

A Geochemical Report on the SPEC Property  
submitted as Representation Work  
on the following quartz claims

Claims:

SPEC 1-34; Grant Numbers YE71401-YE71434  
Total 34 Quartz Claims in the Dawson Mining District  
Owner: Gordon Richards

Location

NTS Map Sheet 115P03  
Camp along Coldspring Creek at  
UTM 351,270E, 7,000,540N, Elev 630 m  
UTM, NAD 83, Zone 8

Field work performed by  
Gordon Richards and Jeff Mieras  
during the period June 21 to June 25, 2012

Report written by Gordon Richards  
December 20, 2012

## TABLE OF CONTENTS

<b>INTRODUCTION</b>	3
<b>CLAIMS</b>	5
<b>AEROMAGNETIC LOW</b>	5
<b>RGS DATA</b>	6
<b>SURFICIAL GEOLOGY</b>	6
<b>BEDROCK GEOLOGY</b>	7
<b>GEOCHEMICAL SURVEYS</b>	10
<b>PREVIOUS WORK</b>	10
<b>CURRENT SURVEY METHODS</b>	10
<b>CURRENT SURVEY RESULTS</b>	13
<b>CONCLUSIONS</b>	15
<b>RECOMMENDATIONS</b>	16
<b>STATEMENT OF COSTS</b>	17
<b>STATEMENT OF QUALIFICATIONS</b>	18

### TABLES

<b>Table 1. Claim Status.</b>	5
<b>Table 2. MMI Response Ratios for 28 Elements.</b>	2.3
<b>Table 3. Ah Response Ratios for 31 Elements.</b>	2.4
<b>Table 4. Rock Sample Geochemical Results</b>	2.5
<b>Table 5. Rock Sample Descriptions</b>	2.6

### FIGURES

<b>Figure 1. Location, Glacial Limits and Quartz Claims.</b>	2.1
<b>Figure 2. Claim Map.</b>	2.2
<b>Figure 3. Overview Map.</b>	2.70
<b>Figure 4. As Soil Response Ratios</b>	2.71
<b>Figure 5. Sb Soil Response Ratios.</b>	2.72
<b>Figure 6. Hg Soil Response Ratios.</b>	2.73
<b>Figure 7. Ag Soil Response Ratios.</b>	2.74
<b>Figure 8. Zn Soil Response Ratios.</b>	2.75
<b>Figure 9. Ni Soil Response Ratios.</b>	2.76
<b>Figure 10. Cu Soil Response Ratios.</b>	2.77
<b>Figure 11. K Soil Response Ratios.</b>	2.78
<b>Figure 12. Ti Soil Response Ratios.</b>	2.79
<b>Figure 13. Ce Soil Response Ratios.</b>	2.80
Appendix I Geochemical Results	
Appendix II Geochemical Results with GPS co-ordinates	

## INTRODUCTION

In mid June 2011 two traverses over aeromagnetic tilt derivative lows discovered fractured and brecciated limonitic quartzite in outcrop and boulders on hillsides north and south of Coldspring Creek on NTS map sheet 115P03. Rock samples of angular silicified breccias yielded anomalous values of Au (high of 75 ppb), As (high of 391 ppm), Sb (high of 10.7 ppm), and Hg (high of 960 ppb). The area lies east of the White Gold District within an area of pre-Reid glaciations. Based on discovery of the numerous breccia boulders, 34 claims were staked on June 21, 2011 with helicopter support out of the Pacific Ridge Exploration (PEX) camp on Scroggie Creek. Claims were recorded July 20, 2011. The property is located 155 km from Dawson City, 130 km from Mayo, 115 km from Carmacks and 60 km from Scroggie Airstrip. Access is made by helicopter from any of the above towns. Refer to Figures 1 and 2.

The geology of the area has recently been described on *Canadian Geoscience Map 7 of Southwestern McQuesten and parts of northern Carmacks* by Ryan, J.J., Colpron, M., and Hayward, N., 2010. The property is underlain primarily by quartzite of the Late Devonian and older Snowcap Formation, which is the basal unit of the Yukon Tanana Terrane. White Gold District gold occurrences had been described by many geologists familiar with the deposits as near vertical structural occurrences within all rock types so bedrock geology was not considered as a preliminary screen for identifying targets. Evidence of pre-Reid glacial lake sediments occurs over the southern two thirds of the property. At higher elevations pre-Reid aged tills are somewhat eroded. A late McConnell age loess deposit 20 to 50 cm thick blankets the till and glacial lake sediments.

The current work used MMI soil samples in an attempt to “see through” the glacial sediments. MMI samples were collected where possible and Ah (organic) samples were collected where MMI samples could not be collected due to frozen ground. MMI samples are collected across the interval of 10 to 25 cm below the top of soil so that in general loess was the sample medium. Where loess was less than 25 cm thick the underlying material was a till and or a residual gritty soil with a few rounded pebbles probably derived from previously existing till deposits.

The McQuesten Aeromagnetic Survey by Kiss, F., and Cryle, M., 2009 is available from Geoscience Data Repository through Natural Resources Canada.

Pacific Ridge Exploration (PEX) provided the writer with horizontal and tilt derivative maps derived from the raw aeromagnetic data. These derivatives show structures where magnetite destructive alteration possibly related to gold-bearing hydrothermal activity has occurred. Soil sampling was designed to test four prominent one to two km long tilt derivative magnetic low anomalies.

Regional Geochemical Data (RGS) is readily available. It shows geochemical data for numerous elements of stream sediments throughout the area and for several creeks draining the claims. On the Spec Claims the significant RGS values for sample number 1370 (Geochemical Figures) are: Au (70<sup>th</sup> %tile), As (70<sup>th</sup> %tile), Sb (70<sup>th</sup> %tile), Ag (98<sup>th</sup> %tile), Te (95%tile), and Ba (90<sup>th</sup> %tile). This stream flows northward crossing the southern two magnetic low anomalies as shown. RGS sample number 3171 is anomalous for Au (70 %tile), Hg (70 %tile), Ba (80 %tile), and W (90 %tile) and flows northward along the extreme eastern edge of the two southern magnetic low anomalies.

No Minfile occurrences are known in the area.

The writer flew by helicopter to the property with Jeff Mieras on June 21, 2012 to establish a camp from which they collected MMI soil samples and rock samples of altered float and outcrop across the main magnetic derivative lows and randomly elsewhere on the property. Work was completed on June 25, 2012.

Results were somewhat encouraging although MMI sampling over the north magnetic low anomaly with abundant breccia boulders known from previous work to be strongly anomalous for As, Sb, Hg and Au failed to show any anomalous values for Au and Hg and only moderate anomalies for As and Sb. The southern two magnetic low anomalies yielded results moderate to highly anomalous for Zn, Cu, and Ni with moderate anomalous values for Ag over one of these magnetic lows. All four anomalies yielded highly to moderately anomalous values for Ti, Ce and other rare earth elements. MMI soil sampling did provide patterns of anomalous metals over the southern two magnetic low anomalies where a single augered conventional soil sampling line the previous year provided only spotty and low metal values. Because gold did not respond in MMI sampling even where rocks were anomalous for gold, patterns of anomalous values for other metals should be used as a guide to mineralized systems. These areas, once defined should be trenched to evaluate their precious metal potential.

More widespread evaluation of the property is recommended. This work should include additional MMI sampling over the southern two anomalies and rock chip sampling of float and conventional augered soil sampling over the northern anomaly. Hand dug pits are also recommended to be dug as deep as possible in order to find, examine, and sample altered bedrock rubble. This work should be sufficient to define areas for trenching to better evaluate precious metal potential on the property as a prelude to diamond drilling.

### **CLAIMS.**

The following is a list of all claims forming the property. The claims lie in the Dawson Mining District. The work was partially funded by a YMIP grant, #12-017, and was performed by and for the registered owner, Gordon G Richards. Claim expiry dates have been extended to July 21, 2017 by filing of the work described in this report as representation work. Refer to Figure 2.

**Table 1. Claim Status**

Claim Name	Grant No.	Expiry Date	Reg Owner	% Owned	NTS #s
Spec 1-34	YE71401 – YE71434	2017/07/21	Gordon G Richards	100.00	115P03

### **AEROMAGNETIC LOW.**

Tilt and horizontal derivative lows derived from government aeromagnetic data are believed to define zones of magnetite destructive alteration that has been shown to be a good guide to gold bearing alteration systems within the White Gold District. Four aeromagnetic tilt derivative lows are shown on the Geochemical Figures and were used as the main targets for soil sampling. Horizontal derivative lows are also present and form similar patterns as the tilt derivative lows. The patterns shown on the Geochemical Figures for the tilt derivative lows are approximations only as limits of the lows are somewhat diffuse and their locations are not exact.

**RGS DATA.**

Position and some results for two Regional Geochemical Survey (RGS) silt samples are also provided on the Geochemical Figures. The principal sample, number 3170, is variably anomalous for Au, Hg, Ba, Sb, Ag, Te, and As and was collected from a creek that drains the southern two magnetic low anomalies.

**SURFICIAL GEOLOGY.**

The area was believed to have been glaciated during one or more pre-Reid glacial periods. Glaciation of the claims area is described by J Bond and P Lipovsky of the Yukon Geological Survey as pre-Reid in age. Reid glaciation began 200,000 years ago and ended about 50,000 years ago. The glaciation across the general area of the Spec Property is described as much older than Reid, possibly older than 500,000 years (Jeff Bond, personal communication, 2012).

A 20 to 50 cm thick post McConnell age loess deposit blankets most of the hillsides thereby making mapping of underlying geology including the occurrence of till and altered float difficult. Tills were found in the bottom of most soil pits that penetrated the loess blanket. A glacial lake occupied Lake Creek and Coldspring Creek during the pre-Reid glacial period(s). Evidence of this glacial lake occurs on the property along the north side of Coldspring Creek where banks of glacial lake sediments are obvious at several locations. The approximate upper limit of Glacial Lake Coldspring, taken from Bond and Lipovsky's work is shown on the geochemical maps that accompany this report. The second most northerly magnetic low anomaly underlies much of this lake sediment. Samples M273 to M294 were collected over this magnetic low anomaly from a variety of glacial sediments. Often the soils at the bottom of the soil pits collected over the other three magnetic low anomalies were a mixture of residual soil and till.

Even with the extensive glacial deposits on the property it was found that abundant angular float, much silicified, occurs across the higher elevations north of Coldspring Creek. More detailed prospecting in this area could prove successful in locating significant gold mineralized float. There was also a window through the tills and loess on the two soil lines south of camp and west of the creek sampled by RGS 3170. Here angular float of silicified quartzite is found within mixed residual soil, loess, and till across the 100 m diameter window.

Soil sampling in 2011 found rocky soils across the north magnetic anomaly and glacial tills across the southern two magnetic anomalies with the whole area usually covered by a 20 to 50 cm deep loess deposit.

Soil sampling in 2012 used methods employing selective leach analyses, principally MMI analyses, because of difficulties in soil sampling found in 2011 as described. Having now carried out more extensive exploration on the property it became obvious that auger soil sampling at higher elevations in the north could prove more useful than MMI analyses because of its more direct reading of metal content particularly if the soils beneath the loess contain significant residual soil. Where it works, MMI soil sampling can “see through” deep overburden including glacial till. But it is not always responsive for all elements and is not effective for all elements on the property. It does not provide patterns useful for directing additional work but that may be due to the low number of samples collected to date.

#### **BEDROCK GEOLOGY.**

Regionally the property lies within Yukon Tanana Terrane.

The most detailed geology map is provided by *Canadian Geoscience Map 7, Geology Southwestern McQuesten and parts of Northern Carmacks* by J.J. Ryan, M. Colpron, and N. Hayward at a scale of 1:125,000. This map shows the property to be underlain exclusively by the basal member of the Yukon Tanana Terrane, the Late Devonian and older Snowcap Assemblage comprised of quartzite to quartz-mica schist intruded by orthogneisses. These rocks display upper greenschist- to amphibolites-facies metamorphism.

Work in 2011 and 2012 found dark purple-brown quartzite float and outcrop high on the hill on the north side of Coldspring Creek. On the south side of Coldspring Creek outcrops were also of quartzite but with a pronounced pelitic content. All angular float was of quartzite with one exception. South of Coldspring Creek just east of the north flowing tributary sampled by RGS sample number 3170 and about a hundred metres south of sample P227 is a slope containing angular boulders of dacite. The dacite is pale buff coloured and contains about one percent one mm diameter quartz crystals. No mafic outcrop or angular float that might help explain the high Ni values in some of the MMI samples described

below was seen anywhere on the traverses. Source of the high Ti, Ce, and other rare earth elements also remains unknown.

Altered float was observed in three areas. Refer to Table 3. In the north of the property boulders measuring up to three metres long were of silicified quartzite often containing both quartz veins and breccia dykes that were weakly limonitic and contained fragments of quartzite and less commonly quartz. This style of mineralization was also sampled in 2011 with somewhat higher Au, As, Hg and Sb values than reported below. The boulders were usually subangular to angular and were obviously resistant to weathering. Less resistant rock that might contain high gold values could easily be concealed beneath the soil cover. No outcrop was observed in the north grid area.

South of Coldspring Creek and east of the creek sampled by RGS 3170 the few outcrops present were of dark carbonaceous quartzite containing weak silicification and weak limonite fractures. Intervening ground between outcrops was covered by till, the almost ever present loess, and glacial lake sediments.

South of Coldspring Creek and west of the creek sampled by RGS 3170 outcrops sampled by P327 and P329 contain weak silicification and few limonite fractures with minor quartz veins. Samples shown on the geochemical figures at P269 to P278 were of angular boulders that occurred in a window of residual soil mixed with some loess and till. Surrounding this window was uniform loess covered till that contained no angular boulders. The angular boulders within the window were commonly brecciated and contained limonite and some quartz veins. This window through the till blanket was about 100 m in diameter. The altered float seen there could be glacially transported over a short distance and thus be close to a gold mineralized structure related to and causing the magnetic derivative low.

Geochemical results for the rock samples with their UTM NAD83 Zone 8 coordinates are provided in an Appendix. All four magnetic derivative low areas contain rock samples with moderately anomalous values for As and Sb. The south areas contain all the anomalous values for Cu, Ni, and Mo. Weakly anomalous Au in rock values of 17 and 14 ppb occur in the north area. Results of similar altered float collected in 2011 returned gold values of 75, 40, and 25 ppb. One relatively high Ti in rock value of 0.078 % Ti (P227), relative to all other samples of  $\leq 0.005$  %



Ti, occurs in the southeast of the property. The highest Ti MMI soil values occur in the north.

<b>Table 5. Rock Sample Descriptions. Spec Property 2012.</b>	
<b>ID</b>	<b>Description</b>
P194	2m boulder bxiated qtzite
P210	carbonaceous qtzite with weak persistent limonite & qtz veinlets
P217	outcrop. Qtzite with very minor limonite and some qtz veinlets
P218	2-3 cm qtz vein with low limonite spots and fractures
P221	angular boulder pile qtzite with low lim and qtz vns
P227	angular boulder pile qtzite with lim fractures and very minor qtz vns
P244	3m boulder qtzite with bxias and low limonite
P245	same boulder. sample from 1/2 m wide bxia zone
P249	1 m boulder quartz, subangular
P255	1 m x 1 m qtz boulder with grey streaks
P256	same boulder. Sample of bxia on one end
P257	small piece 10 cm bxia
P265	sheared, crackled, bxiated very limonitic. Little of this style
P266	white (bleaching?) sediment with muscov and limonite
P267	3 cm wide bxia-shear-lim at toe of slope with P265, P266
P268	limonitic qtz vein from boulder dump
P269	soft crumbly limonitic bxia
P270	crackled limonitic and bxiated qtzite
P271	crackled qtz with limonite and cross-cutting bxia. Crumbly
P272	limonitic bxiated qtzite
P273	bldr qtzite with qtz veins and limonite. Softer and sugary text
P274	1m bldr bleached qtzite and limonite
P275	bxiated limonitic boulder
P276	bxiated qtzite with qtz and limonite
P277	qtz fragment bxia. Limonitic matrix
P278	25 cm high limonite matrix bxia

P194 north, high on hill, #1 mag low anomaly

P210 southeast, #3 mag low anomaly

P265 southwest, north end of #4 mag anomaly

P269 southwest, window angular rocks #4 mag low anomaly

## **GEOCHEMICAL SURVEYS.**

### **PREVIOUS WORK**

During sampling in 2011 discoveries were made of float and outcrop with various alteration and mineralization styles. North of Coldspring Creek only rocks were collected as the soil was extremely rocky and difficult to sample by the auger that was carried. This difficulty in sampling is believed to be a local phenomenon for the 2011 samples as sample pits dug in 2012 although rocky could have been sampled by auger. Outcrop and float were dark purple-brown quartzites. Where mineralized they were severely brecciated and limonitic and often contained several quartz veins. Breccia fragments were quartzite and lesser quartz up to two cm long. Four samples were collected from silicified and brecciated quartzite outcrop along the top of the small hill along the north end of the east side of the claim block. Eight samples were collected from silicified and brecciated angular float up to 2 m long lying between the north ends of the two most northeasterly soil lines of 2012.

2011 results were highly anomalous for As (highs of 392, 272, 136, and 87 ppm), Sb highs of (14.6, 10.7, 8.0, 6.6, and 6.0 ppm), Hg (960, 660, 270, and 170 ppb) and moderately anomalous for Au (highs of 25, 40, and 75 ppb). These anomalous rocks occurred along the north side of the magnetic derivative low near the edge of the claim block as shown on the Overview Figure.

South of Coldspring Creek standard soils of glacial sediments were sampled by auger at a 100 metre interval on a single line across two of the magnetic derivative lows. Here results provided spotty low level anomalous values for Au, As, Sb and Hg similar to the suite of anomalous results from rocks north of Coldspring Creek. Three rock samples collected by an assistant south of Coldspring Creek were sintery siliceous cracked to brecciated pelitic meta sediments with introduced silica and limonitic fractures.

### **CURRENT SURVEY METHODS**

Ten man days were spent in the field by Jeff Mieras and Gordon Richards collecting 152 MMI soil samples, 7 organic Ah soil samples, and 26 rock chip samples. Lab results and spreadsheets showing the geochemical data tied to GPS coordinates using a UTM, Zone 8 Projection are provided in Appendices.

