

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
1016 - 510 West Hastings Street  
Vancouver, B.C. V6B1L8

Telephone: 604-688-2568

Fax: 604-688-2578

## **ASSESSMENT REPORT**

describing

## **PROSPECTING AND SOIL AND ROCK GEOCHEMISTRY**

Field work performed July 19 and September 8, 2015

at the

## **GRAM PROPERTY**

Gram 1-24 YC52446-YC62469  
Gram 25-42 YC68104-YC68121

NTS 105M/14 & 15  
Latitude 63°56'N; Longitude 135°00'W

located in the

Mayo Mining District  
Yukon Territory

prepared by

Archer, Cathro & Associates (1981) Limited

for

## **STRATEGIC METALS LTD.**

by

H. Burrell, B.Sc., P.Geo

March 2016

## **CONTENTS**

INTRODUCTION	1
PROPERTY LOCATION, CLAIM DATA AND ACCESS	1
HISTORY AND PREVIOUS WORK	1
GEOMORPHOLOGY AND CLIMATE	2
GEOLOGY	3
MINERALIZATION	5
SOIL GEOCHEMISTRY	7
AIRBORNE GEOPHYSICS	8
DISCUSSION AND CONCLUSIONS	8
REFERENCES	10

## **APPENDICES**

I	STATEMENT OF QUALIFICATIONS
II	STATEMENT OF EXPENDITURES
III	ROCK SAMPLE DESCRIPTIONS
IV	CERTIFICATES OF ANALYSIS

## **TABLES**

I	Lithological Units	4
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## **FIGURES**

<u>No.</u>	<u>Description</u>	<u>Follows Page</u>
1	Property Location	1
2	Claim Locations	1
3	Historical Work	2
4	Tectonic Setting	3
5	Geology	5
6	Rock Sample Locations	6
7	Silver Rock Geochemistry	6
8	Lead Rock Geochemistry	6
9	Zinc Rock Geochemistry	6
10	Gold Rock Geochemistry	6
11	Copper Rock Geochemistry	6
12	Arsenic Rock Geochemistry	6
13	Antimony Rock Geochemistry	6
14	Soil Sample Locations	7
15	Silver Soil Geochemistry	7
16	Lead Soil Geochemistry	7
17	Zinc Soil Geochemistry	7
18	Gold Soil Geochemistry	7
19	Copper Soil Geochemistry	7
20	Arsenic Soil Geochemistry	7
21	Antimony Soil Geochemistry	7

## **INTRODUCTION**

The Gram property lies on the eastside of the Keno Hill silver mining camp. It was staked to cover a historical silver-lead vein occurrence and nearby multi-element soil geochemical anomalies. The property is owned by Strategic Metals Ltd., and has no underlying royalties.

This report describes soil geochemical sampling performed on July 19 and prospecting and rock geochemical sampling conducted on September 8. All of the work was done by Archer, Cathro and Associates (1981) Limited on behalf of Strategic. The author participated in and directed this project, and her Statement of Qualifications is in Appendix I. A Statement of Expenditures is located in Appendix II.

## **PROPERTY LOCATION, CLAIM DATA AND ACCESS**

The Gram property is located in central Yukon at latitude 63°56' north and longitude 135°00' west on NTS map sheets 105M/14 and 105M/15 (Figure 1). It comprises 42 contiguous quartz claims that cover an area of about 850 hectares (8.5 km<sup>2</sup>). The claims are registered with the Mayo Mining Recorder in the name of Archer Cathro, which holds them in trust for Strategic. Specifics concerning claim registration are tabulated below, while the locations of individual claims are shown on Figure 2.

<u>Claim Name</u>	<u>Grant Number</u>	<u>Expiry Date*</u>
Gram 1-24	YC52446-YC62469	November 1, 2020
Gram 25-42	YC68104-YC68121	November 1, 2020

\* Expiry dates include 2015 work, which has been filed for assessment credit but not yet accepted.

Access to and from the property was provided by a Bell 206B helicopter operated by TransNorth Helicopters from its base in Mayo, which is located approximately 55 km southwest of the property. In June, the soil sample crew stayed at a fly camp on the nearby Mount Hinton property and in September the prospectors stayed at the Gold & Galena Bed & Breakfast in Mayo.

Mayo is the nearest supply centre. The community of Keno City is situated 49 km by road northeast of Mayo and 14 km by air west of the property. Mayo and Keno City can be reached in all seasons by two wheel drive vehicles using the Yukon highway system. The closest seasonal road access is a dirt road that extends south and east from Keno City. This road passes two kilometres northwest of the Gram property.

## **HISTORY AND PREVIOUS WORK**

In 1964, the Geological Survey of Canada (GSC) completed a reconnaissance-scale stream sediment and water sampling survey on parts of NTS map sheet 105M (Gleeson, 1965).

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FIGURE 1  
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

## PROPERTY LOCATION

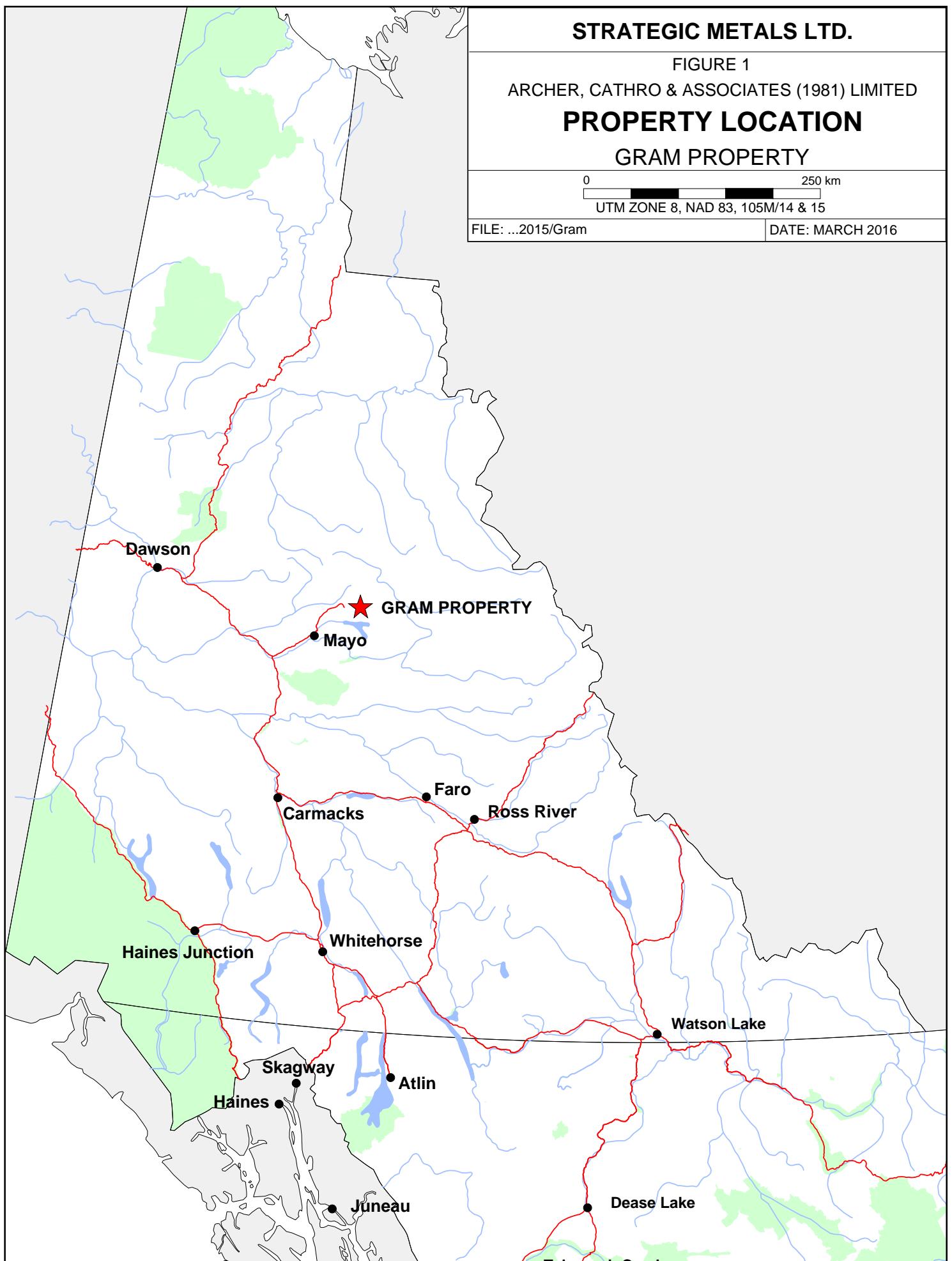
### GRAM PROPERTY

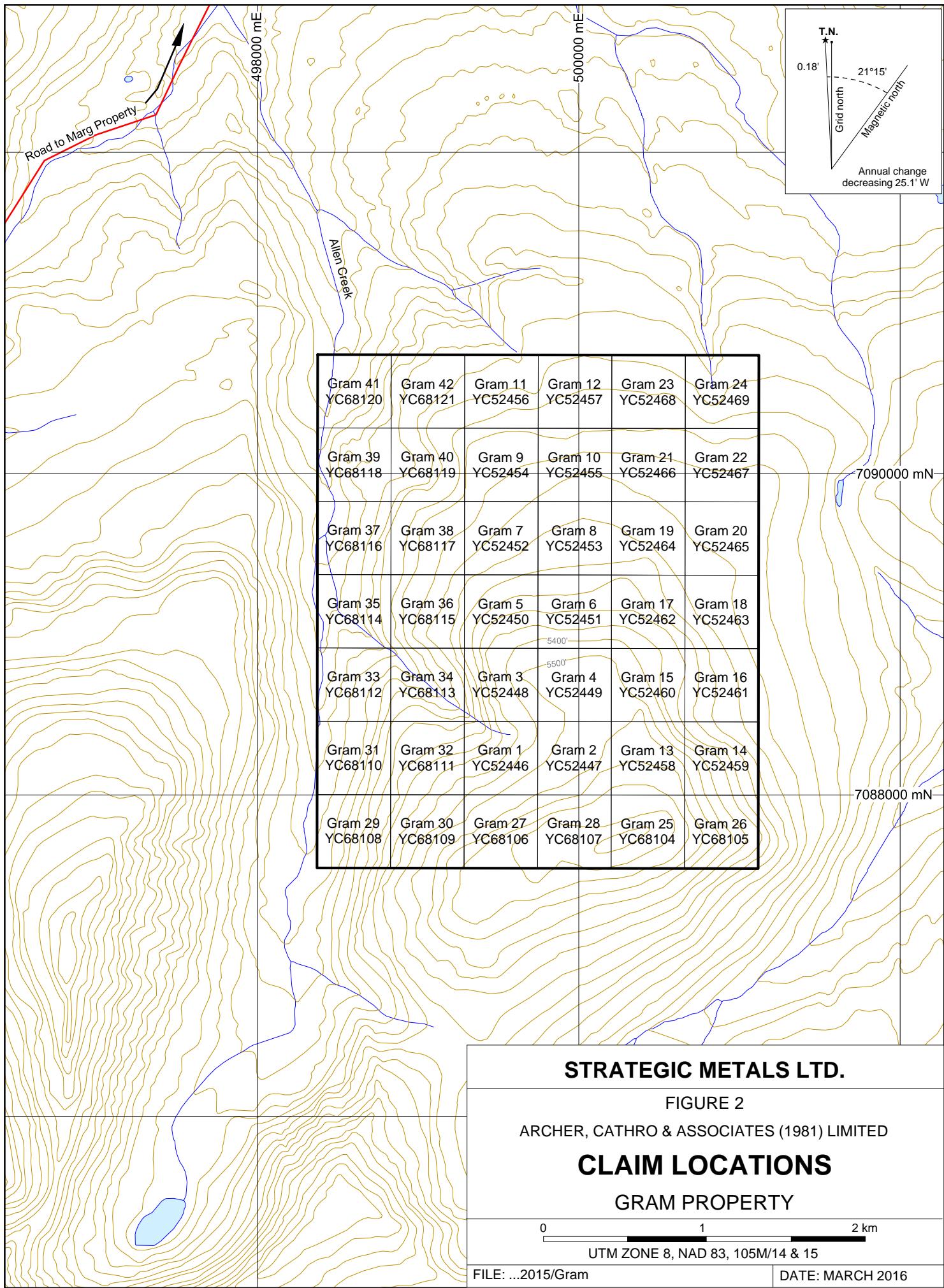
0 250 km

UTM ZONE 8, NAD 83, 105M/14 & 15

FILE: ...2015/Gram

DATE: MARCH 2016





In 1965, United Keno Hill Mines Ltd. staked the VU property (V 1 to 8, U 1 to 6 and VU 1 to 25 claims) after conducting follow-up prospecting of elevated silver and lead results from the GSC survey (Van Tassell, 1965). The VU property partly overlapped the southern half of the current Gram property. That same year, United Keno completed preliminary geological mapping and grid soil sampling on the VU property (Figure 3). Results from this work are discussed in the Property Geology, Mineralization and Soil Geochemistry sections of this report. The claims comprising the VU property subsequently lapsed.

In 1996, the area was restaked as the Nomad property (Nomad 1 to 36). There is no public record of exploration on these claims and they were allowed to expire (Deklerk and Traynor, 2005).

Mr. Richard Ewing staked the Gram claims in 2006 on behalf of the Hinton Syndicate. In December of that year, the Gram property (as part of a larger land package known as the “Mount Hinton property”) was optioned to Yukon Gold Corporation, Inc. In 2007, Yukon Gold conducted a 274 line-km, helicopter-borne Versatile Time Domain Electromagnetic (VTEM) and magnetic survey (Figure 3) over the property (Wengzynowski, 2007). Results from this program are described in the Airborne Geophysics section. Yukon Gold’s option expired in May 2009.

In October and November 2009, the Hinton Syndicate contracted Mr. Jan Klein to interpret the geophysical data.

In March 2010, Rockhaven Resources Ltd. acquired an option to purchase a 100% interest in the Mount Hinton and Gram properties from the Hinton Syndicate.

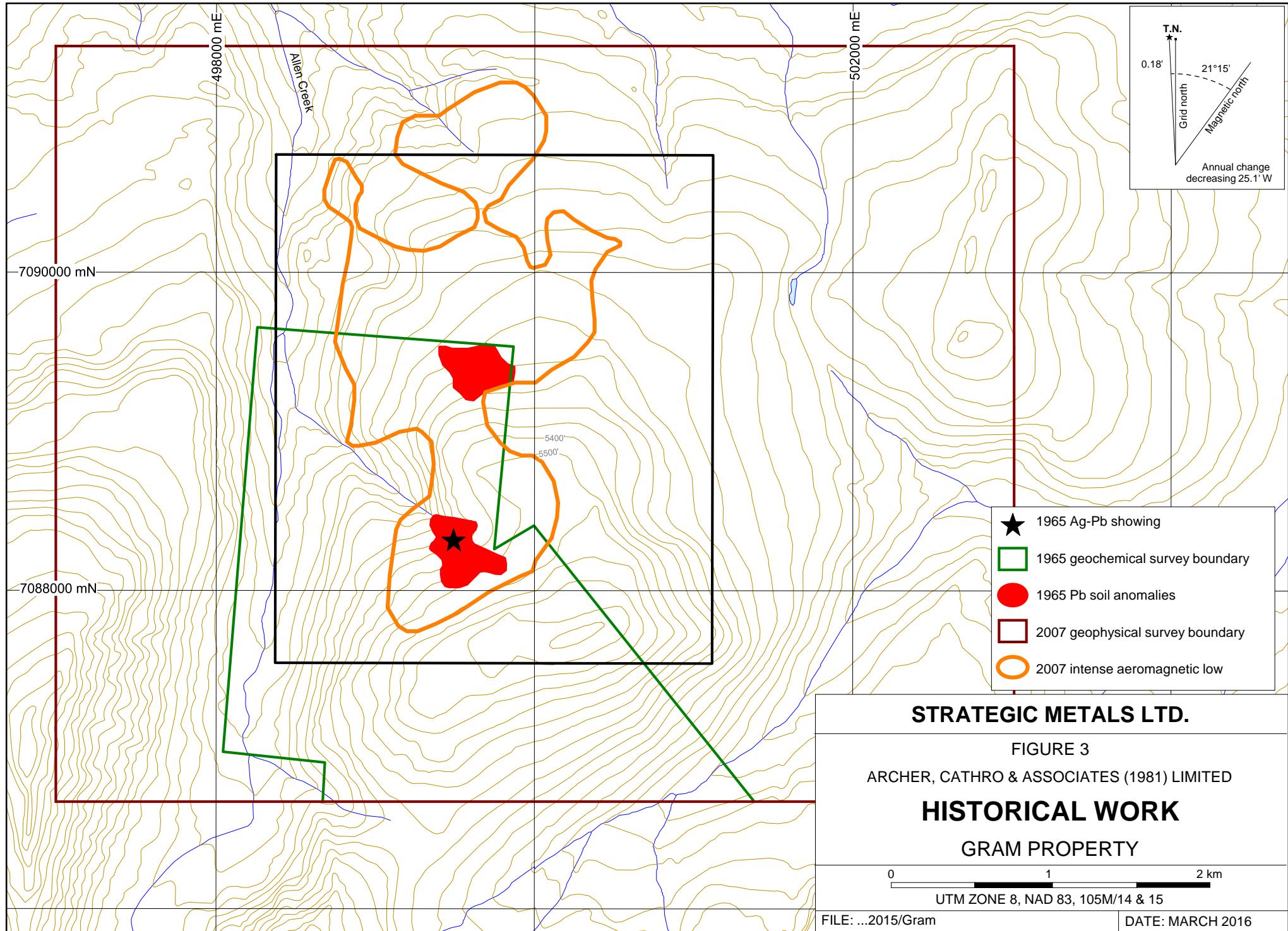
In April 2011, Rockhaven in turn optioned the properties to Mill City Gold Corp. Mill City performed soil sampling and prospecting on the Gram property before terminating its option with Rockhaven (Eaton, 2011). In March 2012, Rockhaven purchased the property outright from the Hinton Syndicate.

In 2015, Rockhaven sold the Gram property to Strategic as part of a multi-property transaction.

### **GEOMORPHOLOGY AND CLIMATE**

The Gram property is located in the Gustavus Range, approximately 15 km north of Mayo Lake. The property is drained by creeks that flow into Allen and McKim creeks, which ultimately connect to the Pacific Ocean via the Ladue, Stewart and Yukon rivers.

The Gram property covers a broad, north-trending ridge and its steep, western flank. The terrain is alpine to subalpine, with local elevations ranging from 1050 to 1830 m above sea level. Approximately half of the property lies above treeline, which is at about 1450 m. Slopes above that elevation are characterized by open talus and alpine vegetation, primarily comprising low grasses and staghorn moss. The density and size of vegetation gradually increases on lower slopes, which are treed with spruce or thick patches of willows in poorly drained areas.



Much of the overburden in the region is associated with two advances and retreats of the Cordilleran ice sheet (Yukon Geological Survey, 2011). These cycles are known as the Reid and McConnell glaciations. The Reid glaciation is believed to have covered much of southern and central Yukon at its maximum advance, circa 200 ka. The Reid glaciation was more extensive than the circa 22 ka, McConnell glaciation.

Elevations above 1370 m remained exposed during both glaciations (Yukon Geological Survey, 2011). Hence, the ridge top and upper slopes are mantled with a thin veneer of frost-heaved felsenmeer and residual soils while lower slopes and valley bottoms are covered with an unknown thickness of glacial till. Outcrop is generally restricted to incised creek cuts and steep flanks near the ridge top.

The climate in the area of the Gram property is typical of northern continental regions with long, cold winters, truncated fall and spring seasons and short, mild summers. Although summers are relatively mild, arctic cold fronts often cover the area and snowfall can occur in any month. The property is mostly snow free from early June to mid-September.

## GEOLOGY

The Gram property lies in the north-central part of the Mayo map sheet (105M). The bedrock geology of this map sheet has been published at a regional scale (1:250,000) by the GSC (Bostock, 1947, Green, 1971 and Cecile, 1982) and the Yukon Geological Survey (YGS) (Roots and Murphy, 1992). In 2003, Gordey and Makepeace incorporated this data into a Yukon-wide geological compilation. The following geological descriptions are based on the published data.

The Gram property lies near the northern margin of Selwyn Basin (Figure 4), a tectonic element comprising deep water clastic rocks, chert and minor carbonate, accumulated along the North American continental margin during Paleozoic time (Pigage, 2004).

The rocks within the Mayo map sheet are divisible into three main packages, which are progressively more deformed from south to north (Roots and Murphy, 1992). The sedimentary package in the southern quarter of the map sheet is floored by Upper Proterozoic to Lower Cambrian Hyland Group metasandstone, conglomerate, shale, siltstone and phyllite, which are overlain by Ordovician to Lower Devonian Road River Group siltstone and chert and Devonian and Mississippian Earn Group sandstone, chert-pebble conglomerate, siltstone, mudstone, limestone and chert. A series of widely-spaced, large-scale, west-northwest-trending thrust faults and broad folds repeat the sedimentary package throughout the area. These large-scale faults and folds are offset by smaller-scale, north-northwest-trending faults that are spaced approximately three to eight kilometres apart. The Tintina Fault crosses the southwest corner of the map sheet.

The central half of the map sheet is dominated by a 50 km wide belt of Hyland Group quartz-mica schist and chlorite schist (Roots and Murphy, 1992). These rocks are tightly folded and form the hanging wall of the northerly-directed Robert Service Thrust Fault and comprise the Robert Service Thrust Sheet.

