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Certificate of Participation

This is to certify that

Zarazma Minerals Studies Company

has participated in the October 2018
Geostats Survey of International Laboratories

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Operations Manager

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Managing Director

Geostats Laboratory Survey
October 2018

Prepared for
Zarazma Minerals Studies Company

Confidential

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THIS DOCUMENT SHOULD NOT BE CIRCULATED OUTSIDE THE COMPANY WHOSE NAME APPEARS ON THE COVER.**

To the reader,

This survey of laboratories undertaken by Geostats is performed as a service to both the Mining Industry and the Analytical Industry. It is envisaged that it can be used as a tool for the maintenance of high standards in both industries.

The report to the Mining Houses identifies most commercial laboratories and should be treated as confidential information. Some commercial facilities prefer to pay for the inclusion of their sites and these are not identified to the Mining Houses. This report should not be circulated outside of the Client Company or reproduced for the benefit of other mining groups.

It is not the intent of this survey to provide marketing tools for the analytical industry. A laboratory report is available which identifies only the laboratory or group requesting the report. This allows the laboratory to assess their performance in relation to the rest of the analytical industry. All the laboratories identified have taken advantage of this report and included it as part of their ongoing quality control procedures. Participation in these surveys is an indication of the laboratory's interest in quality and should be regarded as a positive sign regardless of the outcome.

Many thanks to both the laboratories and the Mining Houses for their ongoing support of this survey.

Kind regards,

Stuart Romero BSc, BEng

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Geostats Pty Ltd, O'Connor, Western Australia
Listing of Participating Laboratories for Round Robin - October 2018

Western Australia	ALS Minerals - Kalgoorlie	Kyrgyz Republic	ALS KYZRGYZSTAN	Stewart Assay and Environmental Laboratories LLC
ALSM KAL	Amnec Laboratory	KAZ MINERALS	Kaz Minerals	
ALSM METALLURGY	ALS Minerals - Perth	Laos PDR		
ALSM PERTH	Aurum Laboratories Pty Ltd	ALSM LAOS	ALS Minerals Vientiane (Laos)	
AURUM BECK	AmdeL Laboratory - Kalgoorlie	PHU BIA BH	Ban Houayxai Laboratory	
BV KAL	Ultra Trace Pty Ltd	PHU BIA LAOS	Phu BIA Mining Limited	
BV ULTRA TRACE	Gekko Assay Laboratory	SEPON LAOS	Lane Xang Minerals	
GEKKO VICTORIA	EMR Golden Grove	Malaysia		
GOLDEN GROVE	Granby Smith Gold Mine Laboratory	ITS PENJOM	Intertek Service - Penjom	
GRANNYS	Genalysis Laboratory Services Pty Ltd	Mali		
INT GEN PER	Jinning Testing and Inspection	SADIOLA MALI	Sadiola Mine Site Laboratory	
JINNING WA	Kalassay Group (Perth Assay Laboratory)	SGS BAMAOKO	SGS Minerals Services (Bamako)	
KAL PER	Kalassay Group (Kalgoorlie Assay Laboratory)	SGS LOULO	SGS Loulo	
KALGOORLIE AL	LabWest	SGS SYAMA	SGS Minerals Syama Laboratory	
LABWEST	MiraAnalytical	Mauritania		
MINANALYTICAL	Newcrest Mining Limited - Telfer Gold Mine Lab	ALSM TASIAST	ALS Minerals - Tasiast	
NEWCREST TELFER	Standard & Reference Laboratories	OMRG	Office Mauritanien des Recherches Géologiques	
SAR LAB	SGS Jundee	Mexico		
SGS JUNDEE	SGS Kalgoorlie	ACTLABS MEXICO	Actlabs Mexico SA de CV	
SGS KALG	SGS Newburn	BV MINERALS MEX	Inspectorate de México S.A. de C.V.	
SGS NEWBURN	SGS Tropicana	CAZCATLAN MEXICO	Compañía Minera Cuzcatlan S. A. de C. V.	
SGS TROPICANA	Simulus Laboratories	MCEWEN MEXICO	McEwen Mining Mexico	
SIMULUS		MULATOS SONORA	Alamos Gold - Mulatos Mine	
New South Wales		SANTA RITA	AuRico Gold - Minera Santa Rita	
ALSM ORANGE	ALS Minerals - Orange	SGM CHIHUAHUA	Centro Experimental Chihuahua	
SGS WEST WYALONG	SGS Wyalong	Mongolia		
Northern Territory		ALSM MONGOLIA	ALS Group LLC	
GRANITES	Granites Gold Mine	ALSM OY	ALSM OY	
INT DARWIN	Northern Territory Environmental Laboratories	CGL MONGOLIA	Central Geological Laboratory	
Queensland		GEOANALYTIC MONGOLIA	Geoanalytic LLC	
ALSM BRIS	ALS Minerals - Brisbane	KHANLAB MONGOLIA	Khanlab LLC	
ALSM MT ISA	ALS Minerals - Mt Isa	SGS ULAAN	SGS Mongolia LLC	
ALSM TVL	ALS Minerals - Townsville	Morocco		
CHEM LAB MIM	Mount Isa Mines Analytical Laboratory	MANAGEMENT REMINEX	Reminex Centre de Recherche	
EH MINE	Ernest Henry Mine Laboratory	Nambija		
GEN TOWNSVILLE	Genalysis Testing Services, Townsville	DUNDEE PMT	Dundee Precious Metals Tsumeb	
HRLTESTING	HRL Testing	New Zealand		
SGS TOWNSVILLE	SGS Townsville	SGS NZ MACRAES	SGS New Zealand, Macraes Laboratory	
South Australia		SGS NZ WAIHI	SGS New Zealand, Minerals Laboratory	
BV ADL	Bureau Veritas Minerals - Thebarton	Papua New Guinea		
INT GEN ADEL	Genalysis Laboratory Services - Adelaide	INTERTEK HV	Intertek Hidden Valley	
Tasmania		ITS K92 PNG	ITS (PNG) Limited K92 Laboratory	
ALSM BURNIE	Burnie Research Laboratory	ITS MOROBE	ITS (PNG) Limited	
Argentina		OK TEDI	Ok Tedi	
ASA MENDOZA	Alex Stewart International Argentina SA - Mendoza	PORGERA	Porgera Gold Mine Laboratory	
ASA PERITO MORENO	Alex Stewart International Argentina SA - Perito Moreno	Peru		
VELADERO MINE	Veladero Project Assay Lab	ACT SKYLINE PERU	Actlabs Skyline Peru SAC	
Brazil		ALSM LIMA	ALS Peru SA	
PARACATU MINE	Kinross Brasil Mineração SA	CERTIMIN	Certimin S.A.	
SGS LF BELO HOR	SGS Geosci Laboratórios Ltda	CERTIMIN LA ARENA	Certimin S.A. - La Arena	
Bulgaria		CMH PERU	Consorcio Minero Horizonte S.A.	
CHELOPECH MINE	Chelopech Mine Laboratory	INSPECTORATE PERU	Inspectorate Services Peru SAC	
Burkina Faso		LAGUNAS MINE	Minera Barrick Misquichilca - Unidad Lagunas Norte	
ALSM OUAGADOUGOU	ALS Burkina SARL	NEW PERU	Minera Yanacocha SRL - Newmont Lab (Peru)	
IAMGOLD BF	IAMGOLD Essakane SA	PIERINA MINE	Minera Barrick Misquichilca - Unidad Pierina	
SEMAFO	Semafco Burkina Faso	SGS LIMA	SGS del Peru SAC	
SGS HOUNDE BF	SGS Hounde	VOLCAN CHUNGAR	Laboratorio Químico Chungar	
SGS OUAGADOUGOU	SGS Burkina SA	VOLCAN OXIDOS	Laboratorio Químico Oxidos - Cerro de Pasco	
WESTAGO BF	WESTAGO sarl	VOLCAN YAULI	Laboratorio Químico Carahuacra - Yauli	
Canada		Philippines		
ACME VAN	Bureau Veritas Commodities Canada Ltd - Vancouver	ITS PHILIPPINES	Intertek Testing Services Philippines	
ACTLABS CAN	Activation Laboratories Ltd (Canada)	Portugal		
ACTLABS TB	Activation Laboratories Ltd - Thunder Bay	SOMINCOR	Somincor, S.A.	
AGAT ONTARIO	AGAT Laboratories - Mississauga	Romania		
ALSM QUEBEC	ALS Minerals (Val d'Or)	ALSM ROMANIA	ALS Romania	
ALSM VAN	ALS Minerals - Vancouver	Russia		
AUTEC VAN	AuTec Innovative Extractive Solutions Ltd	ALSM MOSCOW	Stewart Geochemical and Assay Ltd	
BARKERVILLE QR MILL	Osisko Mining	IRGIREDMET RUSSIA	IRGIREDMET JSC	
BVCC TIMM	Bureau Veritas Commodities Canada Ltd - Timmins	KUPOL MINE	Kupol Mine	
ELEONORE	Goldcorp - Eleonore	LAMS RC JSC KRAS	LAMS RC JSC KRAS	
FLIN FLON MINE	Flin Flon Mine Laboratory	PAL JSC VERINSKOE	PAL JSC VERINSKOE	
HEMLO MINE	Williams Operating Corporation	SGS CHITA	SGS Chita	
KIRKLAND LAKE NORTH	Kirkland Lake North Ontario	TOMS RUSSIA	TOMS-Irkutsk	
KIRKLAND ONTARIO MAC	Kirkland Lake Gold	VSEGEI RUSSIA	VSEGEI All-Russia Geological research Institute	
MAXXAM ONTARIO	Maxxam Analytics International Corporation	Saudi Arabia		
MCEWEN BLACK FOX	McEwen Mining Black Fox	ALSM JEDDAH	ALS Minerals - Arabia	
MS-ANALYTICAL	MS Analytical	MAADEN SAUDI	Maaden Gold and Base Metals Co	
MUSSELWHITE	Musselwhite Mine Laboratory	MBCC JABAL SAYID	MBCC Jabal Sayid Mine	
NMAL TIMMINS	Northern Mining Analytical Laboratory	Senegal		
PORCUPINE	Goldcorp - Porcupine	SGS MAKO	SGS Mako	
RED LAKE	Goldcorp - Red Lake	Serbia		
SGS LAKEFIELD	SGS Lakefield (Ontario)	SGS BOR	SGS Bor	
SGS VANCOUVER	SGS Vancouver	South Africa		
TSL SASKATCHEWAN	TSL Laboratories	AATS	Anglo Research, Crown Mines - BMP	
YOUNG-DAVIDSON	AuRico Gold - Young-Davidson	ALSM JOBURG	ALS Minerals - Johannesburg	
Chile		MINTEK SA	Mintek Analytical Services Division	
ACTLABS CHILE	Activation Laboratories Ltd (Chile)	RAPPA RESEARCH	Rappa Research Laboratory	
AGQ CHILE	AGQ Chile S.A	SCI SER	Scientific Services Pty Ltd	
ALSM SANTIAGO	ALS Minerals - Santiago	SET POINT MOK	Set Point Laboratories - Mokopane	
BV ANTOFAGASTA	Bureau Veritas Mineral Chemical Analysis - Geonanalitica	SGS BARBERTON	Performance Laboratories Barberton	
BV CALAMA	Bureau Veritas S.G. Calama	SGS PLW	Performance Laboratories (PLW)	
BV COQUIMBO	BV Mineral Chemical Analysis - Geonanalitica Coquimbo	SGS RANDFONTEIN	Performance Laboratories (PLR)	
BV IQUIQUE	Bureau Veritas Iquique	SIBANYE BEATRIX	Sibanyegold Beatrix Division	
BV SALVADOR	Bureau Veritas Salvador	SIBANYE CHARL	Sibanyegold Analytical Laboratory Driefontein	
BV SANTIAGO	Bureau Veritas Mining & Chemical Division - Csmec	Suriname		
BV SIERRA GORDA	Bureau Veritas Sierra Gorda	FLAB SURINAME	Filab Suriname	
ITS CHILE	Intertek Minerals Chile	Tanzania		
China		BULYANHULU TANZ	Bulyanhulu Mine Assay Lab	
ALSM CHINA	ALS Minerals - Guanzhou (China)	BUZWAGI	Pangea Minerals Ltd	
Colombia		GETTA TANZ	Geita Gold Mine Laboratory	
SGS COLOMBIA	SGS Colombia	NORTH MARA	North Mara Minesite Laboratory	
Cote d'Ivoire		SGS MWANZA	African Assay Laboratories (Tanzania) Ltd	
BV COTE	Bureau Veritas Mineral Laboratories Cote d'Ivoire	Turkey		
SGS AGBAOU CI	SGS Côte d'Ivoire S.A. Agbaou	ACME TURKEY	Acme Analytical Laboratories Ltd - Turkey	
SGS ITCI	SGS Côte d'Ivoire S.A. ITCI	AGLAB TURKEY	AG Laboratory	
Democratic Republic of Congo		ALSM TURKEY	ALS Minerals - Turkey	
SGS KIBALI	SGS Kibali	ANAGOLD TURK	Anagold Madencilik San Ve Tic.A.S.	
SGS KINSEVERE	AMCK Mining SPRL	DEMIR ANKARA	Demir Ergir Ankara	
SGS KIPOI	SGS Laboratory - Kipoi	ESAN ECZACIBASI	Esan Eczacibasi Endustriyel Hammaddeler San. Ve Tic. A.S.	
SGS LUBUMBASHI	SGS Lubumbashi	KOZAGOLD HIMMETDEDE	Koza Gold Mine Himmetdede Laboratory	
SGS NAMOYA	SGS Namoya	KOZAGOLD KAYMAZ	Koza Gold Mine Kaymaz Laboratory	
SGS TWANGIZA	SGS Twanziza	KOZAGOLD MASTRA	Koza Gold Mine Mastra Laboratory	
Dominican Republic		KOZAGOLD TURKEY	Koza Gold Mine Laboratory	
PUEBLO VIEJO	Pueblo Viejo Laboratorio	SGS TURKEY	SGS Turkey	
Egypt		TUMAD TURKEY	Tumad Turkey	
SGM EGYPT	Sukari Gold Mines	United States of America		
England		AALLABS	American Assay Laboratories	
WHEAL JANE ENGLAND	Wheal Jane Laboratory	ACZ COLORADO	ACZ Laboratories Inc	
Eritrea		ALSM RENO	ALS Minerals - Reno	
SGS BISHA	SGS Bisha	BALD MOUNT	Bald Mountain Mine Assay Lab	
Fiji		CORTEZ MINE	Cortez JV Mine Assay Lab	
VATUKOULA GM	Vatukoula Gold Mine	ELI-B MONTANA	Energy Laboratories, Inc. - Billings, MT USA	
Finland		FLORIN RENO	Florin Analytical Services	
LABTIUM FIN	Eurofins Labtium Oy	FLSMIDTH USA	FLSmith Analytical Lab	
Ghana		FORT KNOX	Fort Knox Assay Lab	
ALSM GHANA	ALS Minerals - Ghana	GOLD SUNLIGHT MINE	Golden Sunlight Mine Assay Lab	
ITS GHANA	Intertek Minerals Ltd (Ghana)	GOLDSTRIKE	Golden Strike Analytical Laboratory	
NEW AHAFIO GHANA	Ahafo Mine Site Laboratory	INSPECTORATE NEV	Inspectorate America Corporation - Sparks	
SGS TARKWA	SGS Laboratories (Tarkwa)	INTER-MOUNTAIN USA	Inter-Mountain Laboratories	
Guinea		MCLELLAND NEV	McClelland Laboratories, Inc.	
SGS SIGUIRI	SGS Mineral Services (Guinee) SARL	NEW GC	Newmont Mining Corporation - Carlin Assay Lab	
Guyana		NEW LONE	Newmont - Lone Tree Mine	
ACTLABS GUYANA	Actlabs Guyana Inc	NEW MET SER	Newmont Metallurgical Services	
India		NEW TWIN CM	Newmont - Twin Creek Mine	
SHIVA INDIA	Shiva Analyticals (India) Ltd	ROUND MOUNT MINE	Round Mountain Gold Assay Lab	
Indonesia		RTKC UTAH	Rio Tinto Kennecott Copper	
GEOSERVICES IND	PT Geoservices Ltd	SKYLINE ARIZONA	Skyline Assayers & Laboratories - Arizona	
ITS GOSOWONG	Gosowong Gold Project Lab	TURO RIDGE MINE	Turquoise Ridge JV Mine Assay Lab	
ITS INDO	Intertek Testing Services, Jakarta	Zambia		
ITS UTAMA	Intertek Utama Services Manado	AHK KITWE	Alfred H Knight Zambia Ltd	
MIRAH KBK INDO	KBK Mirah Site Laboratory	ALSM KANSANSHI	ALS Minerals - Kansanshi	
SGS JAKARTA	SGS Indo Assay Laboratories	KANSANSHI ZAMBIA	Kansanshi Mining PLC	
SGS MARTABE	SGS Martabe	LUMWANA MINE	Lumwana Mine Site Lab	
SGS SERUYUNG	SGS Serarung	SGS KALULUSHI	SGS Inspection Services Zambia	
SUCOFINDO CIBITUNG	Sucofindo Cibitung Laboratory	Zimbabwe		
SUCOFINDO DENPASAR	Sucofindo Denpasar Laboratory	ANTECH	Antech Laboratories	
SUCOFINDO TIMIKA	Sucofindo Timika Laboratory	BINDURA ZIM	Bindura Nickel Corporation Limited	
WAY LINGGO	PT Geoservices Ltd - Way Linqoo	FREDA ZIM	Freda Rebecca Gold Mine	
WETAR	PT Geoservices Ltd - Wetar	Commercial Laboratory	Laboratory that reported some results after the database was closed.	
Iran		Government Laboratory		
BINALOUD IRAN	Kansaran Binaloud Co.			
ZARAZMA TEHRAN	Zarazma Minerals Studies Company			
Ireland				
ALSM IRELAND	Omac Laboratories - Ireland			
Kazakhstan				
ALSM AKBAKAY	ALS Minerals - Akbakay			
ALSM KAZAKHSTAN	ALS Minerals - Kazakhstan			

REPORT ON LABORATORY SURVEY – October 2018

A round robin to measure the accuracy of gold, silver, sulphur and base metal analyses from 249 laboratories was conducted during October 2018. The results of this survey are a measure of the ability of a laboratory to accurately analyse a pre-prepared pulp.

The ability of a laboratory to crush, split and prepare the sample without contamination is not measured by this survey. Knowledge of sampling machinery and the ability to design efficient flow systems with in-built homogeneity checks is required in order to develop confidence in the sample preparation.

The samples submitted to the laboratories consisted of:

- 10 gold samples
- 5 low level gold samples
- 6 gold and silver on carbon samples
- 10 geochemical base metal samples
- 6 ore-grade base metal samples
- 10 sulphur and carbon samples

Companies operating more than one laboratory have received extra filler samples, which are not used in the calculations. The Geostats numbering system makes it extremely difficult for any comparison of results from one laboratory to the next. This provides a level playing field for all laboratories, whether they are sole operators or members of a large laboratory group.

We use a double entry system to build an accurate database. Two individuals enter all the data and when complete these two files are cross-checked and the source data is consulted to rectify any errors. The mean values used for calculations in this study are checked visually by preparing histograms. Outliers are removed and the remaining population distributions are tested for normality. All outliers are checked back to the original assay report for a third and final time.

GOLD SAMPLES

Three lots of gold samples were submitted to the laboratories, one lot for fire assay, one for aqua regia digest (or similar) and one for low-level gold. Becquerel Canada performed Neutron Activation Analysis on all samples, reporting a gold + 33 element analysis which has been included at the end of this report. Maxxam Ontario can be contacted through Debbie D'Alessandro at DD'Alessandro@maxxam.ca

GOLD AND SILVER ON CARBON SAMPLES

Six gold and silver on carbon samples were included in this survey, both loaded and barren. The method of analysis for these samples was left up to the individual laboratories.

GEOCHEM BASE METAL SAMPLES

The base metal samples were analysed for copper, lead, zinc, nickel, arsenic, silver and cobalt. The method of analysis for base metal samples was left to the discretion of the laboratory manager. However, the report groups them into Total (typically 4 acid digest or fusion) and Partial (all others, mainly aqua regia) methods. Maxxam Ontario performed Neutron Activation Analysis and these have been included in the Total digest group. Methods are listed in the results page for the respective analyte.

ORE GRADE BASE METAL SAMPLES

Six ore-grade and/or concentrate samples are included in the survey. These are assayed primarily for copper, lead, zinc, nickel, silver and sulphur. Other elements are reported but not in sufficient numbers for inclusion in the report. These high-grade materials are analysed at the chemist's discretion but almost always using ore-grade techniques. Some use classical analyses while others use XRF or other methods. However, some of these products have, for example, high lead but low copper and the method for copper analysis may be inappropriate for low levels. Owing to this characteristic, only higher grade analyses are plotted in the related charts.

SULPHUR SAMPLES

Ten samples for sulphur and carbon analysis were prepared for the survey. These ten new samples are a good mix of values with sulphur values up to 18% and carbon values up to 7%.

All of the certified reference materials used in this survey are available for purchase.

RESULTS

The results of the analyses are presented in three forms:

1. A table showing values as reported from the laboratories. These are presented in columns according to their respective sample identifiers, with each result's standardised Z value also displayed. Outliers are highlighted and assigned a Z value of 3.00 or -3.00. General statistics are listed at the top of each table.
2. Bar chart for each element showing the sum of absolute standardised values divided by the count of absolute standardised values.
3. Bar chart for the mean of standardised values.

EXAMINATION OF RESULTS - METHODOLOGY

1. Double entry of all data and validation by cross-checking. Confirm any anomalous values.
2. Produce basic statistics on results, including:
 - a. count
 - b. mean
 - c. median
 - d. standard deviation
 - e. minimum
 - f. maximum
 - g. error (95% Confidence Interval)
 - h. percentage error of mean (error as a percentage of the calculated mean).
3. Produce summary statistics and assay sheet.
4. Run outlier macro to find obvious outlier values.
5. Generate 'Z' intervals for remaining data (from calculated mean).
6. Check that median and mean are similar to verify a normal distribution.
7. Standardise remaining values i.e. subtract the mean and divide by the standard deviation.

8. Add results from each laboratory in 'standardised values' calculations (positive and negative) and divide by count.
9. Produce 'Mean of Standardised Values' Bar Charts.
10. Add absolute values from each laboratory in 'standardised values' calculations.
11. Divide result by count of results to calculate average absolute standard value for laboratory performance on each element.
12. Produce 'Mean of Absolute Standardised Values' Bar Charts.

CHARTS

The 'Mean of Standardised Values' charts (blue in reports) indicate any bias shown by laboratories on a particular element, but do not show any general error which might be plus and minus the mean. The 'Mean of Absolute Standardised Values' charts (red in reports) indicate the general error but no bias.

INTERPRETATION OF RESULTS

SUMMARY STATISTICS AND ASSAY TABLES

These tables are self-explanatory. The row titled 'error' refers to the margin of error expected at 95% confidence. That is, the standard normal probability or 'Z' statistic representing 95% (1.96) is multiplied by the standard deviation and the result is divided by the square root of the population. We can be 95% confident that the true mean lies between mean minus error and mean plus error. The row titled '% error in mean' is simply this margin of error expressed as a percentage of the calculated mean. Outliers are highlighted and not used for calculations at the top of the tables.

STANDARDISED VALUES

These numbers are generated using the following formula. Reported value minus the mean, result of this divided by the standard deviation. This creates a new distribution with mean '0' and standard deviation '1'. Positive and negative numbers result from this calculation depending on whether the reported value is above or below the mean. Laboratories reporting outliers are manually assigned 3.00 or -3.00 as these results have been removed from automatic calculation. The higher the absolute number reported, the further the reported assay is from the calculated mean.

MEAN OF ABSOLUTE STANDARDISED VALUES (RED CHARTS)

The bar representing each laboratory is the mean of the sum of the absolute standardised values reported on all assays of the element in question. That is, the absolute sum of the rows in the Standardised Values Table divided by the number of assays. These charts give a visual representation to the general error shown by the particular laboratories. These charts do not show bias.

MEAN OF STANDARDISED VALUES (BLUE CHARTS)

These charts show the mean of standardised values with negative values included. A direction of error or bias can be interpreted from laboratories showing high values, negative or positive.

BRIEFLY

General error is indicated in absolute column charts (red charts).

Bias is indicated in negative/positive column charts (blue charts).

The column charts show indications of error or direction of error - check the real data in the tables before coming to any decision as to the significance of this error. Also pay attention to the grade of the standard materials with regard to the laboratory level of detection. Some laboratories may report outliers due to the limitations of their methodology.

LEGEND FOR METHODS & READINGS

METHODS

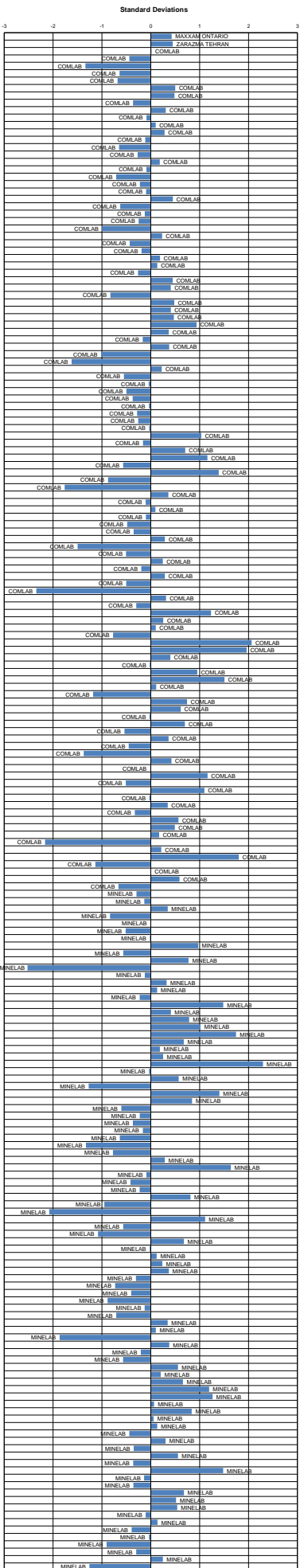
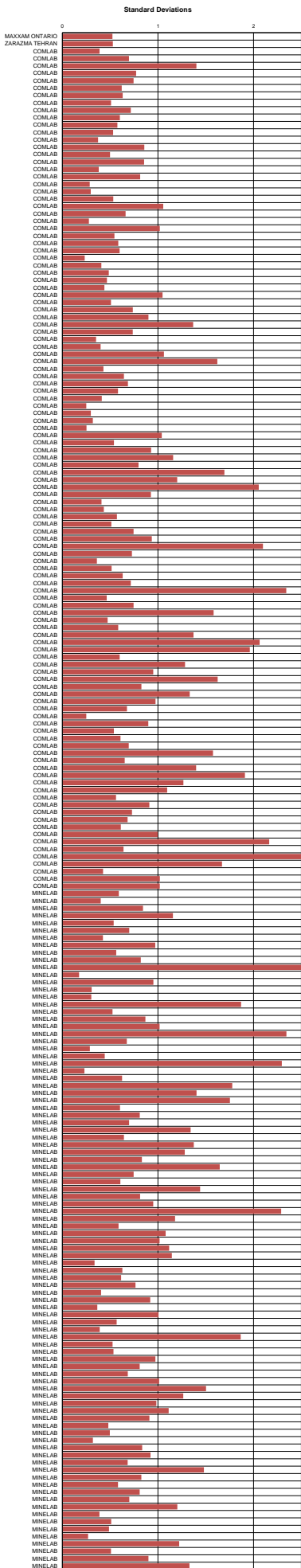
READINGS

1A	1 Acid Digest	AAS	Atomic Absorption Spectroscopy
2A	2 Acid Digest	DIBK	DIBK Extraction
3A	3 Acid Digest	ES	ICP - Emission Spectroscopy
4A	4 Acid Digest	GRAV	Gravimetric
5A	5 Acid Digest	ICP	Inductively Coupled Plasma - Unspecified
AD	Acid Digest	IR	Infrared
AR	Aqua Regia	MS	ICP - Mass Spectroscopy
CSA	Carbon and Sulphur Analyser	TITR	Titration
FA	Fire Assay	XRF	X-Ray Fluorescence
FUS	Fusion		
GF	Graphite Furnace		
IH	In House Method		
MA	Mixed Acid Digest		
MICR	Microwave		
NAA	Neutron Activation Analysis		
PP	Pressed Powder		
PR	Pre-Roast		
TITR	Titration		
VOL	Volumetric		

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Copper (Total Digest)	15 & 16
Copper (Partial Digest)	17 & 18
Lead (Total Digest)	19 & 20
Lead (Partial Digest)	21 & 22
Zinc (Total Digest)	23 & 24
Zinc (Partial Digest)	25 & 26
Nickel (Total Digest)	27 & 28
Nickel (Partial Digest)	29 & 30
Arsenic (Total Digest)	31 & 32
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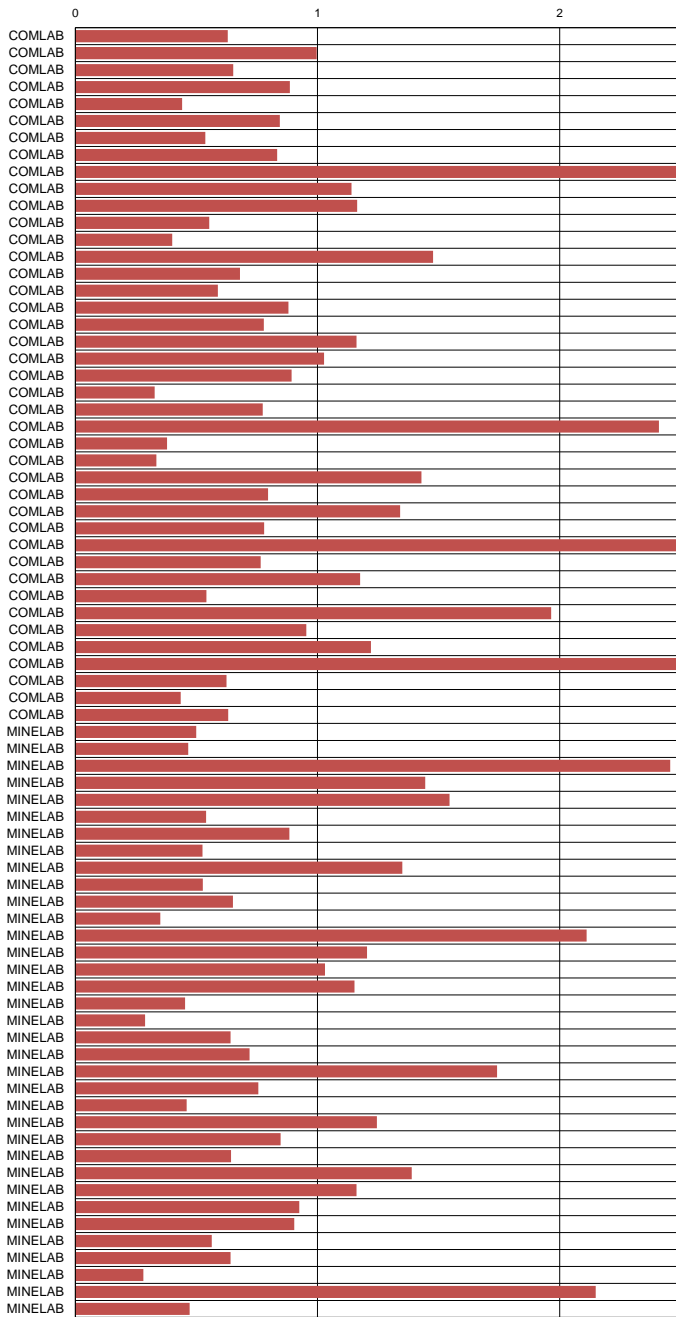


