

**YEIP  
2010  
-051**

**YMIP GRANT 10-051  
PROSPECTING FOR HARD-ROCK  
AND PLACER  
TIN-TANTALITE-GOLD-RARE EARTHS  
AT SEAGULL CREEK NTS 105B-3**

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**T. Liverton, January 2011**

# **PROSPECTING FOR TIN – TANTALITE ± GOLD AT SEAGULL CREEK**

## **INTRODUCTION**

During the period of interest in tin – tungsten of the the 1970s several prospects were discovered along the margin of the Seagull batholith. The historical VAL (Partridge) prospect (MINFILE 105B / 030), a skarn developed in a roof pendant of carbonate and quartzite close to NE margin of the batholith, was investigated by trenching in the 1980s which reported significant hard-rock tin grades. No further work was performed and this inactivity was likely due to the slump in the metal prices and the obvious limited vertical tonnage potential of the prospect.

Late in the 2009 summer season three days were spent by the author in geological mapping and sampling of the eastern part of the Seagull batholith as part of continuing research into the chemistry and metallogeny of that pluton. That work identified a sheeted vein system that appears to be a new mineral occurrence.

With the assistance of a YMIP Focused Regional grant during September 2010 the mineralized system was investigated for its cassiterite – tantalite and possibly gold potential. The fieldwork consisted of two parts: collection of heavy mineral concentrates from the streams (tantalite-columbite has a similar density to that of cassiterite and might be expected to be concentrated in the stream bed) and mapping of the Seagull batholith around the VAL prospect, with examination of outcropping joint/vein systems.

The heavy mineral concentrates were examined under the stereo microscope before sending them to ALS-Chemex for chemical analysis.

## **GEOLOGY**

The Cretaceous Seagull batholith (Mortensen et al. 2007) is one of the most highly fractionated granite plutons in the Northern Cordillera and contains obvious enrichment in Li, B, F and Cl (Liverton, 1990; Liverton and Alderton, 1994; Liverton, and Botelho, 2001). It is the largest intrusion of the ‘ultrafractionated’ Seagull-



Thirtymile sub-suite of the Cassiar intrusions. The consequence of these granites being derived from a crustal source (Liverton, 1992; Driver et al., 2000) and having been emplaced at shallow crustal levels is that these 'apogranites' were enriched in halogens and boron, were low-temperature magmas, and that during crystallization they concentrated the incompatible and high field strength ore elements into a hydrothermal fluid phase. The solid granites now remaining are likely depleted in such metals as Sn and Nb-Ta, those incompatible elements now reporting in greisen, skarn and tourmaline-rich sheeted veins close to the roof of the pluton. Many tin showings are reported from the Seagull area (Abbott, 1981; MINFILE), but not tantalite. This does not mean that it is absent, merely that identification is more difficult. The sheeted vein system noted in this present work contains obvious cassiterite with the tourmaline. Some fergusonite, here probably Ce-fergusonite variety,  $(Y, La, Ce)(Nb, Ta)O_4$  has been noted in the Seagull granite and the pluton is particularly rich in monazite, that could add REE metals to any heavy minerals liberated and concentrated in streams (Fig. 9). Tantalite has not been identified in the rock, but is very likely to occur in the veins as fine-grained crystals. The obvious method to test whether tantalite is present in the system is by collection of heavy mineral concentrates from the streams below the VAL prospect. There is potential for cassiterite to form economic concentrations in placers in Seagull Creek and it is not impossible for gold also to be present.

The Seagull batholith intrudes siliciclastic and carbonate metasediments of the Yukon-Tanana terrane that are polydeformed and which show similar fabrics to those described by D'el-Rey Silva et al. (2000a & b).

## **2010 PROSPECTING PROGRAMME**

### **METHODS AND MAPPING**

The prospecting involved two stages: mapping of the sheeted vein systems both to the SW and NW of the VAL pendant and to detail the northern contact of the Seagull batholith (at the northern side of the cirque to the north of the VAL ridge) with mapping of any granite exposures in that area; and to collect bucket-scale samples from the various tributary gullies and from Seagull Creek for heavy mineral separation and analysis. The



heavy minerals remaining after panning were analysed for Sn and Ta by ALS-Chemex. Both fusion/XRF and fusion/ICPMS techniques were used depending on sample size. Sampling and geology are depicted in Fig. 1.

### Heavy mineral concentrates:

Samples for panning were taken from the surface of the active stream bed and were panned at site. Quantities panned were somewhat variable – from  $\frac{3}{4}$  to one 20l bucket full and the field panning collected a fairly ‘dirty’ specimen. These were panned again before shipment for analysis. The reject material from the second concentration was also panned down and included (sample 10) to check for loss. Weight of the final concentrates is given in Table 1. Surprisingly, no gold was seen in the heavy mineral concentrates. All contained abundant magnetite and black non-magnetic grains. Euhedral columbite-tantalite crystals were identified in Sample 1 (Fig. 8). Sample locations are given in table 1, analytical results in Table 2 and these are also shown on Fig. 1.

### Mapping:

The field work was shorter than planned due to other commitments by assistants Sandro Frizzi and Max Mihailytchev, however sheeted veins were examined in the area identified during the 2009 fieldwork and also at the head of the cirque on the north side of specimen locality S18 (Fig. 1). The first set of veins are of less extent than previously hoped. Spacing of the veins is from 20cm to 1metre apart and these are mineralized with obvious tourmaline for two or three cm on either side of the joint surface. These veins could still be a source for placer cassiterite and tantalite. The second vein set forms an obvious highly jointed region immediately to the west of the VAL pendant. The joint system is spaced from 20cm to 1metre apart, but there the extent of alteration out from the veins is limited mostly to a few millimetres, the maximum alteration observed being yellow epidote to a total thickness of 8cm, with no obvious tourmaline or ‘ore’ minerals.