**Table 2. MMI Response Ratios for 28 Elements. SPEC Property 2012**

ID	gold pathfinders									porphyry			alteration					mafic				rare earth elements							
	Ag	As	Au	Ba	Hg	Tl	Sb	Pb	Zn	Cu	Co	Mo	Fe	Mn	Ca	K	Rb	Mg	Ni	U	Ti	Ce	La	Nd	Sc	Sm	Tb	Y	
P192	3	12	2	1	2	3	6	3	1	2	3	2	7	2	1	1	5	1	1	2	232	7	6	7	7	7	6	6	
P195	5	2	4	3	1	1	1	5	2	4	7	1	3	4	3	2	1	3	8	4	17	9	10	12	13	11	12	14	
P196	1	1	3	3	16	1	1	2	1	4	1	1	1	2	6	1	1	7	13	4	0	7	6	5	3	6	6	7	
P197	1	8	2	2	4	1	4	2	1	2	3	1	5	4	2	2	4	2	2	3	175	8	9	8	8	8	6	6	
P198	1	8	2	1	1	1	4	3	1	3	10	2	5	22	2	3	5	2	2	3	151	8	8	8	8	7	6	5	
P199	1	14	1	1	4	4	8	3	2	1	3	4	10	6	1	2	6	1	1	2	339	3	3	2	3	2	2	1	
P200	1	14	2	1	2	4	8	3	1	2	5	3	10	13	1	2	7	1	1	2	339	6	6	5	5	4	3	3	
P201	1	2	2	2	1	2	1	3	1	2	2	1	2	2	2	2	5	2	1	3	56	7	8	7	6	6	6	6	
P202	1	4	2	2	4	2	2	3	1	4	2	1	3	2	2	1	3	2	3	5	80	8	9	10	10	10	8	9	
P203	3	2	2	6	1	1	1	4	1	1	6	1	2	1	2	1	4	2	2	1	80	2	3	2	3	1	1	1	
P204	1	4	2	3	1	1	2	2	1	3	3	1	3	2	3	1	2	3	5	3	43	7	8	8	8	8	7	8	
P205	1	4	2	3	2	1	2	4	1	3	6	1	3	4	2	1	3	2	4	5	66	11	12	12	14	11	10	12	
P206	10	2	5	8	2	3	1	3	1	2	4	1	1	3	3	2	4	4	6	2	27	4	5	4	8	4	4	5	
P207	3	8	1	1	1	2	4	3	1	1	13	1	5	13	1	6	11	1	3	1	109	1	1	1	2	1	1	1	
P208	9	2	2	1	1	1	1	5	2	1	2	1	2	2	1	4	9	1	1	2	83	3	6	3	5	3	3	2	
P209	4	2	2	1	2	2	4	3	9	3	3	1	5	3	2	2	5	2	3	2	48	4	4	5	6	5	4	5	
P211	14	1	2	5	4	7	2	1	71	11	4	1	4	15	4	2	5	3	34	6	8	4	2	4	5	4	4	5	
P212	5	1	1	3	1	1	4	2	24	6	1	1	4	8	5	1	2	4	23	2	2	5	2	3	2	3	3	3	
P214	0	12	0	1	1	1	8	0	2	0	11	8	28	39	1	3	2	1	5	1	27	0	0	0	1	0	0	0	
P219	1	2	1	0	1	3	2	1	13	3	3	1	20	1	0	1	3	0	2	1	36	0	0	0	1	0	0	0	
P222	5	4	2	2	1	6	6	1	186	7	7	13	6	20	2	2	6	1	28	7	58	2	2	3	3	3	3	3	
P223	4	1	2	2	1	1	4	1	31	9	2	4	3	2	4	1	2	3	10	4	7	2	2	2	1	2	2	2	
P224	6	1	2	3	1	1	4	1	47	11	2	1	3	4	6	1	1	2	24	3	0	2	2	2	1	2	2	2	
P225	12	1	2	3	1	1	4	0	24	11	3	9	1	5	9	1	1	2	18	3	0	1	0	0	0	1	1	1	
P228	61	1	4	5	4	4	1	1	45	4	1	1	1	1	8	2	3	4	16	2	0	2	1	2	2	2	2	3	
P229	28	1	4	2	1	2	1	0	5	2	2	1	1	2	7	2	3	1	3	1	0	0	0	1	0	1	1	1	
P230	4	4	1	2	1	1	1	4	16	1	6	1	8	4	1	29	5	2	5	1	88	1	1	1	1	1	1	1	
P231	2	8	2	3	1	1	4	3	3	3	5	1	6	8	2	3	4	1	3	3	133	7	8	7	6	6	6	6	
P232	2	8	1	1	1	1	4	3	4	2	3	3	8	6	1	4	4	1	2	2	202	2	2	2	3	2	2	2	
P233	1	6	2	1	1	2	2	3	2	3	3	1	5	4	1	1	6	1	3	2	134	4	5	5	6	5	5	5	
P234	2	8	2	2	1	1	6	3	2	1	2	1	5	4	2	2	6	1	1	1	193	2	3	2	3	2	2	2	
P235	1	6	3	2	1	1	4	4	1	3	4	1	3	4	1	2	2	2	2	8	110	11	12	18	16	18	16	19	
P236	2	6	2	1	1	2	2	4	2	2	3	1	7	3	1	2	9	1	2	2	118	4	4	4	4	3	4	4	
P237	2	8	2	1	1	1	6	3	2	3	2	2	5	3	2	1	4	2	2	2	138	7	8	8	8	8	7	7	
P238	2	1	4	3	4	1	2	2	2	5	3	1	2	6	4	1	2	3	13	7	4	4	5	6	5	6	6	8	
P239	2	4	3	3	1	1	1	2	2	3	1	1	3	3	4	2	2	3	7	3	23	10	13	14	13	14	13	15	
P240	0	16	2	2	4	2	10	2	3	3	3	4	8	7	1	1	4	1	1	3	300	14	17	12	7	10	7	6	
P241	3	2	3	1	1	1	2	3	1	3	3	1	4	2	3	1	3	3	3	3	33	5	6	5	7	5	5	6	
P242	3	4	2	2	1	1	4	4	3	3	4	1	4	4	2	2	3	3	4	2	76	5	5	6	8	6	6	7	
P243	2	12	2	1	1	1	8	3	2	2	4	3	9	4	1	2	7	1	1	2	209	3	4	3	5	3	3	3	
P246	3	8	2	1	1	2	4	4	3	2	5	2	8	3	1	3	6	1	2	2	195	3	3	3	5	3	3	3	
P247	1	4	2	1	1	2	2	4	1	1	5	1	3	16	2	2	5	2	2	2	79	4	4	5	9	5	5	6	
P248	1	2	4	3	4	1	1	3	2	4	1	1	2	3	4	2	1	4	9	5	2	7	9	9	9	9	9	12	
P250	3	6	2	1	1	3	4	3	2	2	2	1	7	1	1	3	6	1	1	1	175	2	3	2	4	2	2	2	

ID	Ag	As	Au	Ba	Hg	Tl	Sb	Pb	Zn	Cu	Co	Mo	Fe	Mn	Ca	K	Rb	Mg	Ni	U	Ti	Ce	La	Nd	Sc	Sm	Tb	Y
P251	3	6	2	1	1	2	4	3	3	2	2	1	8	1	1	2	6	1	1	2	138	4	4	3	3	3	3	3
P252	4	1	4	3	4	1	1	1	2	5	1	1	1	1	5	1	1	6	8	3	1	5	5	6	4	7	6	8
P253	2	6	2	1	1	1	4	3	2	2	2	1	7	1	2	2	5	2	3	1	100	2	2	2	4	2	2	2
P254	2	1	3	4	10	1	1	2	3	5	0	1	1	2	6	1	0	5	15	4	1	9	9	9	9	10	10	13
P258	2	8	3	2	2	1	6	2	2	3	3	1	5	3	3	2	2	2	5	4	91	8	8	9	8	10	8	8
P259	2	2	2	1	1	1	2	2	1	3	1	1	3	0	3	2	2	3	3	3	33	4	4	4	5	4	4	4
P260	1	8	2	1	1	2	6	2	3	3	3	2	8	2	1	2	5	1	2	3	231	5	5	5	5	5	4	5
P261	1	6	4	2	1	1	4	2	1	3	3	1	5	2	2	1	4	2	3	4	129	8	9	9	9	9	8	8
P262	1	6	3	1	1	1	4	2	1	2	2	1	5	1	2	1	4	2	3	2	124	5	5	6	6	5	5	6
P263	3	8	2	2	1	2	6	3	1	1	2	1	5	2	2	2	6	2	1	2	206	7	11	5	4	4	3	3
P264	4	8	3	1	1	1	4	3	1	3	2	1	6	1	1	1	4	1	2	4	171	5	5	5	5	4	5	5
M195	2	8	2	1	1	2	4	4	2	2	3	1	5	3	1	1	5	1	1	2	184	6	6	6	6	5	5	5
M196	3	2	2	2	1	1	1	4	1	3	6	1	2	7	3	2	3	3	5	4	40	9	11	11	11	12	11	12
M197	3	12	1	1	1	1	8	5	3	3	12	3	7	14	1	3	5	1	1	3	379	14	14	13	11	12	9	8
M198	3	4	2	1	1	1	2	3	2	3	7	1	3	7	2	2	3	2	2	3	73	7	8	9	11	9	9	9
M199	1	18	2	1	1	3	8	3	12	2	9	8	20	35	1	4	12	1	1	1	402	1	1	1	2	0	0	0
M200	1	12	2	1	1	2	6	3	3	3	5	4	8	11	1	2	6	1	2	2	266	5	5	6	5	5	4	4
M201	1	8	2	1	1	1	4	4	2	3	7	2	5	10	1	2	6	1	2	2	167	5	5	5	7	5	5	5
M202	2	4	2	1	1	2	2	3	2	3	2	1	4	3	2	1	5	2	3	3	93	6	6	7	6	7	6	7
M203	1	8	3	1	1	1	4	4	2	5	19	1	7	24	2	3	3	2	2	4	159	10	11	10	11	8	8	10
M204	1	8	2	1	1	1	4	4	2	2	3	2	6	5	1	6	4	1	1	2	236	1	1	1	4	1	1	2
M205	6	4	2	1	1	3	1	5	2	3	7	1	4	5	1	2	5	1	1	3	147	5	5	6	8	5	5	6
M206	2	2	4	2	1	1	2	3	2	4	17	1	3	27	3	2	3	3	4	2	38	5	7	6	8	7	6	8
M207	6	4	2	2	1	3	2	4	1	2	3	1	3	2	2	2	4	2	1	3	109	12	15	14	13	14	11	11
M208	3	8	4	2	1	2	6	5	2	2	12	1	4	15	2	2	6	3	1	2	252	5	7	4	6	3	3	4
M209	2	2	3	2	1	1	1	4	1	2	7	1	2	4	2	2	5	2	1	5	68	14	18	18	13	17	13	14
M210	2	4	3	1	1	2	2	4	1	3	8	1	4	7	2	2	3	2	1	3	112	5	6	6	8	5	5	6
M211	1	2	2	2	1	3	2	3	1	2	12	1	2	12	2	3	7	2	1	2	72	7	9	6	6	5	4	3
M212	3	1	3	2	1	1	4	1	17	11	11	3	19	16	3	1	2	5	11	3	11	1	1	2	5	2	2	2
M214	4	1	3	3	1	1	2	1	11	7	1	1	3	3	5	1	1	6	17	5	2	4	4	4	3	4	4	4
M216	3	1	2	2	1	1	2	1	8	6	6	1	6	12	4	2	1	4	8	2	2	1	2	2	3	2	2	3
M217	4	1	3	2	1	1	2	1	8	5	1	1	3	1	5	1	1	6	15	3	3	3	3	4	3	4	3	4
M218	3	1	3	3	1	1	1	2	2	4	3	1	2	5	5	1	1	5	7	3	1	6	7	6	6	6	5	7
M219	2	1	4	2	2	1	2	1	6	6	1	1	2	1	6	1	1	8	8	2	1	3	3	3	2	4	3	3
M220	2	1	2	3	1	1	1	1	7	5	3	1	2	5	4	1	1	4	8	3	4	7	8	9	6	8	7	9
M221	1	1	1	1	1	1	1	3	1	1	3	1	2	4	2	2	8	2	1	1	50	2	3	2	2	1	1	1
M222	5	1	2	3	1	1	1	4	3	2	1	1	2	0	3	2	4	4	2	2	8	2	3	3	5	4	4	5
M223	3	1	3	3	8	1	1	2	0	4	1	1	1	1	3	2	4	4	1	3	3	4	4	6	5	6	6	7
M224	3	1	3	1	6	1	1	0	4	2	0	5	0	3	5	4	1	3	1	1	1	0	0	0	0	0	0	0
M225	5	1	2	3	1	1	1	2	18	5	3	1	6	3	4	2	2	1	10	3	2	1	1	2	2	2	2	3
M226	4	1	2	4	1	1	1	1	4	1	0	1	1	1	4	1	3	4	6	2	0	6	3	4	1	4	4	4
M227	4	1	3	3	1	1	2	2	10	5	11	1	3	18	3	3	2	3	6	4	12	4	4	4	6	4	4	5
M228	5	1	2	3	1	1	2	2	37	4	2	1	4	3	3	4	1	3	9	4	4	1	1	2	4	2	2	3
M229	6	1	3	4	4	1	2	1	15	7	0	1	2	1	5	1	1	5	14	5	1	4	3	4	2	4	4	5
M230	5	1	2	5	2	1	2	1	12	6	1	1	2	3	5	1	1	4	14	5	1	7	6	7	4	7	6	7
M231	6	1	3	3	4	1	4	1	10	6	0	1	2	1	6	1	0	6	12	6	0	4	4	5	2	5	5	6

ID	Ag	As	Au	Ba	Hg	Tl	Sb	Pb	Zn	Cu	Co	Mo	Fe	Mn	Ca	K	Rb	Mg	Ni	U	Ti	Ce	La	Nd	Sc	Sm	Tb	Y
M232	3	4	3	3	1	1	4	2	9	5	5	1	6	6	3	1	2	3	6	5	31	8	8	9	11	9	9	10
M233	1	1	4	3	6	1	1	1	5	6	0	1	1	1	7	1	1	7	8	4	0	4	3	4	1	4	4	4
M234	1	1	3	3	16	1	1	1	3	7	1	1	1	2	5	2	0	6	18	3	0	2	2	3	2	3	4	4
M235	0	1	2	2	1	1	1	3	0	2	2	1	1	1	2	2	3	3	0	2	6	10	12	13	8	13	10	8
M236	0	1	2	3	1	1	1	3	1	1	2	1	1	6	3	2	9	2	1	1	16	9	10	6	8	4	4	3
M237	1	2	1	2	1	1	1	2	1	2	1	1	2	1	3	2	4	3	1	2	40	10	12	12	5	10	7	6
M238	3	6	1	1	1	1	4	5	2	1	3	1	4	1	1	4	9	1	1	1	236	5	6	3	2	2	2	1
M239	4	1	2	2	4	1	1	2	0	5	2	1	1	1	3	1	3	3	3	3	2	3	4	5	6	7	7	8
M240	1	8	0	1	1	1	4	3	31	1	12	3	6	33	0	6	11	0	0	0	121	1	1	0	1	0	0	0
M241	2	12	1	2	1	1	8	3	3	2	7	3	8	11	1	5	7	1	1	1	165	5	6	3	2	2	2	1
M242	5	1	4	3	2	1	4	2	7	7	3	1	3	3	4	1	2	4	10	7	0	4	4	4	4	5	5	6
M243	5	1	3	2	1	1	4	2	11	7	1	1	5	1	4	1	2	3	16	6	1	3	2	3	4	3	4	4
M244	2	2	2	3	1	2	1	3	1	2	2	1	1	2	3	1	6	1	1	2	28	5	5	5	5	5	5	4
M245	1	6	2	1	1	3	4	3	2	2	5	1	11	4	1	1	7	1	2	1	75	1	1	2	3	2	2	2
M246	1	8	2	1	1	2	4	3	5	3	7	1	9	5	1	1	5	1	4	2	83	3	3	4	4	3	4	4
M247	1	6	2	2	1	3	4	2	6	4	3	1	10	4	2	2	4	2	5	2	45	5	5	5	5	5	5	5
M248	4	2	4	2	44	1	1	3	1	5	1	1	1	0	3	1	2	5	2	4	1	5	6	9	5	12	12	12
M249	2	1	4	4	16	1	1	1	0	4	0	1	1	1	6	1	1	7	3	4	0	4	3	4	2	6	6	7
M250	3	2	2	3	22	1	1	2	1	3	3	1	0	4	4	1	1	5	3	1	0	8	6	8	5	10	11	12
M251	8	8	3	2	4	1	8	3	2	2	3	3	4	5	1	5	8	1	1	2	174	4	6	4	7	4	4	4
M252	1	6	0	3	1	1	2	3	1	1	3	1	3	5	2	19	6	2	1	1	46	2	2	1	2	1	1	1
M253	3	8	4	2	1	5	6	5	3	1	2	2	3	3	2	3	9	2	1	3	205	11	16	6	5	4	4	4
M254	1	6	1	1	1	1	1	1	7	0	2	1	3	2	2	5	3	3	0	2	21	0	0	0	0	0	0	0
M255	2	1	2	4	1	1	1	1	1	2	1	1	1	1	3	2	2	3	3	1	2	1	2	2	0	3	2	2
M256	2	2	3	2	1	1	1	2	2	5	2	1	5	1	3	2	4	3	10	3	13	3	3	4	6	4	4	5
M257	2	1	2	3	1	1	2	2	18	5	4	1	8	2	3	0	2	2	13	4	9	3	3	4	5	4	5	6
M258	3	1	2	2	1	1	2	1	10	5	1	1	4	1	5	1	1	6	10	3	0	2	2	2	2	2	3	3
M259	3	1	2	2	1	1	1	2	5	2	11	1	14	1	2	1	3	2	9	1	6	1	1	2	3	3	4	4
M260	2	4	2	2	1	1	2	2	9	4	6	1	9	6	3	1	2	3	9	2	23	4	4	4	7	4	5	6
M261	2	1	3	3	1	1	1	2	2	5	2	1	2	1	4	1	1	4	11	5	2	6	6	6	7	6	7	8
M262	1	1	1	1	1	1	1	2	3	1	10	1	9	1	1	2	6	2	3	1	13	0	0	1	3	1	2	2
M263	1	2	2	2	2	1	1	3	1	2	4	1	1	2	2	2	3	2	2	4	4	15	18	15	11	11	9	9
M264	0	10	0	1	1	1	6	2	20	0	3	6	9	18	1	5	7	1	1	0	162	1	1	0	1	0	0	0
M265	2	1	2	5	4	1	1	2	4	6	1	1	1	1	5	2	1	4	8	6	1	9	7	8	4	8	7	8
M266	3	14	3	2	1	3	8	4	4	2	2	2	9	2	1	3	9	1	1	2	291	10	12	8	5	6	5	5
M268	2	2	3	2	2	1	1	3	2	4	6	1	2	3	3	1	3	3	5	3	12	8	8	9	11	9	9	10
M269	5	1	2	3	1	1	2	3	16	5	1	1	6	5	4	1	3	2	19	3	5	3	3	4	6	4	5	5
M270	5	4	2	3	1	3	4	2	24	6	2	2	5	2	3	2	4	2	9	3	25	4	4	5	4	5	5	5
M271	3	1	1	1	1	1	1	1	5	1	4	1	9	3	2	6	4	2	4	1	23	1	1	1	2	2	2	2
M272	1	4	2	0	1	1	4	2	12	5	4	4	8	6	3	3	4	4	5	3	31	4	3	4	3	3	3	3
M273	5	1	2	2	2	1	4	1	7	4	1	1	2	3	6	3	1	6	8	3	0	2	2	2	1	2	3	3
M274	3	2	3	2	1	1	2	2	1	2	1	1	1	4	4	12	2	5	6	2	1	4	4	5	1	5	5	5
M275	2	4	3	2	1	1	2	4	1	2	3	1	2	1	3	3	3	3	4	2	22	12	12	9	4	8	7	8
M276	4	1	3	3	1	1	1	5	1	1	4	1	1	4	4	2	3	4	3	2	2	6	7	4	3	3	3	3
M277	2	2	2	3	1	1	1	5	1	1	7	1	1	6	3	3	4	3	3	2	12	13	15	9	5	6	6	6
M278	1	4	1	2	1	1	2	6	1	1	2	1	3	1	2	3	5	3	1	1	77	1	2	1	1	0	0	0



