

**Tanzilla Project  
Tan1 to Tan6 and Tanzilla7 Mineral Claims  
Liard Mining Division  
Dease Lake Area, British Columbia  
NTS Map Sheet 104I/041  
Latitude 58° 19'N; Longitude 129° 38'W**

**Prepared for Western Keltic Mines Inc.  
As agent for:  
Adam Travis**

**by  
Peter Holbek  
Viking GeoScience**

**April 04, 2006**

## Executive Summary

The Tanzilla property consists of 7 claims, totaling 2,278 hectares, which are situated just to the north of the headwaters area of the Tanzilla River and 30 km east-southeast of the Town of Dease Lake in north-central British Columbia. The claims, owned by Adam Travis, are underlain by Lower Jurassic and possibly Triassic volcanic rocks of the Hazelton and Stuhini Groups and intrusive rocks of the Hotailuh batholith. An approximately 8 km long trend of pyritic and gossan areas are a prominent feature on the property and have periodically attracted the attention of explorationists over the years. The property has been sporadically explored for porphyry type deposits, volcanogenic massive sulphide deposits and more recently as high sulphidation epithermal mineralization.

The gossanous zones of the Tanzilla property are hosted by mafic to intermediate coarse to medium grained pyroclastic and epivolcaniclastic rocks. Volcanic stratigraphy generally strikes northwest and dips are flat or gentle to the northeast. Numerous intrusive phases are noted ranging from bladed feldspar phyric syenite to biotite-hornblende diorite. A large un-mineralized and unaltered intrusion, the Snowdrift pluton, dominates the northeastern claim area.

Mineralization consists of disseminated to semi-massive pyrite within glassy-matrix feldspar-phyric intrusive rocks or silicified zones. The pyritic bearing intrusions or silicified zones are irregular in shape to pipe-like. Argillic to advanced argillic (quartz-sericite to quartz-clay) alteration forms thin to thick haloes around the pyritic rock although some of the clay alteration could be supergene in origin, forming as consequence of the sulphuric acid generated by the oxidation of pyrite. Large zones of intense silicification are observed in the central part of the property.

This report documents a few traverses across the central belt of gossans on the property in order to evaluate the property potential and determine the appropriate exploration methods to advance the property. Rock samples were collected at a number of locations in order to assist with the evaluation of the property. The property best fits the classification of a high-sulphidation epithermal system based on the presence of extensive pyrite and silica alteration.

Mineralization and alteration of the Tanzilla property appears to be fit best into the high sulphidation epithermal precious metal or sub-volcanic Cu-Au-Ag deposit models. Geochemical sample results, although relatively weak, are compatible with the high sulphidation exploration model. Potential for economic porphyry copper mineralization appears to be low and because most of the significant exploration in the past was directed towards porphyry Cu mineralization, potential for precious metal mineralization has not been well tested. However, it is reasonable to assume that surface exposures of ore grade material are not present or very small and potential for this type of mineralization is restricted to the subsurface, or at the very least, below talus cover. Detailed geological mapping, rock geochemistry and geophysics are required to define drill targets. Although

current indications for economic precious metal indications are quite weak, the limited amount and quality of past exploration; the overall large size of the alteration system and its proximity to roads and infrastructure, justify the risk of additional exploration.

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## 1. Introduction

### 1.1 Location and Access

The Tanzilla property consists of 7 claims, covering an area of approximately 22 square km, which is situated just to the north of the headwaters area of the Tanzilla River and 30 km southeast of the Town of Dease Lake in north-central British Columbia. is situated near the junction of the Turnagain and Major Hart Rivers within the Cassiar Mountains of north-central British Columbia, at latitude 58°, 48'N and longitude 127°, 54', within the Liard Mining Division. Access to the property is by helicopter from either Dease Lake, B.C., a distance of 13 km to the northeast or by rough road and trail from the Dease Lake –Kutcho Creek road, which passes by – km to the north of the property.

### 1.2 Claim Status

The Tanzilla property consists of seven claims covering an area of 2,278 hectares. The original claims were staked by Adam Travis in 1995 and were converted to new tenures in March 2005. With the acceptance of this report the claims are in good standing until March, 2007.

Claim details are as follows:

<u>Name</u>	<u>Tenure number</u>	<u>Area (Ha)</u>	<u>Issue date</u>
Tan 1	508101	425.08	Mar 01, 2005
Tan 2	508102	425.08	Mar 01, 2005
Tan 3	508148	425.08	Mar 02, 2005
Tan 4	508149	425.08	Mar 02, 2005
Tan 5	508150	153.02	Mar 02, 2005
Tan 6	508164	17.01	Mar 02, 2005
Tanzilla 7	514306	408.24	Jun. 11, 2005

The area underlain by the claims is relatively rugged, with elevations ranging from 700 to 1600 m. The claims cover the northern part of the Tanzilla range. A majority of the claims are above tree line

### 1.3 Exploration History

The Tanzilla property has a lengthy but sporadic exploration history that stretches from the early 1970's through to present.

Utah Mines worked the property 1975 (Assessment report 5769), presumably as a porphyry copper target and carried out extensive work including IP geophysical surveys, road building, mechanical trenching and diamond drilling of nine holes. Unfortunately, the details of the drill program were not filed as assessment work and results of that program are unknown. Kennecott conducted exploration just to the east of the Tanzilla claim area (AR 4644, 4645, 4659, 4660, 4661, and 4662) during the early 1970's in the search of porphyry copper and molybdenum deposits. Their work consisted of an airborne magnetometer survey, stream and soil surveys, ground magnetic and IP geophysical surveys and culminated in the drilling of three diamond drill holes.

Serrang Resources also carried out molybdenum exploration east of the Tanzilla claims during 1981 and 1982 (AR 10356 and 10923).

Equity Silver, in 1989, examined the north alteration zone, recognizing it as evidence of an acidic alteration related to a high-sulphidation mineralizing system. Their program was relatively small and consisted mostly of soil and rock sampling within a small area of intense alteration. Results were likely deemed to be negative as no further work was recorded. Akiko-Lori (AR 22458) in 1991, mapped alteration zones as rhyolite in an attempt to correlate geology with the Eskay Creek area.

