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Report on Prospecting in Claim 1239355
On the Federal Mine Property
Teck Township
Larder Lake Mining Division

July 21, 2015

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Introduction

This report is written for submission to the Ministry of Northern Development and Mines to fulfill the assessment work requirements for part of the historic Federal Mine property. This report summarizes the activities completed in the period of July 20, 2016 on the un-patented mining claim 1239355. This report was prepared by Canadian Malartic Corporation (CMC) geologist Christopher A. L. Clarke, P.Geol under supervision from Mark Masson, P.Geol.

Summary

The claim 1239355 in Teck Township is associated with the historic Federal Mine property, whose shaft is located on claim 1222223. The claim is held by Canadian Malartic Corporation and is contiguous with other claims on the Federal Mine property which Canadian Malartic also holds. Claim 1239355 was staked on August 24, 2001. Workers for Canadian Malartic conducted a prospecting and sampling program to fulfill the work requirements of the claim. Historically, the Federal Mine property has been the focus of extensive exploration both above and below ground.

Property Descriptions and Access

Claim 1239355 is situated along the north-eastern edge of the Town of Kirkland Lake in Teck Township, District of Temiskaming, Larder Lake Mining Division, Ontario, Canada (Figure 1) and is roughly 2.3 hectares in size. The claim 1239355 can be accessed via Wishman Street or Green Avenue and is within a residential neighbourhood in Kirkland Lake. The surface right owner is the Town of Kirkland Lake (SRO claim #6527).