**Table 3. Ah Response Ratios SPEC Property, 2012.**

	gold pathfinders						porphyry						alteration						mafic				REE								
ID	Ag	As	Au	Ba	Hg	Sb	Bi	Te	Se	B	Pb	Zn	Cu	Co	Mo	Sn	Fe	Mn	S	Ca	Sr	K	Mg	Ni	Cr	U	Ti	Ce	La	Sc	Y
M213	2	2	4	1	1	2	4	1	2	2	1	2	1	1	1	8	2	2	2	2	2	1	2	1	1	1	3	1	1	2	2
M215	7	2	2	3	2	1	3	3	3	1	5	2	2	2	1	50	2	0	1	1	1	3	1	2	2	2	1	5	4	1	1
P213	1	3	2	2	1	2	2	1	2	1	2	2	1	3	1	5	2	5	1	1	1	1	2	1	2	1	4	3	2	4	2
P215	3	2	3	3	1	5	2	4	6	2	1	1	2	2	4	8	1	16	2	3	2	1	1	2	1	1	2	3	2	2	1
P216	3	2	3	2	2	4	2	2	3	3	1	3	1	2	2	2	2	6	2	2	2	1	1	2	1	1	2	2	2	2	1
P220	8	3	3	2	2	4	2	2	6	2	2	2	3	5	9	5	2	3	2	1	2	1	1	2	1	4	2	3	2	3	1
P226	5	2	2	4	1	2	3	3	8	2	1	7	2	1	1	3	2	2	2	4	1	1	2	4	3	9	3	2	2	3	2





Sample details such as rock type and mineralization, soil colour, texture, depth, dampness and site slope were described in notes. Their locations were recorded in a Garmin GPSmap 60Cx. Sampled material was placed into numbered bags as described below. Soils were collected at 50 m intervals where possible on four north-south lines spaced 200 m apart over the north magnetic low anomaly, two east west lines also spaced 200 m apart on the southern two magnetic low anomalies and two north south lines spaced 800 m apart over the magnetic low anomaly just north of Coldspring Creek.

A selective leach using MMI analyses was used in order to deal with the extensive glacial tills. Where ground was too frozen to collect MMI soils, organic Ah soil samples were collected. Rock samples were collected from silicified and brecciated outcrop and float. Samples were sent to labs described below.

Response ratios for 28 selected elements were calculated for all 152 MMI soil samples and are provided in Table 2. Response ratios for 31 selected elements were calculated for all 7 Ah soil samples and are provided in Table 3. Rock chip sample results are provided in Table 4 and rock chip sample descriptions are provided in Table 5. Anomalous results greater than selected threshold values for several elements are shown graphically on the Geochemical Figures provided. MMI results have been calculated into response ratios as described below. Response ratios can be best thought of as multiples of background. In general a response ratio of 10 is considered highly anomalous and indicative of underlying mineralization for that element. It is important to distinguish response ratios for MMI and Ah soil samples. Data have not been leveled due to the low number of Ah samples. MMI and Ah thresholds are different for all elements.

### **MMI Soil Samples.**

MMI analysis uses a weak partial extraction to improve the conventional geochemical response over buried ore deposits. The process measures the mobile metal ions from mineralization, which have moved vertically toward the surface and become loosely attached to the surfaces of soil particles. They concentrate within the 10 to 25 cm soil depth which on the property is routinely a uniform loess blanket. Its effectiveness has been documented in over 1000 case histories on six continents and includes numerous commercial successes. The anomalies are sharply bounded and in most cases directly overlie and define the extent of

the surface projection of buried primary mineralized zones. The MMI process is a proprietary method developed by Wamtech of Australia. SGS Minerals Services in Toronto purchased all rights to the method and provides analyses in Canada.

Watch and ring were removed prior to sampling. Pits were dug by shovel to a depth of 30 cm in order to expose the soil profile for sampling. The profile was scraped clean with a plastic scoop to remove any metal effect from the shovel. A continuous strip of soil was collected by plastic scoop over the interval of 10 to 25 cm below the top of true soil, placed in a pre-numbered ziplock baggie and placed in an 11 inch by 20 inch 2 mil plastic bag. Loess was present at nearly all sample sites and was the sample medium for the bulk of all of the 152 MMI soils collected. Samples were kept cool until they were shipped to SGS Minerals Services in Toronto for analyses.

In the SGS Lab, samples are not dried or prepared in any way. The MMI process includes analyses of an unscreened 50-g sample using multi-component extractants. Metal contents are determined for 53 elements by ICP-MS.

Response Ratios were calculated for 28 elements as shown on Table 2. The average value of results for the lower quartile was calculated for each element. One-half of detection limit was used for those samples with values reported as less than detection limit. Then each result was divided by the lower quartile average to obtain its response ratio. A response ratio of 10 or more is considered very significant for indicating underlying mineralization. Lesser values of 5 to 10 can also be important particularly where more than one element has such a value. Response ratios can best be thought of as a multiple of background in interpreting results.

#### **Organic Ah Soil Samples.**

Seven Ah horizon organic soil samples were collected from the very base of the organic layer overlying loess and placed into gusseted kraft bags. The organic layer was unusually thick. They were collected only on east to north facing hillsides where thick moss inhibited the thawing of underlying tills. Considerable care and time was taken to collect only completely decomposed organic soil. Samples were sent to Acme Labs where samples were dried at 60 degrees C, 100 g sieved to -80 mesh, and a 15 g sample digested in 1:1:1 Aqua Regia and analyzed by Acme's Ultratrace ICP-MS analyses for 53 elements.

Response ratios were then calculated for 31 elements with much overlap with those elements as was done for MMI soils. Refer to Table 3.

### **CURRENT SURVEY RESULTS.**

Response Ratios for selected elements are provided for 152 MMI soil samples and 7 Ah soil samples in Tables 2 and 3. Results for 14 elements are provided for 7 rock chip samples in Table 4. Original geochemical results for all samples are provided in Appendices one set of which is tied to GPS co-ordinates. Selective leaches like MMI and Ah analyses are not always effective and even where they prove useful not all elements are responsive. Therefore patterns can be more important than strengths of individual element responses.

Geochemical results are described below for the four magnetic lows numbered 1 to 4 on the Overview Figure. Refer to the Geochemical Response Ratio Figures for the following discussions. The four magnetic lows are:

**#1. North.** The north magnetic low anomaly,

**#2. Central.** The magnetic low anomaly in the middle of the property and just north of Coldspring Ck,

**#3 & #4. South.** The two magnetic low anomalies south of Coldspring Ck.

**#1. North.** This zone is covered by a mixture of tills and residual soil covered by loess with angular float occurring locally. Sample medium for the soils was loess with some samples containing a minor component of residual soil.

Widespread anomalous As MMI response ratios and less widespread anomalous Sb occurs across all four soil lines with no apparent trend. However higher As values do show east-west trend so that infill and additional widespread soil sampling could define a pronounced trend for As and possibly other elements. There are no anomalous Au response ratios and only a few spotty anomalous Ag and Hg response ratios even though many 2011 and some 2012 rock samples are anomalous for Au and Hg as well as As and Sb. This is interpreted to indicate that MMI soil sampling is ineffective for Au and Hg on the property.

Stongly anomalous response ratios for Ti and Ce (as well as other rare earth elements evident on Table 2) occur across all four soil lines even though the

bedrock is believed to be quartzite based on angular float. Source for these metals is unknown.

There is no pattern to the widespread As and Sb response ratios that could be interpreted as being indicative of a strongly mineralized structure except for possibly the higher As values as described above. Nor are any of the other elements patterns of anomalous values suggestive of a mineralized structure. However, the widespread nature of the anomalous As and Sb response ratios are indicative a large geochemically anomalous bedrock footprint measuring 600 m by 600 m and open in all directions. The anomalous gold in some of the silicified and brecciated quartzite float indicates the system is gold bearing. Depth of overburden is unknown. Additional soil sampling would help define the extent of anomalous soils and possible trends of higher values for some elements. Follow-up trenching across the anomalous As and Sb patterns would be a direct evaluation of the mineral potential of this part of the property.

**#2. Central.** This zone is covered with glacial lake sediments and tills. Loess has been largely removed particularly on the steeper slopes. No angular float exists anywhere on this target.

K has anomalous response ratios over most of the east line and some of the west line. Ni, Ti, Ce were anomalous over portions of each line and could be related to mineralization on an underlying structure as the anomalies occur over the axis of the magnetic low as shown on the Overview Figure. Further work on this target should be delayed until after work on the other three magnetic anomalies has yielded more positive results.

**#3 & #4. South.** These zones are covered with loess and till with one window of mixed loess and residual soil with accompanying angular float. Outside the window, sample medium for the soils was loess with some samples containing minor component of till. A few outcrops of quartzite occur as indicated on the maps.

Widespread anomalous Ni, Zn and to a lesser extent Cu occurs over these anomalies with stronger values occurring over the axes of the magnetic low anomalies.

Spotty anomalous values for As, Sb, Hg, and Ag occur across the south zone. Hg forms multiple sample high values over the axes of both the #3 and #4 magnetic anomaly lows on one soil line for each of the anomalies.

Ti, Ce and other rare earth elemental anomalous values occur with clustering over the two magnetic lows but not over the axes of these targets. P227 was a rock chip sample of quartzite with limonite fractures and minor quartz veinlets that assayed 0.078 % Ti. This value is roughly 50 times the value of all of the 25 other rock chips and would explain the high MMI soil results for Ti. The only rare earth element values provided by the analyses is for La and Sc that were both low for this sample so the source of the rare earth elements is unknown.

## **CONCLUSIONS**

Four pronounced aeromagnetic derivative lows with one RGS sample anomalous for Au, Ag, As, Sb, Hg, Te, and Ba collected from a creek draining the two southern magnetic lows provided impetus for staking claims in 2011. Magnetic derivative lows are believed to occur over areas of magnetite destruction related to hydrothermal activity that could be gold bearing.

The claims are underlain by quartzites of the Late Devonian and older Snowcap Assemblage, which is the basal member of the Yukon Tanana Terrane. The claims area has undergone pre-Reid glaciations possibly as old as or older than 500,000 years. Soils are tills and locally glaciolacustrine deposits covered by a 20 to 50 cm deep loess

Work in 2012 focussed on the collection of soils for selective leach analyses using the Mobile Metal Ion (MMI) technique with minor Ah (organic) technique. Results showed large areas containing anomalous metal values for As, Sb, Ti, and Ce over the north (#1) magnetic anomaly, anomalous values for K, Ni, Ti, Ce over portions of the central (#2) magnetic anomaly, and anomalous Ni, Zn, and lesser Cu, Ti and Ce with spotty anomalous values for As, Sb, Hg, and Ag over the south (#3 and #4) magnetic anomalies.

These results are interpreted to show a large anomalous metal footprint over the magnetic anomaly lows. The patterns of anomalous values did not provide a focus for further exploration beyond the footprint size described although more detailed soil sampling could do so. Not all elements responded

positively with the MMI selective leach analyses even in areas of rocks known to be anomalous for those elements. In the north (#1) magnetic anomaly Au and Hg response was ineffective even over areas with rocks anomalous for these elements. As and Sb were somewhat effective and could prove even more so with tighter and more extensive sampling. MMI analyses did provide more anomalous metal values over the south (#3 & #4) magnetic anomalies than the augered standard soils did in 2011. Tighter and more extensive sampling in this area could provide discrete geochemical targets.

Altered float was seen in two areas – one on the north #1 magnetic low target and one on the south magnetic low #4 target. In both areas altered angular float contained hydrothermal breccias and silicification with limonite staining. These boulders measured up to three metres in length, were subangular and abundant enough to suggest they are sourced locally. This style of alteration provided anomalous gold values in the 20 to 75 ppb range. An unexposed gold bearing structure related to the altered float described is the target for future exploration. Such a structure could mimic the magnetic anomaly axes or occur in a more random orientation.

## **RECOMMENDATIONS.**

It is recommended that:

- i) Additional soil lines be conducted to define the extent of the anomalous metal values and patterns of anomalous pathfinder elements. Sampling of additional altered float that could be more representative of a gold mineralized structure could be done at the time of soil sampling.
- ii) A VLF-EM and Magnetic susceptibility survey be conducted in order to define structures that could be mineralized.
- iii) A series of pits be dug as deep as possible on a line that crosses the magnetic anomaly low in the north #1 of the property where more residual soils were observed and the anomalous gold in rock chips occurred.
- iv) Trenching be conducted across the north #1 and South #3 and #4 magnetic low anomalies in hopes of exposing gold mineralized structures as a prelude to diamond drilling.

**STATEMENT OF COSTS 2012 (no GST)**  
**SPEC Property**

Trans North Helicopters:

June 21. Mob to SPEC Camp. #54433	\$ 2881.80
June 25. Demob off property. #55635	3096.00

Truck: Wat Lake-Dawson-Wat Lake. ½ of 1982 km @ \$0.61/km	604.51
---	--------

Geochem:

SGS - MMI soil sample assays. TO122406	2674.80
SGS - MMI soil sample assays. TO122405	2489.05
SGS – MMI soil sample assays. TO122330	482.95
Acme - Rock soil assays. VANI136506	644.28
Acme - Ah sample assays. VANI138443	40.34

Wages:

Jeff Mieras June 21-25, July 6: 6 days @ \$300/day	1800.00
Gord Richards June 21-25, July 6: 6 days @ \$600/day	3600.00

Food and supplies: 12 man days @ \$100/day	<u>1200.00</u>
--	----------------

Sub Total	\$19,513.73
-----------	-------------

Report: 10% of above costs	<u>1,951.37</u>
----------------------------	-----------------

<b>TOTAL</b>	<b>\$21,465.51</b>
--------------	--------------------

### **STATEMENT OF QUALIFICATIONS.**

I, Gordon G Richards, with business address at 6410 Holly Park Drive, B.C., V4K 4W6, do hereby certify that:

1. I am a Professional Engineer, registered with number 11,411, with the Association of Professional Engineers and Geoscientists of British Columbia since 1978.
2. I hold a B.A.Sc. (1968) in Geology from The University of British Columbia, and an M.A.Sc. (1974) in Geology from The University of British Columbia.
3. I have been practicing my profession as a geologist for over 40 years and as a consulting geological engineer since 1985. I have work experience in western areas of the United States, Alaska, Canada, Mexico and Africa.
4. I have based this report on my field work and supervision of field work by Jeff Mieras during the period of June 21 to 25, 2012 and on the results generated by that field work.
5. I have written this report based on results of the fieldwork described.

Respectfully submitted,

Gordon G Richards, P.Eng.