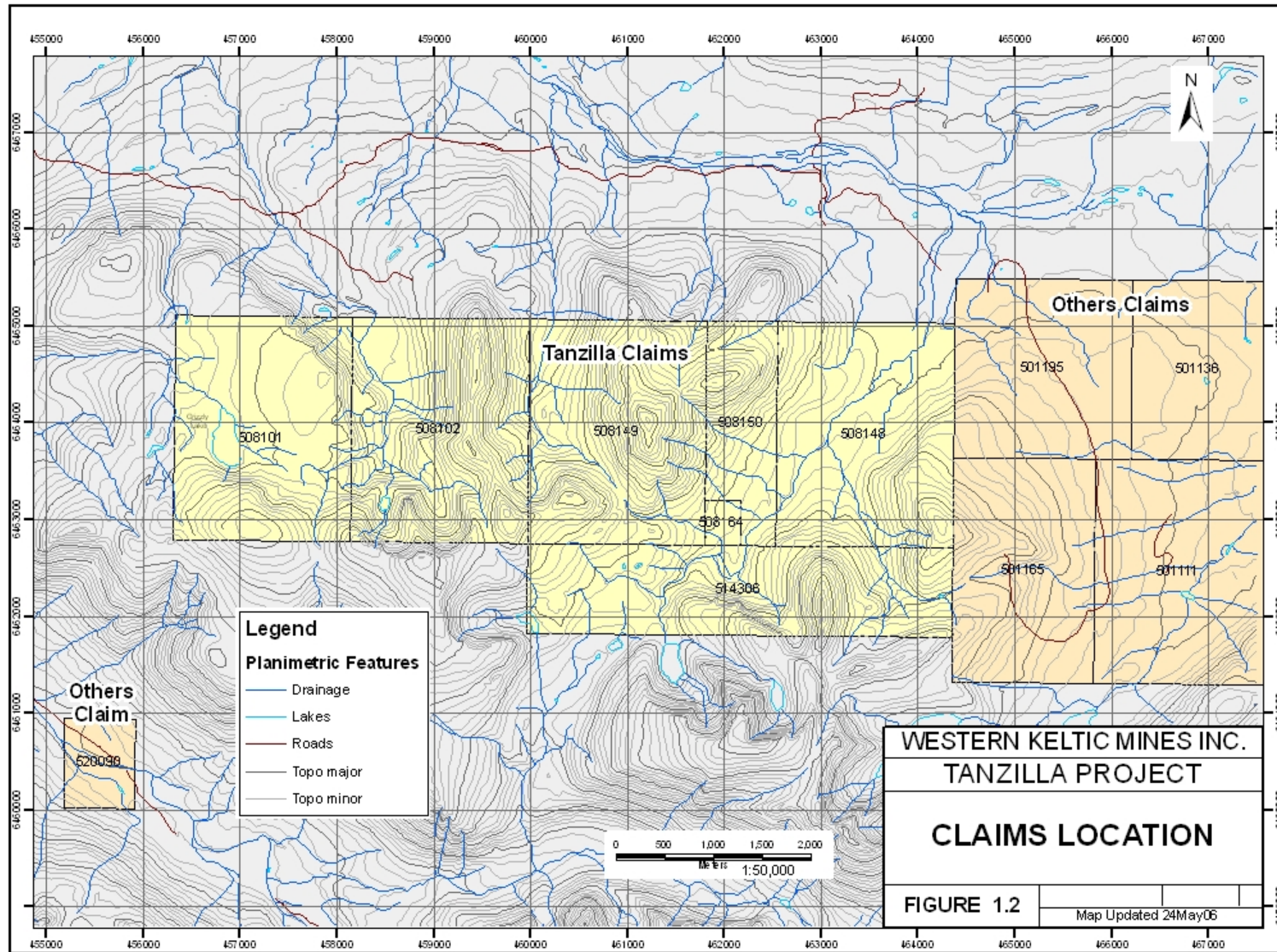
Hyder Gold optioned the property in 2003 and carried out an extensive property examination and a modest sampling program consisting of 28 silt samples and 19 rock samples. Geologists for Hyder Gold determined that comparisons with Eskay Creek were not technically valid but that comparisons with Rimfire's Thorn property in northwestern B.C. might be more appropriate. Hyder's sampling yielded a number of interesting anomalies in gold, silver, copper, lead, zinc and molybdenum.

Other than the early work by Utah and Kennco almost all of the work in the Tanzilla area has been relatively superficial. The lack of more in-depth work is a reflection of the paucity of significant metal concentrations of potentially mineable grades and widths at surface on the property. However, should metal concentrations at surface be the only driver for advanced exploration?

## **1.4 Current Work**

The current work program was directed towards a re-evaluation of the potential for the Tanzilla claims to host either porphyry style mineralization and/or related high-sulphidation epithermal mineralization. Air craft reconnaissance flights were followed by four ground traverses that covered a good section of the geology and most of the significant, surface alteration zones. A total of 21 rock samples and 8 silt samples were collected and analyzed for 32 elements by ICP methods and for gold and silver by fire assay.







