

**GEOCHEMICAL REPORT ON THE LEOTA HS 51 AND LEOTA HS 53 CLAIMS,  
YUKON TERRITORY, CANADA**

Claim Names and Grant Numbers: Leota HS 51 and Leota HS 53

YD11790 and YD11792

NTS Map Sheet 115 O 15

Latitude N63° 52' 22.6", Longitude W138° 52' 15.0"

UTM Coordinates 604600E, 7084600N, Zone 7, NAD83

Dawson Mining District

Registered owners: Mark Pocklington and Ross Weitzel

Work performed: October 8, 2011

for

Goldbank Mining Corp.

by

Bohumil (Boris) Molak, PhD., P.Geo (BC)

Date: May 28, 2012

## Table of Contents

	page
1. Introduction	4
1.1. Location, Access and Topography	5
1.2. The Claims	5
1.3. Terms of Reference and Disclaimer	5
2. Previous Exploration	6
3. Regional Geology	9
4. Local Geology	10
5. 2011 Geochemistry Survey	10
6. Sample Preparation and Analysis	12
7. Quality Assurance	22
8. Conclusions and Recommendations	22
9. 2011 Exploration Expenses	28
10. References	29
11. Statement of Qualifications	31

## List of Figures

Fig. 1: Location of Leota HS 51 and 53 Claims	6
Fig. 2: Leota HS Claims, 2011 Soil Survey Grid	11
Fig. 3: Leota HS Claims, 2011 Soil Survey Grid	12
Fig. 4: HS Claims, Gold, Silver, Arsenic and Copper Anomalies	14
Fig. 5: HS Claims, Lead, Zinc, Antimony and Mercury Anomalies	15
Fig. 6: HS Claims, Iron, Chromium, Nickel and Magnesium Anomalies	16
Fig. 7: HS Claims, 3D Image of Gold and Chromium Anomalies	17
Fig. 8 a, b, c: Histograms for Gold, Silver and Arsenic	18
Fig. 9 a, b, c: Histograms for Copper, Lead and Zinc	19
Fig. 10 a, b, c: Histograms for Antimony, Mercury and Iron	20
Fig. 11 a, b, c: Histograms for Chromium, Nickel and Magnesium	21
Fig. 12 a, b, c: DS8 Standard for Gold, Silver and Arsenic	23
Fig. 13 a, b, c: DS8 Standard for Copper, Lead and Zinc	24
Fig. 14 a, b, c: DS8 Standard for Antimony, Mercury and Iron	25
Fig. 15 a, b, c: DS8 Standard for Chromium, Nickel and Magnesium	26
Fig. 16: Original vs Repeat Assays	27
Fig. 17: Original vs Repeat Assays	28

## List of Tables

Table 1: Leota HS 51 and 53 Claims Information	5
Table 2: Basic Statistics	13
Table 3: Correlation Matrix	13

**List of Appendices**

Appendix I: HS Claims, 2011 Soil Geochemistry Survey, Sample Information	33
Appendix III: Assay Certificates	34

## 1. INTRODUCTION

The Leota HS 51 and 53 claims are situated approximately 34 air kilometers southeast of Dawson City in the Yukon Territory. The claims are part of the Leota Claim Block consisting of 1018 contiguous, un-surveyed, Quartz mining claims covering an area of over 210 square kilometers. The property owners M. Pocklington (50%) of Edmonton and R. Weitzel (50%) of Whitehorse optioned the claims in 2010 to Goldbank Mining Corporation (Goldbank) of Vancouver, BC. Since then Goldbank acquired a 75 % interest in the Leota Property. Later in 2010 Goldbank entered into another option agreement with T. McMahon to acquire interest in the Hasenfuss claims adjoining the Leota Claim Block in the southwest. The Hasenfuss claims contain the historical gold prospect named Alphonse.

A soil sampling program was carried out on the Leota HS 51 and 53 claims in October 2011 with an objective to detect precious and base metal anomalies in the soil overlying various facies of the Klondike Schist Assemblage. The writer of this report designed the grid and supervised the survey. A grid of two, north - south running lines spaced 100 meters was laid and the stations were set 25 meters apart. A GPS unit was used to locate stations and record coordinates. A total of 48 soil samples were collected from the "C" horizon using a Dutch auger. The samples were prepared and analysed at the Acme Analytical Laboratories Ltd. (AcmeLabs) prep facility in Dawson City and in Vancouver.

Several isolated gold anomalies were detected within the grid area. The most distinct gold anomalies are situated in the southern portion of the grid. Gold fairly well correlates with silver and copper and weakly with the chromium - nickel and zinc - antimony pairs, respectively. Silver correlates well with antimony and fairly well with lead. Arsenic correlates with the chromium group (Cr - Ni - Mg), indicating an association with the chlorite-bearing units. Medium power correlations exist among the base metals (Cu - Pb - Zn) and medium to weak correlations exist between copper - zinc pair and the chromium group elements. The strongest correlations within the grid area exist among the chromium group elements, which indicates the extent of chlorite-bearing rocks is quite large. Testing of detected gold anomalies in the southern part of the survey grid is recommended by additional fill-in and step-out soil surveys.

### 1.1. Location, Access and Topography

Leota HS 51 and 53 claims are part of the Leota Claim Block (LCB) that stretches from 25 to 50 kilometers east to southeast of Dawson City, Yukon Territory. LCB comprises 1018 claims covering an area of more than 210 sq. km. Access to the Leota HS 51 and 53 claims from Dawson City is by Klondike HW and by an all-weather dirt roads running along the Hunker Creek to Hunker Summit and farther southeast to the Dominion River valley. Topography on the Leota HS 51 and 53 claims (further HS claims) is gently rolling with the altitudes ranging from 980 meters at the southern edge of the grid to about 1050 meters above sea level at the northern edge of the grid.

### 1.2. The Claims

Table 1: Leota HS 51 and 53 claims information.

Grant Number	Claim Name	Claim Owner	Expiry Date
YD11790	Leota HS 51	M. Pocklington (50%), R. Weitzel (50%)	13 Oct., 2016
YD11792	Leota HS 53	M. Pocklington (50%), R. Weitzel (50%)	13 Oct., 2016

### 1.2. Terms of Reference

This report summarizes the results of a soil sampling program that was conducted on selected HS claims on October 8, 2011. The objective was to detect precious and/or base metals anomalies in the soil overlying various facies of the Klondike Schist and their contacts. For parts of this report the writer has relied on Technical Report by C. H. Ash (2010), on the assessment and open file reports of the Yukon Exploration and Geological Services Division, on various geo-scientific publications and on the Yukon Department of Energy, Mines and Resources (YDEM) Internet applications. The information reported by other experts who are not qualified persons for this report are quoted in the References chapter and are to the best of the writer's knowledge and experience correct and suitable for the inclusion in this report. Claim descriptions provided herein have been excerpted from the electronic applications of the YDEM and relate to the status as of March 16, 2012. The 2011 Exploration Expenses chapter was prepared by Goldbank Mining Corp.



Fig. 1: Location of Leota HS 51 and 53 Claims

## 1. PREVIOUS EXPLORATION

The HS claims area has received little attention in the past. Early prospectors and miners focused more on the King Salomon Dome and the Hunker Creek and Dominion River areas situated a few kilometers west, north and south. Yukon Geological Survey geologists mapped and investigated the broader area since the first half of the past century. Bostock (1942) completed a geological map at 1:250,000 scale; Debicki and co-workers (1985) mapped the area south and east of Dawson City at 1:50,000 scale and Mortensen (1996) completed the map at 1:50,000 scale covering the NTS maps 115 O/13, 14 and parts of 115 O/15 and 16.

In 2003 a geological map of the entire Yukon authored by Gordey and Makepeace was released and in 2005 Gordey and Ryan authored a geological map at scale 1:250,000 for the Stewart River region that has been compiled on the basis of mapping conducted by themselves, Mortensen and others. The geoscientific papers by MacKenzie et al (2007, 2008) contain geological maps of the Klondike Goldfields based on the Mortensen map (1996).

On Mortensen's map 1:50,000 (1996) the HS claim area is made up of quartz-muscovite schist, chloritic quartzite and quartz-muscovite-chlorite schist, all being part of the Klondike Schist Assemblage of Middle to Late Permian age.

In Debicki's map (1985) the area of HS claims is underlain by quartzo-feldspathic schistose rocks of Triassic or older age. Debicki (1985) further describes three mineral occurrences in the area within a radius 4 – 10 km of the HS claims. The first, named Leotta, is a sphalerite occurrence, which was staked in 1969 after sphalerite was found in a panning sample from Too Much Gold Creek. The other two occurrences named Green Gulch and Lloyd are located south of Dominion Creek and represent northwest striking and steeply dipping quartz veins ranging in width from 0.3 to 1.5 meters. The veins reportedly contained pyrite, galena and locally other sulphides and the gold and silver values ranged from 0.34 g/t to 20.9 g/t Au and from 1.7 g/t to 6.2 g/t Ag respectively.

Minfile describes the occurrences named Hunker Dome (115 O 067), Mitchell (115 O 068), Fawcett (115 O 069) and Golden Rod (115 O 086), all located within a radius of 7 km from the HS claims. The rocks in the area form tectonic slices that have been thrust over each other (Mortensen, 1996). The Hunker Dome occurrence includes Mitchell and Orekon veins, which strike north and dip steeply east. Together with the Upper Dominion and Lombard Creek veins they appear to form a large-scale en-echelon system of sheeted veins that are made up of quartz, carbonate, and local concentrations of pyrite, chalcopyrite, galena, sphalerite, tetrahedrite and free gold. Values up to 48 g/t gold and 10457 g/t silver have been obtained from Mitchell and Orekon veins, although most samples contain only trace amounts.

MacLean (1914) examined the historical development work on the Upper Dominion and Lombard Creek showings, which included trenches, shafts and a tunnel 790 meters long that was collared approximately 150 meters below these showings. The tunnel intersected six veins ranging from 0.6 to 1.8 meters in thickness. Historical newspaper reported gold assays of up to 857 g/t gold and 125 g/t silver. MacLean (1914) also reported the MacKay and Summit occurrences, where the quartz veins with traces of galena and pyrite were followed by trenches

and shafts immediately west of the Hunker Summit. The highest gold values however were only 1.4 g/t Au.

Hoyman and Friedrich (1992) analyzed gold inclusions in pyrite and in galena from this showing and identified three stages of mineralization: 1. Quartz – carbonate – arsenopyrite – pyrite – pyrrhotite – chalcopyrite - galena; 2. Quartz – carbonate – chalcopyrite – sphalerite – tetrahedrite – freibergite – polybasite – polyargyrite – argentite – pyrostitbnite - galena; 3. Quartz - gold. Homogenization temperatures ranged from 390 to 120 ° C and have shown a systematic decrease from stage 1 to stage 3.

At the Mitchell (115 O 068), spectacular samples of free gold were reportedly found in the late 1890s. Two parallel veins cutting at 60 ° across chlorite and chlorite – quartz - actinolite schist of the Klondike schist assemblage (Permian) have been traced for a length of 1 kilometer. The gold-bearing vein containing visible gold with pyrite and rutile is 10 to 45 cm wide. Most samples reported by MacLean (1914) contained traces of gold and silver and three samples with abundant galena and pyrite averaged 21.9 g/t gold and 3.3 g/t silver.

Selective materials from rich sulphide pockets within the veins that the previous operators sent to smelters in Tacoma and Shelby in 1966 and 1969 reportedly contained from 4680 to 10457 g/t silver, 23.5 to 26.3 % lead 0.4 to 2.9 % copper and 1.4 g/t gold. The Sheba vein 850 m south of the Mitchell showing.

The Sheba vein 850 m south of Mitchell showing is 1.5 m thick and strikes north-northwest and dips 41 ° east. The vein contains abundant galena and chalcopyrite and up to 10,285 g/t silver. Drillings in 1988 intersected minor amount of gold, up to 857 g/t silver and over 3 % lead. A 2.7 tonne bulk sample of vein material processed at Cominco smelter at Trail, B.C., contained 34 % lead, 2 % copper, 6728.4 g/t silver and 0.9 % antimony. Chlorite schist in the footwall is sheared up to 1 m away from the contact. Mortensen (1996) reports a K-Ar age made on sericite obtained from the centre of the vein, which yielded 140 Ma.

The soil geochemistry survey made in 1980 gave generally low gold values but showed a continuous arsenic anomaly, which appeared to be related to stratigraphy. In 1990 a physical survey completed by Arbor outlined IP anomalies extending north of Sheba vein and south of Mitchell vein, suggesting that the veins may join.

The Fawcett (115 O 069) showing represents several veins and masses of quartz that occur in and adjacent to a thrust that places a package of chlorite-quartz-schist and metagabbro above the chlorite schist, muscovite-quartz schist and quartzite units. All these rocks are part of the Klondike Schist Assemblage. Discontinuous lenses of sheared and strongly altered serpentinite and serpentinitized harzburgite occur along the fault zone. The placer paystreaks on the Right Fork of Hunker Creek with coarse gold led to intense prospecting of the nearby ridges and the discovery of the Mitchell and Orekon veins at the head of the Right Fork. A relatively rich paystreak also occurred on 24 Pup indicating a lode source is separate from the Mitchell and Orekon veins. The placer gold on 24 Pup is typically very coarse, including wire gold and delicate crystalline forms. Quartz is locally intergrown with the gold.

MacLean (1914) examined the showings at the head of 24 Pup and the claims on the left limits of 24 and 39 Pup, the Alphonse and Hillsborough claims. The samples of the quartz vein material with some pyrite assayed up to 1.4 g/t gold and 19.2 g/t silver. Samples from three trenches dug over a strike length of 50 m on a weakly pyritic quartz vein 0.6 to 1.2 m wide on the Alphonse claim returned up to 4.1 g/t gold.

The Golden Rod occurrence (115 O 086) represents numerous quartz veins hosted by the chlorite schist of the Klondike Schist Assemblage. No notable gold mineralization has been reported.