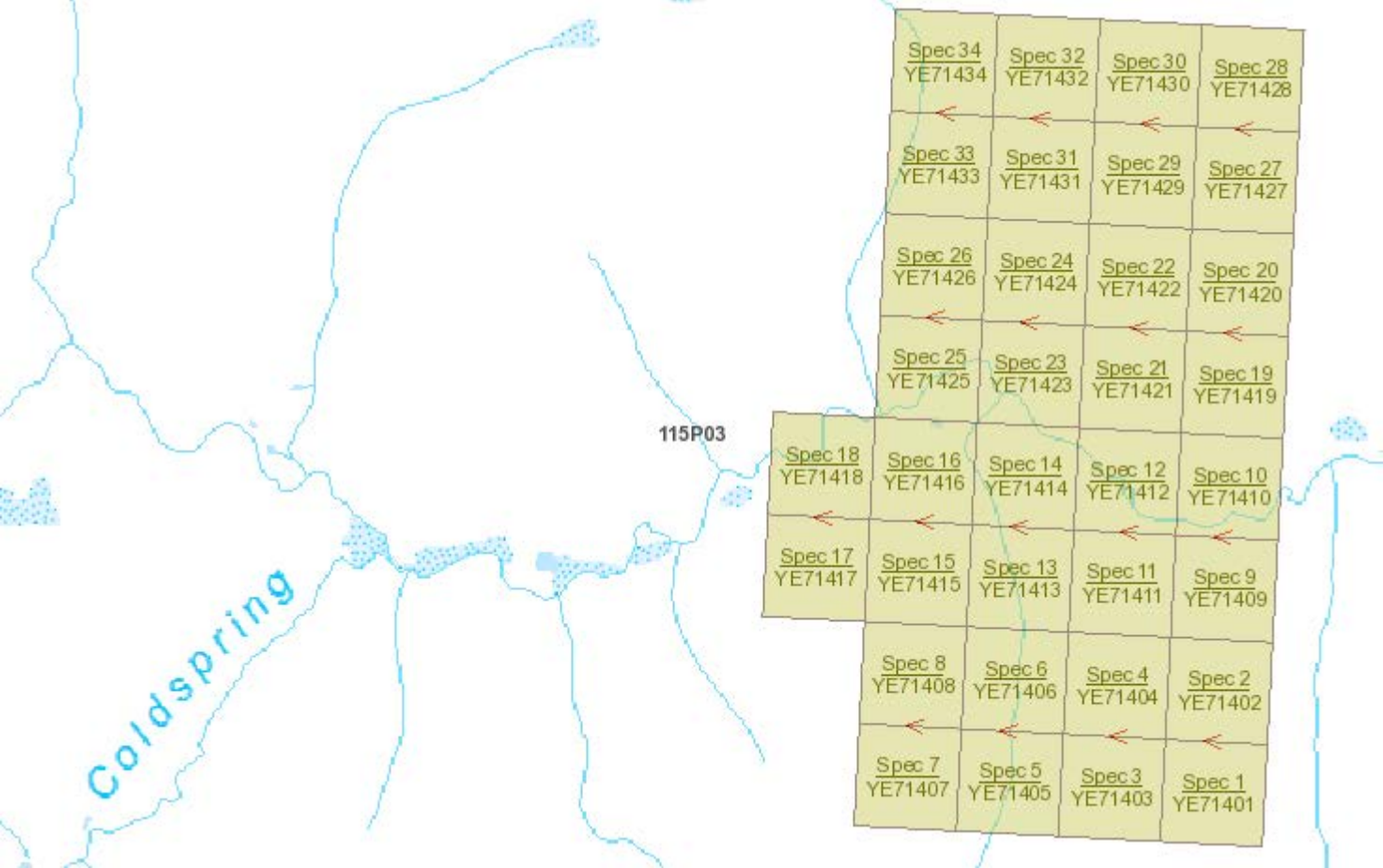
● Dawson City

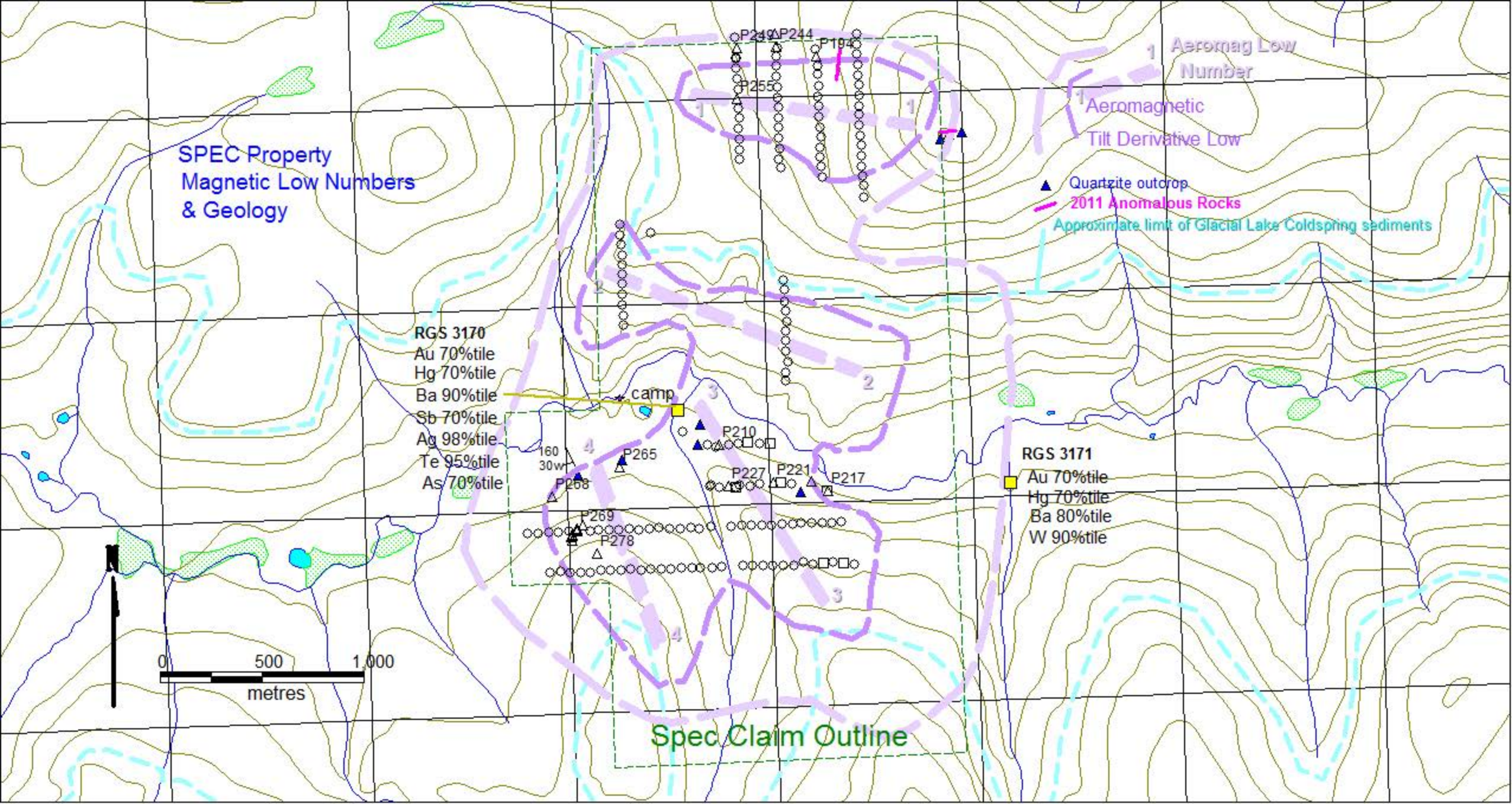
● Mayo

● SPEC Property

● Beaver Creek

● Carmacks





SPEC Property  
Magnetic Low Numbers  
& Geology

RGS 3170  
Au 70%tile  
Hg 70%tile  
Ba 90%tile  
Sb 70%tile  
Ag 98%tile  
Te 95%tile  
As 70%tile

camp

RGS 3171  
Au 70%tile  
Hg 70%tile  
Ba 80%tile  
W 90%tile

Aeromag Low  
Number  
Aeromagnetic  
Tilt Derivative Low

Quartzite outcrop  
2011 Anomalous Rocks  
Approximate limit of Glacial Lake Coldspring sediments