Aqua Regia Gold Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

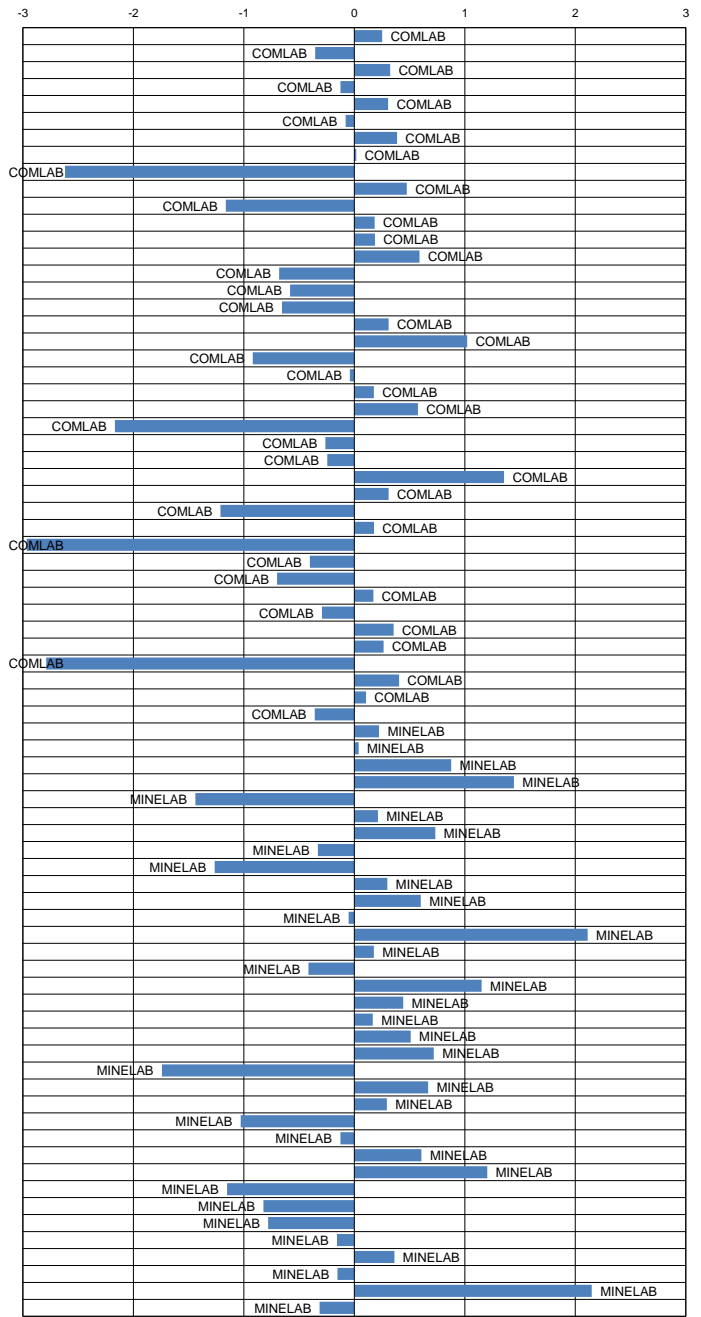
Standard Reference	G918-1	G918-2	G918-3	G918-4	G918-5	G918-6	G918-7	G918-8	G918-9	G918-10
MEAN (ppm)	0.35	1.43	0.50	1.23	0.86	3.40	5.87	33.66	48.07	1.45
STDEV (ppm)	0.03	0.05	0.02	0.06	0.05	0.12	0.25	1.56	2.17	0.08
95% CI (ppm)	0.01	0.01	0.00	0.02	0.01	0.03	0.06	0.43	0.59	0.02
95% CI (%)	1.90%	0.97%	0.93%	1.31%	1.50%	0.94%	1.10%	1.27%	1.24%	1.45%
MIN (ppm)	0.28	1.32	0.46	1.08	0.75	3.08	5.19	29.40	43.09	1.23
MEDIAN (ppm)	0.35	1.43	0.50	1.24	0.86	3.41	5.89	33.90	47.99	1.45
MAX (ppm)	0.41	1.53	0.55	1.40	0.98	3.69	6.42	37.35	52.34	1.65
IQR (ppm)	0.03	0.08	0.02	0.07	0.07	0.14	0.32	1.56	3.28	0.10
COUNT	60	58	56	58	59	59	58	52	52	61

Standard Reference	G918-1		G918-2		G918-3		G918-4		G918-5		G918-6		G918-7		G918-8		G918-9		G918-10		Method	Reading
Lab Reference	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
COMLAB	0.34	-0.26	1.57	2.72	0.50	-0.20	1.27	0.59	0.85	-0.28	3.30	-0.78	5.93	0.24	33.78	0.07	47.29	-0.36	1.52	0.79	NAA	
COMLAB	0.38	1.20	1.42	-0.11	0.49	-0.71	1.26	0.43	0.88	0.34	3.33	-0.54	6.18	1.24	30.90	-1.77	45.00	-1.42	1.27	-2.20	PR,AR	MS
COMLAB	0.37	0.82	1.48	1.02	0.52	0.99	1.23	-0.05	0.81	-1.05	3.47	0.59	>5.00	ald	>5.00	ald	>5.00	ald	1.45	-0.05	AR	AAS
COMLAB	0.36	0.43	1.46	0.64	0.48	-1.28	1.23	-0.05	0.87	0.14	3.38	-0.14	5.08	-3.00	36.10	1.56	46.80	-0.59	1.54	1.03	AR	MS
COMLAB	0.37	0.89	1.43	0.08	0.51	0.59	1.23	-0.05	0.90	0.68	3.33	-0.54	6.14	1.08	34.20	0.34	47.90	-0.08	1.46	0.07	AR	MS
COMLAB	0.33	-0.73	1.38	-0.87	0.52	0.99	1.22	-0.21	0.84	-0.45	3.27	-1.02	5.67	-0.81	36.20	1.62	50.70	1.21	1.41	-0.53	AR	MS
COMLAB	0.38	1.20	1.44	0.27	0.51	0.42	1.23	-0.05	0.88	0.34	3.31	-0.70	6.11	0.96	33.90	0.15	49.90	0.84	1.49	0.43	AR	MS
COMLAB	0.35	0.04	1.41	-0.30	0.52	0.99	1.20	-0.20	0.83	3.00	3.41	0.11	5.90	0.12	31.60	-1.32	44.78	-1.52	1.42	-0.41	AR	ES
COMLAB	0.37	0.82	0.79	-3.00	0.31	-3.00	0.68	-3.00	0.59	-3.00	2.01	-3.00	3.44	-3.00	2.85	-3.00	29.01	-3.00	0.88	-3.00	AR	DIBK
COMLAB	0.39	1.59	1.34	-1.62	0.48	-1.28	1.25	0.27	0.95	1.73	3.38	-0.14	6.31	1.77	35.60	1.24	51.30	1.49	1.43	-0.29	AR	MS
COMLAB	0.31	-1.42	1.36	-1.23	0.48	-1.00	1.15	-1.33	0.81	-1.06	3.26	-1.11	5.65	-0.87	>10.00	ald	>10.00	ald	1.35	-1.28	PR,AR	MS
COMLAB	0.34	-0.19	1.38	-0.87	0.50	-0.20	1.40	2.67	0.86	-0.12	3.40	0.02	5.89	0.08	33.20	-0.30	47.70	-0.17	1.53	0.91	AR	MS
COMLAB	0.33	-0.84	1.45	0.49	0.51	0.37	1.24	0.11	0.87	0.04	3.52	0.96	5.97	0.38	>10.00	ald	>10.00	ald	1.45	-0.01	AR	AAS
COMLAB	0.33	-0.73	1.43	0.08	0.49	-0.71	1.35	1.87	0.97	2.12	3.49	0.75	6.15	1.12	38.90	3.00	28.60	-3.00	1.57	1.39	AR	AAS
COMLAB	0.33	-0.76	1.35	-1.43	0.49	-0.49	1.20	-0.53	0.83	-0.75	3.24	-1.26	5.71	-0.65	33.10	-0.36	48.00	-0.03	1.41	-0.53	AR	MS
COMLAB	0.34	-0.34	1.41	-0.30	0.48	-1.28	1.23	-0.05	0.82	-0.85	3.17	-1.83	5.88	0.04	33.40	-0.17	47.50	-0.26	1.39	-0.77	AR	MS
COMLAB	0.33	-0.73	1.32	-2.00	0.50	-0.14	1.21	-0.37	0.82	-0.85	3.27	-1.02	5.88	0.04	35.20	0.98	48.30	0.10	1.24	-2.56	PR,AR	AAS
COMLAB	0.33	-0.73	1.38	-0.87	0.70	3.00	1.23	-0.05	0.85	-0.26	3.37	-0.22	5.82	-0.21	33.64	-0.01	48.28	0.10	1.65	2.35	FA	GRAV
COMLAB	0.47	3.00	1.52	1.77	0.55	2.69	1.32	1.39	0.87	0.14	3.50	0.83	6.14	1.08	33.36	-0.19	47.61	-0.21	1.43	-0.29	AR	MS
COMLAB	0.36	0.43	1.34	-1.62	0.48	-1.28	1.13	-1.65	0.81	-1.05	3.41	0.11	5.53	-1.37	32.69	-0.62	47.19	-0.41	1.31	-1.72	AR	AAS
COMLAB	0.35	0.04	1.43	0.08	0.49	-0.71	1.31	1.23	0.98	2.32	3.11	-2.31	5.98	0.44	33.90	0.15	45.40	-1.23	1.42	-0.41	AR	DIBK
COMLAB	0.35	0.04	1.45	0.45	0.52	0.99	1.24	0.11	0.85	-0.26	3.41	0.11	5.76	-0.45	34.08	0.27	47.97	-0.05	1.50	0.55	AR	AAS
COMLAB	0.35	-0.11	1.50	1.40	0.49	-0.88	1.29	0.83	0.90	0.82	3.47	0.55	6.24	1.46	34.65	0.63	49.15	0.50	1.50	0.55	AR	MS
COMLAB	0.30	-1.88	0.99	-3.00	0.51	0.42	0.84	-3.00	0.53	-3.00	2.41	-3.00	4.05	-3.00	25.23	-3.00	34.38	-3.00	1.52	0.79	AR	DIBK,AAS
COMLAB	0.35	0.04	1.41	-0.30	0.49	-0.71	1.20	-0.53	0.82	-0.85	3.42	0.19	5.93	0.24	>25.00	ald	>25.00	ald	1.44	-0.17	AR	MS
COMLAB	0.34	-0.34	1.41	-0.30	0.50	-0.14	1.20	-0.53	0.85	-0.26	3.34	-0.46	5.96	0.36	>25.00	ald	>25.00	ald	1.43	-0.29	AR	ICP
COMLAB	0.50	3.00	1.52	1.77	0.62	3.00	1.34	1.71	0.95	1.73	3.47	0.59	5.78	-0.37	34.56	0.57	48.16	0.04	1.58	1.51	AR	AAS
COMLAB	0.32	-1.11	1.45	0.45	0.50	-0.14	1.26	0.43	0.98	2.32	3.54	1.15	5.58	-1.17	33.80	0.09	50.00	0.89	1.47	0.19	AR	AAS
COMLAB	0.29	-2.27	1.36	-1.24	0.47	-1.85	1.24	0.11	0.89	0.54	3.29	-0.86	5.12	-3.00	33.44	-0.14	46.51	-0.72	1.23	-2.68	AR	AAS
COMLAB	0.36	0.43	1.38	-0.87	0.51	0.42	1.31	1.23	0.86	-0.06	3.57	1.39	6.03	0.64	33.20	-0.30	44.20	-1.79	1.51	0.67	AR	AAS
COMLAB	0.28	-2.65	1.12	-3.00	0.43	-3.00	0.92	-3.00	0.60	-3.00	2.67	-3.00	4.45	-3.00	25.20	-3.00	39.30	-3.00	1.09	-3.00	AR	AAS
COMLAB	0.37	0.82	1.42	-0.11	0.49	-0.71	1.24	0.11	0.83	-0.65	3.36	-0.30	5.70	-0.69	29.40	-2.73	50.00	0.89	1.40	-0.65	AR	AAS
COMLAB	0.34	-0.34	1.37	-1.05	0.50	-0.14	1.10	-2.14	0.80	-1.25	3.08	-2.55	5.47	-1.62	34.70	0.66	51.80	1.72	1.43	-0.29	AR	DIBK,AAS
COMLAB	0.34	-0.34	1.42	-0.11	0.50	-0.14	1.24	0.11	0.80	-1.25	3.50	0.83	5.90	0.12	34.90	0.79	50.60	1.17	1.50	0.55	AR	AAS
COMLAB	1.10	3.00	1.26	-3.00	0.50	-0.14	11.90	3.00	0.80	-1.25	3.69	2.36	5.66	-0.85	25.20	-3.00	34.00	-3.00	1.45	-0.05	AR	DIBK,AAS
COMLAB	0.34	-0.34	1.49	1.21	0.53	1.56	1.29	0.91	0.92	1.13	3.45	0.43	5.94	0.28	31.41	-1.44	45.45	-1.21	1.54	1.03	AR	DIBK,AAS
COMLAB	0.30	-1.88	1.43	0.08	0.47	-1.85	1.25	0.27	0.81	-1.05	3.66	2.12	6.42	2.21	35.75	1.34	50.46	1.10	1.48	0.31	AR	AAS
COMLAB	0.20	-3.00	0.68	-3.00	0.16	-3.00	0.57	-3.00	0.54	-3.00	2.48	-3.00	4.28	-3.00	25.29	-3.00	37.89	-3.00	1.38	-0.88	AR	
COMLAB	0.35	0.04	1.48	1.02	0.52	0.99	1.25	0.27	0.81	-1.05	3.56	1.31	6.16	1.16	33.72	0.04	48.74	0.31	1.45	-0.05	AR	
COMLAB	0.35	0.04	1.45	0.45	0.51	0.20	1.23	-0.05	0.85	-0.36	3.58	1.47	5.83	-0.17	34.20	0.34	45.75	-1.07	1.47	0.19	PR,AR	MS
COMLAB	0.38	1.20	1.37	-1.05	0.50	-0.14	1.18	-0.85	0.86	-0.06	3.26	-1.10	5.63	-0.97	33.10	-0.36	48.42	0.16	1.42	-0.41	IH	AAS
MINELAB	0.37	0.82	1.45	0.45	0.52	0.99	1.22	-0.21	0.86	-0.06	3.44	0.35	6.00	0.52	34.13	0.30	45.68	-1.10	1.47	0.19	AR	AAS
MINELAB	0.35	0.04	1.45	0.45	0.51	0.42	1.27	0.59	0.88	0.34	3.34	-0.46	5.70	-0.69	32.15	-0.97	48.03	-0.02	1.51	0.67	AR,DIBK	AAS
MINELAB	0.58	3.00	1.51	1.59	0.95	3.00	1.33	1.55	0.94	1.53	3.82	3.00	5.40	-1.90	2.84	-3.00	4.62	-3.00	1.80	3.00	AR	AAS
MINELAB	0.38	1.20	1.48	1.02	0.58	3.00	1.29	0.91	0.93	1.33	3.56	1.31	6.29	1.69	35.39	1.11	52.34	1.97	1.53	0.91	AR	AAS
MINELAB	0.31	-1.50	1.34	-1.62	0.51	0.42	1.03	-3.00	0.84	-0.45	3.33	-0.54	5.19	-2.74	nr	nr	nr	nr	1.28	-2.08	AR	AAS
MINELAB	0.37	0.82	1.42	-0.11	0.53																	

Standard Deviations



Standard Deviations



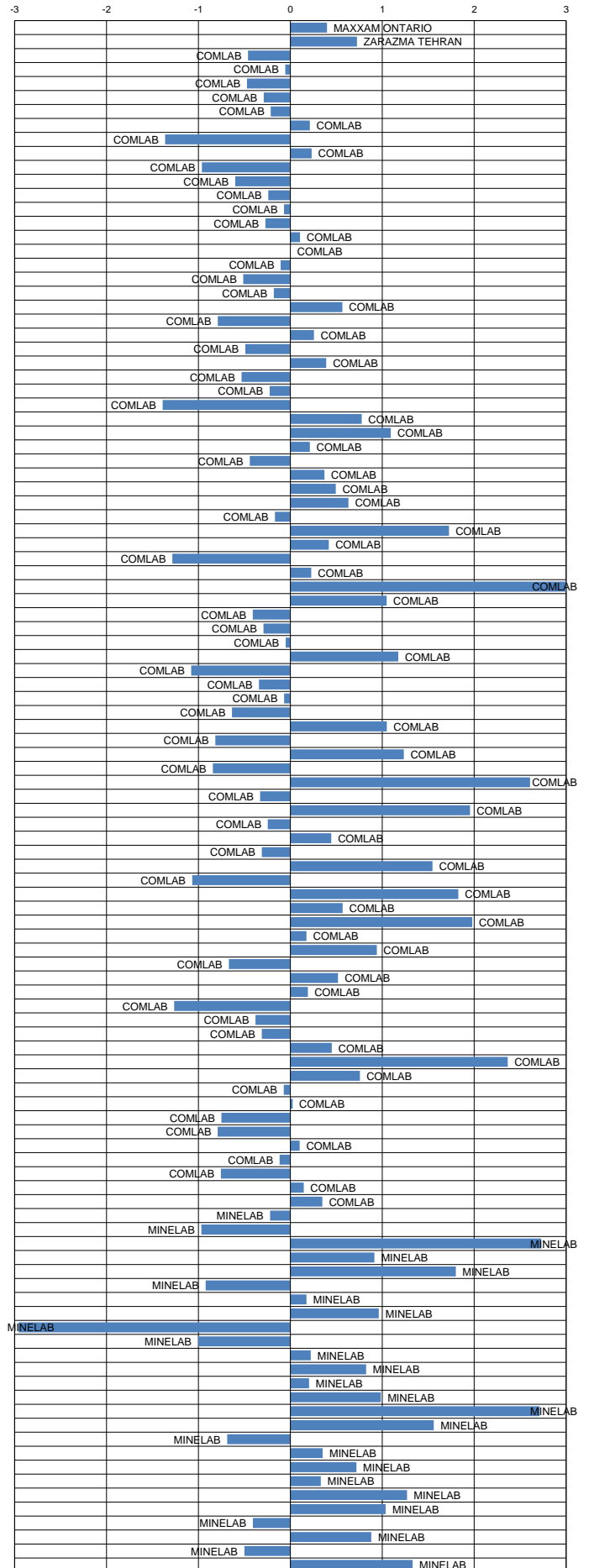
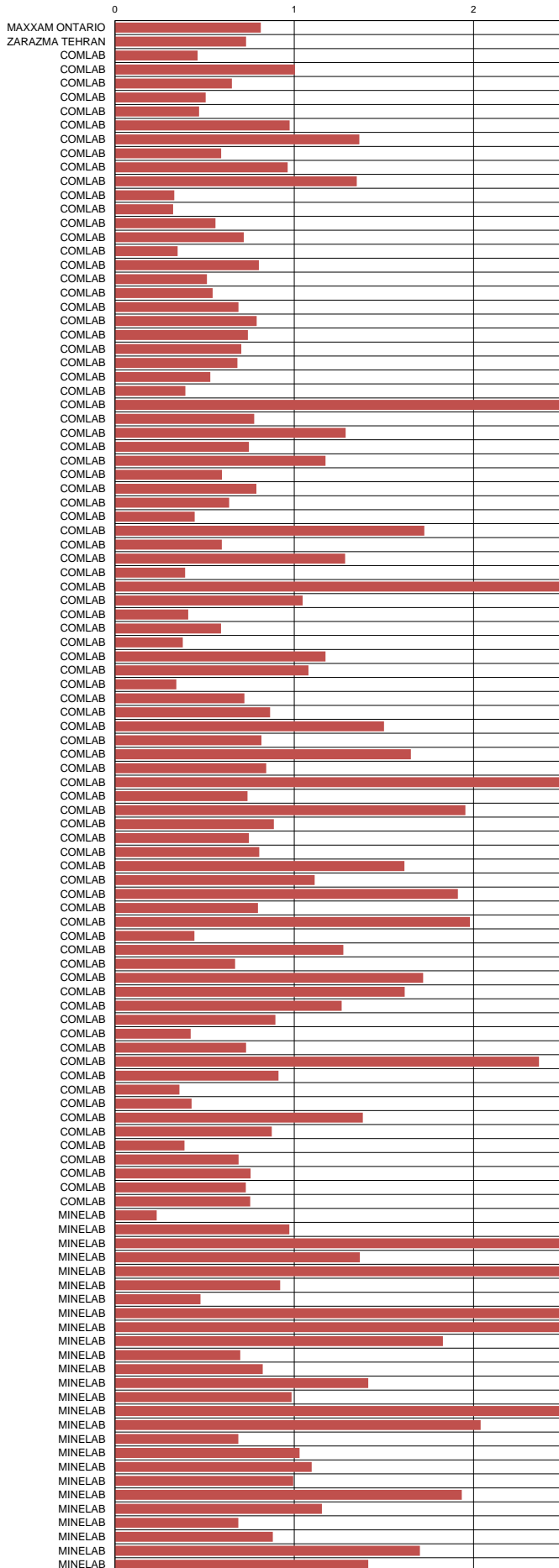
Low Grade Gold Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GLG918-1	GLG918-2	GLG918-3	GLG918-4	GLG918-5
MEAN (ppb)	98	46	83	25	15
STDEV (ppb)	9	7	11	5	5
95% CI (ppb)	2	1	2	1	1
95% CI (%)	1.78%	3.06%	2.61%	3.98%	7.04%
MIN (ppb)	74	27	54	15	1
MEDIAN (ppb)	98	45	82	24	14
MAX (ppb)	117	62	113	37	28
IQR (ppb)	11	8	12	7	5
COUNT	100	90	96	91	88

Standard Reference	GLG918-1		GLG918-2		GLG918-3		GLG918-4		GLG918-5		Method	Reading
Lab Reference	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
MAXXAM ONTARIO	111	1.47	56	1.46	84	0.08	20	-1.04	15	0.03	NAA	
ZARAZMA TEHRAN	98	0.00	122	3.00	83	-0.02	26	0.21	17	0.43	FA	AAS
COMLAB	98	0.00	45	-0.16	74	-0.85	21	-0.83	<2	bld	FA	MS
COMLAB	100	0.23	38	-1.19	93	0.91	18	-1.45	21	1.23	FA	AAS
COMLAB	102	0.45	44	-0.31	76	-0.67	17	-1.66	14	-0.17	FA	AAS
COMLAB	98	0.00	45	-0.16	89	0.54	18	-1.45	17	-0.37	FA	AAS
COMLAB	94	-0.45	44	-0.31	73	-0.94	26	0.21	13	0.43	FA	AAS
COMLAB	104	0.68	44	-0.31	83	-1.02	36	2.29	7	-1.58	FA	AAS
COMLAB	74	-2.76	37	-1.28	69	-1.35	20	-1.06	13	-0.36	AR	MS
COMLAB	95	-0.34	nr	nr	81	-0.20	nr	nr	21	1.23	FA	MS
COMLAB	84	-1.59	39	-1.12	74	-0.81	20	-1.00	13	-0.29	FA	AAS
COMLAB	85	-1.47	27	-2.81	83	-0.02	34	1.87	12	-0.57	FA	AAS
COMLAB	100	0.23	44	-0.25	80	-0.33	24	-0.29	12	-0.55	PR,AR	MS
COMLAB	103	0.56	42	-0.60	84	0.08	24	-0.21	14	-0.17	FA	ES
COMLAB	98	0.00	51	0.72	78	-0.48	22	-0.62	10	-0.98	FA	ES
COMLAB	116	2.03	41	-0.75	77	-0.57	24	-0.21	15	0.03	FA	AAS
COMLAB	100	0.23	46	-0.01	74	-0.85	28	0.62	15	0.03	FA	AAS
COMLAB	98	0.00	43	-0.46	102	1.74	20	-1.04	11	-0.77	FA	AAS
COMLAB	97	-0.11	43	-0.46	79	-0.39	21	-0.83	11	-0.77	FA	ES
COMLAB	98	0.00	46	-0.01	93	0.91	22	-0.62	9	-1.18	FA	AAS
COMLAB	105	0.79	44	-0.31	106	2.11	25	0.00	16	0.23	FA	AAS
COMLAB	91	-0.79	42	-0.60	73	-0.94	20	-1.04	12	-0.57	FA	AAS
COMLAB	103	0.56	48	0.28	101	1.65	20	-1.04	14	-0.17	FA	ES
COMLAB	94	-0.45	49	0.43	69	-1.32	22	-0.62	nr	nr	FA	ES
COMLAB	115	1.92	47	0.13	82	-0.11	22	-0.62	18	0.63	FA	AAS
COMLAB	91	-0.79	42	-0.60	82	-0.11	22	-0.62	nr	nr	FA	ES
COMLAB	102	0.42	43	-0.41	76	-0.69	24	-0.21	14	-0.23	FA	ES
COMLAB	36	-3.00	<3	-3.00	73	-0.94	<1	-3.00	52	3.00	AR	AAS
COMLAB	107	1.02	47	0.13	86	0.26	30	1.04	22	1.43	FA	AAS
COMLAB	97	-0.11	89	3.00	106	2.11	29	0.83	13	-0.37	FA	MS
COMLAB	105	0.79	57	1.61	75	-0.76	24	-0.21	13	-0.37	FA	ES
COMLAB	100	0.23	50	0.57	30	-3.00	20	-1.04	20	1.03	FA	AAS
COMLAB	104	0.67	44	-0.28	80	-0.29	33	1.62	16	0.13	AR	MS
COMLAB	93	-0.56	57	1.61	87	0.35	31	1.25	14	-0.17	FA	ES
COMLAB	108	1.13	46	-0.01	96	1.19	28	0.62	16	0.23	AR	MS
COMLAB	93	-0.52	43	-0.47	86	0.26	22	-0.54	17	0.43	FA	AAS
COMLAB	112	1.58	50	0.57	119	3.00	29	0.83	28	2.64	FA	AAS
COMLAB	111	1.49	49	0.37	78	-0.44	25	0.08	18	0.59	FA	AAS
COMLAB	85	-1.52	38	-1.27	54	-2.75	25	-0.10	11	-0.77	FA	AAS
COMLAB	106	0.92	45	-0.15	80	-0.25	26	0.28	17	0.35	FA	AAS
COMLAB	247	3.00	113	3.00	177	3.00	81	3.00	71	3.00	FA	AAS
COMLAB	102	0.45	59	1.90	92	0.82	29	0.83	21	1.23	FA	AAS
COMLAB	96	-0.23	45	-0.16	76	-0.67	23	-0.41	12	-0.57	FA	ES
COMLAB	91	-0.79	39	-1.05	89	0.54	26	0.21	13	-0.37	FA	MS
COMLAB	95	-0.34	45	-0.16	92	0.82	25	0.00	12	-0.57	FA	MS
COMLAB	110	1.35	48	0.28	105	2.02	30	1.04	<20	bld	FA	
COMLAB	80	-2.03	34	-1.78	80	-0.30	24	-0.21	<1	bld	FA	AAS
COMLAB	96	-0.23	46	-0.01	78	-0.48	23	-0.41	12	-0.57	FA	AAS
COMLAB	81	-1.97	53	1.00	84	0.10	28	0.52	15	0.01	FA	AAS
COMLAB	87	-1.24	50	0.57	69	-1.32	22	-0.62	12	-0.57	FA	ES
COMLAB	88	-1.13	51	0.72	102	1.74	34	1.87	25	2.04	FA	ES
COMLAB	86	-1.31	41	-0.78	69	-1.28	22	-0.66	15	-0.05	AR	MS
COMLAB	103	0.56	51	0.65	128	3.00	20	-1.04	81	3.00	AR	DIBK
COMLAB	87	-1.24	40	-0.90	78	-0.48	22	-0.62	10	-0.98	AR	MS
COMLAB	140	3.00	90	3.00	120	3.00	30	1.04	30	3.00	FA	AAS
COMLAB	107	1.02	40	-0.96	71	-1.11	22	-0.60	15	0.01	AR	ICP
COMLAB	135	3.00	56	1.46	84	0.08	43	3.00	26	2.24	FA	AAS
COMLAB	93	-0.52	55	1.26	87	0.34	18	-1.52	11	-0.79	AR	AAS
COMLAB	108	1.13	42	-0.60	90	0.63	28	0.62	<20	bld	FA	AAS
COMLAB	96	-0.23	42	-0.60	80	-0.30	17	-1.66	21	1.23	FA,GF	AAS
COMLAB	108	1.13	59	1.90	130	3.00	34	1.87	14	-0.17	FA	ICP
COMLAB	99	0.11	42	-0.60	59	-2.24	21	-0.83	6	-1.78	FA	AAS,MS
COMLAB	101	0.35	68	3.00	81	-0.21	185	3.00	30	3.00	FA	ES
COMLAB	101	0.34	53	1.02	77	-0.57	28	0.62	22	1.43	FA	AAS
COMLAB	116	1.97	68	3.00	95	1.05	37	2.41	22	1.46	FA	ES
COMLAB	104	0.68	52	0.87	80	-0.30	25	0.00	13	-0.37	FA	AAS
COMLAB	108	1.13	52	0.87	89	0.54	21	-0.83	35	3.00	FA	AAS
COMLAB	92	-0.68	38	-1.19	80	-0.30	24	-0.21	10	-0.98	AR,GF	AAS
COMLAB	99	0.16	84	3.00	34	-3.00	27	0.44	25	2.00	FA	AAS
COMLAB	93	-0.56	48	0.28	31	-3.00	41	3.00	21	1.23	FA	ES
COMLAB	89	-1.02	39	-1.05	68	-1.41	15	-2.08	11	-0.77	AR	DIBK
COMLAB	86	-1.35	38	-1.19	94	1.00	nr	nr	15	0.03	AR	MS
COMLAB	95	-0.34	48	0.28	82	-0.11	24	-0.21	9	-1.18	FA	MS
COMLAB	93	-0.51	62	2.31	83	0.03	28	0.62	14	-0.19	FA	AAS
COMLAB	nr	nr	510	3.00	95	1.09	nr	nr	777	3.00	FA	AAS
COMLAB	102	0.45	49	0.43	79	-0.39	32	1.46	24	1.84	FA	AAS
COMLAB	100	0.23	43	-0.46	86	0.26	22	-0.62	16	0.23	FA	ES
COMLAB	108	1.13	46	-0.01	83	-0.02	25	0.00	10	-0.98	FA	DIBK,AAS
COMLAB	74	-2.71	39	-1.05	98	1.37	26	0.21	7	-1.58	FA	ES
COMLAB	86	-1.35	47	0.13	84	0.08	21	-0.83	5	-1.98	FA	MS
COMLAB	104	0.68	47	0.13	85	0.17	nr	nr	12	-0.57	FA	AAS
COMLAB	100	0.23	50	0.57	90	0.63	20	-1.04	10	-0.98	FA	AAS
COMLAB	94	-0.45	41	-0.75	77	-0.57	21	-0.83	9	-1.18	FA	AAS
COMLAB	84	-0.41	44	-0.27	107	2.19	23	-0.41	13	-0.37	AR	MS
COMLAB	89	-1.02	53	1.02	86	0.26	31	1.25	16	0.23	IH	AAS
MINELAB	95	-0.34	46	-0.01	77	-0.57	24	-0.21	15	0.03	FA	AAS
MINELAB	94	-0.50	42	-0.56	83	0.01	10	-3.00	11	-0.79	FA	AAS
MINELAB	114	1.84	95	3.00	113	2.80	53	3.00	30	3.00	FA	AAS
MINELAB	88	-1.13	61	2.19	84	0.03	33	1.58	24	1.90	FA	AAS
MINELAB	69	-3.00	95	3.00	135	3.00	81	3.00	35	3.00	FA	AAS
MINELAB	90	-0.91	37	-1.30	78	-0.52	21	-0.83	10	-1.04	FA	
MINELAB	104	0.67	42	-0.66	86	0.21	29	0.75	14	-0.09	FA	ES
MINELAB	130	3.00	38	-1.19	117	3.00	10	-3.00	35	3.00	FA	AAS
MINELAB	9	-3.00	4	-3.00	6	-3.00	2	-3.00	1	-2.78	FA	ICP
MINELAB	86	-1.35	33	-1.93	101	1.65	nr	nr	3	-2.38	FA	AAS
MINELAB	100	0.23	40	-0.90	80	-0.30						