### **3. REGIONAL GEOLOGY**

The area is situated on the southwest side of the Tintina Trench within the Yukon – Tanana Terrane. The Klondike Goldfield is made up of meta-sedimentary and meta-igneous units belonging to Klondike Schist and Finlayson Assemblages and lesser amount of low-grade metamorphosed ultramafic rocks of the Slide Mountain Terrane comprised of serpentinite,

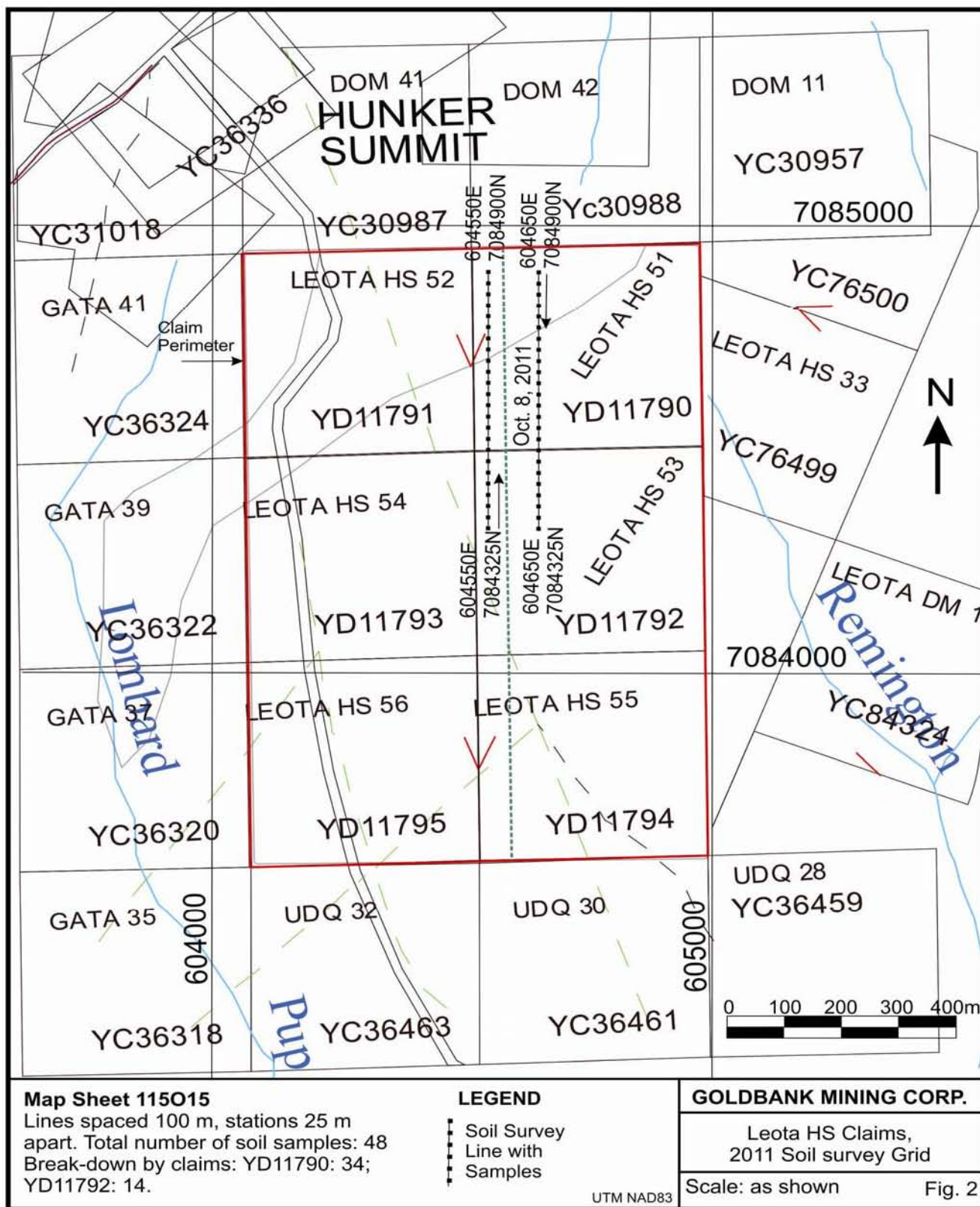
harzburgite and their altered, carbonatized and steatitized derivatives (MacKenzie et al, 2008). Regional scale thrust faulting in the Early Jurassic stacked these rocks into a series of thrust slices that are locally separated by lenses of sheared ultramafic rocks. They were then uplifted through the brittle-ductile transition in the Jurassic and unconformably overlain by locally derived sedimentary and volcanogenic rocks in the Late Cretaceous (Mortensen, 1996). The Klondike Goldfield was then offset approximately 450 km along the Tintina fault (Gabrielse et al., 2006). Erosion and minor uplift continued in the Late Tertiary and resulted in the deposition of the Pliocene White Channel Gravels and their placer gold deposits (Lowey, 2005).

#### **4. LOCAL GEOLOGY**

According to Debicki (1985), the grid area is underlain by muscovite-feldspar-quartz schist (QSd) of Triassic or older age. According to Mortensen (1996) and Gordey & Makepeace (2003) the HS claims are underlain by the Klondike Schist Assemblage made up of tan to rusty and black weathering muscovitic and/or chloritic quartzite and quartz-muscovite-chlorite schist; quartz and/or feldspar augen-bearing quartz-muscovite ( $\pm$  chlorite) schist; includes augen gneiss and amphibolite (Fig. 3). The age of the above rock units is Late Paleozoic.

#### **5. 2011 GEOCHEMISTRY SURVEY**

The 2011 geochemistry survey on the HS claims was carried out on October 8-12, 2011. The objectives were to detect precious and/or base metal anomalies in the soil overlying various facies of the Klondike Schist unit and their contacts. The facies include quartz - muscovite schist in the north and muscovite - or chlorite quartzite and quartz - muscovite - chlorite schist in the south (Mortensen (1996). The soil samples were collected from "C" soil horizon using a Dutch auger. The samples were placed in pre-numbered Kraft paper bags, closed and sealed with flagging tape. Each station was flagged and a GPS unit was used to locate stations and record coordinates. In total, 48 soil samples were collected. The writer kept samples in a safe place during the survey and personally dispatched the samples to AcmeLabs facility in Dawson City for preparation. The analysis was conducted at AcmeLabs in Vancouver. Geological situation, the soil survey grid and the sample sites are shown in the Figs. 2 and 3.



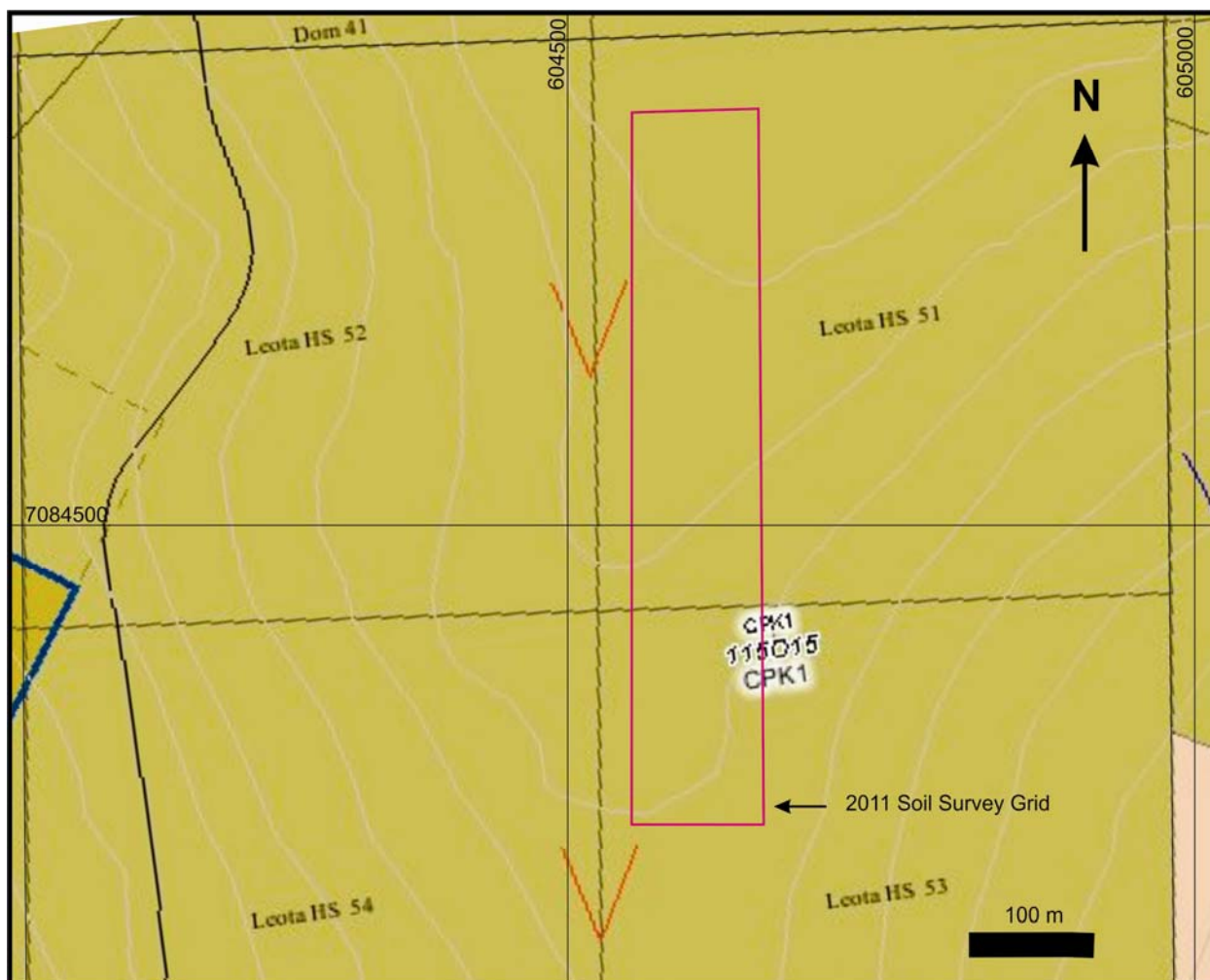


Fig. 3: Leota HS claims, 2011 soil survey grid; CPK1 – Klondike Schist Assemblage

## 6. SAMPLE PREPARATION AND ANALYSIS

AcmeLabs conducts the sample preparation and analyses in accordance with generally accepted analytical laboratory principles and practices. The samples are prepared by drying at 60° C and sieving 100g to -80 mesh (code SS80). The rock samples (1 kg) are crushed, split and pulverized to 200 mesh (code R200-1000) and the assays are performed on 30 g pulps using Aqua Regia digestion and Ultratrace ICP-MS analysis (codes 1F03, 1F06) for 37 and/or 53 elements, respectively.

The soil sample assays for selected elements from the HS claims were statistically evaluated using the Systat 13 program and the statistics and correlation results are listed in Tables 2 and 3

below. The contouring and 3D surface mapping (Figs. 8 to 11) was made using the Surfer program of Golden Software Inc. (Figs. 4 to 7) and the histograms (Figs. 8 to 11) were prepared using the Excel program.