Spec Claim Outline



160  
30w

P210

P265

P269

P278

P227

P221

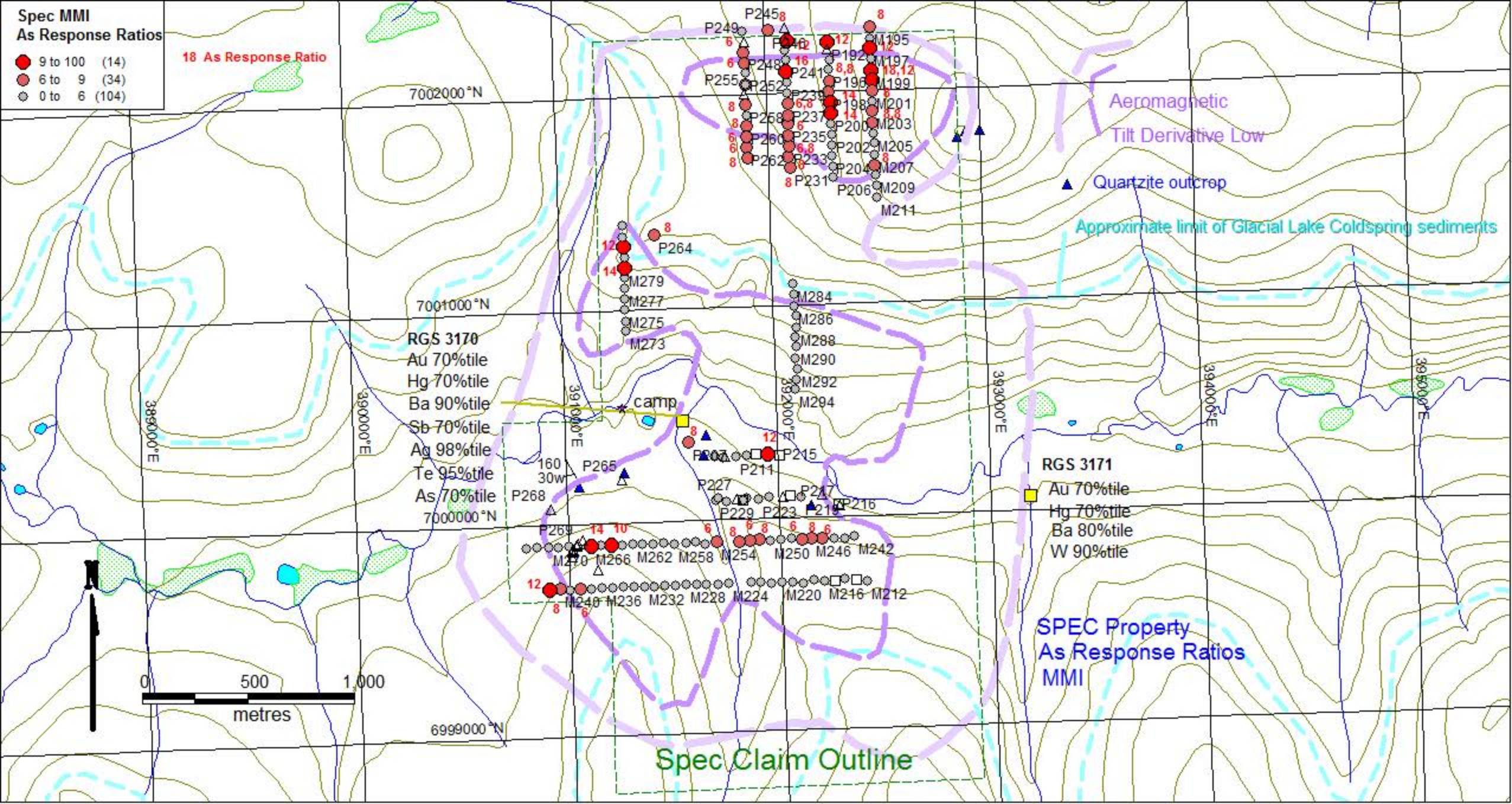
P217

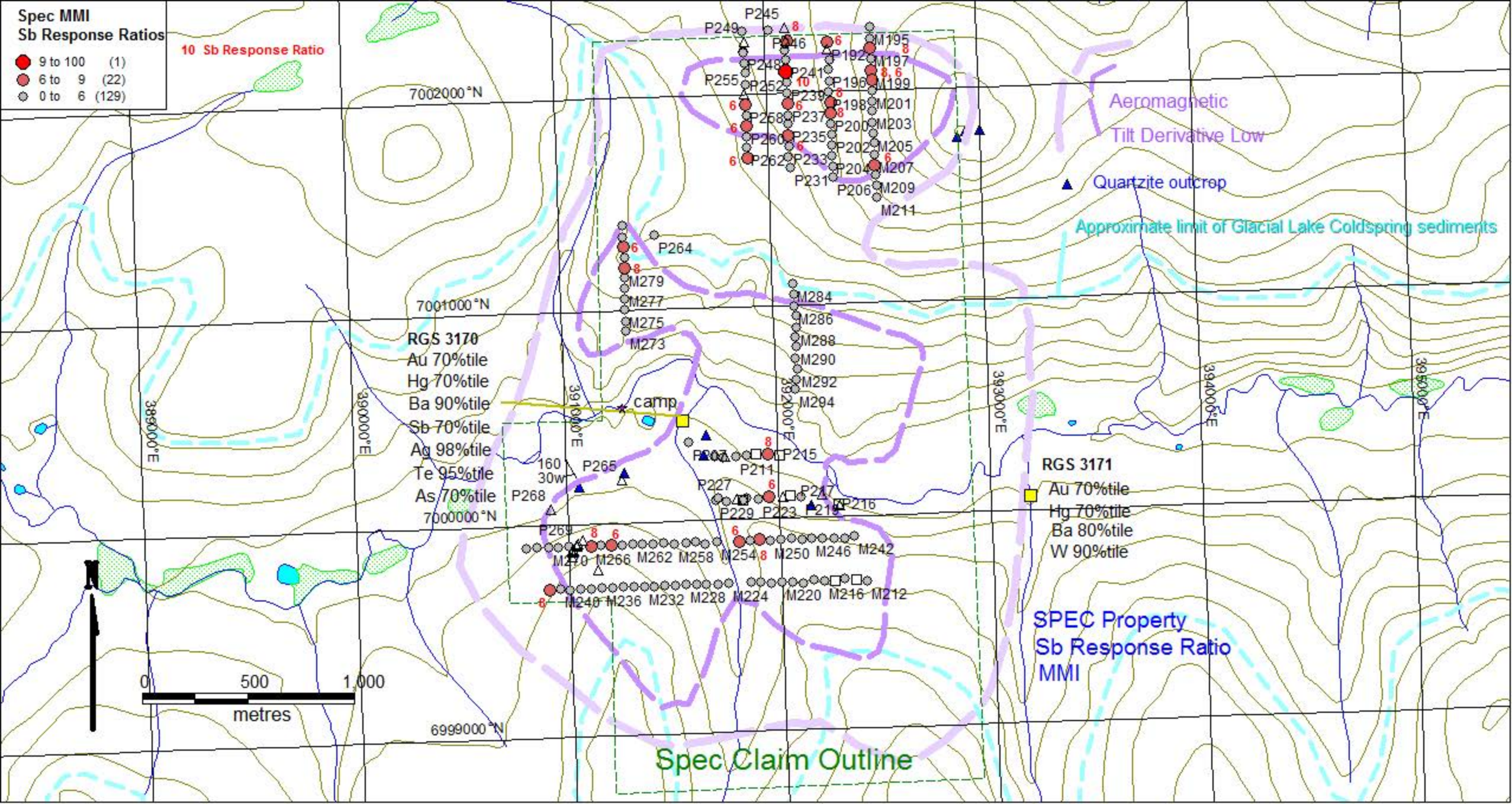
P249

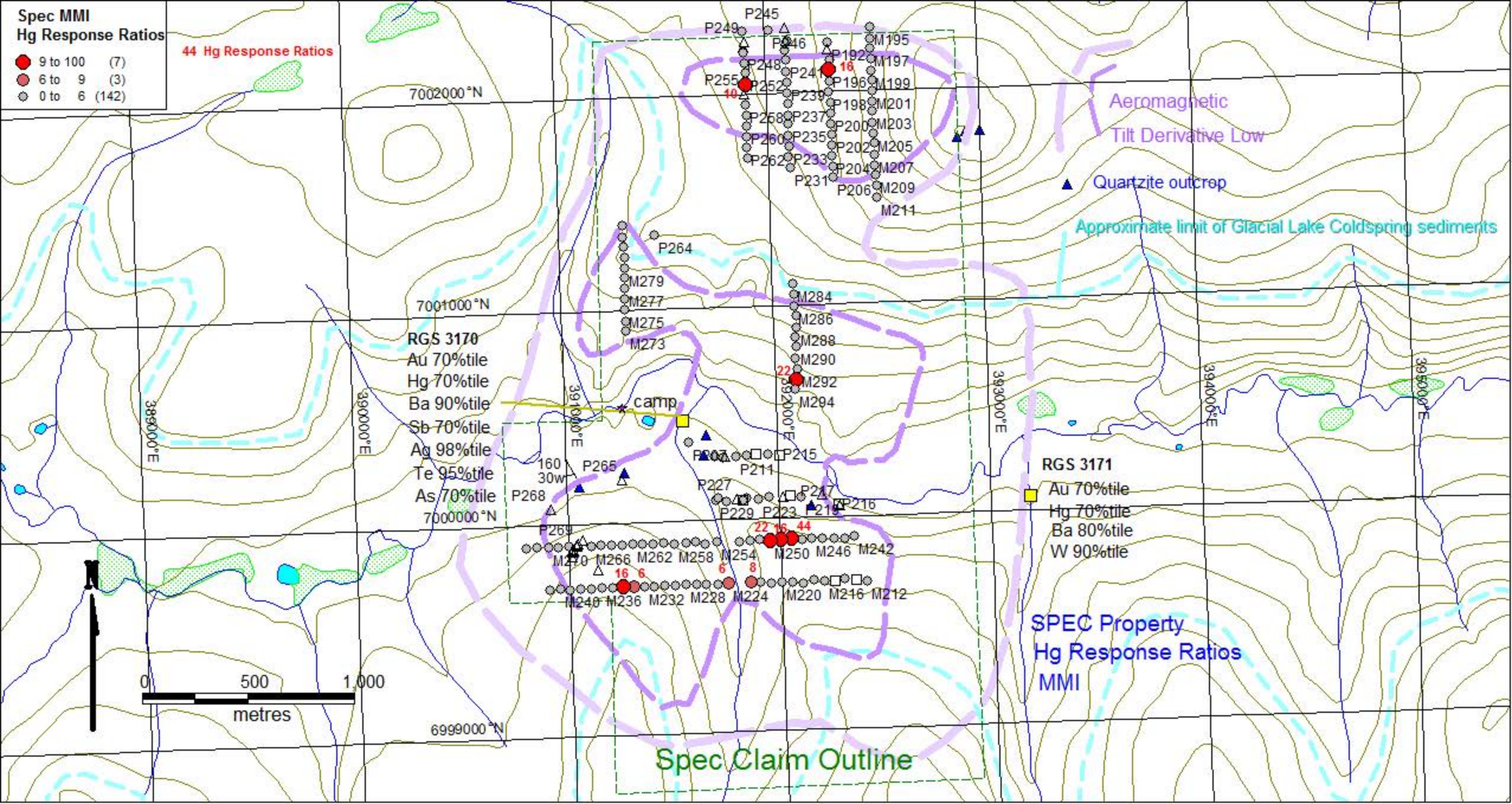
P244

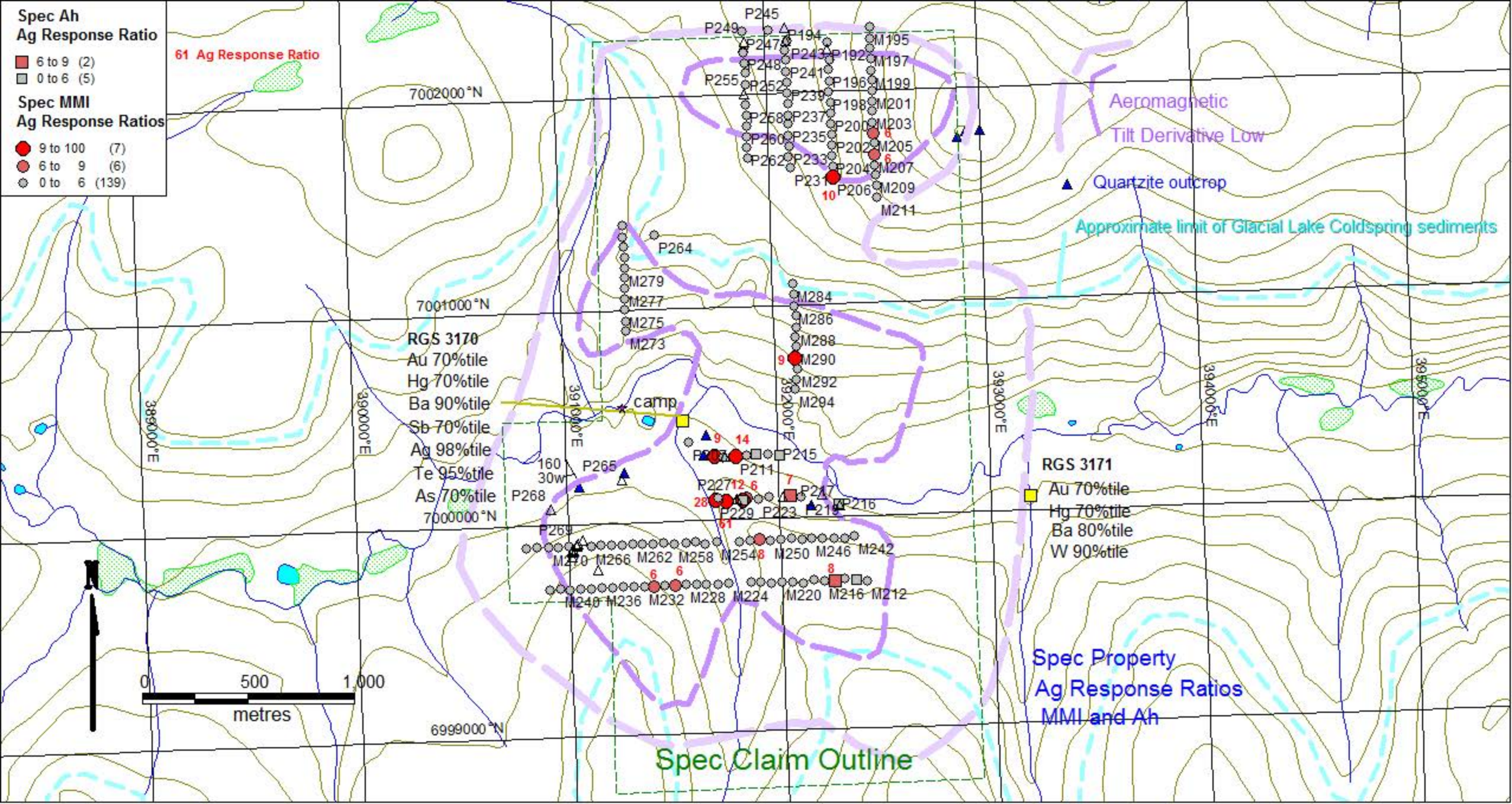
P194

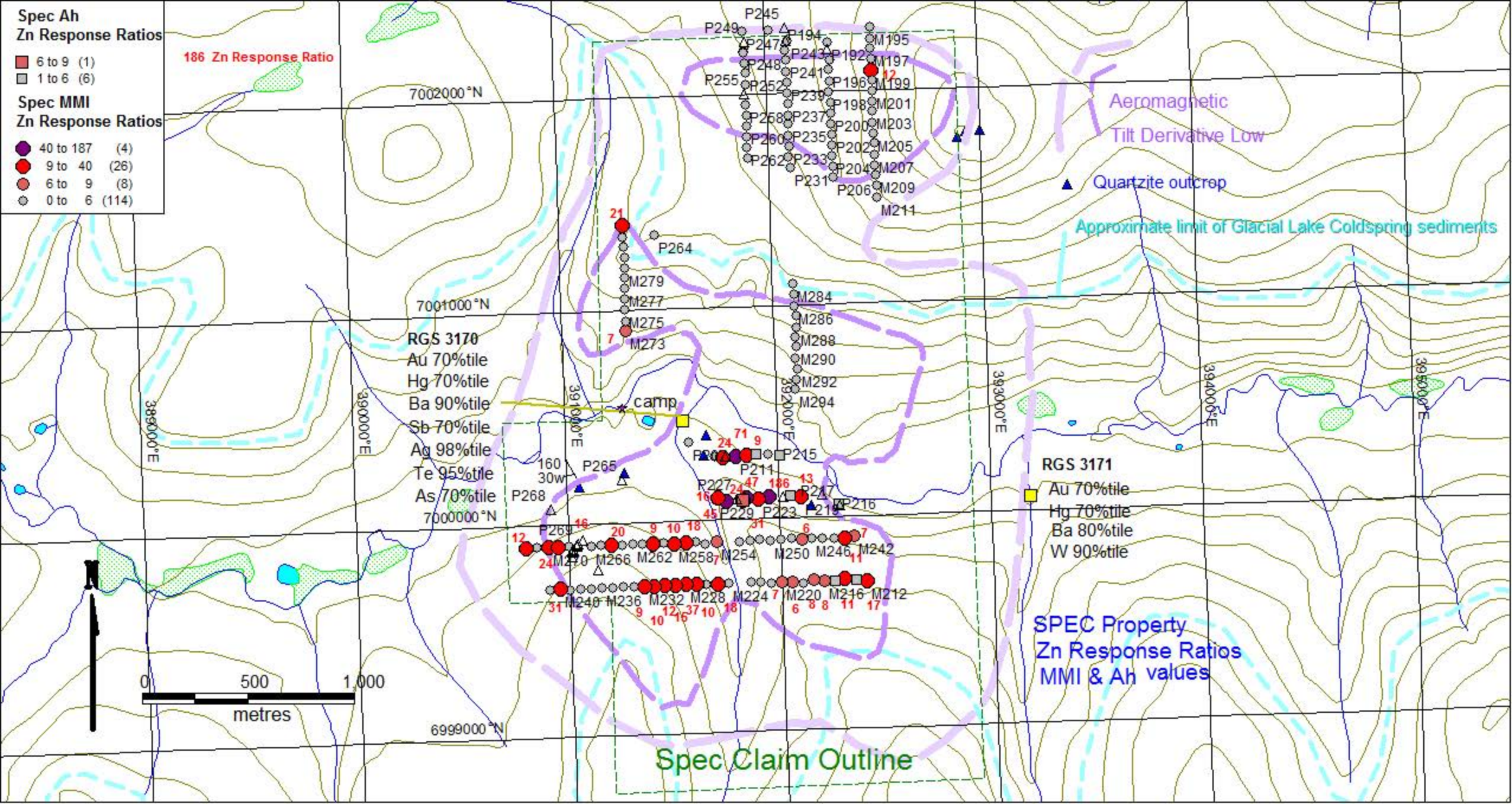
255



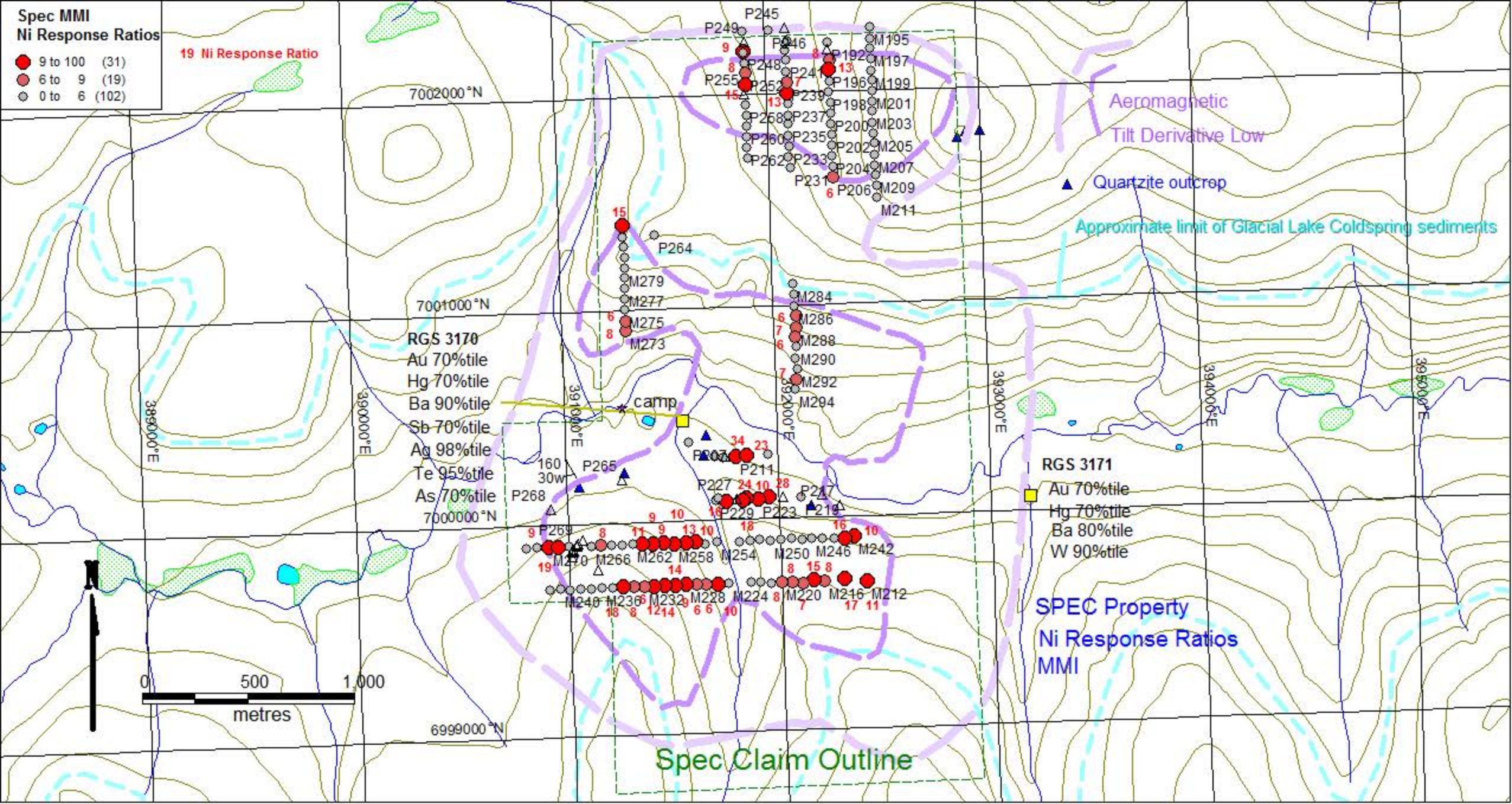


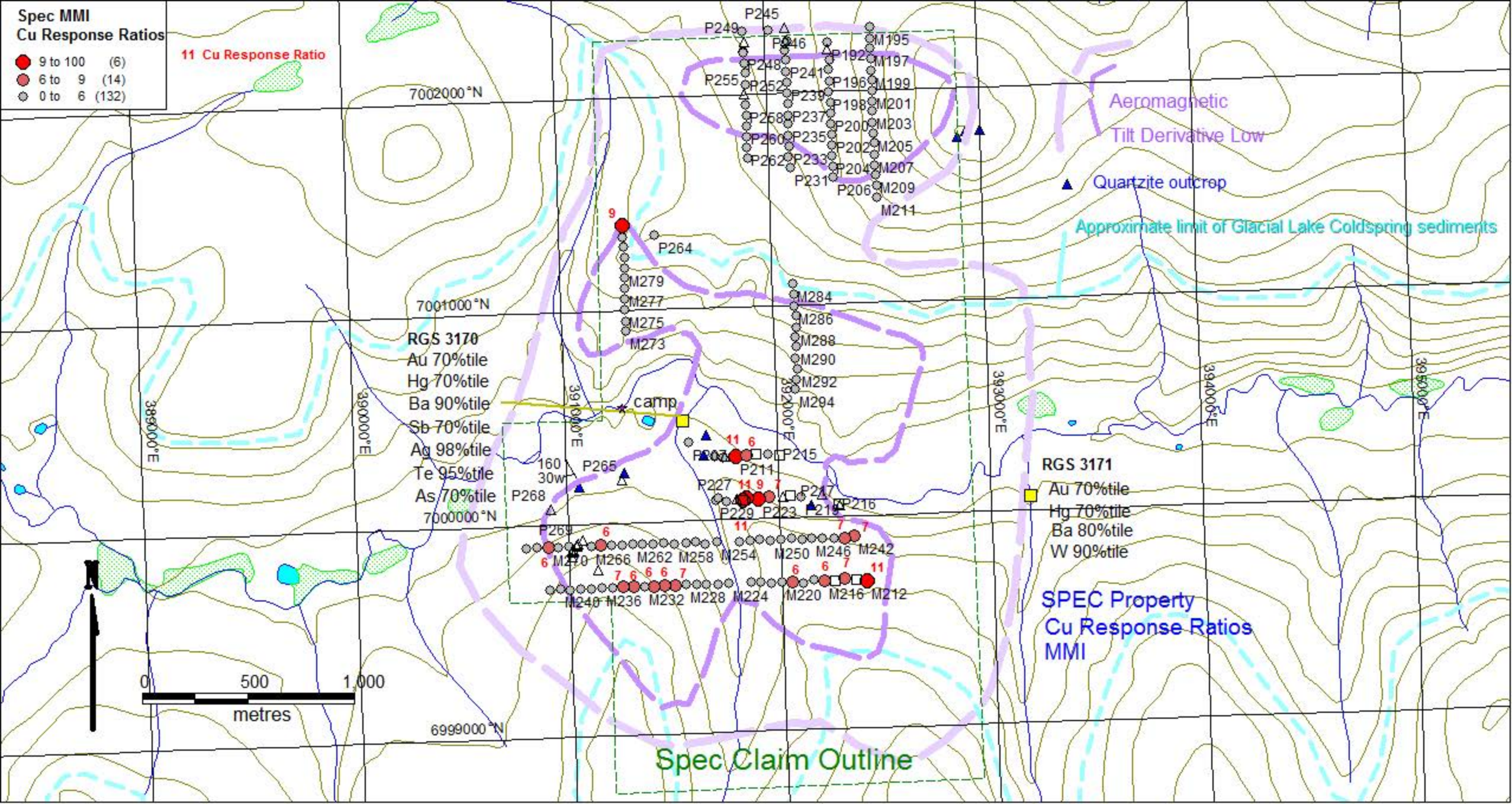


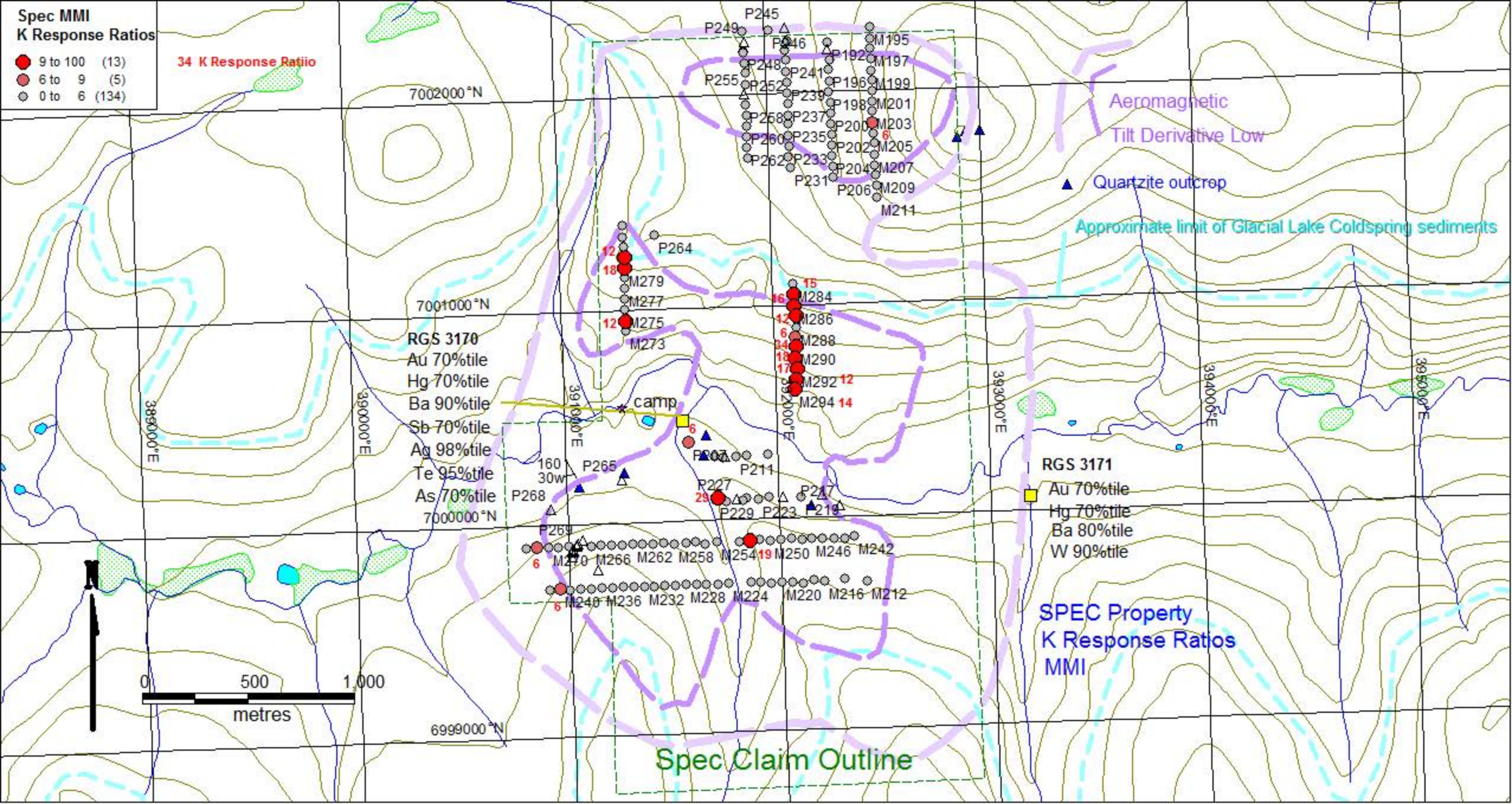


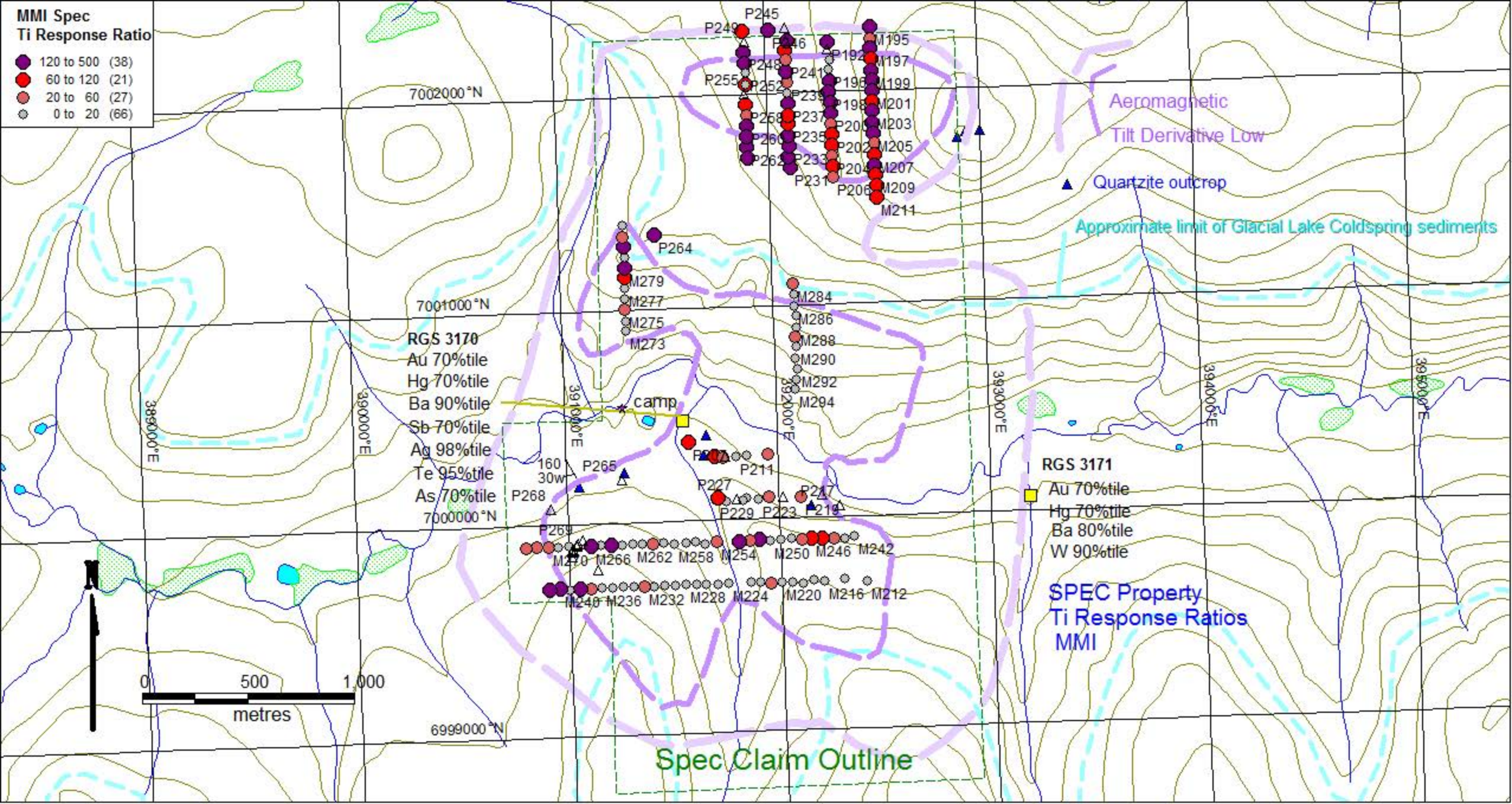


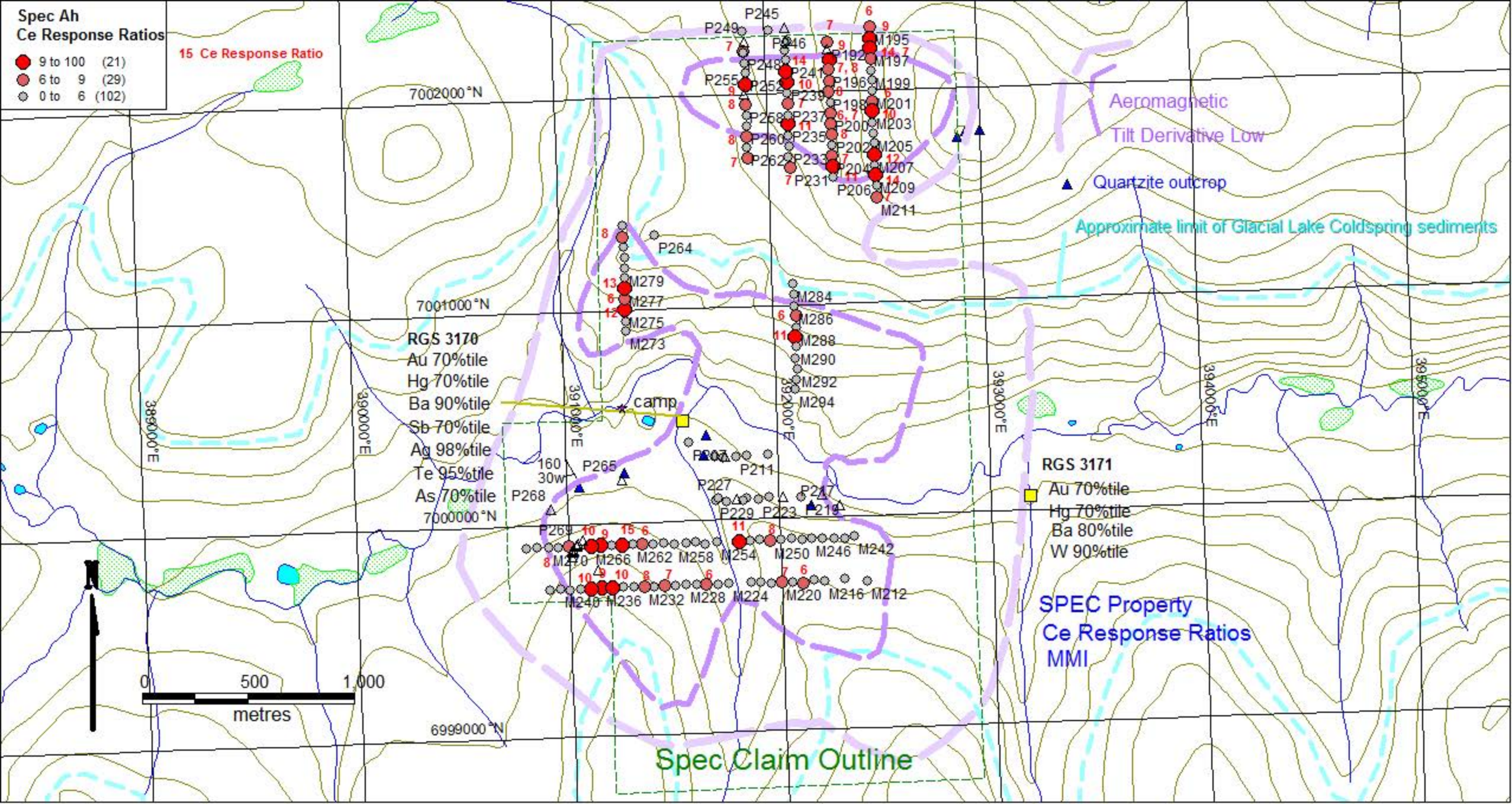








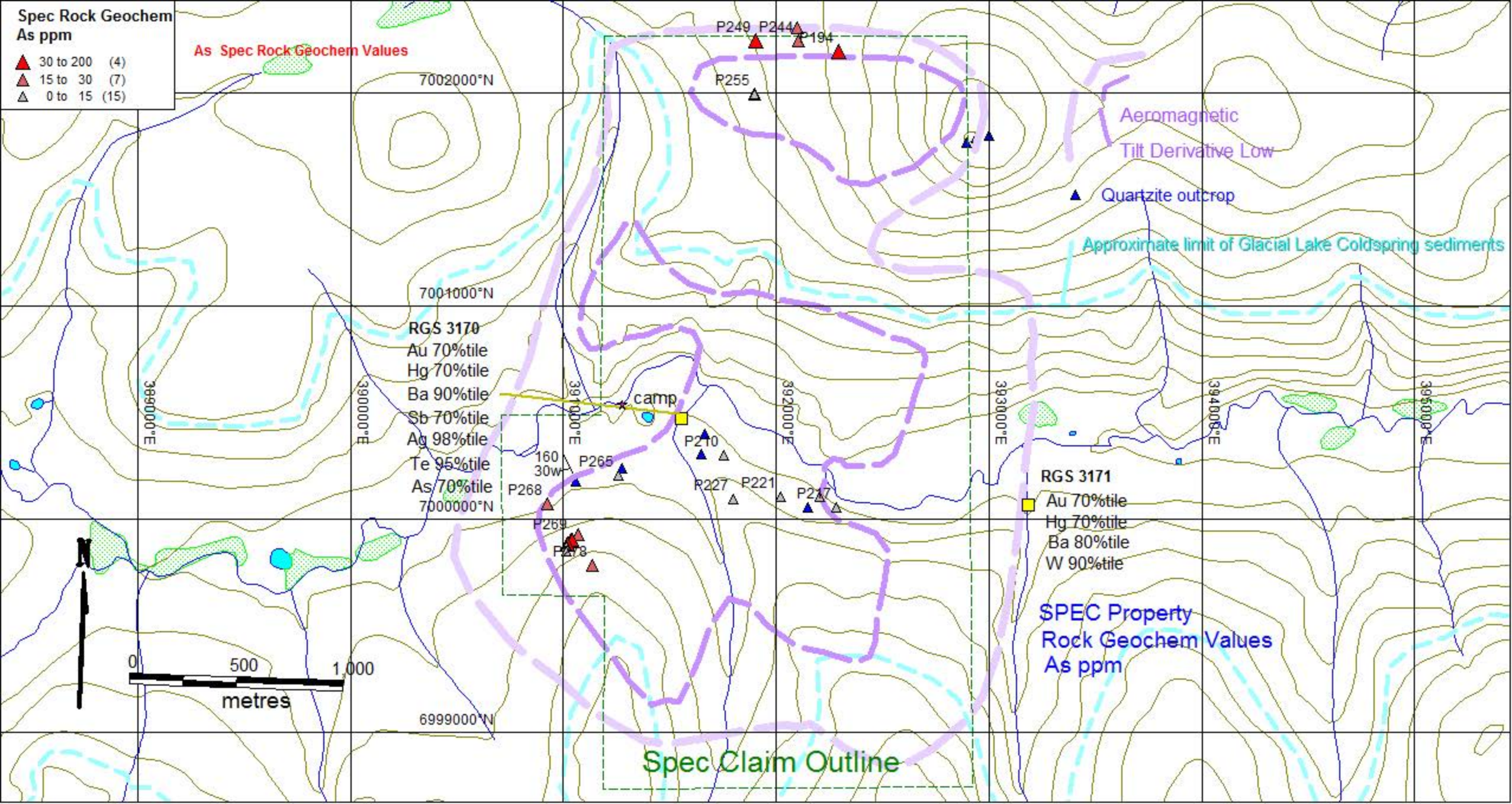




