0.6	52.8	<0.01	0.02	0.7	0.266
5529000	6.6	<0.001	0.02	0.12	7.7	<0.2	0.7	145.6	<0.01	0.01	0.7	0.184
5529001	1.8	<0.001	0.02	0.09	7.2	<0.2	0.6	29.9	<0.01	<0.01	0.8	0.231
5529002	0.5	<0.001	0.03	0.07	7.2	<0.2	0.5	31.7	<0.01	<0.01	0.6	0.311
5529003	7.8	<0.001	0.01	0.50	9.2	<0.2	0.5	68.2	0.01	0.02	1.2	0.236
5529004	6.1	<0.001	0.01	0.29	8.1	<0.2	0.6	54.7	<0.01	0.02	1.2	0.194
DUP 5529000	6.6	<0.001	0.02	0.11	7.3	<0.2	0.7	155.9	<0.01	0.01	0.7	0.199
DUP 5528998												
STD BLANK	<0.1	<0.001	<0.01	<0.05	<0.1	<0.2	<0.2	<0.2	<0.01	<0.01	<0.2	<0.005
STD BLANK												
STD OREAS 24b	114.5	<0.001	0.19	0.55	9.9	0.2	2.4	31.6	<0.01	0.05	13.4	0.199
STD MP-1b												

***Please refer to the cover page for comments regarding this certificate. ***



Met-Solve Analytical Services
 Unit 1, 20120 102nd Avenue
 Langley, BC V1M 4B4
 Phone: +1-604-888-0875

To: **Happy Creek Minerals**
460-789 West Pender St
Vancouver BC
V6C 1H2

CERTIFICATE OF ANALYSIS:	MA0108-OCT14
---------------------------------	---------------------

Project Name: Ncu Project
 Job Received Date: 29-Oct-2014
 Job Report Date: 06-Nov-2014
 Report Version: Final

	MS-130 Tl ppm	MS-130 U ppm	MS-130 V ppm	MS-130 W ppm	MS-130 Y ppm	MS-130 Zn ppm	MS-130 Zr ppm
Sample ID	0.02	0.05	1	0.05	0.05	2	0.5
5528998	0.02	0.54	240	0.95	11.04	50	21.4
5528999	0.03	0.45	231	0.73	10.11	57	19.4
5529000	0.02	0.44	184	0.73	8.95	60	17.4
5529001	<0.02	0.46	203	0.86	10.39	56	21.1
5529002	<0.02	0.35	183	1.13	11.37	62	28.5
5529003	0.03	0.55	155	0.41	8.63	41	7.6
5529004	0.03	0.59	127	0.41	8.71	38	7.8
DUP 5529000	0.02	0.42	194	0.64	8.65	56	17.1
DUP 5528998							
STD BLANK	<0.02	<0.05	<1	<0.05	<0.05	<2	<0.5
STD BLANK							
STD OREAS 24b	0.60	1.73	78	1.35	12.36	96	26.4
STD MP-1b							

***Please refer to the cover page for comments regarding this certificate. ***