

Little Santoy Lake Property

Report on prospecting, geological mapping, rock sampling, hand stripping of small 1-2m areas of light overburden for better sampling and mapping of bed rock.

Thunder Bay South Mining Division, District of Thunder Bay, Ontario

N.T.S. 42D/15SW  
Syine Twp. G-0634  
Tuuri Twp. G-0635

UTM Nad 83 Zone 16  
Little Santoy Lake North End  
506181-E 5406803-N

Marathon Ontario  
Jan. 2015

Russel Renner  
Prospector

*Russel Renner*

2-55716

PROVINCIAL RECORDING  
OFFICE SUDBURY  
RECEIVED  
FEB 19 2015  
A.M. P.M.  
7|8|9|10|11|12|1|2|3|4|5|6

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## INTRODUCTION

From May 17/2014 to Sept.4/2014 a program of prospecting, geological mapping, bedrock grab sampling was under taken though out this program small areas of 1-2m were hand stripped of light overburden up to 6". This was done for better sampling and geological mapping .also stream sediment sampling was attempted in 2 areas through out this program. All travers were UTM controlled and all samples taken were UTM located and flagged with florescent orange winter flagging tape so sample sites could be returned to if assays warranted that this be done.

30 bedrock samples were taken throughout this program but only 18 samples were assayed at this time. Because of the cost of assays we have to be more selective of samples that are assayed.

## LOCATION AND ACCESS

The Little Santoy Lake property is located in Syine Twp. G-0634 and Tuuri Twp. G-0635 Thunder Bay South Mining Div. 40. Hwy. 17 is approx.. 2 km. South and West of the property. a all weather gravel road ((not plowed in winter)) goes from Hwy. 17 to Big Santoy Lake this road crosses Claim # 4221602 in a north-east direction. 2 Hydro lines cross Claim # 4221602 east to west and this gives fairly good ATV access. To the South part of the claim block. The Big Santoy Lake gravel road and a boat launch at the south end of Big Santoy Lake gives good access to part of claim #4228962. The rest of the property is only accessible by foot. The town of Terrace Bay is approx.. 20km west of the property and the town of Marathon is approx.. 65km east on Hwy. 17. These 2 towns can supply most commodities needed for exploration work.

PROPERTY DESCRIPTION

The Little Santoy Lake property consists of 3 staked block mining claims in Tuuri Twp. and Syine Twp. registered in good standing in Thunder Bay South Mining Div. 40

Claim #	Units	Hectares	Ownership
4221602	12	192	Russel Renner 100%
4228936	16	256	" " "
4228962	16	256	" " "
Total	3	44	704

## PROSPECTING DATES BREAKDOWN

Type of work	Name and Address	Dates worked	# of days
Prospecting	Russel Renner	May 17-18/2014	2
geological mapping	P.O. Box 794	June 21-22/2014	2
rock sampling	Marathon, Ont.	Aug. 9/2014	1
hand stripping light	POT2E0	Aug. 23,24,25,26,27/2014	5
creek sediment	Cln. # 186885	Aug. 29,30,31/2014	3
sampling.		Sept. 1,2,3,4/2014	4
Total Days			17

*Russel Renner*

Panning sediment	Elsie Renner	May 17,18/2014	2
samples	P.O.Box 794	June 21,22/2014	2
	Marathon, Ont.		
	POT 2E0		
	Cln. # 400675		
Total Days			4

*Elsie Renner*

Prospecting	Harold Griggs	Aug. 9/2014	1
rock sampling	P.O. Box 234	Aug.23,24,25,26,27/2014	5
hand stripping-OB	Marathon, Ont.	Aug. 29,30,31/2014	3
geological mapping	POT 2E0	Sept. 1,2,3,4/2014	4
	Cln. # 400501		
Total Days			13

*Harold Griggs*

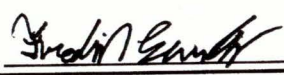
Prospecting	Frederick Lowndes	Aug. 23,24,25,26,27/2014	5
geological mapping	P.O. Box 643	Aug. 29,30,31/2014	3
rock sampling	Marathon, Ont.	Sept. 2-4/2014	2
hand stripping	POT 2E0		
	Cln. # 410033		

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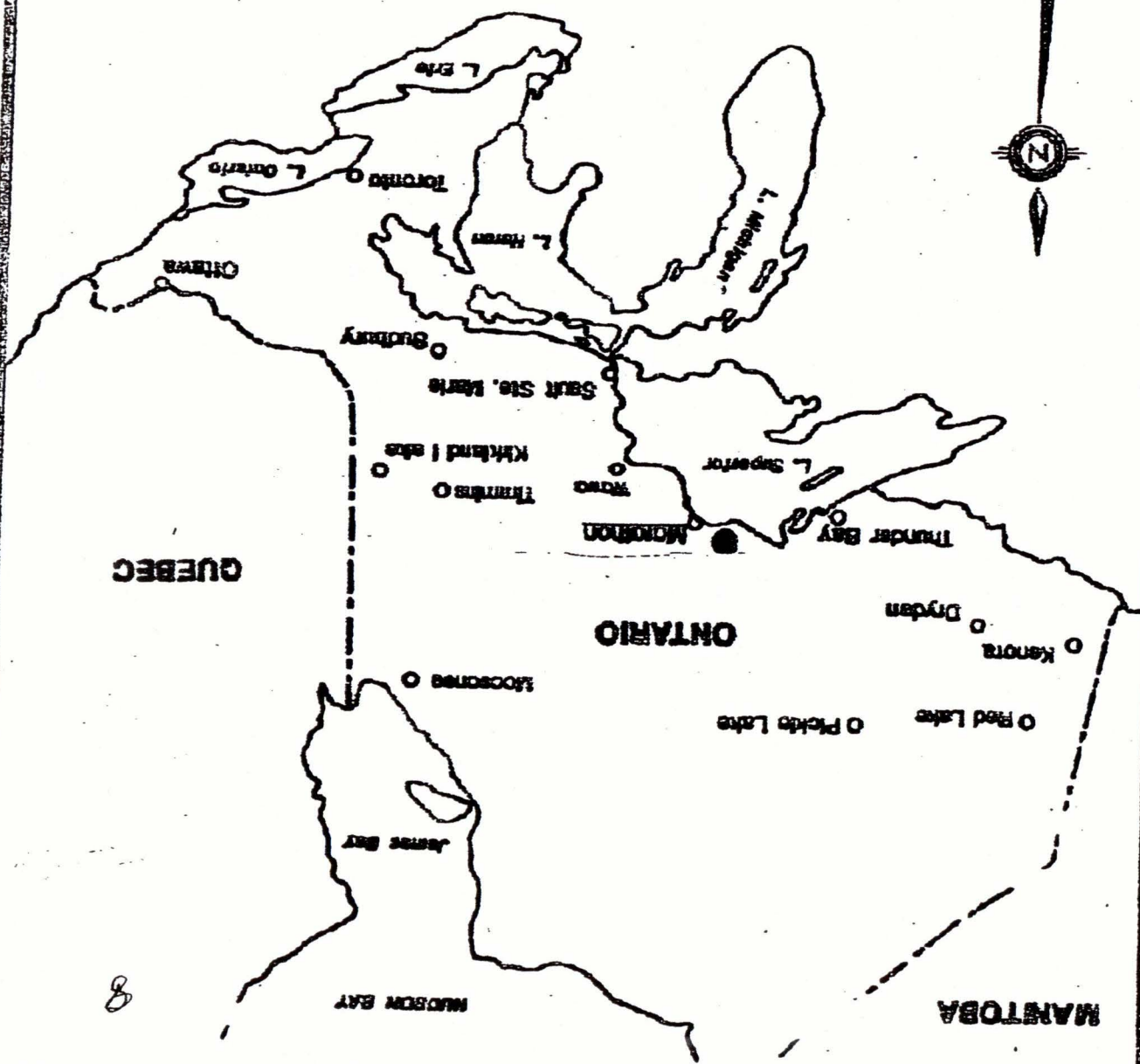
Total Days	10
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Signature



