ASSESSMENT WORK REPORT ON THE FRY- McVEAN PROPERTY

Drum Lake Township, Patricia Mining Division

Northwestern Ontario

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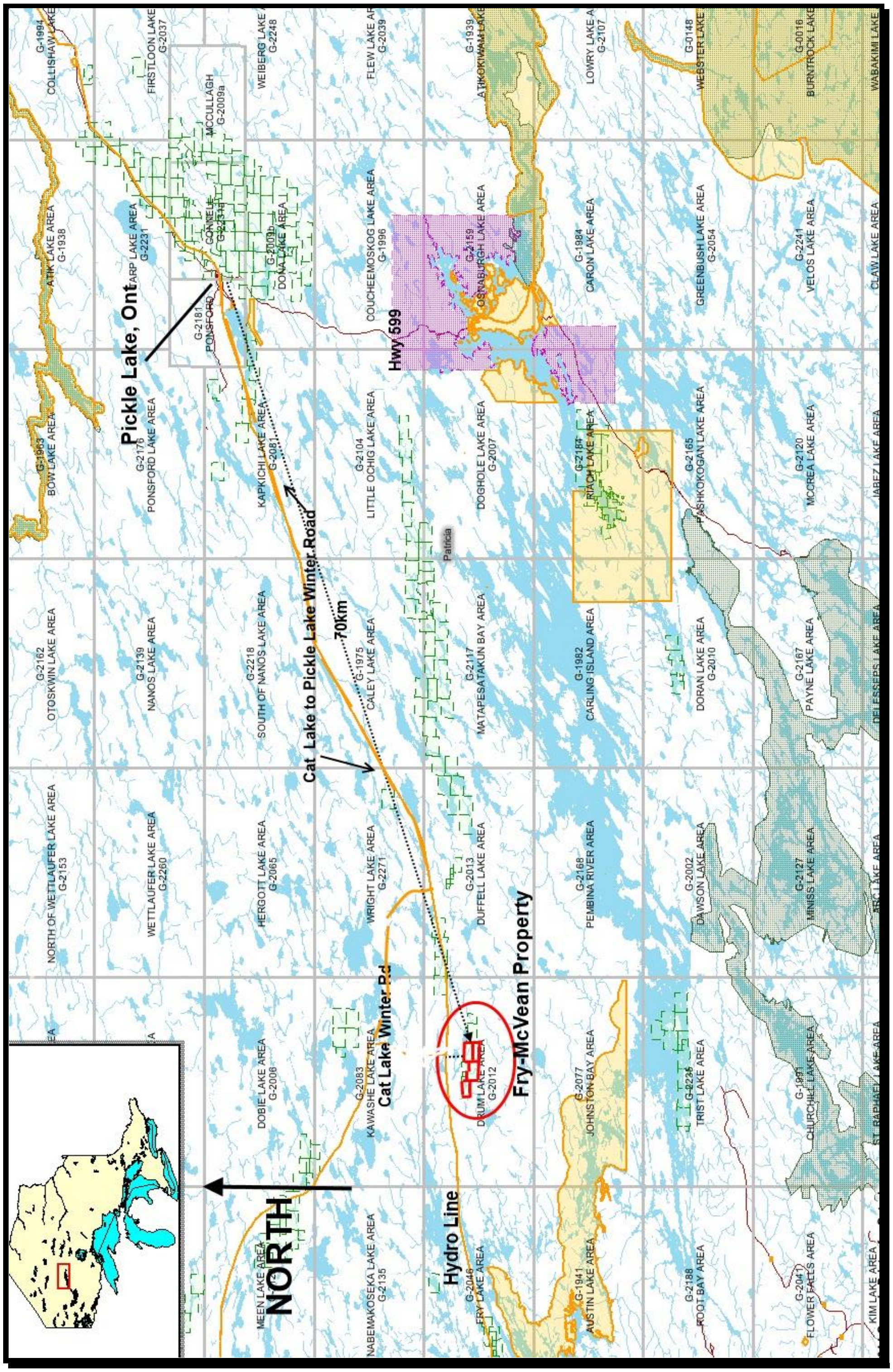
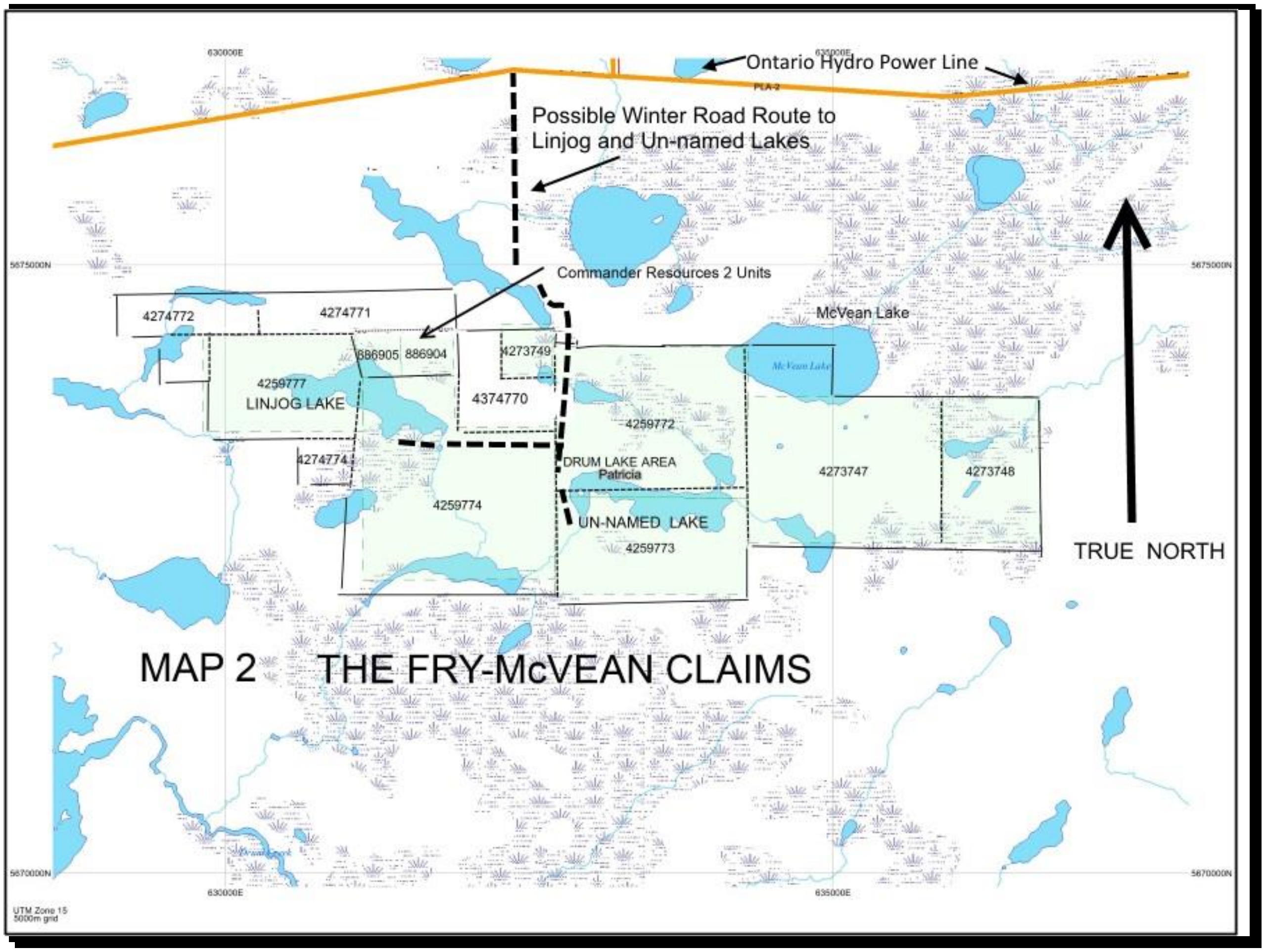
The Fry-McVean Property is located 70 km southwest of Pickle Lake Ontario. The Cat Lake to Pickle Lake winter road on the Ontario Hydro power line is shown as a yellow line.



Map 2 The Fry-McVean Claims



Map 2 shows the Fry-McVean claims, the Ontario Hydro power line and a possible winter road connection from the power line to Linjog Lake and Un-named Lake.

Summary

This report is the result of work by Donald D. Brown to evaluate the gold potential of a several kilometer (km)-long shear zone located on the Fry-McVean claims. The claims are located in central Uchi Sub-Province, Meen-Dempster Greenstone belt, northwestern Ontario. They are comprised of 72 claim units. The Fry-McVean property is 70 km south-west of the Pickle Lake gold camp (Map 1). The Pickle Lake gold camp hosted three past producing gold mines, namely: the Pickle Crow, the Central Patricia and the Donna Lake mines. Also, the past producing Golden Patricia gold mine is located only 18 km to the north of the Fry-McVean claims.

The geological survey described herein was conducted in September 2014 by Donald D. Brown, geologist, P. Geo. and by Timothy Shiels, assistant and licensed prospector, over part of the McVean claims (Map 2). Brown supervised the project. Brown is the author of this report and he is the sole owner of the Fry-McVean claims.

This report describes a newly identified iron-carbonate altered and intensely sheared deformation zone that is estimated to be up to 6.5 kilometer (km) long on strike and 200 meters (m) to 500 m wide. The structure is named the Linjog Lake-Un-named Lake Shear Zone (LL-UL SZ) (Map 3). The northern and southern borders of the LL-UL SZ are shown as heavy dark blue lines on Maps 6 and 7 (on CD). This structure is interpreted as a Riedel shear zone and a second-order deformation zone that extends in a sub-parallel direction from the main, regional, 30-km long Fry-McVean Shear Zone (FMSZ) (Map 4).