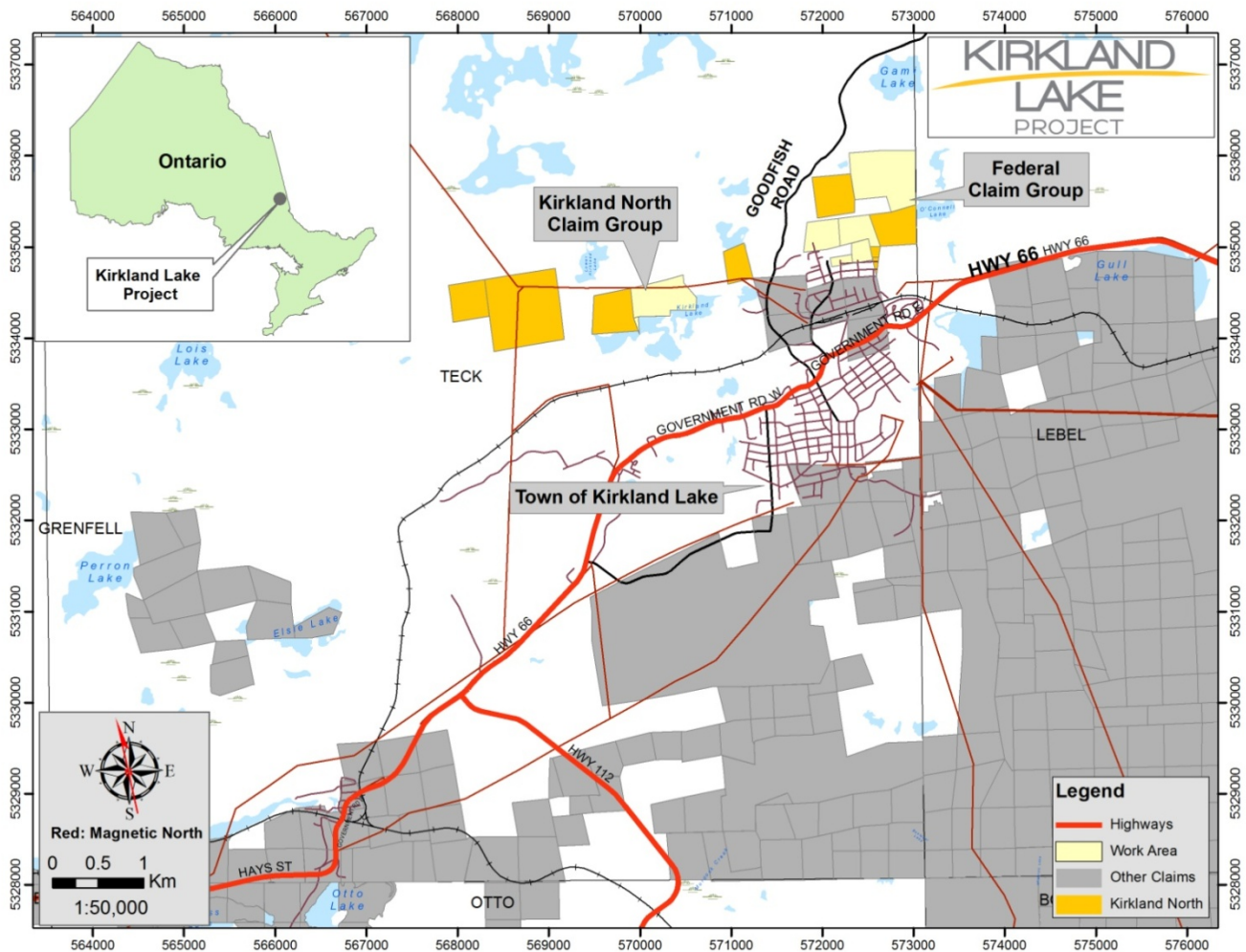


Figure 1: Location of Teck Township relative to the Province of Ontario and Canadian Malartic Claims (shaded grey); where the claim 1239355 is located (shaded pale orange).