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FIGURE 4

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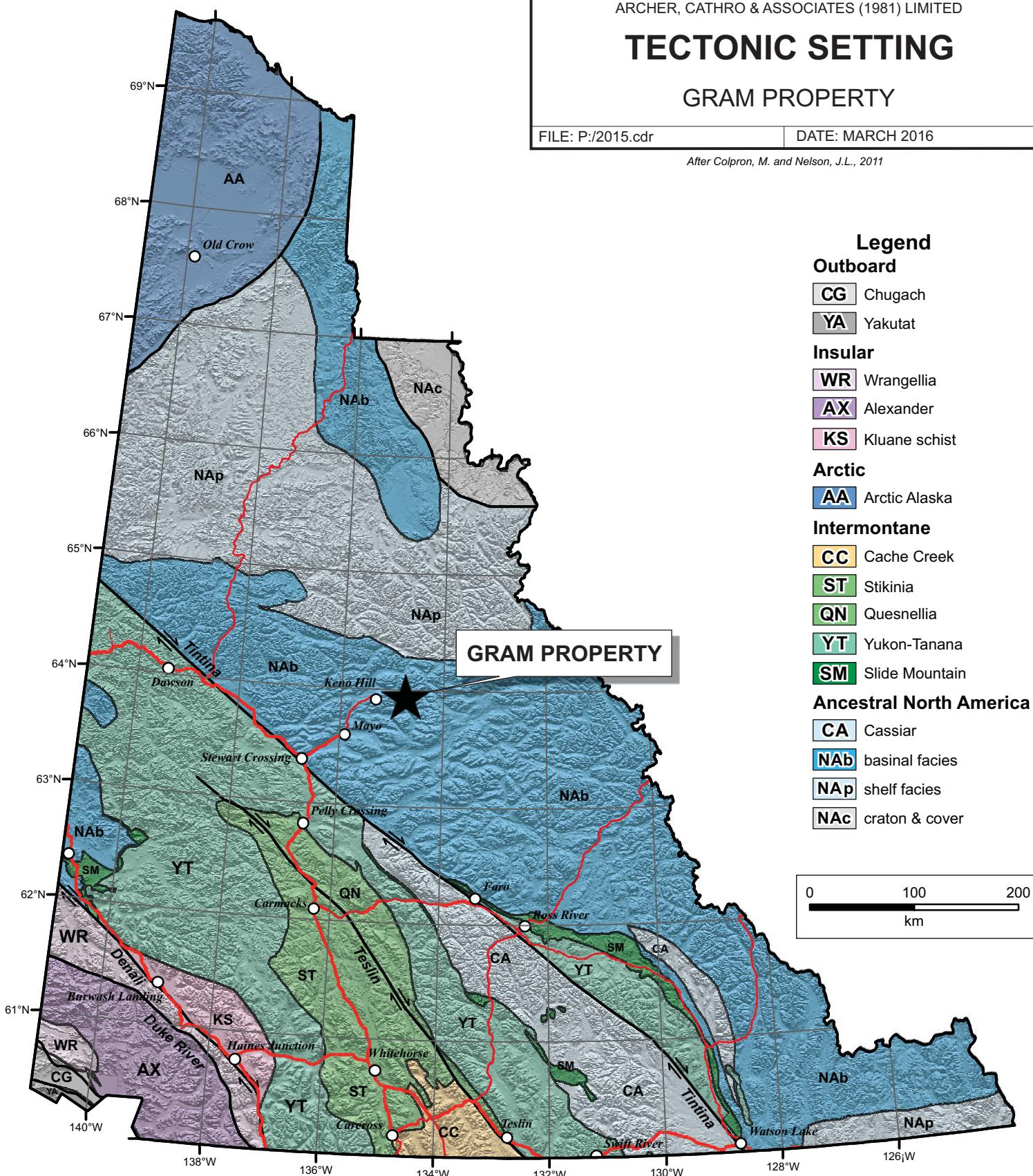
## TECTONIC SETTING

### GRAM PROPERTY

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DATE: MARCH 2016

After Colpron, M. and Nelson, J.L., 2011



The northern quarter of the map sheet consists of moderately south-dipping Devonian and Mississippian Earn Group sericite schist and chloritic phyllite and Mississippian Keno Hill quartzite (Roots and Murphy, 1992). The layered rocks are cut by numerous Triassic Galena Suite hornblende diorite, gabbro and altered greenstone sills. Collectively, these units form the footwall of the Robert Service Thrust Fault and are part of the Tombstone Thrust Sheet.

Several Mid-Cretaceous Selwyn Suite biotite-hornblende granite and quartz monzonite igneous bodies cut the sedimentary packages throughout the map sheet. All of the major faults in the region pre-date Mid-Cretaceous plutonism, as evidenced by cross-cutting relationships and several plugs that are emplaced along, but not offset by some of the major faults. Regional-scale descriptions of the units are provided in Table I.

**Table I – Lithological Units (*after Gordey and Makepeace, 2003*)**

Unit Name	Map Name	Age	Description
Selwyn Suite	mK(q)S	Mid-Cretaceous	Intermediate to more felsic (q) and rarely syenitic plutonic suite; equivalent felsic dykes; complete compositional gradation so that these designations are somewhat arbitrary. q. Equigranular to porphyritic (K-feldspar) biotite +/- hornblende +/- muscovite granite, quartz monzonite and granodiorite; porphyritic biotite hornblende granite with large smoky grey quartz phenocrysts and locally K-feldspar phenocrysts.
Galena Suite	TrG	Triassic	Massive, medium-grained hornblende diorite and gabbro sills; massive chloritic and locally serpentized greenstone diorite, gabbro, and altered equivalents) sills.
Keno Hill Quartzite	MK	Mississippian	Massive to thick bedded quartz arenite; thin to medium bedded quartz arenite interstratified with black shale or carbonaceous phyllite; local scour surfaces and shale intraclasts; locally foliated and lineated.
Earn Group	DME (1 & 3)	Devonian and Mississippian	Complex assemblage of submarine fan and channel deposits (1), including small occurrences of felsic volcanic rocks (3): 1. Thin bedded, laminated slate with thin to thickly interbedded fine to medium grained chert-arenite and wacke; thick members of chert pebble conglomerate; black siliceous siltstone; nodular and bedded barite; rare limestone. 3. Massive felsic to intermediate volcanic

			flows, tuffs and subvolcanic plug(s); locally highly altered; greenish chert and minor black slate; quartz eye quartz-sericite chlorite phyllite; local vesicular or amygdaloidal basalt, locally pillowled.
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The Gram property is located within the Tombstone Thrust Sheet. Most of the property is underlain by Earn Group metasedimentary clastic rocks (DME1) that are overlain to the south by Earn Group metavolcanic flows and tuffs (DME3) and Keno Hill quartzite (MK). The nearest, mapped Galena Suite sill lies two kilometres southwest of the property. The Selwyn Suite is represented by dyke/sill(?) in the northern part of the property (Figure 5) and a 94 million year old, 1700 by 900 m pluton (Roop Lakes Pluton) that lies four kilometres southeast of the property. This pluton is thought to have powered hydrothermal cells that are responsible for mineralization in the Keno Hill area (Roots and Murphy, 1992).

In 1965, United Keno performed detailed geological mapping in the southern and western parts of the current Gram property (Van Tassel, 1965). It observed that the area is underlain by quartzite, graphite schist, sericite schist and numerous lenses of greenstone. The units are described below:

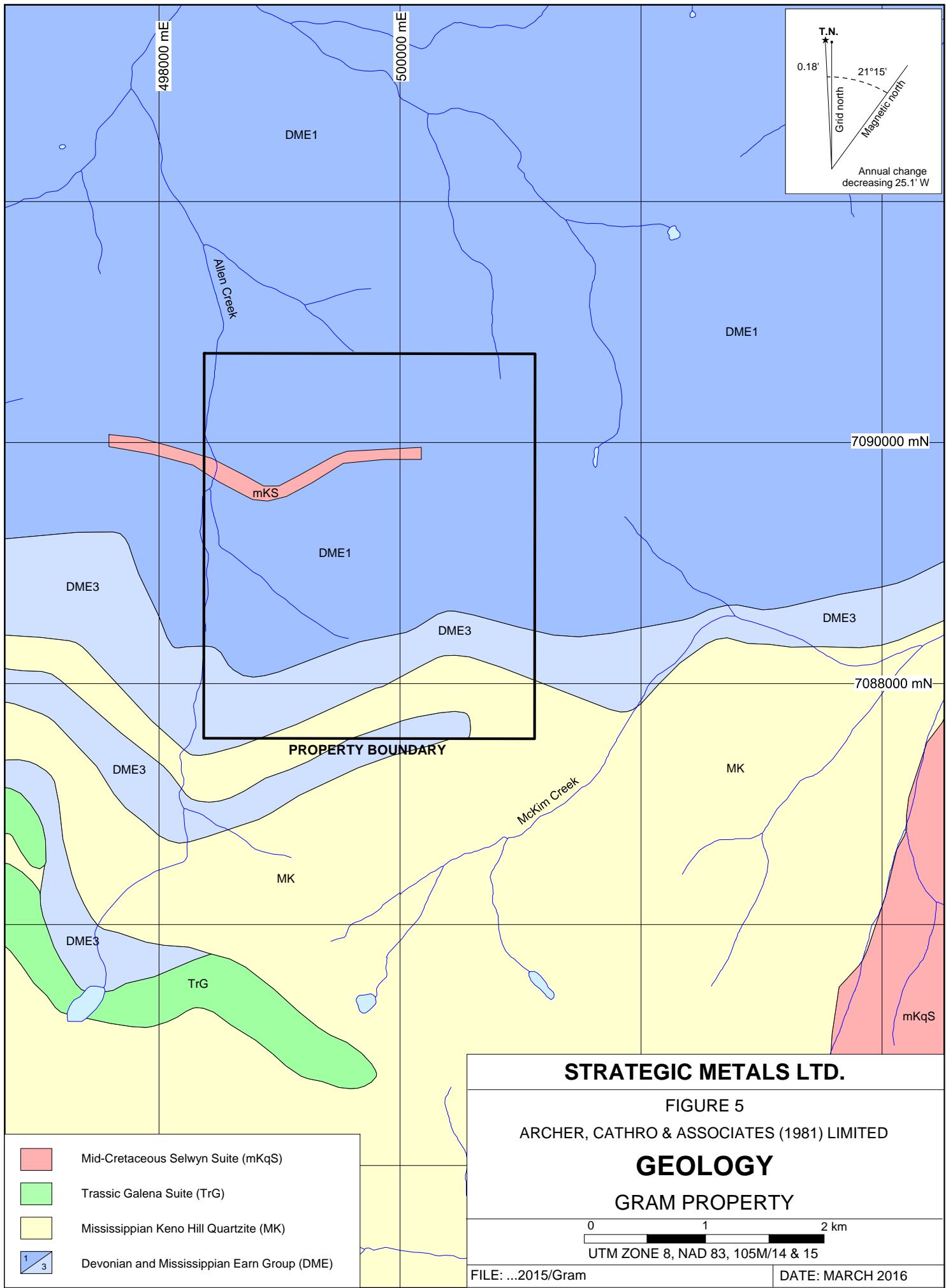
- 1) Quartzite – thin to thick bedded; comprises quartz with minor sericite and graphite; thick bedded quartzite is usually medium to dark grey and are highly jointed; thin quartzite beds vary from two to fifteen centimetres thick, are dark grey to black and are generally interbedded with graphite schist;
- 2) Graphite schist – black, pyritiferous and highly contorted; commonly hosts stringers of quartz that are locally crushed and rusty weathering;
- 3) Sericite schist – light grey-green to olive green with some chlorite; often highly contorted; carry stringers and bulbous masses of quartz; and
- 4) Greenstone – grey-green to dark green; occur as discontinuous sills; larger bodies retain original textures whereas thinner bodies have a foliation parallel to the metasedimentary rocks.

Bedding orientations in the mapped area typically strike easterly and dip moderately to the south, while cleavage orientations are variable (Van Tassel, 1965).

### **MINERALIZATION**

The Gram property is located on the eastern edge of the Keno Hill District, which contains extensive mesothermal veins that have collectively produced more than 250 million ounces of silver since the early 1900s.

In 1965, United Keno prospectors discovered a mineralized breccia or vein zone (UKHM Showing) in the southern part of the current Gram property. This zone trends westerly and cuts



the host quartzite at a slight angle to bedding (Figure 3). Character grab samples returned values of 7.65% lead with 857 g/t silver and 0.21% lead with 446 g/t silver (Van Tassel, 1965).

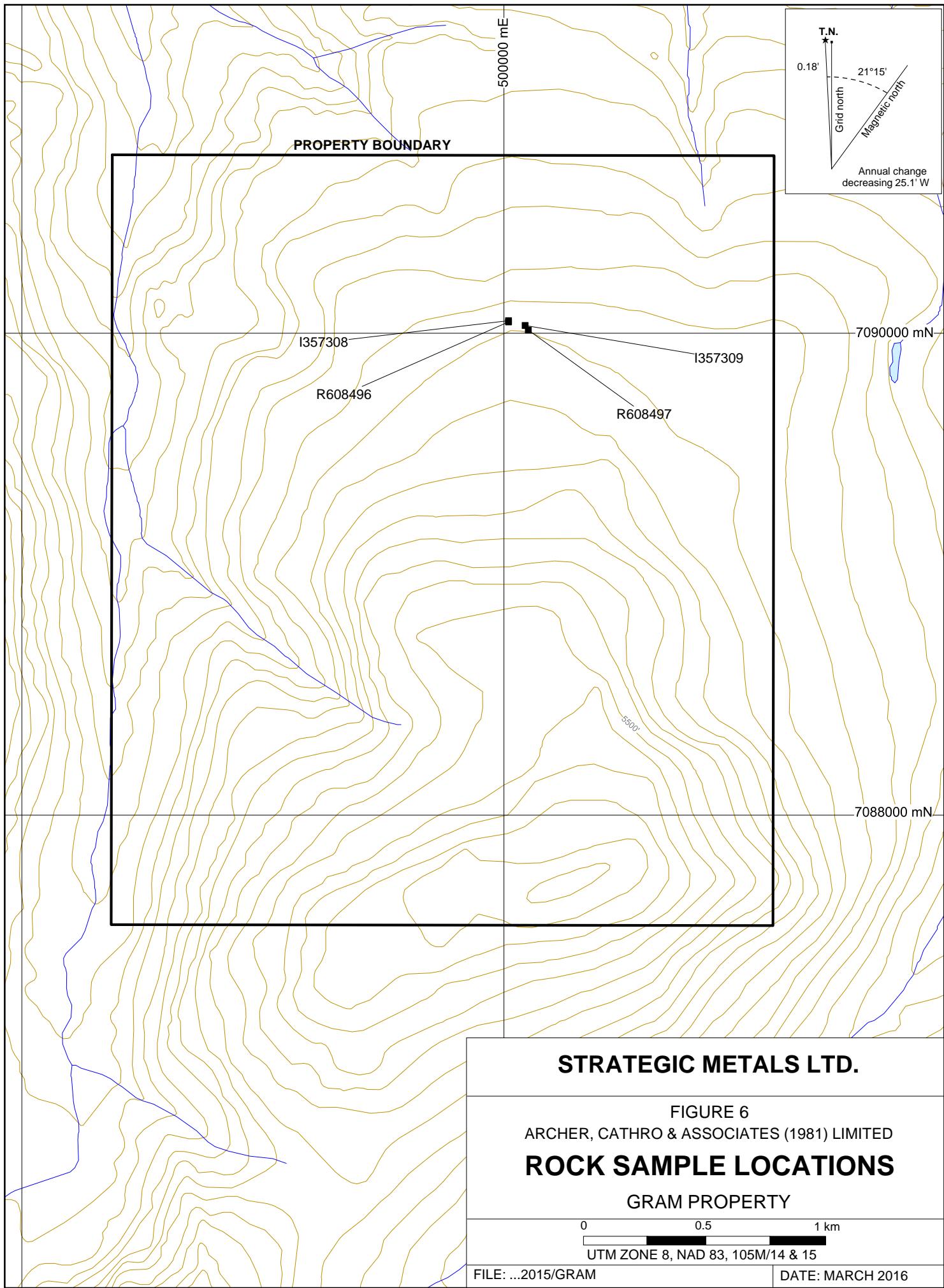
The UKHM Showing has not been relocated; however, recent work has discovered a new showing (Fox Showing) in the northern part of the property.

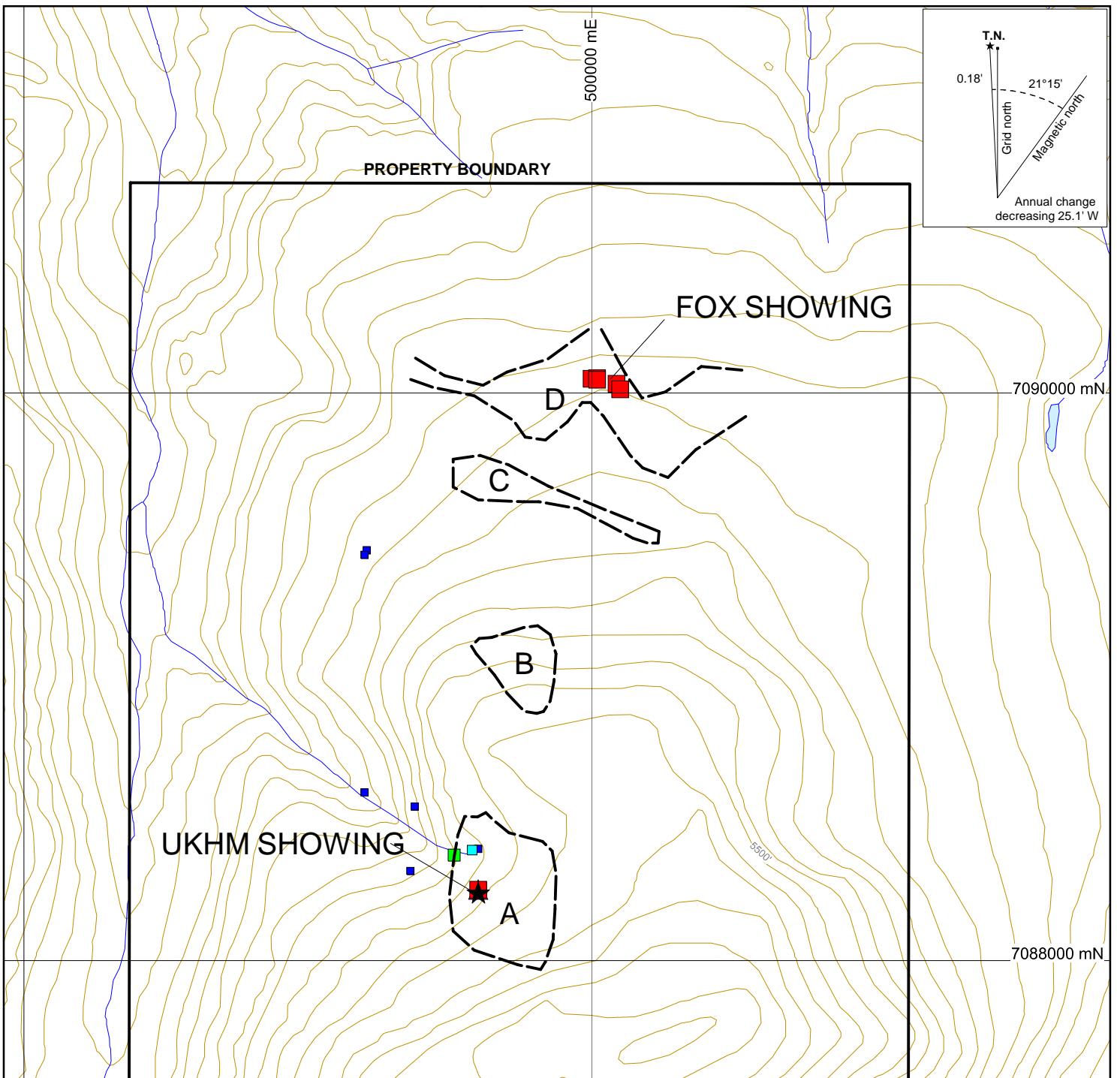
The 2015 rock sample locations are plotted on Figure 6, while results from all rock samples collected to date from the property are illustrated thematically for silver, lead, zinc, gold, arsenic, copper and antimony on Figures 7 to 13, respectively. Rock sample descriptions are provided in Appendix III, while Certificates of Analysis are given in Appendix IV.

Recent rock sample sites on the property were marked with orange flagging tape labelled with the sample number. The location of each sample was determined using a handheld GPS unit. All multi-element analyses for rock samples were carried out at ALS Minerals in Whitehorse, Y.T. and/or North Vancouver, B.C. In 2011, nine rock samples were dried, fine crushed to better than 70% passing 2 mm and a 250 g split was pulverized to better than 85% passing 75 microns. The fine fraction was then analyzed for gold using fire assay followed by inductively coupled plasma-atomic emission spectroscopy analysis and for 35 other elements using an aqua regia digestion and inductively coupled plasma-atomic emission spectroscopy analysis (Au-ICP21 and ME-ICP41). In 2015, four rock samples were analyzed for gold by Au-ICP21 and 48 other elements by four acid digestion and inductively coupled plasma-atomic emission spectroscopy (ME-MS61).