<b>LOCATION MAP</b> Thunder Bay N.D., Ontario	
Rep. Dr. Name Date NOV 2006 16. 40	Drawn by 2.R Scale 1" = 150m



QUEBEC

ONTARIO

MANITOBA

HUDSON BAY

8

2.13

3.0

10



**ONTARIO GEOLOGICAL SURVEY**

**Open File Report 5951**

**Mineral Occurrences in the Nipigon--Marathon Area**

**Volume 1**

by

**B.R. Schnieders, M.C. Smyk, A.A. Speed and D.B. McKay**

**1996**

Parts of this publication may be quoted if credit is given. It is recommended that reference to this publication be made in the following form:

**Schnieders, B.R., Smyk, M.C., Speed, A.A. and McKay, D.B. 1996. Mineral occurrences in the Nipigon--Marathon area, Volumes 1 and 2; Ontario Geological Survey, Open File Report 5951, 912p.**

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## *Regional Geology*

The study area is underlain dominantly by Neoproterozoic rocks of the Wawa and Quetico subprovinces. Volcano-plutonic rocks of the Wawa subprovince consist of supracrustal rocks of the Schreiber-Hemlo greenstone belt and granitoid intrusions. The Quetico subprovince is dominated by metasedimentary and derived metamorphic rocks whose regional metamorphic grade ranges up to granulite facies.

Proterozoic rocks occur at the southwestern and eastern margins of the study area. Minor Paleoproterozoic sedimentary rocks of the Animikie Group and Mesoproterozoic epicontinental clastic sedimentary rocks of the Sibley Group (ca. 1.54 Ga) occur intermittently from Nipigon to Schreiber. Keweenawan rocks ascribed to Midcontinent rifting at 1100 Ma consist of Osler Group volcanic and sedimentary rocks found on the offshore islands, Logan diabase near Nipigon and the composite, alkalic intrusions at the east end of the map area (e.g. the Coldwell, Killala Lake, and Prairie Lake complexes). A variety of diabase dyke swarms intrude the granite-greenstone country rocks. These include the Paleoproterozoic Hearst (northwest-trending, 2454 Ma) and Marathon (north-trending, 2170 Ma) swarms, and Mesoproterozoic Pigeon River and Pukaskwa (north-northeast and northwest-trending, respectively; 1100 Ma) swarms (Osmani 1991).

### *Wawa Subprovince*

The Schreiber lithotectonic assemblage comprises the western segment of the Neoproterozoic Schreiber-Hemlo greenstone belt of the Wawa Subprovince (Williams et al. 1991). It consists of a number of narrow, arcuate segments of supracrustal rocks that are bounded and enclosed by granitoid bodies. Regional metamorphic grade ranges from upper greenschist facies to middle to upper amphibolite facies near granitoid contacts. The majority of lithologic and structural information has been gleaned from regional scale mapping by Hopkins (1922), Harcourt (1939), Bartley (1939; 1942), Pye (1964), Walker (1967) and Carter (1988).

Three major types of supracrustal rocks have been recognized by Carter (1988): (1) tholeiitic, mafic metavolcanics, (2) calc-alkalic, mafic to felsic metavolcanics, and (3) clastic and chemical metasedimentary rocks.

Tholeiitic metavolcanic rocks comprise mainly massive to pillowed basalt, tuffs and related autoclastic breccias. Basaltic komatiites have recently been recognized within tholeiite-dominated successions. Calc-alkalic, felsic metavolcanic rocks are dominated by fine- to coarse-grained pyroclastic units that attain significant thicknesses in the Prairie River to Rhumly Lake area and in the Winston Lake area. Metasedimentary rocks consist mainly of wacke and slate of turbiditic origin and lesser, but significant, oxide- and sulphide-facies banded iron formation.

Few geochronologic data are available from this part of the Wawa subprovince. A U-Pb zircon date of  $2723 \pm 2$  Ma was determined by Schandl et al. (1991) for host rhyolite at the Winston Lake Mine. A virtually identical age of  $2720 \pm 2$  Ma (Davis et al. 1994) was derived from altered felsic metavolcanic rocks at the Geco Mine in the Manitouwadge greenstone belt. Monazites, interpreted as synmetamorphic, gave ages of  $2677 \pm 1$  Ma and  $2675 \pm 1$  Ma at Winston Lake and Geco, respectively (Davis et al. 1994).

The supracrustal rocks are intruded by and bounded by two main suites of Neoproterozoic granitoids: a gneissic tonalite suite, and a massive granite to granodiorite suite. Rocks of the gneissic tonalite suite, comprising foliated to gneissic tonalite to granodiorite with minor supracrustal inclusions, bound the greenstone belt to the northeast, south of Killala Lake. Similar rocks occur within Quetico metasedimentary rocks to the north. Williams et al. (1991) have considered that the tonalitic rocks may, in part, be synvolcanic with regard to the 2.77 to 2.70 Ga greenstone assemblages.