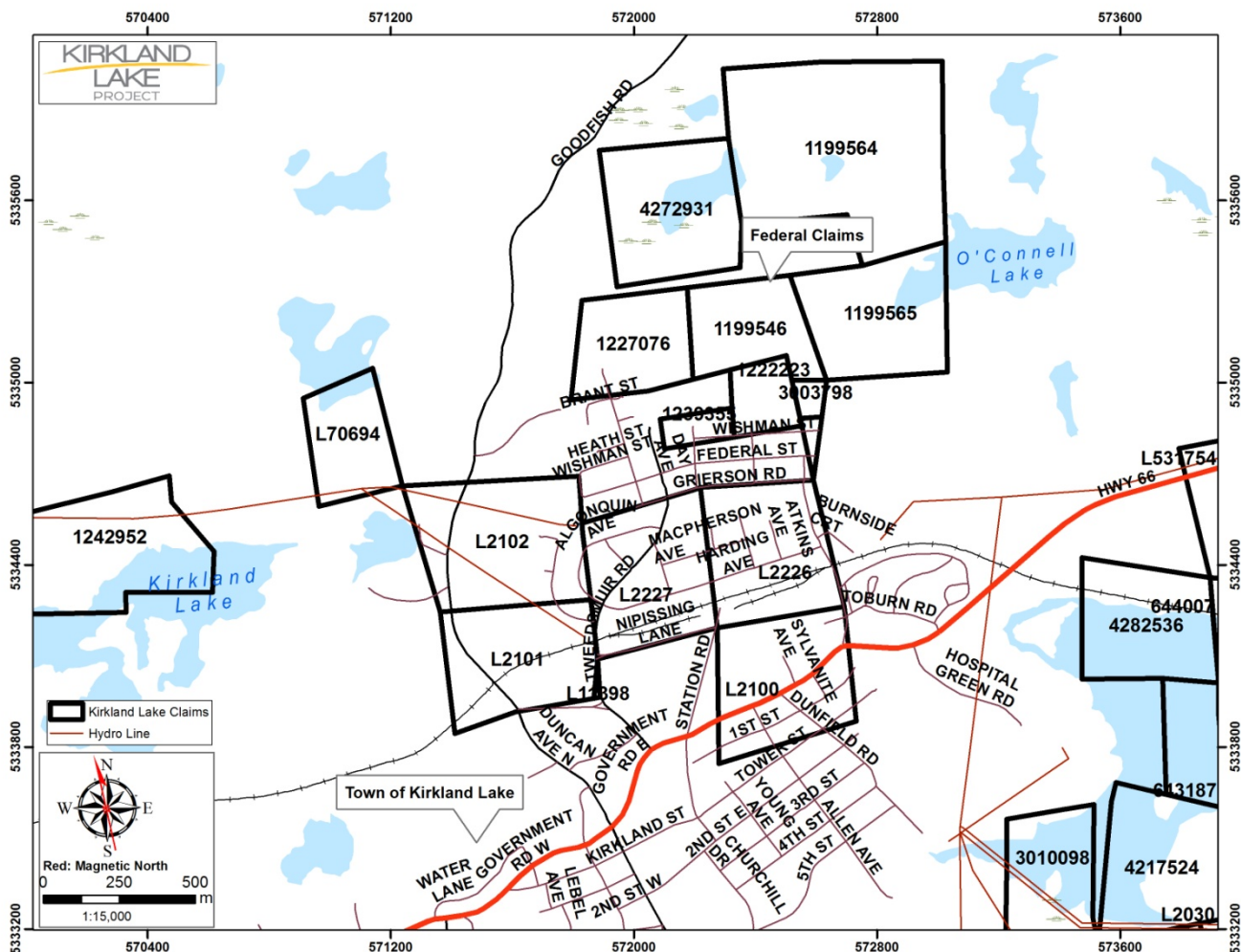


Figure 2: A 1:15,000 scale map showing MNDM listed mining claims for Teck Township in the area of the Municipality of Kirkland Lake.

History

Claim 1239355 was staked on August 24, 2001. The most recent work conducted on the claim was reported in assessment file 42A01NE2038 which was filed in 2000 (including claim 1222221). The property has been part of previous claims and an active Mine. The claims to the north: 4272931 & 1199564 were reported by Canadian Malartic Corporation in 2015-2016 and consisted of prospecting and geochemical sampling. Work was also conducted by Vault Minerals in 2006 and published in 2013 under assessment files AFRI# 20000001685 and 20000001686. The Vault Minerals work was designed to

assess the Kirkland Basin and Federal Kirkland historic properties. Vault Minerals was 100% acquired by Queenston Mining Inc. which in turn was 100% acquired by Osisko Mining Ltd and was then acquired by a 50-50% agreement between Agnico Eagle and Yamana Gold who formed the Osisko properties into the Canadian Malartic Corporation. Vault Minerals conducted a mapping and sampling program on their claims on the Federal Mine property.

Historically, The Federal Mine property has had extensive and near continuous work conducted on it, most notably a 745 ft shaft which is currently capped in the northeast corner of claim #1222223. The underground workings consist of four levels situated at 200, 400, 500 and 700 feet below surface with pervasive drifting. Another notable period in the Federal Mine property was in 1986 and 1987, when a drill program was initiated by Goldhunter Explorations Inc. The drill program consisted of 27 diamond drill holes primarily targeting the mine workings on claim #1222223 and 1227076.

The historic drilling and stripping programs listed by Goldhunter Explorations Inc. or other assessment files appears to have been concentrated in claim 1222223. Only limited prospecting and mapping appears to have been reported on the claim area.

Property Geology

The claim 1239355 is situated within the prolific Kirkland Lake gold camp which is part of the Abitibi Greenstone belt in the Superior Province. The Abitibi Greenstone belt is Archean in age and is composed of greenschist facies volcanic and sedimentary rocks with localized syn-post tectonic intrusions of granitic to dioritic dykes to batholiths. The Abitibi Greenstone belt forms an east plunging synclinorium between the Abitibi batholith, northeast of Timmins and the Round Lake batholith, south of Kirkland Lake. Mesozoic aged kimberlitic dykes are also present in the Kirkland Lake Camp but are rare in occurrence. The Kirkland Lake Camp hosts Keewatin (2750-2700 Ma) and Temiskaming (2690-

2670 Ma) aged assemblages associated with the Abitibi Greenstone belt. The Keewatin assemblages within the Kirkland Lake Camp are composed of the greenschist facies volcano-sedimentary lithologies of the: Pacaud, Deloro, Stoughton-Roquemaure, Kidd-Munro, Tisdale, Kinojevis, and Blake River groups. The Temiskaming assemblage within the Kirkland Lake camp is the Temiskaming group, noted for its non-marine, variably metamorphosed, pyroclastic and clastic-sedimentary (conglomerate) lithological units. Temiskaming group meta-sedimentary rocks form along the north facing side of the Larder Lake-Cadillac Deformation Zone (LLCDZ), a major east-west structural control associated with chemical alteration and sulphide mineralization. The LLCDZ length coincides with a folded and deformed sinuous belt of sedimentary rocks of Temiskaming age.