The Fox Showing is located on the north side of a narrow scarp, which is surrounded by moss and brush covered gentle slopes. It comprises limonite fragments and decomposed limonite soil within a 20 by 50 m zone of rusty-weathering greenstone. Three composite grab samples collected from the Fox Showing returned significant results. The first sample comprised five pieces of limonite-rich material containing some residual blackjack sphalerite, which returned 276 g/t silver, 10% zinc and 205 ppm antimony with background to weak support from the other metals of interest. The second sample was composed of three pieces of pitted limonite collected over a two metre area and it yielded 305 g/t silver, 12.6% zinc and 216 ppm antimony. The final composite grab sample was of highly oxidized manganese-rich limonite that returned 8290 ppm arsenic, 0.115 g/t gold, 0.34% lead, 138 ppm antimony and 0.99% zinc. A Selwyn Suite sill is mapped near the Fox Showing, but no granitic rocks were observed in the area. The mapped sill could be Galena Suite greenstone.

Eight specimen samples of quartz veined, weakly to moderately limonitic chlorite or sericite schist were collected in the southwestern part of the property. These samples returned subdued results for silver (up to 3.7 g/t, typically less than 1.0 g/t), lead (up to 482 ppm, typically less than 50 ppm), zinc (up to 1440 ppm, typically less than 300 ppm), gold (up to 0.002 g/t), copper (up to 182 ppm, typically less than 50 ppm), arsenic (up to 982 ppm, typically less than 100 ppm) and antimony (up to 40 ppm).





### STRATEGIC METALS LTD.

FIGURE 7

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## SILVER ROCK GEOCHEMISTRY GRAM PROPERTY

0 0.5 1 km

UTM ZONE 8, NAD 83, 105M/14 & 15

FILE: ...2015/GRAM

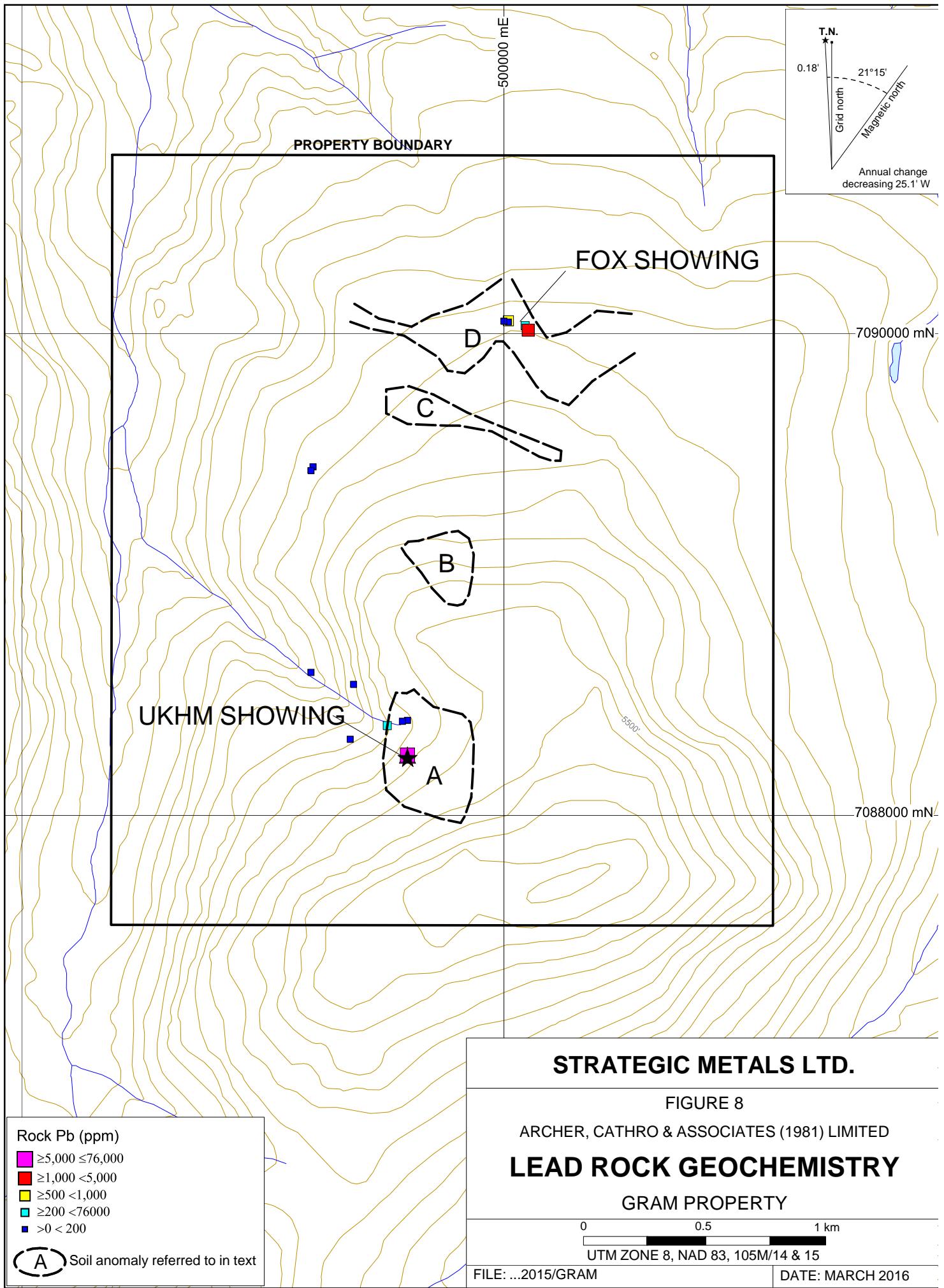
DATE: MARCH 2016

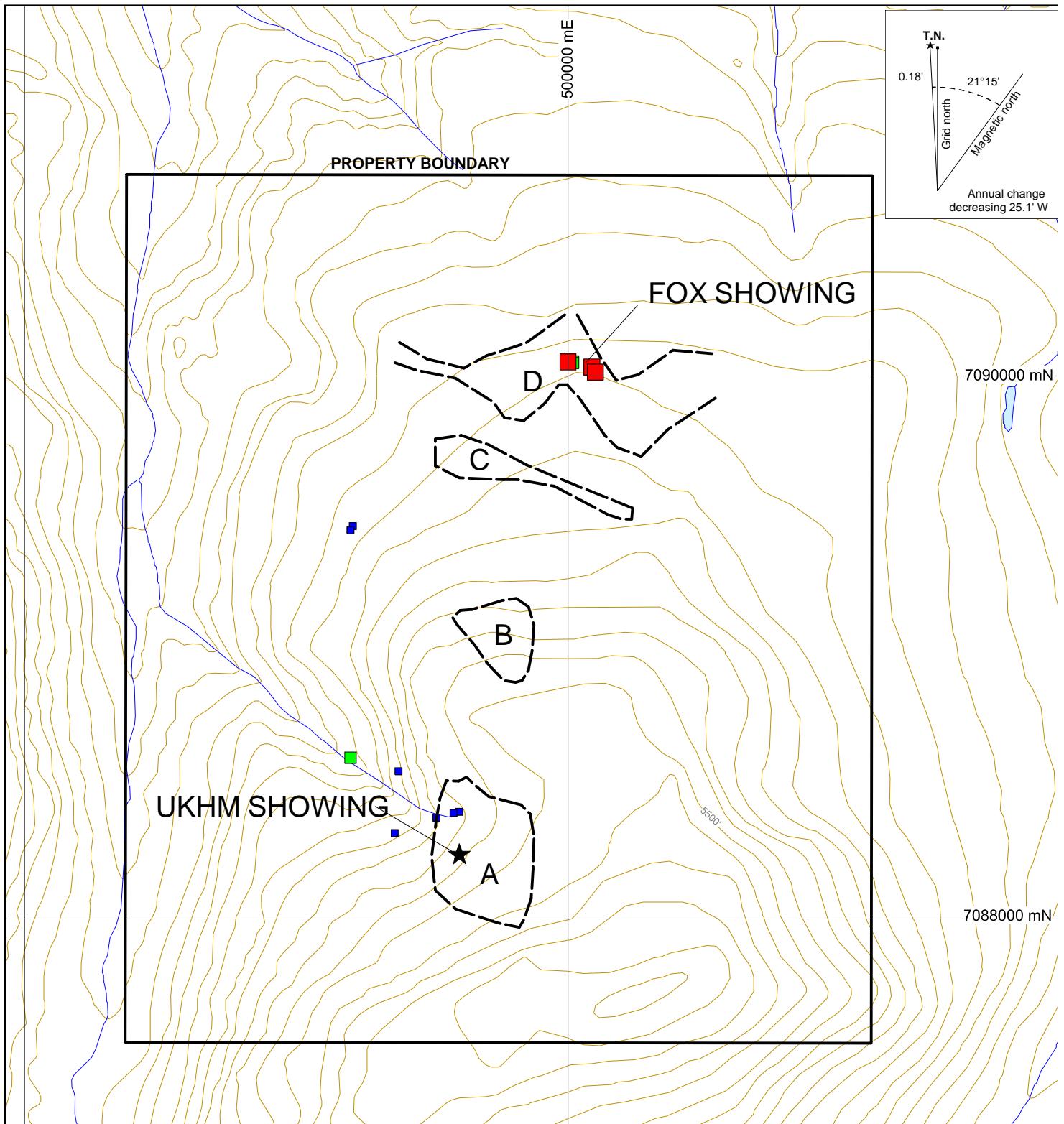
#### Rock Ag (g/t)

- $\geq 10 \leq 857$
- $\geq 5 < 10$
- $\geq 2 < 5$
- $\geq 1 < 2$
- $0 < 1$

(A)

Soil anomaly referred to in text





Rock Zn (ppm)

- $\geq 5,000 \leq 125,500$
- $\geq 2,000 < 5,000$
- $\geq 1,000 < 2,000$
- $\geq 500 < 1,000$
- $0 < 500$

(A)

Soil anomaly referred to in text

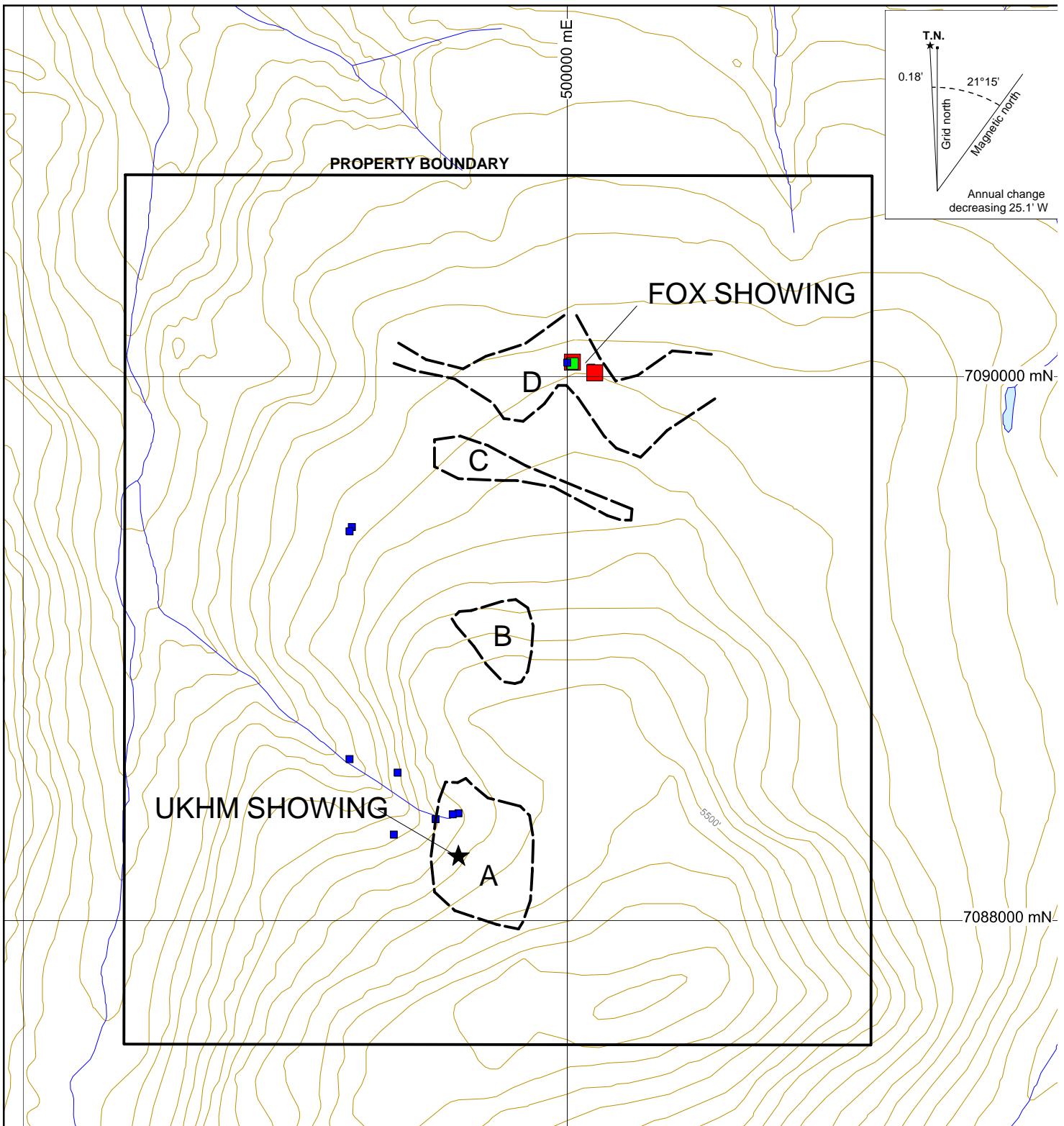
**STRATEGIC METALS LTD.**  
**FIGURE 9**  
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
**ZINC ROCK GEOCHEMISTRY**  
**GRAM PROPERTY**

0 0.5 1 km

UTM ZONE 8, NAD 83, 105M/14 & 15

FILE: ...2015/GRAM

DATE: MARCH 2016



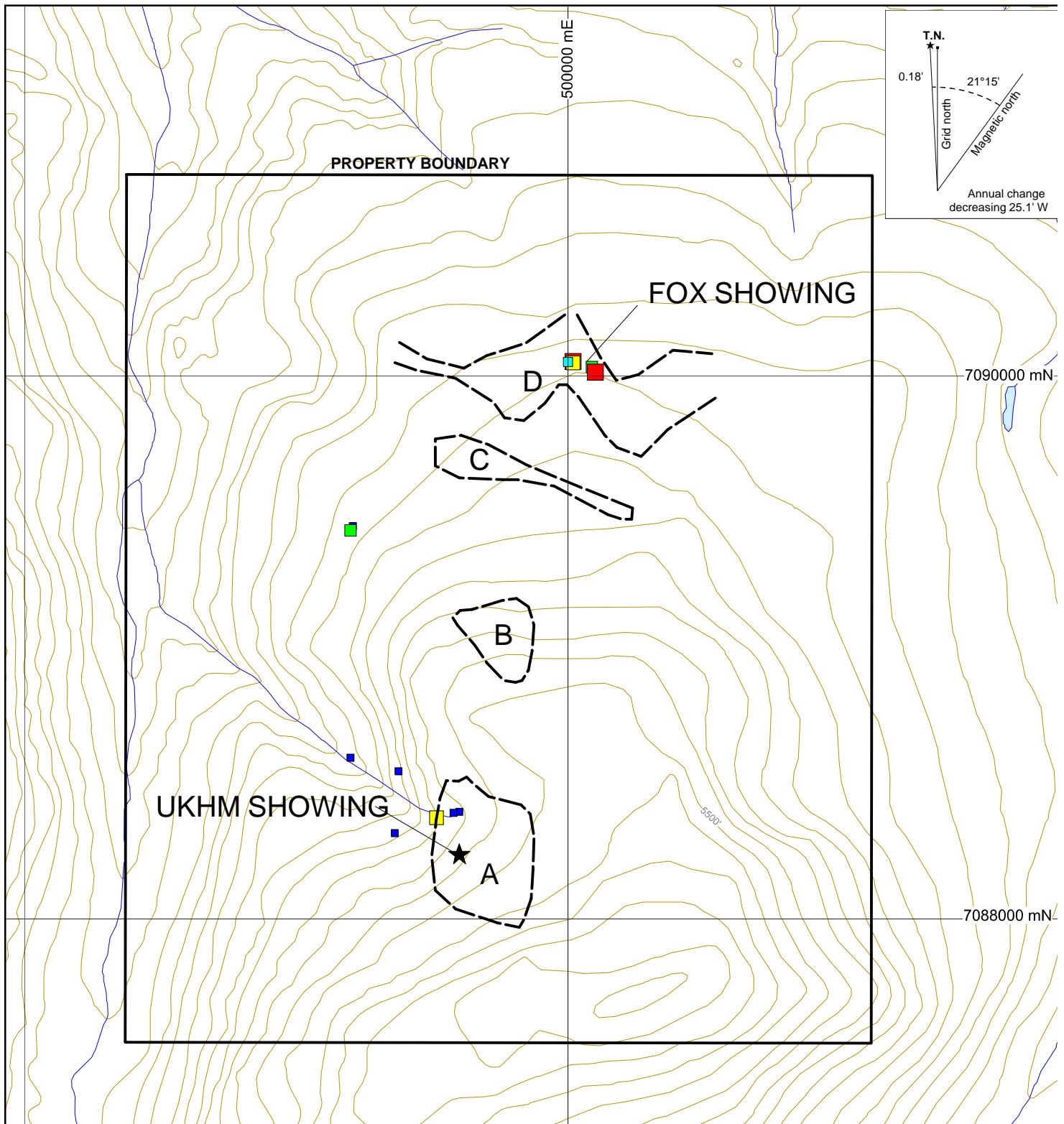
**FIGURE 10**  
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
**GOLD ROCK GEOCHEMISTRY**  
**GRAM PROPERTY**

0 0.5 1 km

UTM ZONE 8, NAD 83, 105M/14 & 15

FILE: ...2015/GRAM

DATE: MARCH 2016



**STRATEGIC METALS LTD.**

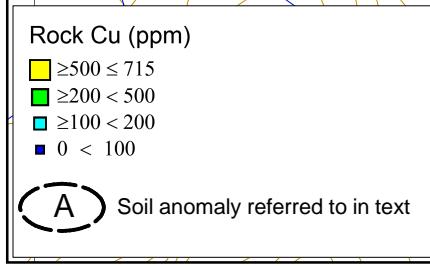
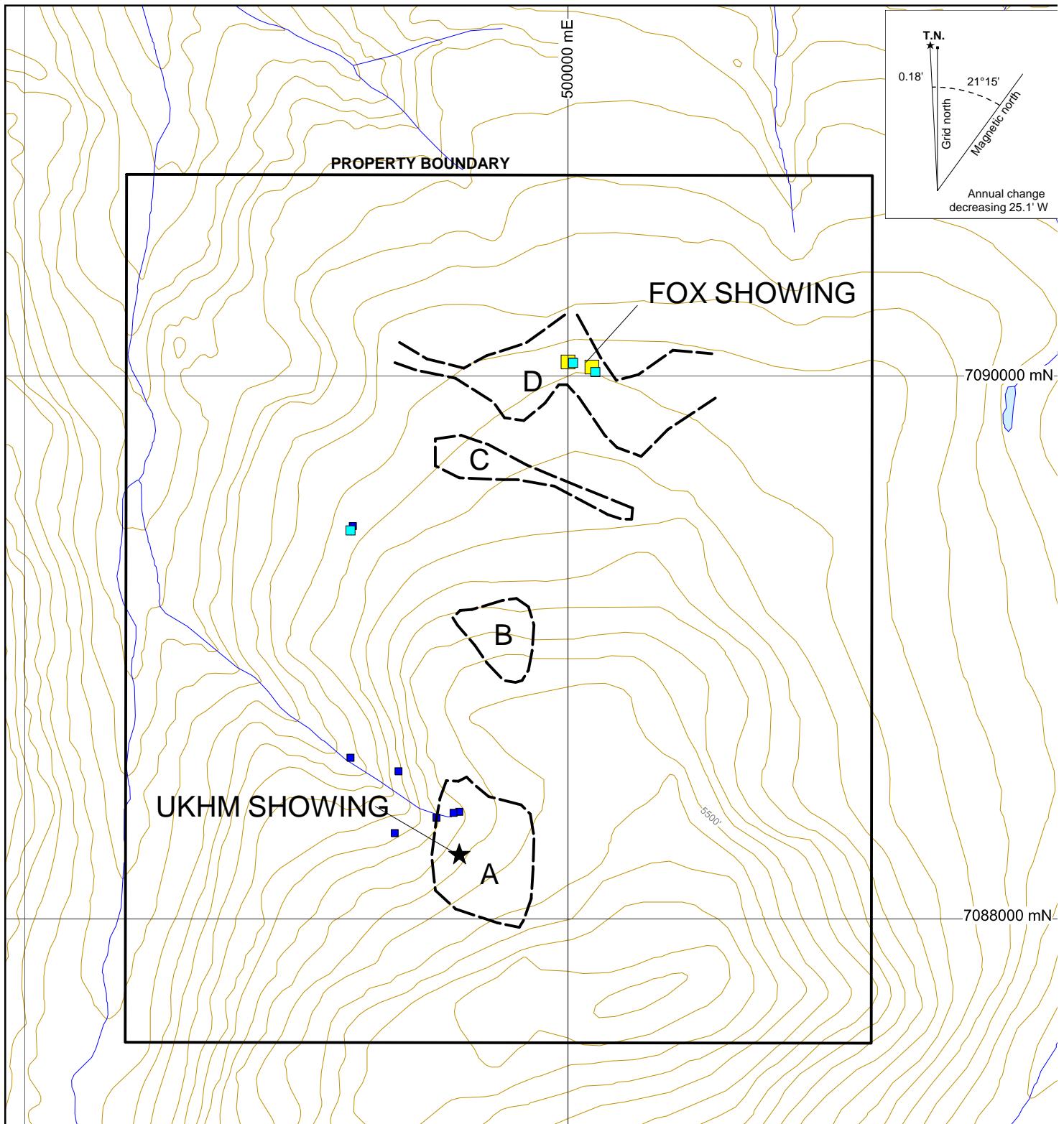
FIGURE 11  
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**ARSENIC ROCK GEOCHEMISTRY**  
**GRAM PROPERTY**