A 1,087-sample humus soil survey was conducted under the supervision of Brown in 2011 over the Fry-McVean property (Brown). The soil survey revealed two gold-in-humus anomalies that extended over strike lengths of 1.55 km at Linjog Lake and 1.55 km at Un-named Lake, directly on the area of the LL-UL SZ (Maps 8 and 9 on CD). Coincident iron (Fe) and molybdenum (Mo) anomalies extended over the same areas as the two gold (Au) anomalies at Linjog Lake and at Un-named Lake. Also, less extensive anomalies of arsenic (As), bromine (Br) and chromium (Cr) occur within the same areas as the gold-in-humus anomalies (Brown). These are gold indicator elements.

On Map 4, the two shear zones structures, the FMSZ and Riedel shear zones, were interpreted in 2011 by Brown as forming 'Negative Flower Structure' or 'Pull-Apart Structure'. The two-sub-parallel Riedel shear zones shown on Map 4 conform to the structural model of classical Riedel shears as predicted by Mohr-Coulomb shear failure criterion and by both field examination and experimental laboratory models that replicate Riedel shear structures (Tchalenko, Gamond, Atmaoui Nassima et al). The Negative Flower Structure (or Pull-Apart Structure), shown on Map 4, conforms to the structural requirements of a classical extensional Negative Flower Structure (Atmaoui et al). This extensional structure or Pull-Apart Structure on the Fry-McVean property is 6.5 km long and 1.2 km to 1.4 km wide. The late Archean pull-apart, extensional or trans-

tensional tectonic stresses across the strike direction of the right-lateral Riedel shear zones have provided for the fracturing, faulting and dilation for hydrothermal fluids to completely alter the protolith volcanic flow units (iron-rich tholeiitic basalt) to a ferroan-dolomite or ankerite-rich rock. This rock is called iron carbonate rock.

The alteration zone of iron carbonate rock is shown on Maps 6 and 7 (on CD) within the borders of the LL-UL SZ. The northern and southern borders of the Riedel shear zone as mapped in the 2014 survey are much wider than the two-sub-parallel shear zones shown on Map 4 (from 2011). Rather than being a 200-m wide shear zone, the carbonate-altered LL-UL SZ is 200 m to 500 m wide across strike as is inferred by the distribution of iron carbonate (ferroan-dolomite) rock that was first identified in the 2014 survey.

The iron carbonate rock on the LL-ULSZ is the same type of iron-carbonate found as alteration within shear zones and fault zones that hosts the quartz-carbonate vein gold deposits in the Timmins-Porcupine camp and in the Red Lake camp's "Mine Trend". These famous mining areas account for mine production of about 96 million ounces of gold.

Forty-six (46) samples of iron carbonate rock were collected during the 2014 survey and the samples were submitted to Activation Laboratories Ltd. (Actlabs) in Thunder Bay for fire assay analyses for gold. The locations of the rock outcrops where the samples were taken in the Un-named Lake and Linjog Lake areas are shown on the survey Maps 6 and 7 (on CD). The Actlab's assay analyses and assay certificate are listed in the appendix of this report. The assay analyses of the 46 samples in parts per billion gold (ppb Au) and the Global Positioning System (GPS) co-ordinates of the 46 sample locations on a UTM grid and NAD '84 datum are listed in Tables 2 and 3.

Outcrops found in this survey represent an estimated less than one-half of one percent of the area covered by traverses. Most of the area is covered by glacial drift cover and swamp. This has prevented a more precise definition of the borders of the iron carbonate alteration and the enclosing LL-UL SZ shown on Maps 6 and 7 (on CD). Water-covered areas of Linjog Lake and Un-named Lake represent an estimated forty percent of the inferred area of the iron carbonate altered LL-UL SZ.

Four (8.7%) of the 46 samples taken from the carbonate-altered rock outcrops are considered by Brown to be anomalous in gold at ≥ 5 parts per billion (ppb) Au based on the 5 ppb Au threshold value for anomalous gold in iron carbonate alteration zones determined by Fyon et al, 1981. The 5 ppb Au threshold value was determined for iron carbonate alteration zones in the Timmins-Porcupine camp (Fyon et al). Parker reports that in the Red Lake 'Mine Trend' the iron carbonate alteration zones are typically barren of gold unless they have been silicified. As a reference, Rose et al report that the abundance of gold in the igneous rocks of the earth's crust is 3 ppb Au.

Eighteen (18) iron carbonate rock exposures at Linjog Lake were assayed for gold (Map 6 on CD). These exposures occur over a strike length of 1,250 meters along the length of Linjog Lake near or on the southern shoreline. A number of the 18 exposures of iron carbonate rock within the LL-UL SZ display accessory quartz in the matrix as quartz eyes or anhedral crystals and/or as small quartz veinlets. Modest silicification is evident in some samples by the quartz fragment inclusions and quartz veinlets. Accessory pyrite commonly occurs as fine disseminated pyrite (1%-4%) and/or as clumps of pyrite crystals (Table 3). The rock samples at Linjog Lake are listed in Table 3, with GPS co-ordinates, gold assays and a lithological description.

One sample of the 18 iron carbonate rock samples at Linjog Lake is anomalous in gold at ≥ 5 ppb Au. The one anomalous iron carbonate alteration sample is sample ZZ-01, with 5 ppb Au (Table 3). The sample is located on the southeastern shoreline of Linjog Lake (Map 7). Sample ZZ-01 is comprised of iron carbonate rock with accessory quartz and pyrite.

Map 8 (on CD) shows the 1,550-m long gold-in-humus anomaly in yellow from Brown's 2011 humus soil survey at Linjog Lake. The gold anomaly fits within two sub-parallel OGS VLF-EM airborne conductors that were identified on an OGS airborne geophysical map (Ontario Geological Survey, 1986). These two very long sub-parallel EM conductors are separated by approximately 150 m to 200 m as shown on Map 8 (on CD). The VLF-EM conductors are interpreted as Riedel faults or shear zones within the LL-UL SZ. The conductors are also shown on Map 4 as Riedel Shear Zones.

At Un-named Lake, 26 samples were taken from the iron carbonate rock exposures and these samples were submitted for assay. The sample sites are shown on Map 6 (on CD) and these samples are listed on Table 2, with GPS co-ordinates, gold assays and a lithological description. Among these samples, three samples are anomalous at ≥ 5 ppb Au. The anomalous sample values are as follows: S-9T at 5 ppb Au, S-6T at 9 ppb Au and GG-02 at 12 ppb Au.

Sample S-9T, with 5 ppb Au, is located on the southern shoreline of Un-named Lake. It is comprised of iron carbonate with accessory pyrite and tourmaline.

Sample S-6T, with 9 ppb Au, is located about 230 m to the south of the lakeshore at Un-named Lake. It lies close to the area of the 1,550-m long gold anomaly located south of Un-named Lake (Map 9 on CD). This sample is iron carbonate rock with accessory disseminated pyrite.

Sample GG-02, with 12 ppb Au, is located about 175 m to the south of Un-named Lake and 225 m to the northeast of sample S-6T. It also lies close to the area of the 1,550-m long humus-in-gold anomaly at Un-named Lake (Map 9). This sample is iron carbonate rock with disseminated pyrite. Approximately 25 m to the south of sample site GG-02, an exposure of iron carbonate rock displays widely spaced iron carbonate stringers.

The anomalous gold values of 9 ppb Au in sample S-6T and 12 ppb Au in sample GG-02 could indicate proximity to gold mineralization within the iron carbonate rock. At the 21-million ounce Hemlo gold deposit, Kuhns reports that Au values decrease from

60 ppb Au to 80 ppb Au in < 10 m from the ore zone, and commonly to background levels [for the Hemlo Shear Zone] of 5 ppb Au to10 ppb Au within 20 m to 30 m or less from the ore zone.

Map 9 (on CD) shows the 1,550-m long gold-in-humus anomaly in yellow from Brown's 2011 humus soil survey at Un-named Lake. The gold anomaly fits within and to the south of two sub-parallel OGS VLF-EM airborne conductors that were identified on an OGS airborne geophysical map (Ontario Geological Survey, 1986). These two very long sub-parallel EM conductors are separated by approximately 200 m. The VLF-EM conductors are interpreted as Riedel faults or shear zones within the LL-UL SZ. They are shown on Map 4 as Riedel shear zones.

A possible gold-bearing zone, within the area of the gold-in-humus anomalies at Linjog Lake and at Un-named Lake, could be narrow considering that high-grade (5 g/t -10 g/t Au) greenstone-hosted quartz-carbonate vein deposits are typically only 10 cm thick to 5 m thick (Geological Survey of Canada Bulletin 540. Poulsen et al, p.89).

Conclusions

- Only a very small portion of the Linjog Lake–Un-named Lake Shear Zone (LL-UL SZ) in the area mapped is exposed in outcrop (estimated at < 0.5 % of the area) and about 40 % of the area of the LL-UL SZ is under Linjog Lake and Un-named Lake.

- The 2014 survey confirmed the presence of strong shearing that is supported by the interpretation of the Riedel LL-UL SZ and related Negative Flower Structure. These structures were recognized by Brown's 2011 conceptual Riedel structural model prior to the 2014 field survey, as shown on Map 4. The Negative Flower Structure or Pull-Apart Structure is 6.5 km long and 1.2 km to 1.4 km wide.

- The 2014 survey identified hydrothermal iron carbonate alteration as an integral part of the LL-UL SZ. This rock is a sheared iron carbonate rock that is the metasomatic product of the highly altered protolith, which is mafic metavolcanic rock (basalt flow rock). The iron carbonate alteration is estimated to be from 200 m wide to as much as 500 m wide (Maps 6 and 7 on CD). 8.7% of the 46 iron carbonate samples tested are believed to be anomalous in gold at 5 ppb Au to 12 ppb Au using a nominal threshold of 5 ppb Au (Fyon et al).