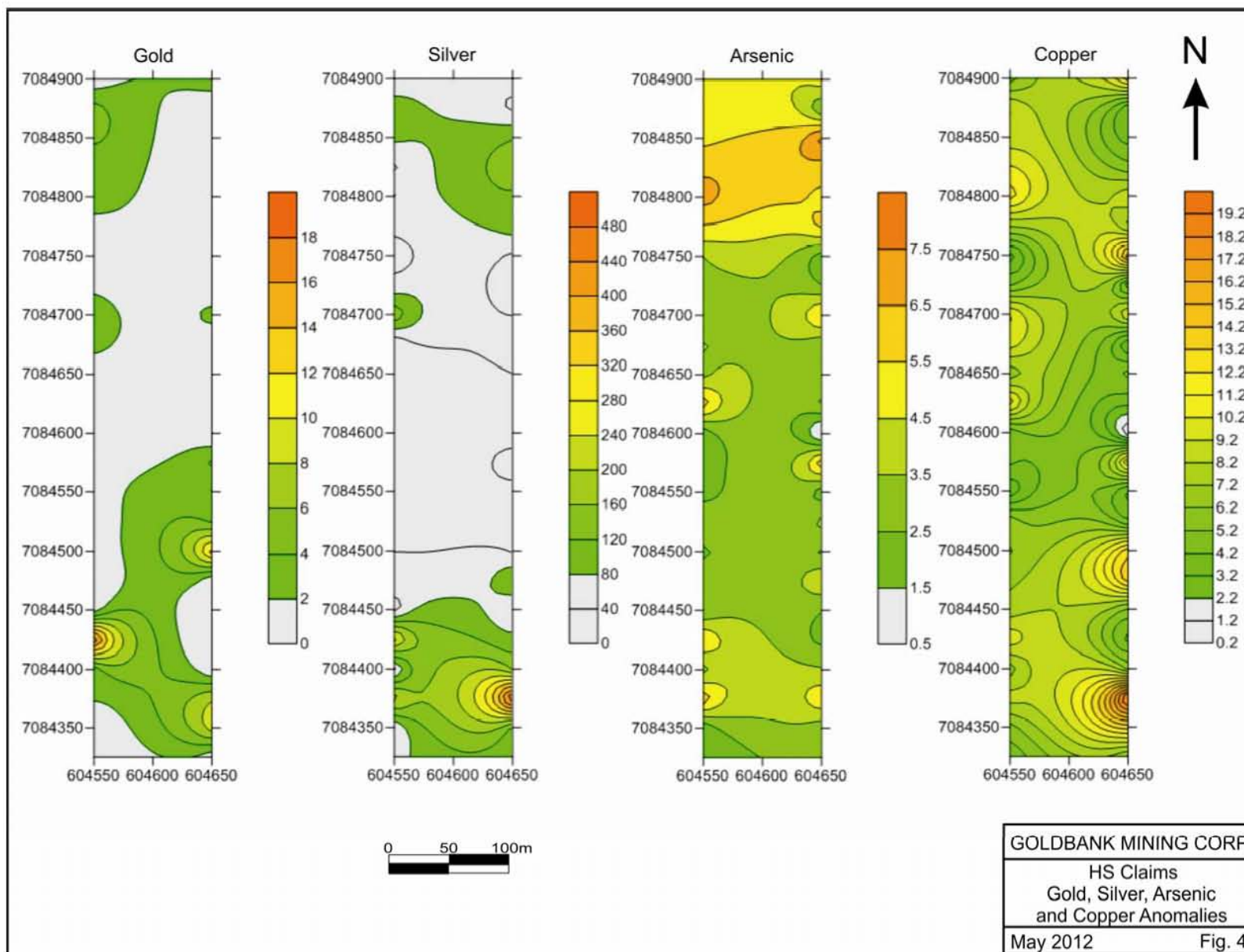
Table 2: Basic statistics

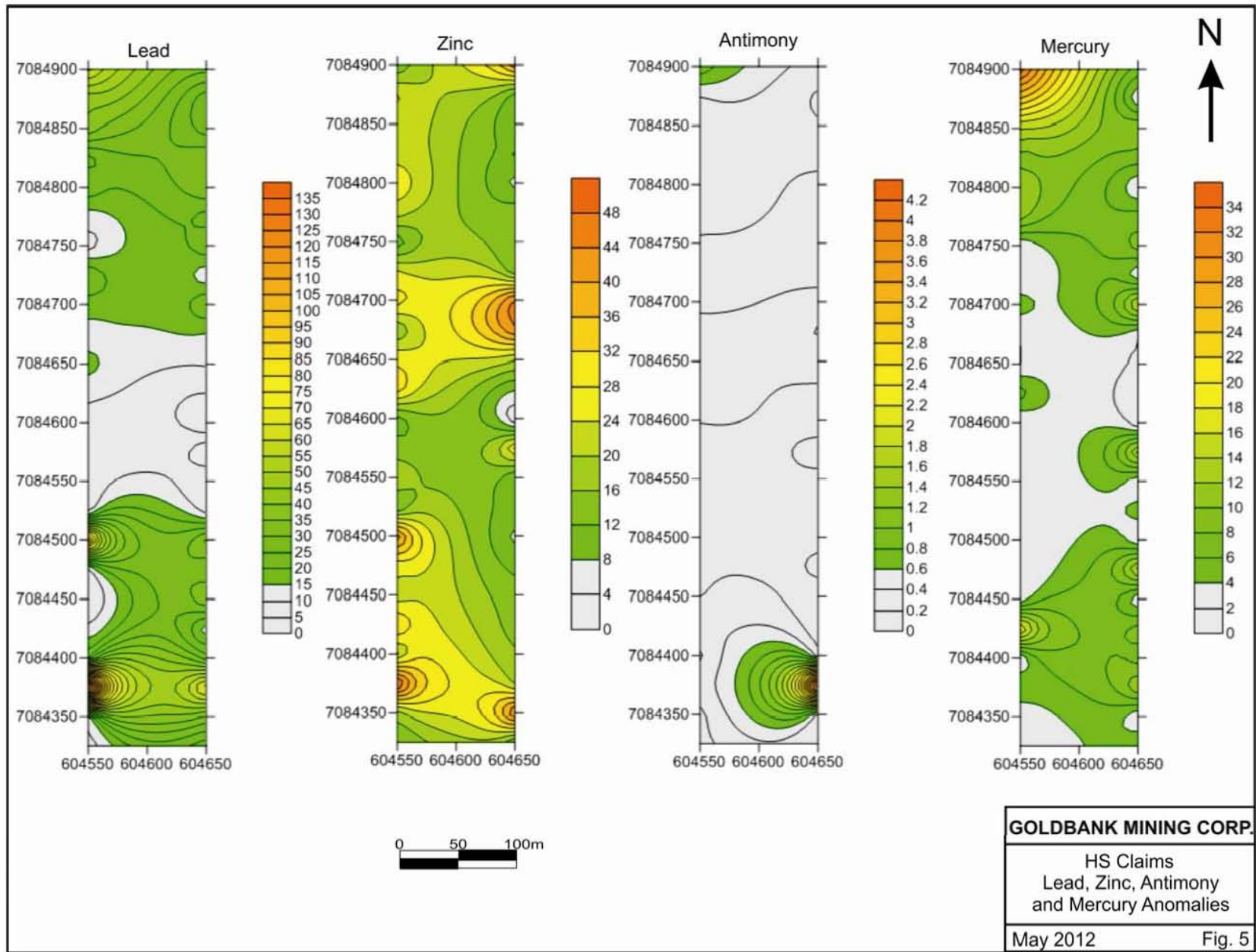
	Au	Ag	As	Cu	Pb	Zn	Sb	Fe	Cr	Ni	Mg
N of Cases	47	47	47	47	47	47	47	47	47	47	47
Minimum	0.05	0.5	1.6	1.96	4.67	6.6	0.11	0.56	1	0.8	0.01
Maximum	17.9	501	7.9	20.3	140.9	50	4.42	3.28	14.5	9.4	0.24
Median	0.9	48	3.3	6.76	17	17.5	0.19	1.26	5.1	2.8	0.07
Arithmetic Mean	2.28	74.31	3.85	7.51	23.9	20.6	0.32	1.28	5.83	3.4	0.087
Geometric Mean	0.76	42.64	3.52	6.58	17.4	17.9	0.23	1.19	4.92	2.8	0.067
Stand. Deviation	3.48	84.7	1.65	3.86	24.06	11.5	0.63	0.52	3.38	2.3	0.061
Variance	12.1	7,174.2	2.7	14.9	578.8	131.8	0.39	0.27	11.4	5.27	0.004
Skewness	2.9	3.19	0.58	0.98	3.09	1.04	6.41	1.32	0.88	1.13	0.849
Kurtosis	9.87	13.72	-0.82	1.26	12.11	0.29	42.61	3.39	-0.14	0.42	-0.368

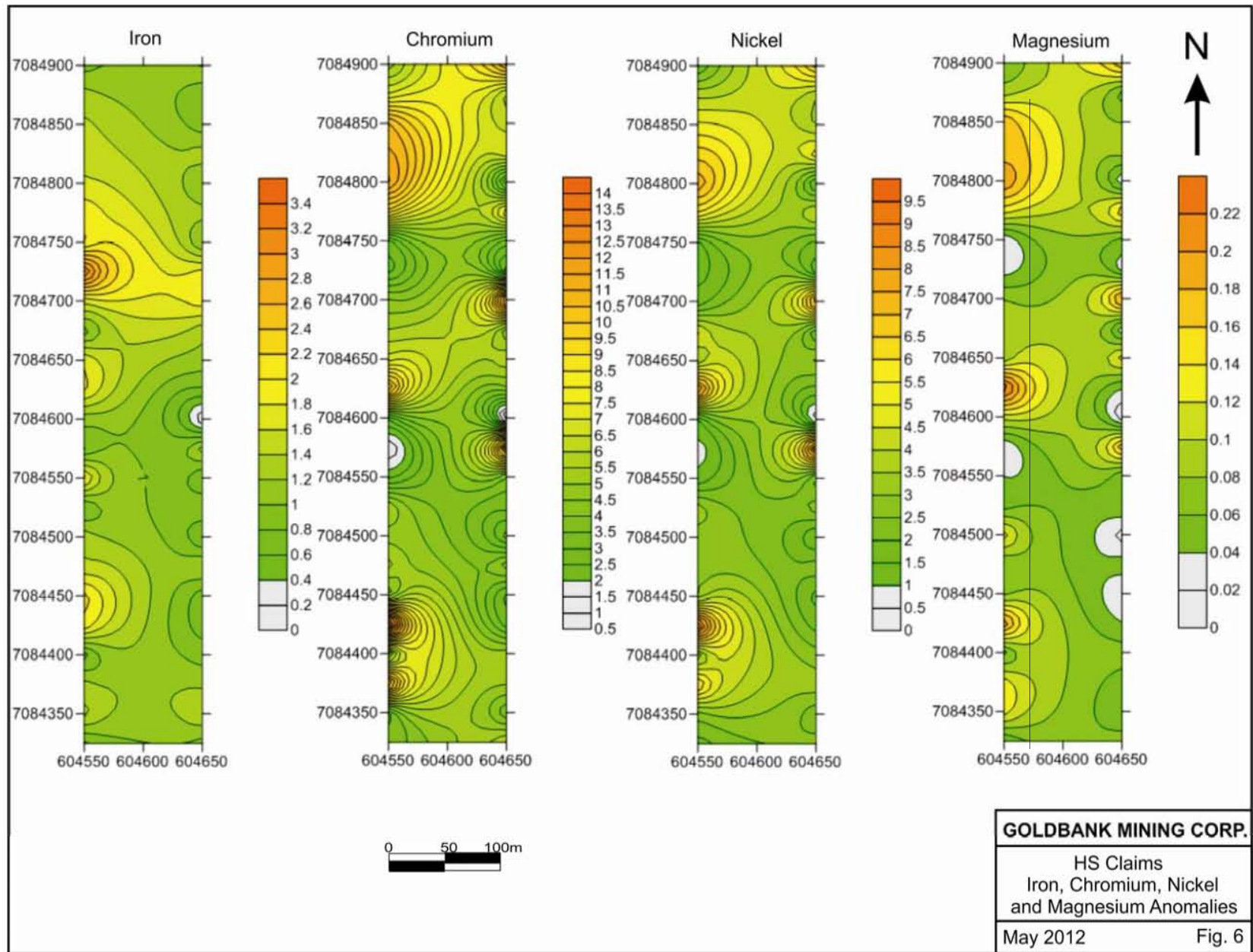
Table 3: Correlation matrix

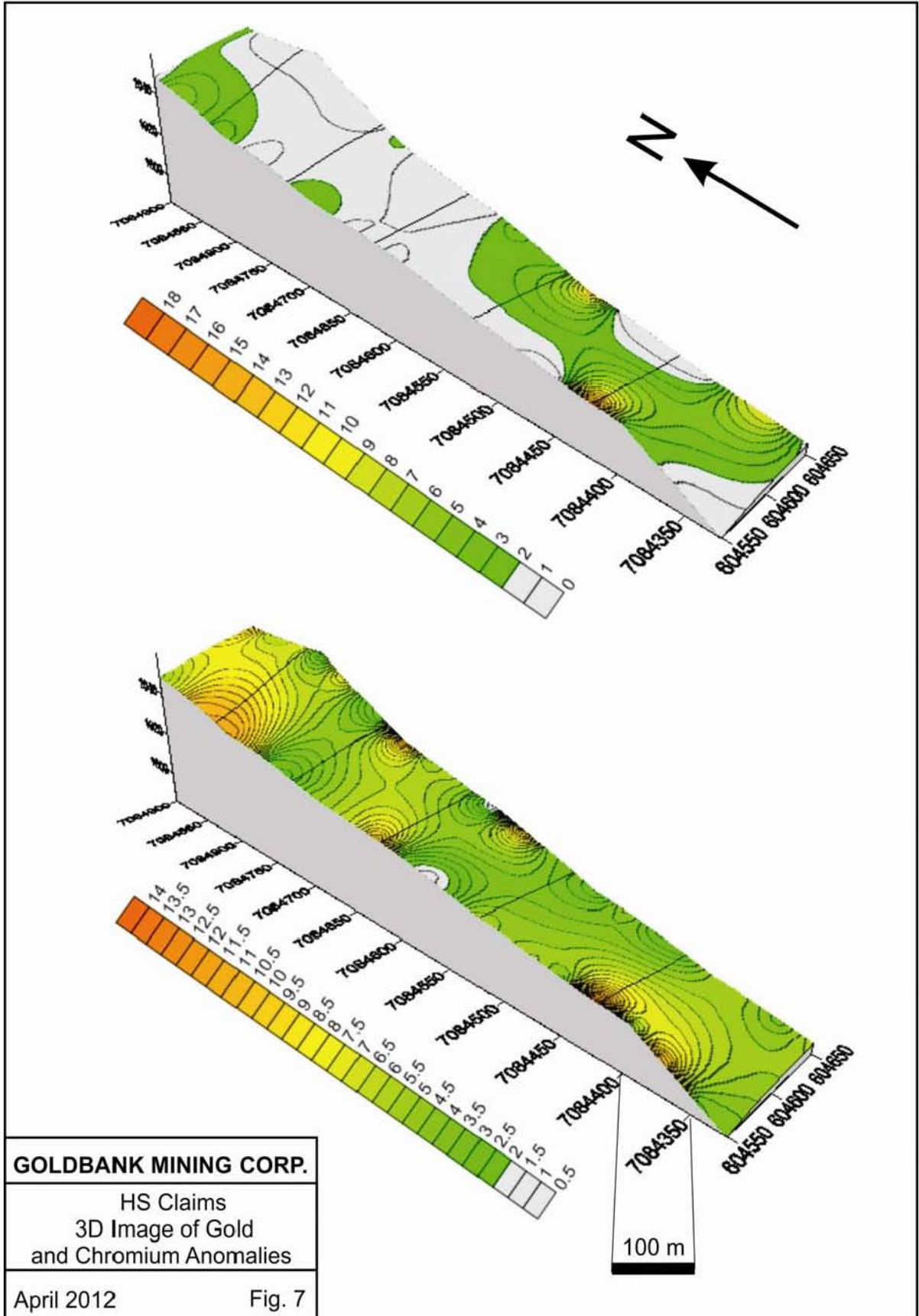
	Au	Ag	As	Cu	Pb	Zn	Sb	Fe	Cr	Ni	Mg
Au	1										
Ag	0.421	1									
As	0.189	0.38	1								
Cu	0.507	0.52	0.353	1							
Pb	0.149	0.485	0.278	0.334	1						
Zn	0.257	0.169	0.244	0.266	0.441	1					
Sb	0.273	0.764	0.225	0.537	0.349	0.031	1				
Fe	0.085	0.021	0.208	0.047	-0.042	0.425	-0.011	1			
Cr	0.311	0.252	0.746	0.354	0.211	0.531	0.071	0.26	1		
Ni	0.339	0.204	0.732	0.387	0.127	0.49	0.081	0.281	0.951	1	
Mg	0.212	0.068	0.611	0.315	0.101	0.486	0	0.317	0.879	0.887	1

The arithmetic means in Table 2 indicate that the Klondike Schist Assemblage has a very low representation of the mafic/ultramafic rocks and the chromium, nickel and magnesium anomalies indicate the extent of chlorite quartzite and/or muscovite – chlorite schist. The correlation matrix in Table 4 shows medium power correlations between gold, silver and copper and weak correlations between gold and chromium - nickel and zinc – antimony pairs, respectively. Silver correlates well with the antimony (58.4 % covariance) and fairly with lead. The correlations between arsenic on the one hand and chromium group (Cr – Ni - Mg) are surprisingly strong (covariance 37 to 56 %) indicating a preference of the sulphidic minerals with the chlorite-bearing rocks.