## **2. Regional Geology**

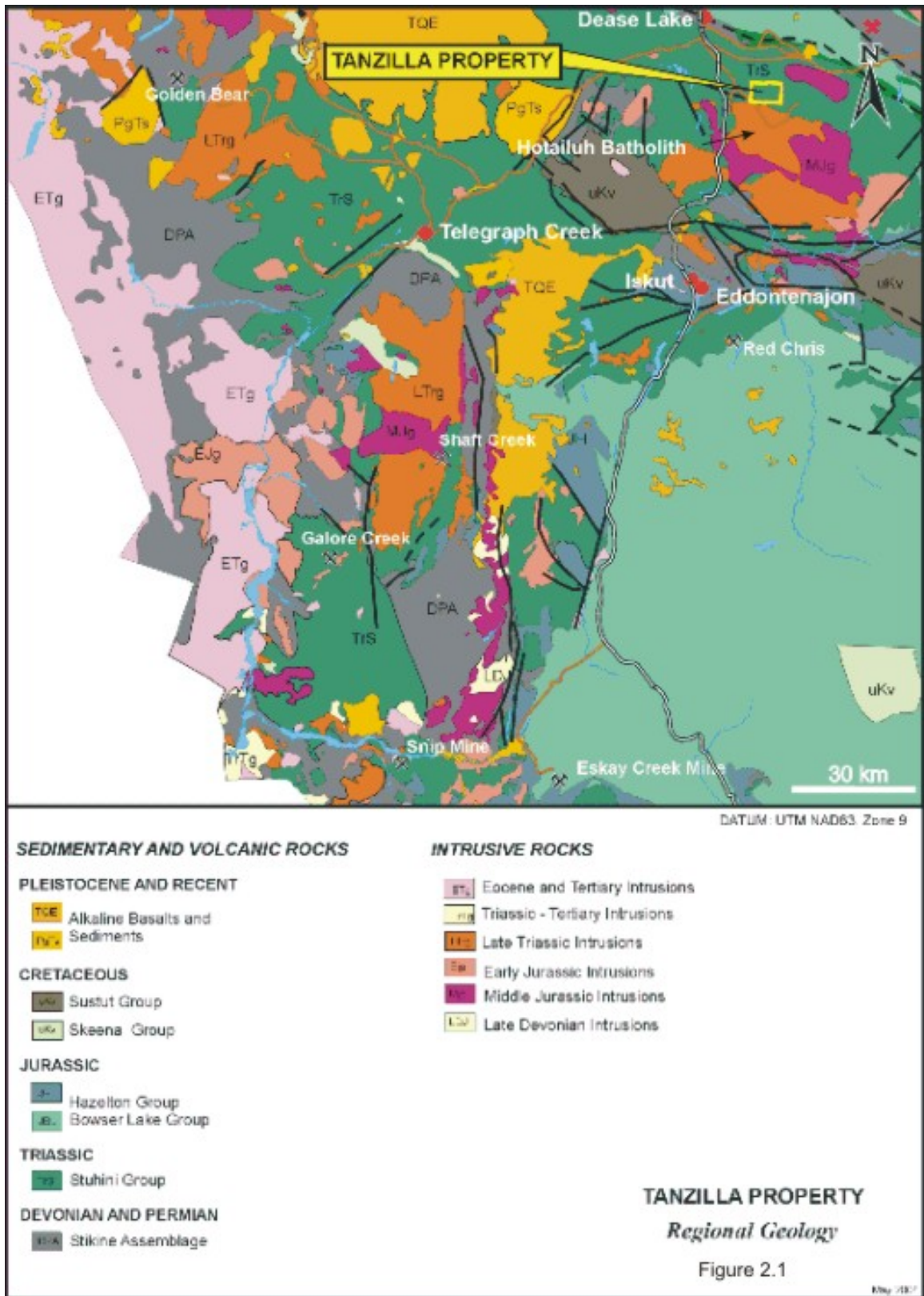
The regional geology of the Tanzilla area (Figure 2.1) is well described by previous authors and will only be briefly reviewed herein. The property area is situated near the northernmost edge of Stikinia, a composite allochthonous terrane accreted to the North American continent. The Tanzilla property area is situated between the thrust bounded King Salmon Allochthon to the north and the Triassic-Jurassic Hotailuh composite batholith to the south. Only a few kilometers to the north of the Tanzilla property, the south verging, west-northwest trending, King Salmon, Nahlin and related thrust faults are situated, which put progressively older formations over top of younger rocks as one goes northward. Rocks within the King Salmon Allochthon typically exhibit at least one phase of deformation manifested in penetrative axial planar cleavage. However, the volcanic rocks of the Tanzilla property are relatively unstrained and undeformed, and typical of Takla, Stuhini (or even Hazelton) Formation volcanic rocks throughout northwestern B.C.

## **3. Property Geology**

### **3.1 Stratigraphy**

#### **3.1.1 Volcanic Rocks**

No attempt was made to determine the volcanic stratigraphy for the Tanzilla area although this would not be difficult to do, given the relatively flat lying strata and lack of significant metamorphism, and could assist in determining fault displacements. Most of the volcanic rocks observed during the traverses consist of subaerial (weakly hematite stained) pyroclastic rocks ranging from lapilli tuffs to coarse debris flows. Fragments range from lapilli size to 60 cm and are generally rounded and both monomictic and polymictic, depending upon location, typically with a fine grained feldspar-phyric matrix. Dark green, fine-grained augite-phyric rocks, probably andesite flows occur below the fragmental rocks, and are more prominent in ranges forming the southern part of the property area. Locally, both fragmental volcanic rocks and andesite flow units appear to grade into hard, dark, very fine grained massive units which might be hornfelsed units. Mapping the distribution of the hornfels unit, if that interpretation is correct, might indicate the approximate location of buried intrusions. On the eastern edge of the claims dark green to black volcanic flows with coarse-grained bladed feldspar phenocrysts typical of the Takla formation, occur.



### 3.1.2 Intrusive Rocks

A variety of intrusive types were observed on the property. Time constraints prevented mapping out contacts. On the western end of the property near Grizzly Lake, a dyke of orange coloured, medium-grained feldspar porphyry, possibly a syenite, trends west-northwesterly. The dyke has a thickness in excess of 10m but no other rocks of this type were found in the area. The gossanous area, in the cirque above Grizzly Lake is caused by a small exposure of pyritic, feldspar-porphyry intrusive rock. This rock has 20% medium-grained, white euhedral feldspar phenocrysts set in a glassy matrix with 10-15% disseminated fine-grained brassy pyrite, quite different from the syenite (?) dyke, described above. Almost in the exact center of the claim area, in a saddle on a north trending ridge is the "S-zone", defined by a couple of historical hand-dug trenches and a number of relatively high-grade gold samples. The rock here is a very fine grained buff coloured unit that cross-cuts stratigraphy. This unit could be a slightly altered fine-grained version of the syenite or it might just be intensely altered volcanic rock (some previous workers referred to this rock type as rhyolite, which it isn't); contacts of this unit are not exposed but its crosscutting nature indicate that it is either an intrusive or structurally related alteration zone.

At lower elevations on many of the ridges it is common to find outcrops of pale grey, granodiorite. This rock is weakly foliated, medium grained with two feldspars, minor quartz grains, minor hornblende and abundant, slightly chloritized biotite. Although these intrusive rocks are not well exposed, they may be connected and consequently could underlie a significant part of the property. These outcrops are similar to but do not appear to be as fresh as the biotite-hornblende granodiorite of the Snowdrift pluton and may belong to older phases of the Hotailuh batholith.