Claim 1239355 largely hosts intrusive volcanic units which are generally described as augite syenites, porphyries, trachytes and lamprophyres; Temiskaming meta-sediments (conglomerate-wacke) are also present as small slivers (**Error! Reference source not found.**). The inferred contact from Ontario Geological Survey maps is striking northeast, through the centre of the Federal property. Both map units host various degrees of structural deformation from brittle (faults) to ductile (foliation/shearing); notably the north-south Sylvanite fault passes through the centre of the claim 1227076.

To the North of the claims are a series of Keewatin aged basic volcanics (greenstone) of the Kinojevis Group. To the south are a series of Temiskaming meta-sedimentary units and felsic-intermediate intrusives (syenite-diorite).

General Description of Local Rock Units

Meta-Sediment: Greywacke

Grain Size: Fine grained (fine sand sized grains)

Texture: massive with conchoidal breaks

Alteration: Generally fresh with weak to moderate carbonate (ankerite?) alteration

Mineralization: <1-1mm anhedral pyrite disseminated within matrix

Magnetism: non-magnetic

Veining: There are <1% abundant, <1-3mm thick, milky quartz-carbonate stringers

Mafic Syenite

Grain Size: Fine-medium grained (euhedral grains) with 2-3mm augite grains

Texture: massive

Alteration: Generally fresh with weak to moderate carbonate (calcite/ankerite) alteration

Mineralization: non-visible

Magnetism: weak to moderate

Veining: There are <1% abundant, <1-3mm thick, milky quartz-carbonate stringers

Syenite Porphyry

Grain size: Coarse grained: 3-6mm euhedral plagioclase grains

Texture: massive

Alteration: bleached white-pink weathering colour, weak patches of red hematite alteration along joints

Mineralization: non-visible

Magnetism: non-magnetic

Veining: isolated, sub-planar stringers of <2mm thick quartz-carbonate which are <<1% abundant.