Standard Deviations

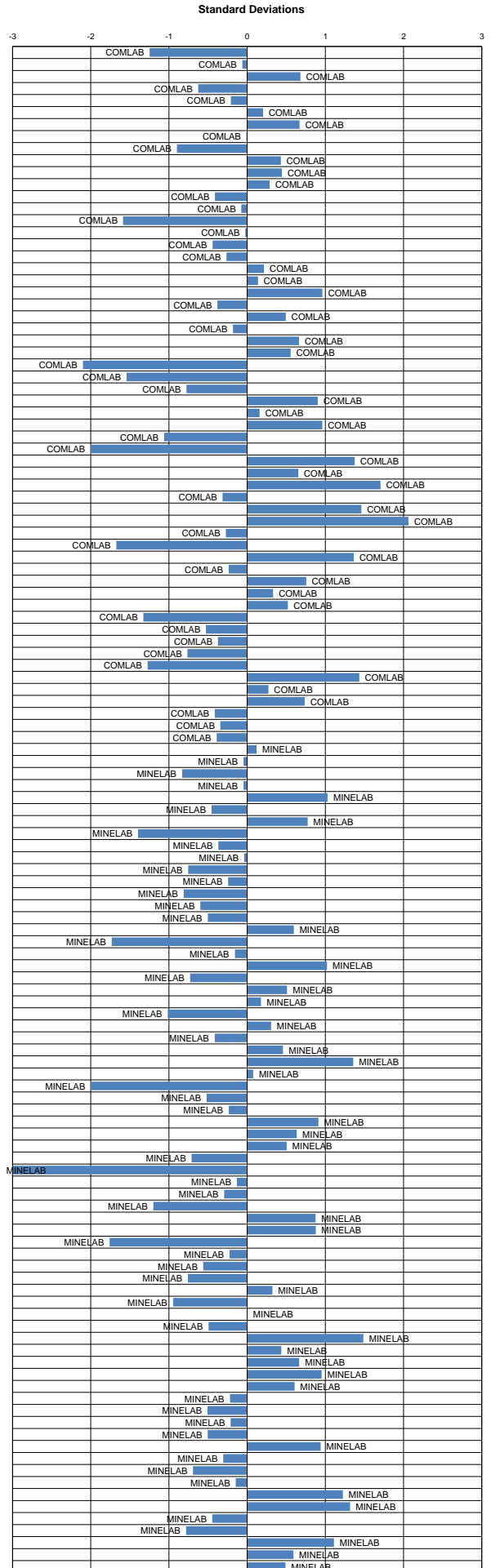
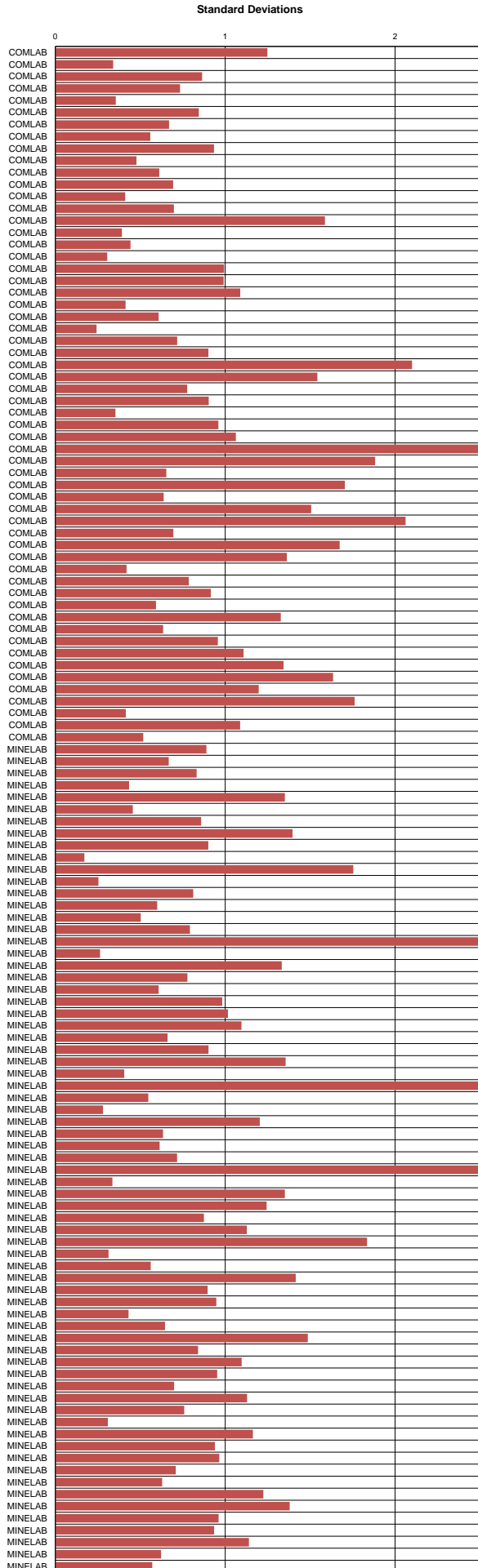
Standard Deviations



Gold on Carbon Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GBC918-1	GBC918-2	GLC918-1	GLC918-2	GLC918-3	GLC918-4
MEAN (ppm)	19 162	19 162	2162	6577	3160	3583
STDEV (ppm)	9	2	88	267	138	203
95% CI (ppm)	2	0	16	48	25	37
95% CI (%)	1.04%	2.44%	0.74%	0.74%	0.79%	1.03%
MIN (ppm)	138	13	1940	5948	2774	3072
MEDIAN (ppm)	161	19	2160	6590	3126	3522
MAX (ppm)	187	26	2380	7213	3484	4135
IQR (ppm)	10	2	99	364	202	267
COUNT	116	103	117	118	117	117

Standard Reference	GBC918-1		GBC918-2		GLC918-1		GLC918-2		GLC918-3		GLC918-4		Method	Reading
	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
COMLAB	155	-0.74											FA	GRAV
COMLAB	159	-0.36	<0.03		2145	-0.20	6704	0.77	3210	0.36	3522	-0.30	FA	GRAV
COMLAB	294	3.00			2280	1.34	6570	-0.02	3200	0.29	3520	-0.31	FA	GRAV
COMLAB	150	-1.28	20	0.32	2085	-0.88	6356	-0.83	3085	-0.54	3470	-0.56	FA	GRAV
COMLAB	162	0.05	17	-1.00	2177	0.16	6639	0.23	3119	-0.30	3503	-0.39	FA	GRAV
COMLAB	159	-0.30	24	1.97	2175	0.15	6680	1.02	2995	-1.19	3495	-0.43	AR	AAS
COMLAB	162	0.02	23	1.56	2200	0.43	6650	0.27	3250	0.66	3800	1.07	PR,AR	AAS
COMLAB	168	0.68	20	0.32	2120	-0.48	6750	0.65	3040	-0.87	3510	-0.36	PR,AR	AAS
COMLAB	150	-1.28	19	-0.09	2060	-1.16	5970	-2.27	3065	-0.69	3605	0.11	AR	AAS
COMLAB	167	0.57	21	0.74	2209	0.53	6807	0.86	3163	0.02	3554	-0.14	PR,AR	AAS
COMLAB	166	0.46	18	-0.50	2270	1.23	6740	0.61	3240	0.58	3640	0.28	AR	AAS
COMLAB	156	-0.63	20	0.32	2280	1.34	6420	-0.59	3270	0.80	3680	0.48	PR,AR	AAS
COMLAB	159	-0.34	18	-0.53	2148	-0.16	6534	-0.16	3068	-0.66	3458	-0.61	FA	GRAV
COMLAB	156	-0.63	22	1.15	2103	-0.67	6306	-1.01	3193	0.24	3680	0.48	FA	GRAV
COMLAB	155	-0.74	9	-3.00	2091	-0.81	4245	-3.00	2985	-1.26	3439	-0.71	AR	GRAV
COMLAB	165	0.35	17	-0.92	2194	0.36	6670	0.35	3165	0.04	3515	-0.33	FA,PR	AAS
COMLAB	159	-0.30	18	-0.50	2113	-0.56	6577	0.00	3058	-0.74	3471	-0.55	FA	GRAV
COMLAB	162	0.03	19	0.09	2149	-0.15	6542	-0.13	3067	-0.67	3428	-0.76	FA	GRAV
COMLAB	172	1.11	24	1.97	2162	0.00	6720	0.54	2996	-1.19	3350	-1.15	FA,AR	MS
COMLAB	160	-0.16	13	-2.40	2195	0.37	6605	0.11	3341	1.31	3907	1.60	FA	GRAV
COMLAB	164	0.24	18	-0.38	2252	1.02	6799	0.83	3461	2.18	3962	1.87	FA	GRAV
COMLAB	161	-0.08	18	-0.50	2145	-0.20	6603	0.10	3024	-0.98	3458	-0.61	FA	GRAV
COMLAB	173	1.22	19	-0.09	2250	1.00	6510	-0.25	3270	0.80	3640	0.28	PR,AR	AAS
COMLAB	163	0.13	19	-0.09	2130	-0.37	6590	0.05	3110	-0.36	3490	-0.46	FA	GRAV
COMLAB	162	0.05	19	-0.17	2203	0.46	6676	0.37	3379	1.59	3920	1.66	FA	GRAV
COMLAB	175	1.41	17	-0.79	2240	0.89	7072	1.85	3126	-0.24	3626	0.21	FA	AAS
COMLAB	132	-3.00	9	-3.00	1993	-1.93	6208	-1.38	3119	-0.29	<0.1	-3.00	AR	AAS
COMLAB	153	-0.96	14	-2.16	2134	-0.32	6441	-0.51	3072	-2.79	3444	-2.52	FA	GRAV
COMLAB	160	-0.19	19	-0.09	2053	-1.24	6370	-0.77	2997	-1.18	3344	-1.18	FA	ES
COMLAB	178	1.76	22	1.14	2268	1.21	6798	0.83	3217	0.42	3596	0.07	PR,AD	AAS
COMLAB	170	0.90	20	0.32	2190	0.32	6500	-0.29	3140	-0.14	3550	-0.16	AR	AAS
COMLAB	170	0.90	20	0.32	2299	1.56	7059	1.80	3311	1.10	3599	0.08	FA,PR	GRAV
COMLAB	158	-0.41	18	-0.55	1945	-2.48	6328	-0.93	3067	-0.67	3310	-1.34	AR	AAS
COMLAB	83	-3.00	34	3.00	1012	-3.00	3189	-3.00	436	-3.00	331	-3.00	PR,AR	ES
COMLAB	160	-0.19	16	-1.33	2657	3.00	6783	0.77	4033	3.00	4410	3.00	FA	AAS
COMLAB	162	0.02	20	0.32	2200	0.43	6650	0.27	3360	1.45	3870	1.72	FA	GRAV
COMLAB	182	2.20	25	2.39	2347	2.11	6898	1.67	3249	0.65	3932	1.72	FA	GRAV
COMLAB	160	-0.19	17	-1.12	2134	-0.32	6636	0.37	3081	-0.72	3481	-0.50	FA	GRAV
COMLAB	185	2.48	38	3.00	2150	-0.14	6595	0.07	3345	1.34	3990	2.01	AR	AAS
COMLAB	182	2.24	24	1.97	2450	3.00	7097	1.95	3423	1.91	3847	1.30	AR	AAS
COMLAB	153	-1.01	18	-0.42	2079	-0.95	6438	-0.52	3242	0.60	3719	0.67	AD	ES
COMLAB	160	-0.19	17	-0.92	1940	-2.53	6470	-0.40	2650	-3.00	2810	-3.00	FA	GRAV
COMLAB	187	2.75	20	0.32	2282	1.36	6983	1.52	3278	0.86	3859	1.36	AR	AAS
COMLAB	158	-0.41	20	0.32	2168	0.07	6620	0.16	3110	-0.36	3340	-1.20	FA	AAS
COMLAB	163	0.13	19	-0.09	2209	0.53	6675	0.37	3408	1.80	3945	1.79	FA,PR	AAS
COMLAB	162	0.07	19	-0.13	2306	1.64	6144	-1.62	3296	0.99	3794	1.04	FA	AAS
COMLAB	162	0.02	19	-0.09	2183	0.24	6544	-0.12	3395	1.71	3861	1.37	FA	AAS
COMLAB	152	-1.07	<5	-3.00	2090	-0.82	6500	-0.29	2940	-1.59	3340	-1.20	FA	GRAV
COMLAB	159	-0.30	20	0.32	2110	-0.60	6370	-0.77	3020	-1.01	3420	-0.80	AR	AAS
COMLAB	152	-1.07	17	-0.92	2090	-0.82	6360	-1.18	3280	0.73	3790	1.02	PR,AR	AAS
COMLAB	170	0.90	13	-2.57	1990	-1.96	6590	0.05	3010	-1.08	3600	0.09	FA	GRAV
COMLAB	145	-1.83	15	-1.95	2001	-1.84	6096	-1.80	3100	-0.43	3625	0.21	AR	ES
COMLAB	182	2.20	26	2.80	2326	1.87	6928	1.31	3300	1.02	3460	-0.60	PR,AR	AAS
COMLAB	172	1.11	30	3.00	2140	-0.25	6090	-1.82	3200	0.29	3440	-0.70	AR	AAS
COMLAB	184	2.37	27	3.00	2043	-1.36	6117	-1.72	3228	0.49	3913	1.63	PR,AR	AAS
COMLAB	150	-1.28	19	-0.09	2160	-0.03	6550	-0.10	3100	-0.43	3470	-0.56	PR,AR	AAS
COMLAB	166	0.51	18	-0.47	2201	0.44	6920	1.28	2487	-3.00	3415	-0.83	AR	AAS
COMLAB	158	-0.41	20	0.32	2025	-1.56	6593	0.06	3070	-0.65	3563	-0.10	PR,AR	AAS
MINELAB	171	1.03	23	1.49	2207	0.51	6306	-1.01	3094	-0.48	3417	-0.82	FA	AAS
MINELAB	156	-0.63	19	-0.09	2056	-1.21	6520	-0.21	3302	1.03	3751	0.83	FA	GRAV
MINELAB	154	-0.85	19	-0.09	2045	-1.34	6091	-1.82	3059	-0.73	3548	-0.17	FA	GRAV
MINELAB	166	0.42	20	0.49	2184	0.25	6310	-1.00	3120	-0.38	3549	-0.17	FA	GRAV
MINELAB	192	3.00	20	0.32	2258	1.09	6410	-0.59	3107	-0.38	4135	2.72	FA	AAS,GRV
MINELAB	157	-0.51	18	-0.38	2125	-0.42	6495	-0.31	3083	-0.55	3469	-0.56	FA	GRAV
MINELAB	161	-0.11	19	-0.15	2204	0.48	6697	0.45	3444	2.06	3968	1.90	FA	GRAV
MINELAB	145	-1.82	19	-0.29	1968	-2.22	5971	-2.27	3008	-1.10	3443	-0.69	FA	GRAV
MINELAB	155	-0.70	18	-0.64	2155	-0.08	7003	1.60	2905	-1.85	3474	-0.53	FA	GRAV
MINELAB	161	-0.11	18	-0.33	2177	0.17	6526	-0.19	3171	0.08	3612	0.14	FA	AAS
MINELAB	156	-0.63	19	-0.22	3132	3.00	6395	-0.68	2216	-3.00	1831	-3.00	PR,AR	AAS
MINELAB	162	0.02	18	-0.50	2157	-0.06	6579	0.01	3105	-0.40	3475	-0.53	FA	GRAV
MINELAB	138	-2.59	17	-0.92	2157	-0.06	6490	-0.32	3085	-0.54	3494	-0.44	PR,AR	AAS
MINELAB	156	-0.63	18	-0.50	2100	-0.71	6534	-0.16	3040	-0.87	3435	-0.73	FA	AAS,GRV
MINELAB	158	-0.44	17	-0.92	2126	-0.42	6522	-0.21	3093	-0.48	3472	-0.55	FA	GRAV
MINELAB	161	-0.08	18	-0.50	2199	0.42	6660	0.31	3401	1.75	3924	1.68	AR	AAS
MINELAB	149	-1.39	528	3.00	1308	-3.00	4408	-3.00	2712	-3.00	2932	-3.00	AR	AAS
MINELAB	158	-0.41	18	-0.50	2137	-0.29	6657	0.30	3162	0.02	3571	-0.06	PR,AR	AAS
MINELAB	186	2.64	45	3.00	2177	0.17	6449	-0.48	3096	-0.46	3			



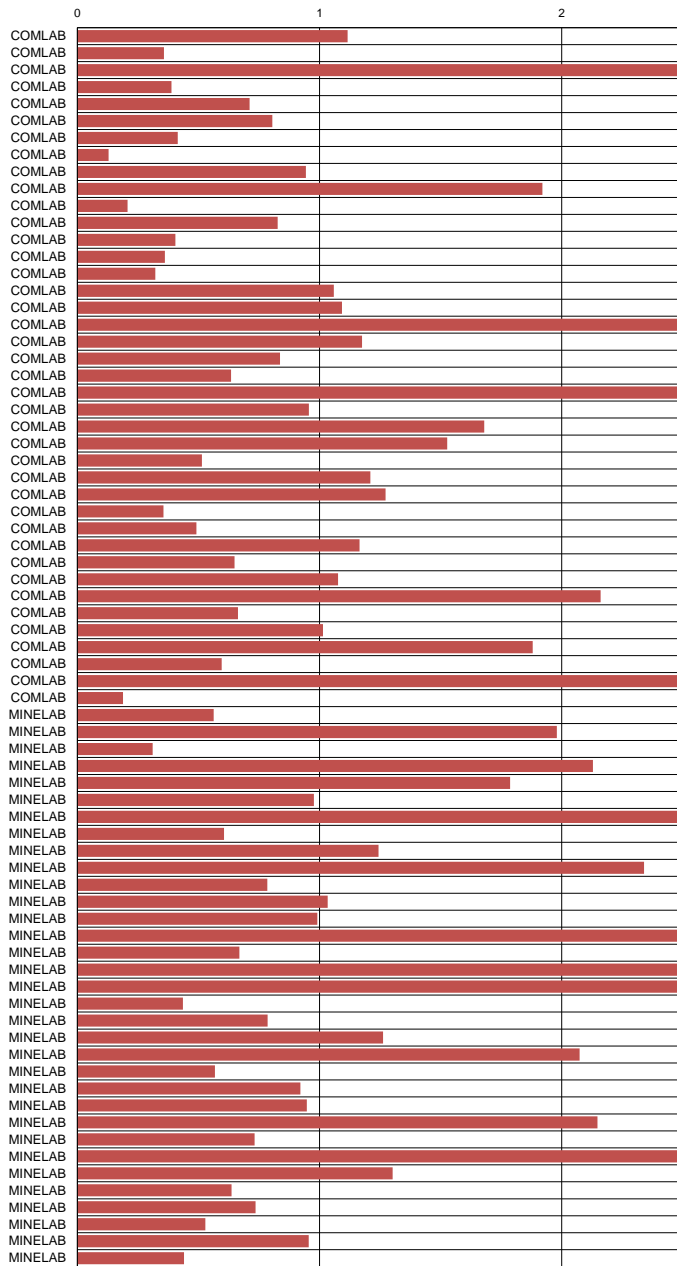
Silver on Carbon Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GBC918-1	GBC918-2	GLC918-1	GLC918-2	GLC918-3	GLC918-4
MEAN (ppm)	90	31	1043	3188	475	393
STDEV (ppm)	10	12	58	159	46	46
95% CI (ppm)	3	3	15	42	12	12
95% CI (%)	3.12%	9.93%	1.42%	1.33%	2.43%	2.94%
MIN (ppm)	70	1	933	2802	365	276
MEDIAN (ppm)	89	33	1042	3181	467	383
MAX (ppm)	113	60	1170	3530	569	493
IQR (ppm)	9	12	67	205	57	49
COUNT	50	58	60	55	62	62

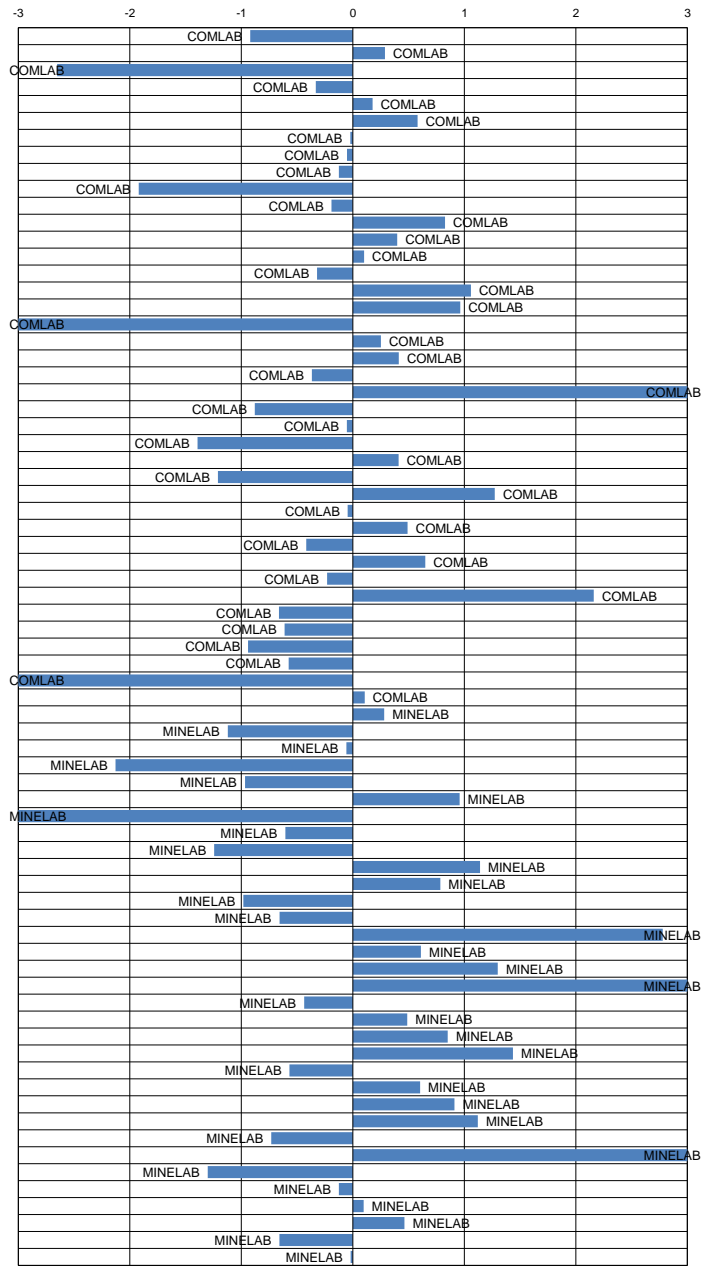
Standard Reference	GBC918-1		GBC918-2		GLC918-1		GLC918-2		GLC918-3		GLC918-4		Method	Reading
Lab Reference	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
COMLAB	52	-3.00	<3	bld	1010	-0.57	3220	0.20	405	-1.52	406	0.29	FA	GRAV
COMLAB	98	0.80	45	1.15	1033	-0.17	3270	0.51	486	0.25	395	0.05	4A	AAS
COMLAB	<3	-3.00	39	0.65	847	-3.00	2610	-3.00	417	-1.26	50	-3.00	FA	GRAV
COMLAB	91	0.14	43	0.98	1020	-0.40	3025	-1.03	459	-0.34	391	-0.04	FA	GRAV
COMLAB	111	2.17	44	1.08	1046	0.05	3178	-0.07	454	-0.46	355	-0.81	FA	GRAV
COMLAB	84	-0.56	35	0.31	1150	1.85	3350	1.01	485	0.23	410	0.38	PR,AR	AAS
COMLAB	87	-0.26	35	0.31	1046	0.05	3336	0.93	465	-0.21	364	-0.62	PR,AR	AAS
COMLAB	90	0.00	37	0.46	1047	0.06	3209	0.13	466	-0.20	381	-0.26	FA	GRAV
COMLAB	110	2.05	39	0.65	968	-1.30	3036	-0.96	465	-0.21	383	-0.21	AR	ICP
COMLAB	<100	bld	<100	bld	933	-1.90	2976	-1.33	377	-2.13	286	-2.32	FA	GRAV
COMLAB	90	0.04	41	0.82	1024	-0.33	3180	-0.05	462	-0.28	377	-0.34	2A,FA	AAS,GRAV
COMLAB	94	0.44	33	0.15	1084	0.71	3301	0.71	525	1.10	447	1.18	FA	GRAV
COMLAB	94	0.44	<60	bld	1042	-0.02	3279	0.57	499	0.53	414	0.47	FA	GRAV
COMLAB	95	0.54	<60	bld	1041	-0.04	3286	0.61	459	-0.34	380	-0.27	FA	GRAV
COMLAB	85	-0.46	36	0.40	1020	-0.40	3150	-0.24	468	-0.15	376	-0.36	PR,AR	AAS
COMLAB	91	0.14	26	-0.44	1170	2.19	3360	1.08	529	1.18	425	0.70	FA	GRAV
COMLAB	107	1.78	26	-0.41	1129	1.48	3137	-0.32	556	1.77	398	0.11	FA	GRAV
COMLAB	50	-3.00	4	-2.28	10	-3.00	66	-3.00	127	-3.00	4	-3.00	AR	AAS
COMLAB	70	-1.97	24	-0.61	1098	0.95	3414	1.42	459	-0.34	448	1.20	FA	GRAV
COMLAB	131	3.00	16	-1.28	1050	0.12	3100	-0.56	462	-0.28	382	-0.23	AR	
COMLAB	78	-1.20	33	0.12	1023	-0.35	3295	0.67	456	-0.40	367	-0.55		AAS
COMLAB	158	3.00	19	-1.01	2138	3.00	6529	3.00	3003	3.00	3414	3.00	PR,AR	ES
COMLAB	85	-0.46	35	0.28	1052	0.15	2042	-3.00	465	-0.21	nr	nr	AR	AAS
COMLAB	<3	-3.00	<3	bld	987	-0.97	3130	-0.37	561	1.88	493	2.18	FA	GRAV
COMLAB	<50	-3.00	<50	bld	985	-1.00	2616	-3.00	461	-0.30	408	0.33	FA	GRAV
COMLAB	87	-0.26	36	0.40	1055	0.21	3320	0.83	509	0.75	417	0.53		AAS
COMLAB	86	-0.36	23	-0.69	696	-3.00	3018	-1.07	416	-1.28	377	-0.34	AR	AAS
COMLAB	134	3.00	72	3.00	1075	0.54	3258	0.44	516	0.91	461	1.48	AD	ES
COMLAB	90	0.04	35	0.31	997	-0.79	3155	-0.21	494	0.42	407	0.31	AR	AAS
COMLAB	92	0.22	36	0.41	1055	0.21	3225	0.23	517	0.92	433	0.88	FA,PR	AAS
COMLAB	89	-0.06	37	0.48	991	-0.90	2558	-3.00	517	0.92	436	0.94	AR	AAS
COMLAB	91	0.14	<68.5	bld	1072	0.50	3268	0.50	542	1.47	422	0.64	FA	AAS
COMLAB	89	-0.06	19	-1.02	1160	2.02	1770	-3.00	479	0.09	383	-0.21	AR	AAS
COMLAB	96	0.64	60	2.41	1160	2.02	3530	2.14	618	3.00	612	3.00	PR,AR	AAS
COMLAB	nr	nr	33	0.16	951	-1.60	nr	nr	470	-0.11	380	-0.28	AR	ES
COMLAB	93	0.34	14	-1.44	1070	0.46	>2000	ald	57	-3.00	381	-0.25	AR	AAS
COMLAB	113	2.35	16	-1.24	1025	-0.31	3070	-0.74	316	-3.00	247	-3.00	PR,AR	AAS
COMLAB	90	0.04	20	-0.94	1030	-0.23	>2000	ald	435	-0.86	335	-1.25	PR,AR	AAS
COMLAB	13	-3.00	2	-2.44	251	-3.00	426	-3.00	101	-3.00	69	-3.00		
COMLAB	89	-0.06	31	-0.02	1050	0.12	3178	-0.07	503	0.62	389	-0.08	PR,AR	AAS
MINELAB	86	-0.35	38	0.57	1094	0.88	3319	0.82	494	0.41	376	-0.36	PR,AR	AAS
MINELAB	111	2.15	16	-1.28	702	-3.00	2880	-1.94	365	-2.39	373	-0.43	FA	GRAV
MINELAB	88	-0.18	36	0.36	1042	-0.02	3289	0.63	463	-0.25	371	-0.47	AR	AAS
MINELAB	78	-1.14	33	0.11	852	-3.00	2802	-2.43	393	-1.77	287	-2.30	FA	GRAV
MINELAB	88	-0.11	35	0.29	972	-1.23	2684	-3.00	569	2.05	276	-2.54	FA	GRAV
MINELAB	147	3.00	32	0.02	1053	0.17	3181	-0.05	512	0.81	432	0.86	FA	
MINELAB	20	-3.00	1	-2.52	806	-3.00	2544	-3.00	240	-3.00	172	-3.00	PR,AR	AAS
MINELAB	87	-0.26	29	-0.19	1000	-0.74	3117	-0.45	436	-0.84	359	-0.73	FA	GRAV
MINELAB	82	-0.76	12	-1.61	939	-1.80	3075	-0.71	403	-1.56	329	-1.38	AR	AAS
MINELAB	199	3.00	117	3.00	1142	1.71	2551	-3.00	520	0.99	716	3.00	FA,3A	GRAV,AAS
MINELAB	91	0.14	38	0.57	1084	0.71	3329	0.88	523	1.05	445	1.14	FA	GRAV
MINELAB	78	-1.16	26	-0.44	979	-1.11	3209	0.13	420	-1.19	320	-1.58	PR,AR	AAS
MINELAB	70	-1.99	nr	nr	1026	-0.30	2899	-1.82	474	-0.02	431	0.83	FA	GRAV
MINELAB	158	3.00	34	0.23	1273	3.00	3786	3.00	613	3.00	480	1.90	AD	AAS
MINELAB	96	0.64	24	-0.61	1099	0.97	3375	1.17	468	-0.15	412	0.42	PR,AR	AAS
MINELAB	212	3.00	101	3.00	1299	3.00	2090	-3.00	557	1.79	471	1.70	PR,AR	AAS
MINELAB	324	3.00	79	3.00	1518	3.00	3896	3.00	1471	3.00	1257	3.00	FA	GRAV
MINELAB	81	-0.88	39	0.69	1032	-0.19	3131	-0.36	460	-0.32	373	-0.43	FA	GRAV
MINELAB	<100	bld	<100	bld	1068	0.43	3525	2.12	465	-0.22	375	-0.38	AR	AAS
MINELAB	137	3.00	<100	bld	1127	1.45	3321	0.83	455	-0.44	365	-0.59	AR	AAS
MINELAB	128	3.00	51	1.69	1326	3.00	2935	-1.59	545	1.52	450	1.25	AR	AAS
MINELAB	87	-0.26	32	0.06	1032	-0.19	3111	-0.49	429	-1.00	351	-0.91	FA	GRAV
MINELAB	107	1.74	57	2.15	1081	0.65	3062	-0.79	529	1.18	403	0.23	FA	GRAV
MINELAB	132	3.00	33	0.11	1048	0.09	3174	-0.09	490	0.33	449	1.23		ES
MINELAB	323	3.00	179	3.00	955	-1.52	3021	-1.05	720	3.00	492	2.17	FA	GRAV
MINELAB	78	-1.16	33	0.15	1001	-0.73	3154	-0.22	441	-0.73	355	-0.82	FA	GRAV
MINELAB	129	3.00	36	0.42	1623	3.00	3840	3.00	728	3.00	567	3.00	PR,AR	AAS
MINELAB	72	-1.80	30	-0.12	958	-1.46	3026	-1.02	418	-1.24	347	-1.00	3A	AAS
MINELAB	80	-0.95	27	-0.38	1034	-0.16	3193	0.03	532	1.25	356	-0.79	AR	AAS
MINELAB	89	-0.06	34	0.23	1010	-0.57	3520	2.08	449	-0.56	374	-0.40	AR	
MINELAB	89	-0.06	25	-0.52	1140	1.67	3260	0.45	470	-0.10	409	0.36	AR	
MINELAB	97	0.74	53	1.82	944	-1.71	2937	-1.58	441	-0.73	392	-0.01	PP	XRF
MINELAB	81	-0.86	37	0.48	1075	0.55	3268	0.50	472	-0.06	382	-0.23	PR	AAS

Highlighted values are outliers which are assigned a z-score of -3.00 or 3.00 in the standardised values. Insufficient reliable results were received for the highlighted material. These results do not contribute to the error charts.