A variety of intrusive phases and/or alteration products are exposed on the end of two northeast trending ridges at the eastern boundary of the property. Rocks here are interpreted to be a nearly flat lying contact zone between mafic volcanic rocks and underlying granodiorite. A zone of partial melting of the volcanic rocks is represented by dark, extremely biotite and iron oxide rich almost gneissic textured rock cut by irregular fine to coarse grained muscovite rich intrusive rocks with abundant myrolitic cavities. This area (mostly on the southern and lower ridge) also has localized areas of widely-spaced, sheeted quartz veins and areas of weak but pervasive argillic (quartz-sericite) alteration. The above described geology is truncated by the Snowdrift pluton to the northeast.

## 3.2 Structure

Volcanic rocks of the property are essentially un-metamorphosed and unstrained and the dominant structural feature on the property is likely to be block faulting, however it

would take some detailed mapping to demonstrate this. The alteration zones on the property, as described below, have a general west-northwesterly trend which is parallel to the significant thrust faults situated to the north. It is possible that the alteration is related to a fault structure or zone of weakness located below the volcanic stratigraphy.

### **3.3 Mineralization and Alteration**

There are five types of mineralization/alteration observed on the property. The first consists of moderate to intense pyrite within ‘glassy’ feldspar porphyry intrusive rocks and volcanic rocks near the intrusive contact. Exposures of the pyritic rock are accompanied by strong gossan development. Locally there may be strong clay alteration, although the distribution of this alteration suggests that it may be a recent supergene phenomenon as opposed to hypogene alteration. Location of this type of alteration is marked on Figure 3.1. Most of the samples from this alteration type were not significantly enriched in any metals with the exception of one sample (280953- P07) with weakly anomalous copper. Zones of ferricrete are abundant on the sides of slopes and in valley bottoms but as these zones are formed by transported iron their distribution was not mapped.

The second type of alteration/mineralization is likely related to the first and consists of pipe-like zones of silicification (+/- albitization) with 5-10% disseminated pyrite and a halo of argillic alteration that appears to be hypogene in origin. There are at least two zones of “type 2” mineralization/alteration (H07 “circle trench” and H11). Samples from both these zones were surprisingly flat geochemically, and additional sampling is warranted to verify the absence of any geochemical signature.

The third type of alteration occurs within talus zones and is not well exposed but consists of texturally destructive, very fine grained quartz-sericite (?) alteration. The zones cross-cut stratigraphy and appear to be structurally controlled. Given that these zones appear to host thin veinlets containing base metal sulphide mineralization (M15 & M20) further investigation seems necessary.

The fourth alteration type consists of weak argillic alteration within intrusive (?) rocks and propylitic alteration within adjacent volcanic rocks, both accompanied by sporadic sheeted quartz veins and irregular intrusive dykes. This alteration occurs on the eastern edge of the claim area and is suggestive of porphyry Cu/Mo type alteration. The size of the alteration is relatively small (in comparison to known porphyry systems) and discontinuous occurring over areas of a few hundred metres by one-two hundred metres.

The fifth alteration type consists of intense silicification of volcanic rock and occurs along the north trending ridge in the central part of the property. Almost the entire ridge consists of coarse talus with no outcrop except at the ridge crest. A majority of the talus

consists of silicified rocks but there also a significant volume of type 3 alteration as well. Geochemistry of the silicified rocks indicates weak enrichment in either arsenic or gold. Additional work would help to better map out the alteration types and perhaps determine lithological or structural controls.

## **4. Geochemistry**

### **4.1 Approach and Methodology**

Rock and stream sediment sampling was carried out to assist in categorization of the mineralization and alteration. Representative samples were collected from the various mineralization and alteration types. In most cases rock samples consisted of chips totalling approximately 1 kg covering an area of 1 to several meters across the mineralization or alteration with the goal of determining the general chemical characteristics of the rock as opposed to simply generating anomalous numbers from tiny grab samples. Similarly, silt samples were selected to assist in comparing responses from the various drainages. A total of 21 rock chip samples and 9 stream sediment and/or moss mat samples were collected. Samples were shipped to Acme Analytical Laboratories in Vancouver for analysis. Analytical techniques used are 30 element ICP analysis on a 0.50 gram sub-sample following aqua-regia digestion and gold analysis by ICP-MS on an acid-leached 15 gram sub-sample.

### **4.2 Results**

Geochemical results from the traverses are contained in Appendix 1. Sample locations are shown in Figure 4.1, and some geochemical data is given in Table 4.1.

Some of the stream sediment samples appear to contain significant copper anomalies, which are associated with areas of pyrite mineralization. However, the copper content increases upstream, and is inversely proportional to Mo content which suggests that the copper values may reflect an acidic drainage rather than higher copper content in the surrounding rocks. This is also reflected in the correlation of high copper to high manganese. The gold of most of the stream samples is significantly above detection limit but only reaches a high of 32 ppm. The highest gold values correlate with the highest copper values and are within the catchment basins of the higher rock samples.