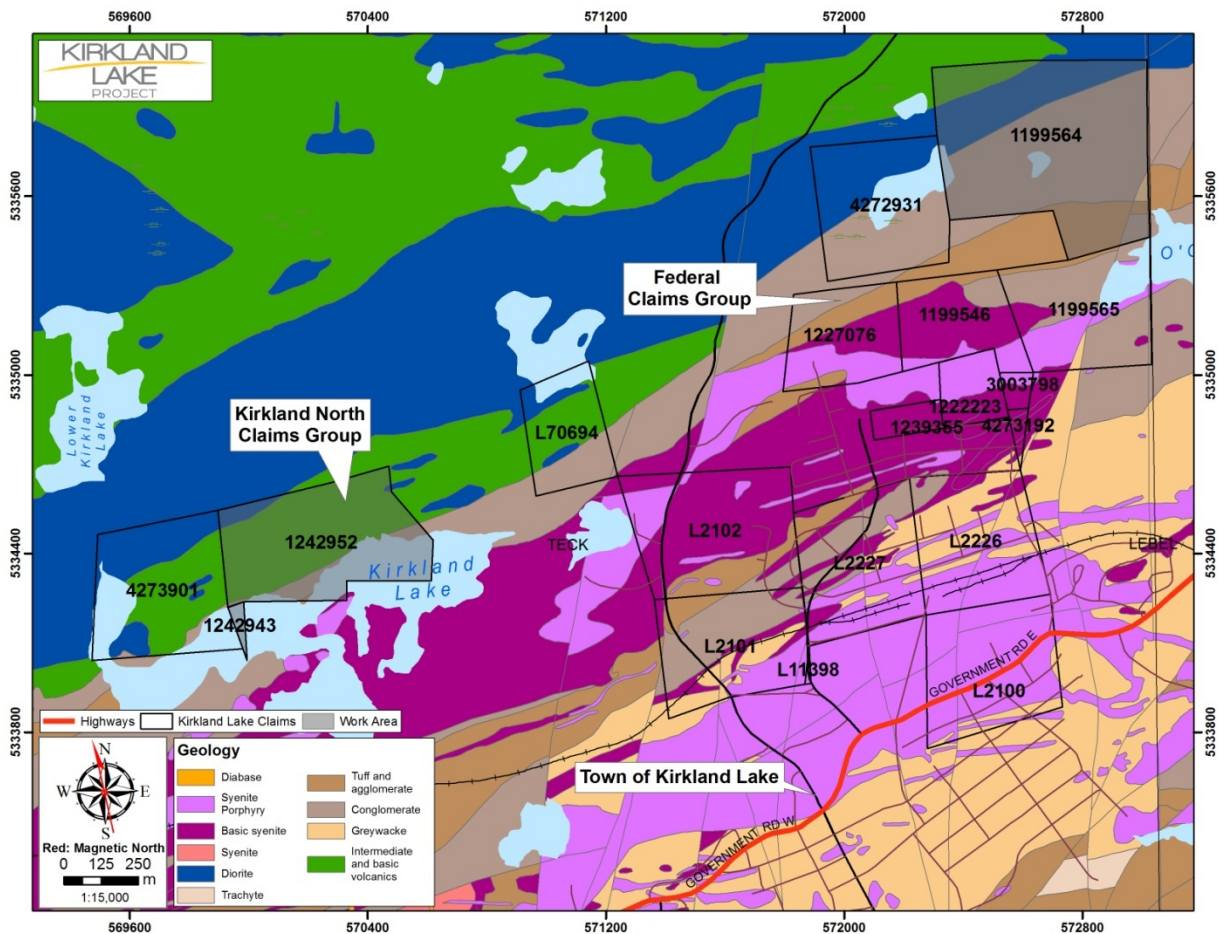


Figure 3: Local Geology in the Claim area north of Kirkland Lake. The map shows the bands of Temiskaming meta-sediments intruded with felsic-intermediate intrusives and Keewatin volcanics in contact to the north of the Temiskaming sediments.

Description of Recent Work

The work conducted was prospecting, sampling and limited mapping. The goal of the work was to gain an understanding of the geology of the claim, identify historic trenches and pits, map outcrops, gather samples for gold and major-trace element abundances, and recording the locations using a GPS. The majority of the claim 1239355 was composed of residential housing and associated modification of the landscape (lawns, paved drive ways, roads, etc). Work was restricted to Wishman St and Green Ave and dependent on the co-operation/permission of home-owners in allowing access to their lots. Two notable outcrops were observed: one at the corner of Wishman and Green and another in the back lot between Green and Day Avenue; both outcrops were composed of augite mafic syenite. The outcrop in the back lot hosted a 1-2cm thick magnetite vein while the other outcrop hosted 1-3% fine disseminations of pyrite and chalcopyrite in a patchy orange-brown hematite-carbonate alteration. The outcrop with the magnetite vein was not sampled due to our inability to break off a sufficiently sized piece and the outcrop at the intersection was not sampled due to the home-owner not being present to notify.

Conclusions and Recommendations

The density of housing and the effects of human habitation on the landscape make any worthwhile surface prospecting efforts redundant for this claim. It is recommended any further work be limited to drilling or subsurface work if and when the geological/economic case for said work can be justified.

Respectfully Submitted,
Christopher A. L. Clarke

Data

The work was carried out as follows:

Field:

Prospecting July 20, 2016

Office:

Report July 21, 2016

Persons who carried out the work:

Prospecting:

Christopher A.L. Clarke Larder Lake, On

Christal Hanuszczak Kirkland Lake, On

Report:

Christopher A.L. Clarke

Sample List (UTM zone 17 NAD 83)

No Samples were taken

Waypoint	Northing	Easting	Rock Type

July 20, 2016 – 1 Day Prospecting

Workers: Christopher Clarke and Christal Hanuszczak

Weather: Heat warning, sunny and humid (47%)

We drove to the claim and parked the truck at the western end of the claim on Wishman Street. We then proceeded down the northern side of the street looking for any outcrop in the front lawn and also knocked on doors to obtain permission from the residents to observe their backyards for outcrop. Most residents gave permission or were not at home in which case we moved onto the next lot. Only one resident expressed explicitly their unwillingness to grant access. Behind one residential lot we located an outcrop of augite mafic syenite 1m in diameter with a relief weathered magnetite vein. The magnetite vein was curved into a 'C' shape and was 1-2cm thick dipping at 80 degrees west and generally striking at 0-20 degrees. At the intersection of Wishman Street and Green Avenue there was a large ~0.5-1m high round knob of outcrop composed of typical augite mafic syenite. After we had recorded the outcrop we traversed north to the end of Green Avenue and then south along Green Avenue to the claim boundary at which point we traced our way back along Wishman Street along the south side of the road to the eastern end of the claim and then returned to the Truck and departed the claim.