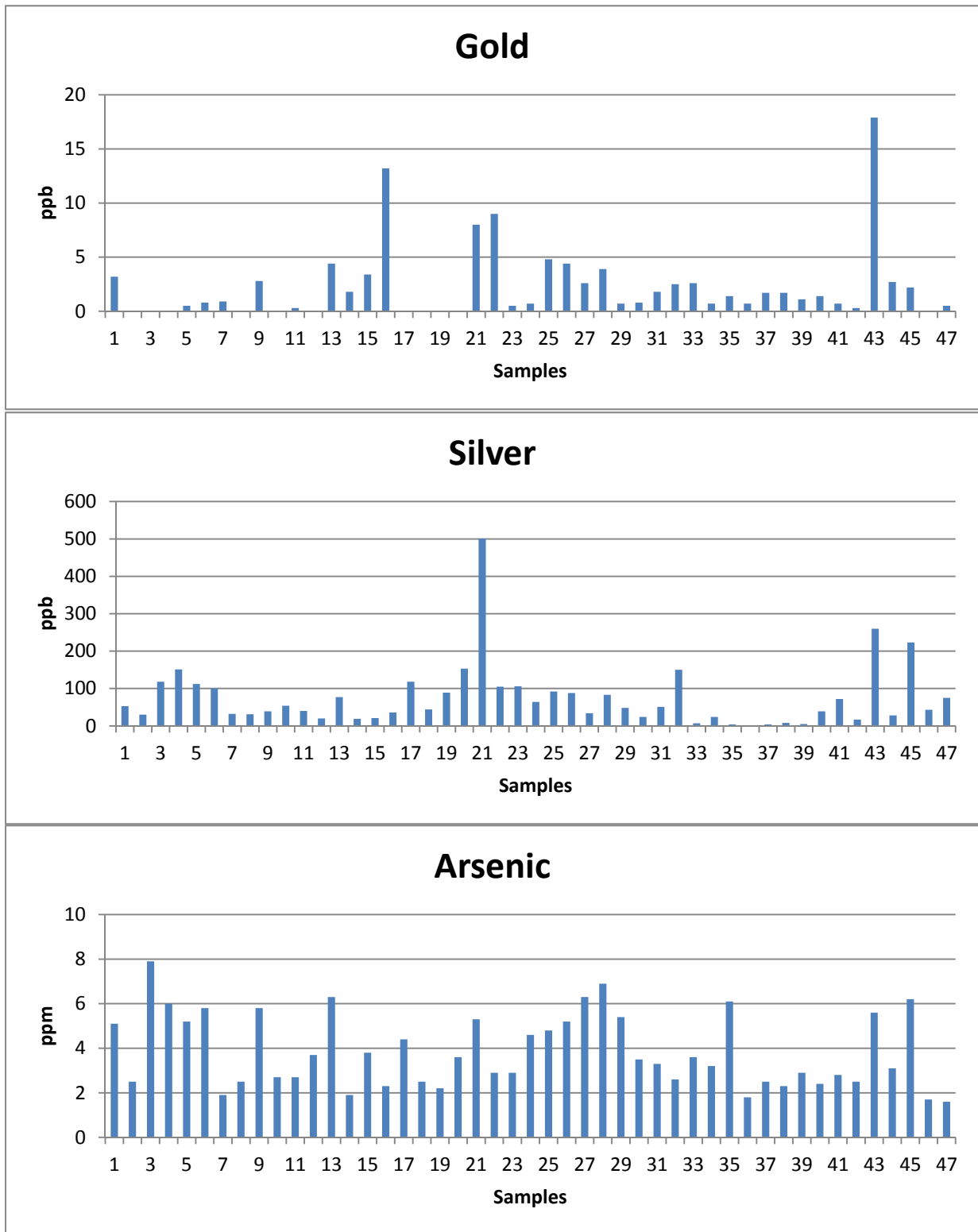


Fig. 8: Histograms for gold, silver and arsenic

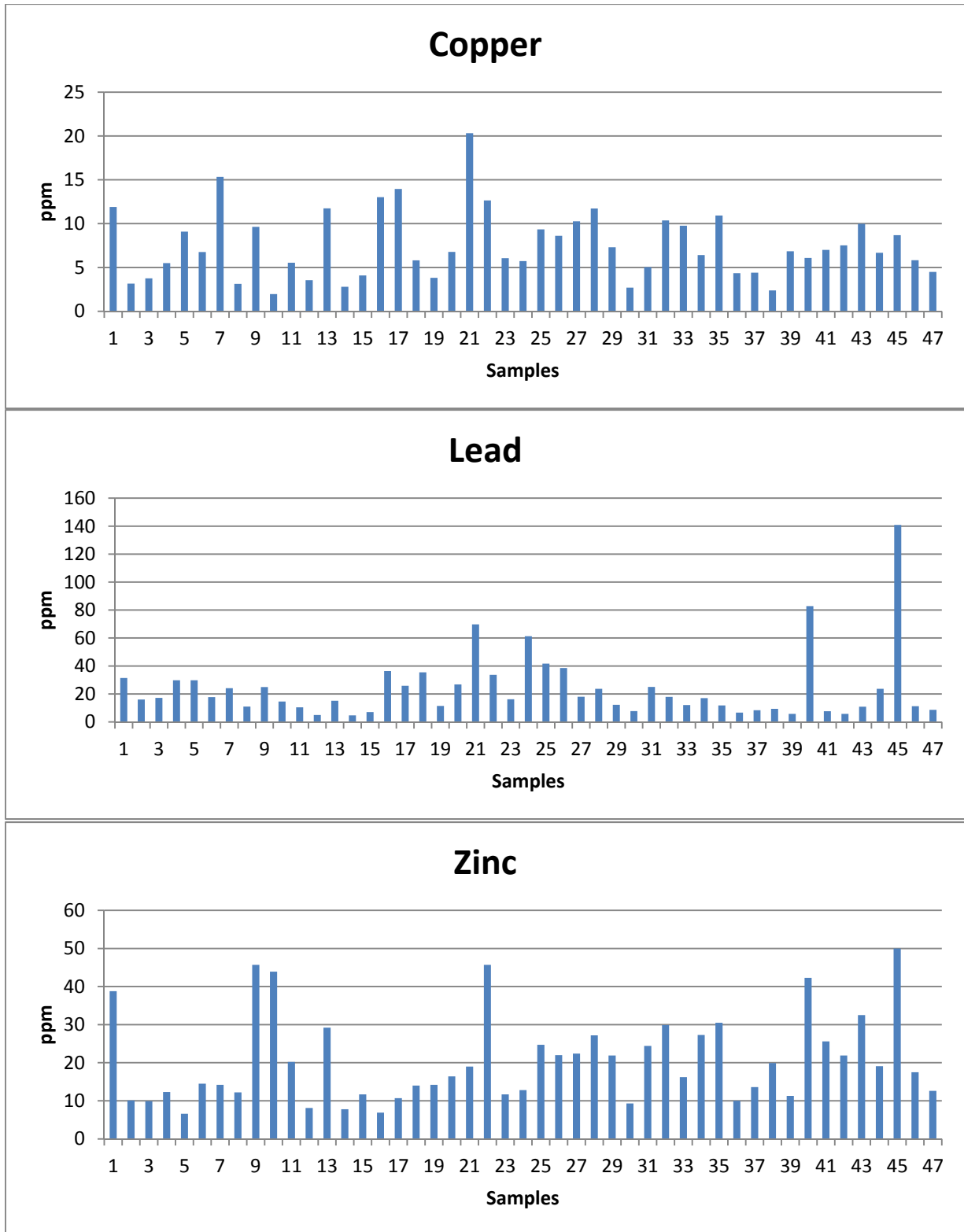


Fig. 9: Histograms for copper, lead and zinc

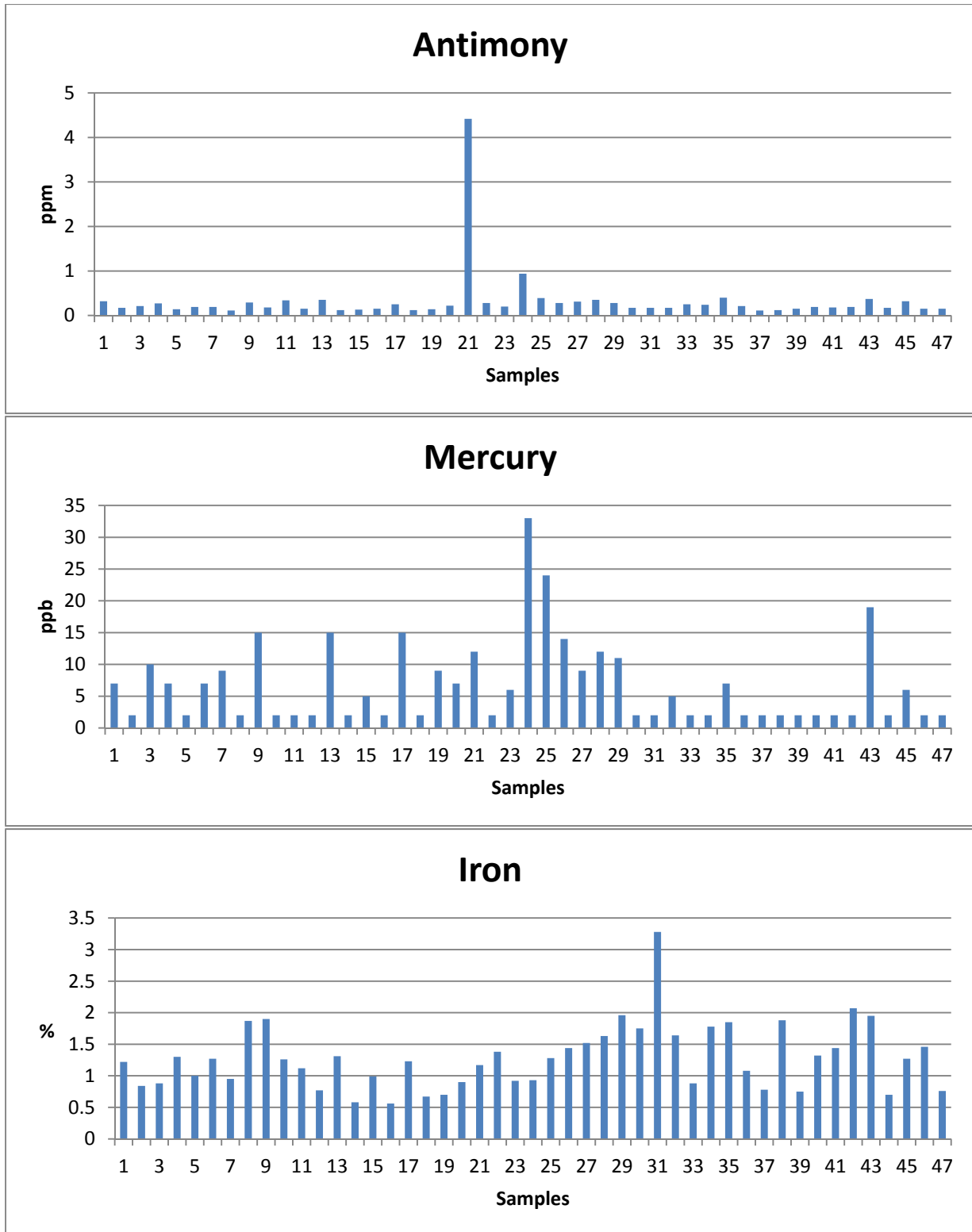


Fig. 10: Histograms for antimony, mercury and iron

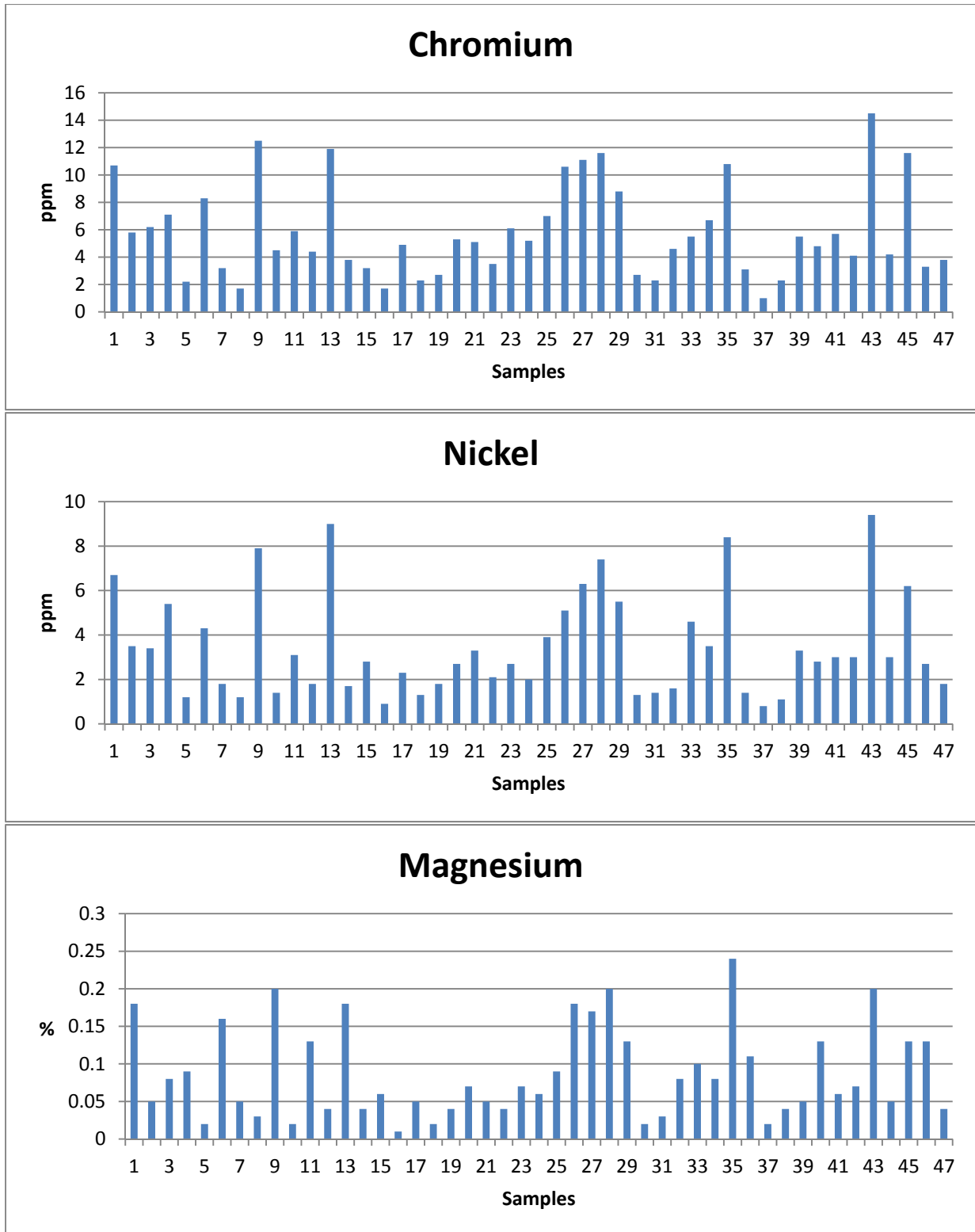


Fig. 11: Histograms for chromium, nickel and magnesium

This may indicate an association of sulphidic mineralization with the chlorite-bearing metasediments. There are medium to weak correlations among the base metals (Cu – Pb – Zn) and medium correlation between copper - zinc pair with the chromium group elements. The strongest correlations can be observed among the chromium group elements (covariances 77 to 90 %).