- The LL-UL SZ is interpreted as part of an interpreted Negative Flower Structure and Pull-Apart Structure that has provided for extensional faulting and fracturing. This dilational structure has provided the permeable conduit for hydrothermal metasomatism by CO_2-rich fluids during the late Archean era and the resulting replacement of the matrix of the protolith mafic volcanic host rock by iron carbonate.

- Iron carbonate alteration and Riedel shears are intimately associated with quartz-carbonate gold vein deposits at Red Lake and in the Timmins-Porcupine camp (Colvine et al, Burrows). These gold deposits have both Riedel shear mineralization and related pervasive iron carbonate alteration. Most of the quartz-carbonate gold vein deposits of the Campbell/Red Lake mine and Cochenour mine at Red Lake are hosted in highly altered carbonatized mafic volcanic rocks (Pirie), as are the quartz-carbonate gold vein deposits in the Hollinger and McIntyre mines at Timmins (Poulsen). The five gold mines cited account for 64.7 miilion ounces of gold production or an average of 12.9 million ounces per mine.

- In the 1990's, anomalous gold was identified in drill core intersections within mineralized zones in the FMSZ within a few hundred meters of the LL-UL SZ at Linjog Lake. This is described below in the section "Past Exploration".

- The target area that is recommended for diamond drill testing is comprised of two 1,550-m long gold-in-humus anomalies that are shown on Maps 8 and 9. One of the anomalies is at Linjog Lake and the second is at Un-named Lake. The two gold anomalies were identified by the 1,087-sample multi-element humus geochemical survey that was conducted on the Fry-McVean property in 2011 (Brown). The anomalies have never been drill tested.

Recommendation

Diamond drilling is proposed to test the gold-in-humus anomalies shown on Map 8 and Map 9 that are taken from the 2011 humus soil survey (Brown).

Introduction

During the period September 2 to September 11, 2014, Donald D. Brown, Ph.D., P.Geo., geologist and Timothy Shiels, a licensed prospector, conducted a geological survey in the Pickle Lake region of northwestern Ontario. The survey was supervised by D. D. Brown. Brown resides at 500 Foxview Place, Ottawa, Ontario, K1K 4C4. Timothy Shiels resides at 123 Forest Drive in Ear Falls, Ontario.

The Fry-McVean property is located in Drum Lake Township, Patricia Mining Division, in Ontario (Map 1). The survey employed Global Positioning System (GPS) instruments based on a UTM grid and NAD ’84 positioning to conduct traverses.

The field work was carried out at Un-named Lake and at Linjog Lake on claims 4259772, 4259773, 4259774 and 4259777 (Map 2), during September 4 to September 9, 2014.

The Fry-McVean property is located 70 km to the west-southwest by air from the town of Pickle Lake, Ontario (Map 1). Access to the property is by fixed wing or helicopter. The property could also be accessed by winter road by using the Ontario hydro power line that extends to the southwest from Pickle Lake, mostly on the annual winter road leading to the Cat Lake Reserve. This route is shown as a yellow line on the regional map, Map 1 and on the map of the claims, Map 2. To access the Fry-McVean claims, this winter road would need to be extended from the Cat Lake-Pickle Lake winter road another 14 km further to the west along the Ontario Hydro power line right of way (Map 1). About 5 km of new winter access road would need to be cut southward from the power line (at a point northwest of McVean Lake as shown on Map 2) to reach a future drill camp site at either Linjog Lake or at Un-named Lake.

The 2011 geochemical survey by Brown showed two 1,550-m long co-incident gold, iron and molybdenum anomalies, one at Un-named Lake and the second at Linjog Lake. These anomalous areas are described in the assessment report on the 2011 humus soil survey (Brown, D. D., Afri File: 29999996950, Humus Geochemical Survey, East Half of Fry-McVean Claims, for Rainy Mountain Royalty Corporation, 2011). The position of the gold-in-humus anomalous areas are shown on Map 4.

Regional Geology

The regional geological mapping of this part of the Meen-Dempster greenstone belt was completed and published by E. Dinel and N.T. Pettigrew in 2008 (Ontario Geological Survey Open File Report 6208 and Map P. 3588). The region east of Fry Lake is relatively unexplored. The 2007 OGS bedrock mapping survey of the Fry Lake area was first to identify a major 30 km-long shear zone that extends from the Fry Lake area to the west of McVean Lake, eastward to the McVean Lake area and through the Fry-McVean property. A part of OGS Map P.3588 is shown as Map 3. In the absence of a name, Brown calls this regional shear zone or deformation zone, the ‘Fry-McVean Shear Zone’ (FMSZ).

The FMSZ is located north of Linjog Lake and Un-named Lake as shown on Map 4. In this area, the FMSZ has been identified in several diamond drill holes that were completed by Major General Resources during 1991 and 1992 (Mullen 1992).

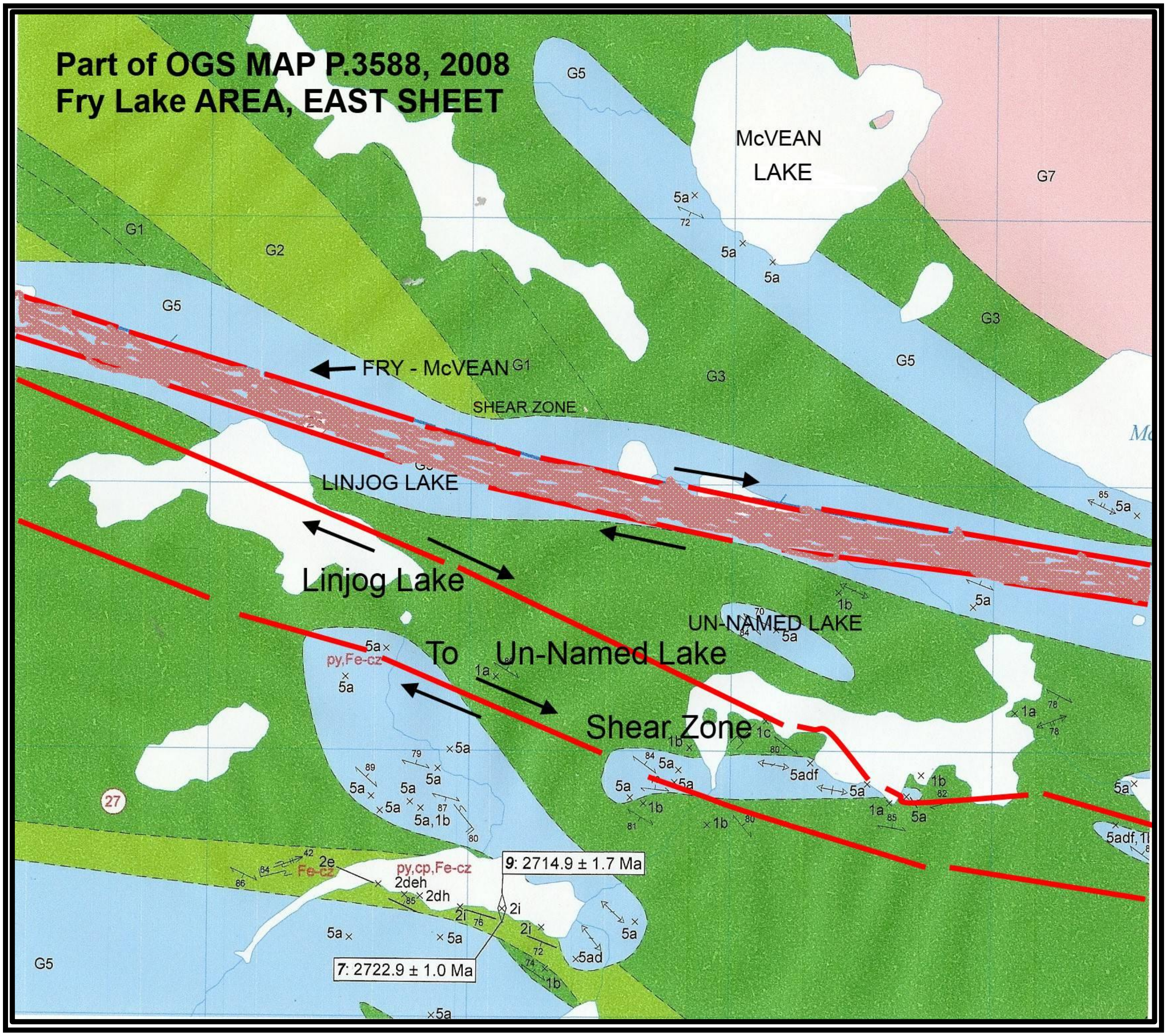
On Map 3, Brown shows the FMSZ as a red-colored linear area with a width of approximately 200 m across strike. The southeasterly striking metavolcanic units (shown in green and chartreuse) that are located to the north of the FMSZ have been truncated by fault displacement on the regional FMSZ. To the south of the FMSZ, the mafic metavocanic rock is shown by Dinel et al as green-coloured units (units 1a, 1b and 1c). Unit “1” is comprised of iron-rich tholeiitic basalt flows that occasionally occur as pillowed flows and/or pillow breccia. Pillowed mafic volcanic flow rock outcrops on the southern shoreline areas of Linjog Lake and Un-named Lake. The flow tops and foliation of these exposures strike in a west-northwest to east-southeast direction, at an azimuth of about 110 degrees to 115 degrees true, parallel to the strike direction of the FMSZ. The flow tops of the mafic volcanic flows dip vertically or near-vertically and they face to the south.