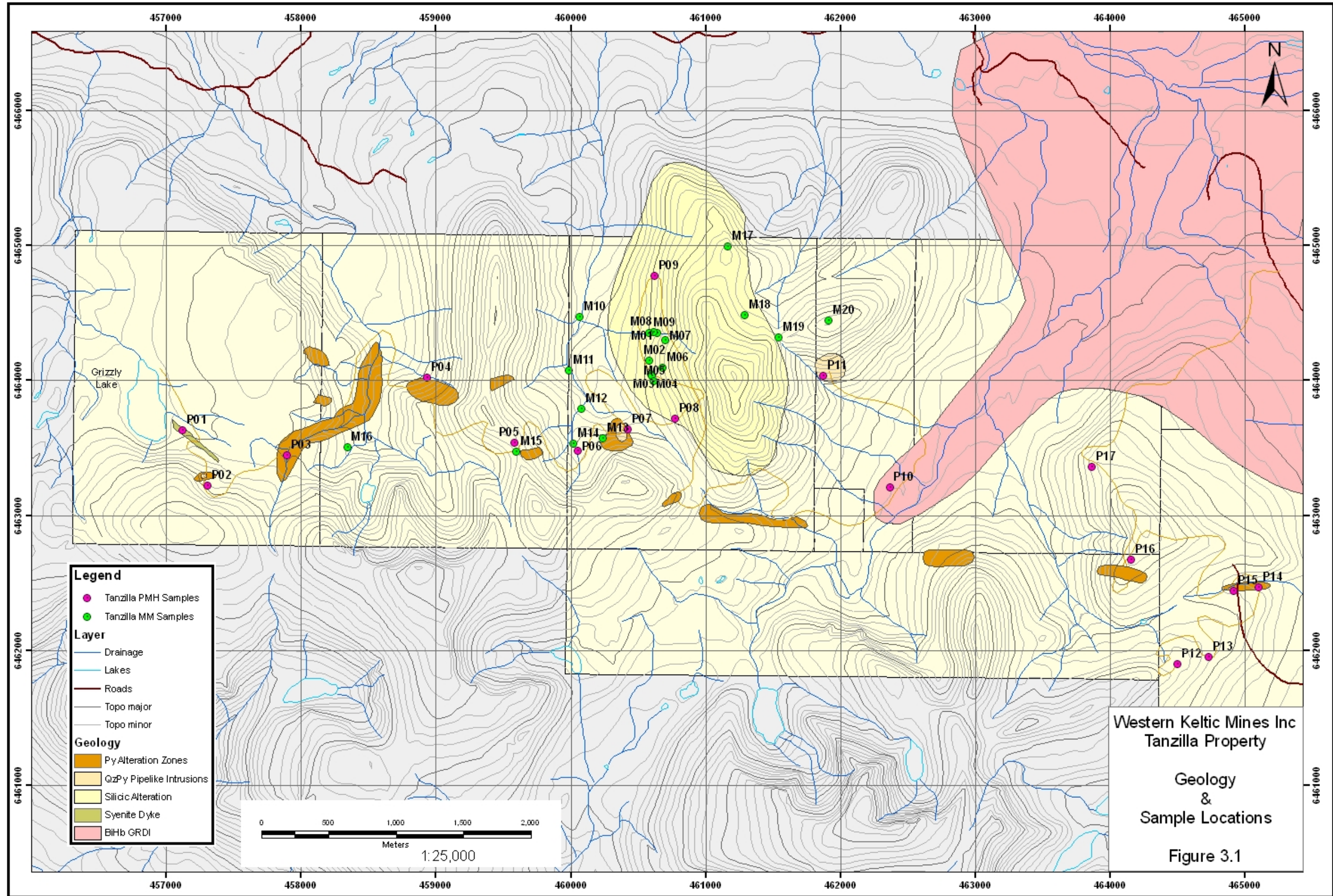
Analytical results for rock samples are generally unspectacular but do provide some information about the alteration types. Base metal values are generally low with a couple of exceptions where chalcopyrite (M15 & M20) occurs in quartz stringers and galena (P 12) occurs within a sheeted quartz veinlet. Precious metals (Au, Ag) also occur with the chalcopyrite bearing samples. Above background, but still generally low, gold and arsenic values are associated with the silicification zone in the center of the property.

### 4.3 Discussion

In general, the analytical results were quite subdued in relation to expectations based on visual examination of the mineralization and alteration. The results do, however, confirm that the large area of silicification carries anomalous gold and arsenic, albeit at relatively low values, indicative of potential for precious metal mineralization within the system. Similarly, the association of precious metals with any significant copper values also supports potential for gold/silver mineralization. The relatively low level of copper and molybdenum, within the sample set, combined with the limited spatial extent of the alteration does not bode well for the discovery of economic porphyry style mineralization.

**Table 4.1 Results from Stream Geochemistry and Rock Samples (see appendix II for full details)**

ELEMENT		Mo	Cu	Pb	Zn	Ag	Mn	Fe	As	Au	Sb	Ba
SAMPLES	Station	ppm	ppm	ppm	ppm	ppm	Ppm	%	ppm	ppb	ppm	ppm
S05-TZM01	M01	11.3	77.5	24.7	39	0.1	297	5.42	15.3	10	1.1	152
S05-TZM09	M09	11.7	73.9	26.8	47	0.1	237	5.43	16.7	11.8	1.3	142
S05-TZM10	M10	4.5	225.6	10.4	112	0.2	1506	10.03	5.9	16.1	0.5	161
S05-TZM11	M11	2.9	276.3	11.4	127	0.2	2122	7.53	5	13.8	0.4	126
S05-TZM12	M12	2.9	389.1	14.8	148	0.3	3914	6.52	7.6	32.4	0.4	185
S05-TZM14	M14	2.8	353	14.9	132	0.3	2754	6.17	7.9	27.9	0.5	182
S05-TZM16	M16	3.8	329.6	13.1	80	0.2	1361	10.85	6.4	5.8	0.6	93
S05-TZM18	M18	13.8	66.2	36	33	<.1	204	5.26	18.2	7.8	1.8	206
S05-TZP14A	P14	5.8	127.2	13.2	111	1.1	565	5.64	2.4	4.3	0.2	141
S05-TZP14B	P14	5.8	135.8	14.4	103	1.1	573	5.63	2.4	3.6	0.2	155
B280951	P02	<1	20	31	174	<.3	1483	4.65	11	1.1	<3	39
B280952	P03	1	148	8	120	<.3	1355	7.12	11	1.3	4	45
B280953	P07	<1	54	3	<1	<.3	6	5.79	7	<.5	<3	7
B280954	P08	27	78	<3	<1	<.3	12	2.74	18	15.2	<3	85
B280955	P09	8	14	4	<1	<.3	13	0.94	4	37.1	<3	264
B280956	P11	6	3	8	<1	<.3	10	0.25	<2	6.3	<3	98
B280957	P12	12	18	941	28	1.9	146	1.86	4	11.7	3	111
B280958	P15	18	76	6	26	<.3	153	7.09	<2	3.3	<3	107
B280959	P17	<1	4	<3	<1	<.3	87	0.98	<2	1	<3	680
B280960	M02	48	182	<3	<1	<.3	<2	11.84	132	5.8	5	420
B280961	M03	14	166	9	<1	<.3	<2	15.84	168	5.1	4	556
B280962	M04	3	56	9	<1	<.3	<2	7.47	41	2.8	<3	254
B280963	M05	1	28	88	2	0.4	11	4.4	16	3.7	<3	26
B280964	M06	16	309	<3	<1	<.3	<2	27.39	181	4.2	5	131
B280965	M07	14	204	13	<1	<.3	2	15.27	36	5.1	<3	412
B280966	M08	2	81	6	<1	0.6	10	2.34	2	3.4	<3	31
B280967	M13	<1	28	6	92	<.3	445	5.31	2	0.6	<3	23
B280968	M15	4	>10000	4	67	57.6	133	2.78	3	265	<3	38
B280969	M17	2	647	3	81	0.4	1058	10.25	596	54	8	35
B280970	M19	6	64	4	<1	0.4	14	0.6	2	4.2	4	265
B280972	M20	27	9570	<3	45	9.7	141	3.04	4	115.8	<3	75