The granite contact was mapped on the north side of the cirque, delineating an apophysis extending to the high saddle overlooking Goddard Creek {NAD 27: 374044E, 6665887N}. The metasediments on this north side are fine-grained siliclastics that show cm-scale intrafolial folds similar to the rocks of the TBMB prospect at the north margin of the map in Fig. 1 (D’el-Rey Silva et al (2001a & b). No mineralization was noted along this northern contact of the batholith.

The granite contact was mapped along the northern and eastern sides of the VAL pendant. Both fine-grained and megacrystic lithofacies of the batholith were encountered, occurring in sufficiently frequent succession as to make detailed mapping of the facies too difficult at the scale of this present work. It would likely require mapping at a scale of 1:5000 or at even more detail to properly delineate the granite facies. The northern contact of the pendant has a quartzite bed that underlies the limestones immediately against the granite.

Marble and skarn crop out some 10-20m vertically above the contact along the north side (Fig. 2). Dips of bedding observed in the marble were 60° towards the SSW. Some skarn is developed throughout the marble of the pendant (Figs. 2 & 3). At the east tip the skarn is a massive magnetite-amphibole rich rock. Further westward the marble is altered along bedding surfaces and along discordant veins by diopside-hedenbergite skarn or in irregular pyroxene-rich masses (e.g., Fig. 4). The central-north portion of the pendant, some 50m above the granite has diopside-hedenbergite skarn masses that are rimmed by 2-4mm of serpentine-brucite {374772E, 6664742N}.

#### RESULTS OF STREAM SEDIMENT SAMPLING.

The results presented in Table 2 are the analyses of the heavy mineral concentrate without any normalization to original sample weight, hence these are only roughly quantitative as to content of the sediments. Since the material taken was from the surface it was considered irrelevant to attempt to calculate grade of the gravels. These concentrates represent  $\leq 0.0175\%$  of the weight of the original sediments. Specimens 4, 5, 9 and possibly 6 represent material that has been shed from the valleys above with minimal contribution from glacial till. Of these, 4 and 5 are from the streams that drain the region of known sheeted veins. Values in analysis 9 are comparatively low, likely reflecting few veins on the ridge above. Elevated REE, Nb and Sn in sample 6 might indicate further vein systems in the valley at the southern limit of the area that has been prospected. The other samples from Seagull Creek indicate that the heavy minerals there also contain significant metals of interest (samples 2, 3 and 7). Prior to the present fieldwork the aerial photographs of this area were examined with the help of Jeff Bond to assess possible effects of glacial till deposits. Two lateral moraines were developed by



the glacier that filled the southernmost (on this map) tributary of Seagull Creek and which had pushed up Seagull Creek for a short distance. Samples 11 and 12 were 1.5kg specimens of sand-sized sediment from the moraines which were later panned. The analyses of these concentrates are low in Sn (0.05-0.09%) and Nb (0.09%) indicating that the till might be less of interest than more recent fluvial sediments.