Massive granite to granodiorite intrusions comprise a more voluminous and perhaps more influential suite of rocks within and adjacent to the Schreiber assemblage. These so-called "internal granitoids" are typically composite, ovoid intrusions that vary in size up to 25 km. They have relatively sharp contacts with the supracrustal rocks, characterized by assimilated septa, xenoliths and hybridization, suggesting high-level emplacement. Walker (1967) mapped a narrow, amphibolite-facies contact aureole around the Terrace Bay batholith and noted that some remnant supracrustal slivers had been metamorphosed to granulite-facies. A foliation or gneissosity is commonly developed in the intrusion parallel and adjacent to its contact with the country rocks.

Intrusions are composite, with lithologies ranging from dominantly granite and granodiorite, to quartz diorite, syenite, and quartz monzonite, accompanied by their gneissic equivalents and aplite and pegmatite dykes. These intrusions are considered to be syn- to post-tectonic and are probably correlative in age and emplacement style to those in the Hemlo assemblage to the east. Plutons in the Hemlo assemblage returned ages between 2678 and 2688 Ma (Corfu and Muir 1989). Examples within the Schreiber assemblage include the Terrace Bay, Crosman Lake and Whitesand batholiths.

Despite a marked lack of stratigraphic facing determinations, recent structural studies suggest that there is likely a great deal of tectonic juxtaposition between supracrustal units in addition to ubiquitous, upright folding (Schnieders 1987; Carter 1988; Williams 1989). Facing reversals, conflicting younging directions, unit repetition, inhomogeneous deformation and thickening of successions indicate that kilometre-scale folding and duplication by thrusting were significant (Williams 1989). Schnieders (1987) noted complex folding events, accompanied by large-scale faulting in the Steel River area. Deformation of original stratigraphy has resulted in a fragmentation of volcano-sedimentary successions and produced a pseudostratigraphy.

Williams (1989) and others have noted that, for the most part, the supracrustal rocks in the Schreiber assemblage display non-penetrative strain fabrics produced by rotation, without significant internal distortion. In marked contrast, discrete zones of strong deformation, such as the Jackfish-Middleton shear zone, are characterized by dip-slip style, steeply plunging, mineral and stretching lineations that are superimposed on tectonic layering or schistosity. Phyllites and slates, derived from volcano-sedimentary protolith, are carbonatized, sericitized and hematitized.

### *Quetico Subprovince*

Quetico subprovince clastic metasedimentary rocks are juxtaposed with the supracrustal and granitoid rocks of the Wawa subprovince along its northern boundary. The Quetico accretionary complex (fore-arc accretionary prism?) was likely contiguous with the Wawa subprovince at least since 2689-2684 Ma, and possibly since 2696-2689 Ma (Percival 1989). A U-Pb zircon provenance study of Manitouwadge belt wackes by Zaleski et al. (1995) placed a maximum age limit on deposition of 2693 Ma.

The metasedimentary rocks are dominantly turbiditic wacke, derived largely from, and deposited after the volcanic climax in the the neighbouring Wawa and Wabigoon subprovinces (Williams 1991). Amphibolite-facies metamorphism, migmatite generation and granitoid intrusion occurred 2.67 to 2.65 Ga. Intrusive rocks are predominantly tonalite and leucogranites which may be peraluminous and perhaps derived from a metasedimentary source (i.e. "S-type"). Lithium- and beryllium-bearing pegmatites are associated with these latter, felsic intrusions.

### *Proterozoic Rocks*

Mesoproterozoic Sibley Group sedimentary rocks form a thin, undeformed, clastic sequence of quartz arenite, argillaceous dolomite and mudstones that unconformably overlies Paleoproterozoic Animikie Group sedimentary rocks and Archean basement. They have been correlated with a 1.54 Ga alkali granite in the Lake Nipigon region (Sutcliffe 1991).

Volcano-sedimentary rocks of the Keweenawan Supergroup are locally represented by the Osler Group. Osler Group rocks consist largely of basalt, rhyolite, minor interflow sedimentary rocks, layered intrusions and Logan diabase dykes, sheets and sills (Sutcliffe 1991).

A variety of alkalic and carbonatitic rocks comprise several intrusive complexes on the north shore of Lake Superior. They include the Coldwell and Killala Lake alkalic complexes, the Prairie Lake carbonatite and numerous diatremes and related dykes in the vicinity of Dead Horse Creek. These complexes are spatially localized and structurally controlled by the Trans-Superior Tectonic Zone (TSTZ), a north-northeast-trending structure that extends for over 600 km and includes the Thiel Fault in Lake Superior (Klasner et al. 1982). Carbonatitic magmatism has been recognized at Chipman Lake (Sage 1985), 150 km northeast of Lake Superior. Magmatism

related to Midcontinent rifting occurred along the TSTZ from approximately 1.2 to 1.0 Ga.

*Economic Geology*

Metallic mineral deposits within the Superior Province of Ontario consist of: (1) those related to the tectonic setting of rock assemblages, and (2) those related to epigenetic, orogenic processes, superimposed upon rock assemblages (Fyon et al. 1991). The first category comprises those deposits that were formed during early tectonic and magmatic events, including syn-volcanic, base metal sulphide deposits. (Volcanogenic, massive sulphide (VMS), zinc-copper-silver mineralization occurred in the bimodal, subaqueous volcanic succession at the Winston Lake Mine. The host rocks consist of mafic flows and felsic pyroclastic rocks.) Similar rocks, characterized by the same distinctive major and trace element chemistry and hydrothermal alteration mineral assemblages occur in the Prairie River area, 45 km to the southeast (Schnieders and Smyk 1994). Lithologic, metallogenetic and temporal similarities that exist between the Winston Lake and Manitouwadge VMS camps may suggest an original stratigraphic connection.

Closely related to VMS deposits, oxide- and sulphide-facies banded iron formations locally occur within both volcanic and sedimentary successions, but have limited lateral and vertical extent. Magnetite, pyrrhotite and/or pyrite are intercalated with chert, wacke or pelite. Study of the Morley pyrite deposit, 3 km south of Schreiber, by Schnieders (1987) and Fralick et al. (1989) suggested that massive sulphide precipitation resulted both from the venting of hydrothermal fluids and the activity of deep-water, organic mats.