OGS Map P. 3588 can be viewed online at the Ministry of Northern Development and Mines. The area between the two red lines on Map 3, that extend from Linjog Lake to Un-named Lake, are the outer boundaries, interpreted by Brown, of the Linjog Lake to Un-named Lake Shear Zone (LL-UL SZ). These boundaries mark the outer limits of the iron carbonate altered mafic volcanic rock, ‘MV+carb’ that is contained within the northern and southern boundaries of the LL-UL SZ.

The iron-carbonate altered rock is shown by the symbol ‘MV+carb’ on the geologic maps of the Un-named Lake and Linjog Lake sub-areas Maps 6 and 7 (on CD) and in Table 1. The mafic volcanic unit is shown by the symbol ‘MV’ on Maps 6 and 7 and in Table1.

Brown did not find any gabbro outcrops as recorded on OGS map P. 3588, on the southern shore of Un-Named Lake. The gabbro is shown on Map 3 as units 5a and 5adf. Brown mapped the rocks of this sub-area as ‘MV+carb’, a highly carbonated, sheared and altered metavolcanic rock (iron carbonate rock). Also, Mullen did not identify any gabbro, as is recorded on OGS Map P. 3588, either within the FMSZ or immediately bordering the FMSZ (Map 3).

Map 3 Showing the Fry-McVean Shear Zone (FMSZ) and the Linjog Lake to Un-named Lake Shear Zone (LL-UL SZ)



The Linjog Lake-Un-named Lake Shear zone (LL-UL SZ) is located between the two red lines on Map 3. The Fry-McVean Shear zone (FMSZ) is shown as a red band located to the north of Linjog Lake and Un-named Lake.

Table 1 Table of Geologic Units		
Era, Period and Epoch	Map Symbol	Description
Cenozoic, Quaternary, Pleistocene	Pleistocene Glacial Cover - No symbol is given because the glacial drift cover is extensively distributed but it is not readily visible under the forest floor.	Principally glacial till; sand and gravel
Precambrian, Archean	MV + carb	Highly altered mafic volcanic flow rock that has been transformed to a sheared iron carbonate rock as a hydrothermal alteration product
	MV	Massive unaltered mafic volcanic flow rock that has a chlorite-rich aphanitic matrix

Geology of the Linjog Lake and Un-named Lake Sub-Areas

Two Archean bedrock lithologies were identified by Brown. The bedrock area mapped in the 2014 survey is underlain by either (1) massive to slightly sheared massive unaltered mafic volcanic flows (metabasalt flows) with the symbol ‘MV’ or (2) iron carbonate rock with the symbol ‘MV+carb’. The chlorite-rich and aphanitic groundmass of the fresh mafic volcanic flows has been heavily sheared and metasomatically altered by CO_2-rich hydrothermal fluids to a gangue of foliated iron carbonate with dark-coloured accessory minerals, including biotite, occasional remnant chlorite and occasional tourmaline. This has resulted in pervasive iron carbonate alteration within the LL-UL SZ. The regional strike of flow tops and foliation of these units is about azimuth 110 degrees to 115 degrees true.

The iron carbonate rock is shown on accompanying maps (Map 6 and Map 7, on CD) of the Un-named Lake and Linjog Lake areas, as ‘MV+carb’. The iron carbonate rock is confined to the area within the boundaries of the LL-UL SZ. The northern and southern boundaries of the LL-UL SZ are shown on these maps as heavy dark blue lines. The carbonate alteration resulted from the destruction by hydrothermal solutions of the silicate mineral matrix of the protolith mafic volcanic rock that was comprised of plagioclase and most probably an amphibole before regional metamorphism. The metasomatic reactions resulted in the concomitant replacement of these silicate minerals by iron carbonate and accessory biotite +/- chlorite +/- tourmaline and +/- accessory quartz and pyrite.

The mafic volcanic rock is fresh and massive. Its' weathered surface is a dark grey colour. The rock has a dark green colour on fresh surfaces because of the abundant dark green chlorite in the rock matrix. The iron carbonate rock on fresh surfaces has a grey colour but it can be much lighter than the mafic volcanic rock because it is composed largely of pale grey iron carbonate. Where the biotite content of the iron carbonate rock is high (> 15%) the rock has a dark grey colour. The iron carbonate rock can have a bleached appearance compared to the darker weathered surface of the mafic volcanic rock. The iron carbonate rock weathers to a grey, buff or pale grey colour.

The iron carbonate alteration is related to abundant CO_2 in hydrothermal solution required to extensively alter the highly faulted and sheared mafic volcanic flows rock. The iron carbonate alteration extends over widths estimated at from about 200 m to 500 m across strike in the LL-UL SZ.

The iron carbonate rock was tested using a dilute solution of 5% muriatic acid (hydrochloric acid) and 2 grams of potassium ferricyanide per 100 millilitres (ml) of solution to stain the rock. The iron carbonate yielded a green-blue to dark blue stain, which is produced when iron is released to the staining solution by the ferroan-carbonate - ankerite (solid solution) mineral in the rock. The iron carbonate was also tested for calcite with Alzarin Red S dye in a dilute solution of muriatic acid. No calcite was detected.

Quartz and pyrite mineralization is present among the limited exposures of carbonate rock along the length of Linjog Lake. These exposures are shown on Map 7 and Table 3, with the symbols 'qtz' and 'py'. Intense biotite alteration under the symbol 'biot' and accessory black tourmaline under the symbol 'tour' were observed in some rock exposures as shown on Maps 6 and 7 (on CD) and Tables 2 and 3. Biotite comprises as much as 25% of the iron carbonate rock and some samples appear to have remnant chlorite.

Geologic Maps and Grab Sample Locations

Maps 6 and 7 (on CD) show the lithologies and grab sample locations in the areas covered by traverses at Un-named Lake and at Linjog Lake during September, 2014. On both maps, the interpreted outer boundaries of the trans-tensional Riedel shear zone are shown by two heavy dark blue lines separated by approximately 200 m to 500 m. The northernmost of these sub-parallel boundaries extend in a west-northwest direction through Un-named Lake and Linjog Lake.

The Linjog Lake–Un-named Lake Shear Zone (LL-UL SZ) is a major second-order deformation zone. It is defined by the sheared and altered iron carbonate rock exposures that outcrop near the shorelines and to the south of both Un-named Lake and Linjog Lake (Maps 6 and 7, on CD). This rock is labelled 'MF+carb' at the outcrop locations. The northern and southern interpreted boundaries of the LL-UL SZ at Linjog Lake are inferred because of the extensive lake cover and the scarcity of outcrop to the south of Linjog Lake. The mafic volcanic rock is the protolith rock that clearly defines the position of the outer boundaries of the LL-UL SZ.

At Un-named Lake (Map 6), the northern boundary of the LL-UL Shear Zone is better defined by outcrops of unaltered mafic volcanic rock that are distributed on the southern shoreline of the lake. The southern boundary of the LL-UL SZ at Un-named Lake is inferred because of the lack of outcrop due to the presence of swamps and extensive glacial drift cover. The interpreted width of the LL-UL ZS ranges from about 250 m to 500 m in the central area of Un-named Lake. The shear zone and iron carbonate alteration widens to 500 m or more near the western end of Un-named Lake. At Linjog Lake (Map 7), the LL-UL SZ is estimated as being about 400 m wide.

Genesis of Iron Carbonate Alteration and Lode Gold Association

The iron carbonate identified in this survey within the LL-UL SZ is within the ferroan-dolomite-ankerite solid solution carbonate series. The iron carbonate's composition is within the corresponding chemical formulae for the solid solution series: $Ca(Fe,Mg,Mn)(CO_3)_2$ for ferroan-dolomite to $Ca+Mg,Fe(CO_3)_4$ for ankerite.

According to Kerrich and Fyfe, 1981, regarding the gold-carbonate association in Archean lode gold deposits, a solution of Ca, Mg and some Fe, indigenous to the peripheral alteration region (in this case, iron-rich tholeiitic mafic volcanic rocks), combining with CO_2 from the mineralizing hydrothermal reservoir, appears to be the process for forming the ferroan-dolomite or ankerite gangue of the iron carbonate rock.

Structural Interpretation

A structural interpretation of the Fry-McVean area is shown on Map 4. The Riedel shear zones shown are interpreted from the position and direction of two sub-parallel airborne VLF-EM conductors that extend at an acute angle to the east-southeast from the FMSZ through Linjog Lake and Un-named Lake. These conductors are shown airborne on geophysical maps of the OGS (Ontario Geological Survey, 1986). The two EM conductors are part of an array of interpreted sub-parallel *en-echelon* strike-slip Riedel shears that are seen to emanate from the southern border of the main regional deformation structure, that being the FMSZ. These Riedel shears conform to the position and shape of classical Riedel shears as predicted by the Mohr Coulomb shear failure criterion and by both field examination and experimental laboratory models that replicate Riedel shear structures (Tchalenko; Gamond). The area between the FMSZ and the Riedel Shear Zones is interpreted as a classical Negative Flower Structure and Pull-Apart Structure that is derived by extensional structural deformation between the Riedel shear zones and the master FMSZ. Negative Flower Structures are caused by lateral shear deformation that is bound by a between a master strike-slip or wrench fault (or shear zone) and second-order Riedel faults (or shear zones) that emanate from the master fault (Atmaoui Nassima et al).

The LL-UL SZ is interpreted as part of a Pull-Apart Structure that is 200 m to 500 m wide across strike and 6.5 km long. Pull-Apart Structures are extensional so that fracture and fault openings are formed by gravitational or normal fault dip-slip displacements (Ercan Aksoy et al).

The Pull-Apart feature of the LL-UL SZ is also believed to be caused by a releasing bend, or extensional bend, or dilational bend or transtensional bend that is formed by the right-lateral FMSZ and LL-UL SZ. The two shear zones may have formed a right-hand extensional bend or releasing bend. Where the two shear zones bifurcate, the LL-UL SZ turns to the east-southeast away from the FMSZ so as to form a shallow bend. Releasing bends are sites of subsidence and crustal extension that can form Pull-Apart Structures and basin sedimentation. The fault and fracture dilation caused by the releasing bend have allowed the hydrothermal fluids to flow into the Negative Flower Structure (Pull-Apart Structure). These high-temperature fluids through metasomatic reactions with the proto mafic volcanic rock formed the iron carbonate alteration within the confines of the LL-UL SZ.