**Spec Rock Geochem  
As ppm**

- ▲ 30 to 200 (4)
- ▲ 15 to 30 (7)
- ▲ 0 to 15 (15)

**As Spec Rock Geochem Values**



RGS 3170  
Au 70%tile  
Hg 70%tile  
Ba 90%tile  
Sb 70%tile  
Ag 98%tile  
Te 95%tile  
As 70%tile  
7000000°N

RGS 3171  
Au 70%tile  
Hg 70%tile  
Ba 80%tile  
W 90%tile

SPEC Property  
Rock Geochem Values  
As ppm

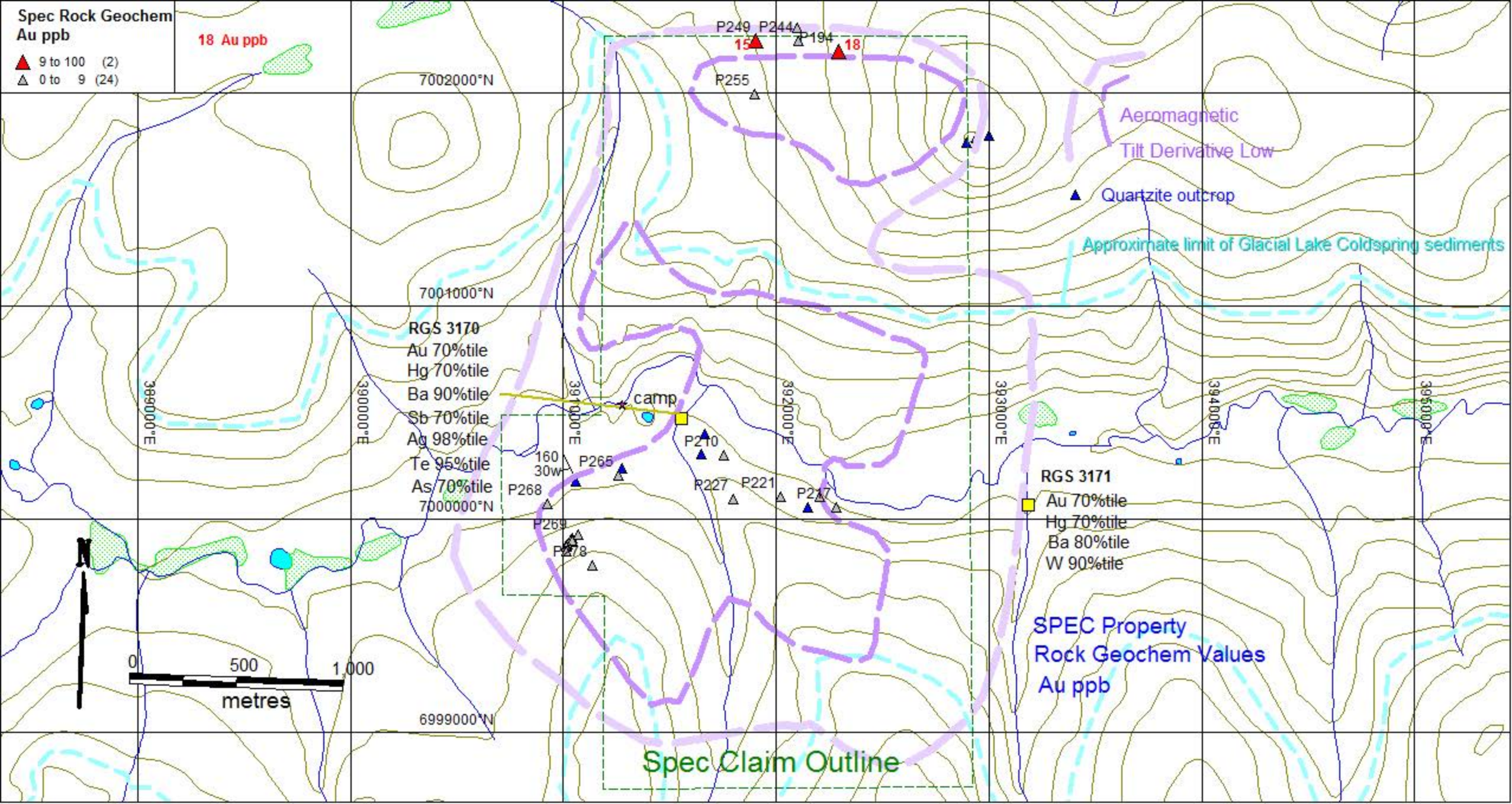
Spec Claim Outline



**Spec Rock Geochem  
Au ppb**

18 Au ppb

- ▲ 9 to 100 (2)
- △ 0 to 9 (24)



RGS 3170  
Au 70%tile  
Hg 70%tile  
Ba 90%tile  
Sb 70%tile  
Ag 98%tile  
Te 95%tile  
As 70%tile  
7000000°N