Prospecting Diary for Christopher Clarke, B.Sc, M.Sc, P.Geo

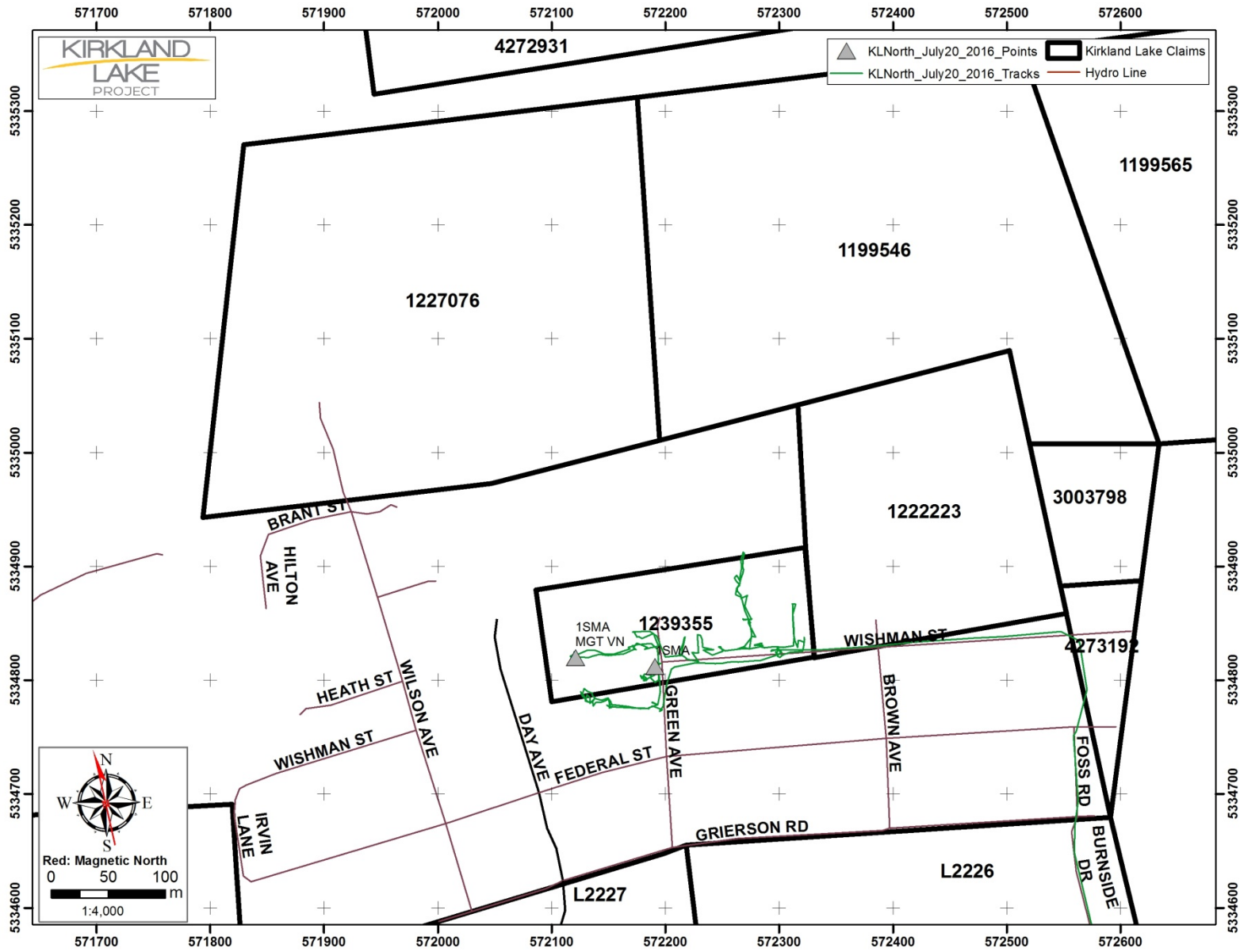


Figure 4: Map showing the GPS tracks and waypoints for the worker's traverses on July 20, 2016 for claims 1239355.