Standard Deviations



Standard Deviations



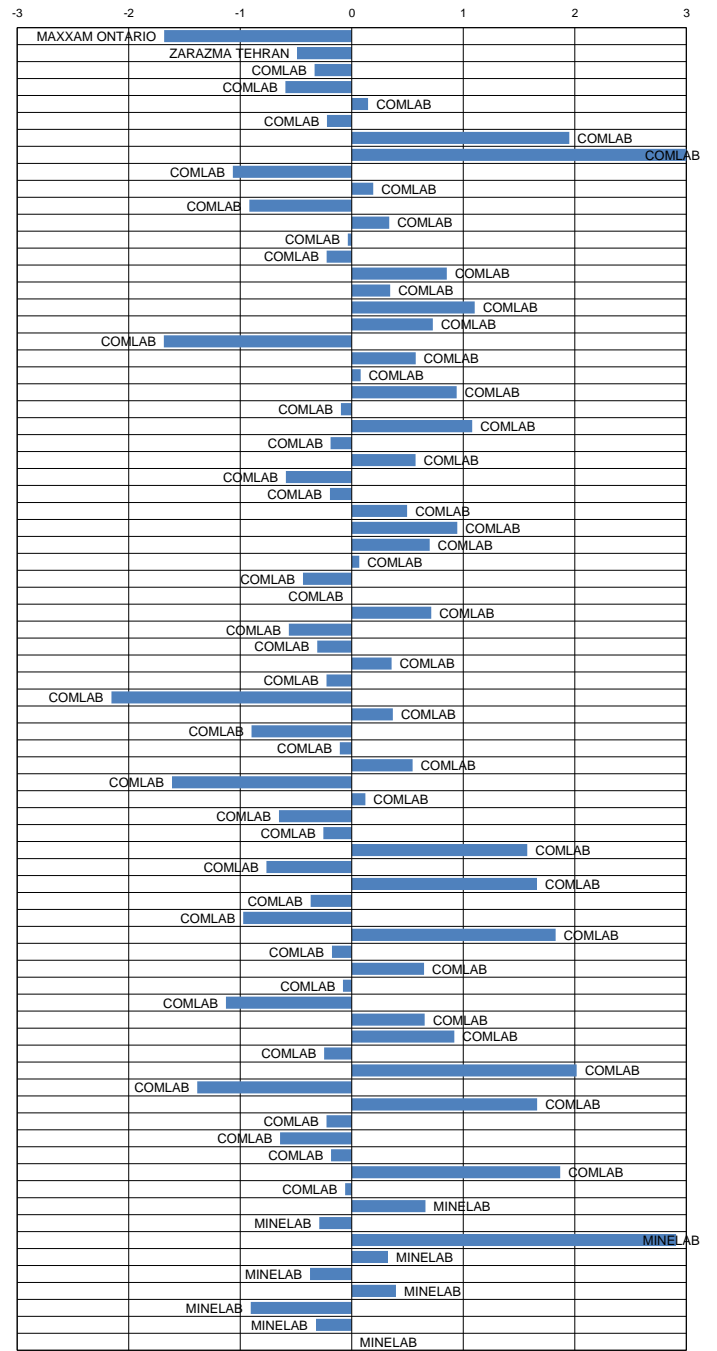
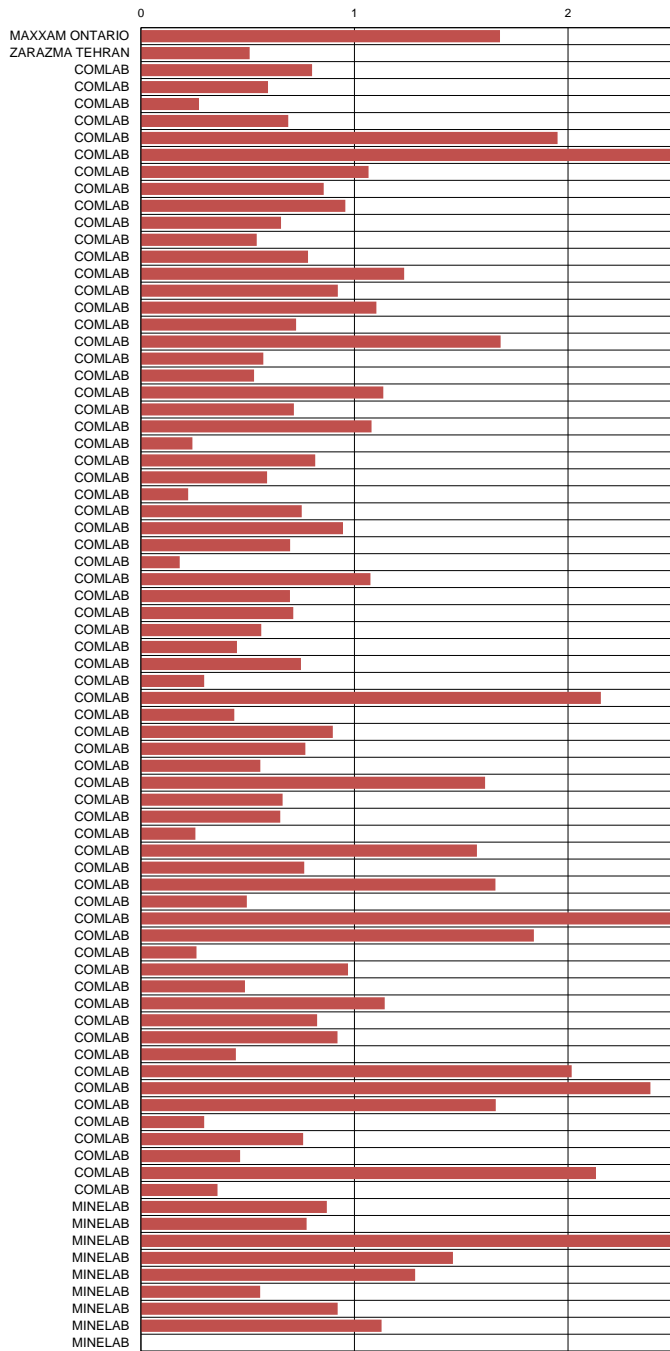
Silver (Total Digest) Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GBM918-1	GBM918-2	GBM918-3	GBM918-4	GBM918-5	GBM918-6	GBM918-7	GBM918-8	GBM918-9	GBM918-10
MEAN (ppm)	0.3	0.2	9.4	1.1	6.9	1.4	0.4	9.2	0.5	0.8
STDEV (ppm)	0.2	0.1	0.9	0.3	0.7	0.3	0.3	0.6	0.3	0.2
95% CI (ppm)	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.0
95% CI (%)	36.26%	39.34%	2.10%	6.23%	2.25%	4.81%	35.24%	1.49%	30.24%	5.58%
MIN (ppm)	0.0	0.0	7.1	0.4	5.3	0.9	0.1	7.9	0.1	0.5
MEDIAN (ppm)	0.2	0.2	9.5	1.1	7.0	1.4	0.4	9.1	0.5	0.8
MAX (ppm)	0.7	0.5	11.1	1.7	8.8	2.0	1.0	10.8	1.0	1.2
IQR (ppm)	0.3	0.2	1.0	0.2	0.7	0.3	0.6	0.7	0.5	0.2
COUNT	20	14	73	57	72	56	18	72	22	56

Standard Reference	GBM918-1		GBM918-2		GBM918-3		GBM918-4		GBM918-5		GBM918-6		GBM918-7		GBM918-8		GBM918-9		GBM918-10		Method	Reading
Lab Reference	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
MAXXAM ONTARIO	<5.0	blid	<5.0	blid	8.0	-1.64	<5.0	blid	6.0	-1.39	<5.0	blid	<5.0	blid	8.0	-2.02	<5.0	blid	<5.0	blid	NAA	
ZARAZMA TEHRAN	0.2	-0.25	0.1	-0.68	8.7	-0.82	1.0	-0.41	6.3	-0.94	1.4	-0.17	0.1	-1.05	8.8	-0.66	0.2	-0.79	0.8	0.05	4A	ES
COMLAB	<3.0	blid	<3.0	blid	10.0	0.70	<3.0	blid	6.0	-1.39	<3.0	blid	<3.0	blid	9.0	-0.32	<3.0	blid	<3.0	blid	4A	ICP
COMLAB	<0.3	blid	<0.3	blid	9.1	-0.35	1.1	-0.04	6.2	-1.09	1.3	-0.55	<0.3	blid	8.6	-1.00	<0.3	blid	0.7	-0.55	4A	ES
COMLAB	<0.3	blid	0.3	0.72	9.6	0.23	1.1	-0.04	6.8	-0.19	1.7	0.97	<0.3	blid	9.1	-0.15	0.5	0.15	0.8	0.05	4A	ICP
COMLAB	<0.3	blid	<0.3	blid	8.8	-0.70	1.0	-0.41	6.4	-0.79	1.8	1.35	0.7	0.76	8.7	-0.83	0.9	1.40	0.8	0.05	4A	ICP
COMLAB	0.4	0.73	<0.4	blid	10.8	1.64	1.6	1.86	9.7	3.00	3.1	3.00	<0.4	blid	10.1	1.56	<0.4	blid	0.9	0.65	4A	AAS
COMLAB	2.9	3.00	3.2	3.00	12.2	3.00	4.6	3.00	9.1	3.00	4.3	3.00	3.1	3.00	12.1	3.00	3.7	3.00	3.4	3.00	4A	ES
COMLAB	<0.5	blid	<0.5	blid	8.9	-0.59	1.0	-0.41	5.7	-1.83	<0.5	-3.00	1.0	1.66	9.0	-0.32	0.7	0.78	0.8	-0.25	4A	ES
COMLAB	<1.0	blid	<1.0	blid	8.5	-1.05	1.2	0.34	7.5	0.85	1.2	-0.93	<1.0	blid	9.6	0.70	<1.0	blid	1.0	1.25	4A	ES
COMLAB	<0.5	blid	<0.5	blid	9.5	0.12	0.8	-1.17	6.6	-0.49	0.9	-2.07	<0.5	blid	9.1	-0.15	<0.5	blid	0.5	-1.74	4A	ES
COMLAB	<0.5	blid	<0.5	blid	10.0	0.70	1.0	-0.41	7.5	0.85	1.5	0.21	<0.5	blid	9.9	1.22	<0.5	blid	0.7	-0.55	4A	ES
COMLAB	<0.5	blid	<0.5	blid	9.9	0.59	1.0	-0.41	7.2	0.40	1.4	-0.17	<0.5	blid	9.5	0.53	<0.5	blid	0.6	-1.14	4A	ES
COMLAB	<0.5	blid	<0.5	blid	9.8	0.47	0.9	-0.79	7.6	1.00	1.5	0.21	<0.5	blid	8.9	-0.49	<0.5	blid	0.5	-1.74	4A	ES
COMLAB	0.5	1.23	0.5	2.12	10.5	1.29	1.7	2.24	7.1	0.25	2.0	2.11	0.5	0.16	9.4	0.36	0.5	0.15	0.6	-1.14	4A	ES
COMLAB	<0.5	blid	<0.5	blid	10.9	1.76	1.0	-0.41	7.6	1.00	1.4	-0.17	<0.5	blid	9.8	1.05	<0.5	blid	0.6	-1.14	4A	ICP
COMLAB	<1.0	blid	<1.0	blid	9.4	0.00	1.6	1.86	7.1	0.25	1.7	0.97	<1.0	blid	9.5	0.53	<1.0	blid	1.6	3.00	4A	ES
COMLAB	<0.5	blid	<0.5	blid	10.1	0.82	1.2	0.34	7.4	0.70	1.7	0.97	<0.5	blid	9.7	0.88	<0.5	blid	0.9	0.65	4A	ES
COMLAB	<1.0	blid	<1.0	blid	8.0	-1.64	<1.0	blid	6.0	-1.39	1.0	-1.69	<1.0	blid	8.0	-2.02	<1.0	blid	<1.0	blid	4A	ES
COMLAB	<0.5	blid	<0.5	blid	10.1	0.82	1.4	1.10	7.3	0.55	1.5	0.21	<0.5	blid	9.6	0.70	<0.5	blid	0.8	0.05	4A	ES
COMLAB	<0.5	blid	<0.5	blid	9.6	0.23	1.1	-0.04	7.3	0.55	1.4	-0.17	<0.5	blid	9.8	1.05	<0.5	blid	0.6	-1.14	4A	ES
COMLAB	<0.5	blid	<0.5	blid	10.8	1.64	1.1	-0.04	8.2	1.89	1.7	0.97	<0.5	blid	10.2	1.73	<0.5	blid	0.7	-0.55	4A	ES
COMLAB	<0.5	blid	<0.5	blid	9.4	0.00	1.6	1.86	6.9	-0.05	1.2	-0.93	<0.5	blid	9.0	-0.32	<0.5	blid	0.6	-1.14	4A	ES
COMLAB	<0.5	blid	<0.5	blid	10.7	1.52	1.4	1.10	7.3	0.55	1.8	1.35	<0.5	blid	9.6	0.70	0.6	0.46	1.0	1.25	4A	ES
COMLAB	nr	nr	nr	nr	9.4	-0.05	1.2	0.15	6.9	-0.08	1.4	-0.10	nr	nr	8.9	-0.47	nr	nr	0.7	-0.60	4A	MS
COMLAB	<1.0	blid	<1.0	blid	10.0	0.70	1.0	-0.41	7.0	0.10	2.0	2.11	<1.0	blid	9.0	-0.32	1.0	1.72	1.0	1.25	5A	ES
COMLAB	<0.1	blid	<0.1	blid	8.9	-0.59	1.0	-0.41	6.4	-0.79	1.3	-0.55	<0.1	blid	8.8	-0.66	<0.1	blid	0.7	-0.55	4A	ICP
COMLAB	<0.2	blid	<0.2	blid	9.0	-0.47	1.0	-0.41	6.8	-0.19	1.4	-0.17	<0.2	blid	9.2	0.02	<0.2	blid	0.8	0.05	4A	MS
COMLAB	<1.0	blid	<1.0	blid	9.0	-0.47	<1.0	blid	7.6	1.00	1.4	-0.17	<1.0	blid	9.7	0.88	<1.0	blid	1.0	1.25	4A	AAS
COMLAB	0.2	-0.25	0.3	0.72	10.3	1.05	1.4	1.10	7.3	0.55	1.6	0.59	nr	nr	9.5	0.53	nr	nr	1.1	1.85	4A	AAS
COMLAB	<2.0	blid	<2.0	blid	9.7	0.35	<2.0	blid	7.4	0.70	<2.0	blid	<2.0	blid	9.8	1.05	<2.0	blid	<2.0	blid	4A	AAS
COMLAB	0.1	-0.75	0.1	-0.68	9.5	0.12	1.2	0.34	6.7	-0.34	1.5	0.21	<0.1	blid	9.2	0.02	0.1	-1.10	0.8	0.05	4A	MS
COMLAB	<0.5	blid	<0.5	blid	9.8	0.47	0.7	-1.55	7.9	1.45	1.2	-0.93	<0.5	blid	8.3	-1.51	<0.5	blid	0.7	-0.55	4A	ES
COMLAB	<0.2	blid	0.2	0.02	9.6	0.23	1.0	-0.41	7.2	0.40	1.0	-1.69	<0.2	blid	9.3	0.19	0.6	0.46	1.0	1.25	4A	ES
COMLAB	<0.5	blid	<0.5	blid	10.0	0.70	1.5	1.48	7.0	0.10	1.5	0.21	<0.5	blid	9.5	0.53	<0.5	blid	1.0	1.25	4A	MS
COMLAB	<2.0	blid	<2.0	blid	9.1	-0.35	<2.0	blid	6.7	-0.34	<2.0	blid	<2.0	blid	8.6	-1.00	<2.0	blid	<2.0	blid	4A	ES
COMLAB	<0.5	blid	<0.5	blid	9.0	-0.47	1.2	0.34	6.6	-0.49	1.1	-1.31	<0.5	blid	9.2	0.02	<0.5	blid	0.8	0.05	4A	AAS
COMLAB	<1.0	blid	<1.0	blid	9.0	-0.47	<1.0	blid	7.0	0.10	2.0	2.11	<1.0	blid	9.0	-0.32	<1.0	blid	<1.0	blid	4A	ICP
COMLAB	<2.0	blid	<2.0	blid	9.0	-0.47	<2.0	blid	7.0	0.10	<2.0	blid	<2.0	blid	9.0	-0.32	<2.0	blid	<2.0	blid	4A	AAS
COMLAB	<2.0	blid	<2.0	blid	7.1	-2.70	<2.0	blid	5.3	-2.43	<2.0	blid	<2.0	blid	8.4	-1.34	<2.0	blid	<2.0	blid	4A	ES
COMLAB	<0.5	blid	<0.5	blid	10.0	0.70	1.1	-0.04	7.0	0.10	1.4	-0.17	<0.5	blid	10.1	1.56	<0.5	blid	0.8	0.05	4A	MS
COMLAB	0.2	-0.50	<0.05	blid	9.1	-0.35	0.9	-0.98	6.6	-0.57	0.9	-2.07	0.1	-1.05	8.9	-0.57	0.1	-1.26	0.7	-0.84	4A	MS
COMLAB	<0.5	blid	<0.5	blid	11.1	1.99	0.7	-1.55	6.9	-0.05	1.4	-0.17	<0.5	blid	9.0	-0.32	<0.5	blid	0.7	-0.55	4A	ES
COMLAB	0.1	-0.94	<0.05	blid	9.9	0.57	1.1	-0.04	7.3	0.58	1.6	0.74	<0.05	blid	10.0	1.42	<0.05	blid	0.8	-0.01	4A	MS
COMLAB	<0.2	blid	<0.2	blid	7.9	-1.76	1.0	-0.41	5.7	-1.83	0.9	-2.07	<0.2	blid	8.1	-1.85	<0.2	blid	0.5	-1.74	4A	AAS
COMLAB	<0.1	blid	<0.1	blid	8.9	-0.59	1.3	0.72	6.6	-0.49	1.6	0.59	<0.1	blid	9.8	1.05	<0.1	blid	0.7	-0.55	4A	MS
COMLAB	<0.1	blid	<0.1	blid	8.8	-0.70	0.9	-0.79	6.6	-0.49	1.3	-0.55	<0.1	blid	8.7	-0.83	<0.1	blid	0.7	-0.55	4A	ICP
COMLAB	0.2	-0.40	<0.1	blid	9.3	-0.14	1.1	0.00	6.8	-0.21	1.4	-0.25	<0.1	blid	8.9	-0.50	<0.1	blid	0.7	-0.43	4A	AAS
COMLAB	<1.0	blid	<1.0	blid	10.0	0.70	2.0	3.00	7.0	0.10	3.0	3.00	<1.0	blid	10.0	1.						

Standard Deviations

Standard Deviations

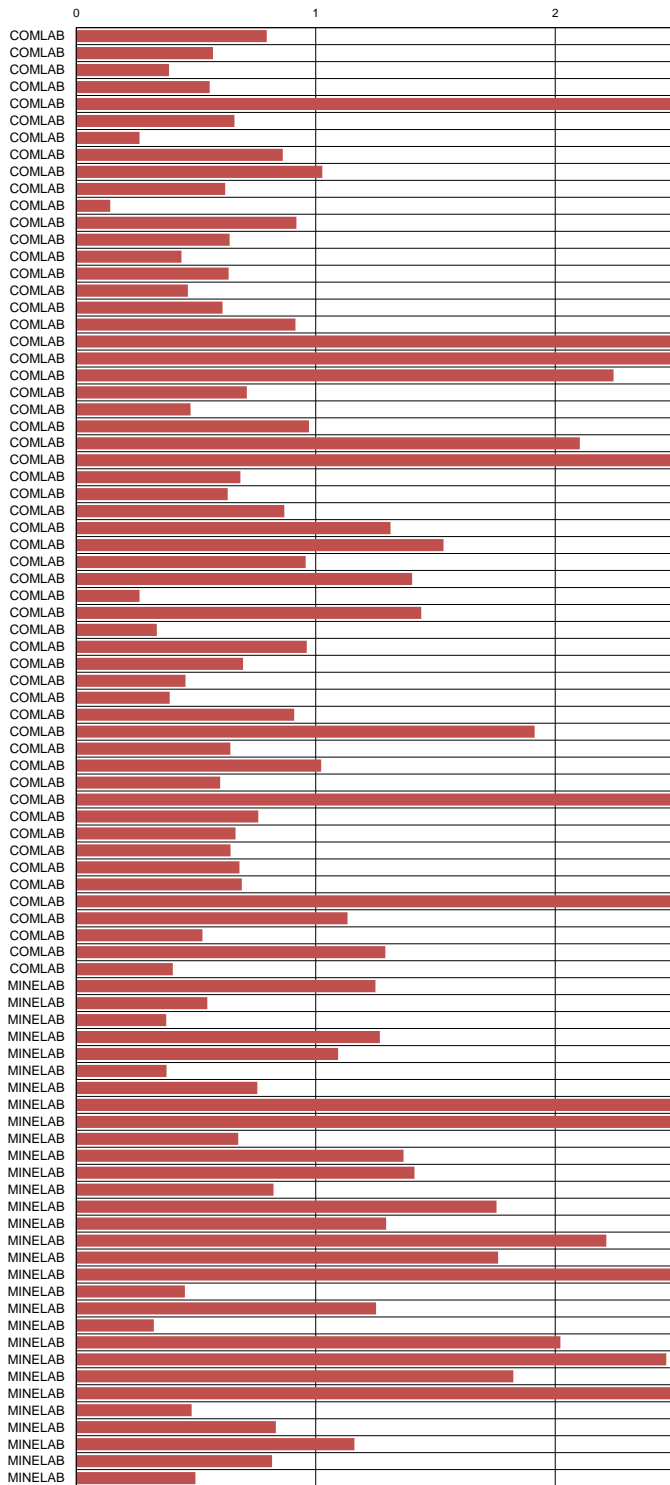


Silver (Partial Digest) Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

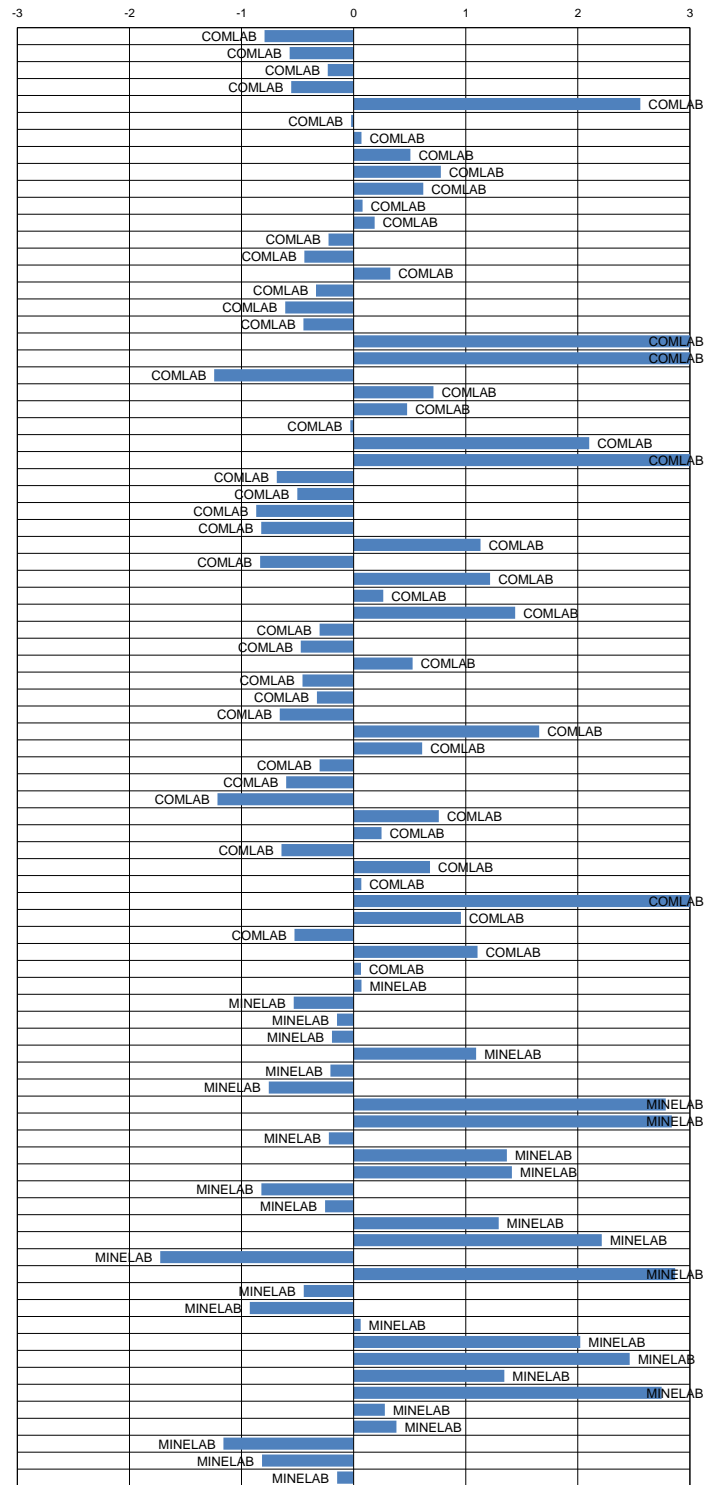
Standard Reference	GBM918-1	GBM918-2	GBM918-3	GBM918-4	GBM918-5	GBM918-6	GBM918-7	GBM918-8	GBM918-9	GBM918-10
MEAN (ppm)	0.2	0.2	9.5	1.1	7.0	1.5	0.3	9.0	0.4	0.8
STDEV (ppm)	0.2	0.2	0.7	0.1	0.7	0.4	0.3	0.8	0.3	0.2
95% CI (ppm)	0.1	0.1	0.2	0.0	0.2	0.1	0.1	0.2	0.1	0.0
95% CI (%)	38.35%	41.43%	1.76%	3.39%	2.21%	6.11%	44.86%	2.06%	36.03%	5.46%
MIN (ppm)	0.0	0.0	7.6	0.8	5.5	0.8	0.0	7.0	0.0	0.5
MEDIAN (ppm)	0.2	0.2	9.5	1.1	6.9	1.5	0.2	9.0	0.3	0.8
MAX (ppm)	0.5	0.7	11.4	1.4	8.6	2.4	1.0	11.0	1.0	1.2
IQR (ppm)	0.2	0.2	1.0	0.1	1.0	0.4	0.5	1.0	0.3	0.2
COUNT	15	18	73	55	74	62	17	80	19	50