Archean lode gold deposits, which exemplify the second, epigenetic type of mineralization, are typically associated with late tectonic elements such as regional deformation zones (Colvine et al. 1988). However, gold occurrences in the Schreiber area (Smyk and Schnieders 1995), while commonly hosted by discrete, local structures, have no discernable association with major deformation zones. They are spatially, and perhaps genetically, related to felsic intrusive rocks on a variety of scales. The majority of gold occurrences in the Schreiber area lie at or near the contact of the Terrace Bay batholith (Marmont 1984), while the Big Duck Lake quartz porphyry serves as a locus for gold mineralization in that area (Hopkins 1922; Pye 1964; Patterson et al. 1985). The majority of known occurrences are quartz vein-hosted, narrow, high-grade deposits which have collectively produced several thousand ounces of gold. However, auriferous, disseminated sulphide deposits, especially those in and near porphyries, possess the potential for (larger), lower-grade mineralized zones.

The southward accretion of subprovinces into the Superior Province between 2720 and 2660 Ma produced metamorphism and partial melting of supracrustal rocks. Peraluminous and calc-alkalic mafic magmas were produced. Extensive chemical fractionation of the peraluminous magmas resulted in the generation of rare-metal-enriched pegmatites (Fyon et al. 1991). The lithium-tantalum-(tantalum-niobium-tin-) bearing pegmatites of the Georgia Lake field (Pye 1965; Zayachivsky 1985) exemplify this deposit type.

As summarized by Sutcliffe (1991), mineralization in Paleo- and Mesoproterozoic rocks comprises: lead-zinc± silver ± barite-quartz-calcite veins; supergene copper, related to diabase sill contacts; and sporadic, fracture-controlled uranium occurrences near the Archean unconformity. The Keweenawan supracrustal rocks are host to copper mineralization as either native copper in amygdaloidal basalt flows or as copper-chalcocite-calcite veins in basalt.

Local alkalic and carbonatitic intrusive rocks host a variety of characteristic base, precious and rare metal occurrences. They include:

- (1) magmatic copper-nickel-platinum group element (± gold, silver) in gabbros of the Killala Lake and Coldwell complexes
- (2) magmatic uranium and niobium (+ wollastonite, apatite) in the Prairie Lake carbonatite
- (3) late-stage magmatic niobium-yttrium-fluorine-family rare earth elements in syenite pegmatites
- (4) a beryllium-zirconium-uranium-thorium-yttrium-mineralized zone crosscutting the Dead Horse Creek diatremes, and
- (5) lead-zinc-silver-mineralized quartz-carbonate veins

(Smyk and Sage 1995).

PROSPECTING, ROCK SAMPLING, GEOLOGICAL MAPPING  
DAILY LOG

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Travers # 1-2

Claim # 4221602

May 17-18/2014 2 prospectors spent these 2 days trying to pan sediment samples from a small creek that runs into Little Santoy Lake near the west boundary # 3 line claim # 4221602. This small creek branches approx.. 200m north of Little Santoy Lake. The west branch crosses # 3 line and exits the property approx.. 50m from the branch. The north branch stays on claim # 4221602 to where it originates from a small spring fed Lake near # 4 post. Day 1 was spent trying to pan samples from the main creek and the west branch. Day 2 was spent panning samples on approx.. 400m of the north branch. This attempt to pan sediment samples from this creek was unsuccessful because of too much overburden and not enough bedrock for good samples. A soil sample grid would probably be a much better choice for this area. 4 samples were panned but none were assayed because we felt that they only represented the overburden in the area and were not even a good concentrated version of it.

Travers # 3-4

Claim # 4221602

June 21-22/2014 2 prospectors spent these 2 days trying to pan creek sediment samples from the creek that runs from Little Santoy Lake to Big Santoy Lake. It was decided that a area where this creek crosses the most northern Hydro line was the best area. Day 1 was used trying to pan samples from approx.. 200m of this creek south of the Hydro and Day 2 was used on approx.. 200m of this creek north of the Hydro line. This attempt at panning sediment samples from the creek failed because the material found was either fine mud and silt with no bottom or material that was too coarse to be panned. No samples were taken or assayed.

Travers # 5

Claim # 4221602

Aug. 9/2014 2 prospectors spent this day attempting to make a travers around a small lake in the north-west corner near # 4 post claim # 4221602. In the past a lightly mineralized breccia had been found where a small creek exits this small lake. As we arrived at this point the wind started to gust and we noticed that there was some bad looking clouds to the north and west we had approx.. a half hour to look at this breccia and then it started to rain fairly hard we took for cover under some heavy trees for a while and then thunder started rumbling in the distance and we decided to head for home and try another day.

In the small area that we got to look at the outcrop is approx.. 20% OB is fairly light 6" to 12". We observed this breccia in 3 small outcrops and it is mineralized with 1 to 2% sulfide. The fragments are felsic in nature but of different shades of color and texture and range from 3" to 15" in size. Mineralization is mostly-py. Timber in the area is mixed

Wb, P, SP, B and second growth and under brush is quite heavy. No samples were taken. This area should be looked at more seriously in the future.

Travers # 6-7-8-9-10

Claim # 4228936

Aug. 23-24-25-26-27/2014 Local history indicated that there were large mineralized quartz veins and also good zn and cu numbers in an area in the south west corner of claim # 4228936. Using this information a UTM controlled grid was used to prospect a area 400m N-S by 300m E-W in the S-W corner of this claim. Starting at # 3 post on Aug. 23 3 prospectors proceeded to work this area. The area along # 3 line and for approx.. 400m east is extremely rough with steep hill sides, broken rubble and cliffs 8' to 15'. Bedrock outcrop is possibly 25% and 10% more can be found by removing light OB broken rubble and moss. 5 days were used prospecting a area approx.. 300m N-S by 300m E-W. the rocks here are mafic in nature rusty gossan is numerous and in some areas gossan is heavy and highly oxidized carbonate alteration is quite noticeable in some areas and some areas are quite magnetic. Light to medium sheering is noticed in all outcrop . strike of these rocks is basically E-W but approx.. a 40 difference in the sheering was noticed. This is possibly cased by folding. Small quartz veins are quite numerous. 1 quartz vein approx.. 3' wide with light hematite staining along contacts. A number of IF were found with small quartz veins and seems of fine magnetite. Sulfides in this area are mostly py of approx.. 1 to 5%. All float boulder and broken rubble is of a very local nature. Most timber is second growth and under brush is heavy in some areas. Overburden is fairly light 6" to 2' and mostly black earth and moss. 13 samples were taken but only 8 samples were sent in for assay.