0 0.5 1 km  
UTM ZONE 8, NAD 83, 105M/14 & 15

FILE: ...2015/GRAM

DATE: MARCH 2016



**STRATEGIC METALS LTD.**

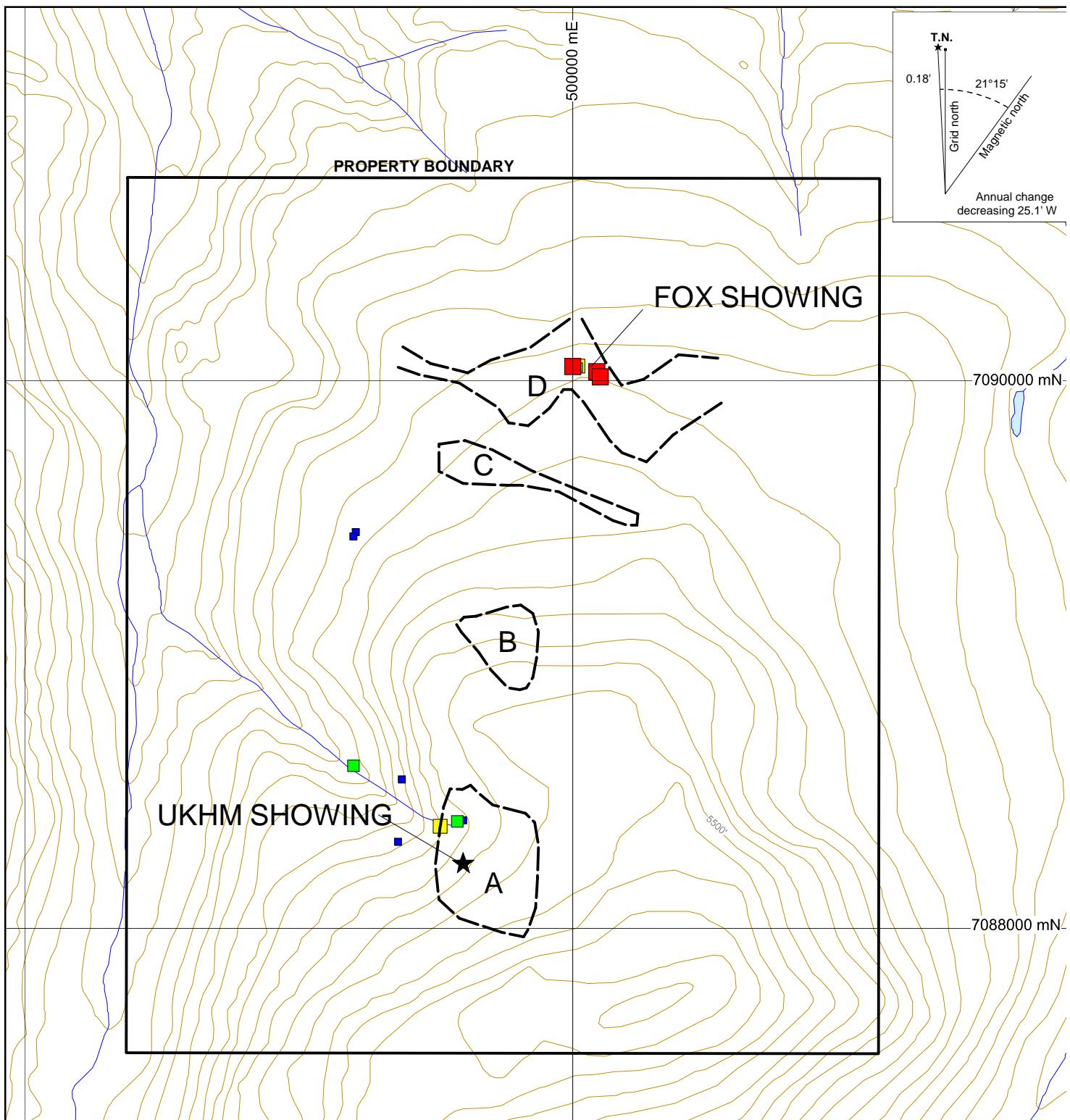
**FIGURE 12**  
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**COPPER ROCK GEOCHEMISTRY**  
**GRAM PROPERTY**

0 0.5 1 km

UTM ZONE 8, NAD 83, 105M/14 & 15

FILE: ...2015/GRAM DATE: MARCH 2016



**FIGURE 13**  
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
**ANTIMONY ROCK GEOCHEMISTRY**  
**GRAM PROPERTY**

0 0.5 1 km

UTM ZONE 8, NAD 83, 105M/14 & 15

FILE: ...2015/GRAM DATE: MARCH 2016

## SOIL GEOCHEMISTRY

In 1965, United Keno grid soil sampled part of the area now covered by the Gram property. The samples were analyzed for copper, lead and zinc. This work identified two areas of moderately to strongly anomalous lead values (up to 7100 ppm) in the central and south-central parts of the property (Van Tassel, 1965). Copper and zinc response was more subdued and more widespread than the lead anomalies. A compilation of the significant historical lead geochemical data is presented in Figure 3.

In 2011, Mill City collected 300 grid soil samples at 50 m spacings on six north-south oriented lines located 200 m apart. In 2015, Strategic collected another 156 grid soil samples, extending some of the 2011 lines. The 2015 sample locations are plotted on Figure 14, while results from 2011 and 2015 are illustrated thematically for silver, lead, zinc, gold, copper, arsenic and antimony on Figures 15 to 21, respectively. Certificates of Analysis are provided in Appendix IV.

All recent soil sample locations were recorded using hand-held GPS units. Sample sites are marked by aluminum tags inscribed with the sample numbers and affixed to 0.5 m wooden lath that were driven into the ground. Soil samples were collected from 20 to 60 cm deep holes dug by mattock or hand-held auger. They were placed into individually pre-numbered Kraft paper bags. The soil samples were sent to ALS Minerals in Whitehorse, Yukon and North Vancouver, B.C. They were dried, screened to -180 microns, dissolved in aqua regia solution and then analyzed for 35 elements using the inductively coupled plasma with atomic emission spectroscopy technique (ME-ICP41). An additional 30 g charge was further analysed for gold by fire assay with inductively coupled plasma-atomic emissions spectroscopy finish (Au-ICP21).

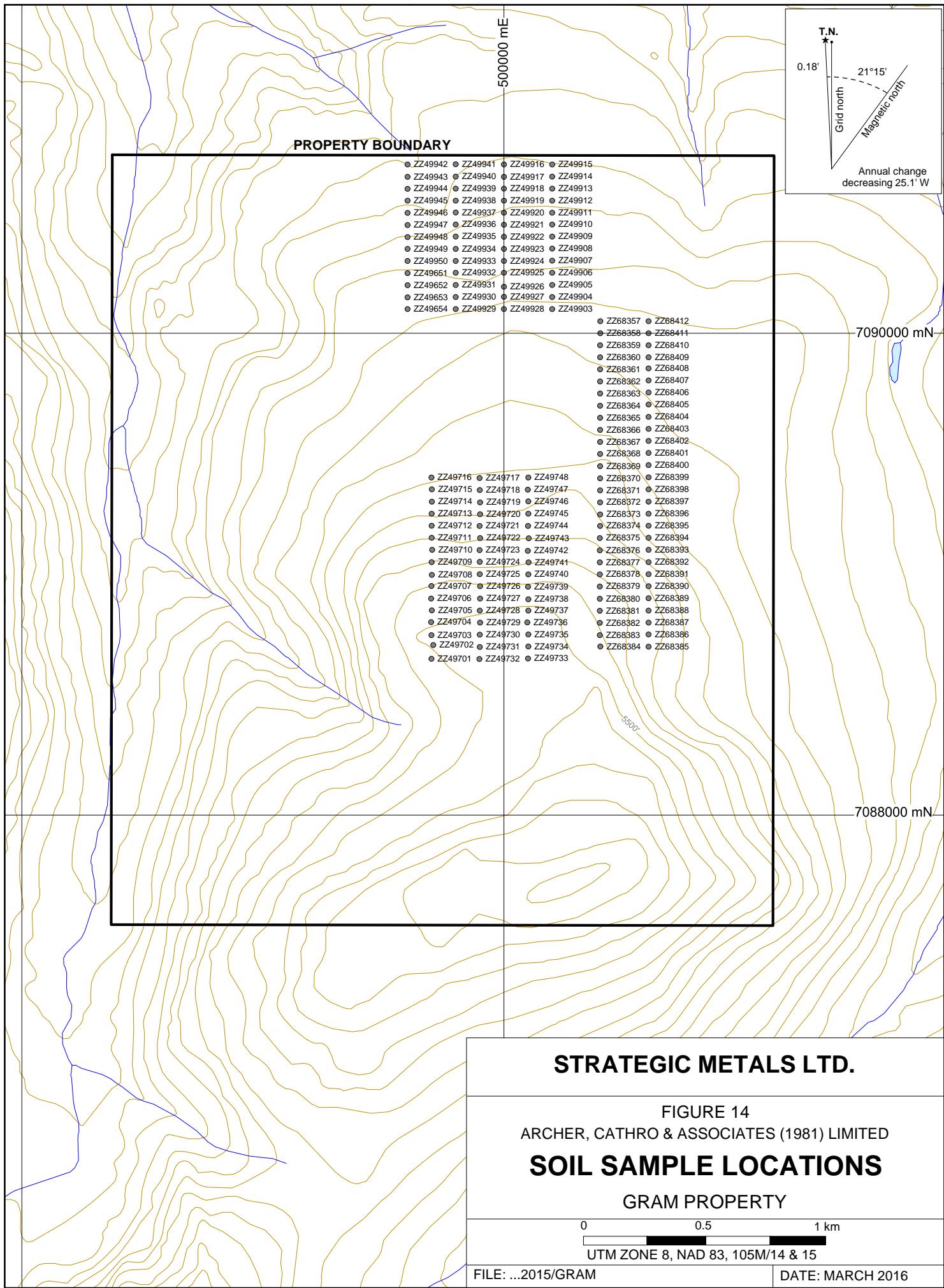
Four areas (Targets A to D) with elevated silver-lead±zinc±gold±copper±arsenic±antimony values have been identified on the Gram property. Elevated values are defined as 2 to 86.6 ppm silver, 100 to 1590 ppm lead, 500 to 8980 ppm zinc, 20 to 130 ppb gold, 100 to 336 ppm copper, 100 to 1080 ppm arsenic and 5 to 89 ppm antimony. The anomalous areas form west-northwest trends that approximately parallel bedding.

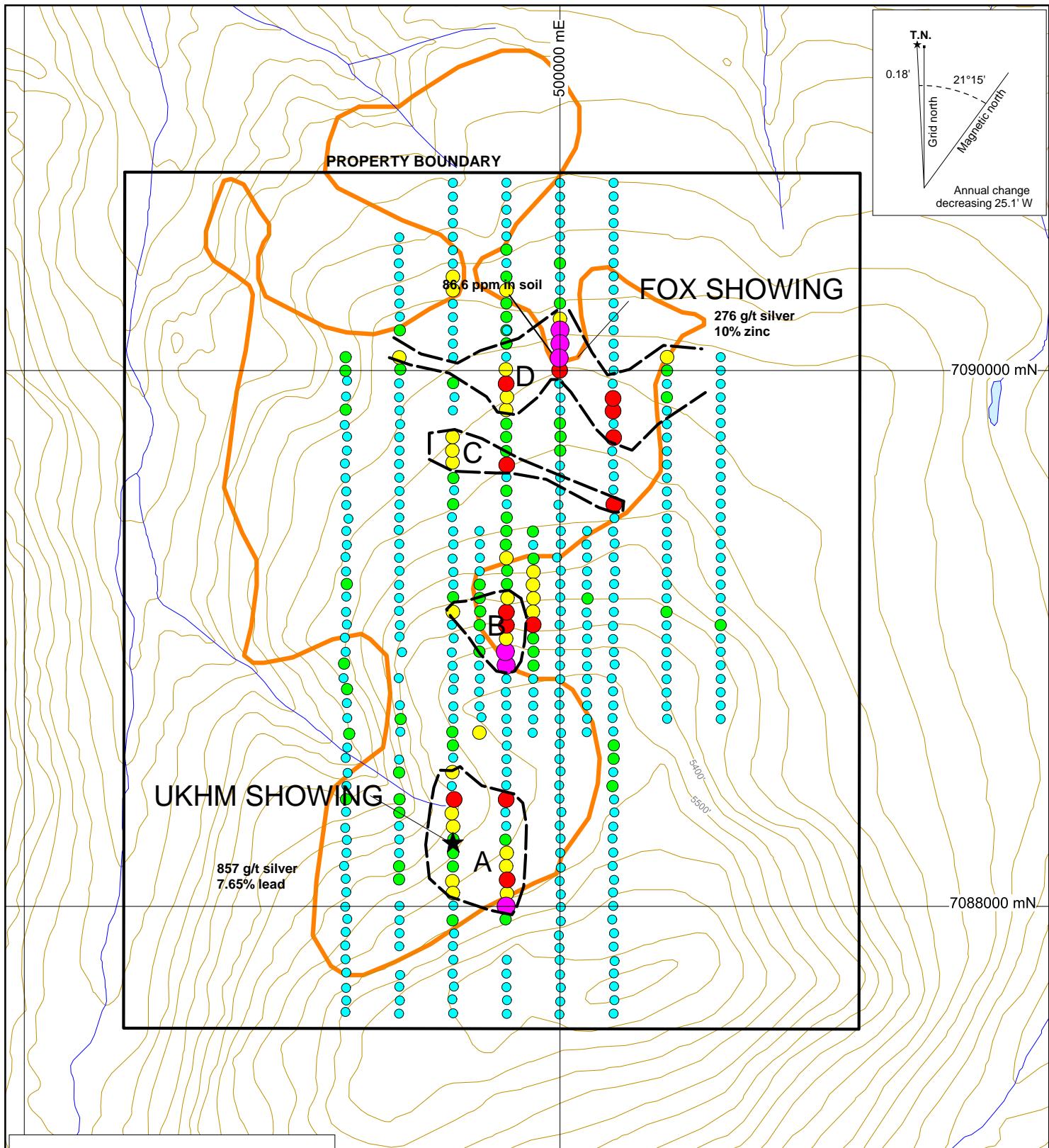
Target A is the southernmost of the anomalous trends. It is a 200 by 400 m area of coincidentally, elevated silver, lead, antimony and arsenic values. This target encompasses UKHM Showing and largely overlaps one of the historical lead anomalies.

Target B comprises a 200 by 250 m area with anomalous silver, lead, zinc and antimony response. Target B is situated 500 m north of Target A.

Target C is an elongate, 75 by 600 m area of elevated silver and lead soil geochemistry. It is located 1200 m north of Target A. The second area of elevated historical lead values plots between Targets B and C, but the historical values were not confirmed by recent sample results.

Target D is the northernmost of the anomalous areas and is located 1500 m north of Target A. It encompasses a 250 by 800 m area, which includes soil sample sites that yielded the highest values for silver, lead, arsenic, zinc and copper obtained from the geochemical surveys. This is





Soil Ag (ppm)

- ≥10 < 86.6
- ≥5 < 10
- ≥2 < 5
- ≥1 < 2
- ≥0.1 < 1
- ≥0 < 0.1

(A) Soil anomaly referred to in text

★ Ag-Pb showings

○ 2007 intense aeromagnetic low

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FIGURE 15  
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## SILVER SOIL GEOCHEMISTRY

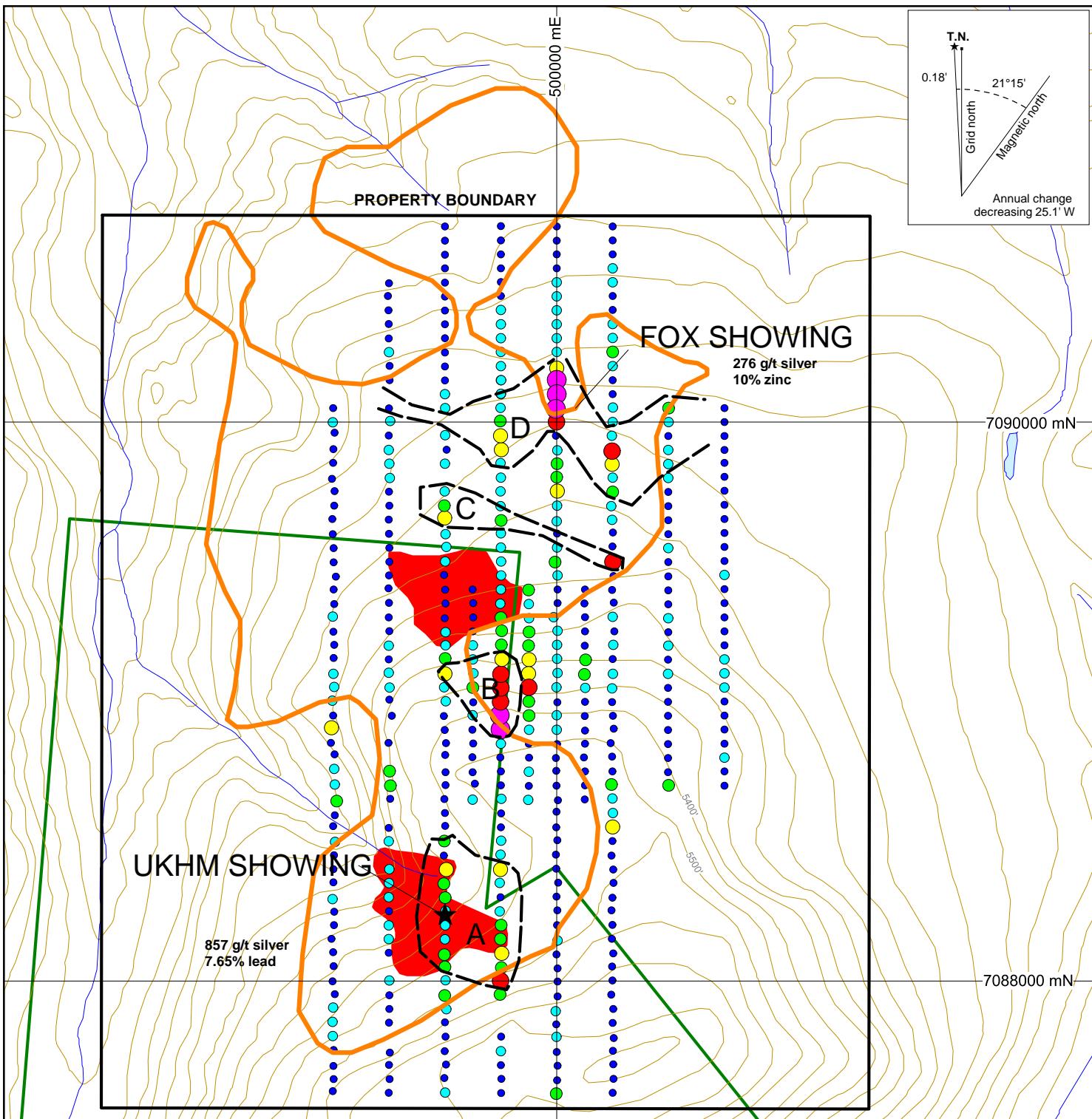
GRAM PROPERTY

0 0.5 1 km

UTM ZONE 8, NAD 83, 105M/14 & 15

FILE: ...2015/GRAM

DATE: MARCH 2016



**STRATEGIC METALS LTD.**

FIGURE 16  
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**LEAD SOIL GEOCHEMISTRY**