Standard Reference	GBM918-1		GBM918-2		GBM918-3		GBM918-4		GBM918-5		GBM918-6		GBM918-7		GBM918-8		GBM918-9		GBM918-10		Method	Reading		
Lab Reference	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score				
COMLAB	<0.2	blid	<0.2	blid	9.0	-0.72	0.9	-1.25	6.4	-0.83	1.4	-0.34	<0.2	blid	8.1	-1.08	0.3	-0.33	<0.2	blid	0.7	-0.55	AR	ICP
COMLAB	<0.2	blid	<0.2	blid	9.1	-0.58	1.0	-0.51	6.4	-0.83	1.4	-0.34	<0.2	blid	8.5	-0.61	<0.2	blid	0.7	-0.55	AR	MS		
COMLAB	<0.2	blid	<0.2	blid	9.7	0.25	1.1	0.22	6.7	-0.39	1.5	-0.07	<0.2	blid	8.3	-0.85	0.3	-0.33	0.7	-0.55	AR	ICP		
COMLAB	<0.2	blid	<0.2	blid	8.9	-0.86	1.0	-0.51	6.7	-0.39	1.5	-0.07	<0.2	blid	8.2	-0.97	0.3	-0.33	0.7	-0.55	AR	ICP		
COMLAB	0.5	1.85	<0.4	blid	12.2	3.00	1.8	3.00	10.7	3.00	3.8	3.00	0.6	0.89	10.1	1.29	0.9	1.59	1.1	2.06	AR	AAS		
COMLAB	<0.2	blid	<0.2	blid	9.9	0.52	0.8	-1.98	7.6	0.95	1.5	-0.07	<0.2	blid	9.3	0.34	<0.2	blid	0.8	0.10	AR	ES		
COMLAB	0.2	-0.08	0.2	-0.19	9.5	-0.03	1.1	0.22	7.2	0.36	1.6	0.20	0.2	-0.43	9.2	0.22	0.2	-0.64	0.7	-0.55	AR	ES		
COMLAB	<0.2	blid	<0.2	blid	10.6	1.49	1.0	-0.51	7.8	1.25	1.6	0.20	<0.2	blid	10.0	1.17	0.2	-0.64	0.7	-0.55	AR	ICP		
COMLAB	<1.0	blid	<1.0	blid	9.4	-0.17	1.9	3.00	6.9	-0.09	1.9	1.01	<1.0	blid	8.6	-0.49	<1.0	blid	1.0	1.41	AR	ES		
COMLAB	<0.2	blid	<0.2	blid	10.0	0.66	1.1	0.22	7.8	1.25	2.0	1.28	<0.2	blid	9.2	0.22	0.2	-0.64	0.8	0.10	AR	ES		
COMLAB	<0.2	blid	<0.2	blid	9.5	-0.03	1.1	0.22	6.9	-0.09	1.5	-0.07	<0.2	blid	9.3	0.34	<0.2	blid	0.8	0.10	AR	ES		
COMLAB	<0.2	blid	<0.2	blid	10.0	0.66	1.3	1.69	7.3	0.51	1.4	-0.34	<0.2	blid	9.4	0.46	<0.2	blid	0.5	-1.86	AR	ES		
COMLAB	<0.2	blid	0.2	-0.19	9.6	0.11	1.0	-0.51	7.1	0.21	1.2	-0.87	<0.2	blid	9.8	0.93	<0.2	blid	0.6	-1.21	AR	ES		
COMLAB	nr	nr	nr	nr	8.9	-0.86	nr	nr	6.9	-0.09	nr	nr	nr	nr	8.7	-0.37	nr	nr	nr	nr	AR	AAS		
COMLAB	<0.2	blid	<0.2	blid	10.2	0.94	1.3	1.69	7.0	0.06	1.6	0.20	<0.2	blid	8.7	-0.37	<0.2	blid	0.7	-0.55	AR	AAS		
COMLAB	<0.2	blid	<0.2	blid	9.6	0.11	0.9	-1.25	7.0	0.06	1.3	-0.61	<0.2	blid	9.2	0.22	<0.2	blid	0.7	-0.55	AR	ES		
COMLAB	nr	nr	nr	nr	8.9	-0.81	1.0	-0.51	6.5	-0.74	1.4	-0.23	nr	nr	8.4	-0.68	nr	nr	0.7	-0.68	AR	MS		
COMLAB	<1.0	blid	<1.0	blid	9.0	-0.72	1.0	-0.51	6.0	-1.43	1.0	-1.41	<1.0	blid	9.0	-0.02	<1.0	blid	1.0	1.41	AR	ES		
COMLAB	5.1	3.00	3.5	3.00	84.6	3.00	8.6	3.00	42.2	3.00	27.5	3.00	6.9	3.00	32.4	3.00	12.2	3.00	17.9	3.00	AR	AAS		
COMLAB	44.0	3.00	21.0	3.00	9012.0	3.00	998.0	3.00	6438.0	3.00	1356.0	3.00	25.0	3.00	9027.0	3.00	5.0	3.00	708.0	3.00	AR	ICP		
COMLAB	<0.3	blid	<0.3	blid	7.6	-2.65	1.9	3.00	5.7	-1.88	1.1	-1.14	<0.3	blid	7.5	-1.80	<0.3	blid	<0.3	-3.00	AR	ES		
COMLAB	<0.2	blid	<0.2	blid	10.1	0.80	1.2	0.96	7.4	0.65	1.9	1.01	<0.2	blid	9.1	0.10	0.3	-0.33	0.9	0.75	AR	ES		
COMLAB	<1.0	blid	<1.0	blid	10.0	0.63	1.1	0.15	7.7	1.13	1.6	0.31	<1.0	blid	9.2	0.16	<1.0	blid	<1.0	blid	AR	ES		
COMLAB	<0.5	blid	<0.5	blid	10.0	0.66	1.3	1.69	6.6	-0.54	0.8	-1.95	<0.5	blid	9.0	-0.02	<0.5	blid	<0.5	blid	AR	AAS		
COMLAB	<10.0	blid	<10.0	blid	11.7	3.00	<10.0	blid	<10.0	blid	<10.0	blid	<10.0	blid	10.0	1.20	<10.0	blid	nr	nr	AR	AAS		
COMLAB	25.0	3.00	13.0	3.00	29.0	3.00	19.0	3.00	102.0	3.00	15.0	3.00	32.0	3.00	72.0	3.00	202.0	3.00	1165.0	3.00	AR	AAS		
COMLAB	<0.5	blid	<0.5	blid	9.2	-0.44	0.9	-1.25	6.8	-0.24	1.3	-0.61	<0.5	blid	8.7	-0.37	<0.5	blid	0.6	-1.21	AR	AAS		
COMLAB	<0.5	blid	<0.5	blid	8.9	-0.86	1.1	0.22	5.8	-1.73	<0.5	blid	<0.5	blid	8.8	-0.25	<0.5	blid	0.8	0.10	AR	MS		
COMLAB	0.1	-0.47	<0.1	blid	8.9	-0.90	1.0	-0.51	6.3	-1.04	1.2	-1.01	<0.1	blid	8.3	-0.87	<0.1	blid	0.7	-0.88	AR	AAS		
COMLAB	<1.0	blid	<1.0	blid	8.0	-2.10	1.0	-0.51	7.0	0.06	1.0	-1.41	<1.0	blid	7.0	-2.99	<1.0	blid	1.0	1.41	AR	ES		
COMLAB	2.0	3.00	1.0	3.00	10.0	0.66	2.0	3.00	7.0	0.06	2.0	1.28	1.0	2.22	8.0	-1.20	1.0	1.91	5.0	3.00	AR	AAS		
COMLAB	0.0	-1.17	0.0	-1.10	7.3	-3.00	1.1	0.37	5.9	-1.53	1.4	-0.44	0.0	-1.06	8.8	-0.30	<0.01	blid	0.8	-0.10	AR	MS		
COMLAB	<0.2	blid	<0.2	blid	10.8	1.76	1.1	0.22	8.3	1.99	2.4	2.35	<0.2	blid	10.3	1.52	<0.2	blid	0.7	-0.55	AR	ES		
COMLAB	<0.5	blid	<0.5	blid	9.7	0.25	1.1	0.22	7.0	0.06	1.6	0.20	<0.5	blid	9.1	0.10	<0.5	blid	0.9	0.75	AR	AAS		
COMLAB	0.7	3.00	0.7	2.21	10.0	0.66	2.2	3.00	7.3	0.51	2.1	1.55	0.6	0.89	9.2	0.22	<0.5	blid	1.2	2.71	1A	ICP		
COMLAB	0.1	-0.72	0.1	-0.67	9.1	-0.58	1.0	-0.51	6.8	-0.24	1.4	-0.34	0.1	-0.76	8.8	-0.25	0.1	-0.96	0.8	0.10	AR	ES		
COMLAB	<0.3	blid	<0.3	blid	8.9	-0.80	1.3	1.47	5.9	-1.53	1.3	-0.63	<0.3	blid	8.1	-1.11	<0.3	blid	0.8	-0.23	AR	AAS		
COMLAB	<0.3	blid	<0.3	blid	10.1	0.80	1.0	-0.51	7.7	1.10	1.6	0.20	<0.3	blid	9.7	0.81	<0.3	blid	0.9	0.75	AR	AAS		
COMLAB	<1.0	blid	<1.0	blid	8.8	-0.99	<1.0	blid	6.9	-0.09	1.3	-0.61	<1.0	blid	8.9	-0.14	<1.0	blid	<1.0	blid	3A	AAS		
COMLAB	<0.3	blid	<0.3	blid	9.6	0.04	1.0	-0.66	6.6	-0.48	1.3	-0.66	<0.3	blid	9.1	0.15	<0.3	blid	0.7	-0.36	3A	AAS		
COMLAB	<0.2	blid	<0.2	blid	8.5	-1.41	1.0	-0.51	6.3	-0.98	1.3	-0.61	<0.2	blid	8.0	-1.20	<0.2	blid	0.9	0.75	AR	AAS		
COMLAB	<5.0	blid	<5.0	blid	12.1	3.00	<5.0	blid	6.7	-0.39	<5.0	blid	<5.0	blid	11.0	2.35	<5.0	blid	<5.0	blid	3A	AAS		
COMLAB	<0.5	blid	<0.5	blid	10.5	1.35	1.1	0.30	7.8	1.18	1.6	0.17	<0.5	blid	9.7	0.77	0.5	0.31	0.8	-0.10	AR	AAS		
COMLAB	<0.1	blid	<0.1	blid	8.2	-1.55	1.2	0.96	7.7	1.10	1.2	-0.87	<0.1	blid	7.7	-1.56	<0.1	blid	0.8	0.10	AR	MS		
COMLAB	0.2	-0.08	0.2	-0.19	9.4	-0.44	0.9	-1.25	6.6	-0.54	1.4	-0.34	0.2	-0.43	8.6	-0.49	<0.1	blid	0.7	-0.55	AR	MS		
COMLAB	<2.0	blid	<2.0	blid	7.0	-3.00	<2.0	blid	4.0	-3.00	<2.0	blid	<2.0	blid	11.0	2.35	<2.0	blid	<2.0	blid	AR	ES		
COMLAB	<2.0	blid	<2.0	blid	10.0	0.70	<2.0	blid	7.5	0.73	<2.0	blid	<2.0	blid	9.7	0.85	<2.0	blid	<2.0	blid	AR	ES		
COMLAB	<1.0	blid	<1.0	blid	9.0	-0.72	1.0	-0.51	7.0	0.06	2.0	1.28	<1.0	blid	9.0	-0.02	<1.0	blid	1.0	1.41	3A	AAS		
COMLAB	0.2	-0.08	0.2	-0.19	9.5	-0.03	0.8	-1.98	6.9	-0.09	1.5	-0.07	0.3	-0.10	8.6	-0.49	0.3	-						

Standard Deviations



Standard Deviations



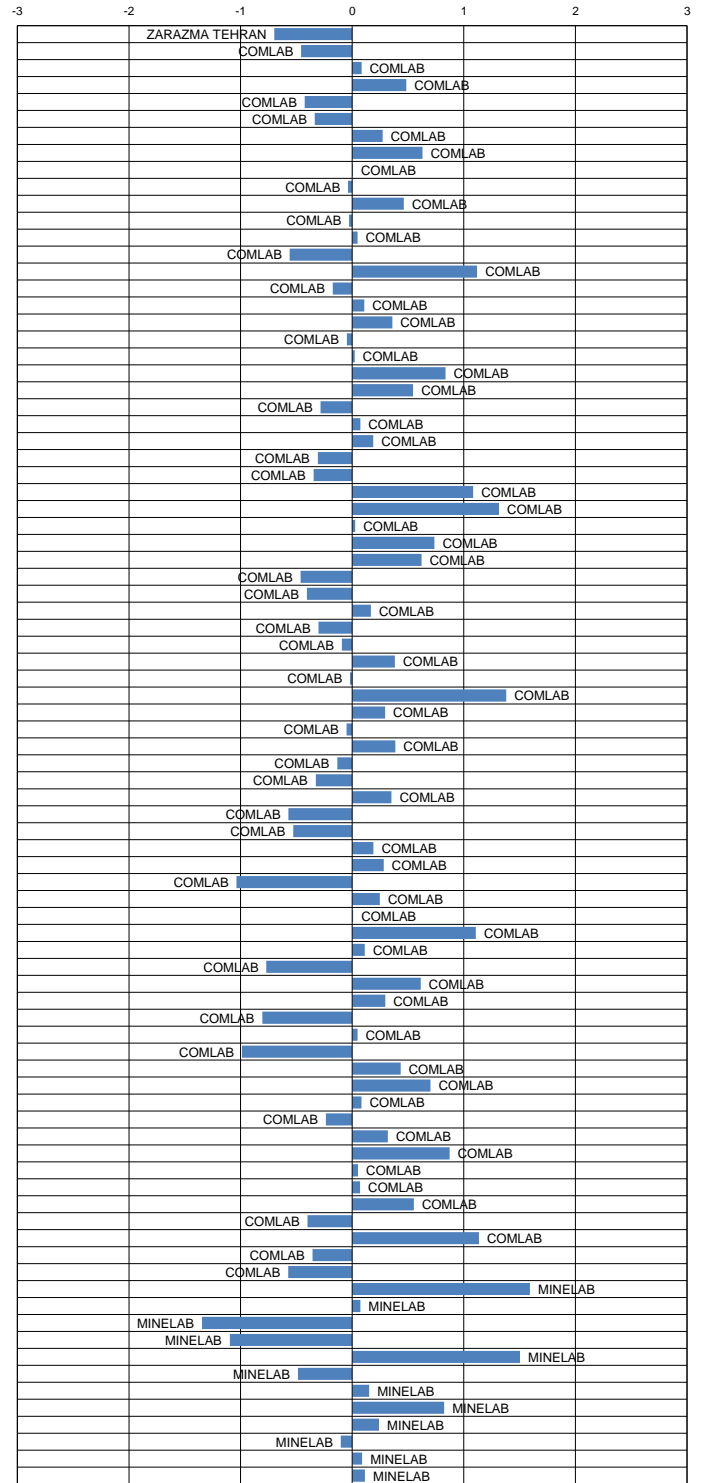
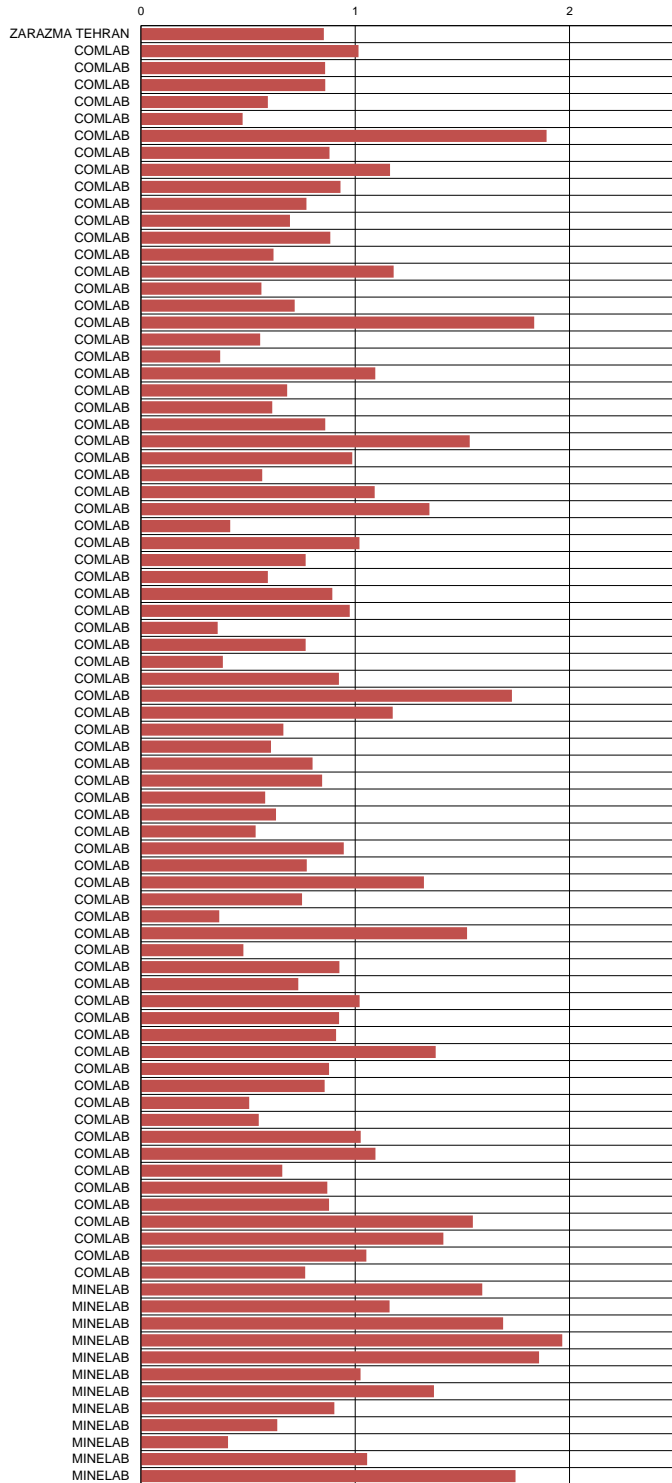
Copper (Total Digest) Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GBM918-1	GBM918-2	GBM918-3	GBM918-4	GBM918-5	GBM918-6	GBM918-7	GBM918-8	GBM918-9	GBM918-10
MEAN (ppm)	94	81	2153	3948	1523	478	18	1662	21	992
STDEV (ppm)	8	20	107	96	85	20	2	70	5	31
95% CI (ppm)	2	4	23	21	18	4	1	15	1	7
95% CI (%)	1.84%	5.54%	1.07%	0.53%	1.19%	0.92%	3.25%	0.90%	6.01%	0.68%
MIN (ppm)	79	41	1897	3752	1303	440	13	1498	9	914
MEDIAN (ppm)	93	75	2149	3930	1535	479	17	1659	21	996
MAX (ppm)	112	130	2400	4210	1730	520	24	1850	35	1060
IQR (ppm)	10	26	132	127	100	31	4	90	4	41
COUNT	74	74	84	83	84	80	65	84	73	81

Standard Reference	GBM918-1		GBM918-2		GBM918-3		GBM918-4		GBM918-5		GBM918-6		GBM918-7		GBM918-8		GBM918-9		GBM918-10		Method	Reading	
Lab Reference	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score			
ZARAZMA TEHRAN	91	-0.40	75	-0.32	1988	-1.54	3906	-0.44	1394	-1.52	455	-1.15	20	0.78	1594	-0.97	17	-0.67	970	-0.74	4A	ES	
COMLAB	80	-1.84	70	-0.55	2180	0.26	4070	1.27	1540	0.20	480	0.09	10	-3.00	1690	0.41	10	-1.98	1010	0.57	4A	ICP	
COMLAB	120	3.00	96	0.78	2088	-0.61	4008	0.62	1498	-0.29	457	-1.06	18	0.14	1601	-0.87	15	-1.05	998	0.18	4A	ES	
COMLAB	117	3.00	114	1.71	2137	-0.15	4010	0.64	1487	-0.42	480	0.09	16	-0.71	1620	-0.60	21	0.07	1030	1.21	4A	ICP	
COMLAB	86	-1.04	66	-0.75	2120	-0.31	3970	0.22	1410	-1.33	479	0.04	17	-0.29	1600	-0.89	18	-0.49	1010	0.57	4A	ICP	
COMLAB	96	0.29	79	-0.09	2090	-0.59	3884	-0.67	1471	-0.61	469	-0.46	18	0.14	1610	-0.74	22	0.26	965	-0.89	4A	AAS	
COMLAB	153	3.00	116	1.83	2033	-1.12	3752	-2.05	1419	-1.23	470	-0.40	66	3.00	1566	-1.38	58	3.00	932	-1.94	4A	ES	
COMLAB	89	-0.64	160	3.00	2162	0.09	3890	-0.61	1604	0.96	490	0.59	20	0.99	1717	0.79	25	0.82	1002	0.31	4A	ES	
COMLAB	87	-0.89	163	3.00	2056	-0.91	3840	-1.13	1426	-1.15	478	0.00	22	1.97	1601	-0.87	25	0.87	967	-0.82	4A	ES	
COMLAB	105	1.49	74	-0.34	2041	-1.05	3924	-0.25	1455	-1.00	457	-1.06	21	1.42	1617	-0.64	29	1.56	971	-0.70	4A	ES	
COMLAB	128	3.00	74	-0.34	2270	1.10	3930	-0.19	1610	1.03	481	0.14	16	-0.71	1710	0.69	19	-0.30	999	0.21	4A	ES	
COMLAB	101	0.96	69	-0.60	2260	1.01	3850	-1.03	1530	0.09	490	0.59	13	-1.99	1680	0.26	22	0.26	998	0.18	4A	ES	
COMLAB	86	-1.04	73	-0.40	2280	1.19	3850	-1.03	1660	1.62	504	1.29	15	-1.14	1700	0.55	20	-0.11	978	-0.47	4A	ES	
COMLAB	96	0.29	64	-0.86	2150	-0.02	3820	-1.34	1500	-0.27	453	-1.26	17	-0.29	1610	-0.74	18	-0.49	973	-0.63	4A	ES	
COMLAB	97	0.43	113	1.65	2330	1.66	4080	1.37	1635	1.33	508	1.49	20	0.99	1790	1.84	19	-0.30	1015	0.73	4A	ICP	
COMLAB	104	1.36	81	0.01	2138	-0.14	3913	-0.37	1477	-0.54	468	-0.51	19	0.57	1658	-0.05	12	-1.60	978	-0.47	4A	ES	
COMLAB	98	0.56	64	-0.86	2260	1.01	4010	0.64	1570	0.56	483	0.24	15	-1.14	1740	1.12	18	-0.49	975	-0.57	4A	ES	
COMLAB	119	3.00	103	1.14	2127	-0.24	4210	2.72	1529	0.07	411	-3.00	15	-1.14	1795	1.91	21	-3.00	1058	2.12	4A	ES	
COMLAB	88	-0.77	96	0.78	2220	0.63	3910	-0.40	1560	0.44	481	0.14	16	-0.71	1700	0.55	20	-0.11	961	-1.02	4A	ES	
COMLAB	97	0.43	86	0.27	2138	-0.14	3909	-0.41	1563	0.48	494	0.79	16	-0.71	1653	-0.12	19	-0.30	991	-0.05	4A	ES	
COMLAB	107	1.76	102	1.09	2330	1.66	3940	-0.09	1730	2.45	490	0.59	16	-0.71	1800	1.99	18	-0.49	996	0.11	4A	ES	
COMLAB	90	-0.51	83	0.12	2180	0.26	3950	0.02	1540	0.20	496	0.89	20	0.99	1730	0.98	35	2.68	987	-0.18	4A	ES	
COMLAB	90	-0.51	54	-1.37	2300	1.38	3900	-0.50	1520	-0.03	475	-0.16	16	-0.71	1640	-0.31	22	0.26	965	-0.89	4A	ES	
COMLAB	87	-0.90	77	-0.18	2260	1.01	3870	-0.82	1640	1.39	492	0.69	14	-1.48	1710	0.69	18	-0.56	1020	0.89	4A	MS	
COMLAB	97	0.43	122	2.12	6135	3.00	3888	-0.63	1403	-1.42	440	-1.91	1999	3.00	1544	-1.69	21	0.07	959	-1.08	5A	ES	
COMLAB	97	0.37	163	3.00	2061	-0.86	3782	-1.74	1463	-0.71	440	-1.89	17	-0.41	1622	-0.58	21	0.02	984	-0.29	4A	ICP	
COMLAB	85	-1.17	65	-0.81	2130	-0.21	3850	-1.03	1480	-0.51	462	-0.81	18	0.14	1660	-0.02	21	0.07	1020	0.89	4A	ES	
COMLAB	95	0.16	111	1.55	2165	0.12	4084	1.41	1546	0.27	513	1.74	28	3.00	1659	-0.04	29	1.56	1025	1.05	4A	AAS	
COMLAB	131	3.00	94	0.68	2192	0.37	4051	1.07	1569	0.55	507	1.44	39	3.00	1651	-0.15	33	2.31	1020	0.89	4A	AAS	
COMLAB	<100	bid	<100	bid	2140	-0.12	3890	-0.61	1520	-0.03	470	-0.41	41	<100	bid	1670	0.12	<100	bid	1030	1.21	4A	AAS
COMLAB	112	2.42	90	0.48	2048	-0.98	3953	0.05	1505	-0.21	488	0.54	23	2.27	1646	-0.22	30	1.75	1032	1.28	4A	AAS	
COMLAB	89	-0.64	114	1.71	2161	0.08	3962	0.14	1518	-0.06	488	0.49	31	3.00	1659	-0.04	22	0.26	1032	1.28	4A	AAS	
COMLAB	86	-1.04	60	-1.06	2140	-0.12	3880	-0.71	1480	-0.51	458	-1.01	16	-0.71	1690	0.41	20	-0.11	1000	0.24	4A	ES	
COMLAB	97	0.43	68	-0.65	2202	0.46	3869	-0.83	1652	1.53	457	-1.06	17	-0.29	1404	-3.00	17	-0.67	993	0.02	4A	ES	
COMLAB	92	-0.24	73	-0.40	2078	-0.70	3987	0.40	1456	-0.79	472	-0.31	25	3.00	1612	-0.71	33	2.31	965	-0.89	4A	ES	
COMLAB	88	-0.77	63	-0.91	2140	-0.12	3868	-0.84	1503	-0.23	477	-0.06	17	-0.29	1656	-0.08	21	0.07	999	0.21	4A	MS	
COMLAB	90	-0.51	76	-0.24	2106	-0.44	3890	-0.61	1542	0.23	460	-0.91	24	2.70	1672	0.15	12	-1.60	1002	0.31	4A	ES	
COMLAB	98	0.56	nr	nr	2180	0.26	4071	1.28	1547	0.29	482	0.19	18	0.10	1666	0.06	21	0.02	1014	0.70	4A	AAS	
COMLAB	87	-0.90	56	-1.27	2060	-0.87	3960	0.12	1590	0.80	505	1.34	19	0.57	1780	1.70	15	-1.05	973	-0.63	4A	ICP	
COMLAB	154	3.00	92	0.58	2310	1.48	3920	-0.30	1650	1.51	624	3.00	78	3.00	1640	-0.31	129	3.00	957	-1.15	4A	AAS	
COMLAB	80	-1.84	bid	bid	2217	0.60	4098	1.56	1610	1.03	453	-1.24	14	bid	bid	1743	1.17	bid	bid	1017	0.78	4A	ES
COMLAB	95	0.16	67	-0.70	2190	0.35	3927	-0.22	1568	0.53	494	0.79	16	-0.71	1748	1.24	19	-0.30	942	-1.63	4A	ES	
COMLAB	98	0.61	88	0.37	2120	-0.31	4060	1.16	1560	0.44	480	0.09	16	-0.63	1650	-0.17	21	0.11	1060	2.18	4A	MS	
COMLAB	130	3.00	65	-0.81	2102	-0.47	3882	-0.69	1506	-0.20	463	-0.76	14	-1.56	1667	0.08	22	0.26	987	-0.18	4A	ES	
COMLAB	84	-1.30	62	-0.96	2266	1.06	3880	-0.71	1563	0.48	478	-0.01	16	-0.71	1732	1.01	9	-2.16	994	0.05	4A	ES	
COMLAB	101	0.96	92	0.58	2190	0.35	3969	0.21	1539	0.19	492	0.69	15	-1.14	1669	0.11	26	1.01	1010	0.57	4A	AAS	
COMLAB	96	0.29	77	-0.19	2080	-0.68	3910	-0.40	1380	-1.69	457	-1.06	16	-0.71	1650	-0.17	17	-0.67	979	-0.44	4A	ES	
COMLAB	86	-1.04	63	-0.91	2096	-0.53	3916	-0.34	1503	-0.23	470	-0.41	16	-0.71	1664	0.03	18	-0.49	972	-0.66	4A	ICP	
COMLAB	89	-0.68	130	2.54	2190	0.35	4049	1.05	1558	0.42	453	-1.28	21	1.33	1581</								

Standard Deviations

Standard Deviations



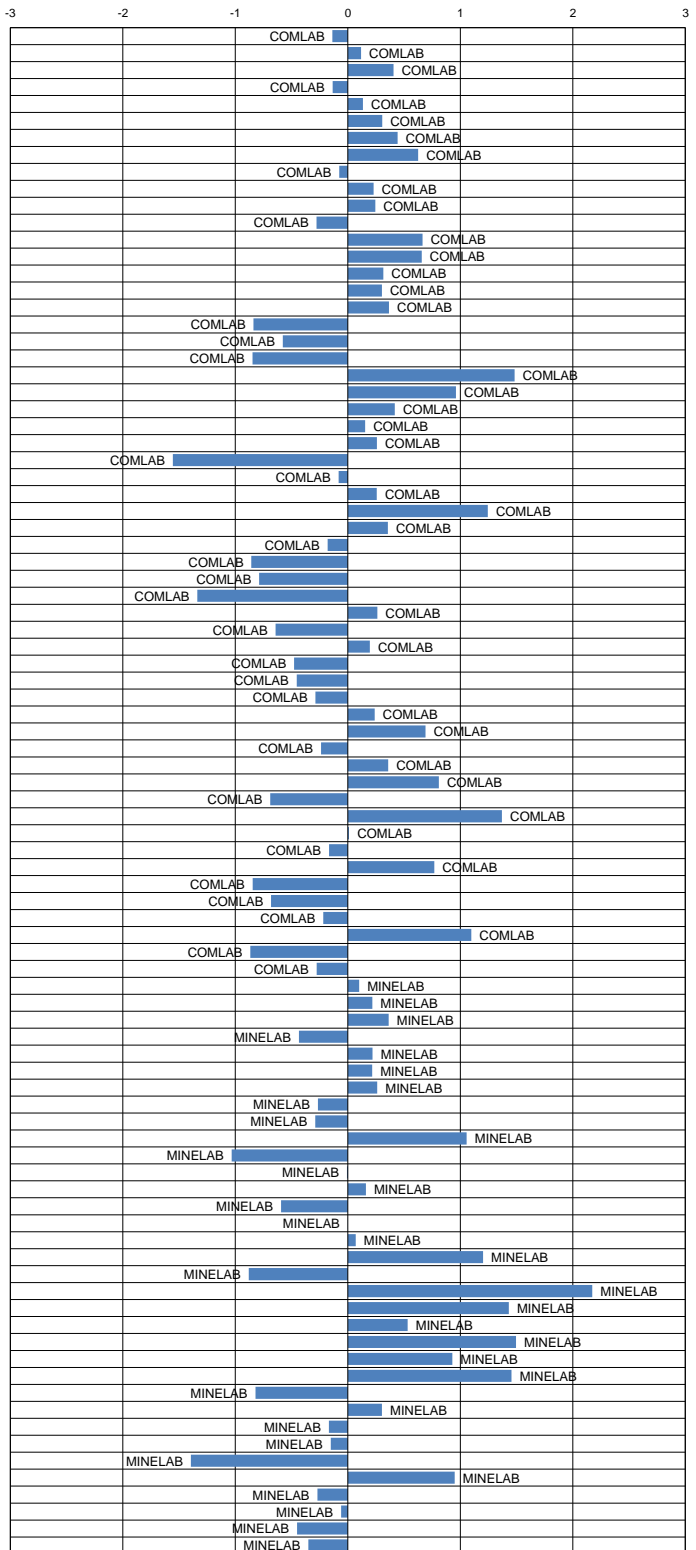
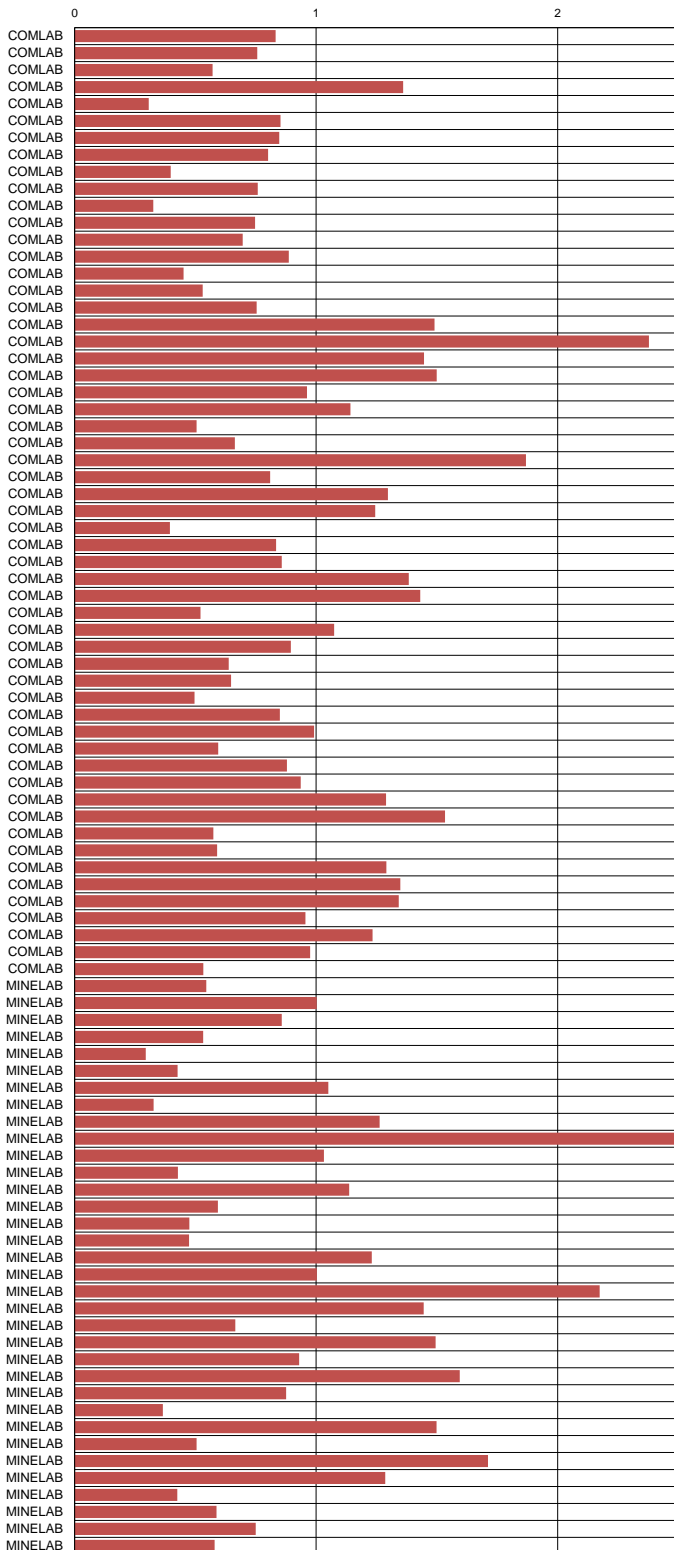
Copper (Partial Digest) Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GBM918-1	GBM918-2	GBM918-3	GBM918-4	GBM918-5	GBM918-6	GBM918-7	GBM918-8	GBM918-9	GBM918-10
MEAN (ppm)	91	80	2094	3933	1510	474	16	1629	18	995
STDEV (ppm)	11	14	114	131	94	30	2	81	4	48
95% CI (ppm)	2	3	24	28	20	6	1	17	1	10
95% CI (%)	2.74%	3.91%	1.15%	0.72%	1.33%	1.36%	3.68%	1.05%	4.83%	1.02%
MIN (ppm)	68	53	1805	3567	1299	393	10	1428	8	891
MEDIAN (ppm)	91	79	2098	3936	1502	475	16	1636	18	990
MAX (ppm)	121	111	2363	4290	1734	546	22	1790	27	1123
IQR (ppm)	16	20	137	168	109	36	3	97	4	41
COUNT	78	77	88	84	86	86	68	87	70	87