RGS 3171  
Au 70%tile  
Hg 70%tile  
Ba 80%tile  
W 90%tile

SPEC Property  
Rock Geochem Values  
Au ppb

Spec Claim Outline

Aeromagnetic  
Tilt Derivative Low

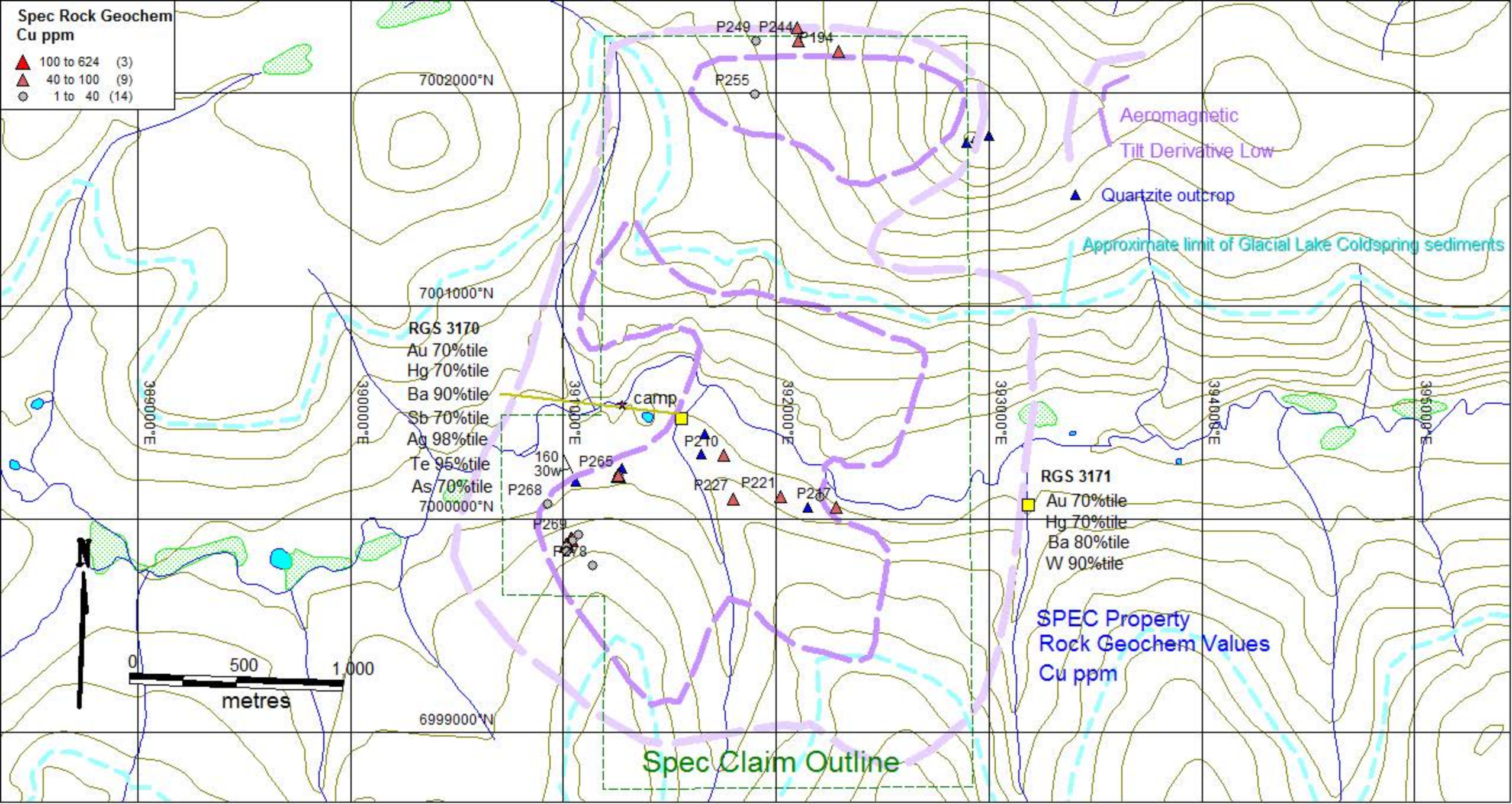
Quartzite outcrop

Approximate limit of Glacial Lake Coldspring sediments

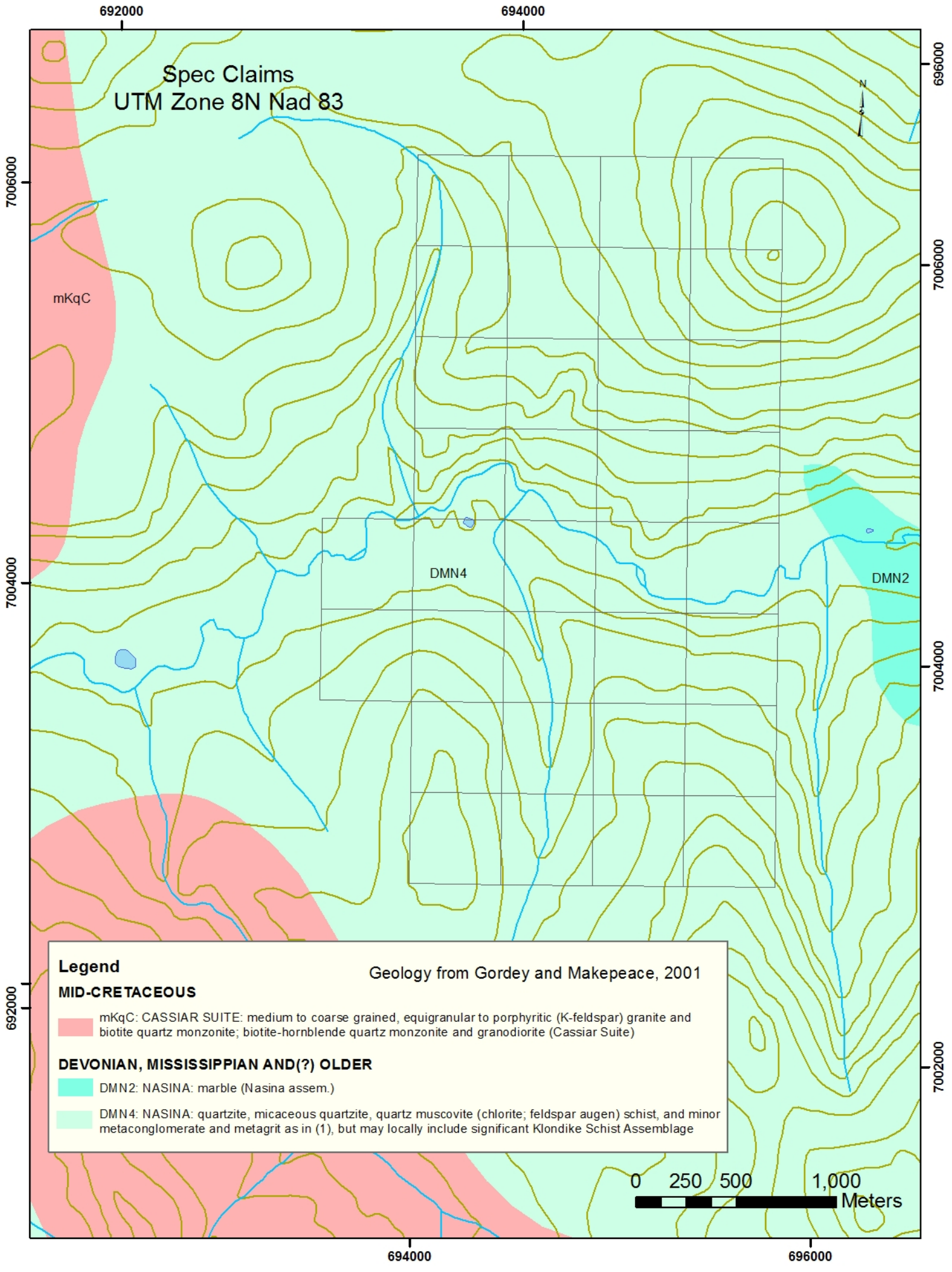
0 500 1000  
metres

**Spec Rock Geochem  
Cu ppm**

- ▲ 100 to 624 (3)
- ▲ 40 to 100 (9)
- 1 to 40 (14)









1020 Cordova St. East Vancouver BC V6A 4A3 Canada

Acme Analytical Laboratories (Vancouver) Ltd.

www.acmelab.com

Client: Richards, Gordon
6410 Holly Park Drive
Delta BC V4K 4W6 Canada

Submitted By: Gordon Richards
Receiving Lab: Canada-Dawson City
Received: June 27, 2012
Report Date: August 04, 2012
Page: 1 of 2

CERTIFICATE OF ANALYSIS

DAW12000058.1

CLIENT JOB INFORMATION

Project: SPEC
Shipment ID:
P.O. Number
Number of Samples: 7

SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days
DISP-RJT-SOIL Immediate Disposal of Soil Reject

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: Richards, Gordon
6410 Holly Park Drive
Delta BC V4K 4W6
Canada

CC:

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Table with 6 columns: Method Code, Number of Samples, Code Description, Test Wgt (g), Report Status, Lab. Rows include Dry at 60C, SS80, and 1F05.

ADDITIONAL COMMENTS



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted. \*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



Acme Analytical Laboratories (Vancouver) Ltd.  
 1020 Cordova St. East Vancouver BC V6A 4A3 Canada  
 Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: **Richards, Gordon**  
 6410 Holly Park Drive  
 Delta BC V4K 4W6 Canada

Project: SPEC  
 Report Date: August 04, 2012

Page: 2 of 2

Part: 1 of 3

CERTIFICATE OF ANALYSIS

DAW12000058.1

Method	Analyte	1F15 Mo	1F15 Cu	1F15 Pb	1F15 Zn	1F15 Ag	1F15 Ni	1F15 Co	1F15 Mn	1F15 Fe	1F15 As	1F15 U	1F15 Au	1F15 Th	1F15 Sr	1F15 Cd	1F15 Sb	1F15 Bi	1F15 V	1F15 Ca	1F15 P
Unit		ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
MDL		0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	2	0.01	0.001
M213	Soil	0.75	19.83	4.28	38.6	168	14.8	4.1	410	1.02	3.2	0.5	4.9	0.4	112.3	0.66	0.52	0.16	15	2.19	0.076
M215	Soil	1.23	38.23	15.28	44.4	624	29.8	7.2	92	1.61	3.1	1.3	2.6	<0.1	45.1	1.59	0.50	0.15	17	0.48	0.113
P213	Soil	1.06	20.54	4.58	43.6	135	18.8	12.0	1101	1.52	4.5	0.9	2.5	0.7	73.4	0.28	0.54	0.09	23	1.35	0.074
P215	Soil	3.23	32.21	3.61	28.4	272	23.7	7.6	3585	1.01	3.3	0.7	3.7	0.3	108.2	1.29	1.52	0.07	11	3.06	0.129
P216	Soil	1.58	26.73	2.76	64.3	320	21.9	8.3	1241	1.13	3.4	1.0	3.0	0.3	85.5	1.31	1.34	0.07	15	2.15	0.130
P220	Soil	7.96	49.70	5.96	48.2	732	24.9	20.8	739	1.49	4.7	2.6	3.3	0.2	81.9	2.01	1.27	0.09	19	0.96	0.124
P226	Soil	1.12	32.49	3.29	153.0	444	51.5	6.4	441	1.19	2.5	5.8	1.9	0.4	72.9	2.09	0.77	0.12	37	3.88	0.106



Acme Analytical Laboratories (Vancouver) Ltd.  
 1020 Cordova St. East Vancouver BC V6A 4A3 Canada  
 Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: **Richards, Gordon**  
 6410 Holly Park Drive  
 Delta BC V4K 4W6 Canada

Project: SPEC  
 Report Date: August 04, 2012

Page: 2 of 2

Part: 2 of 3

CERTIFICATE OF ANALYSIS

DAW12000058.1

Method	Analyte	1F15 La ppm	1F15 Cr ppm	1F15 Mg %	1F15 Ba ppm	1F15 Ti %	1F15 B ppm	1F15 Al %	1F15 Na %	1F15 K %	1F15 W ppm	1F15 Sc ppm	1F15 Ti ppm	1F15 S %	1F15 Hg ppb	1F15 Se ppm	1F15 Te ppm	1F15 Ga ppm	1F15 Cs ppm	1F15 Ge ppm	1F15 Hf ppm
	Unit	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02
	MDL																				
M213	Soil	4.6	11.8	0.39	364.7	0.016	4	0.54	0.020	0.03	<0.1	1.5	0.05	0.13	87	0.7	<0.02	1.7	0.28	<0.1	0.05
M215	Soil	15.7	14.6	0.14	718.0	0.006	2	0.97	0.022	0.07	0.1	0.8	0.04	0.08	129	1.2	0.03	2.7	0.36	<0.1	<0.02
P213	Soil	9.9	16.5	0.30	472.8	0.025	2	0.79	0.012	0.03	<0.1	2.3	0.06	0.07	59	0.6	<0.02	2.4	0.41	<0.1	0.05
P215	Soil	8.0	12.3	0.17	696.2	0.011	4	0.65	0.012	0.02	<0.1	1.1	0.06	0.17	96	2.1	0.04	1.4	0.20	<0.1	0.10
P216	Soil	7.4	11.7	0.21	511.9	0.011	5	0.56	0.012	0.02	0.1	1.2	0.04	0.16	97	1.0	0.02	1.3	0.26	<0.1	0.04
P220	Soil	8.7	12.5	0.19	558.9	0.012	3	0.56	0.013	0.03	0.1	2.1	0.10	0.14	139	2.3	0.02	1.5	0.57	<0.1	0.02
P226	Soil	7.7	23.1	0.36	1080	0.022	4	0.86	0.011	0.03	<0.1	1.6	0.12	0.13	88	2.9	0.03	2.5	0.83	<0.1	0.08



Acme Analytical Laboratories (Vancouver) Ltd.  
 1020 Cordova St. East Vancouver BC V6A 4A3 Canada  
 Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: **Richards, Gordon**  
 6410 Holly Park Drive  
 Delta BC V4K 4W6 Canada

Project: SPEC  
 Report Date: August 04, 2012

Page: 2 of 2

Part: 3 of 3

CERTIFICATE OF ANALYSIS

DAW12000058.1

Method	Analyte	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	
		Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
MDL		0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
M213	Soil	0.57	3.7	2.3	<0.05	2.3	4.01	8.4	0.03	<1	0.3	3.4	<10	<2
M215	Soil	0.50	3.6	14.1	<0.05	0.3	11.61	30.4	0.03	<1	0.9	2.2	<10	<2
P213	Soil	0.81	4.3	1.4	<0.05	1.9	8.36	17.8	<0.02	<1	0.5	5.5	<10	<2
P215	Soil	0.52	1.3	2.3	<0.05	3.8	9.04	17.6	<0.02	<1	0.5	1.6	12	<2
P216	Soil	0.49	2.3	0.5	<0.05	2.0	7.96	12.7	<0.02	2	0.4	2.6	<10	<2
P220	Soil	0.53	3.2	1.5	<0.05	1.0	10.13	18.1	<0.02	<1	0.3	2.2	<10	<2
P226	Soil	0.91	3.6	0.8	<0.05	3.8	8.56	13.4	<0.02	<1	0.2	5.3	12	<2



Acme Analytical Laboratories (Vancouver) Ltd.

1020 Cordova St. East Vancouver BC V6A 4A3 Canada

Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: **Richards, Gordon**

6410 Holly Park Drive  
Delta BC V4K 4W6 Canada

Project: SPEC

Report Date: August 04, 2012

Page: 1 of 1

Part: 1 of 3

## QUALITY CONTROL REPORT

DAW12000058.1

Method	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15
Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	2	0.01	0.001	
Pulp Duplicates																					
P215	Soil	3.23	32.21	3.61	28.4	272	23.7	7.6	3585	1.01	3.3	0.7	3.7	0.3	108.2	1.29	1.52	0.07	11	3.06	0.129
REP P215	QC	3.22	32.17	2.94	29.8	283	23.3	7.5	3847	1.10	2.9	0.7	3.8	0.4	108.1	1.23	1.51	0.07	11	3.05	0.128
P226	Soil	1.12	32.49	3.29	153.0	444	51.5	6.4	441	1.19	2.5	5.8	1.9	0.4	72.9	2.09	0.77	0.12	37	3.88	0.106
REP P226	QC	1.18	33.81	3.46	161.5	478	54.6	6.9	466	1.28	2.3	6.0	3.1	0.5	69.5	2.08	0.82	0.10	39	3.93	0.114
Reference Materials																					
STD DS9	Standard	13.53	102.0	129.6	303.4	1931	41.2	7.5	605	2.31	24.2	2.5	122.9	5.8	73.0	2.26	5.08	6.33	35	0.72	0.081
STD DS9 Expected		12.84	108	126	317	1830	40.3	7.6	575	2.33	25.5	2.69	118	6.38	69.6	2.4	4.94	6.32	40	0.7201	0.0819
BLK	Blank	<0.01	<0.01	<0.01	<0.1	6	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<2	<0.01	<0.001



Acme Analytical Laboratories (Vancouver) Ltd.

1020 Cordova St. East Vancouver BC V6A 4A3 Canada

Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: **Richards, Gordon**

6410 Holly Park Drive  
Delta BC V4K 4W6 Canada

Project: SPEC

Report Date: August 04, 2012

Page: 1 of 1

Part: 2 of 3

## QUALITY CONTROL REPORT

DAW12000058.1

Method	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	
Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge	Hf	
Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm	
MDL	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02	
Pulp Duplicates																					
P215	Soil	8.0	12.3	0.17	696.2	0.011	4	0.65	0.012	0.02	<0.1	1.1	0.06	0.17	96	2.1	0.04	1.4	0.20	<0.1	0.10
REP P215	QC	8.0	12.9	0.17	714.8	0.016	4	0.68	0.012	0.02	<0.1	1.5	0.06	0.18	90	2.2	<0.02	1.5	0.26	<0.1	0.10
P226	Soil	7.7	23.1	0.36	1080	0.022	4	0.86	0.011	0.03	<0.1	1.6	0.12	0.13	88	2.9	0.03	2.5	0.83	<0.1	0.08
REP P226	QC	7.9	24.2	0.37	1110	0.028	5	0.83	0.011	0.04	0.1	1.9	0.17	0.14	83	3.2	0.09	2.7	1.05	<0.1	0.08
Reference Materials																					
STD DS9	Standard	12.4	124.2	0.62	318.7	0.110	2	0.96	0.080	0.39	3.2	2.6	5.77	0.16	217	5.4	5.23	4.8	2.58	<0.1	0.09
STD DS9 Expected		13.3	121	0.6165	295	0.1108		0.9577	0.0853	0.395	2.89	2.5	5.3	0.1615	200	5.2	5.02	4.59	2.37	0.1	0.08
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1	<0.02	<0.1	<0.02



Acme Analytical Laboratories (Vancouver) Ltd.  
 1020 Cordova St. East Vancouver BC V6A 4A3 Canada  
 Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: **Richards, Gordon**  
 6410 Holly Park Drive  
 Delta BC V4K 4W6 Canada

Project: SPEC  
 Report Date: August 04, 2012

Page: 1 of 1

Part: 3 of 3

QUALITY CONTROL REPORT

DAW12000058.1

Method		1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15
Analyte		Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
MDL		0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
Pulp Duplicates														
P215	Soil	0.52	1.3	2.3	<0.05	3.8	9.04	17.6	<0.02	<1	0.5	1.6	12	<2
REP P215	QC	0.52	1.5	1.3	<0.05	3.8	8.98	17.6	<0.02	2	0.6	1.7	<10	<2
P226	Soil	0.91	3.6	0.8	<0.05	3.8	8.56	13.4	<0.02	<1	0.2	5.3	12	<2
REP P226	QC	0.89	4.5	0.7	<0.05	3.6	8.70	14.0	<0.02	<1	0.4	5.5	<10	2
Reference Materials														
STD DS9	Standard	1.34	33.0	5.9	<0.05	1.9	5.84	23.3	2.04	71	5.8	25.1	133	380
STD DS9 Expected		1.33	33.8	6.4	0.004	2	5.97	25.4	2.2	61	5.4	25.2	120	350
BLK	Blank	<0.02	<0.1	<0.1	<0.05	<0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2





1020 Cordova St. East Vancouver BC V6A 4A3 Canada

Acme Analytical Laboratories (Vancouver) Ltd.