## **7. QUALITY ASSURANCE**

The Quality Assurance program included repeats, standards and blanks. The assays for DS8 standard for gold, silver, arsenic, copper, lead, zinc, antimony, mercury, iron, chromium, nickel and magnesium are shown in Figs. 12 – 15. Most assays fare close to the mean value or within  $\pm 1$  standard deviation. One arsenic and one antimony value however exceed + 2 standard deviations. Two repeats were analysed and are displayed in diagrams Figs. 16 and 17. As shown, the repeats do not exceed their originals by more than  $\pm 10.6$  % for all elements but gold, which exceeds the original by 69 %. This may indicate a nugget effect, similar to that observed in other areas of the Leota Claim Block. The blanks assayed along with the soil samples fall all below detection limit for each element.

In conclusion we can state that the accuracy of the assays made by AcmeLabs for this survey meets the industry standards for all elements but gold, which appears to suffer from nugget effect.

## **8. CONCLUSIONS AND RECOMMENDATIONS**

The objectives of the 2011 soil geochemistry survey on the HS claims were to detect precious and/or base metals anomalies in the soil overlying various facies of Klondike Schist Assemblage. Although two lines were run only, the results indicate three gold anomalies ranging from 8 to 17.9 ppb Au in the southern portion of the grid and a weaker anomaly in the north. Gold, silver and base metals show various degrees of correlation with the chromium group elements indicating an association of disseminated sulphidic mineralization with the chlorite containing quartzite and/or schist. Distribution of these rocks is indicated by the higher