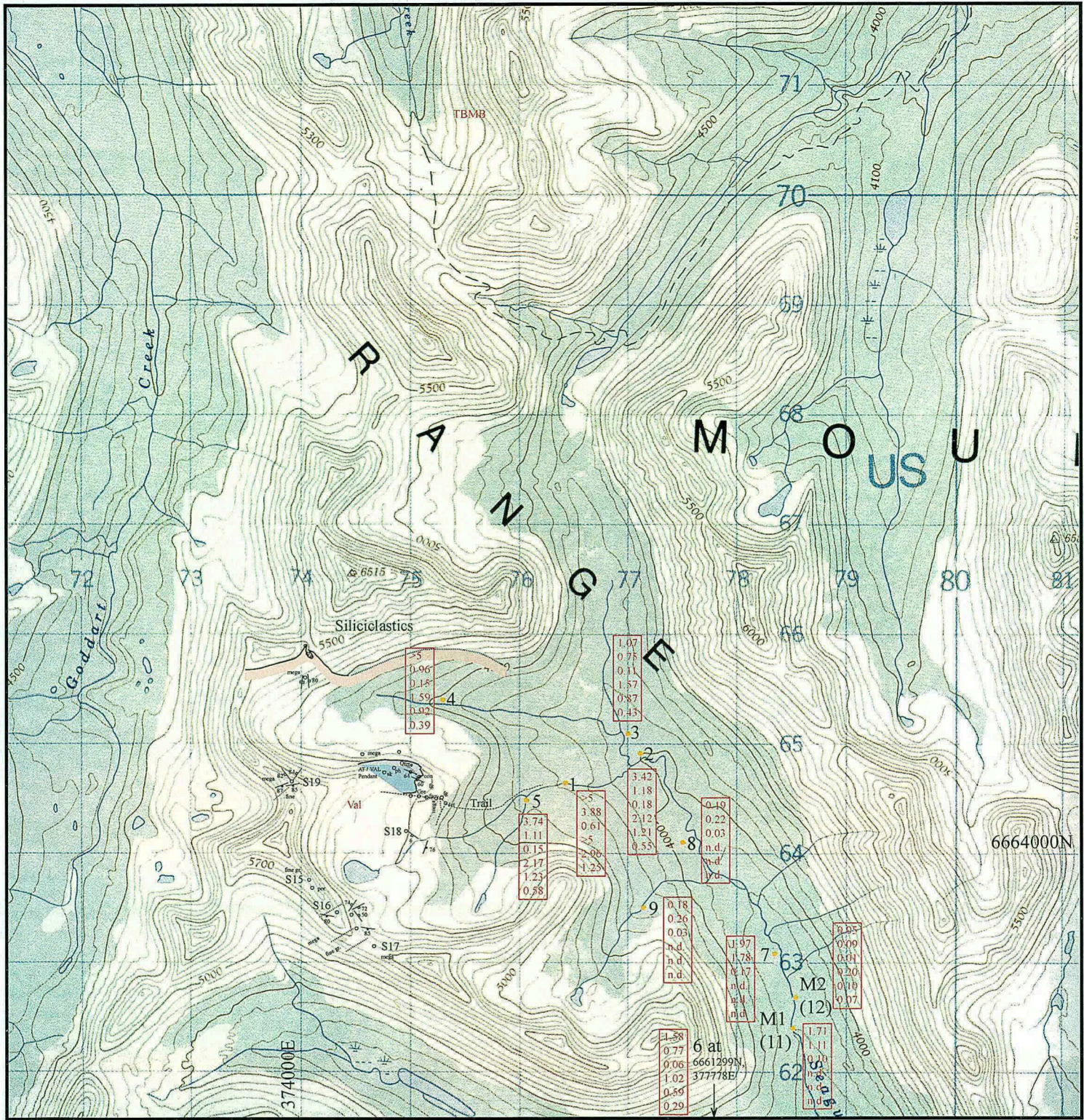
## CONCLUSIONS

Significant contents of Sn, Nb, Ta and REE are contained in the heavy mineral fraction of the stream sediments in the uppermost part of Seagull Creek. In particular the Nd values are higher than was expected ( $\leq 1.25\%$ ). The 2010 sampling was from surface material in the stream bed. Although much more sampling of the glacial and fluvial sediment throughout the valley is necessary to confirm the hypothesis, it would appear that the most geologically recent gravels offer potential for economic concentrations of metal. The amount of heavy minerals at surface is far below what might be economically extracted, but placer concentrations are expected to occur at depth – either on bedrock or on a possible ‘false bottom’ formed at the top of reworked moraine sediments. Further work will require excavation at sites where obvious changes in stream velocity occur. The fairly level accumulations of sediments above sample sites 4 and 5 should be prospected, as well as localities down Seagull Creek. The large tributary valley above sample site 6 has not yet been investigated. It is also likely that further sheeted vein systems are present above the headwaters of Goddart Creek to the west and some obvious potential sites for placer accumulation in that valley were noted during the brief examination of aerial photographs carried out with Jeff Bond.

It is proposed to pursue further prospecting in the Seagull Creek drainage, as well as that of Goddart Creek. An initial approach would involve more careful photogrammetric work to identify sites for ground investigation, followed up by walking the creeks and further hand prospecting. Sample pits should be dug on the upper tributaries of Seagull Creek to test depth of the gravels and heavy mineral content, especially at the rock surface. This might be feasible using a very small excavator late in the summer season since the road from the Swift River valley to the Val prospect is

normally only completely free of snow at the end of July. Otherwise it would be possible with helicopter transportable equipment.





Geological contact, accurate & approximate

ANALYSES

3.74	Sn (%)
1.11	Nb (%)
0.15	Ta (%)
2.17	Ce (%)
1.23	La (%)
0.58	Nd (%)

n.d. = not determined

Location of sample 6  
on grid shown

1 km

- Joints
- - - Sheeted veins (tourmaline cassiterite)
- / Attitude of bedding
- Heavy mineral sample localities
- S17 Rock sample localities

PORTION OF MAP SHEET 105 B-3 SHOWING LOCATION OF THE AT / VAL PROSPECT, GEOLOGY, ROCK SAMPLING & HEAVY MINERAL SAMPLING OF CREEKS



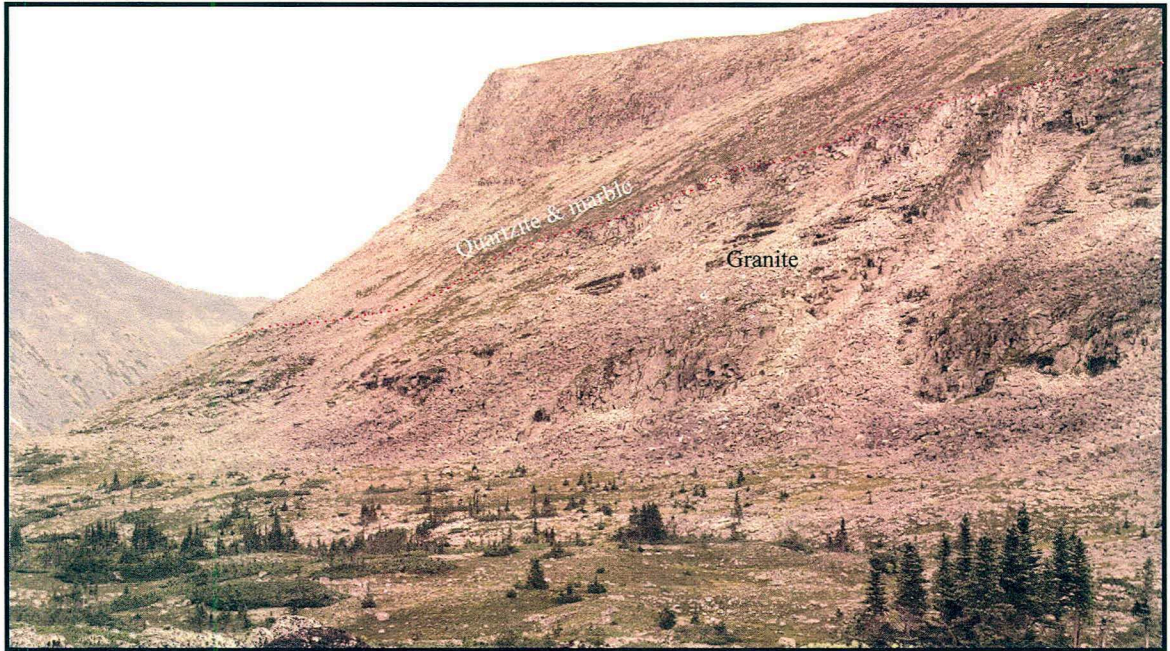


Figure 2. The VAL pendant photographed from the north. The granite contact climbs up to the west.