Standard Reference	GBM918-1		GBM918-2		GBM918-3		GBM918-4		GBM918-5		GBM918-6		GBM918-7		GBM918-8		GBM918-9		GBM918-10		Method	Reading
Lab Reference	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
COMLAB	144	3.00	64	-1.16	2070	-0.21	3810	-0.94	1430	-0.84	460	-0.47	16	0.16	1600	-0.36	15	-0.85	1010	0.31	AR	ICP
COMLAB	113	1.98	102	1.56	2057	-0.33	3913	-0.16	1402	-1.14	452	-0.73	17	0.58	1609	-0.25	16	-0.59	1007	0.25	AR	MS
COMLAB	115	2.15	101	1.49	2133	0.34	3990	0.43	1481	-0.30	469	-0.17	16	0.16	1605	-0.30	18	-0.05	1010	0.31	AR	ICP
COMLAB	91	0.00	84	0.27	1930	-1.44	4360	3.00	1450	-0.63	518	1.44	19	1.41	1480	-1.84	13	-1.39	891	-2.17	AR	ICP
COMLAB	95	0.36	81	0.06	2066	-0.25	4012	0.60	1485	-0.26	469	-0.17	16	0.16	1620	-0.11	22	1.03	992	-0.06	AR	AAS
COMLAB	79	-1.07	94	0.99	2150	0.49	3880	-0.41	1630	1.28	505	1.01	14	-0.67	1790	1.99	16	-0.59	997	0.04	AR	ES
COMLAB	87	-0.35	109	2.06	2180	0.75	4130	1.50	1560	0.53	500	0.85	13	-1.09	1665	0.44	16	-0.59	1010	0.31	AR	ES
COMLAB	102	0.99	68	-0.88	2280	1.62	4000	0.51	1590	0.85	500	0.85	16	0.16	1760	1.61	19	0.22	1010	0.31	AR	ICP
COMLAB	87	-0.35	85	0.34	2094	0.00	4074	1.07	1507	-0.03	462	-0.40	16	0.16	1632	0.03	13	-1.39	986	-0.19	AR	ES
COMLAB	99	0.72	62	-1.31	2220	1.10	4010	0.58	1590	0.85	495	0.68	15	-0.25	1710	1.00	16	-0.59	971	-0.50	AR	ES
COMLAB	90	-0.09	88	0.56	2113	0.16	3950	0.13	1522	0.13	508	1.11	16	0.16	1671	0.52	17	-0.32	990	0.08	AR	ES
COMLAB	83	-0.71	53	-1.95	2150	0.49	3810	-0.94	1580	0.75	477	0.09	14	-0.67	1710	1.00	15	-0.85	996	0.02	AR	ES
COMLAB	104	1.17	78	-0.16	2250	1.36	4000	0.51	1555	0.48	491	0.55	16	0.16	1755	1.55	20	0.49	1020	0.52	AR	ES
COMLAB	90	-0.09	67	-0.95	2170	0.66	4130	1.50	1620	1.17	499	0.82	nr	nr	1690	0.75	20	0.49	1070	1.56	AR	AAS
COMLAB	87	-0.35	89	0.63	2150	0.49	4020	0.66	1600	0.96	500	0.85	15	-0.25	1650	0.26	18	-0.05	994	-0.02	AR	AAS
COMLAB	83	-0.71	85	0.34	2220	1.10	3930	-0.03	1560	0.53	491	0.55	17	0.58	1715	1.06	18	-0.05	978	-0.35	AR	ES
COMLAB	100	0.79	86	0.39	2210	1.01	3890	-0.33	1610	1.06	513	1.28	13	-1.13	1710	1.00	16	-0.48	998	0.06	AR	MS
COMLAB	92	0.09	134	3.00	1840	-2.23	3870	-0.48	1138	-3.00	410	-2.11	16	0.16	1428	-2.49	14	-1.12	985	-0.21	AR	ES
COMLAB	533	3.00	57	-1.66	1870	-1.96	3252	-3.00	1370	-1.48	568	3.00	14	-0.67	1366	-3.00	101	3.00	776	-3.00	AR	AAS
COMLAB	78	-1.16	155	3.00	1892	-1.77	3749	-1.40	1307	-2.15	402	-2.38	14	-0.61	1610	-0.24	17	-0.43	932	-1.31	AR	ICP
COMLAB	116	2.24	129	3.00	2139	0.39	3999	0.50	1502	-0.08	512	1.24	39	3.00	1691	0.76	35	3.00	1032	0.77	3A	AAS
COMLAB	121	2.67	85	0.35	2146	0.45	4077	1.10	1617	1.14	508	1.12	19	1.54	1654	0.31	21	0.87	1000	0.09	3A	AAS
COMLAB	144	3.00	87	0.49	1954	-1.23	3964	0.23	1729	2.33	468	-0.21	18	1.00	1491	-1.71	21	0.76	972	-0.48	AR	ES
COMLAB	95	0.36	75	-0.37	2101	0.06	3805	-0.98	1499	-0.11	473	-0.04	20	1.83	1652	0.28	21	0.76	983	-0.25	AR	ES
COMLAB	142	3.00	85	0.34	2090	-0.04	3946	0.10	1501	-0.09	435	-1.29	16	0.16	1671	0.52	20	0.49	966	-0.60	AR	AAS
COMLAB	72	-1.70	75	-0.37	1805	-2.53	3341	-3.00	1310	-2.12	393	-2.67	14	-0.67	1544	-1.05	24	1.57	835	-3.00	AR	ES
COMLAB	79	-1.11	109	2.06	2102	0.07	3871	-0.48	1550	0.43	474	0.00	10	-2.21	1687	0.71	17	-0.21	nr	nr	AR	ES
COMLAB	79	-1.07	68	-0.88	1946	-1.30	3753	-1.38	1510	0.00	473	-0.04	26	3.00	1586	-0.53	26	2.10	1123	2.67	AR	AAS
COMLAB	106	1.35	95	1.06	2272	1.55	4197	2.01	1630	1.28	505	1.01	16	0.16	1775	1.80	20	0.49	1078	1.73	AR	AAS
COMLAB	94	0.27	92	0.84	2174	0.70	3989	0.42	1543	0.35	486	0.39	16	0.16	1661	0.39	19	0.22	986	-0.19	AR	ES
COMLAB	84	-0.60	123	3.00	2119	0.21	3941	0.06	1474	-0.38	431	-1.41	14	-0.63	1569	-0.74	18	-0.02	933	-1.28	AR	ES
COMLAB	72	-1.70	73	-0.52	2054	-0.35	3818	-0.88	1471	-0.41	459	-0.50	15	-0.25	1595	-0.42	2	-3.00	969	-0.54	AR	ES
COMLAB	90	-0.09	69	-0.80	1871	-1.96	3649	-2.17	1384	-1.33	434	-1.32	19	1.41	1511	-1.46	24	1.57	912	-1.73	AR	AAS
COMLAB	93	0.22	84	0.25	1459	-3.00	3755	-1.36	1136	-3.00	411	-2.09	13	-0.92	1465	-2.03	16	-0.56	953	-0.88	AR	MS
COMLAB	93	0.18	89	0.63	2180	0.75	3968	0.26	1572	0.66	495	0.68	15	-0.25	1690	0.75	15	-0.85	986	-0.19	AR	ES
COMLAB	98	0.63	72	-0.59	1969	-1.10	3993	0.45	1136	-3.00	458	-0.53	17	0.58	1448	-2.24	20	0.49	941	-1.12	AR	AAS
COMLAB	100	0.81	101	1.49	2095	0.00	3900	-0.25	1491	-0.20	465	-0.30	20	1.83	1657	0.34	8	-2.74	1042	0.98	3A	ICP
COMLAB	93	0.18	74	-0.45	2060	-0.30	3986	0.40	1376	-1.42	434	-1.32	14	-0.67	1538	-1.13	19	0.22	981	-0.29	AR	ES
COMLAB	101	0.86	63	-1.21	1994	-0.88	3801	-1.01	1439	-0.75	463	-0.37	14	-0.50	1638	0.11	18	-0.07	960	-0.73	AR	ICP
COMLAB	95	0.36	71	-0.66	1993	-0.89	3763	-1.30	1465	-0.47	490	0.52	16	0.16	1593	-0.45	18	-0.05	990	-0.10	3A	AAS
COMLAB	85	-0.52	68	-0.86	2192	0.85	3994	0.46	1634	1.32	520	1.51	15	-0.34	1735	1.31	14	-1.12	985	-0.21	AR	ES
COMLAB	131	3.00	97	1.18	2193	0.86	3766	-1.28	1550	0.43	487	0.41	17	0.45	1715	1.06	22	1.01	984	-0.23	AR	AAS
COMLAB	96	0.48	57	-1.65	2081	-0.12	3856	-0.59	1471	-0.41	462	-0.41	13	-0.99	1683	0.66	20	0.49	1002	0.15	3A	AAS
COMLAB	99	0.72	110	2.13	2165	0.62	4031	0.74	1660	1.59	460	-0.47	15	-0.25	1660	0.38	14	-1.15	960	-0.73	AR	AAS
COMLAB	101	0.90	82	0.13	2200	0.92	4160	1.73	1450	-0.63	475	0.03	19	1.41	1700	0.87	21	0.76	1090	1.98	AR	ES
COMLAB	85	-0.53	70	-0.73	1920	-1.53	3870	-0.48	1330	-1.90	424	-1.65	25	3.00	1550	-0.98	16	-0.59	923	-1.50	AR	MS
COMLAB	120	2.60	130	3.00	2170	0.66	3840	-0.71	1500	-0.10	495	0.68	25	3.00	1630	0.01	40	3.00	1070	1.56	AR	ES
COMLAB	93	0.15	69	-0.83	2161	0.58	3953	0.15	1582	0.77	499	0.82	11	-1.79	1614	-0.19	19	0.19	1008	0.27	AR	ES
COMLAB	84	-0.60	79	-0.09	2181	0.76	3950	0.13	1543	0.35	498	0.78	15	-0.25	1637	0.10	9	-2.47	977	-0.37	3A	AAS</

Standard Deviations

Standard Deviations



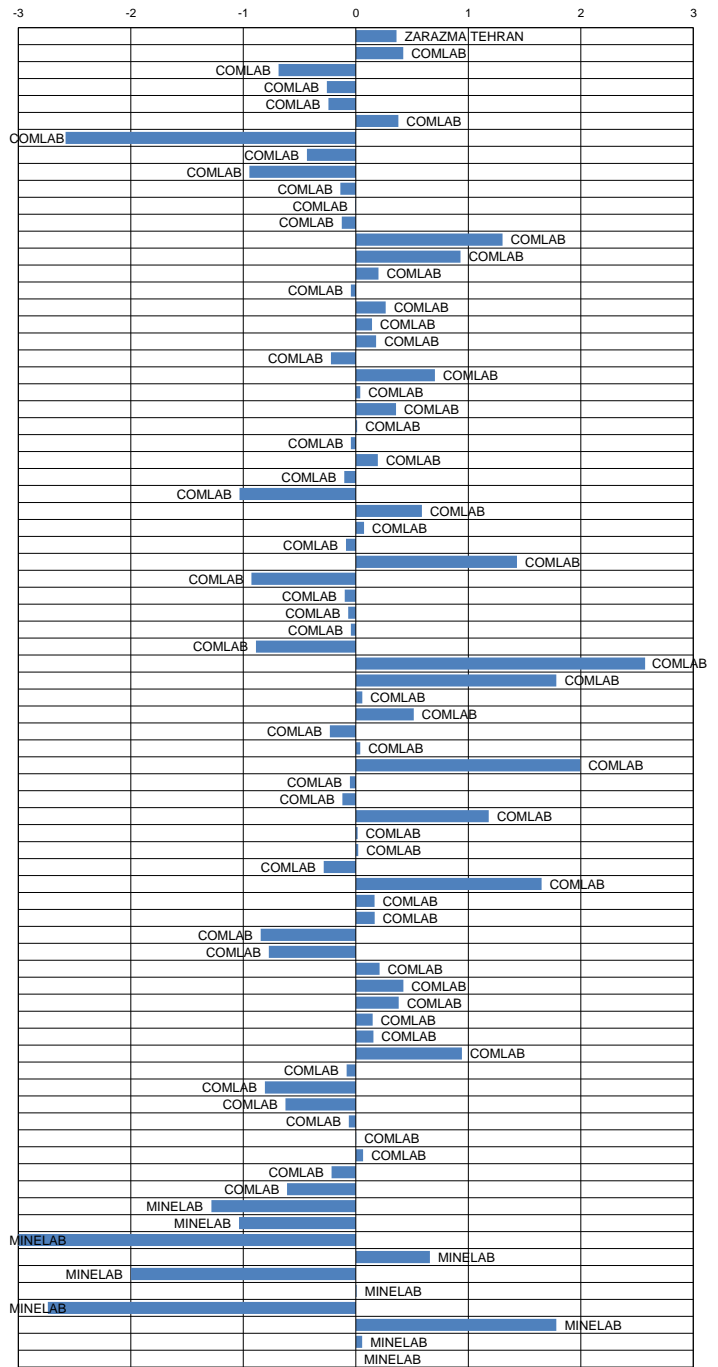
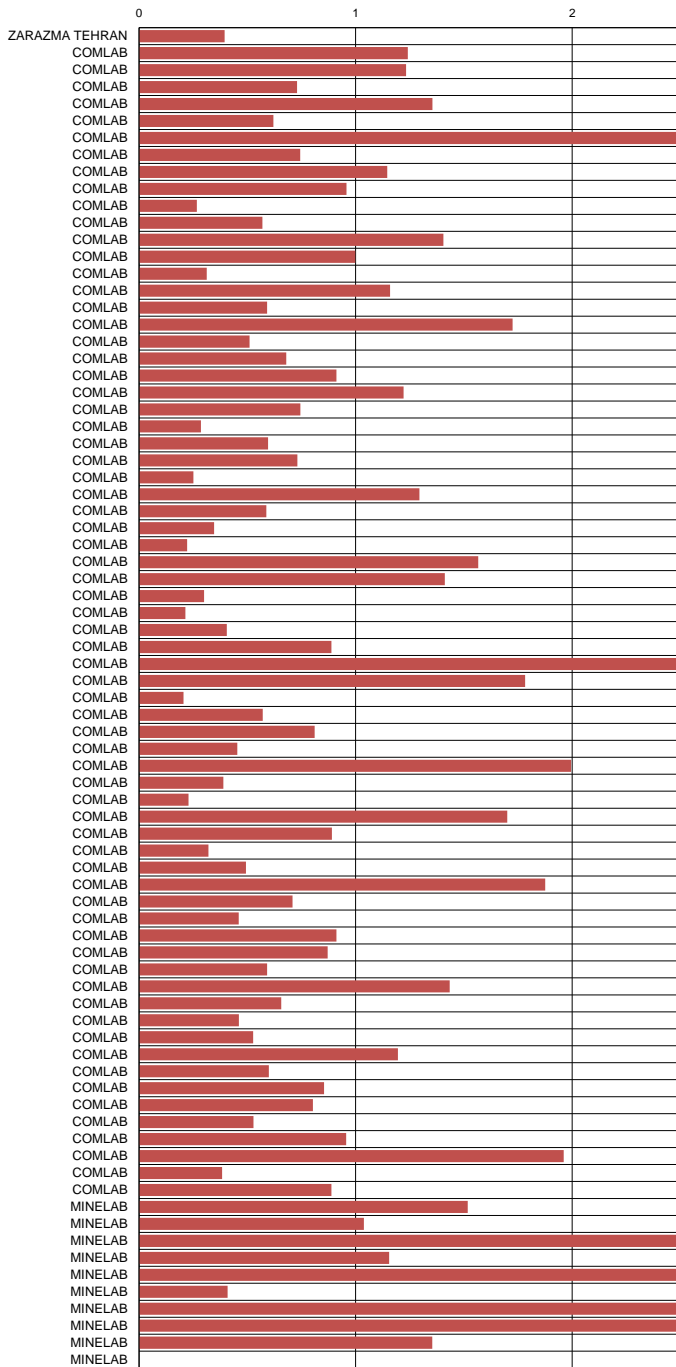
Lead (Total Digest) Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GBM918-1	GBM918-2	GBM918-3	GBM918-4	GBM918-5	GBM918-6	GBM918-7	GBM918-8	GBM918-9	GBM918-10
MEAN (ppm)	75	65	21	439	18	5	22	13	16	10
STDEV (ppm)	12	10	3	21	3	2	4	3	5	3
95% CI (ppm)	3	2	1	5	1	1	1	1	1	1
95% CI (%)	3.86%	3.62%	4.10%	1.12%	4.51%	11.23%	3.99%	5.69%	7.14%	7.60%
MIN (ppm)	48	41	12	381	11	0	13	5	5	3
MEDIAN (ppm)	74	64	21	442	18	5	23	13	17	10
MAX (ppm)	103	93	29	487	26	10	32	21	27	17
IQR (ppm)	16	12	2	27	4	2	4	2	5	2
COUNT	67	68	63	71	64	55	67	62	62	60

Standard Reference	GBM918-1		GBM918-2		GBM918-3		GBM918-4		GBM918-5		GBM918-6		GBM918-7		GBM918-8		GBM918-9		GBM918-10		Method	Reading
	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
ZARAZMA TEHRAN	96	1.79	71	0.56	22	0.18	447	0.41	17	-0.16	5	0.08	24	0.32	14	0.34	17	0.00	10	0.11	4A	ES
COMLAB	60	-1.23	80	1.47	<30	blid	460	1.02	<30	blid	<30	blid	<30	blid	<30	blid	<30	blid	<30	blid	4A	ICP
COMLAB	103	2.37	59	-0.65	17	-1.13	370	-3.00	12	-1.81	6	0.35	19	-0.90	11	-0.71	16	-0.10	6	-1.30	4A	ES
COMLAB	67	-0.64	57	-0.85	19	-0.55	414	-1.17	19	0.32	6	0.35	16	-1.71	15	0.64	21	0.96	10	0.08	4A	ICP
COMLAB	54	-1.73	93	2.79	14	-2.00	445	0.31	13	-1.51	7	0.81	20	-0.63	18	1.65	11	-1.17	7	-0.95	4A	ICP
COMLAB	119	3.00	68	0.26	22	0.32	422	-0.79	17	-0.29	5	-0.10	24	0.46	13	-3.00	19	0.54	11	0.42	4A	AAS
COMLAB	48	-2.26	41	-2.44	6	-3.00	422	-0.80	5	-3.00	0	-2.32	0	-3.00	0	-3.00	0	-3.00	0	-3.00	4A	ES
COMLAB	84	0.78	68	0.26	14	-2.00	422	-0.79	14	-1.20	3	-0.97	23	0.19	11	-0.71	18	0.32	9	-0.22	4A	ES
COMLAB	68	-0.56	67	0.12	23	0.67	411	-1.31	12	-1.75	1	-1.88	23	0.21	8	-1.58	9	-1.70	5	-1.67	4A	ES
COMLAB	81	0.53	63	-0.25	23	0.61	434	-0.22	22	1.24	9	1.72	20	-0.63	13	-0.03	7	-2.02	3	-2.33	4A	ES
COMLAB	76	0.11	62	-0.35	19	-0.55	446	0.35	18	0.02	5	-0.10	21	-0.35	15	0.64	17	0.11	10	0.08	4A	ES
COMLAB	77	0.20	72	0.66	19	-0.55	452	0.64	16	-0.59	3	-1.01	23	0.19	12	-0.37	19	0.54	7	-0.95	4A	ES
COMLAB	115	3.00	102	3.00	25	1.19	428	-0.51	22	1.24	8	1.26	27	1.27	16	0.98	22	1.18	11	0.42	4A	ES
COMLAB	71	-0.31	99	3.00	25	1.19	447	0.40	26	2.46	6	0.35	24	0.46	13	-0.03	18	0.32	14	1.45	4A	ES
COMLAB	80	0.45	66	0.06	22	0.32	442	0.16	20	0.63	4	-0.56	24	0.46	14	0.30	17	0.11	10	0.08	4A	ICP
COMLAB	65	-0.81	77	1.17	29	2.36	425	-0.65	22	1.24	7	0.81	17	-1.44	10	-1.04	8	-1.81	9	-0.27	4A	ES
COMLAB	74	-0.06	68	0.26	20	-0.26	468	1.41	18	0.02	3	-1.01	26	1.00	13	-0.03	24	1.60	9	-0.27	4A	ES
COMLAB	95	1.70	60	-0.55	24	0.90	375	-3.00	21	0.94	<5	blid	15	-1.98	25	3.00	<5	blid	<5	blid	4A	ES
COMLAB	77	0.20	73	0.76	20	-0.26	437	-0.08	20	0.63	7	0.81	21	-0.35	16	0.98	12	-0.96	10	0.08	4A	ES
COMLAB	102	2.29	63	-0.25	17	-1.13	417	-1.03	13	-1.51	5	-0.10	22	-0.08	13	-0.03	16	-0.10	9	-0.27	4A	ES
COMLAB	86	0.95	107	3.00	22	0.32	457	0.88	20	0.63	6	0.35	22	-0.08	16	0.98	21	0.96	7	-0.95	4A	ES
COMLAB	69	-0.48	100	3.00	17	-1.13	445	0.31	15	-0.90	5	-0.10	20	-0.63	25	3.00	10	-1.38	6	-1.30	4A	ES
COMLAB	90	1.28	61	-0.45	20	-0.26	456	0.83	22	1.24	5	-0.10	22	-0.08	10	-1.04	23	1.39	12	0.76	4A	ES
COMLAB	67	-0.63	69	0.35	20	-0.20	444	0.26	18	0.02	nr	nr	23	0.13	12	-0.27	19	0.43	nr	nr	4A	MS
COMLAB	65	-0.81	56	-0.96	20	-0.26	481	2.03	17	-0.29	6	0.35	21	-0.35	14	0.30	14	-0.53	10	0.08	5A	ES
COMLAB	112	3.00	76	1.09	20	-0.20	417	-1.03	16	-0.71	4	-0.37	24	0.35	12	-0.27	17	0.20	10	-0.10	4A	ICP
COMLAB	68	-0.56	63	-0.25	22	0.32	423	-0.74	18	0.02	5	-0.10	22	-0.08	13	-0.03	18	0.32	10	0.08	4A	MS
COMLAB	75	0.03	71	0.56	10	-3.00	444	0.26	7	-3.00	2	-1.47	24	0.46	7	-2.05	11	-1.17	7	-0.95	4A	AAS
COMLAB	nr	nr	75	0.95	nr	nr	443	0.23	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	4A	AAS
COMLAB	77	0.17	70	0.46	<40	blid	430	-0.41	<40	blid	<40	blid	<40	blid	<40	blid	<40	blid	<40	blid	4A	AAS
COMLAB	70	-0.43	65	0.00	21	0.03	427	-0.55	18	-0.13	5	-0.19	22	0.00	13	-0.17	20	0.64	10	-0.06	4A	MS
COMLAB	75	0.03	97	3.00	40	3.00	437	-0.08	16	-0.59	16	3.00	23	0.19	14	0.30	46	3.00	17	2.48	4A	ES
COMLAB	98	1.95	67	0.16	12	-2.59	440	0.07	11	-2.12	<5	blid	20	-0.63	6	-2.39	11	-1.17	5	-1.64	4A	ES
COMLAB	67	-0.64	64	-0.15	21	0.03	425	-0.85	18	0.02	5	-0.10	22	-0.08	12	-0.37	19	0.54	11	0.42	4A	MS
COMLAB	75	0.03	62	-0.35	21	0.03	445	0.31	<20	blid	<20	blid	21	-0.35	<20	blid	<20	blid	<20	blid	4A	ES
COMLAB	nr	nr	nr	nr	18	-0.73	458	0.93	16	-0.71	<5	blid	22	0.00	13	0.04	18	0.30	9	-0.13	4A	AAS
COMLAB	69	-0.48	54	-1.16	<25	blid	417	-1.03	<25	blid	<25	blid	<25	blid	<25	blid	<25	blid	<25	blid	4A	ICP
COMLAB	127	3.00	78	1.27	91	3.00	448	0.45	67	3.00	185	3.00	60	3.00	175	3.00	192	3.00	34	3.00	4A	AAS
COMLAB	95	1.66	81	1.54	29	2.27	487	2.29	24	1.85	9	1.76	27	1.14	19	1.99	24	1.60	15	1.72	4A	ES
COMLAB	79	0.36	66	0.06	22	0.32	444	0.26	18	0.02	5	-0.10	23	0.19	12	-0.37	17	0.11	9	-0.27	4A	ES
COMLAB	85	0.90	73	0.76	22	0.21	482	2.07	19	0.20	5	-0.28	23	0.24	13	0.04	20	0.79	10	0.21	4A	MS
COMLAB	83	0.70	62	-0.35	16	-1.42	446	0.35	14	-1.20	<5	blid	25	0.73	8	-1.72	20	0.75	10	0.08	4A	ES
COMLAB	64	-0.90	82	1.68	21	-0.06	436	-0.11	17	-0.38	5	-0.19	23	0.05	12	-0.30	20	0.73	9	-0.13	4A	MS
COMLAB	96	1.79	77	1.17	28	2.07	451	0.59	26	2.46	19	3.00	27	1.27	30	3.00	24	1.60	23	3.00	4A	AAS
COMLAB	66	-0.73	61	-0.45	20	-0.26	461	1.07	17	-0.29	5	-0.10	21	-0.35	13	-0.03	19	0.54	10	0.08	4A	MS
COMLAB	66	-0.73	63	-0.25	20	-0.26	440	0.07	18	0.02	5	-0.10	24	0.46	13	-0.03	16	-0.10	9	-0.27	4A	ICP
COMLAB	124	3.00	55	-1.07	36	3.00	454	0.76	17	-0.16	9	1.72	28	1.49	42	3.00	10	-1.36	14	1.45	4A	ES
COMLAB	60	-1.23	86	2.08	21	0.03	456	0.83	18	0.02	8	1.26	22	-0.08	14	0.30	5	-2.45	8	-0.61	4A	ES
COMLAB	61	-1.18	69	0.39	21	0.06	433	-0.27	18	-0.04	5	-0.01	26	1.08	13	0.07	17	0.07	10	0.04	4A	ICP
COMLAB	61	-1.15	54	-1.12	20	-0.17	455	0.79	17	-0.32	4	-0.46	23	0.13	12	-0.34	17	0.11	9	-0.34	4A	MS
COMLAB	88	1.15	90	2.48	47	3.00	475	1.76	24	1.85	21	3.00	20	-0.73	21	2.53	15	-0.39	15	1.88	4A	ES
COMLAB	74	-0.06	66	0.06	20	-0.26	440	0.07	15	-0.90	2	-1.47	25	0.73	13	-0.03	23	1.39				