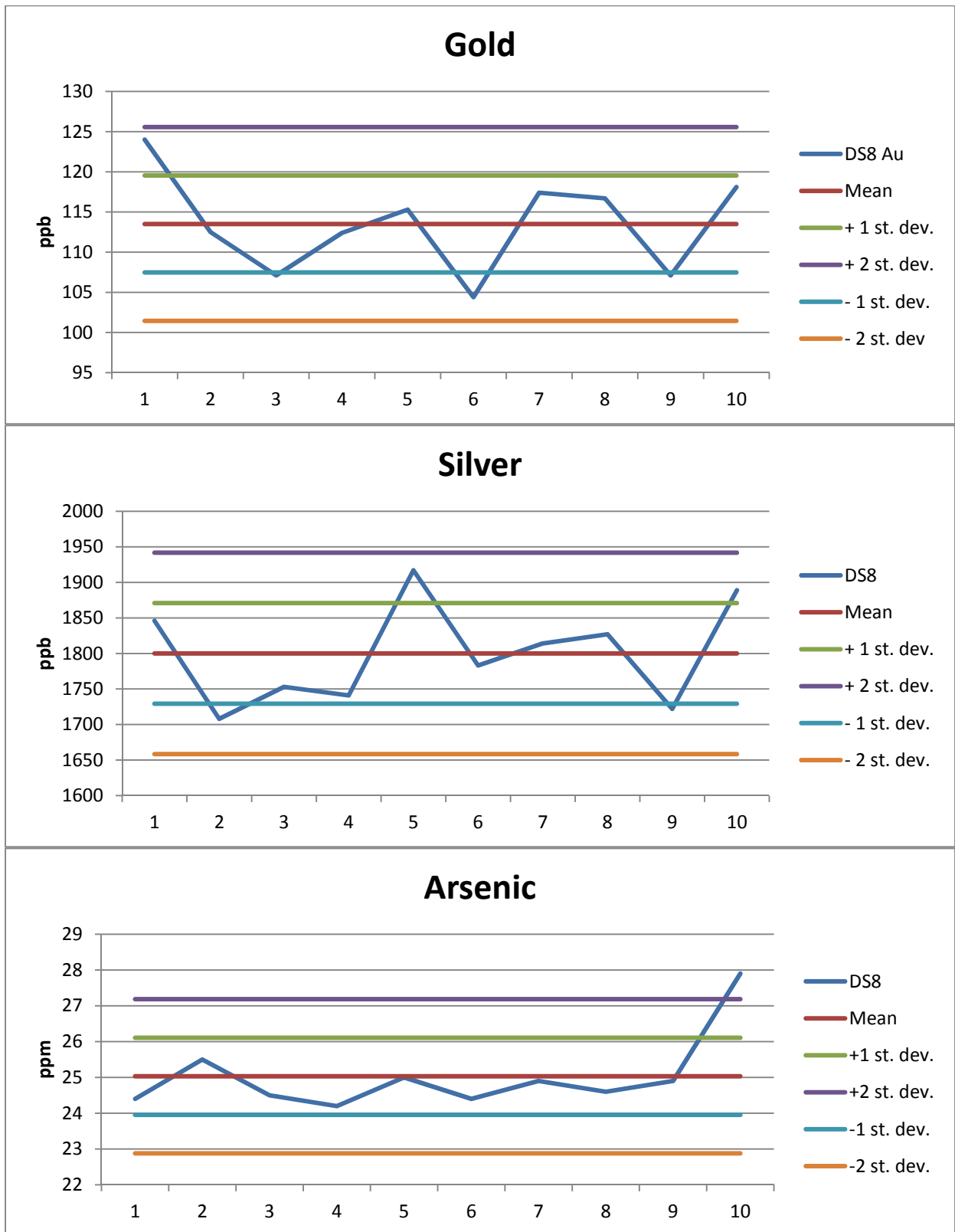


Fig. 12: DS8 standard for gold, silver and arsenic

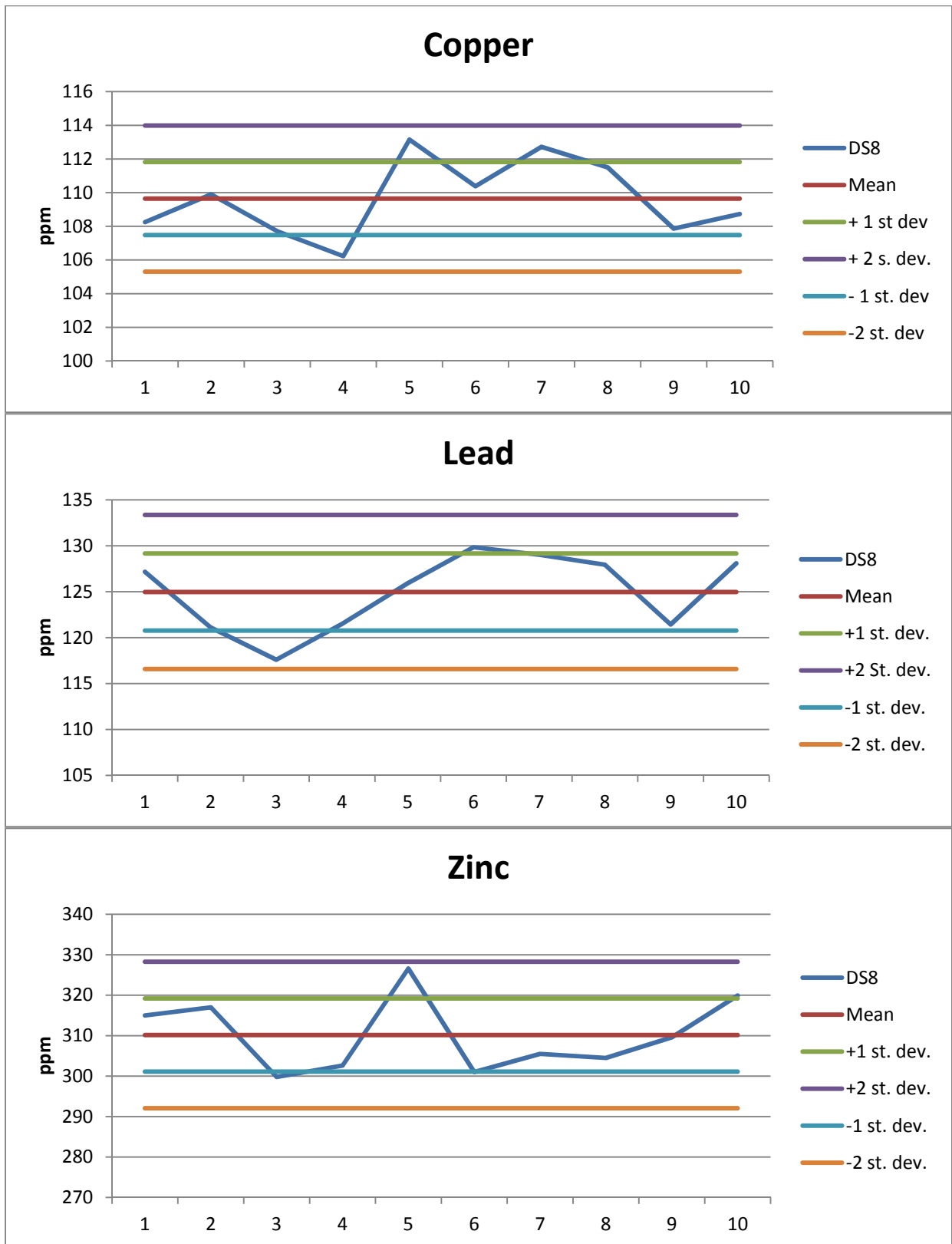


Fig. 13: DS8 standard for copper, lead and zinc

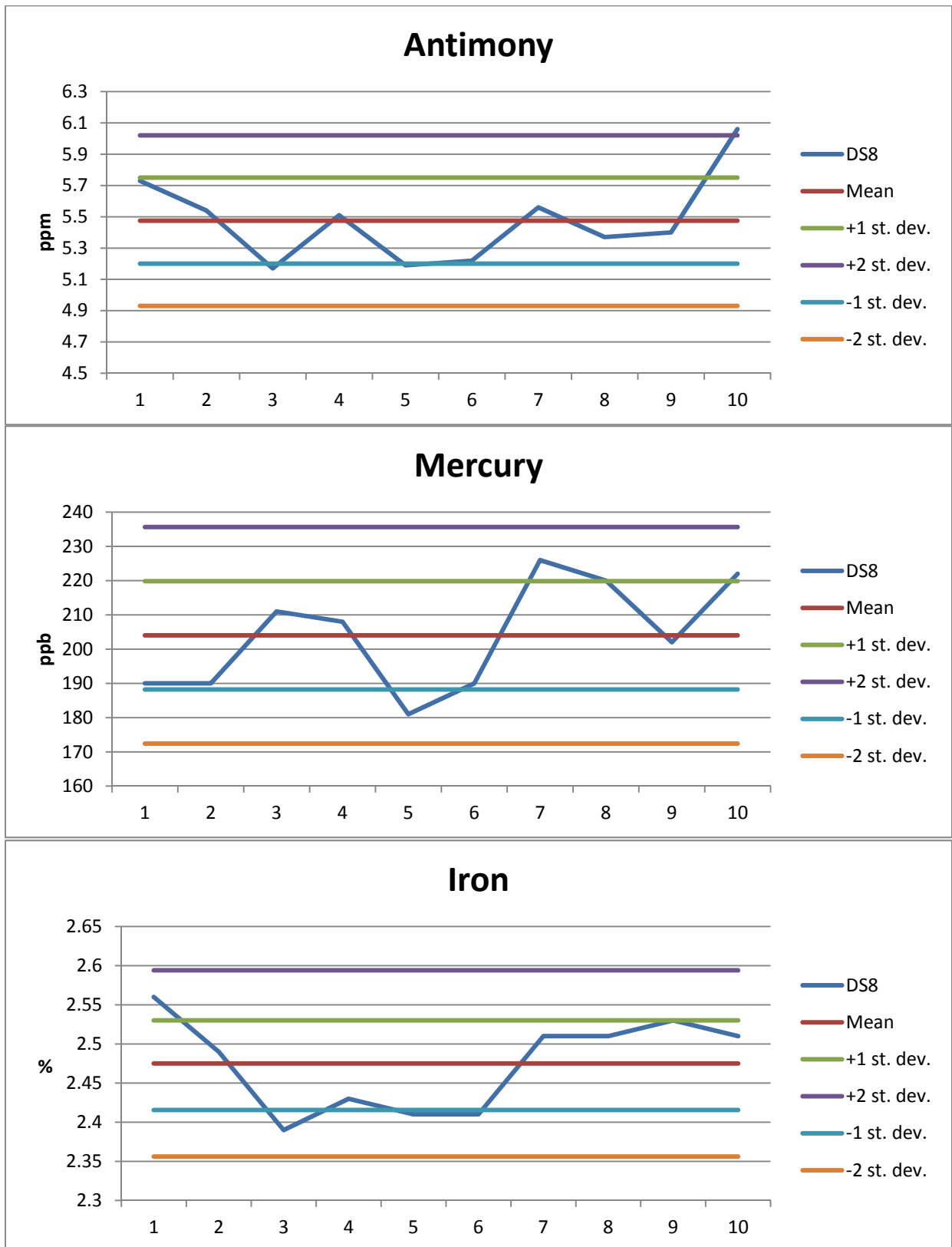


Fig. 14: DS8 standard for antimony, mercury and iron

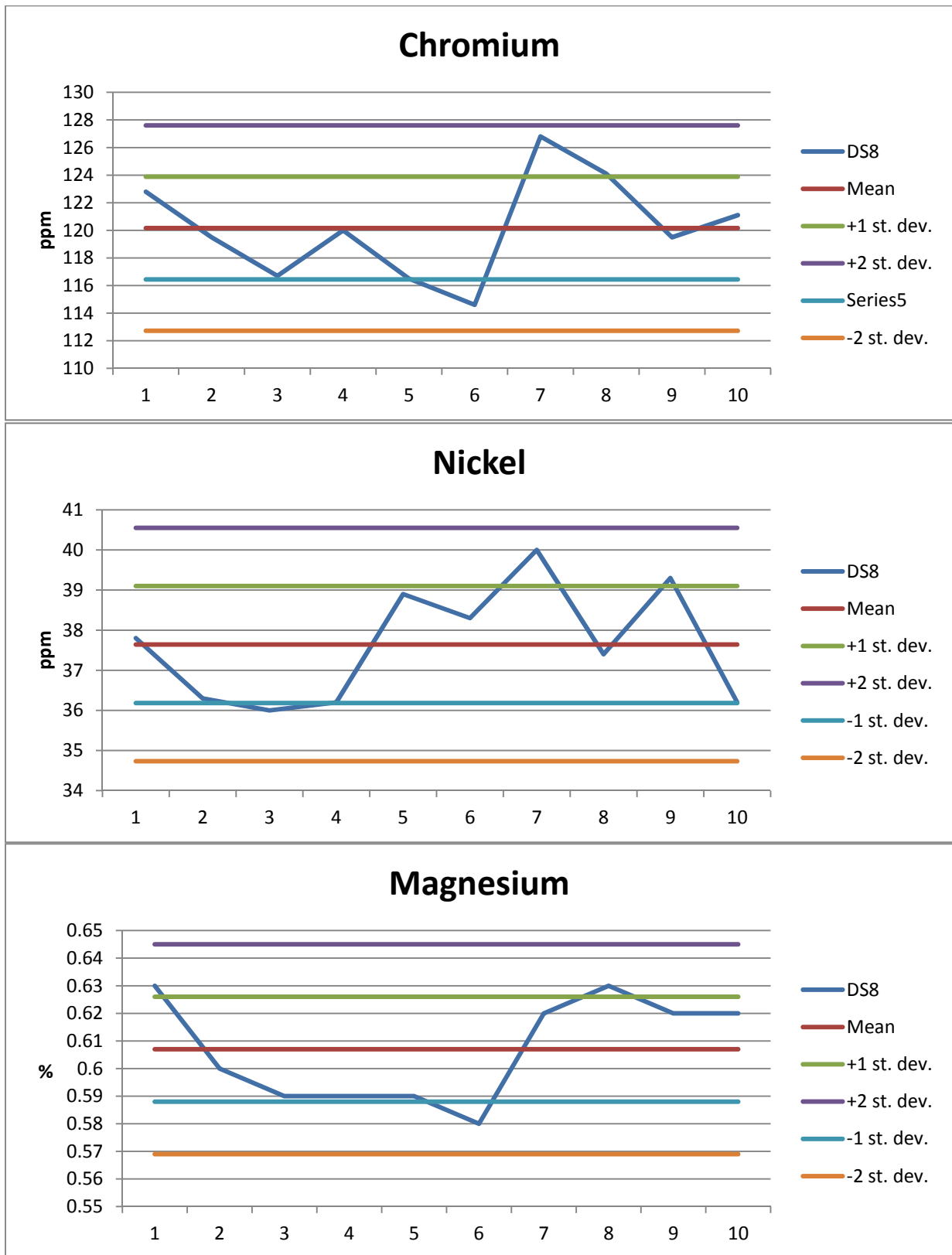


Fig. 15: DS8 standard for chromium, nickel and magnesium

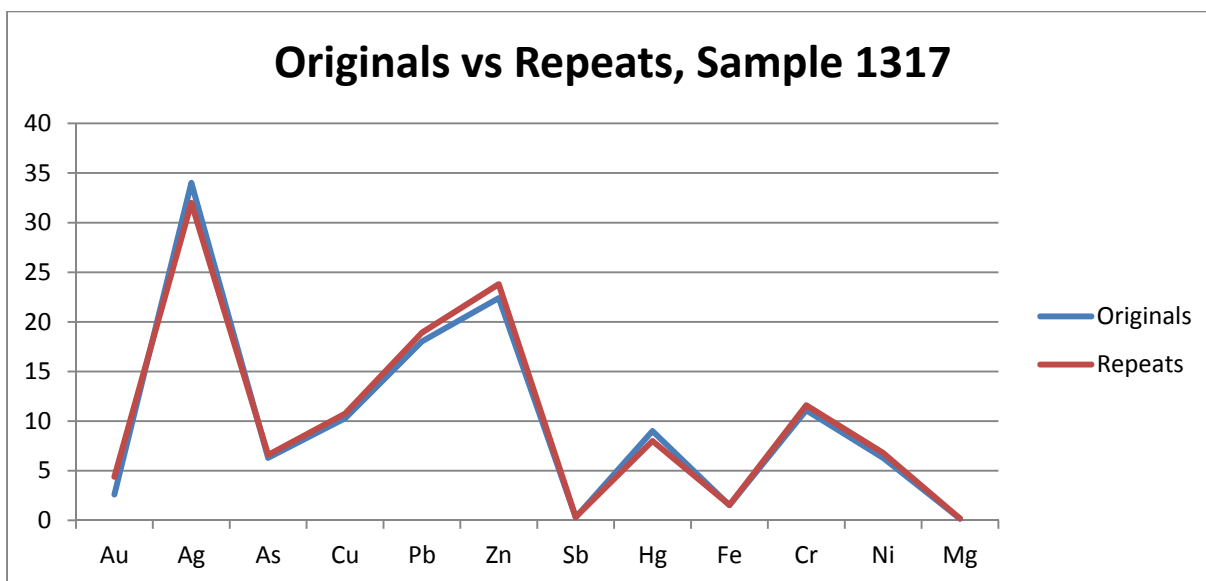


Fig. 16: Original vs repeat assays

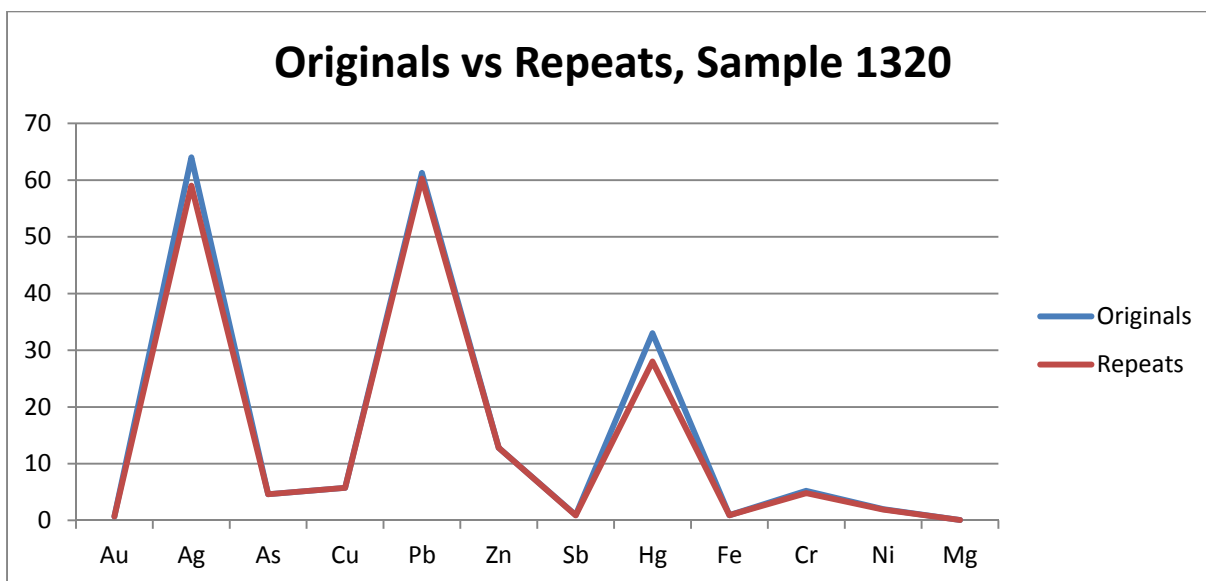


Fig. 17: Original vs repeat assays

chromium – nickel and magnesium values, which strongly correlate among themselves. These rocks are part of the Klondike Schist Assemblage.

Three low-grade gold anomalies were detected in the southern and one anomaly in the northern portions of the grid. Geochemical relationships within the HS claim area indicate a presence of

epithermal, polymetallic silver - lead and copper – zinc associations ± arsenic ± gold ± antimony ± mercury. Similar associations were recently detected in the Goring Creek area within the Leota claim block (Molak, 2012 b).

The question if the chlorite-bearing rocks within the Klondike Schist assemblage relate to ophiolitic rocks referred to by Ash and Doherty (2006) remains still open. The results of 2011 soil survey on the HS claims however indicate that some degree of relationship exists between detected precious, base and other metal anomalies and the chromium group anomalies and the area may contain an epithermal, polymetallic mineralization. Chapman et al (2010) reported an association of gold with silver and mercury that increases with the distance from the centre (Lone Star) and is probably the result of decreased thermality. Such setting appears to comply with the HS claims area.

Gold anomalies in the southern part of the HS claim block are recommended for further testing. Additional, fill-in and step-out lines should be run parallel to the existing lines to determine the true extent of detected anomalies. Any outcrops encountered in the area should be sampled and logged and contingent on the results, a trenching program would be designed to test detected anomalies.

## 9. 2011 EXPLORATION EXPENSES

Geologist (2 days @ \$ 600)	1200.00
Assistants (2 x 2 days @ \$ 300)	1200.00
Truck (Mileage, gas, oil)	100.00
Accommodation, food	500.00
Mob/demob	200.00
Assays (47 samples)	1410.00
Digitization, report	2000.00

HST 12%	<u>793.20</u>
<b>Total:</b>	<b>7403.20</b>

## 10. REFERENCES

Ash, C. H., 2005: Ryan showing quartz-vein sampling program, White property; Madalena Ventures Inc., Company Report, 10 p.

Ash, C. H., 2005a: Geological setting of the Klondike Goldfields; “2005 Yukon Geoscience Forum”, Whitehorse Yukon, November 2005, PowerPoint presentation.

Ash, C. H., 2006, Setting of the gold-quartz vein lode source for placers within the Klondike goldfields, west-central Yukon, Canada; Society of Economic Geologists, 2006 Keystone Conference May 14-16, Wealth Creation in the Minerals Industry, Poster and extended abstract, p. 109-114.

Ash, C. H., 2006a: 2006 geological report on the Henry Property, north east Klondike (Henry 1-6), NTS 116B\03; Assessment Report, Yukon Mining Recorder, 22 p.

Ash, C. H. and Doherty A., 2006: Potential lode source for Klondike placer gold on the Crown Jewel Property, Dawson District, Yukon; International Gold Resources, Internal Company Report, 7 p.

Ash C. H., 2010: Technical Report NI 43-101 compliant; Leota Gold Project, Klondike Goldfields, Dawson Mining District, Yukon, Canada; for Goldbank Mining Corp.

Bostock H. S., 1942: Geology Map # 711, Ogilvie, Yukon Territory, Dept. of Mines and Res., Scale 1:253,440.

Chapman R. J., Mortensen J. K., Crawford E. C. and Lebarge W. 2010: Microchemical studies of placer and lode gold in the Klondike District, Yukon, Canada: 1. Evidence for a small, gold-

rich, orogenic hydrothermal system in the Bonanza and Eldorado Creek Area. *Econ. Geol.*, vol. 105; No. 8; p. 1369-1392.

Debicki, R.L., 1984. Bedrock geology and mineralization of the Klondike area (west), 115 O 14, 15 and 116 B 2, 3; Exploration and Geological Services Division, DIAND, Open File, 1:50,000 scale map with marginal notes.

Debicki, R. L. 1984, 1985: Bedrock geology and mineralization of the Klondike area (east), 115 O/9, 10, 11, 14, 15, 16 and 116 B 2; Exploration and Geological Services Division, DIAND, Open File, 1:50,000 scale map with marginal notes.

Doherty, R. A. and Ash, H. C. 2005: Report on the White Property, Dawson Mining District; Madalina Ventures Inc., Tech. Report, 116 p.

Gabrielse H., Murphy D.C. and Mortensen J.K., 2006: Cretaceous and Cenozoic dextral orogeny-parallel displacements, magmatism and paleogeography, north-central Canadian Cordillera. In: *Paleogeography of the North American Cordillera: Evidence for and against large-scale displacements*; J.W. Haggart, R.J. Enkin and J.W.H. Monger (eds.), Geological Association of Canada, Spec. Paper 46, 255 – 276.

Gleeson, C. F. 1970: GSC Canada Bull. 173, 63 p.

Gordey, S. P. and Makepeace, A. J. 2003: Yukon Digital Geology, version 2.0, S.P. Gordey and A.J. Makepeace (comp); Geological Survey of Canada, Open File 1749 and Yukon Geological Survey, Open File 2003-9 (D).