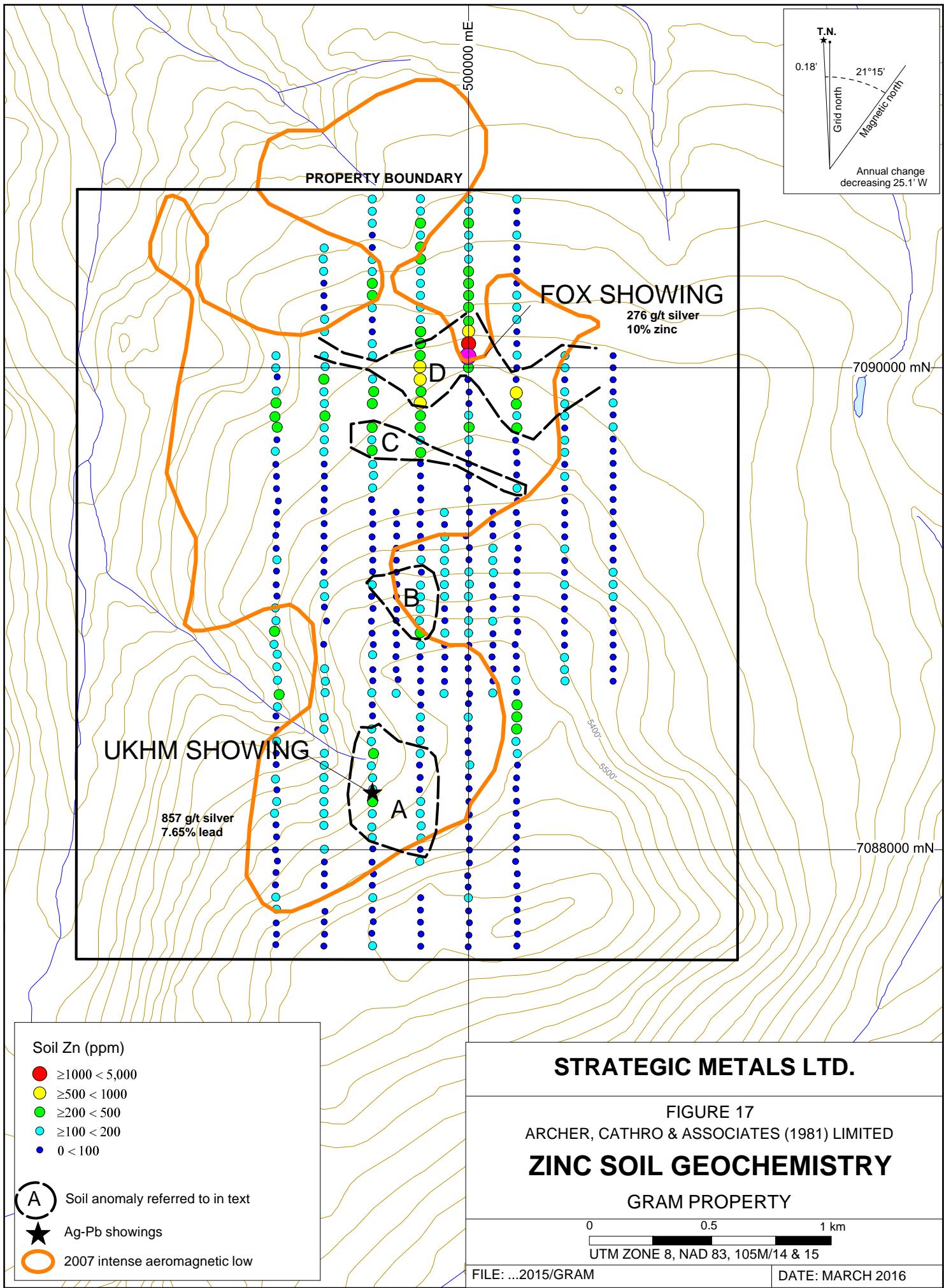
**GRAM PROPERTY**

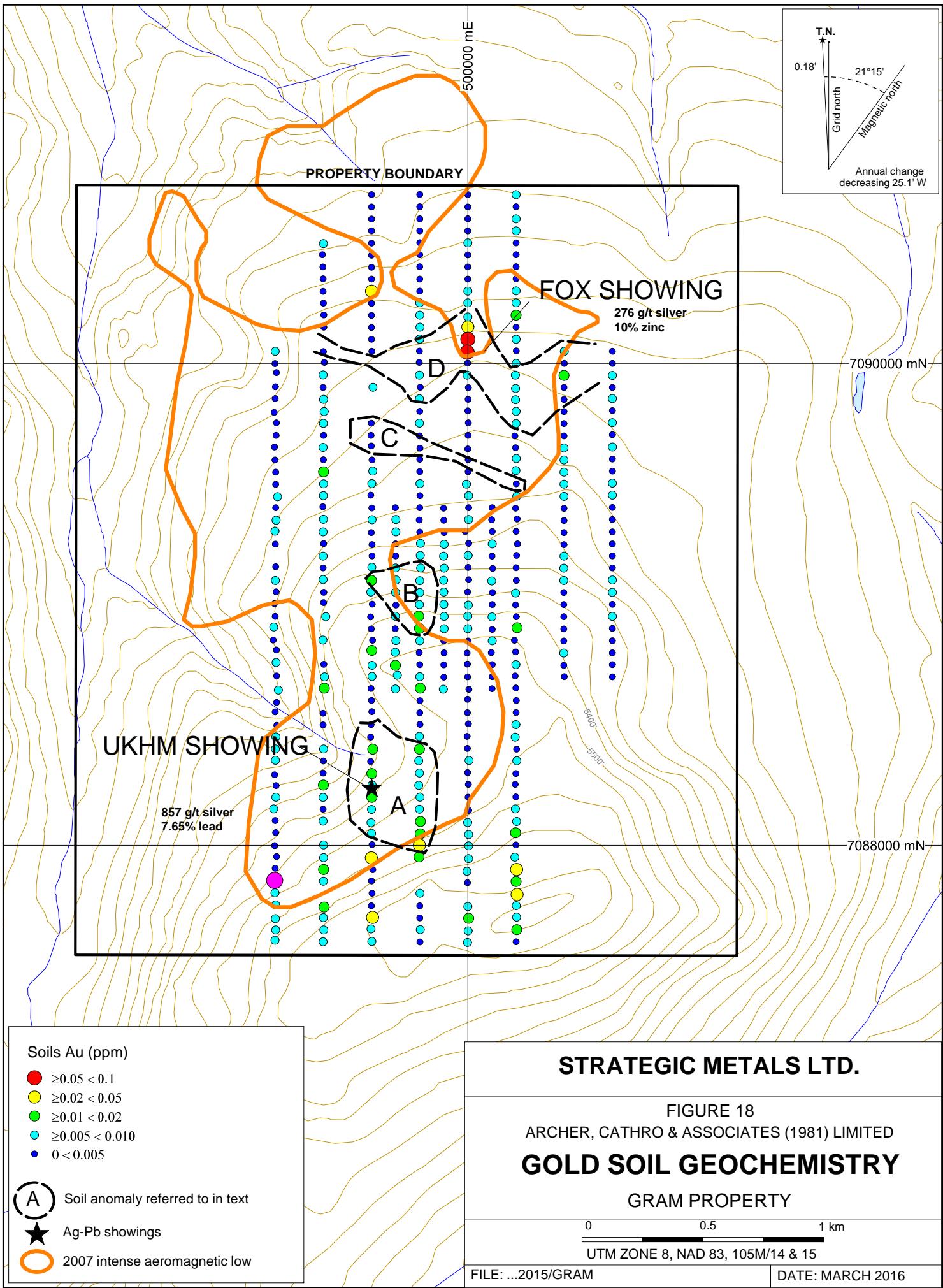
0 0.5 1 km

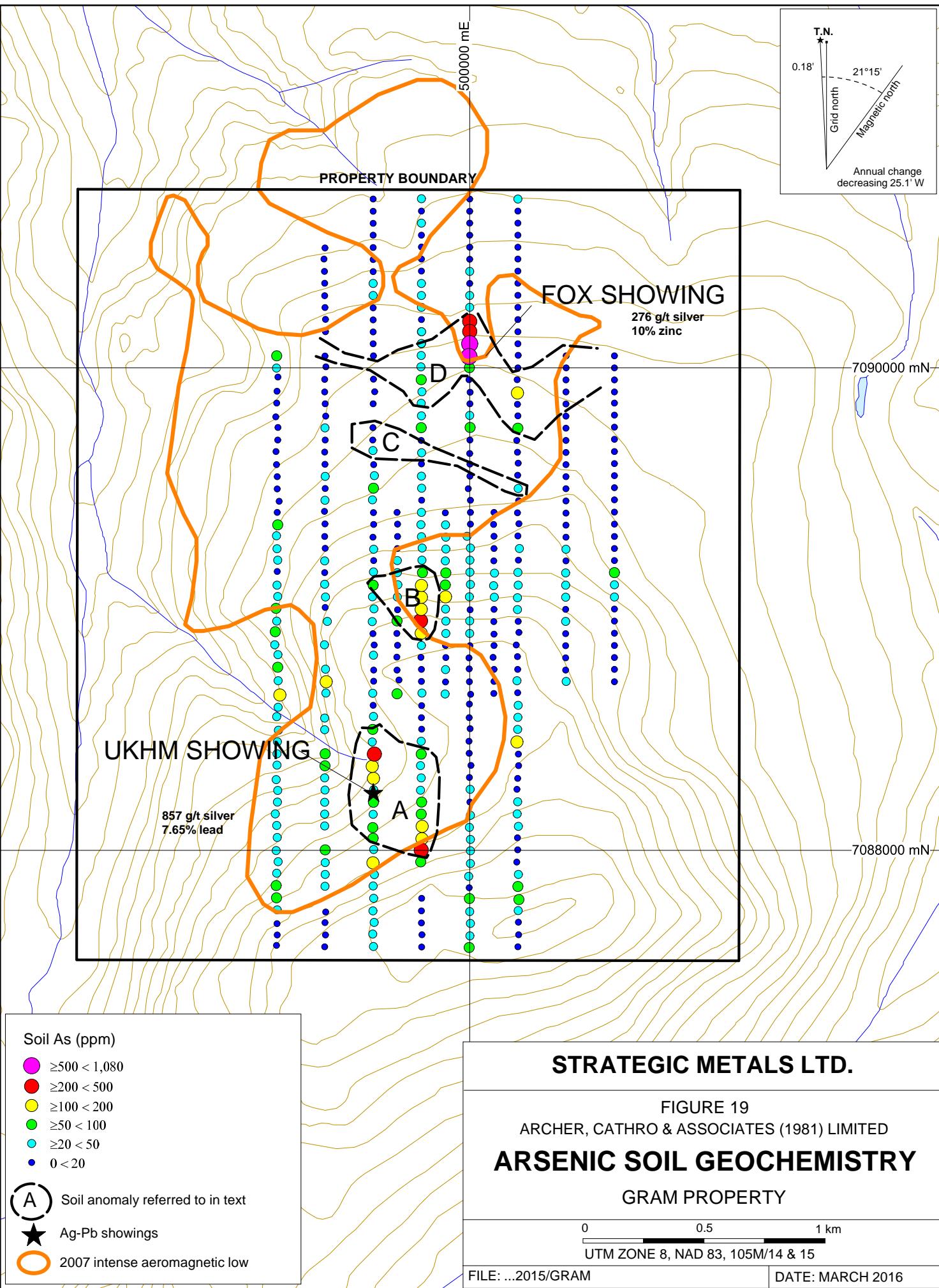
UTM ZONE 8, NAD 83, 105M/14 & 15

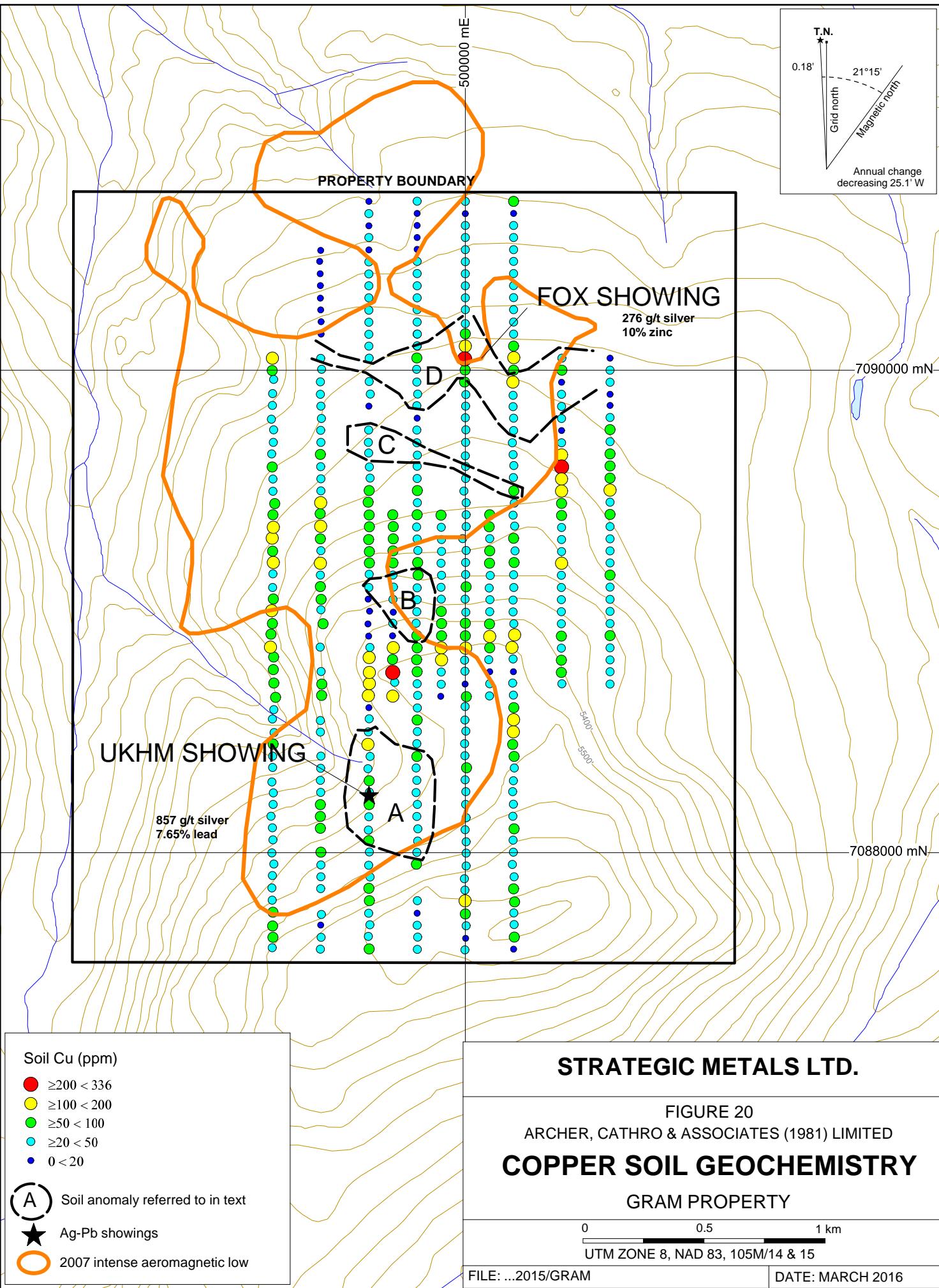
FILE: ...2015/GRAM

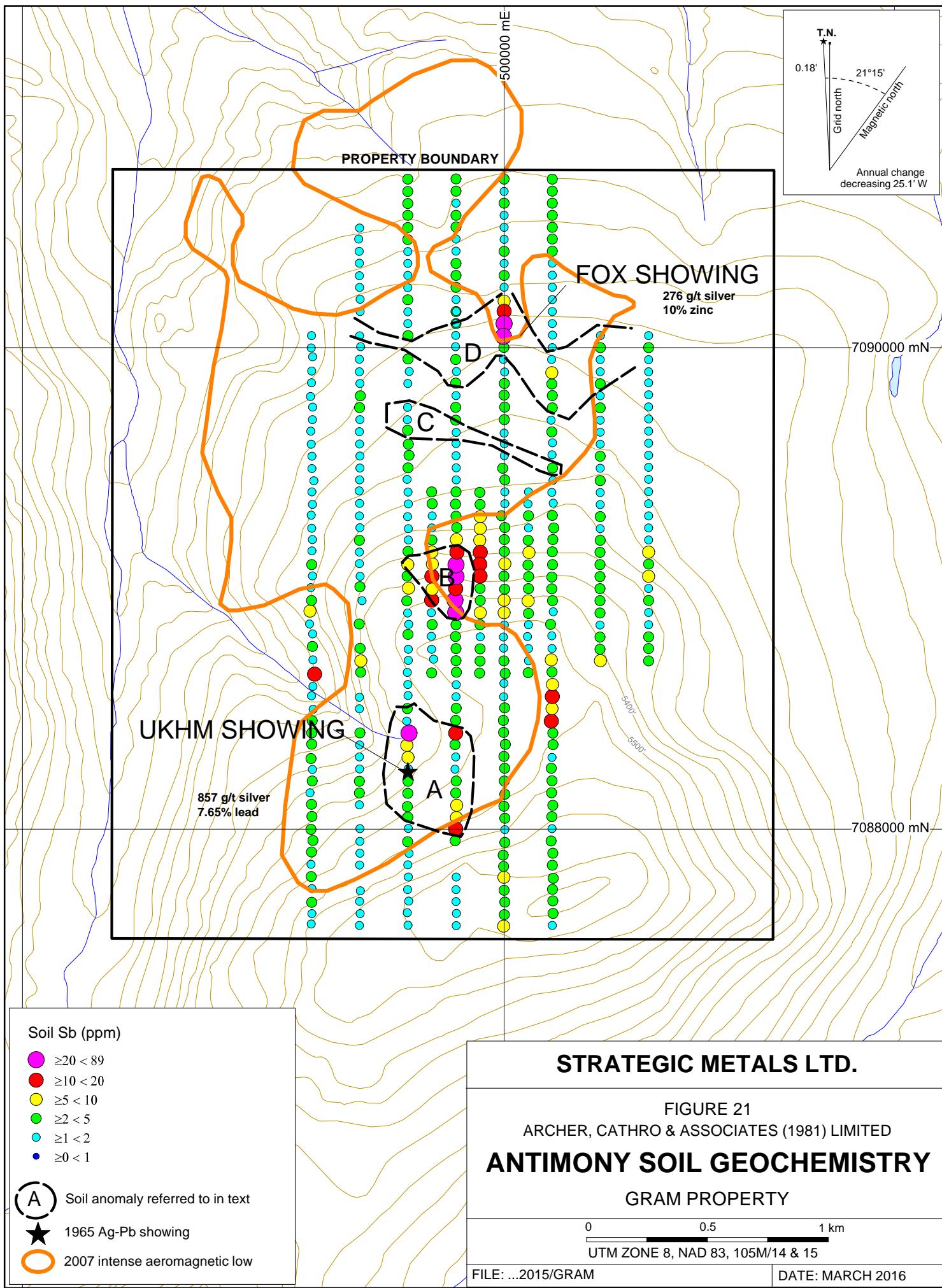
DATE: MARCH 2016











the only target where silver and lead have coincident zinc, copper and gold support. The most anomalous soil sample was collected at the Fox Showing.

The best gold-in-soil value (130 ppb) from the soil geochemical surveys is from an isolated sample collected in the southwest corner of the grid.

### **AIRBORNE GEOPHYSICS**

In 2007, Geotech Ltd. of Ontario conducted helicopter-borne, Versatile Time Domain Electromagnetic (VTEM) and magnetic surveys over the property and adjacent areas on behalf of Yukon Gold (Wengzynowski, 2007). A total of 274 line-km were flown. The following description is summarized from Wengzynowski's 2007 report.

Preliminary examination of the data shows that electromagnetic response is variable over most of the property. Broad, south-dipping conductive zones trend east-west across the property and likely record conductivity contrasts between the various rock units. The most noteworthy result of the survey is an irregular, intense magnetic low that underlies the centre of the property and extends off the claim block to the north (Figure 3).

Areas with the strongest soil geochemical response roughly coincide with the margins of the magnetic low (Figures 15 to 21).

### **DISCUSSION AND CONCLUSIONS**

The Gram property is prospective for Keno Hill style, silver-lead mineralization. Cursory work on the property has identified two showings and four soil geochemical anomalies, none of which has been followed up by detailed prospecting. The showings and soil geochemical anomalies all occur within the margins of a magnetic low that was identified by a helicopter-borne geophysical survey. Neither of the showings and none of the soil geochemical anomalies have been tested by mechanized trenching or drilling.

The Gram property definitely warrants additional work due to its favourable location within the Keno Hill District and the positive soil geochemical and prospecting results obtained from early-stage exploration. Future work should first include: 1) additional soil sampling to enlarge and infill the area of geochemical coverage; 2) detailed prospecting in areas of elevated soil response; 3) detailed structural and lithological mapping; and, 4) selective hand pitting to trace mineralized float and identify bedrock sources. Successful results from phase I work could be followed up by: 1) excavator trenching; 2) self-propelled reverse circulation or rotary air blast drilling; or, 3) diamond drilling, depending on topography in the vicinity of the target.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED



H. Burrell, B.Sc., P.Geo

## **REFERENCES**

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Yukon Geological Survey

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**APPENDIX I**

**STATEMENT OF QUALIFICATIONS**

## **STATEMENT OF QUALIFICATIONS**

I, Heather Burrell, geologist, with business addresses in Vancouver and Squamish, British Columbia and Whitehorse, Yukon Territory and residential address in Squamish do hereby certify that:

1. I graduated from the University of British Columbia in 2006 with a B.Sc in Geological Sciences.
2. From 2004 to present, I have been actively engaged in mineral exploration in the Yukon Territory, British Columbia and Northwest Territories.
3. I am a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of British Columbia.
4. I am a partner in Archer, Cathro & Associates (1981) Limited.
5. I have personally participated in the fieldwork reported herein and have interpreted all data resulting from this work.