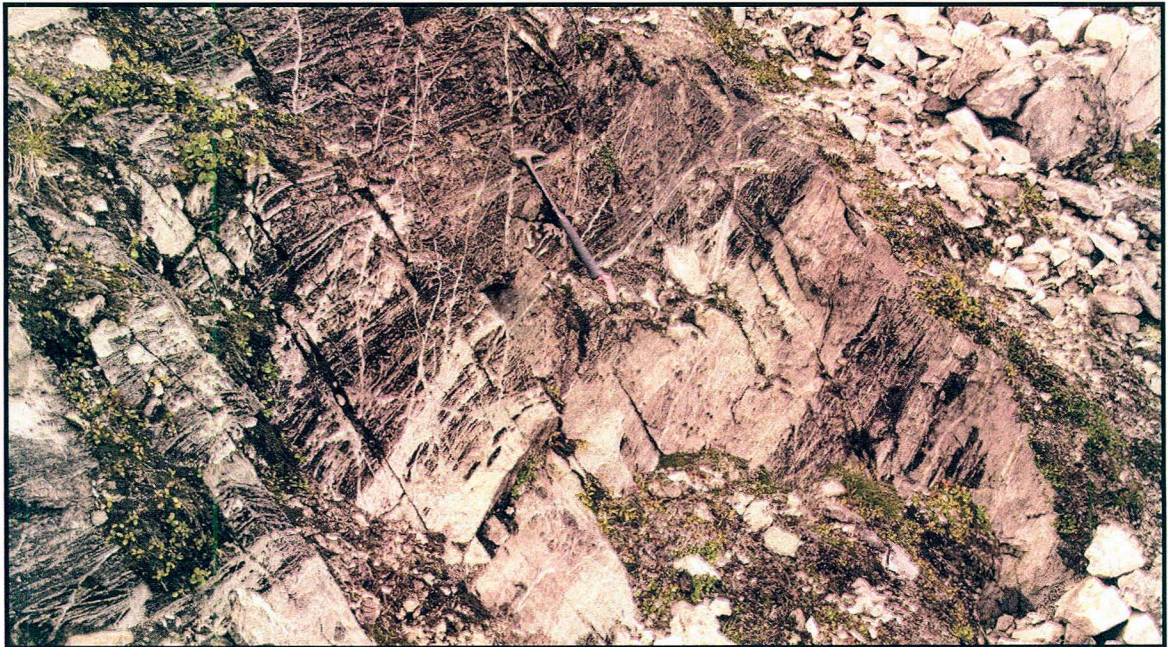


Figure 3. Diopside-hedenbergite skarn developed in the marble as both concordant horizons and cross-cutting veins.





Figure 4. Irregular masses of diopside hedenbergite skarn developed within the marble. The deeper green cores may contain actinolite.

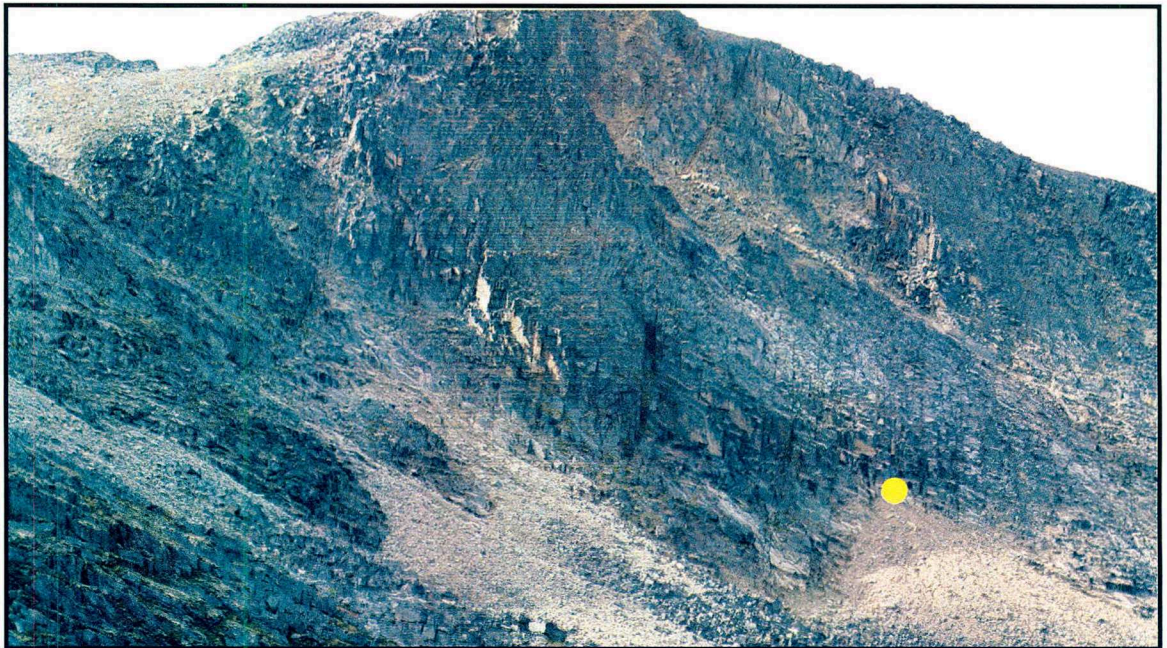


Figure 5. Sheeted vein system developed in the granite at the head of the cirque to the north of the VAL pendant. Sample locality S-18 is shown. Photograph taken facing west.





Figure 6. Granites at the head of the cirque on the north side of the VAL pendant. Sample locality S18 is marked.