Aug.29-30-31 and Sept. 1-2-3-4-/2014

Travers # 11-12-13-14-15-16-17

Claim # 4228936

19 man days were used prospecting this area of approx.. 300m east-west by approx.. 500m north-south. This area is easier to work in than the area to the west. The hills here are not as steep sided and are further apart. Hill sides are still covered with local broken rubble and out crop is approx., 20% with 10% more being found by stripping light over burden and rock rubble. OB is 6" to 2' near outcrop and quite heavy in other areas. OB is mostly black earth and moss in light areas and in areas of heavy OB there is approx.. 1' of black soil and then fine silt and clay. Bed rock is mainly a fine grained gray mafic with medium sheering. Rusty gossan is numerous and in some areas heavy and approx. 60% of these rocks are carbonated. Light to medium magnetics was found in 50% of the area. A number of IF were found and these are highly magnetic. Felsic volcanic were found in a few areas . these rocks are lightly rusted and carbonated with fine disseminated sulfide 1 to 5%. One area of heavy quartz veining was found. This could be a fairly large IF. The area is highly gossaned and sheered with visible sulfide of up to 3%. A number of man days were used in this area and one spot was stripped approx.. 5mX 5m in size + a number of smaller areas were stripped of light OB. One possible contact was found in this area and the strike is approx.. 130 Dip was not determined at this time. Timber is

mixed second growth is heavy in places as is under brush and blow down is heavy in some areas. 17 samples were taken but only 9 samples were selected for assay at this time.



## WORK COMPLETED ON THE PROPERTY

From May 17/2014 to Sept. 4/2014 44 prospector man days were used making 17 prospecting travers on the property. 30 bed rock samples were taken but only 17 samples were assayed at this time. All travers were UTM controlled and all samples taken were UTM located and flagged with florescent orange winter flagging tape. This was done so samples sites could be returned to if assays warranted this be done. Through out this program a number of small areas were stripped of light OB for better mapping and sampling. A number of man days were used stripping one area of approx.. 5m X 5m of up to 12" of OB and broken rubble.

## CONCLUSIONS

Although this work did not uncover any positive results we the prospectors feel that this property needs more work in the future and the work completed only covered a small area of the property.

## RECOMMENDATIONS

More work is recommended on claim # 4228936 especially in the area of quartz veining and IF and to the north and east on this claim. Also time should be spent prospecting the breccia in the north-west corner of claim # 4221602.

Feb. 2014

Russel Renner Prospector

Russel Renner



**Laboratory Address:**  
 1046 Gorham Street,  
 Thunder Bay, ON P7B 5X5  
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**Remit to:**  
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 126-4026 Meadowbrook Drive  
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 Fx: 519-652-8638

# INVOICE

<b>Invoiced to:</b> Renner, Russel PO Box 794, 33 Jackson Crescent Marathon, ON P0T2E0 Canada	<b>Analyzed For:</b> Renner, Russel PO Box 794, 33 Jackson Crescent Marathon, ON P0T2E0 Canada
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Invoice No: IN122015  
 Date: Sep 29, 2014  
 Page 1  
 Cust. No.: 0059

Businesss No: 10029 4768

Terms: N30

Due Date: Oct 29, 2014

Code	Qty	Description	Unit Price	Amount
Job# 201441875				
ALP1	7	Dry, Crush (<5kg) 85%-10 mesh, Split 500g, Pulv 90%-200 Mesh	7.25	50.75
ALFA1	7	Gold (FA/AAS, 30g)	12.10	84.70
ALAR1	6	Aqua Regia Digestion with ICP-OES Finish	9.85	59.10
ALARORE	1	ALAR ORE ASSAY	7.00	7.00
			<b>Tax Summary:</b>	
			GST	0.00
			QST	0.00
			HST	26.20
			<b>Sub-Total</b>	<b>201.55</b>
			<b>Total Taxes</b>	<b>26.20</b>
			<b>Total Amount</b>	<b>227.75</b>



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Invoice No: IN122016  
 Date: Sep 29, 2014  
 Page 1  
 Cust. No.: 0059

Business No: 10029 4768

Terms: N30

Due Date: Oct 29, 2014

Code	Qty	Description	Unit Price	Amount
Job# 201441876				
ALP1	1	Dry, Crush (<5kg) 85%-10 mesh, Split 500g, Pulv 90%-200 Mesh	7.25	7.25
ALPG1	1	Pt Pd Au (FA/AAS,30g)	15.95	15.95
ALAR1	1	Aqua Regia Digestion with ICP-OES Finish	9.85	9.85
			<b>Tax Summary:</b>	
			GST	0.00
			QST	0.00
			HST	4.30
			<b>Sub-Total</b>	<b>33.05</b>
			<b>Total Taxes</b>	<b>4.30</b>
			<b>Total Amount</b>	<b>37.35</b>

30.44



**Laboratory Address:**  
 1046 Gorham Street,  
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# INVOICE

<b>Invoiced to:</b> Renner, Russel PO Box 794, 33 Jackson Crescent Marathon, ON P0T2E0 Canada	<b>Analyzed For:</b> Renner, Russel PO Box 794, 33 Jackson Crescent Marathon, ON P0T2E0 Canada
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Invoice No: IN122017  
 Date: Sep 29, 2014  
 Page 1  
 Cust. No.: 0059

Business No: 10029 4768

Terms: N30

Due Date: Oct 29, 2014

Code	Qty	Description	Unit Price	Amount
		Job# 201441877		
ALP1	9	Dry, Crush (<5kg) 85%-10 mesh, Split 500g, Pulv 90%-200 Mesh	7.25	65.25
ALFA1	9	Gold (FA/AAS, 30g)	12.10	108.90
ALAR1	5	Aqua Regia Digestion with ICP-OES Finish	9.85	49.25

Notes:	<b>Tax Summary:</b>		<b>Sub-Total</b>	<b>223.40</b>
	GST	0.00	<b>Total Taxes</b>	<b>29.04</b>
	QST	0.00	<b>Total Amount</b>	<b>252.44</b>
	HST	29.04		