[www.acmelab.com](http://www.acmelab.com)

**Client:** **Richards, Gordon**  
6410 Holly Park Drive  
Delta BC V4K 4W6 Canada

Submitted By: Gordon Richards  
Receiving Lab: Canada-Whitehorse  
Received: June 29, 2012  
Report Date: July 23, 2012  
Page: 1 of 2

## CERTIFICATE OF ANALYSIS

WHI12000198.1

### CLIENT JOB INFORMATION

Project: SPEC  
Shipment ID:  
P.O. Number  
Number of Samples: 26

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	26	Crush, split and pulverize 250 g rock to 200 mesh			WHI
1DX2	26	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN

### SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days  
DISP-RJT Dispose of Reject After 90 days

### ADDITIONAL COMMENTS

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: Richards, Gordon  
6410 Holly Park Drive  
Delta BC V4K 4W6  
Canada

CC:



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted. \*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



Acme Analytical Laboratories (Vancouver) Ltd.  
 1020 Cordova St. East Vancouver BC V6A 4A3 Canada  
 Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: **Richards, Gordon**  
 6410 Holly Park Drive  
 Delta BC V4K 4W6 Canada

Project: SPEC  
 Report Date: July 23, 2012

Page: 2 of 2

Part: 1 of 2

CERTIFICATE OF ANALYSIS

WHI12000198.1

Method	Analyte	WGHT	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
		Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
Unit	MDL	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
P194	Rock	0.21	0.7	73.6	18.8	7	0.3	1.9	0.5	50	2.58	148.6	17.5	0.3	7	<0.1	6.2	<0.1	59	<0.01	0.038
P210	Rock	0.13	39.4	66.6	3.8	355	0.5	112.4	2.5	44	1.07	1.2	3.7	1.2	6	0.8	1.2	0.1	106	0.16	0.088
P217	Rock	0.23	2.7	49.9	4.5	74	2.4	18.1	0.9	23	0.87	6.1	3.6	1.0	29	0.7	2.7	<0.1	26	0.21	0.113
P218	Rock	0.15	0.6	7.4	0.9	7	0.2	2.6	0.2	49	0.49	0.8	1.1	0.2	13	<0.1	0.5	<0.1	4	<0.01	0.008
P221	Rock	0.38	7.9	63.6	8.1	228	0.6	47.2	2.8	61	2.36	5.4	4.6	5.5	9	0.5	2.3	0.2	24	0.02	0.052
P227	Rock	0.35	8.1	59.8	3.4	241	0.5	63.1	5.0	127	2.11	1.3	0.7	2.0	30	1.1	0.8	<0.1	75	0.62	0.237
P244	Rock	0.16	0.7	57.3	3.3	8	<0.1	1.5	0.4	45	1.96	15.0	1.1	0.4	22	<0.1	0.9	<0.1	14	<0.01	0.028
P245	Rock	0.35	0.9	73.2	3.1	9	<0.1	1.2	0.3	40	2.07	19.6	1.1	0.3	13	<0.1	1.5	<0.1	31	<0.01	0.050
P249	Rock	0.17	0.6	23.7	3.2	5	0.3	1.5	0.5	51	0.87	53.1	14.8	0.5	3	<0.1	2.7	0.3	9	<0.01	0.010
P255	Rock	0.17	0.3	22.3	4.7	6	0.1	1.5	0.3	71	0.71	14.0	0.8	0.3	12	<0.1	2.3	<0.1	4	<0.01	0.012
P256	Rock	0.18	1.7	25.5	17.9	15	<0.1	1.7	0.6	86	1.29	17.6	1.3	0.2	59	<0.1	2.0	<0.1	16	0.01	0.044
P257	Rock	0.09	0.6	11.0	2.1	7	<0.1	2.5	3.0	235	0.77	10.0	2.0	0.5	4	<0.1	0.8	<0.1	8	0.01	0.009
P265	Rock	0.13	14.0	623.1	3.1	345	0.2	102.2	8.3	103	7.14	10.0	3.8	3.7	8	3.2	2.6	0.1	68	0.02	0.152
P266	Rock	0.17	1.1	20.8	6.5	9	0.4	3.8	0.3	23	0.50	7.0	2.7	1.1	6	0.2	0.8	0.1	3	<0.01	0.010
P267	Rock	0.23	4.9	76.6	1.2	70	0.2	27.5	2.1	46	1.77	9.4	4.1	1.8	18	0.9	3.2	<0.1	32	0.01	0.068
P268	Rock	0.16	0.6	14.0	0.7	8	<0.1	6.2	1.3	53	1.20	20.5	0.7	0.3	2	<0.1	0.5	<0.1	2	<0.01	0.009
P269	Rock	0.18	0.4	9.3	1.4	10	<0.1	6.8	13.0	147	0.70	3.0	1.5	0.5	2	<0.1	0.3	<0.1	6	<0.01	0.009
P270	Rock	0.22	0.3	12.3	0.6	6	<0.1	6.7	9.8	139	0.52	2.7	1.8	0.2	1	<0.1	0.7	<0.1	2	0.01	0.011
P271	Rock	0.25	0.4	24.0	1.0	21	0.1	10.1	4.4	111	0.58	21.7	1.0	0.3	3	<0.1	0.4	<0.1	4	<0.01	0.006
P272	Rock	0.25	4.7	112.3	8.6	146	0.7	98.8	30.7	3403	18.73	20.1	4.6	3.2	4	0.5	1.0	0.2	31	0.01	0.047
P273	Rock	0.22	0.4	37.6	4.1	10	<0.1	158.5	40.7	69	0.54	32.2	2.8	1.2	1	<0.1	1.9	0.2	8	<0.01	0.008
P274	Rock	0.24	1.0	77.8	32.4	20	0.2	75.9	27.0	79	1.20	54.0	1.7	2.0	4	<0.1	6.4	0.2	6	<0.01	0.013
P275	Rock	0.18	33.1	164.6	9.4	56	0.4	84.4	23.0	95	2.72	10.2	0.5	1.8	4	0.2	4.7	<0.1	10	<0.01	0.022
P276	Rock	0.20	0.4	12.6	1.5	8	<0.1	9.2	3.7	101	0.62	3.7	<0.5	0.4	1	<0.1	0.6	<0.1	4	<0.01	0.008
P277	Rock	0.32	0.6	17.0	3.5	11	<0.1	10.3	4.6	211	0.69	2.5	2.1	0.5	1	<0.1	0.5	<0.1	6	0.02	0.012
P278	Rock	0.18	3.5	33.3	1.3	22	<0.1	21.3	5.6	207	2.62	15.1	2.5	0.4	1	0.2	1.8	<0.1	8	<0.01	0.023



Acme Analytical Laboratories (Vancouver) Ltd.  
 1020 Cordova St. East Vancouver BC V6A 4A3 Canada  
 Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: **Richards, Gordon**  
 6410 Holly Park Drive  
 Delta BC V4K 4W6 Canada

Project: SPEC  
 Report Date: July 23, 2012

Page: 2 of 2

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI12000198.1

Method	Analyte	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.01	0.01	0.01	0.05	1	0.5	0.2	
P194	Rock	1	13	<0.01	58	0.002	<1	0.10	0.002	0.05	<0.1	0.10	1.6	<0.1	<0.05	1	1.6	<0.2
P210	Rock	8	6	0.04	251	0.003	<1	0.24	0.003	0.09	0.5	0.09	0.9	0.1	<0.05	<1	7.4	<0.2
P217	Rock	4	8	0.01	580	0.005	2	0.15	0.003	0.06	0.3	0.08	0.5	<0.1	<0.05	<1	5.4	<0.2
P218	Rock	<1	3	<0.01	86	<0.001	9	0.12	0.001	0.04	0.2	<0.01	0.2	0.1	<0.05	<1	1.1	<0.2
P221	Rock	14	7	0.04	266	0.002	<1	0.31	0.002	0.13	0.2	0.03	2.4	0.2	0.05	<1	2.9	<0.2
P227	Rock	9	14	0.06	609	0.078	<1	0.43	0.006	0.07	0.4	0.02	1.8	0.1	<0.05	1	3.4	<0.2
P244	Rock	2	10	<0.01	182	<0.001	<1	0.09	0.001	0.03	<0.1	0.05	1.4	<0.1	<0.05	<1	2.0	<0.2
P245	Rock	1	9	<0.01	112	0.002	<1	0.08	<0.001	0.02	<0.1	0.07	1.3	<0.1	<0.05	<1	2.2	<0.2
P249	Rock	1	4	<0.01	87	<0.001	1	0.07	<0.001	0.04	<0.1	0.01	0.6	<0.1	<0.05	<1	1.0	<0.2
P255	Rock	2	4	<0.01	117	<0.001	<1	0.05	0.001	0.02	<0.1	<0.01	0.9	<0.1	<0.05	<1	0.7	<0.2
P256	Rock	4	6	<0.01	426	0.001	<1	0.10	<0.001	0.02	0.2	0.02	1.5	<0.1	<0.05	<1	1.1	<0.2
P257	Rock	1	6	0.01	70	0.003	<1	0.11	0.001	0.03	0.2	0.01	0.8	<0.1	<0.05	<1	<0.5	<0.2
P265	Rock	3	23	0.03	350	0.004	<1	0.57	0.003	0.09	0.2	0.05	1.3	0.1	<0.05	2	3.3	<0.2
P266	Rock	3	4	0.01	209	0.002	<1	0.14	0.002	0.07	<0.1	<0.01	0.5	<0.1	<0.05	<1	1.1	<0.2
P267	Rock	10	13	0.02	421	0.003	<1	0.28	0.003	0.10	0.1	0.02	1.4	<0.1	<0.05	1	1.2	<0.2
P268	Rock	2	3	0.03	64	0.003	<1	0.08	0.001	0.04	<0.1	<0.01	0.4	<0.1	<0.05	<1	0.6	<0.2
P269	Rock	<1	5	0.01	61	0.002	1	0.13	0.002	0.04	<0.1	<0.01	1.0	<0.1	<0.05	<1	<0.5	<0.2
P270	Rock	<1	2	<0.01	54	0.001	<1	0.07	<0.001	0.03	<0.1	<0.01	0.4	<0.1	<0.05	<1	<0.5	<0.2
P271	Rock	1	3	<0.01	73	0.002	<1	0.08	<0.001	0.03	0.1	<0.01	0.5	<0.1	<0.05	<1	0.8	<0.2
P272	Rock	11	13	0.03	551	0.001	<1	0.42	0.003	0.08	0.2	0.05	3.1	0.4	<0.05	2	<0.5	<0.2
P273	Rock	3	3	0.05	124	0.004	<1	0.17	0.002	0.08	0.4	<0.01	0.7	<0.1	<0.05	<1	<0.5	<0.2
P274	Rock	5	4	0.02	148	0.002	<1	0.18	0.002	0.09	0.4	<0.01	0.7	<0.1	<0.05	<1	<0.5	<0.2
P275	Rock	5	6	0.02	241	0.003	<1	0.24	0.003	0.11	0.7	0.03	0.8	<0.1	<0.05	<1	0.8	<0.2
P276	Rock	<1	4	<0.01	46	0.001	<1	0.08	<0.001	0.03	0.1	<0.01	0.7	<0.1	<0.05	<1	<0.5	<0.2
P277	Rock	2	4	0.02	54	0.003	<1	0.14	<0.001	0.03	<0.1	<0.01	1.4	<0.1	<0.05	<1	<0.5	<0.2
P278	Rock	1	5	0.01	51	0.002	<1	0.12	<0.001	0.02	0.1	0.02	0.9	0.1	<0.05	<1	0.8	<0.2



Acme Analytical Laboratories (Vancouver) Ltd.  
 1020 Cordova St. East Vancouver BC V6A 4A3 Canada  
 Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: **Richards, Gordon**  
 6410 Holly Park Drive  
 Delta BC V4K 4W6 Canada

Project: SPEC  
 Report Date: July 23, 2012

Page: 1 of 1

Part: 1 of 2

QUALITY CONTROL REPORT

WHI12000198.1

Method	WGHT	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	
Pulp Duplicates																					
P255	Rock	0.17	0.3	22.3	4.7	6	0.1	1.5	0.3	71	0.71	14.0	0.8	0.3	12	<0.1	2.3	<0.1	4	<0.01	0.012
REP P255	QC		0.2	20.4	4.4	5	<0.1	1.4	0.3	68	0.68	13.6	2.0	0.2	12	<0.1	2.2	<0.1	4	<0.01	0.011
P257	Rock	0.09	0.6	11.0	2.1	7	<0.1	2.5	3.0	235	0.77	10.0	2.0	0.5	4	<0.1	0.8	<0.1	8	0.01	0.009
REP P257	QC		0.6	10.1	2.0	7	<0.1	2.4	2.9	224	0.75	9.4	1.2	0.5	4	<0.1	0.6	<0.1	8	<0.01	0.007
Core Reject Duplicates																					
P267	Rock	0.23	4.9	76.6	1.2	70	0.2	27.5	2.1	46	1.77	9.4	4.1	1.8	18	0.9	3.2	<0.1	32	0.01	0.068
DUP P267	QC		4.4	66.9	1.2	61	0.2	25.5	1.9	43	1.73	9.4	2.1	1.7	17	0.8	3.1	<0.1	31	<0.01	0.065
Reference Materials																					
STD DS9	Standard		12.0	106.6	127.1	296	1.7	40.3	7.2	579	2.31	25.0	115.0	6.5	69	2.6	5.7	7.0	40	0.70	0.083
STD DS9 Expected			12.84	108	126	317	1.83	40.3	7.6	575	2.33	25.5	118	6.38	69.6	2.4	4.94	6.32	40	0.7201	0.0819
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
Prep Wash																					
G1-WHI	Prep Blank		0.3	2.5	2.6	46	<0.1	2.8	3.9	534	1.91	0.7	4.9	5.5	58	<0.1	<0.1	0.1	36	0.45	0.074
G1-WHI	Prep Blank		0.1	2.5	2.7	45	<0.1	2.0	4.0	564	1.89	<0.5	2.0	8.1	59	<0.1	<0.1	<0.1	36	0.41	0.076



Acme Analytical Laboratories (Vancouver) Ltd.  
 1020 Cordova St. East Vancouver BC V6A 4A3 Canada  
 Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: **Richards, Gordon**  
 6410 Holly Park Drive  
 Delta BC V4K 4W6 Canada

Project: SPEC  
 Report Date: July 23, 2012

Page: 1 of 1

Part: 2 of 2

QUALITY CONTROL REPORT

WHI12000198.1

Method	Analyte	Unit	MDL	1DX15 La ppm	1DX15 Cr ppm	1DX15 Mg %	1DX15 Ba ppm	1DX15 Ti %	1DX15 B ppm	1DX15 Al %	1DX15 Na %	1DX15 K %	1DX15 W ppm	1DX15 Hg ppm	1DX15 Sc ppm	1DX15 Ti ppm	1DX15 S %	1DX15 Ga ppm	1DX15 Se ppm	1DX15 Te ppm
Pulp Duplicates																				
P255	Rock			2	4	<0.01	117	<0.001	<1	0.05	0.001	0.02	<0.1	<0.01	0.9	<0.1	<0.05	<1	0.7	<0.2
REP P255	QC			2	4	<0.01	109	<0.001	1	0.05	<0.001	0.02	0.1	0.02	0.9	<0.1	<0.05	<1	<0.5	<0.2
P257	Rock			1	6	0.01	70	0.003	<1	0.11	0.001	0.03	0.2	0.01	0.8	<0.1	<0.05	<1	<0.5	<0.2
REP P257	QC			1	5	0.01	64	0.003	<1	0.10	0.001	0.03	0.2	<0.01	0.7	<0.1	<0.05	<1	0.5	<0.2
Core Reject Duplicates																				
P267	Rock			10	13	0.02	421	0.003	<1	0.28	0.003	0.10	0.1	0.02	1.4	<0.1	<0.05	1	1.2	<0.2
DUP P267	QC			9	12	0.01	394	0.003	<1	0.25	0.003	0.09	<0.1	0.01	1.4	<0.1	<0.05	<1	1.1	<0.2
Reference Materials																				
STD DS9	Standard			12	121	0.60	286	0.111	4	0.92	0.077	0.39	3.1	0.20	2.3	5.3	0.17	4	5.3	5.1
STD DS9 Expected				13.3	121	0.6165	295	0.1108		0.9577	0.0853	0.395	2.89	0.2	2.5	5.3	0.1615	4.59	5.2	5.02
BLK	Blank			<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
Prep Wash																				
G1-WHI	Prep Blank			11	6	0.48	179	0.113	<1	0.83	0.072	0.46	<0.1	<0.01	2.1	0.2	<0.05	5	<0.5	<0.2
G1-WHI	Prep Blank			13	5	0.48	172	0.109	<1	0.80	0.070	0.46	<0.1	<0.01	2.1	0.3	<0.05	5	<0.5	<0.2