## **5. Conclusions and Recommendations**

### **5.1 Conclusions**

The investigation of the geology, mineralization, alteration and geochemistry of the Tanzilla property indicate very limited potential for economic porphyry copper mineralization but reasonable to significant potential for high-sulphidation precious metal mineralization or subvolcanic Cu-Au-Ag style mineralization (Pantelyev, 1998). The key features of the mineralization and alteration on the Tanzilla property include: 1) volcanic hosted mineralization and alteration, 2) both structurally and (possibly) stratigraphically controlled alteration, 3) proximity to subvolcanic intrusions, 4) low but anomalous levels of Au and As within silicified zones and relatively high precious metal to base metal ratios in areas of anomalous base metals and, 5) disseminated and replacement quartz-pyrite mineralization, with associated, localized argillic and advanced argillic alteration.

High sulphidation systems are notoriously difficult exploration targets, often taking many years and many different companies (Sillitoe, 1995). The difficulty stems from the large and evolving hydrothermal systems where early, commonly barren, mineralization and alteration are widespread; whereas the ore-forming part of the systems are later, much smaller, frequently structurally controlled, may not penetrate to surface and may not be visually distinctive if they do. Consequently, although the widespread alteration easily attracts the explorationist's initial attention, it takes significantly more in-depth exploration to locate economic mineralization.

Tanzilla does not exactly parallel the geological and tectonic components of most of the economic deposits of this deposit class world-wide. Most of the deposits occur in volcanic and/or related sedimentary rocks, within a intrusive-volcanic setting where mineralization is associated with physically or chemically favourable host rocks and the causative intrusion is emplaced within coeval volcanic stratigraphy, usually during a tectonic extension. At Tanzilla, it seems that the potential source intrusions are significantly younger than the volcanic host rocks and were intruded in a compressional or transpressional tectonic setting. Therefore precious metal mineralization at Tanzilla, if present, may not necessarily conform to the exact style and nature of mineralization known elsewhere.

Alteration at Tanzilla is spread over an area in excess of 8 km long and 1 km wide, with an orientation that mimics the large thrust faults situated to the north of the property. The exact size and distribution of the alteration zones is obscured by talus cover and may be considerably more extensive in the subsurface. Geochemical signatures of the mineralization and alteration are relatively weak but suggestive of potential for high-sulphidation style precious metal zones. Stronger geochemical signatures would provide greater encouragement but the current signatures may be limited by the amount and



elevation of exposures. Most of the significant exploration in the past was directed towards porphyry copper exploration and would have been unlikely to assay for precious metals or cognizant of the high-sulphidation style of mineralization and therefore all of the previous exploration must be considered cursory. Alteration systems as large and as well positioned, with respect to infrastructure, as Tanzilla are exceedingly rare and therefore the project merits more detailed investigation.

## 5.2 Recommendations

The additional work needs to be done to fully evaluate the potential for Tanzilla host significant mineralization. This work should include some, or all of the following:

- ✓ Geological mapping: 1:2,000 to 1:5,000 scale mapping. Additional mapping on the property with attention to volcanic stratigraphy will help to define the location of faults, structural zones, and possibly the location of nearby intrusions. Further definition of alteration zones and their mineralogy and geochemistry will assist in determining where additional exploration, such as geophysics needs to be focused. Petrographic analysis (+/- Pima, XRD, etc.) of the various alteration types should be undertaken to get a better understanding of the nature of the alteration.
- ✓ Talus fines sampling: the large area of silicic alteration in the center of the property should be 'gridded' (50m) with talus fines samples taken at grid nodes; this will help locate any near surface mineralized areas that might be otherwise obscured by talus debris.
- ✓ Geophysical surveys: Induced polarization surveys (with inversion) can be used to determine zones of pyritic alteration in the subsurface. The intersection of large-scale, through-going structures with areas of alteration would be targets for more detailed investigation which might include EM geophysics to located zones of massive sulphide mineralization and/or drilling.

### References

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- Gabrielse, H., Anderson, R.G., Leaming, S.F., Mansy, J.L., Monger, J.W.H., Thorstad, L.E., and Tipper, H.W., 1979. Cry Lake, British Columbia; Geol. Survey of Can. Open File 610.
- Pantaleyev, A., 1998. Transitions from Porphyry to Epithermal Environments: in Metallogeny of Volcanic Arcs, B.C. Geological Survey, Short Course Notes, Open File 1998-5, Section B.
- Sillitoe, R. H., 1995. Exploration and Discovery of Base- and Precious-Metal Deposits on the Circum-Pacific Region During the Last 25 Years. Book published by Mineral Resources Information Center, Metal Mining Agency of Japan.