## ROCK SAMPLE DESCRIPTION

Sample #	Sample description
BRR-2014-001	Fine grained, lightly sheered mafic. 2-5mm quartz veins running with sheer quartz is Light cream colour. 1 5mm quartz vein cross cutting them at 90 . This quartz vein is More clear in colour and has 1 ½% py, none magnetic, light carbon on fractures and Sheer plains.
BRR-2014-002	IF—medium grained, black, highly rusted, highly magnetic, 6% fine disseminated Sulfide –py + pyrrhotite + magnetite, none carbonated, heavy rock.
BRR-2014-003	Highly gossaned –IF, light gray to black chirty felsic rock, bootinashed , quartz- veins, Lightly carbonated, magnetic in spots, 3% fine disseminated fulfide.
BRR-2014-004	Felsic volcanic, rusted, carbonated, lightly magnetic, 2% fine disseminated sulfide.
BRR-2014-005	Quartz vein 3m wide, milky white, rusted, hematite stained on contact with minor Sulfide , wall rock is sheered mafic, light gray, highly gassaned with 2% sulfide Strike 280 dip not determined.
BRR-2014-006	Gray mafic, fine grained with small light green quartz stringers and blebs, 2% sulfide in Quartz 1 ½ in wall rock, none magnetic, none carbonated, light rust.
BRR-2014-007	Highly rusted, magnetic—IF, black to dark gray rock, fine grained, rusted quartz vein And blebs, 2% visible sulfide.
BRR-2014-008	Dark gray, fine grained, mafic ,sheered, rusted, magnetic none carbonated, 5% sulfide
BRR-2014-009	Sheered, fine grained, gray, mafic, rusted, carbonated, none magnetic, 6% fine Disseminated sulfide.
BRR-2014-010	Felsic volcanic, light rust, carbonated, none magnetic, 5% disseminated sulfide.
BRR-2014-011	Quartz vein lightly rusted, light carbon, none magnetic 1% sulfide.
BRR-2014-012	Light gray, fine grained, mafic, 1cm quartz veins and blebs, with 1 ½% sulfide, wall rock Has ½% sulfide, rusted, light carbon, none magnetic.
BRR-2014-013	IF- fine grained, magnetite and quartz, highly rusted, highly magnetic 2% visible Sulfide, 1% in quartz.
BRR-2014-014	Gossan—highly rusted-oxidized and sheered, highly magnetic, none carbonated No visible sulfide.
BRR-2014-015	IF- highly rusted- oxidized, quartz veining, 5% sulfide highly magnetic.

BRR-2014-016 Graphitic-IF highly rusted, heavy, none magnetic, sugar quartz, bull-quartz  
+ yellow oxide, 1% visible sulfide.

BRR-2014-017 IF—with quartz, highly rusted, magnetic, 2% sulfide in quartz sample is 60% quartz.

PROSPECTING AND TRAVERS AND WORK COST SHEET FOR MINING CLAIM  
MINING CLAIM # 4221602

Travers # and date	Man days	Food	Travel kmX.41	ATV	Chain Saw	Assay
Travers # 1-2 May 17-18/2014	4X\$250.00	4X\$35.00	2X140X.41	1X\$80.00	2X\$25.00	0
Travers #3-4 June 21-22/2014	4X\$250.00	4X\$35.00	2X140X.41	2X\$80.00	2X\$25.00	0
Travers #5 Aug. 9/2014	2X\$250.00	2X\$35.00	1X140X.41	1X\$80.00	1X\$25.00	0
Total	10X\$250.00	10X\$35.00	700kmX.41	4X\$80.00	5X\$25.00	
Total cost for claim	\$2500.00	\$350.00	\$287.00	\$320.00	\$125.00	
Writing Report	\$250.00					
Grand Total	\$3,832					

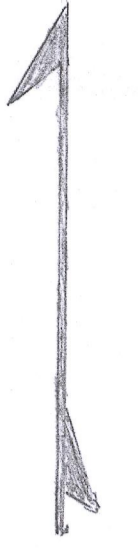
TOTAL OF COSTS

Man days	44X\$250.00	\$11,000.00
Food	44X\$35.00	\$1,540.00
Travel-km	3780kmX.41	\$1,549.80
ATV 4X4	26X\$80.00	\$2,080.00
Chain Saw	16X\$25.00	\$425.00
Assays	17X\$30.44	\$517.48
		<hr/>
	Total	\$17,112.28
	Writing report 2X\$250.00 =	\$500.00
		<hr/>
	Grand Total	\$17,612.28
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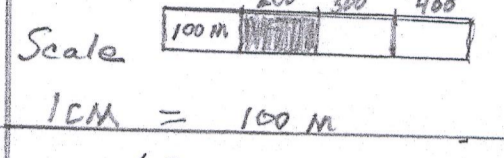
PROSPECTING AND TRAVERS AND WORK COST SHEET FOR MINING CLAIMS  
MINING CLAIM # 4228936

Travers # And date	Man days	Food	Travel kmX.41	ATV 4X4	Chain saw	Assay
Travers # 6-7-8-9-10 Aug.23-24-25-26-27/2014	15X\$250.00	15X\$35.00	10X140X.41	10X\$80.00	5X\$25.00	8X\$30.44
Travers # 11-12-13-14-15-16-17 Aug. 29-30-31/2014 Sept. 1-2-3-4/2014	19X\$250.00	19X\$35.00	12X140X.41	12X\$80.00	7X\$25.00	9X\$30.44
Total	34X\$250.00	34X\$35.00	3080X.41	22X\$80.00	12X\$25.00	17X\$30.44
Total cost for claim	\$8500.00	\$1190.00	\$1262.80	\$1760.00	\$300.00	\$517.48
Writing report	\$250.00					
Grand Total	\$13,780.28					
Total of claim #4221602 and #4228936 is \$17,587.28						