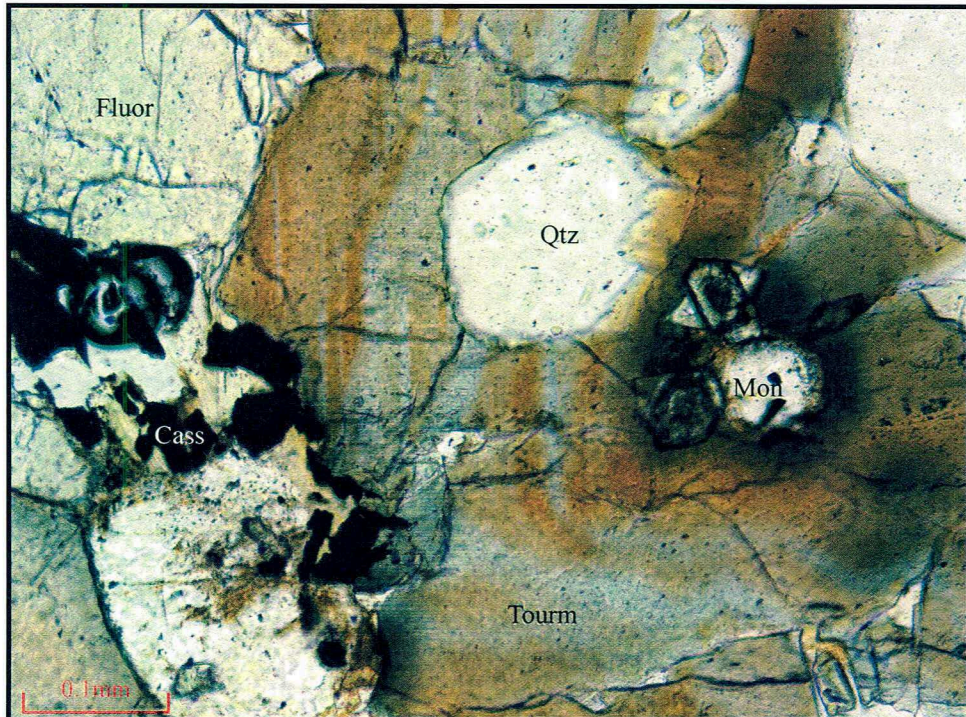


Figure 7. Thin section of sheeted vein material (S16a) showing tourmaline (brown to blue), cassiterite (opaque), monazite (brown-yellow, producing pleichroic halos) and fluorite (NW corner, colourless & high relief) in sheeted-vein material. Thin section under plane polarized light.



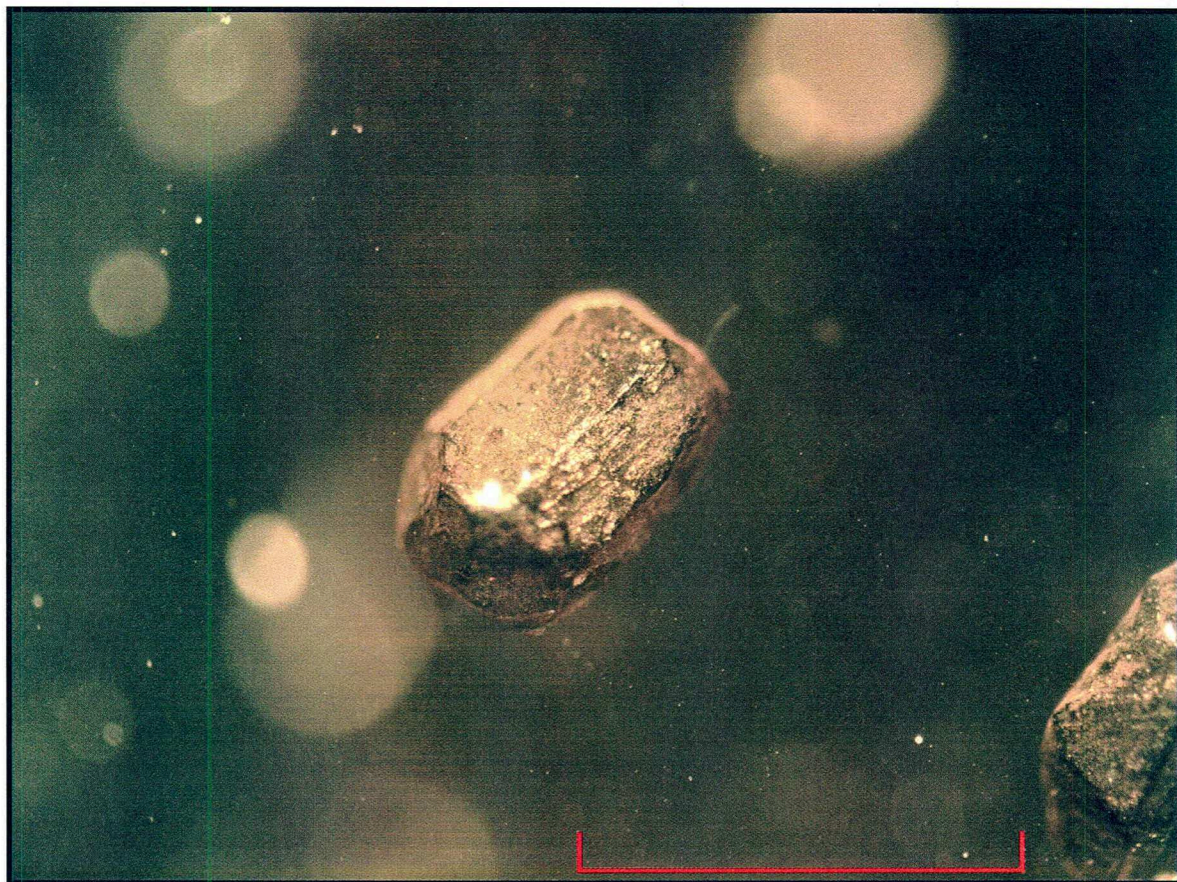


Figure 8. Columbite-tantalite crystal from heavy mineral concentrate 1. Scale bar 1mm.