**Statement of Expenditures**

Peter Holbek (geologist) Aug. 7 <sup>th</sup> , Sept. 10 & 11 <sup>th</sup> . 3 days @ \$600/day.....	1800.00
Merek Mroczek (geologist) Sept. 10 <sup>th</sup> & 11 <sup>th</sup> . 2 days @ \$500/day.....	1000.00
Helicopter: 1.8 hours @ 1120/hr incl. fuel/oil.....	2016.00
Airfares Vanc-Dease.....	868.60
Hotel and Meals.....	410.00
Analyses(Acme Analytical).....	599.31
Report.....	900.00
<b>Total.....</b>	<b>\$7593.91</b>

### **Certificate of Qualifications**

I, Peter M. Holbek with a business address of 900 – 808 West Hastings Street, Vancouver, British Columbia, V6C 2X4, do hereby certify that:

1. I am a professional geologist registered under the Professional Engineers and Geoscientists Act of the Province of British Columbia and a member in good standing with the Association of Professional Engineers and Geoscientists of British Columbia.
2. I am a graduate of The University of British Columbia with a B.Sc. in geology 1980 and an M.Sc. in geology, 1988.
3. I have practiced my profession continuously since 1980.
4. I am Vice President, Exploration of Western Keltic Mines Inc. having a business address as given above.
5. I conducted the work program on the Tanzilla property as described in this report.

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Peter Holbek, M.Sc., P.Geo.

**APPENDIX I  
ANALYTICAL DATA**

ACME ANALYTICAL LABORATORIES LTD.  
(ISO 9001 Accredited Co.)

852 E. HASTINGS ST. VANCOUVER BC V6A 1R6

PHONE (604) 253-3158 FAX (604) 253-1716



GEOCHEMICAL ANALYSIS CERTIFICATE

Western Keltic Mines Inc. File # A506086  
900 - 808 W. Hastings St., Vancouver BC V6C 2X4 Submitted by: Peter Holbek



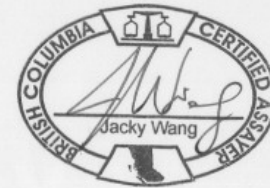
SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Sample
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	gm	
G-1	.6	2.3	3.0	47	<.1	6.8	4.6	583	1.83	<.5	2.3	<.5	4.0	82	<.1	<.1	.1	37	.47	.078	9	82.0	.60	231	.117	1	1.05	.113	.55	.2	<.01	3.1	.4	<.05	5	<.5	15.0
S05-TZM01	11.3	77.5	24.7	39	.1	4.0	3.5	297	5.42	15.3	1.1	10.0	6.5	177	<.1	1.1	1.5	55	.07	.116	16	4.8	.61	152	.047	1	1.45	.101	.45	<.1	.02	3.4	.6	.90	6	4.7	7.5
S05-TZM09	11.7	73.9	26.8	47	.1	3.5	2.9	237	5.43	16.7	1.0	11.8	6.2	164	.1	1.3	1.6	50	.05	.114	15	4.6	.54	142	.043	2	1.27	.091	.41	.1	.01	3.1	.6	.84	6	5.1	15.0
S05-TZM10	4.5	225.6	10.4	112	.2	7.9	41.2	1506	10.03	5.9	.7	16.1	2.1	124	.3	.5	.3	80	.27	.198	12	5.1	1.22	161	.068	1	3.52	.027	.16	<.1	.04	6.0	.2	.55	8	4.3	15.0
S05-TZM11	2.9	276.3	11.4	127	.2	9.2	59.2	2122	7.53	5.0	.8	13.8	1.7	130	.5	.4	.3	74	.26	.187	14	3.9	1.09	126	.043	3	2.90	.030	.09	<.1	.02	5.7	.1	.32	7	3.7	15.0
S05-TZM12	2.9	389.1	14.8	148	.3	13.8	93.7	3914	6.52	7.6	1.0	32.4	1.6	157	1.2	.4	.2	82	.59	.223	21	4.4	1.28	185	.060	3	3.59	.036	.11	<.1	.05	6.4	.2	.21	9	3.8	15.0
S05-TZM14	2.8	353.0	14.9	132	.3	9.6	72.6	2754	6.17	7.9	1.0	27.9	1.7	144	.6	.5	.3	79	.51	.225	20	4.4	1.24	182	.062	3	3.23	.037	.12	<.1	.03	5.6	.2	.27	8	4.1	15.0
S05-TZM16	3.8	329.6	13.1	80	.2	11.1	51.6	1361	10.85	6.4	.6	5.8	1.4	204	.1	.6	.2	76	.26	.299	41	7.0	1.31	93	.030	2	3.13	.037	.05	<.1	.08	6.0	<.1	.34	7	9.3	15.0
S05-TZM18	13.8	66.2	36.0	33	<.1	8.5	4.5	204	5.26	18.2	.9	7.8	5.3	126	<.1	1.8	2.2	40	.06	.103	16	8.9	.38	206	.057	2	1.00	.065	.17	.1	.01	2.1	.3	.41	6	4.6	15.0
S05-TZP14A	5.8	127.2	13.2	111	1.1	19.6	11.7	565	5.64	2.4	1.0	4.3	1.6	59	.1	.2	.2	117	.13	.134	10	25.2	1.00	141	.152	3	3.24	.019	.71	.6	.05	5.6	.2	.19	8	3.0	1.0
S05-TZP14B	5.8	135.8	14.4	103	1.1	18.4	12.4	573	5.63	2.4	1.0	3.6	1.8	70	.1	.2	.4	106	.15	.144	11	24.8	1.05	155	.157	4	3.64	.023	.56	.5	.04	5.9	.2	.17	8	2.7	7.5
STANDARD DS6	11.8	123.3	30.5	146	.3	25.3	10.8	715	2.84	22.0	6.7	47.0	3.2	53	6.4	3.6	5.2	57	.89	.081	15	188.4	.60	171	.084	17	1.94	.075	.17	3.5	.22	3.4	1.8	<.05	6	4.6	15.0

GROUP 1DX - 15.00 GM SAMPLE LEACHED WITH 90 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 300 ML, ANALYSED BY ICP-MS.  
(>) CONCENTRATION EXCEEDS UPPER LIMITS. SOME MINERALS MAY BE PARTIALLY ATTACKED. REFRACTORY AND GRAPHITIC SAMPLES CAN LIMIT AU SOLUBILITY.  
- SAMPLE TYPE: SILT SS80 60C

Data 1 FA     

DATE RECEIVED: SEP 26 2005 DATE REPORT MAILED: .....

*Oct 20/2005*



ACME ANALYTICAL LABORATORIES LTD.  
(ISO 9001 Accredited Co.)