Gordey, S. P. and Ryan, J. J. 2005: Geology, Stewart River Area (115N, 115 O and part of 115J), Yukon Territory; Geological Survey of Canada, Open File 4970, scale 1:250 000.

Hoyman K. H. and Friedrich G., 1992: Gold and sulphide mineralization in the Hunker Creek area, Yukon Territory, Canada; *Yukon Geology*, v. 3, p. 312 – 326.

Lowey, G.W., 2005: The origin and the evolution of the Klondike goldfields, Yukon, Canada. *Ore Geology Reviews*, Vol. 28, 431 – 450.

MacKenzie, D.J., Craw, D., Mortensen, J.K. and Liverton, T., 2007: Structure of schist in the vicinity of the Klondike goldfield, Yukon . In: Yukon Exploration and Geology 2006, D.S. Emond, L.L. Lewis and L.H. Weston (eds.), Yukon Geological Survey, p. 197-212.

MacKenzie, D.J., Craw, D., Mortensen, J.K. and Liverton, T., 2008: Disseminated gold mineralization associated with orogenic veins in the Klondike Schist, Yukon. In: Yukon Exploration and Geology 2007, D.S. Emond, L.R. Blackburn, R.P. Hill and L.H. Weston (eds.), Yukon Geological Survey, p. 215 - 224.

MacKenzie, D.J., Craw, D.C. and Mortensen, J.K., 2008: Structural controls on orogenic gold mineralisation in the Klondike goldfield, Canada. Mineralium Deposita 43, No. 4, 435 – 448.

MacLean T. A., 1914: Lode Mining in Yukon; Dept. of Mines, Mines Branch Pub. No. 222, 205.

Minfile 115 O 067, 068, 069, 086.

Molak, B., 2012 (a): Geochemical report on the Leota - MB (Minnie Bell) Claims, Dawson Mining District, Yukon Territory; for Goldbank Mining Corp.

Molak, B., 2012 (b): Geochemical report on the Leota GOR 42 - 46 and Leota GC 39, 41 Claims; for Goldbank Mining Corp.

Mortensen J.K., 1996: Geological compilation maps of the Northern Stewart River map area Klondike and Sixtymile Districts (115N/15,16; 115O/13,14 and parts of 115O/15,16), 1:50,000 scale. Exploration and Geological Services, Indian and Northern Affairs: Yukon Region, Open file 1996-1 (G).

## **11. STATEMENT OF QUALIFICATIONS**

I, Bohumil (Boris) Molak, Ph.D., P.Geo., do hereby certify that:

1. I am a self-employed Geoscientist residing at 108-5140 Sanders Street, Burnaby, BC., V5H 1T2, Canada.
2. I am a member of the Association of Professional Engineers and Geoscientists of British Columbia (License No. 28600) in good standing.
3. I graduated from the Comenius University of Czechoslovakia with a Bachelor of Science (Mgr.) in Economic Geology in 1970. From the same university I obtained in 1980 the degree Master of Science in Economic Geology (RNDr.) and in 1990 the degree Doctor of Philosophy (CSc.). I have practiced my profession continuously since 1970.
4. My geological practice includes research, prospecting, and exploration for precious, base, ferrous and other metals in Slovakia, Zambia, Cuba, Guinea, Canada, Chile and Argentina.
5. Since 2003 until present I am a self-employed geo-scientist.
6. I personally supervised the soil survey on the HS claims on October 8, 2011.
7. I am responsible for all items but item 2011 Exploration Expenses in this report. The sources of all information not based on personal examination are quoted in the References Chapter.
8. As of the date of this Statement I am not aware of any material fact or material change with respect to the subject matter of this report that is not reflected in this report, the omission of which would make the report misleading.
9. I am independent of Goldbank Mining Corp.

Dated at Vancouver, BC, Canada, this 28th day of May, 2012.

**APPENDIX I**

HS Claims, 2011 Soil Geochemical Survey, Sample Information

#	Easting	Northing	#	Easting	Northing
1293	604650	7084900	1317	604550	7084900
1294	604650	7084875	1318	604550	7084875
1295	604650	7084850	1319	604550	7084850
1296	604650	7084825	1320	604550	7084825
1297	604650	7084800	1321	604550	7084800
1298	604650	7084775	1322	604550	7084775
1299	604650	7084750	1323	604550	7084750
1300	604650	7084725	1324	604550	7084725
1301	604650	7084700	1325	604550	7084700
1302	604650	7084675	1326	604550	7084675
1303	604650	7084650	1327	604550	7084650
1304	604650	7084625	1328	604550	7084625
1305	604650	7084600	1329	604550	7084600
1306	604650	7084575	1330	604550	7084575
1307	604650	7084550	1331	604550	7084550
1308	604650	7084525	1332	604550	7084525
1309	604650	7084500	1333	604550	7084500
1310	604650	7084475	1334	604550	7084475
1311	604650	7084450	1335	604550	7084450
1312	604650	7084425	1336	604550	7084425
1313	604650	7084400	1337	604550	7084400
1314	604650	7084375	1338	604550	7084375
1315	604650	7084350	1339	604550	7084350
1316	604650	7084325	1340	604550	7084325

Note: sample in grey color – missing.

**APPENDIX II**

Assay Certificates



1020 Cordova St. East Vancouver BC V6A 4A3 Canada

Acme Analytical Laboratories (Vancouver) Ltd.

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

**Client:** Northern Dancer  
PO Box 2662  
Garibaldi Highlands BC V0N1T0 Canada

Submitted By: Dwayne Kress  
Receiving Lab: Canada-Whitehorse  
Received: October 16, 2011  
Report Date: March 29, 2012  
Page: 1 of 12

## CERTIFICATE OF ANALYSIS

WHI11001907.1

### CLIENT JOB INFORMATION

Project: Allgold, Hunker Summit, LKDM  
Shipment ID:  
P.O. Number  
Number of Samples: 320

### SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage  
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: Goldbank Mining Corp.  
605 - 889 West Pender St.  
Vancouver BC V6C 3B2  
Canada

CC: Bohumil (Boris) Molak

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
Dry at 60C	320	Dry at 60C			WHI
SS80	320	Dry at 60C sieve 100g to -80 mesh			WHI
1F03	317	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	30	Completed	VAN

### 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.

#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au
1293	1.45	11.9	31.43	38.8	53	6.7	3.1	101	1.22	5.1	0.6	3.2
1294	2.4	3.16	16.05	10.1	30	3.5	1.7	57	0.84	2.5	0.2 <0.2	
1295	1.6	3.76	17.16	9.9	118	3.4	1.4	46	0.88	7.9	0.3 <0.2	
1296	1.81	5.49	29.77	12.3	151	5.4	2	59	1.3	6	0.4 <0.2	
1297	2.11	9.08	29.81	6.6	112	1.2	0.6	27	1	5.2	0.8	0.5
1298	1.74	6.76	17.72	14.5	100	4.3	1.8	60	1.27	5.8	0.6	0.8
1299	0.93	15.34	24.14	14.2	32	1.8	1.4	52	0.95	1.9	1.4	0.9
1300	3.19	3.12	11.03	12.2	31	1.2	1.4	45	1.87	2.5	1.3 <0.2	
1301	1.63	9.63	24.97	45.7	39	7.9	4.3	194	1.9	5.8	1.6	2.8
1302	1.33	1.96	14.6	43.9	54	1.4	1.4	154	1.26	2.7	1 <0.2	
1303	1.34	5.54	10.46	20.2	40	3.1	1.7	71	1.12	2.7	1.3	0.3
1304	1.99	3.54	4.97	8.1	20	1.8	1.7	67	0.77	3.7	2.1 <0.2	
1306	0.7	11.74	15.16	29.2	77	9	5.4	246	1.31	6.3	1	4.4
1307	0.36	2.8	4.67	7.8	19	1.7	1.2	40	0.58	1.9	0.5	1.8
1308	1.65	4.09	7.01	11.7	21	2.8	2.6	82	0.99	3.8	1.1	3.4
1309	1.72	13.02	36.36	6.9	36	0.9	1	35	0.56	2.3	1.8	13.2
1310	1.88	13.95	25.83	10.7	118	2.3	1.4	45	1.23	4.4	1.3 <0.2	
1311	0.78	5.81	35.44	14	44	1.3	1.1	48	0.67	2.5	1.6 <0.2	
1312	0.67	3.81	11.42	14.2	89	1.8	1.1	28	0.7	2.2	1.7 <0.2	
1313	1.12	6.78	26.86	16.4	153	2.7	1.3	47	0.9	3.6	0.8 <0.2	
1314	3.34	20.32	69.8	19	501	3.3	1.7	43	1.17	5.3	2.2	8
1315	2.43	12.65	33.7	45.7	105	2.1	1	41	1.38	2.9	2.5	9
1316	1.32	6.06	16.23	11.7	106	2.7	1.2	39	0.92	2.9	0.9	0.5
1317	1.46	5.73	61.26	12.8	64	2	0.7	23	0.93	4.6	0.3	0.7
1318	2.05	9.34	41.66	24.7	92	3.9	1.5	42	1.28	4.8	0.5	4.8
1319	2.04	8.61	38.52	22	88	5.1	2	64	1.44	5.2	0.5	4.4
1320	1.56	10.27	18.03	22.4	34	6.3	2.7	88	1.52	6.3	0.7	2.6
1321	1.93	11.73	23.72	27.2	83	7.4	2.9	91	1.63	6.9	0.8	3.9
1322	3.78	7.31	12.28	21.9	48	5.5	2.9	101	1.96	5.4	0.6	0.7
1323	3.32	2.7	7.73	9.3	24	1.3	0.9	40	1.75	3.5	0.7	0.8
1324	6.85	5.04	24.99	24.4	51	1.4	1.2	25	3.28	3.3	1.3	1.8
1325	2.92	10.36	17.88	29.9	150	1.6	3	66	1.64	2.6	2.2	2.5
1326	1.29	9.76	12.08	16.2	7	4.6	3.3	366	0.88	3.6	1.5	2.6
1327	2.03	6.42	17	27.3	24	3.5	2.7	56	1.78	3.2	2.3	0.7
1328	1.3	10.93	11.84	30.5	4	8.4	5.8	200	1.85	6.1	1.3	1.4

#	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba
1293	11.9	6.4	0.03	0.32	0.53	17	0.04	0.011	28.1	10.7	0.18	411.1
1294	7.8	5.4	0.02	0.17	0.34	11	<0.01	0.01	3.8	5.8	0.05	492.9
1295	9.2	5.3	0.02	0.21	0.47	11	0.02	0.008	24.6	6.2	0.08	353.4
1296	9.5	6.3	0.04	0.27	0.42	11	0.01	0.013	38.2	7.1	0.09	223.3
1297	18.3	5.1	0.02	0.14	0.61	4	0.01	0.008	41.3	2.2	0.02	274.7
1298	12.6	4.9	0.03	0.19	0.61	16	0.03	0.009	28.8	8.3	0.16	352.5
1299	22.6	4.4	0.09	0.19	0.6	5	0.02	0.007	37.3	3.2	0.05	289.6
1300	24.6	2.1	0.03	0.11	1.4	4	<0.01	0.008	9.8	1.7	0.03	91.3
1301	18.9	4.2	0.05	0.29	0.41	23	0.03	0.01	25	12.5	0.2	259.4
1302	17.7	2.3	0.08	0.18	0.29	10	<0.01	0.009	23.6	4.5	0.02	122.5
1303	15.5	4.1	0.03	0.34	0.27	10	0.02	0.007	29.3	5.9	0.13	239.2
1304	19	3.5	0.03	0.15	0.22	6	<0.01	0.007	42.8	4.4	0.04	225.6
1306	15.5	4.4	0.06	0.35	0.24	21	0.02	0.016	26.9	11.9	0.18	202.5
1307	9.7	1.4	0.02	0.12	0.18	7	<0.01	0.005	11.7	3.8	0.04	148.9
1308	17.7	4.4	0.02	0.13	0.3	5	<0.01	0.011	40.4	3.2	0.06	98.8
1309	24.9	4.8	0.02	0.15	0.31	2	<0.01	0.007	44.1	1.7	0.01	166
1310	16.9	5	0.06	0.25	0.52	10	<0.01	0.014	34.9	4.9	0.05	127.1
1311	17.8	4.1	0.06	0.12	0.63	4	<0.01	0.009	44.1	2.3	0.02	212.3
1312	13.1	2.4	0.04	0.14	0.31	6	<0.01	0.008	20.4	2.7	0.04	106.6
1313	9.8	3.3	0.05	0.22	0.48	12	0.01	0.008	15.6	5.3	0.07	119.7
1314	13.8	3.8	0.06	4.42	1.95	10	0.01	0.008	19.4	5.1	0.05	219.7
1315	20.3	5.7	0.08	0.28	0.71	8	0.02	0.013	60.4	3.5	0.04	240.9
1316	12.8	3.5	0.02	0.2	0.37	14	0.02	0.006	15	6.1	0.07	235.9
1317	6.3	2.9	0.02	0.94	0.67	16	0.01	0.01	19.8	5.2	0.06	50.2
1318	10.7	3.4	0.06	0.39	0.62	15	0.01	0.011	28.5	7	0.09	114.5
1319	10.1	4.7	0.04	0.28	0.49	21	0.03	0.011	17.4	10.6	0.18	345.7
1320	13.3	6.3	0.04	0.31	0.37	23	0.03	0.014	21.8	11.1	0.17	384.6
1321	8.7	4.9	0.06	0.35	0.47	24	0.03	0.014	23.5	11.6	0.2	263.8
1322	11.8	2.4	0.05	0.28	0.86	19	0.01	0.012	6.6	8.8	0.13	167.5
1323	16	1.3	0.01	0.17	1.43	7	<0.01	0.019	6.1	2.7	0.02	63.7
1324	26.3	2.6	0.03	0.17	0.77	9	0.02	0.009	19	2.3	0.03	126.3
1325	19.3	5.5	0.04	0.17	0.67	9	0.02	0.007	65.4	4.6	0.08	743.8
1326	23	4.6	0.06	0.25	0.21	11	0.02	0.009	47.3	5.5	0.1	347.3
1327	12.8	3.2	0.05	0.24	0.87	14	0.02	0.01	23.2	6.7	0.08	129.2
1328	25.7	4.1	0.06	0.4	0.26	20	0.02	0.009	38	10.8	0.24	227.3