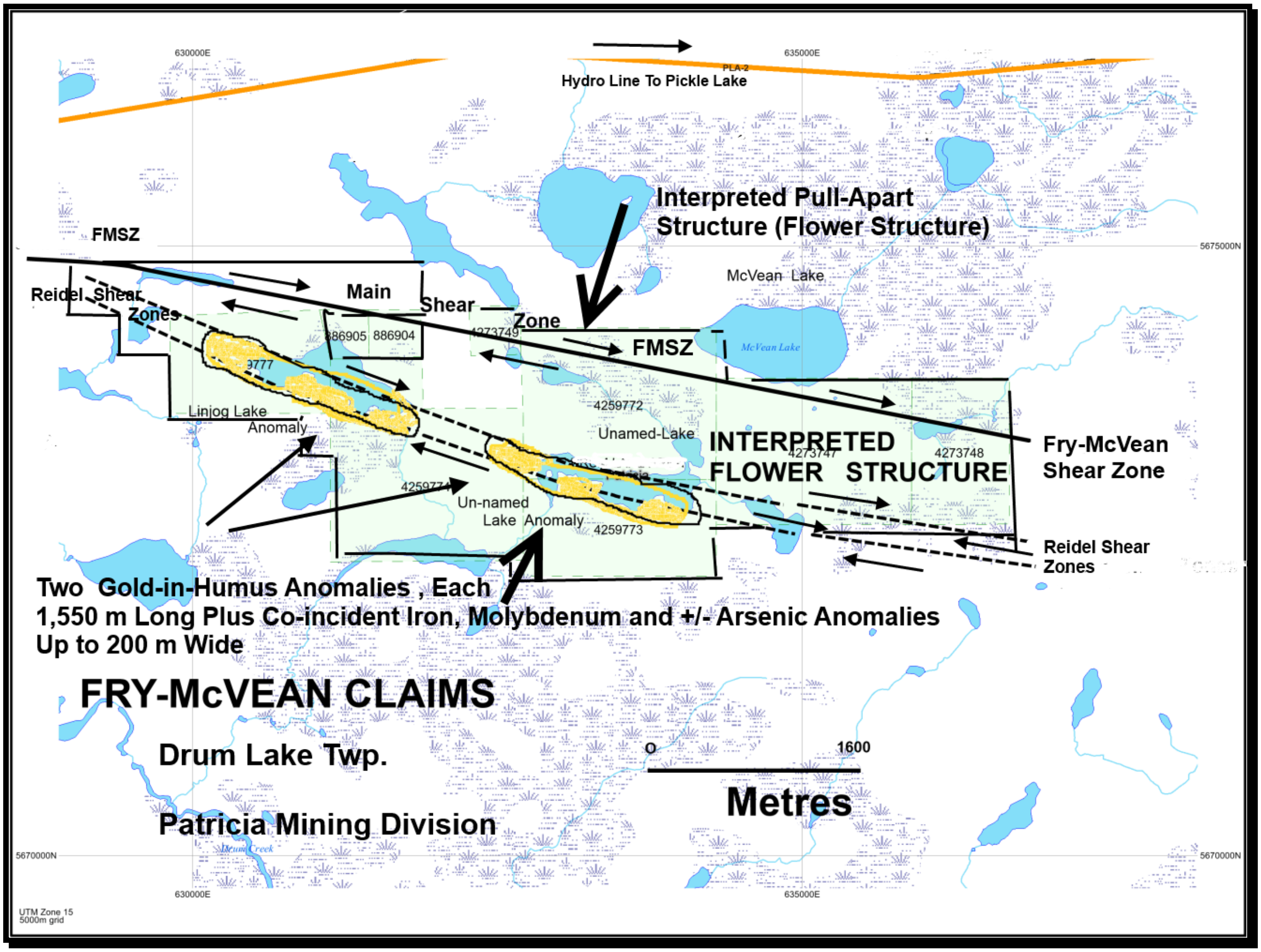
Past Exploration

In the early 1970's, UMEX Ltd. conducted an airborne survey over a large part of the region. UMEX was formerly Union Miniere Explorations and Mining Corporation

Limited. In 1985, UMEX carried out reconnaissance sampling and limited soil sampling in the Fry-McVean area and staked property covering the area in 1986. In 1987, an airborne magnetic-VLF survey was flown by Terraquest for UMEX. Follow up ground geophysical and geological surveys were completed by UMEX during 1987 and 1988 over the area.

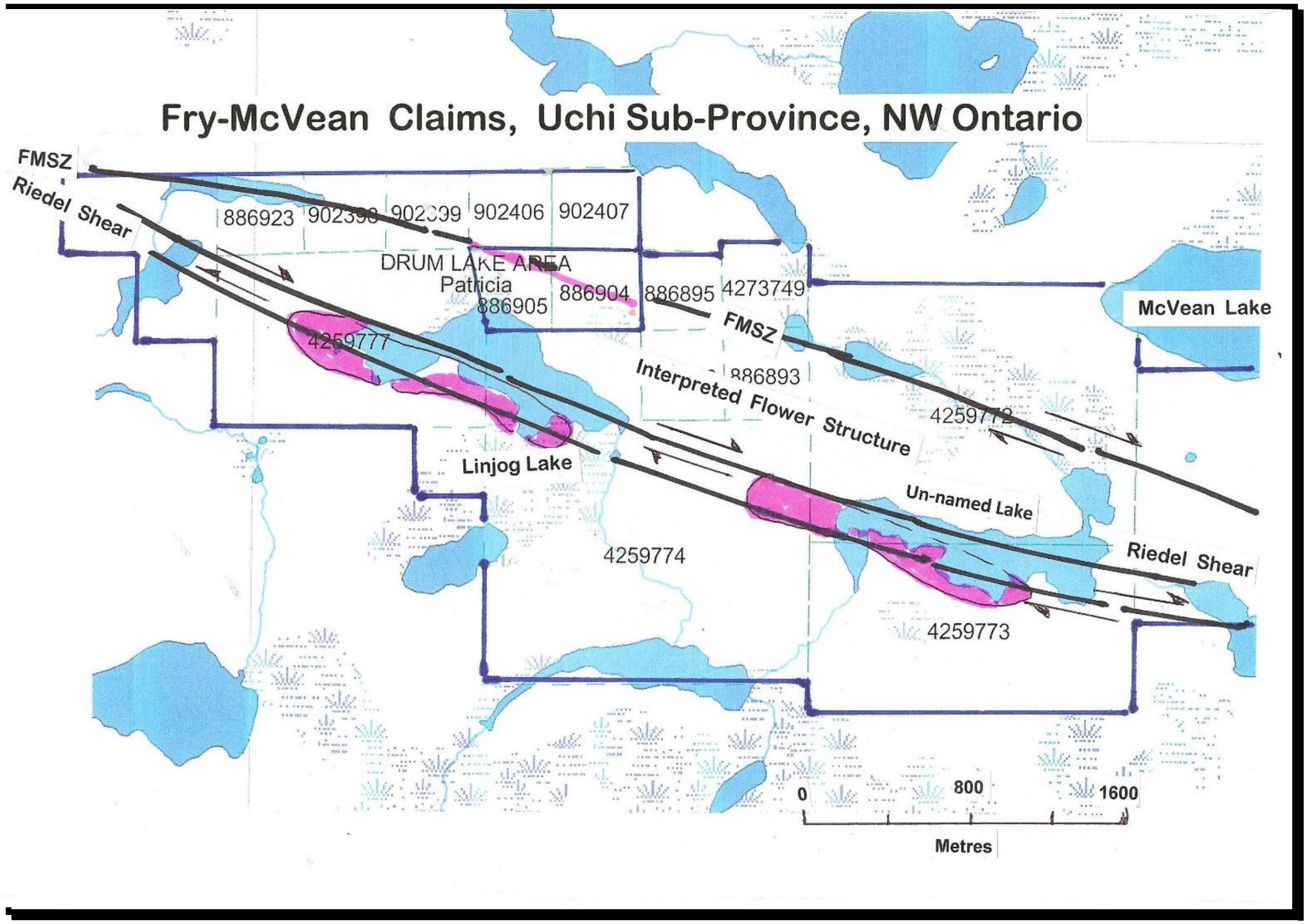
In 1990, Major General Resources purchased the property from UMEX and carried out a diamond drilling program during the winter of 1991. Four holes totaling 864 m were cored on widely spaced geological and geophysical targets. Among four drill holes completed in 1991 by Major General Resources, diamond drill hole McV-91-3, intersected visible gold in sulphides in iron formation. This hole returned an assay of 24.2 grams per ton of gold (g/t Au) over 0.5 m (Mullen, 1992). In 1992, Major General drilled seven holes that intersected very narrow zones of 0.5 m to 1.5 m that returned low values of gold ranging from 130 parts per billion (ppb) Au to 2,140 ppb Au within the FMSZ on claims 886904 and 886905 (Map 4).

MAP 4 Map of Riedel Shear Zones and Interpreted Pull-Apart Structure



Map 4 shows the interpreted structural model of the Negative Flower Structure and the Riedel shear zones as envisaged by Brown in 2011. The two 1,550-m long gold-in-humus anomalies are shown as being on the area of the Riedel shear zones.