H. Burrell, B.Sc., P.Geo

**APPENDIX II**  
**STATEMENT OF EXPENDITURES**

Statement of Expenditures  
Gram 1-42 Mineral Claims  
October 13, 2015

Labour

R. Thomas (geologist) 1 days July at \$488/day	\$ 512.40
L. Vinnedge (field assistant) 1 days July at \$408/day	428.40
A. Soucy-Fradette (field assistant) 1 days July at \$360/day	378.00
J. Mariacher (office) 3 hours October at \$90/hr	<u>283.50</u>
	1,602.30

Expenses (including management)

Field room and board – 3 mandays @ \$180/manday	612.36
TNTA Helicopters – 4.1 hours Bell 206B at \$990/hr plus fuel	5,238.94
ALS Chemex	3,492.32
JP Exploration Services	940.66
	10,284.28

Total \$11,886.58

156 samples at \$11,886.58 = \$76.20/sample

**APPENDIX III**  
**ROCK SAMPLE DESCRIPTIONS**

Rock Sample Descriptions		Property: Gram Property		
Sample Number:	I357308	UTM:	500019 mE	Nad83, Zone 8
Elevation:	1425 m	UTM:	7090052 mN	
Comments: Heavy boxworked to massive limonite with rare blackjack sphalerite. Structurally controlled 020/78E.				
Sample Number:	I357309	UTM:	500088 mE	Nad83, Zone 8
Elevation:	1429 m	UTM:	7090032 mN	
Comments: composite grab sample, three pieces over two metre area. Very pitted, heavy, limonite altered band. 40x15x25 cm.				
Sample Number:	R608496	UTM:	500019 mE	Nad83, Zone 8
Elevation:	1423 m	UTM:	7090047 mN	
Comments: few cm to 5 cm drusy quartz vein with limonite, scorodite, boxwork after sulphide in 15 cm wide rusty zone in greenstone trending 120/10S				
Sample Number:	R608496	UTM:	500019 mE	Nad83, Zone 8
Elevation:	1423 m	UTM:	7090047 mN	
Comments: few cm to 5 cm drusy quartz vein with limonite, scorodite, boxwork after sulphide in 15 cm wide rusty zone in greenstone trending 120/10S				
Sample Number:	R608497	UTM:	500101 mE	Nad83, Zone 8
Elevation:	1440 m	UTM:	7090013 mN	
Comments: composite grab of float of highly oxidized limonite-Mn rubbly looking grunge, in gully in greenstone and just above at GPS coordinate				
Sample Number:	R608497	UTM:	500101 mE	Nad83, Zone 8
Elevation:	1440 m	UTM:	7090013 mN	
Comments: composite grab of float of highly oxidized limonite-Mn rubbly looking grunge, in gully in greenstone and just above at GPS coordinate				

**APPENDIX IV**

**CERTIFICATES OF ANALYSIS**



ALS Canada Ltd.  
2103 Dollarton Hwy  
North Vancouver BC V7H 0A7  
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218  
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To: **ROCKHAVEN RESOURCES LTD.**  
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**1016 - 510 W HASTINGS STREET**  
**VANCOUVER BC V6B 1L8**

Page: 1  
Total # Pages: 2 (A - D)  
Plus Appendix Pages  
Finalized Date: 8-OCT-2015  
Account: ROCKHA

## CERTIFICATE VA15148181

Project: GRAM

This report is for 4 Rock samples submitted to our lab in Vancouver, BC, Canada on 28-SEP-2015.

The following have access to data associated with this certificate:

HEATHER BURRELL  
JARED TARSWELL

MATT DUMALA

JOAN MARIACHER

### SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-21	Sample logging - ClientBarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

### ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME-MS61	48 element four acid ICP-MS	
Aq-OG62	Ore Grade Ag - Four Acid	VARIABLE
ME-OG62	Ore Grade Elements - Four Acid	ICP-AES
Zn-OG62	Ore Grade Zn - Four Acid	VARIABLE
Au-ICP21	Au 30g FA ICP-AES Finish	ICP-AES

To: **ROCKHAVEN RESOURCES LTD.**  
**ATTN: HEATHER BURRELL**  
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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.

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*

**Signature:**

Colin Ramshaw, Vancouver Laboratory Manager



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Total # Pages: 2 (A - D)  
Plus Appendix Pages  
Finalized Date: 8-OCT-2015  
Account: ROCKHA

Project: GRAM

**CERTIFICATE OF ANALYSIS VA15148181**

Sample Description	Method Analyte Units LOR	WEI-21	Au-ICP21	ME-MS61												
		Revd Wt.	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
		kg	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
R608496		1.34	0.020	26.8	6.63	747	670	1.14	2.75	0.19	32.6	13.30	12.5	19	18.85	188.5
R608497		0.92	0.115	47.4	3.95	8290	630	0.57	1.80	0.17	192.5	7.59	9.2	67	15.80	194.5
I357308		1.82	0.132	43.0	7.13	1605	520	1.02	4.42	0.05	44.0	27.2	8.0	10	29.8	64.5
I357309		0.74	0.007	>100	0.39	320	40	0.18	0.16	10.25	>1000	9.88	14.3	1	1.65	674



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Account: ROCKHA

Project: GRAM

**CERTIFICATE OF ANALYSIS VA15148181**

Sample Description	Method	ME-MS61														
	Analyte	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P
	Units	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2	10
R608496		8.45	28.3	0.12	0.3	12.25	2.23	6.1	54.4	1.68	629	1.07	0.07	7.5	19.8	600
R608497		25.0	18.80	0.19	0.1	6.39	1.65	3.9	11.7	0.26	34800	3.94	0.05	2.3	19.1	1160
I357308		11.30	31.3	0.14	0.3	3.11	3.44	12.4	14.7	0.37	3010	2.40	0.04	9.8	3.9	360
I357309		18.35	5.71	0.13	0.1	16.60	0.10	3.8	2.5	0.92	30700	0.82	0.03	0.4	18.5	180



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Page: 2 - C  
Total # Pages: 2 (A - D)  
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**CERTIFICATE OF ANALYSIS VA15148181**

Sample Description	Method	ME-MS61														
	Analyte	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Tl	Tl	U
	Units	ppm	ppm	ppm	%	ppm	%	ppm	ppm							
	LOR	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.01	0.005	0.02	0.1
R608496		47.5	258	<0.002	0.18	7.72	36.3	1	>500	15.5	0.48	<0.05	0.68	0.833	3.11	0.2
R608497		3650	239	<0.002	0.16	138.0	21.1	4	170.5	45.0	0.14	<0.05	0.41	0.252	3.25	0.6
I357308		501	500	<0.002	0.10	48.2	41.6	1	398	10.6	0.65	<0.05	1.02	0.930	6.84	0.3
I357309		227	11.3	<0.002	0.56	216	16.7	5	346	106.5	<0.05	<0.05	0.25	0.031	0.22	0.4



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Page: 2 - D  
Total # Pages: 2 (A - D)  
Plus Appendix Pages  
Finalized Date: 8-OCT-2015  
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Project: GRAM

**CERTIFICATE OF ANALYSIS VA15148181**

Sample Description	Method Analyte Units LOR	ME-MS61 V ppm 1	ME-MS61 W ppm 0.1	ME-MS61 Y ppm 0.1	ME-MS61 Zn ppm 2	ME-MS61 Zr ppm 0.5	Ag-OG62 Ag ppm 1	Zn-OG62 Zn % 0.001
R608496		373	13.1	8.0	1640	6.3		
R608497		181	3.2	7.8	9900	2.7		
I357308		560	12.1	6.2	1800	7.4		
I357309		40	0.5	20.5	>10000	2.3	305	12.55



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Page: Appendix 1  
Total # Appendix Pages: 1  
Finalized Date: 8-OCT-2015  
Account: ROCKHA

Project: GRAM

## CERTIFICATE OF ANALYSIS VA15148181

<b>CERTIFICATE COMMENTS</b>													
Applies to Method:	<p>REE's may not be totally soluble in this method. ME-MS61</p> <p><b>ANALYTICAL COMMENTS</b></p>												
Applies to Method:	<p>Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.</p> <table><tbody><tr><td>Ag-OG62</td><td>Au-ICP21</td><td>CRU-31</td><td>LOG-21</td></tr><tr><td>ME-MS61</td><td>ME-OG62</td><td>PUL-31</td><td>SPL-21</td></tr><tr><td>WEI-21</td><td>Zn-OG62</td><td></td><td></td></tr></tbody></table> <p><b>LABORATORY ADDRESSES</b></p>	Ag-OG62	Au-ICP21	CRU-31	LOG-21	ME-MS61	ME-OG62	PUL-31	SPL-21	WEI-21	Zn-OG62		
Ag-OG62	Au-ICP21	CRU-31	LOG-21										
ME-MS61	ME-OG62	PUL-31	SPL-21										
WEI-21	Zn-OG62												



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Account: ROCKHA

## CERTIFICATE WH15106359

Project: GRAM  
P.O. No.: GRAM  
This report is for 156 Soil samples submitted to our lab in Whitehorse, YT, Canada on 21-JUL-2015.

The following have access to data associated with this certificate:

MATT DUMALA

JOAN MARIACHER

JARED TARSWELL

### SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
SCR-41	Screen to -180um and save both

### ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-ICP21	Au 30g FA ICP-AES Finish	ICP-AES
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

To: **ROCKHAVEN RESOURCES LTD.**  
**ATTN: JOAN MARIACHER**  
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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.

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*

**Signature:**

Colin Ramshaw, Vancouver Laboratory Manager

A handwritten signature in black ink, appearing to read "Colin Ramshaw".



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Total # Pages: 5 (A - C)  
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Finalized Date: 1-AUG-2015  
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Project: GRAM

**CERTIFICATE OF ANALYSIS WH15106359**

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt.	ME-ICP41 Ag ppm	ME-ICP41 Al %	ME-ICP41 As ppm	ME-ICP41 B ppm	ME-ICP41 Ba ppm	ME-ICP41 Be ppm	ME-ICP41 Bi ppm	ME-ICP41 Ca %	ME-ICP41 Cd ppm	ME-ICP41 Co ppm	ME-ICP41 Cr ppm	ME-ICP41 Cu ppm	ME-ICP41 Fe %	ME-ICP41 Ga ppm
ZZ68357		0.48	3.0	1.71	15	<10	110	<0.5	2	0.17	0.6	8	29	46	2.43	<10
ZZ68358		0.44	1.3	1.73	11	<10	120	<0.5	<2	0.18	<0.5	9	30	62	2.49	<10
ZZ68359		0.40	0.5	1.46	10	<10	80	<0.5	<2	0.08	<0.5	6	29	14	2.60	10
ZZ68360		0.36	1.0	1.66	14	<10	100	<0.5	<2	0.15	0.5	9	29	42	3.01	10
ZZ68361		0.47	0.7	1.63	15	<10	90	<0.5	<2	0.16	0.5	9	28	28	2.52	<10
ZZ68362		0.41	0.8	1.57	13	<10	100	<0.5	<2	0.23	0.9	10	28	35	2.31	<10
ZZ68363		0.42	0.3	1.46	13	<10	90	<0.5	<2	0.10	<0.5	7	26	18	2.51	<10
ZZ68364		0.43	0.4	2.01	11	<10	170	0.6	<2	0.35	<0.5	9	31	39	2.66	10
ZZ68365		0.51	0.5	1.85	15	<10	150	0.5	<2	0.51	0.9	20	33	152	3.40	10
ZZ68366		0.42	<0.2	1.08	8	<10	120	<0.5	<2	0.22	<0.5	8	16	336	2.17	10
ZZ68367		0.56	0.4	1.83	10	<10	220	0.5	<2	0.42	0.5	15	34	116	3.08	<10
ZZ68368		0.46	0.3	1.87	9	<10	200	<0.5	<2	0.28	<0.5	13	43	160	2.54	<10
ZZ68369		0.45	0.3	1.68	9	<10	150	<0.5	<2	0.19	<0.5	9	39	58	2.36	<10
ZZ68370		0.50	0.5	1.40	11	<10	150	<0.5	2	0.12	<0.5	9	24	70	2.74	<10
ZZ68371		0.40	0.2	1.05	8	<10	140	<0.5	2	0.06	<0.5	8	21	45	2.09	<10
ZZ68372		0.43	0.4	1.68	15	<10	120	<0.5	<2	0.07	<0.5	8	29	42	2.78	<10
ZZ68373		0.44	0.5	1.00	46	<10	120	<0.5	<2	0.11	1.0	9	21	49	2.01	<10
ZZ68374		0.50	0.4	1.29	10	<10	160	<0.5	<2	0.06	<0.5	16	19	118	2.63	<10
ZZ68375		0.53	0.3	1.00	21	<10	80	<0.5	<2	0.12	0.5	6	19	30	2.13	<10
ZZ68376		0.47	1.0	1.18	46	<10	80	<0.5	<2	0.11	0.6	7	20	26	2.39	<10
ZZ68377		0.42	0.4	0.95	24	<10	70	<0.5	<2	0.08	<0.5	5	18	22	2.14	<10
ZZ68378		0.39	<0.2	1.87	16	<10	140	<0.5	<2	0.11	0.5	11	31	26	3.26	10
ZZ68379		0.41	0.4	1.51	23	<10	110	<0.5	<2	0.15	<0.5	8	25	41	2.74	<10
ZZ68380		0.47	<0.2	1.47	12	<10	170	<0.5	<2	0.15	<0.5	9	25	62	2.46	<10
ZZ68381		0.50	0.3	1.32	12	<10	110	<0.5	<2	0.14	<0.5	8	24	33	2.62	<10
ZZ68382		0.46	0.5	1.62	14	<10	210	<0.5	<2	0.15	0.8	8	25	52	2.68	10
ZZ68383		0.36	0.4	1.66	19	<10	210	<0.5	<2	0.16	0.8	10	26	82	2.99	10
ZZ68384		0.40	0.8	2.54	31	<10	410	0.6	<2	0.10	0.9	30	29	49	4.71	10
ZZ68385		0.40	0.6	0.99	16	<10	110	<0.5	<2	0.08	1.5	4	20	46	2.03	<10
ZZ68386		0.55	0.3	1.92	18	<10	150	<0.5	<2	0.09	<0.5	9	32	38	3.33	10
ZZ68387		0.38	0.2	1.33	16	<10	130	<0.5	<2	0.07	<0.5	7	22	24	2.59	<10
ZZ68388		0.37	<0.2	1.58	10	<10	110	<0.5	<2	0.09	<0.5	6	24	37	2.38	10
ZZ68389		0.46	0.2	1.84	9	<10	120	<0.5	<2	0.27	<0.5	10	38	89	2.34	<10
ZZ68390		0.48	0.3	1.91	17	<10	120	0.5	<2	0.10	<0.5	11	28	32	3.17	<10
ZZ68391		0.33	0.6	1.16	10	<10	140	<0.5	<2	0.09	<0.5	4	21	22	2.02	<10
ZZ68392		0.33	1.1	1.11	37	<10	100	<0.5	<2	0.09	0.8	6	21	24	2.70	<10
ZZ68393		0.46	0.7	0.71	28	<10	50	<0.5	<2	0.07	<0.5	5	15	26	2.02	<10
ZZ68394		0.40	0.6	0.91	55	<10	90	<0.5	<2	0.09	0.7	8	16	53	2.52	<10
ZZ68395		0.42	0.2	1.38	13	<10	100	<0.5	<2	0.08	<0.5	8	25	34	2.36	<10
ZZ68396		0.33	0.3	1.53	14	<10	120	<0.5	<2	0.07	<0.5	13	26	41	2.50	<10

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*



ALS Canada Ltd.  
2103 Dollarton Hwy  
North Vancouver BC V7H 0A7  
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218  
www.alsglobal.com

To: **ROCKHAVEN RESOURCES LTD.**  
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**LIMITED**  
**1016 - 510 W HASTINGS STREET**  
**VANCOUVER BC V6B 1L8**

Page: 2 - B  
Total # Pages: 5 (A - C)  
Plus Appendix Pages  
Finalized Date: 1-AUG-2015  
Account: ROCKHA

Project: GRAM

**CERTIFICATE OF ANALYSIS WH15106359**

Sample Description	Method Analyte Units LOR	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20
ZZ68357		<1	0.05	10	0.47	303	1	0.02	21	870	51	0.03	<2	3	13	<20
ZZ68358		1	0.05	10	0.55	316	1	0.01	24	800	28	0.03	2	2	20	<20
ZZ68359		<1	0.05	10	0.35	398	1	0.01	12	600	18	0.07	<2	1	9	<20
ZZ68360		1	0.07	10	0.66	492	1	0.02	19	880	20	0.04	<2	2	9	<20
ZZ68361		1	0.05	10	0.49	386	1	0.01	22	1090	21	0.03	2	1	11	<20
ZZ68362		1	0.04	10	0.47	344	2	0.01	31	1060	21	0.02	<2	2	14	<20
ZZ68363		<1	0.04	10	0.43	474	1	0.01	18	710	18	0.04	2	1	9	<20
ZZ68364		1	0.05	20	0.63	575	3	0.02	27	1100	10	0.06	<2	2	15	<20
ZZ68365		<1	0.16	20	0.78	641	1	0.02	53	1390	17	0.05	<2	4	24	<20
ZZ68366		1	0.09	10	0.34	209	<1	0.01	13	710	5	0.02	<2	2	15	<20
ZZ68367		1	0.24	20	0.97	450	2	0.02	38	1350	28	0.05	2	4	24	<20
ZZ68368		1	0.06	10	0.63	618	<1	0.02	35	860	12	0.03	<2	3	37	<20
ZZ68369		1	0.05	10	0.46	317	<1	0.02	26	540	11	0.02	2	2	13	<20
ZZ68370		1	0.04	20	0.49	510	1	0.01	26	770	15	0.02	<2	2	11	<20
ZZ68371		<1	0.03	10	0.43	526	1	0.01	23	460	13	0.02	<2	1	7	<20
ZZ68372		<1	0.04	10	0.49	422	1	0.01	22	650	22	0.04	3	2	10	<20
ZZ68373		1	0.04	10	0.37	405	<1	0.01	23	640	19	0.02	<2	2	10	<20
ZZ68374		1	0.05	20	0.49	686	1	0.01	31	570	30	0.03	2	2	12	<20
ZZ68375		1	0.03	10	0.32	294	1	0.01	18	700	14	0.02	3	2	10	<20
ZZ68376		1	0.04	10	0.32	346	<1	0.01	18	730	32	0.03	2	2	11	<20
ZZ68377		1	0.03	10	0.26	224	<1	0.01	16	670	19	0.03	4	1	9	<20
ZZ68378		<1	0.05	10	0.46	711	1	0.01	20	710	17	0.05	2	1	13	<20
ZZ68379		1	0.04	10	0.39	351	1	0.01	21	900	13	0.04	3	2	14	<20
ZZ68380		<1	0.04	10	0.40	290	1	0.01	23	860	8	0.04	2	2	14	<20
ZZ68381		1	0.03	20	0.35	323	1	0.01	28	910	9	0.03	<2	2	13	<20
ZZ68382		2	0.05	20	0.52	255	1	0.02	22	960	17	0.05	3	1	15	<20
ZZ68383		1	0.05	20	0.53	322	1	0.02	23	830	17	0.05	4	2	24	<20
ZZ68384		<1	0.08	50	0.75	1090	2	0.02	28	1270	56	0.13	5	2	23	<20
ZZ68385		1	0.04	10	0.22	117	1	0.01	13	1350	9	0.09	2	<1	11	<20
ZZ68386		<1	0.05	10	0.51	519	1	0.01	22	680	15	0.05	3	1	12	<20
ZZ68387		<1	0.04	10	0.32	535	1	0.01	16	830	21	0.06	2	1	9	<20
ZZ68388		1	0.04	10	0.31	212	1	0.01	18	800	9	0.04	<2	1	11	<20
ZZ68389		1	0.03	10	0.53	250	<1	0.02	27	980	7	0.04	<2	2	25	<20
ZZ68390		1	0.04	10	0.39	345	<1	0.01	25	540	19	0.03	3	3	11	<20
ZZ68391		<1	0.03	10	0.24	130	<1	0.02	14	920	16	0.08	<2	1	10	<20
ZZ68392		<1	0.03	10	0.29	274	1	0.01	16	770	44	0.03	7	1	10	<20
ZZ68393		<1	0.03	10	0.23	252	1	<0.01	15	640	30	0.03	4	1	7	<20
ZZ68394		<1	0.03	10	0.25	480	1	<0.01	28	720	33	0.02	5	2	9	<20
ZZ68395		<1	0.04	10	0.40	430	1	<0.01	20	570	10	0.04	<2	1	10	<20
ZZ68396		<1	0.05	10	0.47	782	1	<0.01	22	660	14	0.05	<2	1	9	<20

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2103 Dollarton Hwy  
North Vancouver BC V7H 0A7  
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218  
www.alsglobal.com

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Page: 2 - C  
Total # Pages: 5 (A - C)  
Plus Appendix Pages  
Finalized Date: 1-AUG-2015  
Account: ROCKHA

Project: GRAM

**CERTIFICATE OF ANALYSIS WH15106359**

Sample Description	Method Analyte Units LOR	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	Au-ICP21
		Ti %	Ti ppm	U ppm	V ppm	W ppm	Zn ppm	Au ppm
		0.01	10	10	1	10	2	0.001
ZZ68357		0.05	<10	<10	47	<10	107	0.006
ZZ68358		0.06	<10	<10	46	<10	109	0.003
ZZ68359		0.05	<10	<10	55	<10	63	0.011
ZZ68360		0.05	<10	<10	57	<10	135	0.002
ZZ68361		0.03	<10	<10	45	<10	111	0.003
ZZ68362		0.04	<10	<10	40	<10	131	0.003
ZZ68363		0.04	<10	<10	40	<10	96	0.003
ZZ68364		0.03	<10	<10	45	<10	120	0.003
ZZ68365		0.06	<10	<10	57	<10	131	0.007
ZZ68366		0.07	<10	<10	37	<10	53	0.005
ZZ68367		0.10	<10	<10	49	<10	100	0.005
ZZ68368		0.07	<10	<10	50	<10	76	0.007
ZZ68369		0.08	<10	<10	47	<10	56	0.008
ZZ68370		0.03	<10	<10	38	<10	81	0.004
ZZ68371		0.02	<10	<10	32	<10	71	0.002
ZZ68372		0.04	<10	<10	48	<10	92	0.002
ZZ68373		0.04	<10	<10	30	<10	139	0.004
ZZ68374		0.03	<10	<10	24	<10	93	0.005
ZZ68375		0.04	<10	<10	33	<10	89	0.008
ZZ68376		0.04	<10	<10	36	<10	122	0.007
ZZ68377		0.03	<10	<10	34	<10	98	0.003
ZZ68378		0.04	<10	<10	59	<10	82	0.001
ZZ68379		0.04	<10	<10	47	<10	91	0.004
ZZ68380		0.04	<10	<10	46	<10	64	0.003
ZZ68381		0.03	<10	<10	37	<10	76	0.004
ZZ68382		0.04	<10	<10	44	<10	106	0.005
ZZ68383		0.05	<10	<10	55	<10	101	0.004
ZZ68384		0.04	<10	<10	48	<10	166	0.004
ZZ68385		<0.01	<10	<10	39	<10	60	0.001
ZZ68386		0.04	<10	<10	59	<10	90	0.002
ZZ68387		0.03	<10	<10	42	<10	79	0.002
ZZ68388		0.03	<10	<10	54	<10	53	<0.001
ZZ68389		0.04	<10	<10	50	<10	58	0.004
ZZ68390		0.05	<10	<10	49	<10	98	0.005
ZZ68391		0.02	<10	<10	39	<10	67	0.002
ZZ68392		0.03	<10	<10	34	<10	149	0.008
ZZ68393		0.03	<10	<10	25	<10	111	0.006
ZZ68394		0.02	<10	<10	27	<10	180	0.003
ZZ68395		0.04	<10	<10	42	<10	86	0.002
ZZ68396		0.04	<10	<10	43	<10	90	0.001



ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218  
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Page: 3 - A  
 Total # Pages: 5 (A - C)  
 Plus Appendix Pages  
 Finalized Date: 1-AUG-2015  
 Account: ROCKHA

Project: GRAM

**CERTIFICATE OF ANALYSIS WH15106359**

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt.	ME-ICP41 Ag ppm	ME-ICP41 Al %	ME-ICP41 As ppm	ME-ICP41 B ppm	ME-ICP41 Ba ppm	ME-ICP41 Be ppm	ME-ICP41 Bi ppm	ME-ICP41 Ca %	ME-ICP41 Cd ppm	ME-ICP41 Co ppm	ME-ICP41 Cr ppm	ME-ICP41 Cu ppm	ME-ICP41 Fe %	ME-ICP41 Ga ppm
		kg	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm
		0.02	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	0.01	10	
ZZ68397		0.33	0.2	1.47	12	<10	130	<0.5	<2	0.12	<0.5	8	27	49	2.39	<10
ZZ68398		0.32	0.2	1.18	9	<10	110	<0.5	<2	0.05	<0.5	8	23	34	2.30	<10
ZZ68399		0.32	0.6	1.66	13	<10	130	<0.5	<2	0.07	<0.5	8	27	57	2.86	10
ZZ68400		0.33	0.8	1.32	10	<10	140	<0.5	<2	0.10	0.6	12	27	41	2.34	<10
ZZ68401		0.41	0.6	1.87	9	<10	190	<0.5	<2	0.29	0.5	15	39	146	2.45	<10
ZZ68402		0.38	0.5	1.68	11	<10	110	<0.5	<2	0.16	<0.5	10	30	67	2.67	10
ZZ68403		0.48	0.9	1.76	11	<10	120	<0.5	<2	0.18	<0.5	10	30	71	2.56	<10
ZZ68404		0.45	0.4	1.92	12	<10	120	<0.5	<2	0.13	<0.5	9	32	78	2.83	10
ZZ68405		0.29	0.2	1.08	10	<10	120	<0.5	<2	0.05	<0.5	8	21	38	2.23	10
ZZ68406		0.47	0.4	1.51	6	<10	160	<0.5	<2	0.37	<0.5	8	24	98	2.32	10
ZZ68407		0.41	0.4	1.45	8	<10	110	<0.5	<2	0.17	<0.5	5	27	24	2.04	10
ZZ68408		0.35	0.4	1.60	9	<10	130	<0.5	<2	0.42	0.6	5	26	14	2.23	10
ZZ68409		0.39	0.2	1.32	9	<10	100	<0.5	<2	0.19	<0.5	5	24	14	2.12	<10
ZZ68410		0.43	0.2	1.53	10	<10	100	<0.5	<2	0.11	<0.5	7	27	23	2.32	<10
ZZ68411		0.34	<0.2	1.32	10	<10	90	<0.5	<2	0.07	<0.5	8	26	22	2.34	<10
ZZ68412		0.47	0.3	1.81	12	<10	150	0.5	<2	0.11	<0.5	18	28	19	2.46	<10
ZZ49701		0.38	3.6	2.70	70	<10	410	0.6	<2	0.18	<0.5	16	44	127	4.64	10
ZZ49702		0.44	0.3	1.73	12	<10	190	0.5	<2	0.13	<0.5	8	27	46	2.34	<10
ZZ49703		0.44	0.3	1.69	15	<10	150	<0.5	<2	0.26	0.6	24	23	333	3.04	<10
ZZ49704		0.56	<0.2	1.60	11	<10	120	<0.5	<2	0.20	<0.5	11	24	73	2.80	<10
ZZ49705		0.55	0.3	1.89	14	<10	130	<0.5	<2	0.20	<0.5	17	40	138	2.99	<10
ZZ49706		0.48	<0.2	0.95	16	<10	60	<0.5	<2	0.05	<0.5	3	16	14	2.20	10
ZZ49707		0.49	1.5	0.72	62	<10	50	<0.5	<2	0.07	<0.5	4	13	20	1.78	<10
ZZ49708		0.46	0.5	0.54	14	<10	30	<0.5	<2	0.03	<0.5	1	13	10	1.18	<10
ZZ49709		0.57	1.5	0.61	37	<10	60	<0.5	<2	0.08	<0.5	4	13	30	1.63	<10
ZZ49710		0.55	1.4	0.96	29	<10	80	<0.5	<2	0.09	0.5	7	19	30	1.91	<10
ZZ49711		0.74	1.0	1.29	28	<10	100	<0.5	<2	0.11	<0.5	9	23	38	2.33	<10
ZZ49712		0.51	1.7	1.75	37	<10	190	<0.5	<2	0.12	<0.5	13	33	85	2.80	<10
ZZ49713		0.48	0.6	1.26	18	<10	80	<0.5	<2	0.09	<0.5	13	29	80	2.51	<10
ZZ49714		0.61	0.4	1.06	16	<10	90	<0.5	<2	0.17	<0.5	7	23	69	2.17	<10
ZZ49715		0.68	0.6	1.30	17	<10	110	<0.5	<2	0.11	0.5	11	24	97	2.28	<10
ZZ49716		0.47	0.8	1.67	18	<10	160	<0.5	<2	0.08	<0.5	16	31	72	2.67	10
ZZ49717		0.51	1.1	1.30	16	<10	200	<0.5	<2	0.10	0.7	15	28	64	2.37	<10
ZZ49718		0.44	0.7	1.39	22	<10	110	<0.5	<2	0.07	<0.5	11	25	40	2.50	10
ZZ49719		0.48	1.5	1.38	30	<10	120	<0.5	<2	0.10	<0.5	8	24	37	2.64	10
ZZ49720		0.50	2.1	1.55	34	<10	130	<0.5	<2	0.09	<0.5	10	27	46	2.84	10
ZZ49721		0.40	3.9	1.22	49	<10	140	<0.5	<2	0.10	0.6	8	24	41	2.49	<10
ZZ49722		0.50	4.4	1.35	70	<10	120	<0.5	<2	0.09	<0.5	7	24	43	2.67	<10
ZZ49723		0.49	4.5	1.03	75	<10	100	<0.5	<2	0.12	<0.5	6	19	31	2.23	<10
ZZ49724		0.44	8.2	1.40	117	<10	150	<0.5	<2	0.12	0.5	8	25	46	2.89	10

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ALS Canada Ltd.  
 2103 Dollarton Hwy  
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Page: 3 - B  
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Sample Description	Method Analyte Units LOR	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20
ZZ68397		<1	0.04	10	0.45	605	2	<0.01	22	600	10	0.05	<2	1	12	<20
ZZ68398		<1	0.04	10	0.33	832	1	<0.01	19	640	13	0.06	<2	1	8	<20
ZZ68399		<1	0.05	10	0.43	370	1	<0.01	21	690	15	0.07	<2	1	9	<20
ZZ68400		<1	0.05	10	0.42	604	2	<0.01	21	710	20	0.07	<2	1	11	<20
ZZ68401		<1	0.07	10	0.67	534	1	0.01	39	900	8	0.05	<2	3	32	<20
ZZ68402		<1	0.06	10	0.52	368	1	<0.01	22	670	14	0.07	<2	2	15	<20
ZZ68403		<1	0.06	10	0.55	297	1	0.01	24	870	17	0.06	<2	2	14	<20
ZZ68404		<1	0.06	10	0.55	319	1	<0.01	23	730	12	0.05	<2	3	13	<20
ZZ68405		<1	0.05	10	0.16	908	2	<0.01	12	700	8	0.10	<2	1	8	<20
ZZ68406		<1	0.05	10	0.48	209	2	0.01	20	1050	8	0.06	<2	1	14	<20
ZZ68407		<1	0.05	10	0.41	225	3	<0.01	17	840	8	0.10	<2	1	11	<20
ZZ68408		<1	0.05	10	0.46	168	4	<0.01	17	1080	10	0.10	<2	2	17	<20
ZZ68409		<1	0.03	10	0.40	194	2	<0.01	17	690	10	0.06	<2	1	11	<20
ZZ68410		<1	0.04	10	0.42	288	1	<0.01	20	780	12	0.07	<2	1	10	<20
ZZ68411		<1	0.04	10	0.37	335	1	<0.01	16	530	10	0.08	<2	1	10	<20
ZZ68412		<1	0.05	10	0.46	332	1	<0.01	22	680	12	0.04	<2	2	12	<20
ZZ49701		<1	0.08	20	0.47	636	3	0.01	45	1440	49	0.10	3	5	26	<20
ZZ49702		<1	0.04	10	0.41	265	1	<0.01	23	350	10	0.03	<2	3	12	<20
ZZ49703		<1	0.04	10	0.53	616	1	0.01	34	970	10	0.03	<2	3	16	<20
ZZ49704		<1	0.05	10	0.48	311	1	<0.01	28	620	8	0.04	<2	2	14	<20
ZZ49705		<1	0.04	10	0.65	372	1	<0.01	39	900	9	0.05	2	2	16	<20
ZZ49706		<1	0.02	10	0.13	99	1	<0.01	9	270	10	0.04	<2	1	7	<20
ZZ49707		<1	0.02	10	0.19	207	<1	<0.01	12	540	43	0.04	13	1	7	<20
ZZ49708		<1	0.02	10	0.06	56	1	<0.01	5	390	19	0.05	5	<1	5	<20
ZZ49709		<1	0.02	10	0.21	174	1	<0.01	12	540	56	0.04	13	1	8	<20
ZZ49710		<1	0.03	10	0.28	270	1	<0.01	18	540	38	0.03	8	2	8	<20
ZZ49711		<1	0.04	10	0.37	386	1	<0.01	21	640	32	0.04	5	2	10	<20
ZZ49712		<1	0.05	20	0.54	594	1	<0.01	31	910	44	0.07	3	2	13	<20
ZZ49713		<1	0.03	10	0.42	775	2	<0.01	29	700	17	0.05	<2	1	9	<20
ZZ49714		<1	0.03	10	0.40	337	1	<0.01	25	780	14	0.03	<2	2	12	<20
ZZ49715		<1	0.04	10	0.44	662	1	<0.01	29	690	15	0.03	2	2	10	<20
ZZ49716		<1	0.04	10	0.55	804	2	<0.01	25	760	19	0.06	2	2	10	<20
ZZ49717		<1	0.03	10	0.44	1575	3	0.01	26	720	55	0.05	3	1	10	<20
ZZ49718		<1	0.03	10	0.40	636	2	0.01	19	590	35	0.03	3	2	8	<20
ZZ49719		<1	0.04	10	0.41	429	2	0.01	20	720	49	0.03	5	2	9	<20
ZZ49720		<1	0.04	10	0.45	556	2	0.01	22	780	61	0.04	5	2	9	<20
ZZ49721		<1	0.04	10	0.40	503	2	0.01	23	690	89	0.04	9	2	10	<20
ZZ49722		<1	0.03	10	0.38	358	2	0.01	20	780	131	0.04	10	2	9	<20
ZZ49723		<1	0.03	10	0.30	272	2	0.01	16	700	147	0.04	13	2	10	<20
ZZ49724		<1	0.04	10	0.35	420	2	0.01	20	870	279	0.06	19	2	12	<20

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*



ALS Canada Ltd.  
2103 Dollarton Hwy  
North Vancouver BC V7H 0A7  
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218  
www.alsglobal.com

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**C/O ARCHER, CATHRO & ASSOCIATES (1981)**  
**LIMITED**  
**1016 - 510 W HASTINGS STREET**  
**VANCOUVER BC V6B 1L8**

Page: 3 - C  
Total # Pages: 5 (A - C)  
Plus Appendix Pages  
Finalized Date: 1-AUG-2015  
Account: ROCKHA

Project: GRAM

**CERTIFICATE OF ANALYSIS WH15106359**

Sample Description	Method Analyte Units LOR	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	Au-ICP21
		Ti %	Ti ppm	U ppm	V ppm	W ppm	Zn ppm	Au ppm
		0.01	10	10	1	10	2	0.001
ZZ68397		0.04	<10	<10	41	<10	94	0.002
ZZ68398		0.03	<10	<10	41	<10	77	0.001
ZZ68399		0.04	<10	<10	53	<10	93	0.002
ZZ68400		0.04	<10	<10	45	<10	71	0.005
ZZ68401		0.07	<10	<10	54	<10	84	0.008
ZZ68402		0.05	<10	<10	53	<10	82	0.004
ZZ68403		0.05	<10	<10	50	<10	91	0.004
ZZ68404		0.05	<10	<10	56	<10	82	0.006
ZZ68405		0.04	<10	<10	70	<10	52	0.002
ZZ68406		0.04	<10	<10	42	<10	118	0.005
ZZ68407		0.03	<10	<10	44	<10	98	0.002
ZZ68408		0.03	<10	<10	43	<10	144	0.005
ZZ68409		0.03	<10	<10	39	<10	82	0.002
ZZ68410		0.04	<10	<10	44	<10	87	0.006
ZZ68411		0.04	<10	<10	48	<10	62	0.004
ZZ68412		0.04	<10	<10	48	<10	81	0.003
ZZ49701		0.04	<10	<10	75	<10	133	0.008
ZZ49702		0.06	<10	<10	47	<10	56	0.007
ZZ49703		0.08	<10	<10	63	<10	97	0.016
ZZ49704		0.07	<10	<10	58	<10	71	0.005
ZZ49705		0.06	<10	<10	57	<10	80	0.005
ZZ49706		0.06	<10	<10	65	<10	39	0.002
ZZ49707		0.02	<10	<10	19	<10	84	0.006
ZZ49708		0.04	<10	<10	42	<10	28	0.004
ZZ49709		0.03	<10	<10	21	<10	72	0.005
ZZ49710		0.03	<10	<10	30	<10	84	0.005
ZZ49711		0.04	<10	<10	38	<10	87	0.006
ZZ49712		0.04	<10	<10	49	<10	98	0.003
ZZ49713		0.04	<10	<10	41	<10	75	0.004
ZZ49714		0.04	<10	<10	35	<10	74	0.008
ZZ49715		0.04	<10	<10	36	<10	90	0.007
ZZ49716		0.03	<10	<10	46	<10	86	0.004
ZZ49717		0.03	<10	<10	38	<10	115	0.004
ZZ49718		0.04	<10	<10	41	<10	93	0.004
ZZ49719		0.05	<10	<10	41	<10	108	0.004
ZZ49720		0.04	<10	<10	44	<10	118	0.005
ZZ49721		0.04	<10	<10	36	<10	136	0.005
ZZ49722		0.04	<10	<10	40	<10	119	0.006
ZZ49723		0.03	<10	<10	33	<10	106	0.007
ZZ49724		0.04	<10	<10	41	<10	144	0.009



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Page: 4 - A  
Total # Pages: 5 (A - C)  
Plus Appendix Pages  
Finalized Date: 1-AUG-2015  
Account: ROCKHA

Project: GRAM

**CERTIFICATE OF ANALYSIS WH15106359**

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt.	ME-ICP41 Ag ppm	ME-ICP41 Al %	ME-ICP41 As ppm	ME-ICP41 B ppm	ME-ICP41 Ba ppm	ME-ICP41 Be ppm	ME-ICP41 Bi ppm	ME-ICP41 Ca %	ME-ICP41 Cd ppm	ME-ICP41 Co ppm	ME-ICP41 Cr ppm	ME-ICP41 Cu ppm	ME-ICP41 Fe %	ME-ICP41 Ga ppm
ZZ49725		0.44	1.5	1.59	35	<10	160	<0.5	<2	0.14	<0.5	7	27	50	2.76	10
ZZ49726		0.55	1.2	1.61	24	<10	130	<0.5	<2	0.19	<0.5	9	26	71	2.87	10
ZZ49727		0.64	1.0	1.50	25	<10	180	<0.5	<2	0.18	0.9	10	24	71	2.76	<10
ZZ49728		0.52	<0.2	1.84	9	<10	140	<0.5	<2	0.24	<0.5	15	30	137	2.77	10
ZZ49729		0.51	0.2	1.60	9	<10	120	<0.5	<2	0.21	<0.5	12	24	109	2.69	<10
ZZ49730		0.48	0.8	1.35	20	<10	90	<0.5	<2	0.12	<0.5	6	24	39	2.24	<10
ZZ49731		0.61	0.3	1.21	15	<10	110	<0.5	<2	0.09	<0.5	6	24	23	2.31	<10
ZZ49732		0.54	0.7	1.11	31	<10	90	<0.5	<2	0.07	<0.5	8	20	19	2.32	<10
ZZ49733		0.51	0.3	1.72	7	<10	250	<0.5	<2	0.07	0.5	9	20	28	3.20	10
ZZ49734		0.50	0.2	1.03	9	<10	80	<0.5	<2	0.07	<0.5	5	17	24	2.07	<10
ZZ49735		0.49	<0.2	1.02	7	<10	90	<0.5	<2	0.08	<0.5	4	19	18	2.02	<10
ZZ49736		0.44	<0.2	0.94	6	<10	120	<0.5	<2	0.12	<0.5	5	15	33	1.98	<10
ZZ49737		0.42	<0.2	1.40	7	<10	100	<0.5	<2	0.23	<0.5	7	21	96	2.26	10
ZZ49738		0.56	0.4	1.40	8	<10	60	0.5	<2	0.44	<0.5	14	29	151	2.93	<10
ZZ49739		0.46	0.3	1.42	16	<10	90	<0.5	<2	0.14	<0.5	11	24	58	3.03	<10
ZZ49740		0.57	0.3	1.16	16	<10	60	<0.5	<2	0.11	<0.5	7	20	33	2.29	<10
ZZ49741		0.46	0.2	0.96	22	<10	80	<0.5	<2	0.09	<0.5	5	19	22	2.17	<10
ZZ49742		0.38	0.5	1.12	28	<10	70	<0.5	<2	0.09	<0.5	5	19	32	2.22	<10
ZZ49743		0.38	1.1	1.57	32	<10	100	<0.5	<2	0.11	0.5	7	24	45	2.84	10
ZZ49744		0.50	0.4	1.18	15	<10	100	<0.5	<2	0.08	0.6	11	22	59	2.48	<10
ZZ49745		0.45	0.3	1.51	13	<10	140	<0.5	<2	0.10	<0.5	10	27	62	2.68	10
ZZ49746		0.37	0.3	1.36	15	<10	100	<0.5	<2	0.07	<0.5	7	25	36	2.59	10
ZZ49747		0.48	0.3	1.32	10	<10	100	<0.5	<2	0.09	<0.5	10	24	58	2.45	10
ZZ49748		0.32	0.5	1.44	8	<10	220	<0.5	<2	0.08	<0.5	18	25	93	2.71	10
ZZ49903		0.39	0.4	1.74	14	<10	130	0.5	<2	0.14	<0.5	11	28	51	2.93	10
ZZ49904		0.51	0.2	1.74	11	<10	110	<0.5	<2	0.11	<0.5	8	28	27	2.74	10
ZZ49905		0.44	0.3	1.82	14	<10	110	0.5	<2	0.13	<0.5	10	31	39	2.94	10
ZZ49906		0.49	0.4	1.61	18	<10	110	<0.5	<2	0.13	<0.5	9	29	40	2.84	10
ZZ49907		0.44	0.5	1.58	13	<10	140	<0.5	<2	0.17	0.6	10	29	49	2.58	<10
ZZ49908		0.42	0.2	1.64	13	<10	90	<0.5	<2	0.12	<0.5	8	28	29	2.47	10
ZZ49909		0.53	0.3	1.67	12	<10	140	<0.5	<2	0.13	<0.5	8	30	26	2.67	10
ZZ49910		0.49	0.3	1.71	11	<10	100	<0.5	<2	0.14	<0.5	7	29	28	2.33	10
ZZ49911		0.38	0.6	1.74	12	<10	120	<0.5	<2	0.15	<0.5	6	29	22	2.51	10
ZZ49912		0.40	0.3	1.24	14	<10	160	<0.5	<2	0.27	0.8	11	22	42	2.40	<10
ZZ49913		0.53	<0.2	1.53	15	<10	100	<0.5	<2	0.19	<0.5	9	25	33	2.54	<10
ZZ49914		0.36	<0.2	1.66	15	<10	100	<0.5	<2	0.09	<0.5	6	31	15	2.80	10
ZZ49915		0.47	0.2	1.24	23	<10	90	<0.5	<2	0.15	0.9	12	21	59	3.12	<10
ZZ49916		0.46	0.3	1.54	11	<10	190	<0.5	<2	0.36	<0.5	9	27	27	2.56	<10
ZZ49917		0.45	<0.2	1.50	10	<10	150	<0.5	<2	0.30	<0.5	6	26	16	2.36	<10
ZZ49918		0.51	0.4	1.43	18	<10	190	<0.5	2	0.39	0.6	10	25	35	2.80	<10