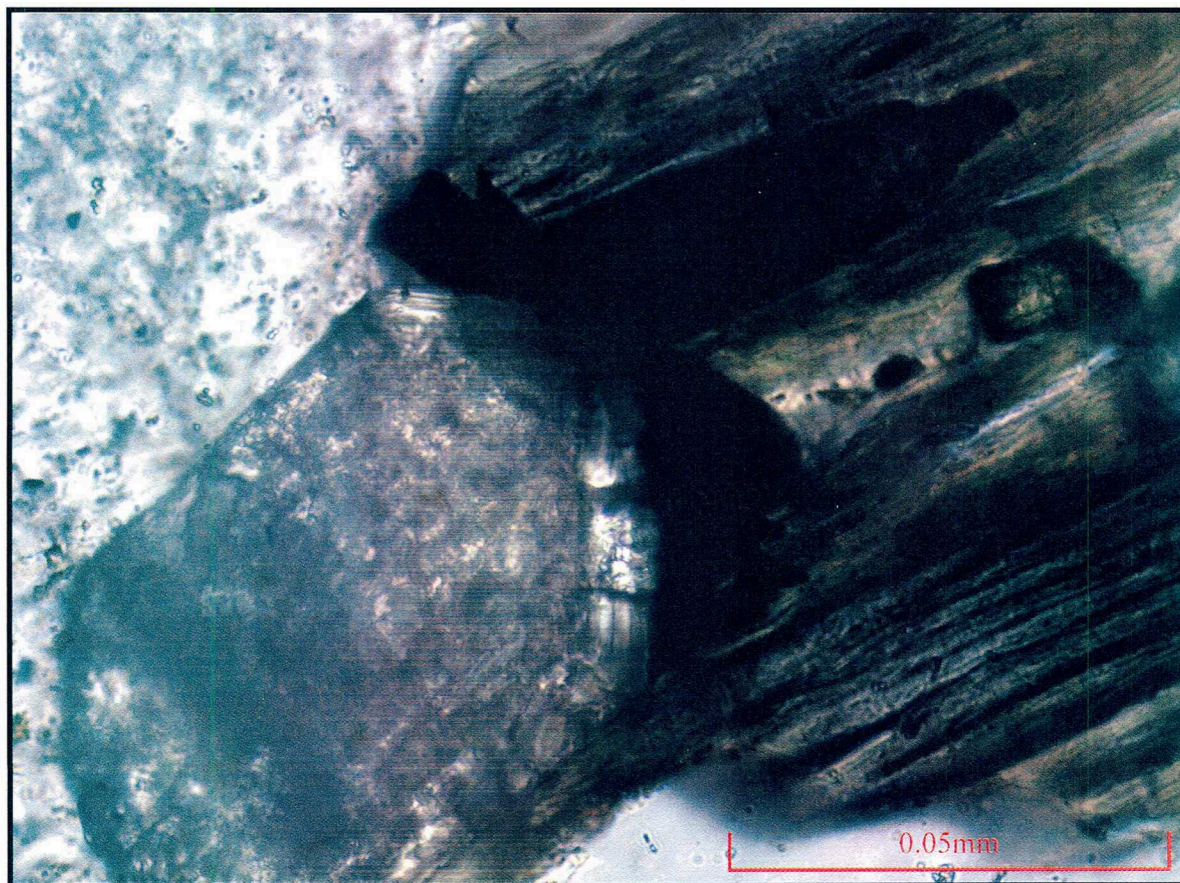


Figure 9. Fergusonite crystals grown on monazite and included in biotite (Specimen S19). Thin section in plane polarized light.



**TABLE 1**

	HEAVY MINERAL CONCENTRATES				NOTES	WEIGHT g
	NAD 83		NAD 27			
	E	N	E	N		
1	376323	6664817	376415	6664636	7 pans 3/4 full	1.062
2	377016	6665097	377108	6664916	8 pans 3/4 full on sand bar	0.736
3	376889	6665269	376981	6665088	6 pans 3/4 full: creek bed + moss	0.565
4	375203	6665570	375295	6665389	7 pans 3/4 full: side of creek bed	1.660
5	375966	6664669	376058	6664488	5 pans 3/4 full + moss	0.842
6	377686	6661480	377778	6661299	Approx 1 bucket of gravel	2.451
7	378261	6663255	378353	6663074	Approx 1 bucket of gravel	3.498
8	377529	6664275	377621	6664094	Approx 1 bucket of gravel	2.254
9	377051	6663686	377143	6663505	Approx 3/4 bucket of gravel	1.754
10					Panned rejects	1.960
Mor 1 (11)	378423	6662583	378515	6662402	Fines from moraine (large)	2.298
Mor 2 (12)	378447	6662863	378539	6662682	Fines from moraine (small)	0.418

<b>SAMPLE</b>	<b>METHOD</b>	<b>Ce (ppm)</b>	<b>Dy (ppm)</b>	<b>Er (ppm)</b>	<b>Eu (ppm)</b>	<b>Gd (ppm)</b>	<b>Hf (ppm)</b>	<b>Ho (ppm)</b>
1	ME-MS81h	>50000	843	540	14.4	735	1535	174
2	ME-MS81h	21200	541	355	9	423	898	113
3	ME-MS81h	15700	577	405	9.5	410	1505	124.5
4	ME-MS81h	15900	347	231	6.3	280	550	73
5	ME-MS81h	21700	653	466	9.6	476	1510	142
6	ME-MS81h	10200	910	581	13.2	523	340	198
7	ME-XRF10							
8	ME-XRF10							
9	ME-XRF10							
10	ME-XRF10							
11	ME-XRF10							
12	ME-MS81h	2020	100.5	78.8	3.5	102	545	22.4