Map 5 Map of Fry-McVean Claims and Gold-in Humus Anomalies in Rose Colour at Linjog Lake and Un-named Lake



Map 5 shows the areas that enclose co-incident anomalous gold, iron and molybdenum anomalies in humus. The areas are shown in a rose colour at Linjog Lake and at Un-named Lake in the area of two interpreted sub-parallel shear zones (Brown, 2011). These geochemical anomalies were identified within an extensive humus soil survey comprised of 1087 samples. The survey was conducted by D.D. Brown, over the Fry-McVean property in 2011. The LL-UL SZ was interpreted as Riedel Shears by D.D. Brown from Ontario Geological Surveys' (OGS's) airborne VLF-EM conductors shown on maps in the Pickle Lake geophysical series (Ontario Geological Survey, 1986). The FMSZ's position is taken from Dinel et al, OGS Map P.3588, Fry Lake East Sheet, 2008, and the Ontario Ministry of Northern Development and Mines assessment report by Mullen. The interpreted Negative Flower Structure is bound by the Riedel Shears and the FMSZ and it encompasses the LL-UL SZ.

Conclusions

- Only a very small portion of the Linjog Lake–Un-named Lake Shear Zone (LL-UL SZ) in the area mapped is exposed in outcrop (estimated at $<$ 0.5 % of the area) and about 40 % of the area of the LL-UL SZ is estimated to be under Linjog Lake and Un-named Lake.

- This 2014 survey confirmed the presence of strong shearing that is supported by the interpretation of the Riedel shear-related LL-UL SZ and related Negative Flower Structure. These structures were interpreted in Brown's 2011 conceptual structural model prior to the 2014 field survey, as shown on Map 4. The Negative Flower Sructure is a Pull-Apart Structure that is 6.5 km long and 1.2 km to 1.4 km wide. It encloses the LL-UL SZ.

- This survey identified hydrothermal iron carbonate alteration as an integral part of the LL-UL SZ and intense extensional deformation. The iron carbonate alteration is estimated to be from 200 m wide to as much as 500 m wide (Maps 6 and 7 on CD). 8.7% of the 46 iron carbonate samples tested are believed to be anomalous in gold at 5 ppb Au to 12 ppb Au using Fyon's threshold of 5 ppb Au for iron carbonate alteration.

- The LL-UL SZ as part of an interpreted Negative Flower Structure and Pull-Apart Structure, has provided for extension faulting and fracturing. This dilational structure has permitted hydrothermal metasomatism and iron carbonate replacement of the matrix of the protolith mafic volcanic rocks. As a dilational structure, the LL-UL SZ is an excellent structure for gold exploration.

Recommendation

A diamond drill program is recommended by Brown to test the 2011 survey's gold-in-humus anomalies that are located south of Linjog Lake and south of Un-named Lake (Maps 8 and 9 on CD). For an extended diamond drill program, winter road access to the Fry-McVean property on the Cat Lake to Pickle Lake winter road should be considered. The hydro line winter-road route could be the most cost-effective and best logistical option for the mobilization of camps and heavy equipment to and from the Fry-McVean property. This would require that the winter road be prepared over a distance of 14 km to the west, on the hydro line, from the annual Cat Lake to Pickle Lake winter road (Map 1). Five km of new road would need to be cut to the south of the hydro line to reach Linjog Lake or Un-named Lake as shown on Map 2.

Table 2 Un-named Lake Samples and Gold Assays. Sept. 2014, Fry-McVean Property, Assays by Activation Laboratories Ltd

	Sample Number	Easting	Northing	Gold Ppb	Sample Lithology CLAIM 4259774
1	B-01	633699	5672946	<5	MV + carb + py + tour
2	BB-02	633648	5672993	<5	MV + carb + py
3	AA	632613	5673106	<5	MV
4	A-01	632583	5673167	<5	MV + carb + py
5	OC-1	632676	5673245	no sample	MV
6	A-03	632727	5673220	<5	MV + carb + py
7	C-04	632730	5673182	<5	MV + carb + py
8	BB-03	632724	5673170	<5	MV + carb + py
9	OC-2	632744	5673125	no sample	MV + carb + qtz + py
					CLAIM 4259772
10	CC-01	632805	5673031	<5	MV + carb + qtz + py
11	CC-02	632783	5673000	<5	qtz vein
12	CC-03	632799	5672964	<5	MV + carb + py
13	OC-3	627960	5672903	no sample	MV + carb + py
14	OC-4	632785	5672866	no sample	MV + carb + tour
15	OC-5`	632740	5672878	no sample	MV + carb
16	S-9T	632990	5673133	5	MV + carb + py + tour
17	S-10T	633046	5673142	<5	MV + carb + py + tour
18	S-11	633085	5673075	<5	MV + carb + py
19	FF-01	633266	5673061	<5	MV
20	OC-6	633262	5673007	no sample	MV

Table 2 (Continued) Un-Named Lake Samples and Gold Assays. Sept. 2014, Fry-McVean Property, Assays By Activation Laboratories

	Sample Number	Easting	Northing	Gold Ppb	Sample Lithology CLAIM 4259772
21	FF-02	633232	5672921	<5	MV + carb + py
22	S-8T	633210	5672921	<5	MV + carb + py
23	S-7T	633301	5672861	<5	MV + carb + py
24	S-6T	633514	5672653	9	MV + carb + py
25	S-5T	633486	5672745	<5	MV + carb + py
26	S-4T	633923	5672629	<5	MV + carb
27	S-3T	633979	5672433	<5	MV + carb
28	S-2T	633922	5672605	<5	MV + carb
29	S-1T	634003	5672744	<5	MV + carb
30	NN-01	634038	5672802	<5	MV + carb + py + biot
3	KK-01	633734	5672635	<5	MV + carb + biot
32	OC-1	633720	5722688	no sample	MV
33	II-01	633570	5672852	no sample	MV
34	OC-8	633527	on lake	no sample	MV + carb
35	GG-01	633364	5672761	<5	MV + carb + py
36	GG-02	633337	5672776	12	MV + carb + py
37	GG-03	633353	5673080	<5	MV + carb + py
38	CC-01-02	632805	5673031	<5	MV + carb + qtz +py

Table 3 Linjog Lake Samples and Gold Assays, September 2014, Fry-McVean Property, by Activation Laboratories Ltd.

	Sample Number.	Easting	Northing	Gold Ppb	Sample Lithology
					CLAIM 4259777
39	QQ-01	630498	5673890	<5	MV + carb + py
409	QQ-02	630516	5673984	<5	MV + carb + qtz + py
41	QQ-03	630520	5673954	<5	MV + carb + qtz + py + tour
42	QQ-04	630510	5673947	<5	MV + carb + qtz + py
43	S-14T	639522	5673971	<5	MV + carb + py + biot
44	W-01	630990	5673920	<5	MV + carb
45	QQ-05	630458	5673989	<5	MV + carb + qtz + py + tour
					CLAIM 5259774
46	S-12T	631189	5673809	<5	MV + carb + py
47	S-13T	631288	5673556	<5	MV + carb + py
48	YY-01	631198	5673622	<5	MV + carb
49	Y-01	631213	5673797	<5	MV + carb + qtz + py
50	YY-03	631201	5673607	<5	MV + carb + qtz + py
51	YY-04	631213	5673615	<5	MV + carb + qtz + py
52	YY-05	631257	5673767	<5	MV + carb + qtz
53	ZZ-01	631564	5673657	5	MV + carb + qtz + py
54	ZZ-02	631288`	5673556	no sample	MV + carb + py
55	CCC-01	631485	5673688	<5	MV + carb + qtz + tour
56	DDD-01	631588	5673640	<5	MV + carb + qtz
57	QQ--04	630486	5673961	<5	Mv + carb + qtz + py + tour

LEGEND

MV + carb = iron carbonate altered mafic volcanic rock
carb = carbonate MV = mafic volcanic flow
py = minor pyrite contained in the iron-carbonate rock
qtz = minor quartz as eyes, anhedral crystals or very small veinlets contained in the iron carbonate rock or vein material
tour = tourmaline accessory mineral; biot = biotite
The anomalous samples at ≥5 ppb Au are shown in red.

Statement of Qualifications

- Donald D. Brown is a P.Geo. He is a member of the Association of Professional Geoscientists of Ontario.

- Brown is a graduate with a B.A. (Hon.) in geology (1953), an M.Sc. in geology (1961) (Queen's University, Kingston, ON) and a Ph.D. in geology (1972) (University of Western Ontario, London, ON). His Ph.D. degree encompassed a comprehensive study of hydrogeology at both the University of Minnesota (1967), at Minneapolis, Minnesota and at the University of Western Ontario *1968-70).

- Brown is experienced in geological mapping. He was employed during the 1960's in geological survey work in northern Ontario by the Ontario Geological Survey.

- Brown has had extensive geological exploration and mining-related experience with a number of Canadian mining exploration companies and both the Department of Energy Mines and Resources and the Ministry of Indian Affairs and Northern Development, Ottawa, Ontario. He is also an experienced hydrogeologist. He was also employed by Inland Waters Branch, Ottawa, Ontario.

- Brown is a practicing, independent geologist residing at 500 Foxview Place, Ottawa, Ontario, K1K 4C4.

- Donald D. Brown's Ontario Prospector's License Number is 1000641.