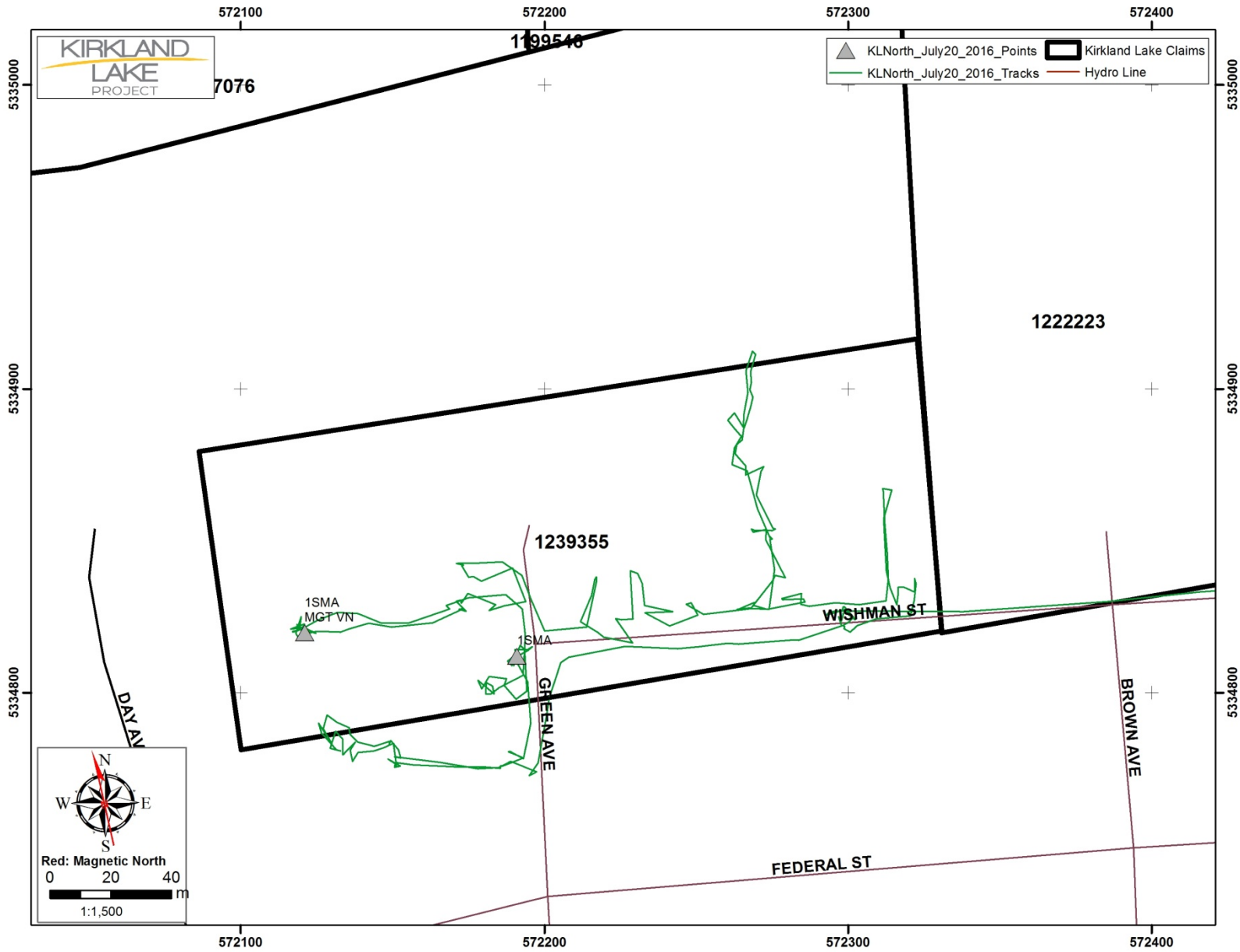


Figure 5: Map showing the GPS tracks and waypoints for the worker's traverses on July 20, 2016 for claims 1239355.