<b>SAMPLE</b>	<b>METHOD</b>	<b>Rb (ppm)</b>	<b>Sm (ppm)</b>	<b>Sn (%)</b>	<b>Ta (%)</b>	<b>Tb (ppm)</b>	<b>Th (ppm)</b>	<b>Tm (ppm)</b>
1	ME-MS81h	26	1645	>5.00	0.61	132.5	>5000	87
2	ME-MS81h	37	787	3.42	0.18	82.8	3650	57.1
3	ME-MS81h	39	682	1.07	0.11	84.8	4540	66.2
4	ME-MS81h	53	525	>5.00	0.15	52.7	1855	36.6
5	ME-MS81h	43	839	3.74	0.15	95.4	4510	77.1
6	ME-MS81h	90	591	1.58	0.06	126.5	1810	82.1
7	ME-XRF10			1.97	0.17			
8	ME-XRF10			0.19	0.03			
9	ME-XRF10			0.18	0.03			
10	ME-XRF10			1.71	0.10			
11	ME-XRF10			0.09	0.02			
12	ME-MS81h	74	113.5	0.05	0.01	16.2	685	12.8



<b>SAMPLE</b>	<b>La (ppm)</b>	<b>Lu (ppm)</b>	<b>Nb (%)</b>	<b>Nd (ppm)</b>	<b>Pr (ppm)</b>
1	29600	89.3	3.88	12500	4610
2	12100	55.3	1.18	5450	1950
3	8650	66	0.75	4310	1495
4	9240	35.8	0.96	3880	1415
5	12300	78.6	1.11	5760	2030
6	5920	59.7	0.77	2890	966
7			1.78		
8			0.22		
9			0.26		
10			1.11		
11			0.09		
12	1020	14.7	0.09	680	217

<b>SAMPLE</b>	<b>U (ppm)</b>	<b>W (ppm)</b>	<b>Y (ppm)</b>	<b>Yb (ppm)</b>	<b>Zr (ppm)</b>
1	1810	12350	3630	608	39400
2	887	5840	2260	379	21000
3	1375	1525	2570	448	36000
4	546	10850	1445	243	12400
5	1450	4020	3040	517	38300
6	1025	1230	3600	467	7410
7					
8					
9					
10					
11					
12	260	194	547	91.9	15100

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T. Liverton, January 2011.



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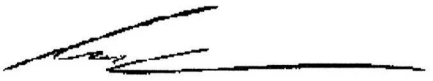
Project:  
 P.O. No.:  
 This report is for 12 Concentrate samples submitted to our lab in Whitehorse, YT, Canada on 14-OCT-2010.  
 The following have access to data associated with this certificate:  
 TIMOTHY LIVERTON

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-51	Pulverize Pan Concentrate

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
ME-XRF10	Fusion XRF - Ore Grade	XRF
OA-GRA06	LOI for ME-XRF06	WST-SIM

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Page: 2 - A  
 Total # Pages: 2 (A)  
 Plus Appendix Pages  
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**CERTIFICATE OF ANALYSIS WH10150488**

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg	ME-XRF10 Nb %	ME-XRF10 Sn %	ME-XRF10 Ta %
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1		0.02	NSS	NSS	NSS
2		0.02	NSS	NSS	NSS
3		0.02	NSS	NSS	NSS
4		0.02	NSS	NSS	NSS
5		0.02	NSS	NSS	NSS
6		0.02	NSS	NSS	NSS
7		0.02	1.78	1.97	0.17
8		0.02	0.22	0.19	0.03
9		0.02	0.26	0.18	0.03
10		0.02	1.11	1.71	0.10
11		0.02	0.09	0.09	0.02
12		0.02	NSS	NSS	NSS



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BILLING INFORMATION	
Certificate:	<b>WH10150488</b>
Sample Type:	<b>Concentrate</b>
Account:	<b>TLIVER</b>
Date:	<b>12-NOV-2010</b>
Project:	
P.O. No.:	
Quote:	
Terms:	<b>Due on Receipt C3</b>
Comments:	

QUANTITY	CODE	ANALYSED FOR - DESCRIPTION	UNIT PRICE	TOTAL
12	LOG-22	Sample login - Rcd w/o BarCode	1.15	13.80
12	PUL-51	Pulverize Pan Concentrate	16.85	202.20
5	ME-XRF10	Fusion XRF - Ore Grade	23.55	117.75

SUBTOTAL (CAD)	\$	333.75
R100938885 GST	\$	16.69
<b>TOTAL PAYABLE (CAD)</b>	<b>\$</b>	<b><u>350.44</u></b>

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 This report is for 7 Concentrate samples submitted to our lab in Whitehorse, YT, Canada on 10-NOV-2010.  
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 TIMOTHY LIVERTON

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
FND-02	Find Sample for Addn Analysis

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
ME-MS81h	High grade REE by fusion/ICPMS	ICP-MS

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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

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**CERTIFICATE OF ANALYSIS WH10167090**

Sample Description	Method Analyte Units LOR	ME-MS81h	ME-MS81h	ME-MS81h	ME-MS81h	ME-MS81h	ME-MS81h	ME-MS81h	ME-MS81h	ME-MS81h	ME-MS81h	ME-MS81h	ME-MS81h	ME-MS81h	ME-MS81h	
		Ce	Dy	Er	Eu	Gd	Hf	Ho	La	Lu	Nb	Nd	Pr	Rb	Sm	Sn
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		3	0.3	0.2	0.2	0.3	1	0.05	3	0.05	1	0.5	0.2	1	0.2	5
1		>50000	843	540	14.4	735	1535	174.0	29600	89.3	38800	12500	4610	26	1645	>50000
2		21200	541	355	9.0	423	898	113.0	12100	55.3	11800	5450	1950	37	787	34200
3		15700	577	405	9.5	410	1505	124.5	8650	66.0	7490	4310	1495	39	682	10650
4		15900	347	231	6.3	280	550	73.0	9240	35.8	9600	3880	1415	53	525	>50000
5		21700	653	466	9.6	476	1510	142.0	12300	78.6	11100	5760	2030	43	839	37400
6		10200	910	581	13.2	523	340	198.0	5920	59.7	7650	2890	966	90	591	15750
12		2020	100.5	78.8	3.5	102.0	545	22.4	1020	14.70	938	680	217	74	113.5	495



ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: LIVERTON, TIMOTHY  
 PO BOX 393  
 WATSON LAKE YT Y0A 1C0

Page: 2 - B  
 Total # Pages: 2 (A - B)  
 Finalized Date: 23-NOV-2010  
 Account: TLIVER

**CERTIFICATE OF ANALYSIS WH10167090**

Sample Description	Method Analyte Units LOR	ME-MS81h	ME-MS81h	ME-MS81h	ME-MS81h	ME-MS81h	ME-MS81h	ME-MS81h	ME-MS81h	ME-MS81h
		Ta	Tb	Th	Tm	U	W	Y	Yb	Zr
		ppm 0.5	ppm 0.05	ppm 0.3	ppm 0.05	ppm 0.3	ppm 5	ppm 3	ppm 0.2	ppm 10
1		6090	132.5	>5000	87.0	1810	12350	3630	608	39400
2		1830	82.8	3650	57.1	887	5840	2260	379	21000
3		1070	84.8	4540	66.2	1375	1525	2570	448	36000
4		1525	52.7	1855	36.6	546	10850	1445	243	12400
5		1545	95.4	4510	77.1	1450	4020	3040	517	38300
6		633	126.5	1810	82.1	1025	1230	3600	467	7410
12		122.0	16.20	685	12.80	260	194	547	91.9	15100





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**INVOICE NUMBER 2180284**

BILLING INFORMATION	
Certificate:	<b>WH10167090</b>
Sample Type:	<b>Concentrate</b>
Account:	<b>TLIVER</b>
Date:	<b>23-NOV-2010</b>
Project:	
P.O. No.:	
Quote:	
Terms:	<b>Due on Receipt</b> <b>C3</b>
Comments:	

QUANTITY	CODE	ANALYSED FOR - DESCRIPTION	UNIT PRICE	TOTAL
7	ME-MS81h	High grade REE by fusion/ICPMS	29.65	207.55
7	FUS-LI01h	Fusion for High Level REEs	16.70	116.90

To: LIVERTON, TIMOTHY  
 PO BOX 393  
 WATSON LAKE YT Y0A 1C0

SUBTOTAL (CAD)	\$	324.45
R100938885 GST	\$	16.22
<b>TOTAL PAYABLE (CAD)</b>	<b>\$</b>	<b><u>340.67</u></b>

Payment may be made by: Cheque or Bank Transfer

Beneficiary Name:	ALS Canada Ltd.
Bank:	Royal Bank of Canada
SWIFT:	ROYCCAT2
Address:	Vancouver, BC, CAN
Account:	003-00010-1001098

Please Remit Payments To :  
**ALS Canada Ltd.**  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7

## **EXPERIENCE**

### **Timothy Liverton: Geologist**

- Qualifications: BSc in Geology & Geophysics, University of Sydney, conferred 1965  
BSc (Hons) in Economic Geology, University of Adelaide, conferred 1968  
PhD in petrology, structural geology & metallogeny, Royal Holloway, University of London 1992.  
Chartered Geologist, Fellow of the Geological Society, Fellow of the Geological Association of Canada, Member of the Geological Society of America, Member of the Society of Economic Geologists
- Experience: 36 years' experience in engineering geology, mine geology and mineral exploration for tin, tungsten, uranium, base metals, silver, gold and industrial minerals in Australia, Canada, U.S.A., Brasil, Norway and Portugal.

### **Sandro Frizzi: Geologist**

#### Professional Qualifications:

- 1991: University of Padova, Italy: Laurea (degree) in geology, specializing in hydrogeology  
1993: member of the Italian Order of Geologists

Canadian Landed Immigrant status 2008

#### Experience:

- 1995: formed the company Studio Progea with colleagues: specializing in reclamation of contaminated land  
1996: involved in reclamation of contaminated site on Cormorant Island, British Columbia.  
2005 on: geologist on mineral exploration projects in the Yukon



# YMIP Expense Claim - Client copy

YMIP no:	project name: <b>SEAGULL</b>		Expense Claim no: <b>1</b>	
Timothy Liverton <i>Applicant name</i>	module: focused regional		type: Hard rock/ placer (both)	
Box 393, Watson Lake, Yukon, Y0A 1C0 <i>address</i>	phone: 536 2316, 536 2910		email: <a href="mailto:timliv@northwestel.net">timliv@northwestel.net</a>	
	date submitted: 04-Jan-11			
Start/ end dates of fieldwork for this claim:	3 Sept 1010 <i>start</i>	4 Sept 1010 <i>end</i>	no of field days/ this claim: 4	
<b>eligible expenses</b> <i>Please refer to rate guidelines. Provide photocopy of receipts. Amounts to exclude GST</i>				
<b>item</b>	<b>unit/days</b>	<b>rate</b>	<b>total</b>	
daily field expenses		4 \$100/day	400.00	
Personnel	<i>Name (supply statement of qualifications)</i>			
	T. Liverton	4		
	S. Frizzi	4	400	1600.00
	M. Mihailytchev	4	350	1400.00
<b>equipment (rental)</b>	<b>private or commercial</b>	<b>unit/days</b>	<b>rate</b>	<b>total</b>
2 Pickups, 386km each			0.595/km	459.34
<b>other</b>	<i>please provide details</i>			
ALS/Chemex assays				350.44
ALS/Chemex assays				340.67
<b>Grand total this claim:</b>				4550.45

YMIP GRANT: 2925-00