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ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218  
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Page: 4 - B  
 Total # Pages: 5 (A - C)  
 Plus Appendix Pages  
 Finalized Date: 1-AUG-2015  
 Account: ROCKHA

Project: GRAM

**CERTIFICATE OF ANALYSIS WH15106359**

Sample Description	Method Analyte Units LOR	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20
ZZ49725		<1	0.04	10	0.43	280	2	0.02	21	810	50	0.06	3	2	13	<20
ZZ49726		<1	0.04	10	0.45	312	2	0.01	26	870	53	0.03	2	4	13	<20
ZZ49727		<1	0.04	20	0.45	432	2	0.01	25	890	35	0.02	6	4	14	<20
ZZ49728		<1	0.04	10	0.56	448	1	0.01	31	890	7	0.03	2	3	15	<20
ZZ49729		<1	0.04	10	0.47	354	2	0.02	22	700	9	0.02	<2	3	14	<20
ZZ49730		<1	0.03	10	0.40	218	1	0.01	18	640	44	0.03	3	1	9	<20
ZZ49731		<1	0.03	20	0.35	170	2	0.01	17	640	12	0.02	2	2	9	<20
ZZ49732		<1	0.03	20	0.29	262	2	0.01	17	610	39	0.01	3	2	8	<20
ZZ49733		<1	0.05	30	0.66	226	2	0.01	16	670	18	0.02	3	3	10	<20
ZZ49734		<1	0.03	10	0.30	250	2	0.01	14	510	7	0.01	<2	2	6	<20
ZZ49735		<1	0.02	20	0.29	134	2	0.01	16	550	5	0.02	<2	2	7	<20
ZZ49736		<1	0.02	10	0.24	176	1	0.01	13	660	6	0.05	<2	1	12	<20
ZZ49737		<1	0.04	10	0.46	161	2	0.01	19	790	8	0.02	<2	2	21	<20
ZZ49738		<1	0.01	20	0.56	352	1	0.01	39	1150	6	0.02	2	2	40	<20
ZZ49739		<1	0.04	20	0.39	541	2	0.01	23	890	16	0.02	5	3	15	<20
ZZ49740		<1	0.03	10	0.29	283	2	0.01	16	670	13	0.03	4	2	10	<20
ZZ49741		<1	0.03	10	0.27	183	2	0.01	15	650	26	0.03	3	1	8	<20
ZZ49742		<1	0.03	10	0.32	194	2	0.01	16	710	50	0.04	4	2	9	<20
ZZ49743		<1	0.04	10	0.45	235	2	0.01	21	910	60	0.05	7	2	11	<20
ZZ49744		<1	0.03	10	0.42	579	2	0.01	25	640	19	0.02	4	2	8	<20
ZZ49745		<1	0.04	10	0.49	472	2	0.01	25	740	15	0.03	<2	3	10	<20
ZZ49746		<1	0.04	10	0.43	329	2	0.01	18	570	16	0.04	3	2	9	<20
ZZ49747		<1	0.03	10	0.46	472	3	0.01	24	750	16	0.04	<2	1	7	<20
ZZ49748		<1	0.04	20	0.47	1295	3	0.01	26	940	15	0.09	<2	1	10	<20
ZZ49903		<1	0.05	20	0.50	380	2	0.01	26	980	17	0.04	<2	2	13	<20
ZZ49904		<1	0.05	10	0.47	320	2	0.01	18	790	17	0.03	<2	2	11	<20
ZZ49905		<1	0.05	10	0.57	450	3	0.01	24	920	25	0.03	<2	2	11	<20
ZZ49906		<1	0.04	20	0.53	334	3	0.01	23	840	69	0.02	<2	2	12	<20
ZZ49907		<1	0.05	20	0.50	345	3	0.02	29	970	36	0.02	<2	2	13	<20
ZZ49908		<1	0.04	10	0.46	273	2	0.01	19	840	21	0.02	<2	2	10	<20
ZZ49909		<1	0.04	20	0.45	375	2	0.01	20	820	16	0.01	2	3	11	<20
ZZ49910		1	0.04	10	0.46	226	2	0.01	19	750	18	0.01	3	2	11	<20
ZZ49911		<1	0.05	10	0.46	182	3	0.02	19	920	25	0.06	2	1	12	<20
ZZ49912		<1	0.05	20	0.44	409	4	0.02	34	960	20	0.01	2	4	17	<20
ZZ49913		<1	0.05	10	0.43	237	3	0.02	28	910	17	0.01	2	3	12	<20
ZZ49914		<1	0.04	10	0.42	240	3	0.01	16	600	16	0.02	2	2	9	<20
ZZ49915		<1	0.03	10	0.34	444	8	0.01	45	1130	19	0.02	2	1	9	<20
ZZ49916		<1	0.05	10	0.53	376	2	0.01	30	1040	15	0.01	2	2	19	<20
ZZ49917		<1	0.04	10	0.58	177	2	0.01	20	870	11	0.01	<2	2	16	<20
ZZ49918		<1	0.04	10	0.47	314	4	0.02	29	1060	12	0.01	2	2	17	<20

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Page: 4 - C  
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**CERTIFICATE OF ANALYSIS WH15106359**

Sample Description	Method Analyte Units LOR	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	Au-ICP21
		Ti %	Ti ppm	U ppm	V ppm	W ppm	Zn ppm	Au ppm
		0.01	10	10	1	10	2	0.001
ZZ49725		0.04	<10	<10	50	<10	89	0.005
ZZ49726		0.05	<10	<10	51	<10	97	0.005
ZZ49727		0.07	<10	<10	49	<10	109	0.007
ZZ49728		0.07	<10	<10	55	<10	85	0.004
ZZ49729		0.07	<10	<10	52	<10	67	0.004
ZZ49730		0.03	<10	<10	32	<10	74	0.003
ZZ49731		0.03	<10	<10	33	<10	60	0.004
ZZ49732		0.04	<10	<10	31	<10	109	0.008
ZZ49733		0.05	<10	<10	34	<10	107	0.004
ZZ49734		0.04	<10	<10	29	<10	77	0.004
ZZ49735		0.04	<10	<10	28	<10	53	0.004
ZZ49736		0.03	<10	<10	33	<10	41	0.002
ZZ49737		0.05	<10	<10	45	<10	59	0.005
ZZ49738		0.01	<10	<10	24	<10	42	0.003
ZZ49739		0.04	<10	<10	37	<10	122	0.005
ZZ49740		0.04	<10	<10	35	<10	84	0.002
ZZ49741		0.03	<10	<10	34	<10	82	0.004
ZZ49742		0.03	<10	<10	34	<10	98	0.005
ZZ49743		0.03	<10	<10	42	<10	128	0.004
ZZ49744		0.04	<10	<10	34	<10	121	0.003
ZZ49745		0.04	<10	<10	43	<10	107	0.006
ZZ49746		0.04	<10	<10	43	<10	92	0.003
ZZ49747		0.03	<10	<10	35	<10	89	0.004
ZZ49748		0.03	<10	<10	39	<10	87	0.003
ZZ49903		0.04	<10	<10	44	<10	85	0.006
ZZ49904		0.04	<10	<10	48	<10	83	0.003
ZZ49905		0.04	<10	<10	49	<10	132	0.010
ZZ49906		0.04	<10	<10	46	<10	136	0.006
ZZ49907		0.05	<10	<10	48	<10	115	0.007
ZZ49908		0.04	<10	<10	47	<10	84	0.004
ZZ49909		0.05	<10	<10	49	<10	81	0.003
ZZ49910		0.05	<10	<10	47	<10	74	0.003
ZZ49911		0.02	<10	<10	49	<10	84	<0.001
ZZ49912		0.05	<10	<10	38	<10	108	0.006
ZZ49913		0.05	<10	<10	40	<10	93	0.005
ZZ49914		0.04	<10	<10	53	<10	70	0.002
ZZ49915		0.02	<10	<10	31	<10	178	0.007
ZZ49916		0.04	<10	<10	41	<10	133	0.003
ZZ49917		0.03	<10	<10	39	<10	121	0.002
ZZ49918		0.03	<10	<10	40	<10	202	0.002



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2103 Dollarton Hwy  
North Vancouver BC V7H 0A7  
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218  
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**C/O ARCHER, CATHRO & ASSOCIATES (1981)**  
**LIMITED**  
**1016 - 510 W HASTINGS STREET**  
**VANCOUVER BC V6B 1L8**

Page: 5 - A  
Total # Pages: 5 (A - C)  
Plus Appendix Pages  
Finalized Date: 1-AUG-2015  
Account: ROCKHA

Project: GRAM

**CERTIFICATE OF ANALYSIS WH15106359**

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt.	ME-ICP41 Ag ppm	ME-ICP41 Al %	ME-ICP41 As ppm	ME-ICP41 B ppm	ME-ICP41 Ba ppm	ME-ICP41 Be ppm	ME-ICP41 Bi ppm	ME-ICP41 Ca %	ME-ICP41 Cd ppm	ME-ICP41 Co ppm	ME-ICP41 Cr ppm	ME-ICP41 Cu ppm	ME-ICP41 Fe %	ME-ICP41 Ga ppm
ZZ49919		0.52	0.4	1.28	13	<10	130	<0.5	<2	0.34	0.6	6	22	30	2.05	<10
ZZ49920		0.61	0.6	1.38	16	<10	150	<0.5	<2	0.42	2.3	10	27	40	2.37	<10
ZZ49921		0.59	0.8	1.59	15	<10	170	<0.5	<2	0.31	0.8	8	26	30	2.34	<10
ZZ49922		0.48	1.0	1.53	21	<10	250	<0.5	<2	0.41	1.3	9	29	43	2.62	10
ZZ49923		0.48	0.6	1.70	17	<10	100	<0.5	<2	0.16	1.0	6	28	21	2.52	10
ZZ49924		0.43	0.7	1.64	27	<10	120	<0.5	<2	0.25	1.0	8	29	33	2.62	<10
ZZ49925		0.44	1.1	1.56	23	<10	100	<0.5	<2	0.24	1.4	6	27	20	2.32	10
ZZ49926		0.40	4.2	1.65	203	<10	130	<0.5	<2	0.19	4.3	8	31	43	3.24	10
ZZ49927		0.47	23.8	1.68	378	<10	170	<0.5	<2	0.22	5.8	11	29	67	3.36	10
ZZ49928		0.47	50.7	1.51	1075	<10	120	<0.5	3	0.18	16.7	13	24	127	4.27	<10
ZZ49929		0.48	1.1	1.67	41	<10	120	<0.5	<2	0.18	1.8	10	34	46	2.81	10
ZZ49930		0.43	1.0	1.58	27	<10	100	<0.5	<2	0.16	1.2	8	30	29	2.69	<10
ZZ49931		0.40	1.4	1.72	19	<10	110	<0.5	<2	0.12	0.7	10	31	25	2.76	10
ZZ49932		0.50	1.4	1.68	28	<10	110	<0.5	<2	0.21	0.7	7	28	31	2.65	10
ZZ49933		0.44	2.0	1.62	23	<10	120	<0.5	<2	0.25	0.8	8	28	23	2.56	<10
ZZ49934		0.44	1.4	1.72	25	<10	120	<0.5	<2	0.15	0.7	8	29	27	2.61	<10
ZZ49935		0.44	0.8	1.70	18	<10	130	<0.5	<2	0.15	0.5	8	28	26	2.42	<10
ZZ49936		0.44	1.4	1.88	18	<10	150	0.5	<2	0.26	1.1	9	29	27	2.51	<10
ZZ49937		0.36	0.7	1.79	14	<10	190	<0.5	<2	0.24	0.7	6	28	17	2.45	10
ZZ49938		0.36	0.5	1.51	18	<10	80	<0.5	<2	0.13	0.7	5	28	15	2.37	10
ZZ49939		0.38	0.4	1.53	20	<10	100	<0.5	<2	0.17	0.7	6	26	11	2.15	10
ZZ49940		0.40	0.4	1.68	17	<10	230	<0.5	<2	0.31	0.6	6	28	14	2.48	10
ZZ49941		0.47	0.2	2.29	22	<10	160	0.6	<2	0.12	<0.5	9	33	29	3.46	10
ZZ49942		0.42	0.3	1.61	14	<10	150	0.5	<2	0.23	0.9	10	31	18	3.03	10
ZZ49943		0.45	<0.2	1.70	17	<10	160	<0.5	<2	0.18	0.5	11	30	22	3.35	10
ZZ49944		0.38	0.8	1.55	8	<10	180	<0.5	<2	0.35	0.5	5	26	15	2.11	<10
ZZ49945		0.45	0.2	1.49	14	<10	140	<0.5	<2	0.23	<0.5	8	27	20	2.35	<10
ZZ49946		0.44	0.5	1.56	12	<10	130	<0.5	<2	0.19	<0.5	5	28	12	2.25	10
ZZ49947		0.40	0.4	1.56	14	<10	120	<0.5	<2	0.16	<0.5	6	27	22	2.29	<10
ZZ49948		0.42	0.4	1.47	17	<10	120	<0.5	<2	0.19	<0.5	7	27	27	2.32	<10
ZZ49949		0.47	2.3	1.67	22	<10	170	0.6	<2	0.55	2.5	7	28	25	2.34	<10
ZZ49950		0.37	2.1	1.77	20	<10	200	0.5	<2	0.32	1.4	8	33	31	2.68	<10
ZZ49951		0.41	0.4	1.70	14	<10	150	<0.5	<2	0.24	0.5	8	30	22	2.70	10
ZZ49952		0.38	0.3	1.52	11	<10	120	<0.5	<2	0.20	<0.5	7	28	30	2.31	<10
ZZ49953		0.45	0.3	1.33	13	<10	100	<0.5	<2	0.24	0.6	7	28	29	2.19	<10
ZZ49954		0.43	0.4	1.37	13	<10	120	<0.5	<2	0.25	0.6	7	30	29	2.27	<10

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*



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 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
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Page: 5 - B  
 Total # Pages: 5 (A - C)  
 Plus Appendix Pages  
 Finalized Date: 1-AUG-2015  
 Account: ROCKHA

Project: GRAM

**CERTIFICATE OF ANALYSIS WH15106359**

Sample Description	Method Analyte Units LOR	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20
ZZ49919		<1	0.04	10	0.43	186	2	0.01	26	1050	16	0.01	<2	2	18	<20
ZZ49920		<1	0.04	10	0.51	394	4	0.01	24	1060	23	0.01	<2	3	20	<20
ZZ49921		1	0.04	10	0.51	279	2	0.02	25	1020	23	0.01	<2	2	17	<20
ZZ49922		<1	0.04	10	0.52	369	3	0.02	25	950	33	0.02	2	3	20	<20
ZZ49923		<1	0.05	10	0.49	306	3	0.02	19	760	22	0.02	<2	1	10	<20
ZZ49924		<1	0.05	20	0.52	250	3	0.02	26	960	45	0.01	3	2	15	<20
ZZ49925		<1	0.04	10	0.52	195	2	0.01	21	1070	27	0.02	<2	1	14	<20
ZZ49926		<1	0.06	10	0.57	390	2	0.02	22	890	182	0.04	8	2	13	<20
ZZ49927		<1	0.08	20	0.62	587	3	0.02	28	1130	771	0.05	16	4	17	<20
ZZ49928		1	0.07	10	0.57	926	3	0.02	27	1410	1365	0.09	43	3	17	<20
ZZ49929		<1	0.04	20	0.59	524	2	0.01	27	870	36	0.01	2	3	12	<20
ZZ49930		1	0.05	10	0.50	407	2	0.02	23	880	40	0.02	3	2	11	<20
ZZ49931		<1	0.04	10	0.46	647	2	0.01	19	770	33	0.02	<2	2	10	<20
ZZ49932		<1	0.04	20	0.48	305	3	0.02	21	980	26	0.02	4	2	12	<20
ZZ49933		<1	0.04	10	0.41	536	4	0.02	21	980	27	0.05	3	1	14	<20
ZZ49934		<1	0.04	10	0.49	518	3	0.02	23	910	25	0.03	2	1	11	<20
ZZ49935		1	0.04	20	0.48	386	2	0.01	23	820	21	0.02	<2	2	11	<20
ZZ49936		<1	0.05	10	0.49	369	3	0.02	33	1170	18	0.04	<2	2	15	<20
ZZ49937		<1	0.05	10	0.49	298	3	0.02	21	840	13	0.04	2	1	15	<20
ZZ49938		1	0.04	10	0.43	288	2	0.01	16	630	12	0.02	2	1	10	<20
ZZ49939		<1	0.04	10	0.49	160	2	0.01	18	640	12	0.01	<2	2	11	<20
ZZ49940		<1	0.05	10	0.54	232	2	0.02	17	920	11	0.04	2	2	17	<20
ZZ49941		<1	0.07	20	0.54	282	2	0.02	24	850	17	0.02	2	3	11	<20
ZZ49942		<1	0.05	10	0.50	491	2	0.02	22	770	14	0.04	3	1	16	<20
ZZ49943		<1	0.05	10	0.57	481	3	0.01	24	490	19	0.03	3	2	14	<20
ZZ49944		<1	0.03	10	0.56	172	2	0.01	17	1410	9	0.07	2	1	19	<20
ZZ49945		<1	0.04	10	0.46	257	1	0.01	19	700	15	0.02	2	2	15	<20
ZZ49946		<1	0.04	10	0.45	212	2	0.01	15	900	15	0.04	3	1	12	<20
ZZ49947		<1	0.04	20	0.46	197	2	0.01	19	780	14	0.03	4	1	12	<20
ZZ49948		<1	0.03	20	0.48	196	2	0.01	20	750	17	0.02	<2	2	12	<20
ZZ49949		<1	0.04	20	0.44	323	3	0.02	28	1510	13	0.08	<2	1	25	<20
ZZ49950		<1	0.04	20	0.51	462	3	0.01	29	1230	18	0.05	<2	1	19	<20
ZZ49651		<1	0.04	10	0.50	370	1	0.01	18	700	12	0.03	<2	1	14	<20
ZZ49652		<1	0.03	10	0.49	237	1	0.01	21	750	16	0.03	3	2	12	<20
ZZ49653		<1	0.03	10	0.48	188	<1	0.01	19	660	16	0.03	<2	2	13	<20
ZZ49654		<1	0.04	10	0.48	282	1	0.01	20	660	21	0.03	<2	1	13	<20

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2103 Dollarton Hwy  
North Vancouver BC V7H 0A7  
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Page: 5 - C  
Total # Pages: 5 (A - C)  
Plus Appendix Pages  
Finalized Date: 1-AUG-2015  
Account: ROCKHA

Project: GRAM

**CERTIFICATE OF ANALYSIS WH15106359**

Sample Description	Method Analyte Units LOR	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	Au-ICP21
		Ti %	Ti ppm	U ppm	V ppm	W ppm	Zn ppm	Au ppm
		0.01	10	10	1	10	2	0.001
ZZ49919		0.05	<10	<10	35	<10	133	0.004
ZZ49920		0.05	<10	<10	41	<10	185	0.005
ZZ49921		0.05	<10	<10	41	<10	195	0.002
ZZ49922		0.04	<10	<10	49	<10	232	0.004
ZZ49923		0.04	<10	<10	49	<10	209	0.003
ZZ49924		0.04	<10	<10	43	<10	250	0.008
ZZ49925		0.03	<10	<10	38	<10	324	0.005
ZZ49926		0.06	<10	<10	57	<10	479	0.008
ZZ49927		0.05	<10	<10	51	<10	715	0.026
ZZ49928		0.04	<10	<10	47	<10	1440	0.071
ZZ49929		0.05	<10	<10	48	<10	398	0.005
ZZ49930		0.05	<10	<10	46	<10	240	0.004
ZZ49931		0.05	<10	<10	49	<10	163	0.005
ZZ49932		0.04	<10	<10	44	<10	162	0.006
ZZ49933		0.02	<10	<10	42	<10	188	0.004
ZZ49934		0.03	<10	<10	45	<10	186	0.002
ZZ49935		0.04	<10	<10	45	<10	154	0.004
ZZ49936		0.03	<10	<10	43	<10	338	0.004
ZZ49937		0.02	<10	<10	47	<10	228	0.001
ZZ49938		0.04	<10	<10	47	<10	119	0.001
ZZ49939		0.03	<10	<10	39	<10	201	0.002
ZZ49940		0.03	<10	<10	52	<10	149	0.001
ZZ49941		0.03	<10	<10	56	<10	111	0.003
ZZ49942		0.03	<10	<10	48	<10	199	0.002
ZZ49943		0.04	<10	<10	51	<10	114	0.001
ZZ49944		0.02	<10	<10	35	<10	102	0.001
ZZ49945		0.04	<10	<10	43	<10	94	0.002
ZZ49946		0.02	<10	<10	43	<10	92	0.001
ZZ49947		0.03	<10	<10	39	<10	107	0.004
ZZ49948		0.03	<10	<10	36	<10	105	0.003
ZZ49949		0.02	<10	<10	35	<10	272	0.002
ZZ49950		0.01	<10	<10	38	<10	311	0.044
ZZ49651		0.03	<10	<10	55	<10	177	0.002
ZZ49652		0.04	<10	<10	40	<10	96	0.004
ZZ49653		0.05	<10	<10	39	<10	96	0.004
ZZ49654		0.04	<10	<10	43	<10	118	0.004



ALS Canada Ltd.  
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Page: Appendix 1  
Total # Appendix Pages: 1  
Finalized Date: 1-AUG-2015  
Account: ROCKHA

# CERTIFICATE OF ANALYSIS WH15106359

CERTIFICATE COMMENTS			
	<b>LABORATORY ADDRESSES</b>		
Applies to Method:	Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada. LOG-22	SCR-41	WEI-21
Applies to Method:	Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada. Au-ICP21	ME-ICP41	