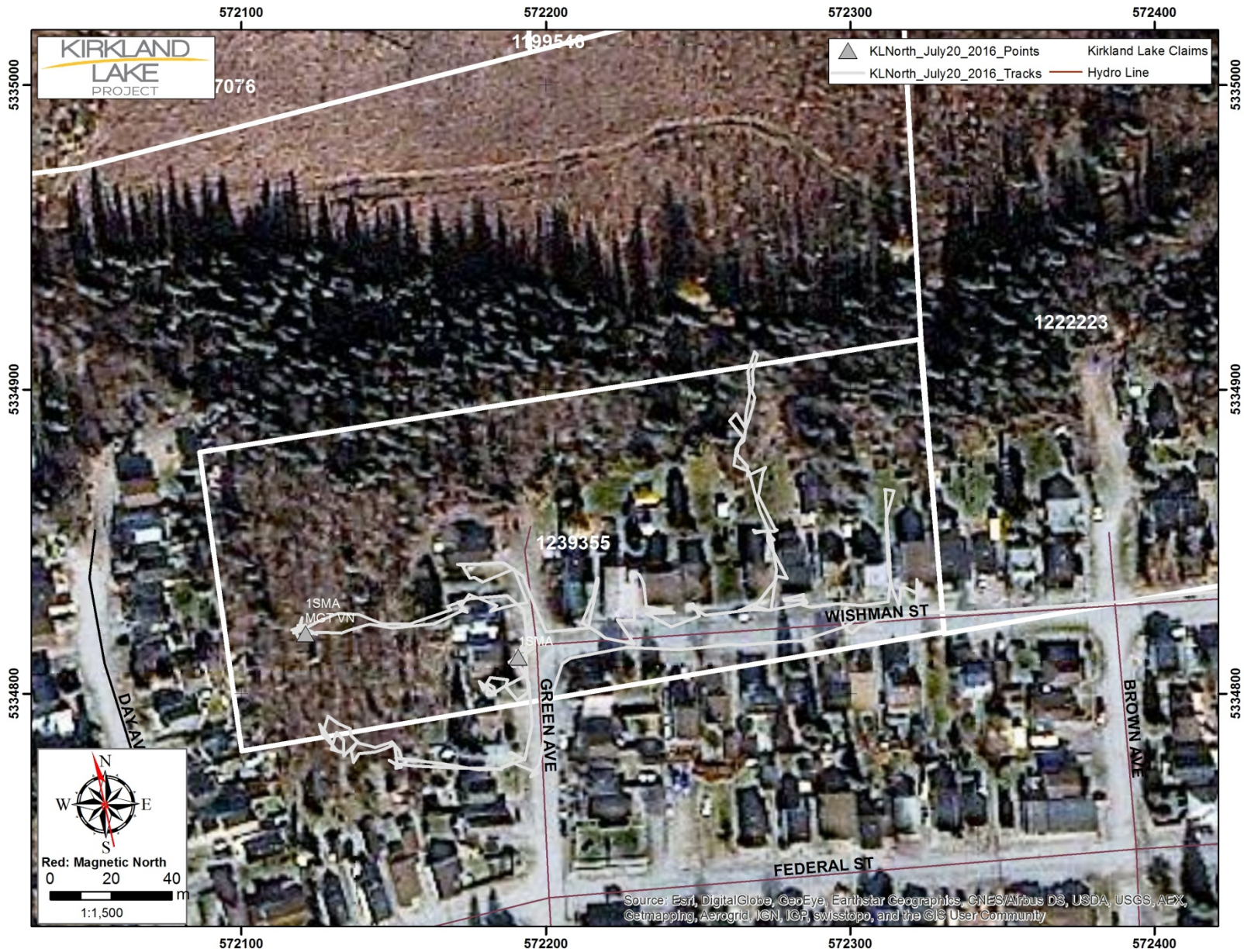


Figure 6: A 1:1,500 scale satellite map showing access and traverse tracks for claim 1239355.