NORTH

Declination  
7° WEST



1cm = 100m

Legend

All season Road  $\frac{+}{-} \frac{+}{-} \frac{+}{-}$

Hydro Line  $|||||$

ATV trail  $..*..*$

Walking Trail  $-----$

Claim Post Line  $\square$

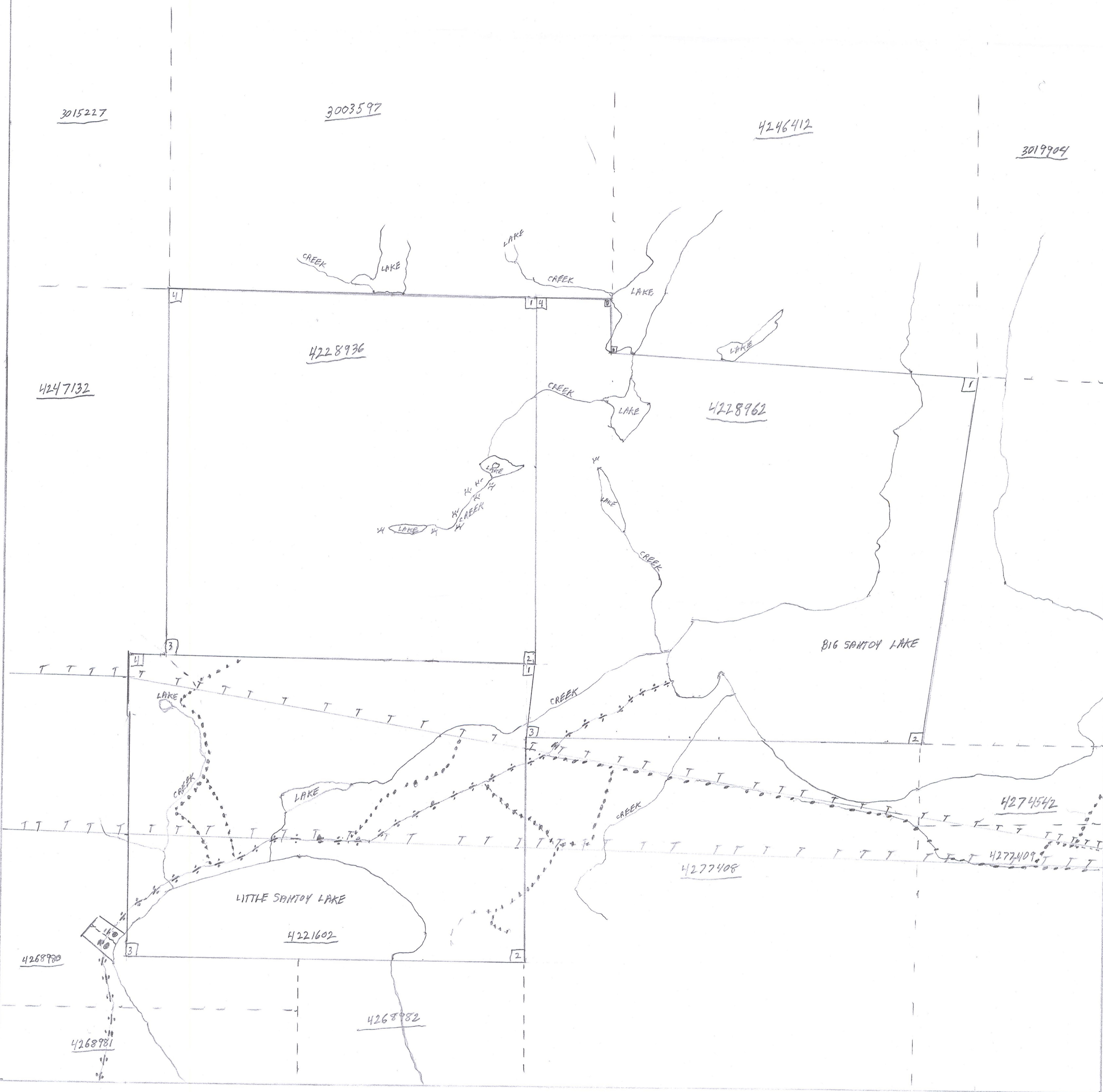
Patent Land  $\square$

Claim # 4228936

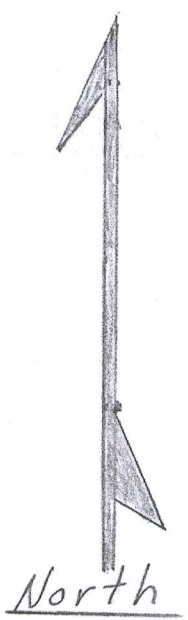
Creek  $\text{CREEK}$

Lake  $\text{LAKE}$

Marsh area  $|||||$



Map #1  
Feb. 10/2015  
Russell Roeder



Declination 7°W

Scale 2 cm = 100 m

Legend

Hydro Line TTTT

All season Road

Walking Trail

ATV Trail

Claim Post

Pat Land

Claim # 4228936

Creek

Lake

Travers Direction

Outcrop

Small Area Stripped of over burden

Over burden OB