Signature Donald Brown, P.Geo., October 09, 2014

Appendix

Activation Laboratories' Assay Report and Certificate of Analysis

(to follow on next pages)

Quality Analysis ... ***Innovative Technologies***

Date Submitted:	11-Sep-14
Invoice No.:	A14-06456
Invoice Date:	19-Sep-14
Your Reference:	Pickle Lake

Donald Brown
500 Foxview Place
Ottawa Ontario K1K 4C4
Canada

ATTN: Donald Brown

CERTIFICATE OF ANALYSIS

46 Rock samples were submitted for analysis.

The following analytical package was requested: Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay)

REPORT **A14-06456**

Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

SCC Accredited LAB
LAB Accrédité CCN TM

ACTIVATION LABORATORIES LTD.
1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6
TELEPHONE +807 622-6707 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Activation Laboratories Ltd. Report: A14-06456 Results
Analyte Symbol Au
Unit Symbol ppb
Detection Limit 5
Analysis Method FA-AA

Z-01 < 5
QQ-05 < 5
DDD-01 < 5
YY-03 < 5
W-01 < 5
YY-04 < 5
CCC-01 < 5
S-12-T < 5
Y-01 < 5
YY-01 < 5
CC-01 < 5
CC-03 < 5
S-3T < 5
KK-01 < 5
A-01 < 5
S-7T < 5
S-2T < 5
S-4T < 5
S-1T < 5
GG-03 < 5
GG-02 12
CC-01-02 < 5
C-04 < 5
CC-02 < 5
S-6-T 9
BB-03 < 5
FF-01 < 5
S-5T < 5
S-11T < 5
S-13T < 5
QQ-01 < 5
QQ-04 < 5
S-14T < 5
QQ-02 < 5
QQ-03 < 5
QQ-04 < 5
S-8T < 5

NN-01 < 5
S-9T 5
A-03 < 5
B-01 < 5
BB-02 < 5
FF-02 < 5
S-10T < 5
YY-05 < 5
ZZ-01 5

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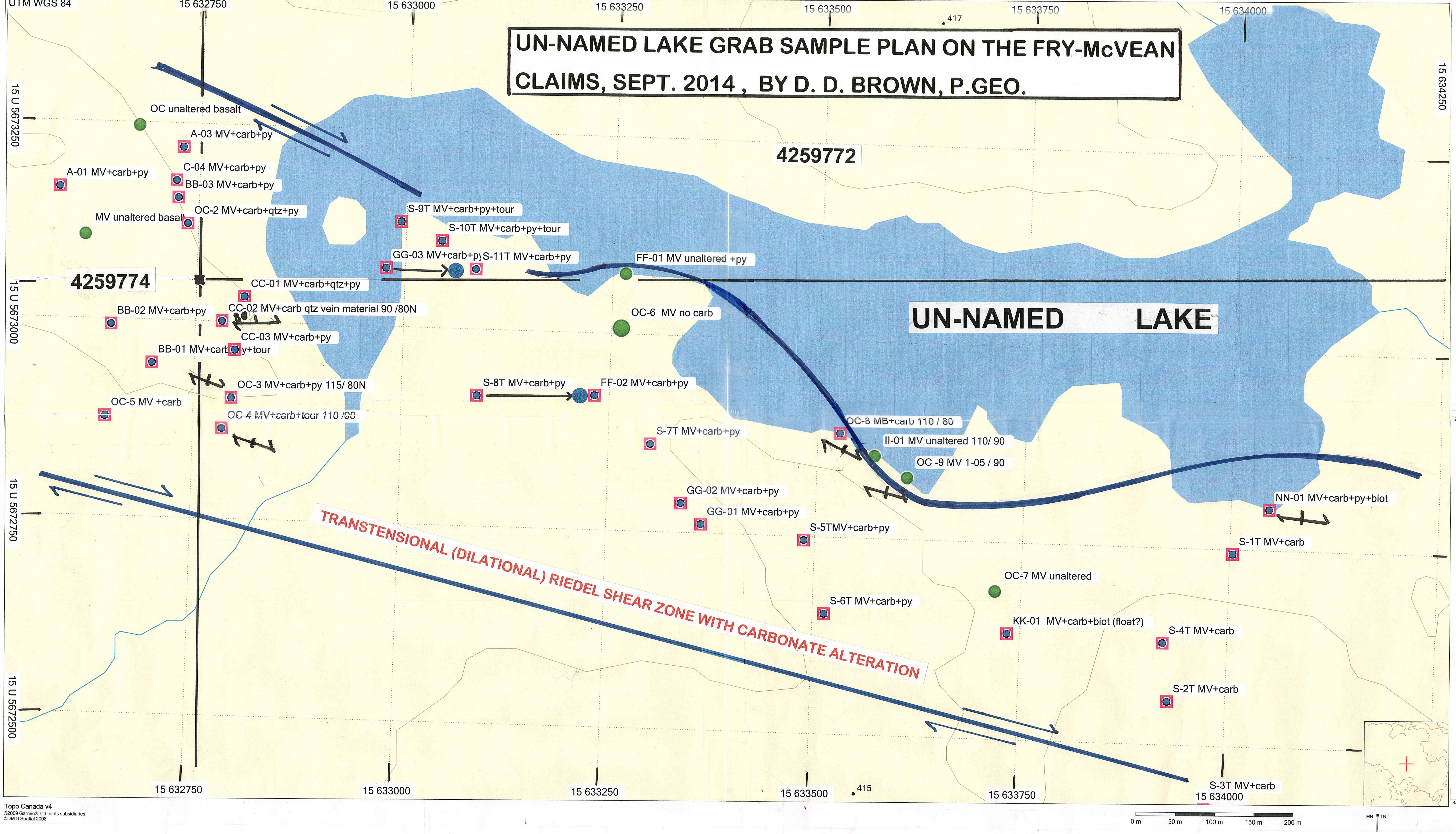


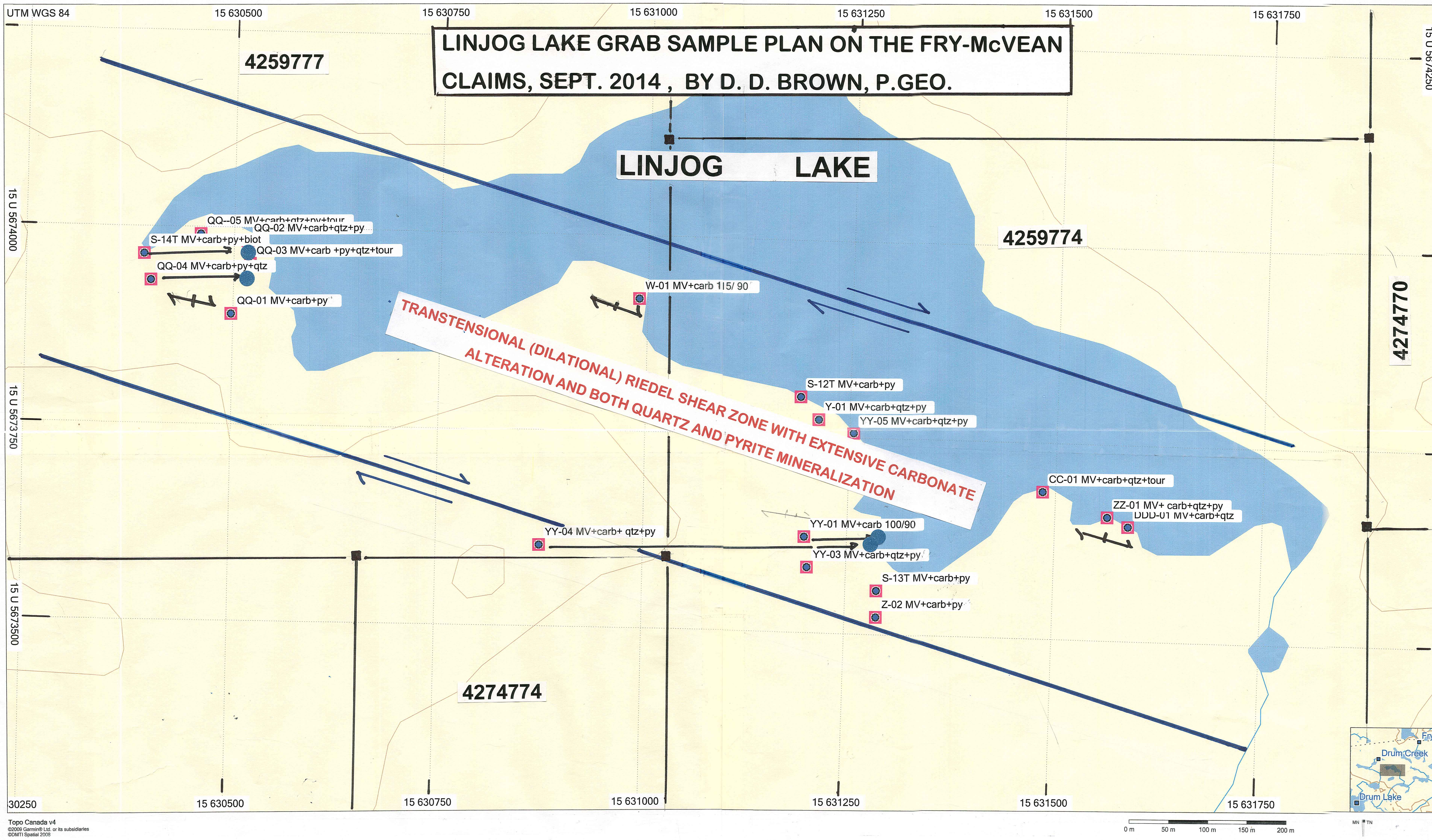
LEGEND

	Interpreted Boundaries of the Transtensional Riedel Shear Zone Extending Through Linjog Lake and Un-named Lake, With Indicated Right-Lateral Shear
	MV = Unaltered Mafic Volcanic Rock (Basalt Flow)
	MV + carb = Highly Carbonatized and Sheared Mafic Volcanic (Basalt) Rock, Most Often With Complete Replacement of the Basalt Matrix by Carbonate and Accessory Minerals (Biotite and Tourmaline)
S-9T	Outcrop Sample Location
OC	Outcrop with no Sample Taken
110 / 90	Strike and Dip of Foliation
Py	Pyrite in rock, either disseminated or as aggregations