852 E. HASTINGS ST. VANCOUVER BC V6A 1R6

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GEOCHEMICAL ANALYSIS CERTIFICATE



Western Keltic Mines Inc. File # A506085

900 - 808 W. Hastings St., Vancouver BC V6C 2X4 Submitted by: Peter Holbek

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppb	
B280951 P2	<1	20	31	174	<.3	1	9	1483	4.65	11	<8	<2	2	29	1.3	<3	<3	24	.92	.177	14	3	1.09	39	.01	<3	1.44	.04	.16	<2	1.1
B280952 P3	1	148	8	120	<.3	9	31	1355	7.12	11	<8	<2	2	77	1.8	4	<3	199	1.39	.133	7	3	2.75	45	<.01	<3	3.50	.08	.06	<2	1.3
B280953 P3	<1	54	3	<1	<.3	3	11	6	5.79	7	<8	<2	<2	34	1.5	<3	<3	10	.01	.005	1	1	<.01	7	<.01	<3	.29	.05	.04	<2	<.5
B280954 P3	27	78	<3	<1	<.3	<1	<1	12	2.74	18	<8	<2	<2	3	.5	<3	3	7	.01	.042	1	3	.01	85	<.01	<3	.05	<.01	<.01	<2	15.2
B280955 P3	8	14	4	<1	<.3	1	2	13	.94	4	<8	<2	<2	21	<.5	<3	<3	4	<.01	.016	2	3	<.01	264	<.01	<3	.16	.01	.07	<2	37.1
B280956 H1	6	3	8	<1	<.3	<1	<1	10	.25	<2	<8	<2	<2	31	<.5	<3	3	4	<.01	.009	1	8	<.01	98	<.01	<3	.19	.02	.05	<2	6.3
B280957 H12	12	18	941	28	1.9	1	<1	146	1.86	4	<8	<2	11	23	.8	3	<3	3	.01	.044	23	6	.12	111	.02	<3	.59	.02	.40	<2	11.7
B280958 H15	18	76	6	26	<.3	4	2	153	7.09	<2	<8	<2	6	284	1.7	<3	<3	48	.07	.167	24	12	.42	107	.01	<3	1.11	.01	.17	<2	3.3
B280959 H17	<1	4	<3	<1	<.3	1	1	87	.98	<2	<8	<2	<2	109	<.5	<3	<3	16	.01	.081	4	3	.03	680	<.01	<3	.66	<.01	.02	<2	1.0
B280960 Ms2	48	182	<3	<1	<.3	<1	<1	<2	11.84	132	10	<2	4	30	2.3	5	<3	14	<.01	.050	1	2	<.01	420	.01	<3	.10	.01	.08	<2	5.8
RE B280960	49	188	<3	<1	<.3	<1	<1	<2	12.20	137	<8	<2	4	30	2.2	8	<3	14	<.01	.051	1	3	<.01	418	.01	<3	.08	.01	.08	<2	4.3
B280961 Ms3	14	166	9	<1	<.3	<1	<1	<2	15.84	168	8	<2	5	35	3.2	4	10	30	<.01	.069	2	3	<.01	556	<.01	<3	.14	.01	.05	<2	5.1
B280962 Ms4	3	56	9	<1	<.3	<1	<1	<2	7.47	41	<8	<2	4	120	1.2	<3	3	31	.01	.049	3	2	<.01	254	.01	<3	.68	.07	.30	<2	2.8
B280963 Ms5	1	28	88	2	.4	1	1	11	4.40	16	<8	<2	<2	14	1.3	<3	3	3	.01	.009	2	4	<.01	26	<.01	<3	.15	.01	.07	<2	3.7
B280964 Ms6	16	309	<3	<1	<.3	1	<1	<2	27.39	181	<8	<2	7	79	4.9	5	11	60	<.01	.130	4	2	<.01	131	<.01	<3	.22	.04	.20	<2	4.2
B280965 Ms7	14	204	13	<1	<.3	<1	<1	2	15.27	36	8	<2	12	60	3.2	<3	9	37	<.01	.134	3	3	<.01	412	<.01	<3	.21	.03	.08	<2	5.1
B280966 Ms8	2	81	6	<1	.6	2	9	10	2.34	2	<8	<2	2	10	.7	<3	<3	4	<.01	.005	2	3	<.01	31	<.01	<3	.20	.01	.11	<2	3.4
B280967 Ms13	<1	28	6	92	<.3	5	27	445	5.31	2	<8	<2	<2	29	1.1	<3	<3	35	.34	.212	5	2	1.10	23	<.01	<3	1.62	.03	.17	<2	.6
B280968 Ms15	4	>10000	4	67	57.6	9	15	133	2.78	3	<8	<2	<2	43	.8	<3	<3	96	.11	.118	5	12	.01	38	<.01	<3	1.73	.05	.07	<2	265.0
B280969 Ms17	2	647	3	81	.4	3	72	1058	10.25	596	9	<2	3	48	1.9	8	3	73	.49	.051	3	4	1.24	35	.14	4	2.23	.01	.20	<2	54.0
B280970 Ms19	6	64	4	<1	.4	<1	<1	14	.60	2	<8	<2	<2	16	<.5	4	4	4	<.01	.006	1	4	<.01	265	<.01	<3	.05	.01	.08	<2	4.2
B280972 Ms20	27	9570	<3	45	9.7	2	22	141	3.04	4	<8	<2	3	30	1.5	<3	5	21	2.12	.090	9	3	.17	75	.02	<3	.69	.02	.24	2	115.8
STANDARD DS6/AU-R	12	120	29	139	.3	24	9	719	2.89	20	<8	<2	4	41	6.0	4	5	58	.77	.074	12	182	.54	145	.08	17	1.98	.08	.16	3	467.0

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.  
(>) CONCENTRATION EXCEEDS UPPER LIMITS. SOME MINERALS MAY BE PARTIALLY ATTACKED. REFRACTORY AND GRAPHITIC SAMPLES CAN LIMIT AU SOLUBILITY.  
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB  
- SAMPLE TYPE: ROCK R150 AU\* IGNITED, ACID LEACHED, ANALYZED BY ICP-MS. (15 gm)  
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA DATE RECEIVED: SEP 26 2005 DATE REPORT MAILED: Oct 17/05