Standard Deviations

Standard Deviations



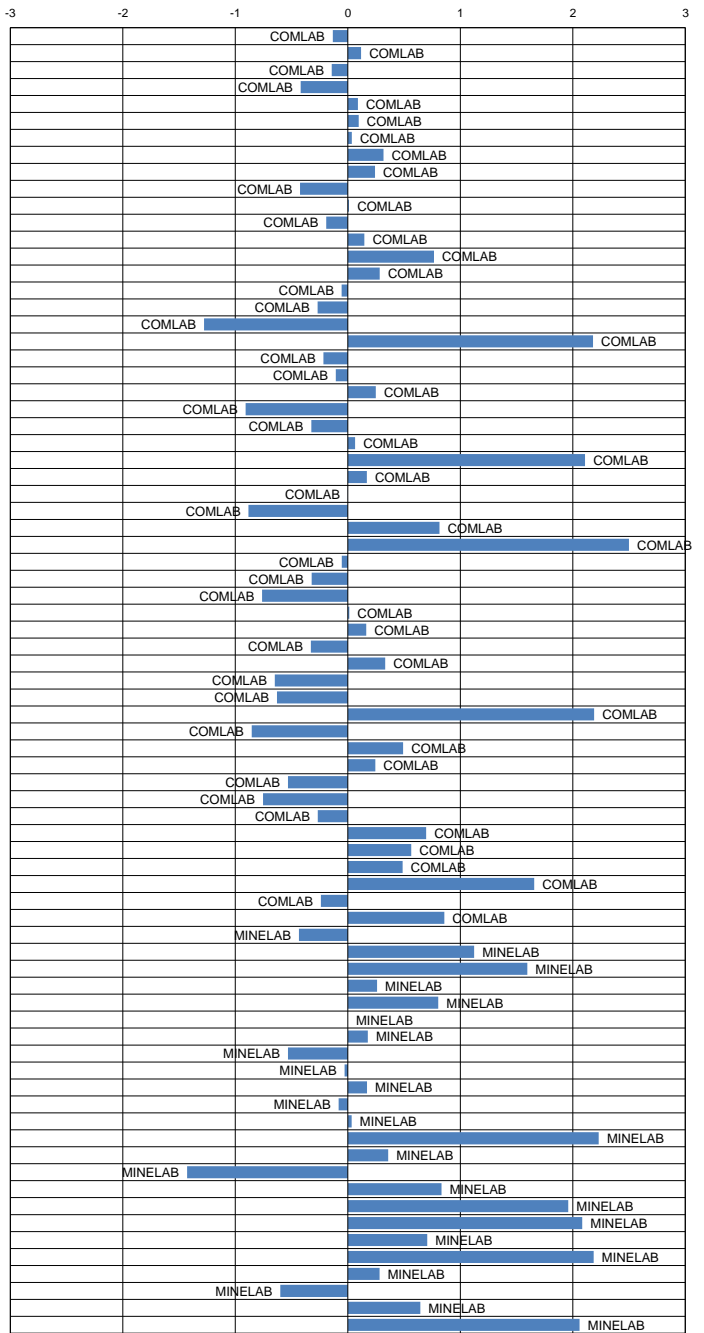
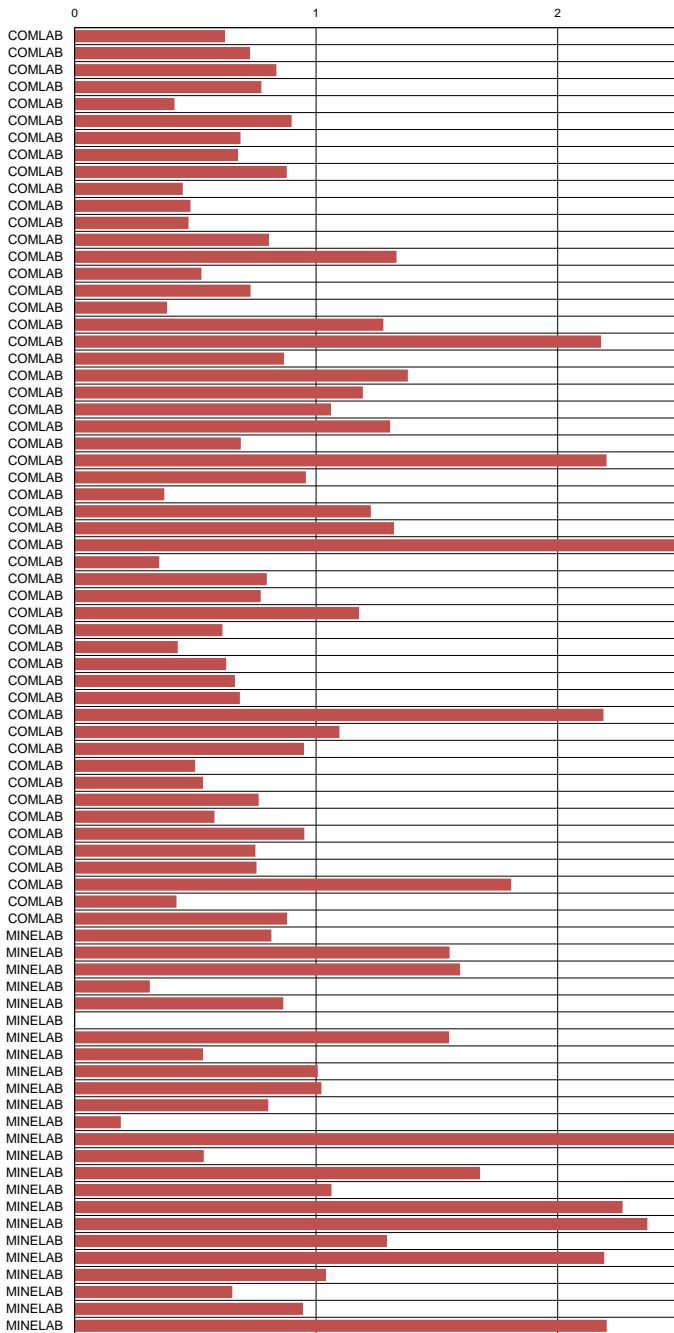
Lead (Partial Digest) Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GBM918-1	GBM918-2	GBM918-3	GBM918-4	GBM918-5	GBM918-6	GBM918-7	GBM918-8	GBM918-9	GBM918-10
MEAN (ppm)	81	65	20	368	17	5	13	11	12	6
STDEV (ppm)	14	8	3	33	3	2	4	2	4	2
95% CI (ppm)	3	2	1	8	1	1	1	1	1	0
95% CI (%)	3.99%	3.10%	3.84%	2.06%	4.88%	11.51%	7.96%	5.96%	9.68%	7.80%
MIN (ppm)	60	50	14	302	11	1	3	6	1	4
MEDIAN (ppm)	79	64	20	364	17	5	12	11	12	6
MAX (ppm)	119	85	28	450	23	10	23	17	22	10
IQR (ppm)	20	12	3	38	3	2	5	2	2	2
COUNT	72	67	61	75	56	50	61	55	53	47

Standard Reference	GBM918-1		GBM918-2		GBM918-3		GBM918-4		GBM918-5		GBM918-6		GBM918-7		GBM918-8		GBM918-9		GBM918-10		Method	Reading	
Lab Reference	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score			
COMLAB	104	1.61	59	-0.71	19	-0.30	365	-0.08	15	-0.53	6	0.27	15	0.56	10	-0.45	7	-1.15	5	-0.56	AR	ICP	
COMLAB	97	1.11	59	-0.71	17	-0.96	363	-0.14	13	-1.18	6	0.27	19	1.56	11	-0.05	17	1.21	6	0.07	AR	MS	
COMLAB	70	-0.82	59	-0.71	17	-0.96	399	0.94	14	-0.86	5	-0.18	15	0.56	10	-0.45	8	-0.91	9	1.96	AR	ICP	
COMLAB	66	-1.11	75	1.21	15	-1.62	366	-0.05	16	-0.21	5	-0.18	15	0.56	10	-0.45	7	-1.15	4	-1.19	AR	ICP	
COMLAB	77	-0.32	58	-0.83	21	0.36	352	-0.47	18	0.44	7	0.72	13	0.06	12	0.35	14	0.50	6	0.07	AR	AAS	
COMLAB	84	0.18	147	3.00	19	-0.30	345	-0.68	19	0.77	6	0.27	10	-0.69	13	0.76	7	-1.15	4	-1.19	AR	ES	
COMLAB	100	1.32	80	1.81	21	0.36	367	-0.02	17	0.12	4	-0.63	10	-0.69	11	-0.05	9	-0.68	4	-1.19	AR	ES	
COMLAB	71	-0.75	71	0.73	23	1.03	375	0.22	17	0.12	7	0.72	10	-0.69	14	1.16	<2	bld	<2	bld	AR	ICP	
COMLAB	79	-0.18	58	-0.83	26	2.02	362	-0.17	21	1.42	6	0.27	11	-0.44	8	-1.26	<3.5	bld	8	1.33	AR	ES	
COMLAB	67	-1.03	61	-0.47	19	-0.30	366	-0.05	17	0.12	4	-0.63	11	-0.44	11	-0.05	11	-0.21	4	-1.19	AR	ES	
COMLAB	95	0.97	61	-0.47	21	0.36	400	0.97	17	0.12	5	-0.18	10	-0.69	10	-0.45	12	0.03	5	-0.56	AR	ES	
COMLAB	78	-0.25	62	-0.35	21	0.36	348	-0.59	19	0.77	6	0.27	10	-0.69	11	-0.05	11	-0.21	4	-1.19	AR	ES	
COMLAB	95	0.97	83	2.17	21	0.36	358	-0.29	16	-0.21	2	-1.53	13	0.06	8	-1.26	14	0.50	7	0.70	AR	ES	
COMLAB	116	2.47	57	-0.95	25	1.69	352	-0.47	20	1.09	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	AR	AAS	
COMLAB	86	0.32	70	0.61	23	1.03	369	0.04	21	1.42	6	0.27	11	-0.44	12	0.35	11	-0.21	5	-0.56	AR	AAS	
COMLAB	72	-0.68	61	-0.47	21	0.36	360	-0.23	15	-0.53	5	-0.18	11	-0.44	21	3.00	11	-0.21	4	-1.19	AR	ES	
COMLAB	86	0.34	66	0.12	18	-0.70	348	-0.59	16	-0.34	nr	nr	11	-0.56	10	-0.33	12	-0.09	nr	nr	AR	MS	
COMLAB	68	-0.96	57	-0.95	15	-1.62	221	-3.00	11	-1.83	4	-0.63	5	-1.93	9	-0.85	10	-0.44	5	-0.56	AR	ES	
COMLAB	96	1.04	73	0.97	28	2.68	432	1.94	29	3.00	17	3.00	27	3.00	21	3.00	17	1.21	9	1.96	AR	AAS	
COMLAB	64	-1.22	131	3.00	18	-0.48	326	-1.26	16	-0.31	4	-0.62	10	-0.80	11	-0.16	13	0.25	5	-0.57	AR	ICP	
COMLAB	74	-0.53	70	0.58	14	-2.05	450	2.46	12	-1.38	4	-0.85	25	3.00	6	-1.94	9	-0.68	6	0.32	3A		
COMLAB	80	-0.11	50	-1.78	22	0.70	313	-1.65	22	1.74	9	1.63	8	-1.18	14	1.16	20	1.92	6	0.07	AR	ES	
COMLAB	65	-1.18	70	0.61	17	-0.96	360	-0.23	11	-1.83	<5	bld	9	-0.94	6	-2.06	9	-0.68	<5	bld	AR	ES	
COMLAB	86	0.32	71	0.73	21	0.36	313	-1.65	26	3.00	2	-1.53	6	-1.68	9	-0.85	5	-1.62	<2	bld	AR	ES	
COMLAB	71	-0.72	72	0.85	22	0.70	323	-1.35	17	0.02	<10	bld	11	-0.42	13	0.56	16	0.88	nr	nr	AR	ES	
COMLAB	104	1.61	61	-0.47	45	3.00	389	0.64	38	3.00	20	3.00	18	1.31	38	3.00	29	3.00	32	3.00	AR	AAS	
COMLAB	92	0.75	78	1.57	17	-0.96	328	-1.19	16	-0.21	<10	bld	17	1.06	<10	bld	<10	bld	<10	bld	AR	AAS	
COMLAB	68	-0.96	64	-0.11	21	0.36	370	0.07	17	0.12	5	-0.18	15	0.56	11	-0.05	15	0.74	5	-0.56	AR	ES	
COMLAB	102	1.45	50	-1.75	20	0.10	302	-1.97	16	-0.27	3	-1.06	7	-1.44	8	-1.20	4	-1.81	<3	bld	AR	ES	
COMLAB	67	-1.03	64	-0.11	24	1.36	355	-0.38	<10	bld	<10	bld	21	2.06	<10	bld	49	3.00	<10	bld	AR	ES	
COMLAB	87	0.39	76	1.33	35	3.00	443	2.27	28	3.00	21	3.00	28	3.00	27	3.00	30	3.00	21	3.00	AR	AAS	
COMLAB	90	0.64	66	0.13	19	-0.43	380	0.58	16	-0.37	4	-0.54	14	0.21	10	-0.37	12	0.13	5	-0.31	AR	MS	
COMLAB	70	-0.82	59	-0.71	18	-0.63	375	0.22	14	-0.86	2	-1.53	12	-0.19	9	-0.85	18	1.45	7	0.70	AR	ES	
COMLAB	76	-0.39	51	-1.66	14	-1.95	369	0.04	13	-1.18	5	-0.18	11	-0.44	9	-0.85	10	-0.44	5	-0.56	AR	AAS	
COMLAB	119	2.68	63	-0.23	17	-0.96	334	-1.01	13	-1.18	1	-1.98	16	0.81	10	-0.45	22	2.40	6	0.07	3A	ICP	
COMLAB	70	-0.82	53	-1.42	22	0.70	376	0.25	19	0.77	6	0.27	15	0.56	13	0.76	14	0.50	6	0.07	AR	ES	
COMLAB	74	-0.54	58	-0.84	21	0.40	347	-0.62	17	0.08	4	-0.45	11	-0.44	11	-0.21	12	0.01	5	-0.69	AR	ICP	
COMLAB	82	0.04	64	-0.11	22	0.70	364	-0.11	18	0.44	7	0.72	18	1.31	8	-1.26	13	0.27	8	1.33	3A	AAS	
COMLAB	66	-1.13	52	-1.51	18	-0.50	346	-0.65	16	-0.21	4	-0.58	9	-0.84	10	-0.33	12	0.08	5	-0.81	AR	MS	
COMLAB	70	-0.81	52	-1.56	21	0.21	331	-1.10	17	0.06	4	-0.58	9	-0.97	9	-0.75	12	-0.03	5	-0.77	AR	AAS	
COMLAB	82	0.01	67	0.29	61	3.00	388	0.60	61	3.00	34	3.00	28	3.00	41	3.00	52	3.00	12	3.00	3A	AAS	
COMLAB	68	-0.96	73	0.97	18	-0.63	320	-1.43	11	-1.83	<5	bld	9	-0.94	9	-0.85	7	-1.15	<5	bld	AR	AAS	
COMLAB	75	-0.46	93	3.00	20	0.03	406	1.15	17	0.12	10	2.08	11	-0.44	13	0.76	6	-1.39	6	0.07	AR	ES	
COMLAB	75	-0.46	85	2.41	20	0.03	367	-0.02	18	0.44	5	-0.18	16	0.81	11	-0.05	12	0.03	5	-0.56	AR	MS	
COMLAB	<100	bld	<100	bld	<100	bld	350	-0.53	<100	bld	<100	bld	<100	bld	<100	bld	<100	bld	<100	bld	<100	AR	ES
COMLAB	71	-0.74	65	0.04	15	-1.79	332	-1.08	11	-1.90	4	-0.75	10	-0.63	11	-0.02	9	-0.62	6	-0.05	AR	ES	
COMLAB	62	-1.43	58	-0.85	21	0.50	383	0.47	17	0.18	3	-1.08	12	-0.29	11	-0.09	14	0.41	5	-0.50	2A	MS	
COMLAB	81	-0.03	61	-0.47	24	1.36	342	-0.77	22	1.74	10	2.08	13	0.06	15	1.56	15	0.74	7	0.70	AR	ES	
COMLAB	81	-0.03	59	-0.71	21	0.36	438	2.12	22	1.74	5	-0.18	14	0.31	12	0.35	16	0.98	7	0.70	AR	ES	
COMLAB	106	1.75	59	-0.71	20	0.03	434	2.00	18	0.44	5	-0.18	19	1.56	12	0.35	10	-0.44	6	0.07	3A	AAS	
COMLAB	72	-0.68	77	1.45	27	2.35	420	1.58	23	2.07	9	1.63	19	1.56	16	1.96	27	3.00	<5	bld	3A	AAS	
COMLAB	60	-1.53	60	-0.65	23	0.89	362	-0.17	17	0.02	5	-0.27	11	-0.39	11	-0.01	12	-0.09	6	-0.21	AR	MS	
COMLAB	95	0.97	64	-0.1																			

Standard Deviations

Standard Deviations



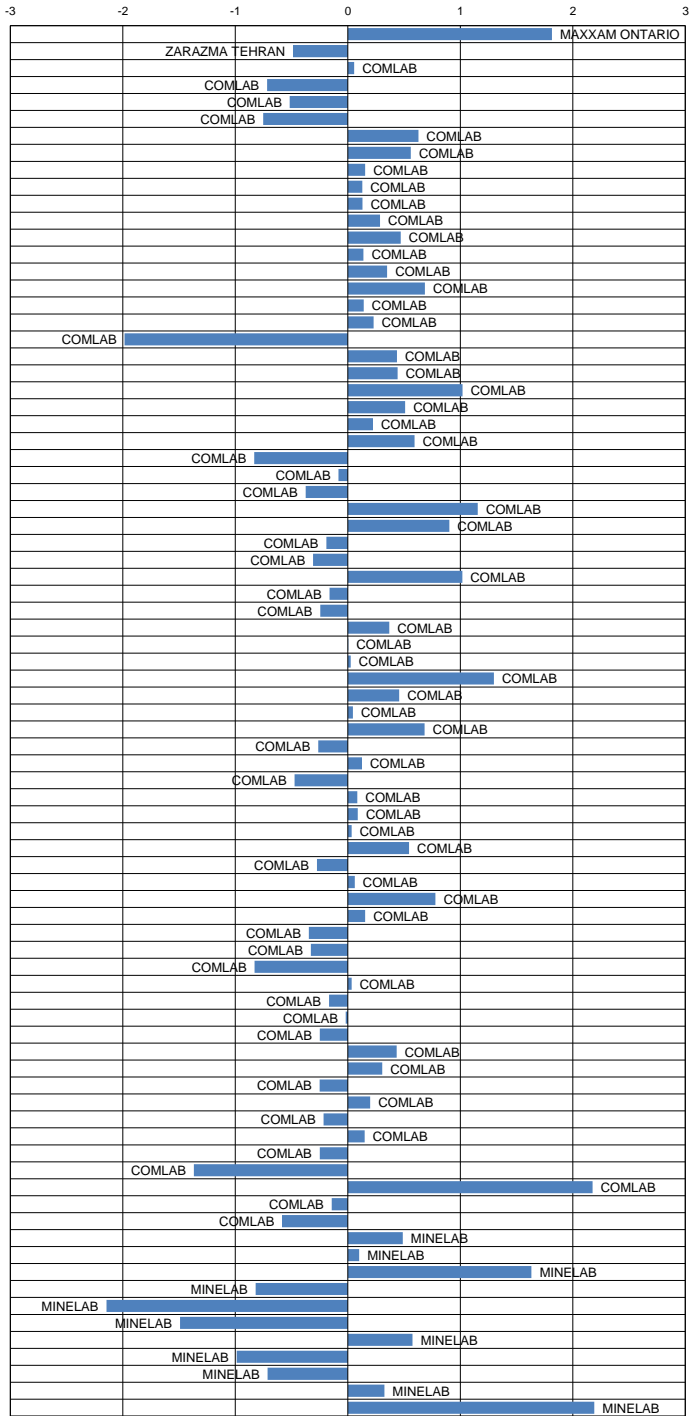
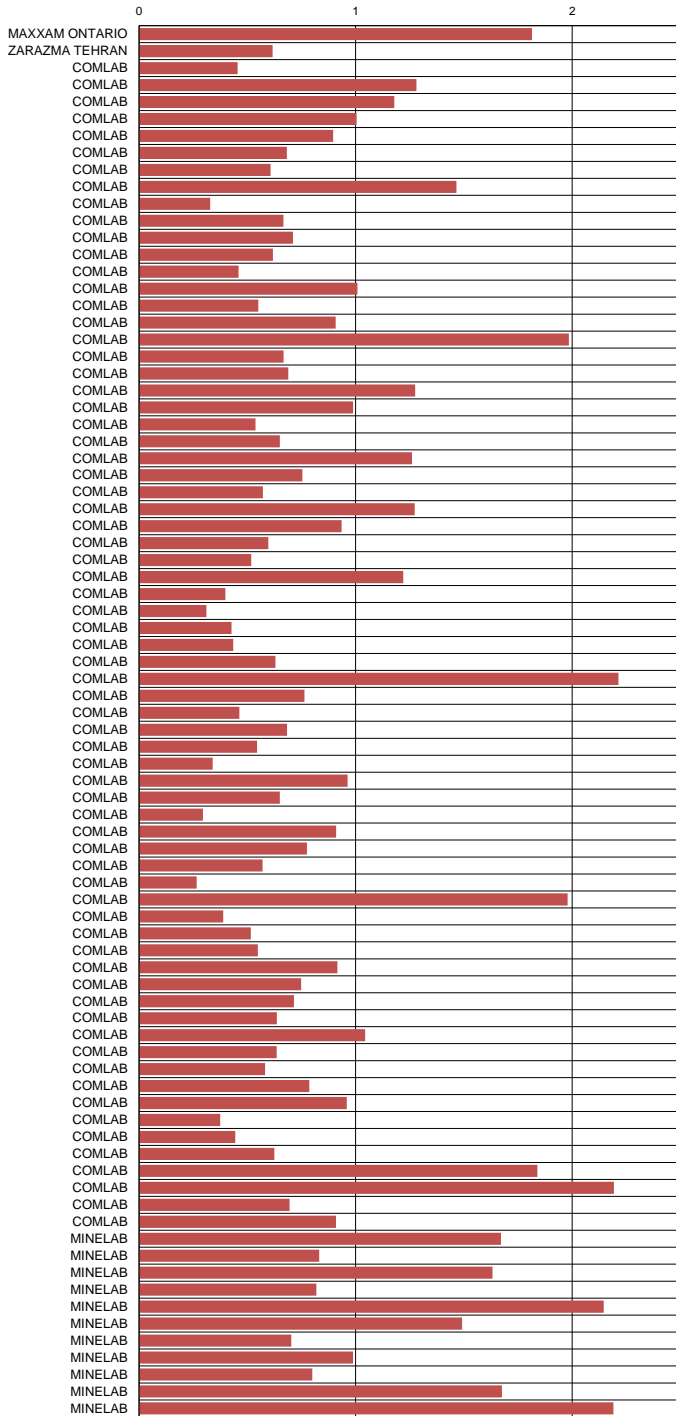
Zinc (Total Digest) Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GBM918-1	GBM918-2	GBM918-3	GBM918-4	GBM918-5	GBM918-6	GBM918-7	GBM918-8	GBM918-9	GBM918-10
MEAN (ppm)	166	101	816	387	1021	370	19	241	40	77
STDEV (ppm)	18	15	46	19	71	20	3	26	7	6
95% CI (ppm)	4	4	10	4	16	5	1	6	2	1
95% CI (%)	2.39%	3.50%	1.26%	1.14%	1.54%	1.23%	3.35%	2.34%	3.88%	1.85%
MIN (ppm)	127	64	691	341	868	320	12	182	24	59
MEDIAN (ppm)	169	100	813	390	1021	373	19	243	39	77
MAX (ppm)	209	142	940	425	1186	414	25	300	58	93
IQR (ppm)	19	17	55	24	89	28	3	30	6	6
COUNT	77	70	77	74	80	78	69	81	72	77

Standard Reference	GBM918-1		GBM918-2		GBM918-3		GBM918-4		GBM918-5		GBM918-6		GBM918-7		GBM918-8		GBM918-9		GBM918-10		Method	Reading		
Lab Reference	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score				
MAXXAM ONTARIO	200	1.92	<200	blid	940	2.72	410	1.21	1140	1.66	400	1.47	<200	blid	290	1.90	<200	blid	<200	blid	<200	blid	NAA	
ZARAZMA TEHRAN	173	0.38	98	-0.25	758	-1.27	385	-0.09	913	-1.52	374	0.20	17	-0.82	213	-1.09	41	0.07	74	-0.47	74	-0.47	4A	ES
COMLAB	160	-0.35	100	-0.08	840	0.54	410	1.21	1020	-0.02	360	-0.49	20	0.46	250	0.35	40	0.00	70	-1.05	4A	ICP		
COMLAB	209	2.43	107	0.38	813	-0.06	342	-2.34	1008	-2.19	362	-0.39	12	-2.56	192	-1.90	30	-1.50	70	-1.05	4A	ES		
COMLAB	169	0.16	132	2.05	740	-1.65	399	0.64	879	-0.00	331	-1.91	20	0.46	216	-0.97	33	-1.05	71	-0.90	4A	ICP		
COMLAB	138	-1.59	105	0.25	744	-1.56	390	0.17	898	-1.73	336	-1.67	21	0.84	218	-0.89	36	-0.60	72	-0.74	4A	ICP		
COMLAB	179	0.73	153	3.00	835	0.43	371	-0.82	1008	-0.19	368	-0.10	21	0.84	235	-0.23	55	2.25	79	0.38	4A	AAS		
COMLAB	175	0.50	103	0.14	819	0.07	385	-0.10	984	-0.52	373	0.16	24	2.05	243	0.07	52	1.77	86	1.45	4A	ES		
COMLAB	156	-0.57	168	3.00	789	-0.58	397	0.53	1000	-0.30	367	-0.15	19	-0.07	242	0.04	36	-0.60	78	0.23	4A	ES		
COMLAB	105	-3.00	169	3.00	856	0.87	369	-0.92	1004	-0.25	387	0.82	17	-0.67	193	-1.85	78	3.00	78	0.28	78	0.28	4A	ES
COMLAB	174	0.45	102	0.05	809	-0.14	396	0.48	1026	0.06	374	0.20	21	0.84	227	-0.54	38	-0.30	78	0.22	4A	ES		
COMLAB	181	0.84	93	-0.55	816	0.01	406	1.00	1110	1.24	387	0.83	16	-1.05	261	0.78	38	-0.30	77	0.06	4A	ES		
COMLAB	183	0.96	106	0.32	875	1.30	389	0.11	1070	0.68	387	0.83	16	-1.05	267	1.01	39	-0.15	81	0.69	4A	ES		
COMLAB	155	-0.63	118	1.12	815	-0.01	388	0.06	1110	1.24	386	0.79	16	-1.05	256	0.58	36	-0.60	76	-0.10	4A	ES		
COMLAB	170	0.22	106	0.32	841	0.56	395	0.43	1050	0.40	365	-0.24	21	0.84	248	0.27	38	-0.30	83	1.01	4A	ES		
COMLAB	172	0.33	86	-1.02	892	1.67	410	1.21	1130	1.52	409	1.91	19	0.08	280	1.51	36	-0.60	78	0.22	4A	ICP		
COMLAB	163	-0.18	105	0.25	792	-0.51	386	-0.04	973	-0.68	357	-0.64	22	1.22	283	1.63	41	0.15	78	0.22	4A	ES		
COMLAB	173	0.39	95	-0.42	875	1.30	425	1.99	1060	0.54	380	0.49	16	-1.05	266	0.97	31	-1.35	73	-0.58	4A	ES		
COMLAB	128	-2.16	96	-0.35	716	-2.18	300	-3.00	868	-2.15	338	-1.57	8	-3.00	206	-1.36	24	-2.40	66	-1.69	4A	ES		
COMLAB	167	0.05	127	1.71	810	0.10	399	0.64	1070	0.68	394	1.18	16	-1.05	271	1.16	40	0.00	76	-0.10	4A	ES		
COMLAB	158	-0.46	105	0.25	911	2.09	391	0.22	1138	1.63	396	1.28	17	-0.67	246	0.19	40	0.00	76	-0.10	4A	ES		
COMLAB	182	0.90	166	3.00	856	0.88	418	1.63	1180	2.22	399	1.42	17	-0.67	276	1.36	36	-0.60	77	0.06	4A	ES		
COMLAB	169	0.16	124	1.51	809	-0.14	415	1.47	1080	0.82	397	1.33	16	-1.05	292	1.98	32	-1.20	78	0.22	4A	ES		
COMLAB	171	0.28	80	-1.42	829	0.29	399	0.64	1085	0.89	382	0.59	19	0.08	258	0.66	39	-0.15	79	0.38	4A	ES		
COMLAB	165	-0.06	105	0.25	808	-0.16	399	0.64	1120	1.38	396	1.28	nr	nr	260	0.74	nr	nr	81	0.69	4A	MS		
COMLAB	132	-1.93	129	1.85	757	-1.28	385	-0.09	937	-1.18	336	-1.67	16	-1.05	213	-1.09	42	0.30	63	-2.17	5A	ES		
COMLAB	171	0.28	171	3.00	790	-0.56	383	-0.20	964	-0.80	353	-0.83	18	-0.29	243	0.08	36	-0.60	71	-0.90	4A	ICP		
COMLAB	160	-0.35	91	-0.68	778	-0.82	396	0.48	981	-0.57	353	-0.83	18	-0.29	254	0.50	37	-0.45	72	-0.74	4A	ES		
COMLAB	209	2.43	123	1.45	789	-0.58	402	0.79	1021	-0.01	380	0.49	25	2.35	256	0.58	56	2.40	87	1.65	4A	AAS		
COMLAB	180	0.79	142	2.71	808	-0.16	390	0.17	1035	0.19	386	0.79	21	0.84	260	0.74	52	1.80	84	1.17	4A	AAS		
COMLAB	174	0.45	100	-0.08	852	0.80	368	-0.98	1021	-0.01	386	0.79	16	-1.05	240	-0.04	32	-1.20	73	-0.58	4A	AAS		
COMLAB	158	-0.46	90	-0.75	796	-0.43	398	0.58	946	-1.06	356	-0.69	20	0.46	240	-0.04	38	-0.30	74	-0.42	4A	ES		
COMLAB	171	0.28	120	1.25	863	1.04	403	0.84	1046	0.34	396	1.28	24	1.98	215	-1.01	58	2.69	86	1.49	4A	ES		
COMLAB	166	-0.01	84	-1.15	846	0.67	392	0.27	1008	-0.19	371	0.05	16	-1.05	246	0.19	39	-0.15	75	-0.26	4A	ES		
COMLAB	164	-0.12	94	-0.48	784	-0.69	388	0.06	986	-0.50	364	-0.29	18	-0.29	248	0.27	38	-0.30	76	-0.10	4A	MS		
COMLAB	172	0.33	112	0.72	828	0.27	400	0.69	1024	0.04	368	-0.10	20	0.46	236	-0.19	42	0.30	84	1.17	4A	ES		
COMLAB	170	0.22	nr	nr	836	0.45	378	-0.46	1076	0.76	365	-0.24	20	0.35	246	0.19	33	-1.01	75	-0.23	4A	AAS		
COMLAB	150	-0.91	85	-1.08	808	-0.16	394	0.37	1070	0.68	408	1.87	19	0.08	248	0.27	36	-0.60	75	-0.26	4A	ICP		
COMLAB	286	3.00	103	0.10	1080	3.00	342	-2.34	1000	-0.30	612	3.00	65	3.00	191	-1.94	211	3.00	92	2.44	4A	AAS		
COMLAB	190	1.36	87	-0.98	850	0.75	412	1.30	1083	0.86	387	0.82	19	-0.11	253	0.48	37	-0.45	80	0.54	4A	ES		
COMLAB	170	0.22	105	0.25	823	0.16	399	0.64	1042	0.29	379	0.44	16	-1.05	255	0.54	38	-0.30	72	-0.74	4A	ES		
COMLAB	176	0.56	108	0.45	839	0.51	411	1.26	1130	1.52	373	0.15	19	0.08	261	0.78	46	0.82	81	0.69	4A	MS		
COMLAB	191	1.41	90	-0.75	812	-0.08	379	-0.41	1015	-0.09	368	-0.10	17	-0.67	237	-0.16	33	-1.05	72	-0.74	4A	ES		
COMLAB	167	0.05	101	-0.02	843	0.60	401	0.74	997	-0.34	374	0.20	19	0.08	258	0.66	37	-0.45	75	-0.26	4A	ES		
COMLAB	204	2.15	98	-0.22	764	-1.13	377	-0.51	922	-1.39	362	-0.39	17	-0.67	182	-2.29	42	0.30	73	-0.58	4A	AAS		
COMLAB	173	0.39	87	-0.95	842	0.58	390	0.17	940	-1.14	361	-0.44	18	-0.29	246									