Spruce sp

Balsam B

White Birch W.B

Poplar P

Tag Alder TG

Under Brush UB

Carbonate alteration C

Sulfide S

Magnetic Mag

Quartz Vein QV

Gossan Gos

Mafic I

Sheered Sheer

Iron Formation IF

Felsic Volcanic 2

Large QV QV=3m

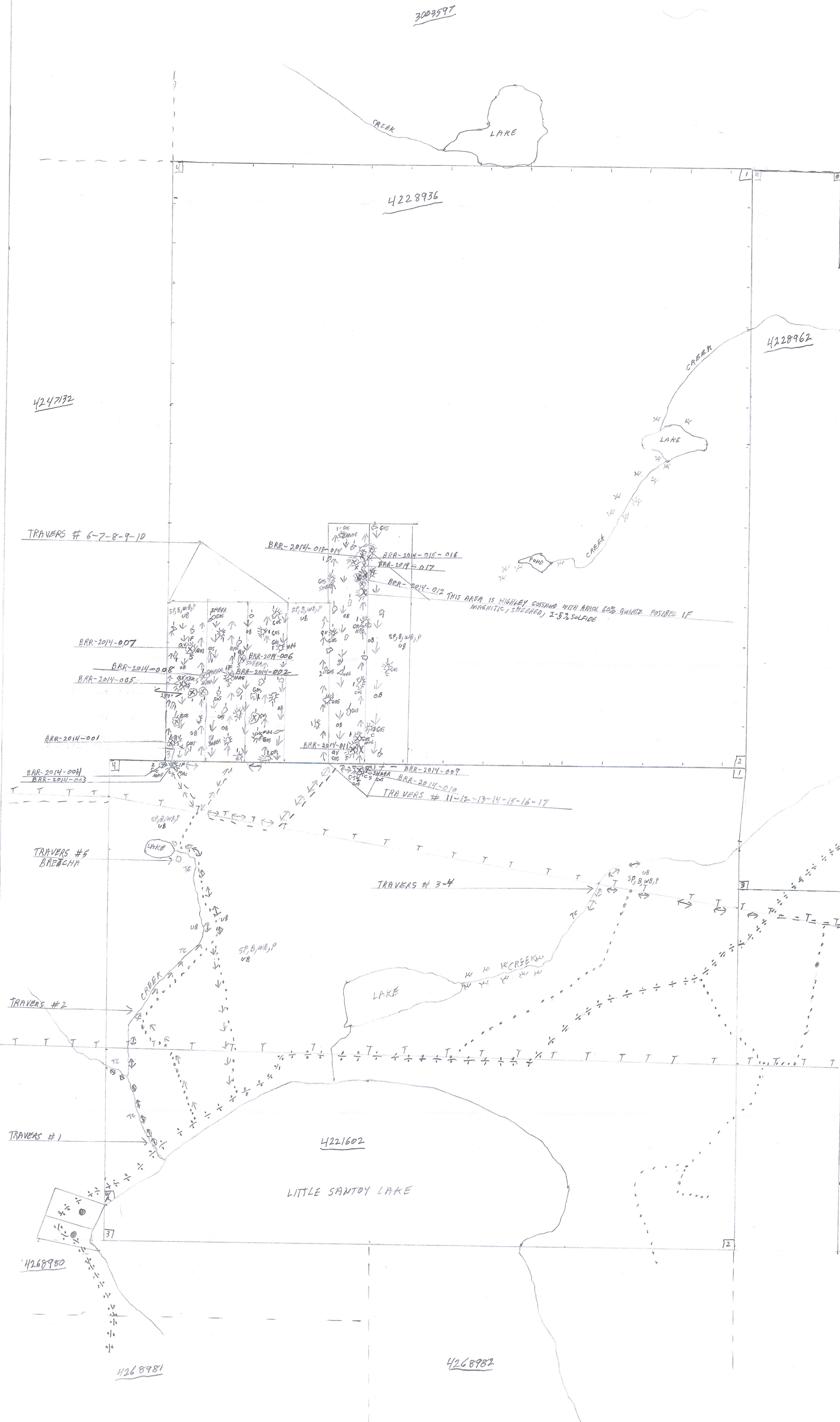
Strike

Sample site Mar Assayed

Map # 2

Feb 10/2015

Russell Penner



3009597

4228936

4228962

4247132

TRAVERS # 6-7-8-9-10

BAR-2014-007

BAR-2014-008

BAR-2014-005

BAR-2014-001

BAR-2014-004

BAR-2014-003

TRAVERS # 5

BREACH

TRAVERS # 3-4

TRAVERS # 2

TRAVERS # 1

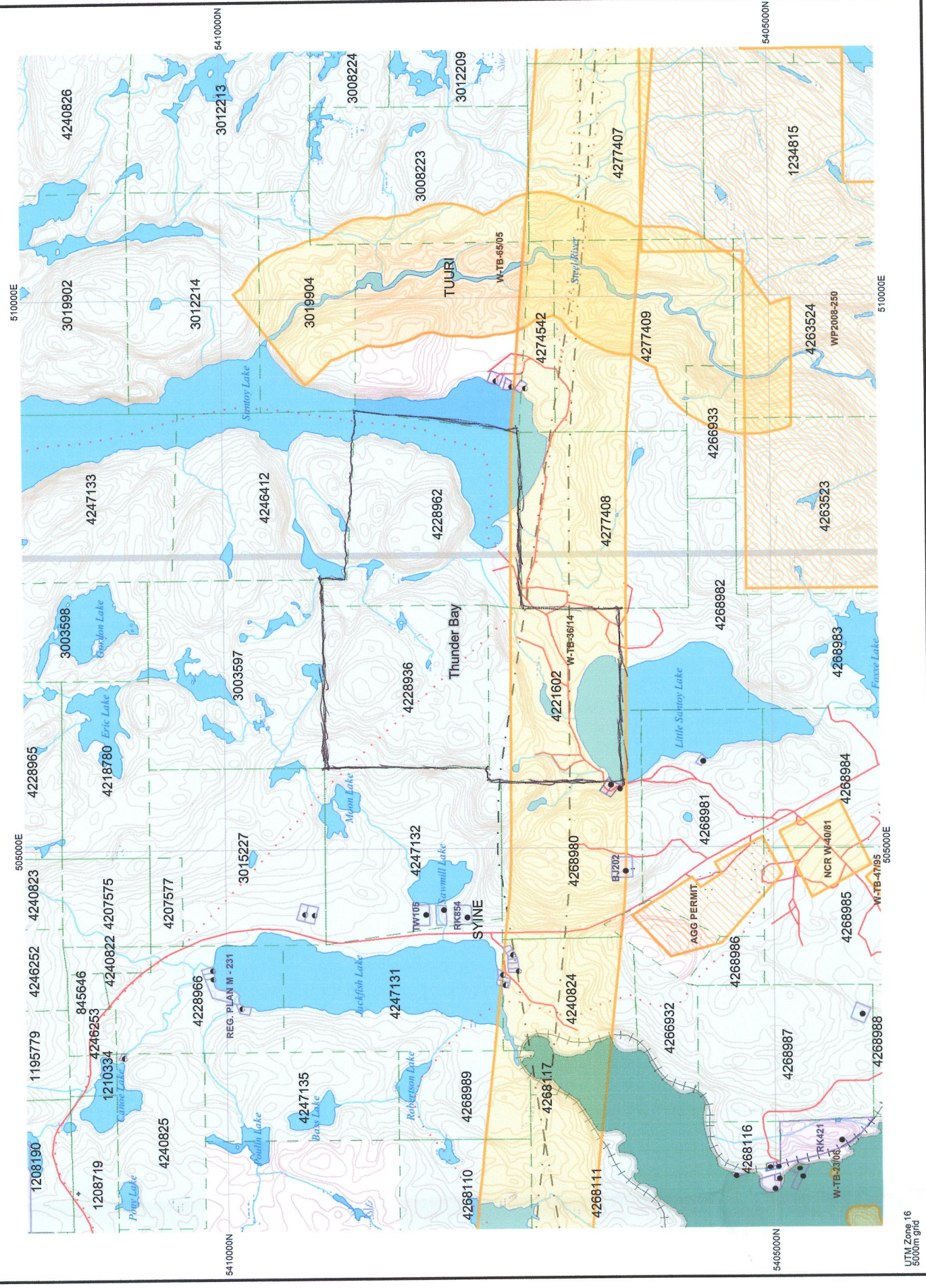
4221602

LITTLE SANTOY LAKE

4268980

4268981

4268982



UTM Zone 16  
500m grid