LEGEND

qtz	Quartz as veinlets or within the carbonated MV matrix
biot	Biotite (K enrichment) in rock matrix
tour	Tourmaline in rock matrix
4259744	Claim Number
	Claim Corner Post and Claim Line
	Magnetic Declination 2° 53′ West

D. D. BROWN
Sept. 30, 2014



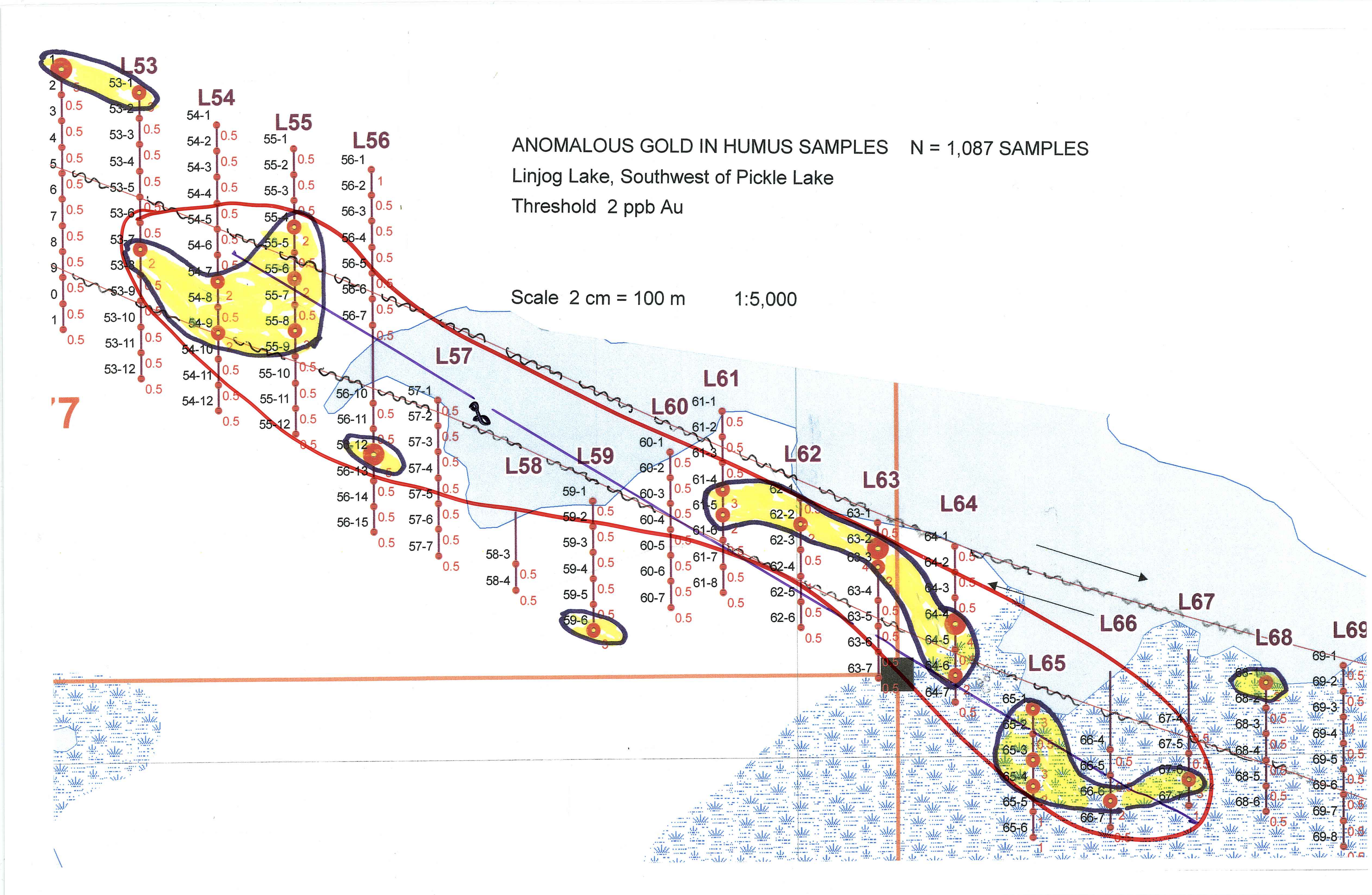
LEGEND

	Interpreted Boundaries of the Transtensional Riedel Shear Zone Extending Through Linjog Lake and Un-named Lake, With Indicated Right-Lateral Shear
	MV = Unaltered Mafic Volcanic Rock (Basalt Flow)
	MV + carb = Highly Carbonatized and Sheared Mafic Volcanic (Basalt) Rock, Most Often With Complete Replacement of the Basalt Matrix by Carbonate and Accessory Minerals (Biotite and Tourmaline)
QQ-05	Outcrop Sample Location
OC	Outcrop with no Sample Taken
110 / 90	Strike and Dip of Foliation
Py	Pyrite in rock, either disseminated or as aggregations

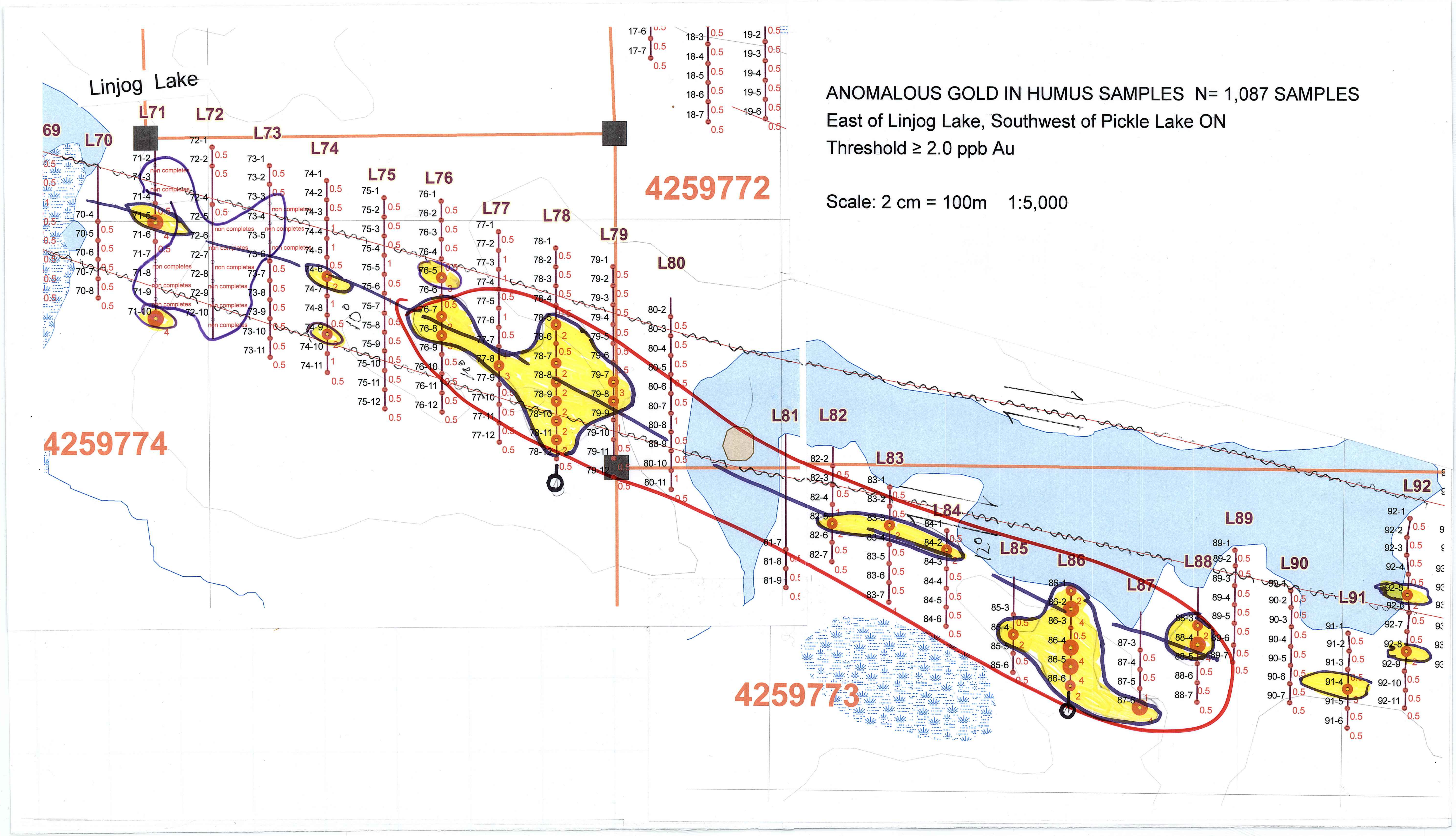
LEGEND

qtz	Quartz as veinlets or within the carbonated MV matrix
biot	Biotite (K enrichment) in rock matrix
tour	Tourmaline in rock matrix
4259777	Claim Number
	Claim Corner Post and Claim Line
	Magnetic Declination 2º 53´ West

D. D. Brown
Sept 30, 2014



ANOMALOUS GOLD IN HUMUS SAMPLES N = 1,087 SAMPLES
Linjog Lake, Southwest of Pickle Lake
Threshold 2 ppb Au
Scale 2 cm = 100 m 1:5,000
L53
L54
L55
L56
L57
L58
L59
L60
L61
L62
L63
L64
L65
L66
L67
L68


ANOMALOUS GOLD IN HUMUS SAMPLES N= 1,087 SAMPLES
East of Linjog Lake, Southwest of Pickle Lake ON
Threshold ≥ 2.0 ppb Au
Scale: 2 cm = 100m 1:5,000
Linjog Lake
4259772
4259774
4259773
L70
L71
L72
L73
L74
L75
L76
L77
L78
L79
L80
L81
L82
L83
L84
L85
L86
L87
L88
L89
L90
L91
L92
non completes