#	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga
1293	0.015 <1		0.6	0.003	0.05 <0.1		1.3	0.05 <0.02		7	0.1	0.03	1.7
1294	0.007 <1		0.51	0.008	0.04 <0.1		0.7	0.04	0.04 <5		0.3	0.02	1.3
1295	0.006 <1		0.48	0.015	0.03 <0.1		0.6	0.1	0.05	10	0.2	0.03	1.4
1296	0.007 <1		0.55	0.048	0.05 <0.1		0.6	0.06	0.16	7	0.2	0.04	1.2
1297	0.002 <1		0.2	0.006	0.03 <0.1		0.5	0.02	0.03 <5		0.2 <0.02		0.5
1298	0.01 <1		0.57	0.003	0.04 <0.1		0.8	0.04 <0.02		7	0.2 <0.02		1.7
1299	0.002 <1		0.43	0.002	0.04 <0.1		1.7	0.05 <0.02		9	0.2 <0.02		0.9
1300	0.001 <1		0.4	0.002	0.03 <0.1		0.9	0.06 <0.02	<5		0.5	0.14	0.8
1301	0.013 <1		0.98	0.004	0.04 <0.1		2.4	0.06 <0.02		15	0.3 <0.02		2.3
1302	0.003 <1		0.46	0.002	0.02 <0.1		0.7	0.05 <0.02	<5		0.2	0.03	1.4
1303	0.005 <1		0.58	0.002	0.05 <0.1		1.2	0.06 <0.02	<5		0.2 <0.02		1.5
1304	0.003 <1		0.42	0.001	0.05 <0.1		1.1	0.04 <0.02	<5		0.1 <0.02		0.9
1306	0.011 <1		0.88	0.002	0.04	0.1	1.2	0.05 <0.02		15	0.2 <0.02		1.9
1307	0.004 <1		0.42	0.001	0.03 <0.1		0.5	0.03 <0.02	<5	<0.1		0.02	0.9
1308	0.002 <1		0.54	0.002	0.05 <0.1		1	0.06 <0.02		5	0.1	0.02	0.9
1309	0.001 <1		0.18	0.002	0.04 <0.1		0.6	0.03 <0.02	<5		0.2 <0.02		0.3
1310	0.004 <1		0.54	0.002	0.06 <0.1		0.6	0.04	0.03	15	0.2	0.03	1.2
1311	0.001 <1		0.31	0.002	0.05 <0.1		0.5	0.04 <0.02	<5		0.2 <0.02		0.6
1312	0.002 <1		0.44	0.002	0.04 <0.1		0.5	0.04 <0.02		9 <0.1		0.02	0.7
1313	0.007 <1		0.48	0.003	0.04	0.1	0.7	0.04 <0.02		7	0.1 <0.02		1.3
1314	0.005 <1		0.46	0.002	0.06 <0.1		0.6	0.05	0.03	12	0.2	0.05	1
1315	0.005 <1		0.29	0.003	0.04	0.2	1.4	0.03 <0.02	<5		0.2 <0.02		0.9
1316	0.01 <1		0.49	0.002	0.04 <0.1		0.7	0.04 <0.02		6	0.2 <0.02		1.6
1317	0.012 <1		0.41	0.001	0.02 <0.1		0.4	0.04 <0.02		33	0.2 <0.02		2
1318	0.008 <1		0.55	0.002	0.04 <0.1		0.6	0.07 <0.02		24	0.2	0.06	1.7
1319	0.015 <1		0.63	0.005	0.04	0.1	1	0.06 <0.02		14	0.4	0.04	2.1
1320	0.015 <1		0.66	0.003	0.04	0.1	1.3	0.06 <0.02		9	0.2	0.03	2.1
1321	0.014 <1		0.73	0.004	0.03	0.1	1.2	0.08 <0.02		12 <0.1		0.04	2.3
1322	0.008 <1		0.82	0.002	0.03	0.1	1.2	0.08 <0.02		11	0.3	0.06	1.8
1323	0.002 <1		0.4	0.001	0.03 <0.1		0.5	0.07 <0.02	<5		0.3	0.18	0.9
1324	0.002 <1		0.44	0.002	0.03 <0.1		1.2	0.07 <0.02	<5		1.1	0.13	1.1
1325	0.003 <1		0.4	0.002	0.05 <0.1		1.7	0.08 <0.02		5	0.5	0.1	1.2
1326	0.005 <1		0.54	0.002	0.05 <0.1		1.4	0.07 <0.02	<5		0.1	0.03	1.1
1327	0.009 <1		0.54	0.002	0.03 <0.1		1.3	0.07 <0.02	<5		0.2	0.09	1.4
1328	0.011 <1		1.03	0.003	0.07	0.1	2.5	0.11 <0.02		7 <0.1		0.03	2.5

#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au
1329	0.35	4.35	6.66	10 <2		1.4	1.9	45	1.08	1.8	1.4	0.7
1330	0.53	4.41	8.4	13.6	4	0.8	1.7	178	0.78	2.5	1.6	1.7
1331	1.37	2.38	9.37	19.9	8	1.1	2	92	1.88	2.3	1.3	1.7
1332	0.59	6.84	5.74	11.3	5	3.3	2	42	0.75	2.9	1.1	1.1
1333	1.78	6.09	82.8	42.3	39	2.8	2.5	57	1.32	2.4	1.1	1.4
1334	1.43	7	7.69	25.6	72	3	2.9	54	1.44	2.8	1.1	0.7
1335	1.18	7.52	5.8	21.9	17	3	4.8	48	2.07	2.5	1.2	0.3
1336	1.06	9.98	10.86	32.5	260	9.4	4.7	98	1.95	5.6	1.1	17.9
1337	1.08	6.67	23.65	19.1	28	3	2	80	0.7	3.1	1.1	2.7
1338	1.31	8.68	140.89	50	223	6.2	3.3	155	1.27	6.2	1.2	2.2
1339	1.45	5.82	11.23	17.5	43	2.7	2.4	32	1.46	1.7	0.9 <0.2	
1340	1.55	4.49	8.69	12.6	75	1.8	1.2	35	0.76	1.6	0.9	0.5

#	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba
1329	22.8	3.8	0.02	0.21	0.36	5	0.01	0.004	25.9	3.1	0.11	393.4
1330	23.5	3.9	0.03	0.11	0.58	3 <0.01		0.006	67.5	1	0.02	324
1331	26.8	2.5	0.02	0.12	0.53	7 <0.01		0.008	22.3	2.3	0.04	171.9
1332	20.4	3.1	0.02	0.15	0.19	7 <0.01		0.007	33.6	5.5	0.05	150.4
1333	18.3	3.5	0.11	0.19	0.55	7	0.02	0.008	35.2	4.8	0.13	247
1334	13.5	2.7	0.04	0.18	0.62	15 <0.01		0.013	11.8	5.7	0.06	137.3
1335	17.3	3.7	0.04	0.19	0.56	7 <0.01		0.013	31.8	4.1	0.07	255.7
1336	16.9	4.3	0.06	0.37	0.35	21	0.02	0.011	23.2	14.5	0.2	221.1
1337	14.3	3.9	0.07	0.17	0.2	7 <0.01		0.008	23.1	4.2	0.05	119.8
1338	11.3	4.4	0.24	0.32	0.76	20	0.05	0.031	25.2	11.6	0.13	243.5
1339	22.7	2	0.04	0.15	0.39	7 <0.01		0.008	5	3.3	0.13	151.5
1340	18.2	2.1	0.06	0.15	0.2	5 <0.01		0.005	16.5	3.8	0.04	189

Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga
0.002 <1		0.57 <0.001		0.06	0.3	1.1	0.09 <0.02	<5	<0.1		0.08	1.1
0.001 <1		0.22 <0.001		0.05 <0.1		0.8	0.05 <0.02	<5	<0.1		0.05	0.4
0.003 <1		0.38 0.001		0.05 <0.1		0.8	0.05 <0.02	<5		0.5	0.08	0.9
0.002 <1		0.57 0.002		0.05 <0.1		0.7	0.07 <0.02	<5		0.1	0.03	0.9
0.003 <1		0.72 0.002		0.05 <0.1		1.4	0.1 <0.02	<5		0.1	0.04	1.1
0.005 <1		0.83 0.002		0.04 <0.1		1.4	0.1 <0.02	<5		0.1	0.03	2.1
0.001 <1		0.89 <0.001		0.05 <0.1		0.8	0.1 <0.02	<5		0.4	0.09	1.1
0.009 <1		1.24 0.002		0.05	0.1	1.9	0.11 <0.02		19	0.2	0.03	2.2
0.003 <1		0.54 0.002		0.06	0.1	1.1	0.07 <0.02	<5		0.2	0.02	1.1
0.009 <1		0.84 0.002		0.05	0.1	1	0.08 <0.02		6 <0.1	<0.02		2.2
0.002 <1		0.72 <0.001		0.05	0.5	1.7	0.08 <0.02	<5		0.2	0.04	1.2
0.001 <1		0.57 <0.001		0.04 <0.1		1	0.08 <0.02	<5	<0.1		0.03	1

Originals												
#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au
1317	1.46	5.73	61.26	12.8	64	2	0.7	23	0.93	4.6	0.3	0.7
1320	1.56	10.27	18.03	22.4	34	6.3	2.7	88	1.52	6.3	0.7	2.6
Repeats												
1317	1.45	5.73	60.24	12.8	59	1.9	0.7	22	0.92	4.6	0.3	0.7
1320	1.74	10.76	18.91	23.8	32	6.8	2.9	92	1.56	6.6	0.8	4.4

Originals												
#	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba
1317	6.3	2.9	0.02	0.94	0.67	16	0.01	0.01	19.8	5.2	0.06	50.2
1320	13.3	6.3	0.04	0.31	0.37	23	0.03	0.014	21.8	11.1	0.17	384.6
Repeats												
1317	6	2.8	0.02	0.9	0.67	16	0.01	0.01	19	4.8	0.06	48.2
1320	13.9	6.4	0.04	0.33	0.44	24	0.04	0.015	22.3	11.6	0.19	398.8

Originals													
#	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga
1317	0.012 <1		0.41	0.001	0.02 <0.1		0.4	0.04 <0.02		33	0.2 <0.02		2
1320	0.015 <1		0.66	0.003	0.04	0.1	1.3	0.06 <0.02		9	0.2	0.03	2.1
Repeats													
1317	0.011 <1		0.38	0.001	0.02 <0.1		0.4	0.04 <0.02		28	0.2	0.03	2
1320	0.016 <1		0.68	0.003	0.04	0.1	1.4	0.09 <0.02		8	0.2	0.04	2.2

DS8 Standard

Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr
12.72	108.25	127.17	315	1846	37.8	7.2	612	2.56	24.4	2.8	124	6.8	66.5
12.86	109.9	121.11	317	1708	36.3	7.4	592	2.49	25.5	2.9	112.5	7.1	65.3
12.24	107.71	117.6	299.8	1753	36	7.4	584	2.39	24.5	2.6	107.1	6.2	63.7
13.1	106.23	121.5	302.6	1741	36.2	7	609	2.43	24.2	2.6	112.4	6.5	68.6
10.24	113.15	125.93	326.6	1917	38.9	7.2	584	2.41	25	2.6	115.3	5.9	56.7
11.23	110.38	129.84	301	1783	38.3	7.5	587	2.41	24.4	2.7	104.4	6.3	55.9
13.83	112.72	129.03	305.5	1814	40	7.7	651	2.51	24.9	2.8	117.4	7	67.1
12.58	111.5	127.95	304.5	1827	37.4	7.5	627	2.51	24.6	2.7	116.7	6.6	63.1
12.87	107.86	121.43	309.6	1722	39.3	7.6	625	2.53	24.9	2.8	107.1	6.5	70.5
12.45	108.73	128.09	319.9	1889	36.2	7.3	633	2.51	27.9	2.8	118.1	6.7	70.5

DS8 Standard

Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na
2.34	5.73	6.39	41	0.72	0.08	16	122.8	0.63	267.5	0.109	2	0.99	0.102
2.25	5.54	6.55	39	0.72	0.085	15.7	119.5	0.6	281.9	0.11	3	0.93	0.095
2.24	5.17	6.17	40	0.71	0.076	14.6	116.7	0.59	257.1	0.108	2	1	0.13
2.22	5.51	6.54	44	0.72	0.083	15.9	120	0.59	287.3	0.116	3	0.94	0.099
2.42	5.19	6.54	42	0.67	0.085	11	116.5	0.59	240.5	0.096	3	0.89	0.095
2.25	5.22	6.37	42	0.68	0.084	12.4	114.6	0.58	250.7	0.099	3	0.92	0.108
2.31	5.56	6.08	41	0.73	0.082	16.3	126.8	0.62	268.2	0.121	3	0.99	0.099
2.29	5.37	6.1	42	0.69	0.085	14	124.1	0.63	272.3	0.109	3	0.98	0.103
2.25	5.4	6.65	41	0.74	0.083	17.7	119.5	0.62	274.1	0.132	2	1.05	0.089
2.52	6.06	7.3	42	0.73	0.089	13.8	121.1	0.62	288	0.106	3	0.97	0.109

DS8 Standard

K	W	Sc	Tl	S	Hg	Se	Te	Ga
0.43	3.1	2.5	5.75	0.16	190	5.5	5.09	5
0.42	2.9	2.4	5.52	0.16	190	5	5.05	4.7
0.44	2.8	2.6	5.27	0.15	211	5	4.8	4.8
0.42	3.1	2.3	5.5	0.15	208	5.3	5.07	4.8
0.42	2.8	2	5.31	0.16	181	5.1	4.79	4.4
0.43	2.9	2.1	5.36	0.16	190	5	4.92	4.5
0.44	3	2.4	5.77	0.17	226	5.6	5.34	4.9
0.45	3	2.2	5.59	0.17	220	5.3	5.07	4.8
0.46	2.7	2.1	5.27	0.16	202	4.9	4.78	4.6
0.45	3.1	2.2	5.61	0.16	222	5.2	5.18	4.6