Standard Deviations

Standard Deviations



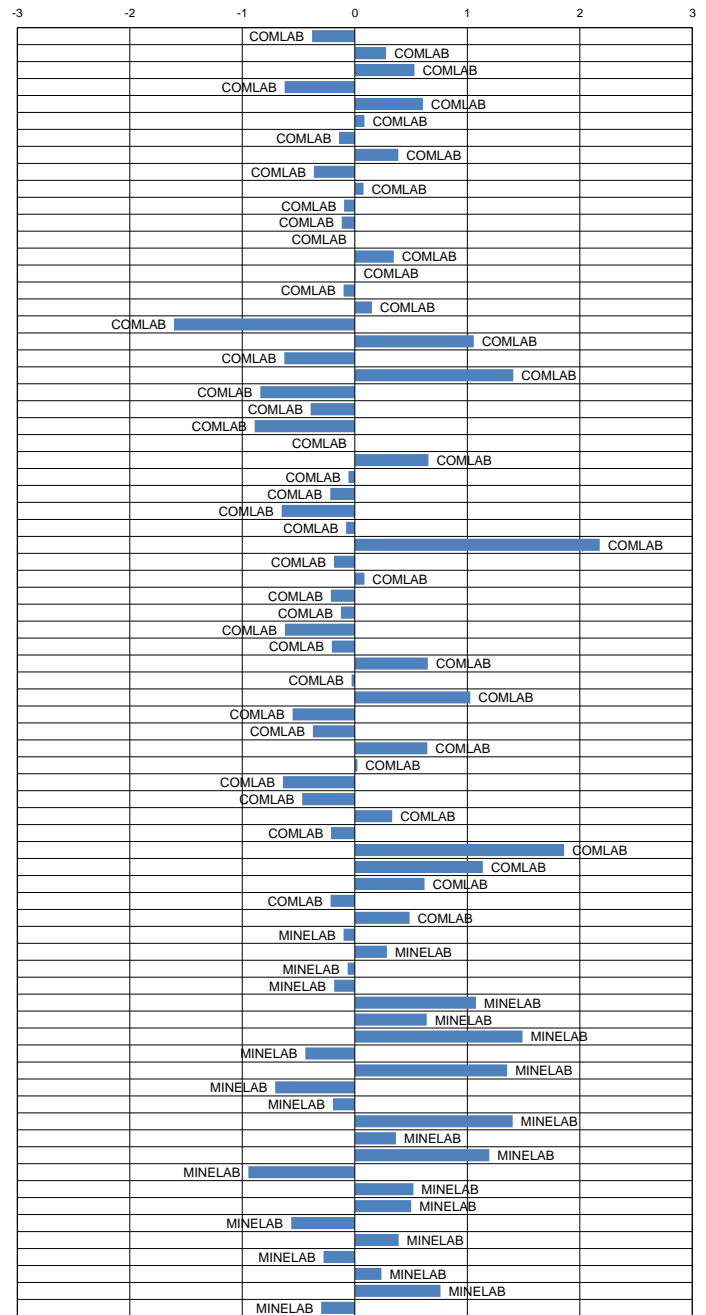
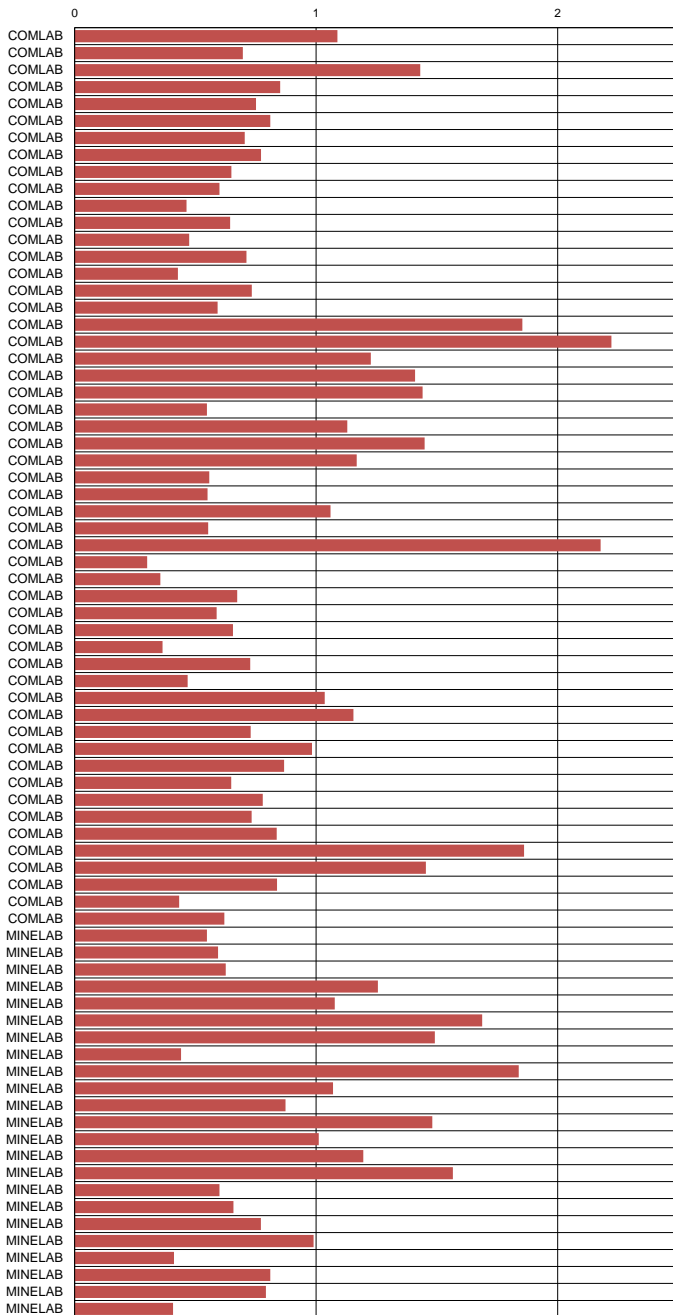
Zinc (Partial Digest) Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GBM918-1	GBM918-2	GBM918-3	GBM918-4	GBM918-5	GBM918-6	GBM918-7	GBM918-8	GBM918-9	GBM918-10
MEAN (ppm)	115	101	796	304	995	364	13	177	34	72
STDEV (ppm)	16	17	75	19	98	33	3	39	8	5
95% CI (ppm)	4	4	17	5	22	8	1	9	2	1
95% CI (%)	3.35%	4.05%	2.14%	1.54%	2.23%	2.10%	4.85%	5.10%	5.66%	1.57%
MIN (ppm)	86	64	603	252	737	287	8	108	18	62
MEDIAN (ppm)	113	99	802	304	1016	369	13	163	32	72
MAX (ppm)	159	146	952	355	1199	434	19	275	53	83
IQR (ppm)	23	25	88	27	97	46	4	35	8	6
COUNT	67	70	75	67	76	74	60	74	66	66

Standard Reference	GBM918-1		GBM918-2		GBM918-3		GBM918-4		GBM918-5		GBM918-6		GBM918-7		GBM918-8		GBM918-9		GBM918-10		Method	Reading
Lab Reference	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
COMLAB	174	3.00	86	-0.89	697	-1.32	310	0.28	848	-1.50	324	-1.22	14	0.25	134	-1.09	29	-0.59	69	-0.74	AR	ICP
COMLAB	193	3.00	109	0.43	802	0.09	321	0.85	956	-0.39	341	-0.71	14	0.25	187	0.26	30	-0.47	70	-0.52	AR	MS
COMLAB	152	2.30	133	1.81	729	-0.89	392	3.00	863	-1.34	329	-1.07	18	1.83	211	0.87	30	-0.47	69	-0.74	AR	ICP
COMLAB	109	-0.39	103	0.09	685	-1.48	320	0.80	849	-1.49	325	-1.19	14	0.25	133	-1.12	26	-0.98	69	-0.74	AR	ICP
COMLAB	138	1.42	96	-0.31	848	0.70	298	-0.33	1044	0.51	388	0.71	15	0.65	174	-0.07	48	1.83	77	0.97	AR	AAS
COMLAB	101	-0.89	143	2.38	764	-0.42	305	0.03	1090	0.97	397	0.98	11	-0.93	161	-0.41	26	-0.98	73	0.12	AR	ES
COMLAB	106	-0.58	131	1.69	770	-0.34	299	-0.28	1030	0.36	390	0.77	11	-0.93	157	-0.51	22	-1.49	72	-0.10	AR	ES
COMLAB	135	1.23	84	-1.00	838	0.57	326	1.10	1025	0.31	418	1.61	12	-0.53	175	-0.05	31	-0.34	77	0.97	AR	ICP
COMLAB	102	-0.83	89	-0.72	780	-0.21	285	-1.00	955	-0.40	314	-1.52	16	1.04	192	0.38	33	-0.08	71	-0.31	AR	ES
COMLAB	127	0.73	87	-0.83	787	-0.12	307	0.13	1050	0.57	384	0.59	16	1.04	160	-0.43	24	-1.23	74	0.33	AR	ES
COMLAB	104	-0.70	82	-1.12	827	0.42	314	0.49	1023	0.29	382	0.53	12	-0.53	168	-0.23	32	-0.21	73	0.12	AR	ES
COMLAB	106	-0.58	78	-1.35	820	0.33	306	0.08	1100	1.08	385	0.62	11	-0.93	163	-0.35	29	-0.59	75	0.54	AR	ES
COMLAB	130	0.92	94	-0.43	779	-0.22	297	-0.38	1015	0.21	387	0.68	12	-0.53	163	-0.35	30	-0.47	75	0.54	AR	ES
COMLAB	98	-1.08	223	3.00	817	0.29	306	0.08	1035	0.41	372	0.23	nr	nr	163	-0.35	32	-0.21	76	0.76	AR	AAS
COMLAB	110	-0.33	108	0.37	807	0.15	298	-0.33	1040	0.46	400	1.07	13	-0.14	159	-0.46	27	-0.85	73	0.12	AR	AAS
COMLAB	159	2.73	99	-0.14	799	0.04	301	-0.18	1020	0.26	369	0.14	13	-0.14	164	-0.33	18	-2.00	66	-1.38	AR	ES
COMLAB	130	0.92	106	0.26	781	-0.20	282	-1.15	1040	0.46	405	1.22	nr	nr	161	-0.41	nr	nr	73	0.12	AR	MS
COMLAB	101	-0.89	123	1.24	657	-1.86	228	-3.00	737	-2.63	297	-2.03	8	-2.11	115	-1.58	32	-0.21	48	-3.00	AR	ES
COMLAB	624	3.00	75	-1.52	724	-0.96	385	3.00	839	-1.59	306	-1.76	26	3.00	232	1.40	154	3.00	87	3.00	AR	AAS
COMLAB	96	-1.23	200	3.00	681	-1.53	302	-0.14	829	-1.70	317	-1.44	11	-0.89	149	-0.70	28	-0.67	68	-0.97	AR	ICP
COMLAB	125	0.61	146	2.56	854	0.78	377	3.00	1063	0.70	377	0.38	<30	blid	245	1.73	49	1.96	77	0.97	3A	AAS
COMLAB	196	3.00	88	-0.77	633	-2.18	277	-1.41	896	-1.01	320	-1.34	10	-1.32	108	-1.75	25	-1.10	70	-0.52	AR	ES
COMLAB	108	-0.45	92	-0.54	848	0.70	286	-0.95	1002	0.08	364	-0.01	11	-0.93	153	-0.61	30	-0.47	69	-0.74	AR	ES
COMLAB	91	-1.51	88	-0.77	723	-0.97	261	-2.23	907	-0.89	322	-1.28	11	-0.93	155	-0.56	43	-1.19	68	-0.95	AR	ES
COMLAB	86	-1.85	111	0.52	731	-0.87	252	-2.71	987	-0.07	361	-0.11	35	3.00	141	-0.91	151	3.00	nr	nr	AR	ES
COMLAB	133	1.11	108	0.37	848	0.70	315	0.54	1199	2.09	401	1.10	9	-1.72	185	0.21	27	-0.85	140	3.00	AR	AAS
COMLAB	112	-0.20	83	-1.06	814	0.25	290	-0.74	1044	0.51	375	0.32	17	1.44	174	-0.07	30	-0.47	70	-0.52	AR	AAS
COMLAB	113	-0.14	113	0.66	747	-0.65	319	0.74	929	-0.67	350	-0.44	14	0.25	156	-0.53	30	-0.47	68	-0.95	AR	ES
COMLAB	96	-1.20	136	2.00	791	-0.06	272	-1.67	998	0.04	348	-0.50	12	-0.73	137	-1.01	25	-1.10	62	-2.27	AR	ES
COMLAB	96	-1.20	98	-0.20	785	-0.14	296	-0.44	992	-0.03	361	-0.11	12	-0.53	157	-0.51	48	1.83	75	0.54	AR	ES
COMLAB	211	3.00	181	3.00	836	0.54	432	3.00	1056	0.63	392	0.83	87	3.00	247	1.78	98	3.00	127	3.00	AR	AAS
COMLAB	112	-0.20	105	0.20	761	-0.46	300	-0.23	994	-0.01	352	-0.38	14	0.25	150	-0.69	30	-0.47	73	0.12	AR	ES
COMLAB	117	0.11	120	1.06	799	0.04	316	0.59	1016	0.22	362	-0.07	12	-0.53	160	-0.43	35	0.17	71	-0.31	AR	ES
COMLAB	123	0.48	86	-0.89	863	0.90	297	-0.38	1021	0.27	292	-2.18	15	0.65	154	-0.58	33	-0.08	71	-0.31	AR	AAS
COMLAB	97	-1.14	104	0.14	760	-0.48	316	0.59	921	-0.75	330	-1.04	16	1.04	171	-0.15	37	0.43	73	0.12	3A	ICP
COMLAB	115	-0.01	88	-0.77	754	-0.56	280	-1.26	914	-0.82	331	-1.01	12	-0.53	150	-0.69	35	0.17	69	-0.74	AR	ES
COMLAB	123	0.48	84	-1.00	798	0.03	291	-0.69	997	0.03	373	0.26	13	-0.14	161	-0.41	33	-0.08	70	-0.52	AR	ICP
COMLAB	122	0.42	96	-0.31	831	0.47	328	1.21	1096	1.04	371	0.20	16	1.04	174	-0.07	39	0.68	81	1.82	3A	AAS
COMLAB	113	-0.14	90	-0.66	805	0.13	312	0.39	1043	0.50	386	0.65	12	-0.53	155	-0.56	29	-0.59	75	0.54	AR	ES
COMLAB	183	3.00	114	0.70	860	0.86	304	-0.04	1173	1.82	407	1.28	14	0.27	179	0.04	44	1.29	77	1.05	AR	AAS
COMLAB	241	3.00	77	-1.39	796	0.01	288	-0.82	994	-0.01	362	-0.08	9	-1.78	9	-3.00	32	-1.26	66	-1.29	3A	AAS
COMLAB	100	-0.95	113	0.66	820	0.33	280	-1.26	1020	0.26	360	-0.14	15	0.53	143	-0.86	25	-1.14	67	-1.16	AR	AAS
COMLAB	140	1.55	120	1.06	808	0.17	355	2.59	1020	0.26	373	0.26	15	0.65	159	-0.46	24	-1.23	80	1.61	AR	ES
COMLAB	98	-1.08	97	-0.26	741	-0.73	305	0.03	898	-0.99	341	-0.71	17	1.44	273	2.44	30	-0.47	75	0.54	AR	MS
COMLAB	116	0.05	74	-1.58	740	-0.75	297	-0.38	961	-0.34	322	-1.28	12	-0.53	142	-0.89	29	-0.59	72	-0.10	AR	ES
COMLAB	136	1.28	93	-0.50	777	-0.25	295	-0.49	1022	0.28	361	-0.10	10	-1.24	141	-0.93	25	-1.07	65	-1.66	AR	ES
COMLAB	149	2.11	85	-0.95	811	0.21	321	0.85	1022	0.28	379	0.44	12	-0.53	234	1.45	32	-0.21	71	-0.31	3A	AAS
COMLAB	108	-0.45	96	-0.31	705	-1.21	293	-0.59	891	-1.06	331	-1.01	21	3.00	182	0.13	33	-0.08	70	-0.52	AR	ES
COMLAB	137	1.36	111	0.55	870	1.00	379	3.00	1097	1.05	396	0.95	38	3.00	275	2.50	51	2.22	91	3.00	AR	ES
COMLAB	126	0.67	78	-1.35	861	0.88	369	3.00	972	-0.23	375	0.32	19	2.23	252	1.91	62	3.00	77	0.97	3A	AAS
COMLAB																						

Standard Deviations

Standard Deviations



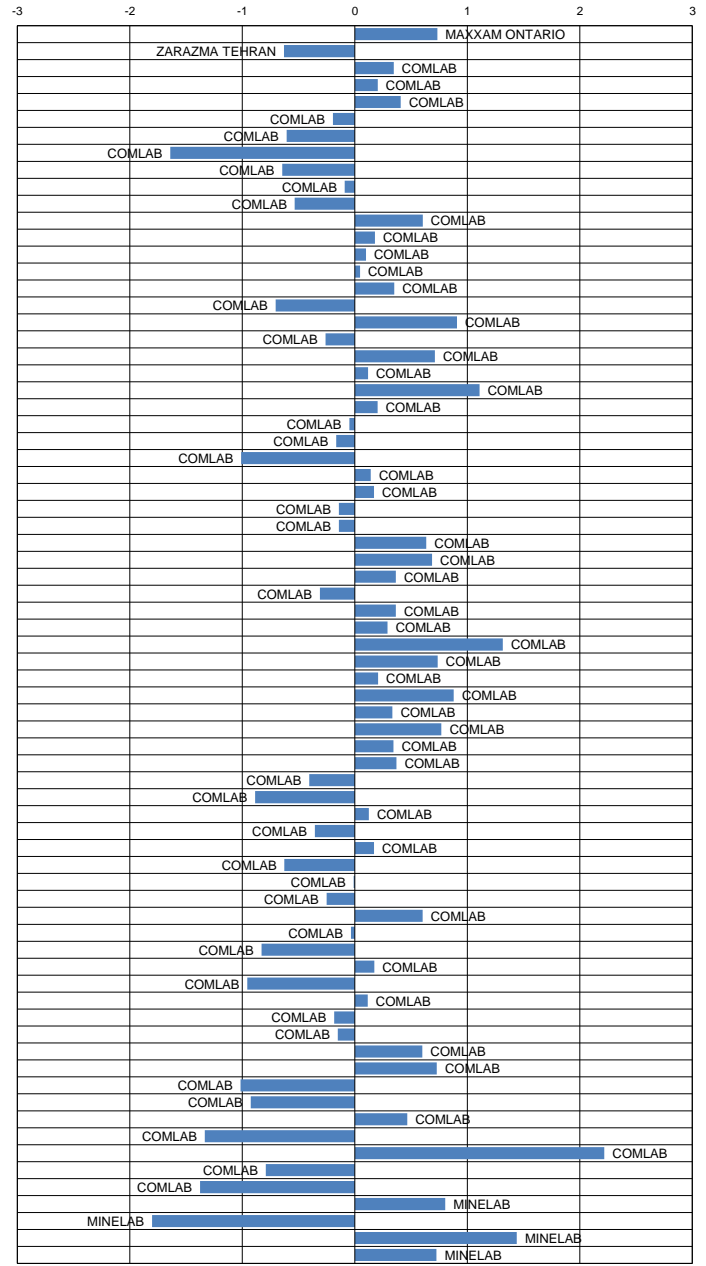
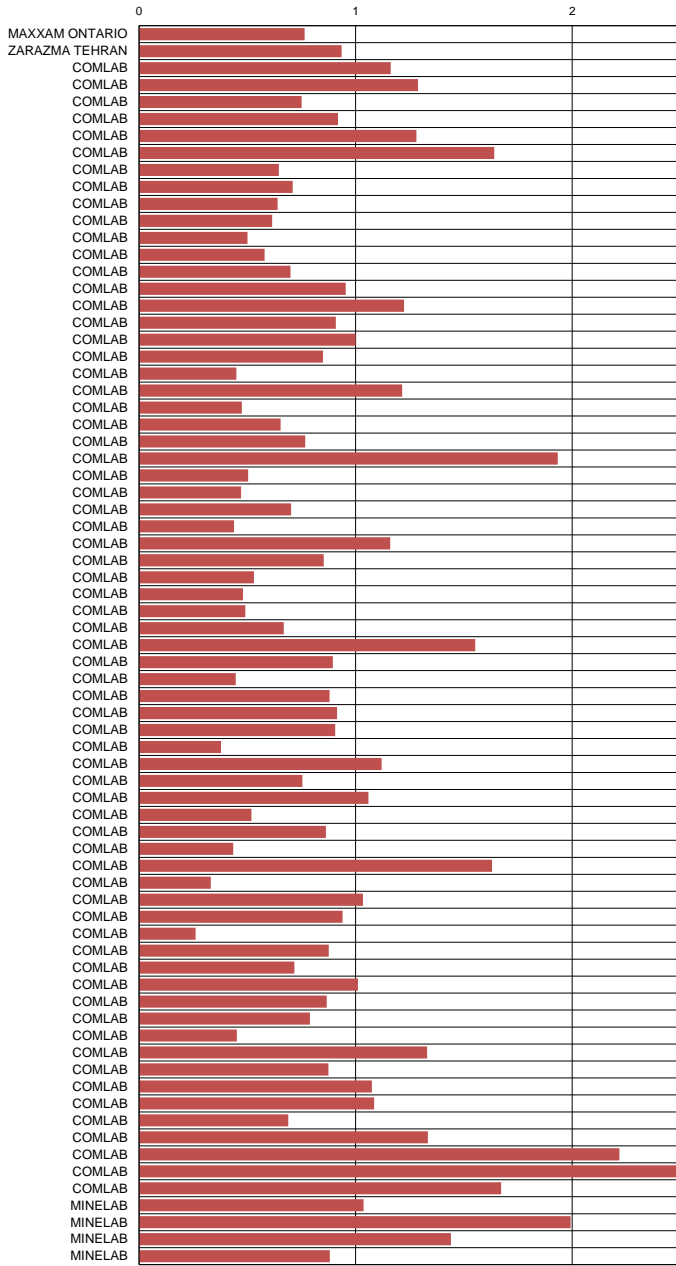
Nickel (Total Digest) Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GBM918-1	GBM918-2	GBM918-3	GBM918-4	GBM918-5	GBM918-6	GBM918-7	GBM918-8	GBM918-9	GBM918-10
MEAN (ppm)	66	72	11270	128	4960	1437	30	853	922	38
STDEV (ppm)	8	10	622	6	323	66	3	56	61	2
95% CI (ppm)	2	3	155	2	75	16	1	13	14	1
95% CI (%)	3.08%	3.53%	1.37%	1.18%	1.51%	1.10%	2.00%	1.54%	1.53%	1.48%
MIN (ppm)	43	56	9740	113	4212	1277	25	724	756	33
MEDIAN (ppm)	66	69	11300	129	4998	1443	30	856	926	38
MAX (ppm)	84	99	12749	139	5660	1590	37	1003	1040	43
IQR (ppm)	13	15	669	9	455	83	3	63	68	4
COUNT	67	61	63	68	72	68	67	71	72	65

Standard Reference	GBM918-1		GBM918-2		GBM918-3		GBM918-4		GBM918-5		GBM918-6		GBM918-7		GBM918-8		GBM918-9		GBM918-10		Method	Reading
	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
MAXXAM ONTARIO	84	2.20	99	2.64	11300	0.05	130	0.33	5000	0.12	1450	0.19	30	-0.15	860	0.12	980	0.95	40	0.89	NAA	
ZARAZMA TEHRAN	71	0.58	76	0.31	9861	-2.26	132	0.63	4401	-1.73	1327	-1.68	30	-0.11	805	-0.87	898	-0.40	36	-0.78	4A	ES
COMLAB	60	-0.67	80	0.76	12100	1.33	130	0.33	5210	0.78	1500	0.95	<30	blid	920	1.19	1010	1.44	30	-3.00	4A	ICP
COMLAB	125	3.00	96	2.34	>10000	ald	134	0.96	4558	-1.24	1401	-0.55	27	-1.35	855	0.03	945	0.37	34	-1.74	4A	ES
COMLAB	81	1.84	77	0.46	11700	0.69	132	0.65	4606	-1.10	1410	-0.41	32	0.64	842	-0.20	987	1.06	39	0.45	4A	ICP
COMLAB	58	-0.91	63	-0.93	>10000	ald	134	0.96	4530	-1.33	1380	-0.87	35	1.83	799	-0.97	923	0.01	39	0.45	4A	ICP
COMLAB	57	-1.03	157	3.00	11497	0.37	121	-1.10	4830	-0.40	1339	-1.49	27	-1.35	764	-1.60	772	-2.47	38	0.01	4A	AAS
COMLAB	55	-1.31	64	-0.81	10062	-1.94	119	-1.43	4409	-1.70	1189	-3.00	27	-1.40	724	-2.31	841	-1.35	35	-1.14	4A	ES
COMLAB	60	-0.67	66	-0.63	11058	-0.34	123	-0.78	4590	-1.14	1398	-0.60	30	-0.15	832	-0.38	860	-1.03	36	-0.73	4A	ES
COMLAB	78	1.44	67	-0.57	11848	0.93	121	-1.18	5128	0.52	1435	-0.03	31	0.20	831	-0.40	846	-1.26	37	-0.56	4A	ES
COMLAB	70	0.52	67	-0.53	11254	-0.03	121	-1.10	4915	-0.14	1319	-1.79	30	-0.15	834	-0.35	866	-0.93	36	-0.86	4A	ES
COMLAB	82	1.96	84	1.15	11600	0.53	128	0.01	5290	1.02	1455	0.27	31	0.24	903	0.89	919	-0.05	38	0.01	4A	ES
COMLAB	72	0.76	58	-1.42	11300	0.05	128	0.01	4900	-0.18	1440	0.04	32	0.64	875	0.39	960	0.62	40	0.89	4A	ES
COMLAB	60	-0.67	74	0.16	11500	0.37	123	-0.78	5420	1.43	1480	0.65	28	-0.95	896	0.76	923	0.01	38	0.01	4A	ES
COMLAB	68	0.28	130	3.00	11100	-0.27	126	-0.30	5030	0.22	1350	-1.32	29	-0.55	866	0.23	899	-0.38	37	-0.43	4A	ES
COMLAB	58	-0.91	69	-0.33	11800	0.85	136	1.28	5280	0.99	1500	0.95	27	-1.35	939	1.53	978	0.92	37	-0.43	4A	ICP
COMLAB	63	-0.31	75	0.26	10213	-1.70	122	-0.94	4458	-1.55	1302	-2.05	30	-0.15	984	2.34	850	-1.19	34	-1.74	4A	ES
COMLAB	72	0.76	129	3.00	11700	0.69	132	0.65	5200	0.74	1470	0.50	31	0.24	923	1.25	971	0.80	39	0.45	4A	ES
COMLAB	60	-0.67	75	0.26	11800	0.85	115	-2.05	5200	0.74	1500	0.95	25	-2.14	775	-1.40	920	-0.04	40	0.89	4A	ES
COMLAB	63	-0.31	84	1.15	>10000	ald	126	-0.30	5150	0.59	1500	0.95	34	1.44	910	1.01	956	0.55	41	1.32	4A	ES
COMLAB	63	-0.31	81	0.86	>10000	ald	129	0.17	5201	0.75	1472	0.53	31	0.24	839	-0.26	892	-0.50	37	-0.43	4A	ES
COMLAB	76	1.24	170	3.00	11700	0.69	137	1.44	5660	2.17	1510	1.10	31	0.24	950	1.73	916	-0.10	37	-0.43	4A	ES
COMLAB	59	-0.79	69	-0.33	11700	0.69	129	0.17	5090	0.40	1500	0.95	31	0.24	880	0.48	908	-0.24	39	0.45	4A	ES
COMLAB	62	-0.43	82	0.96	11850	0.93	126	-0.30	5110	0.47	1450	0.19	28	-0.95	880	0.48	917	-0.09	34	-1.74	4A	ES
COMLAB	64	-0.23	65	-0.77	11450	0.29	123	-0.86	5330	1.15	1490	0.80	27	-1.55	885	0.57	935	0.21	35	-1.26	4A	ES,MS
COMLAB	57	-1.03	65	-0.73	12290	1.64	115	-2.05	5456	1.54	1133	-3.00	34	1.44	671	-3.00	756	-2.74	33	-2.18	5A	ES
COMLAB	72	0.81	83	1.10	>10000	ald	128	0.05	4732	-0.71	1447	0.15	29	-0.59	837	-0.30	971	0.80	38	-0.03	4A	ICP
COMLAB	66	0.05	66	-0.63	11300	0.05	133	0.81	4910	-0.15	1400	-0.56	30	-0.15	895	0.74	990	1.11	39	0.45	4A	ES
COMLAB	69	0.40	73	0.06	11974	1.13	120	-1.26	5094	0.42	1489	0.79	30	-0.15	832	-0.38	854	-1.12	35	-1.30	4A	AAS
COMLAB	68	0.28	64	-0.83	11300	0.05	130	0.33	4730	-0.71	1410	-0.41	28	-0.95	860	0.12	964	0.69	38	0.01	4A	ES
COMLAB	76	1.24	67	-0.53	>10000	ald	139	1.76	5368	1.26	1590	2.32	29	-0.55	782	-1.28	933	0.18	41	1.32	4A	ES
COMLAB	70	0.52	64	-0.83	12100	1.33	132	0.65	4986	0.08	1512	1.13	31	0.24	942	1.59	999	1.26	40	0.89	4A	ES
COMLAB	70	0.52	64	-0.83	11400	1.31	132	0.65	4960	0.00	1460	0.35	32	0.64	876	0.41	972	0.82	40	0.89	4A	MS
COMLAB	68	0.24	76	0.39	10800	-0.76	128	0.01	4750	-0.85	1370	-1.02	28	-0.87	848	-0.10	935	0.21	37	-0.56	4A	ES
COMLAB	68	0.32	nr	nr	11882	0.98	128	0.01	5227	0.83	1512	1.13	30	-0.31	869	0.28	940	0.29	37	-0.25	4A	AAS
COMLAB	59	-0.79	75	0.26	10900	-0.59	134	0.96	5110	0.47	1560	1.86	31	0.24	909	1.00	918	-0.07	37	-0.43	4A	ICP
COMLAB	121	3.00	126	3.00	11200	-0.11	123	-0.78	5090	0.40	1430	-0.11	77	3.00	843	-0.18	1040	1.94	49	3.00	4A	ES
COMLAB	70	0.52	87	1.42	11717	0.72	135	1.12	5203	0.75	1480	0.65	28	-0.79	910	1.01	987	1.06	40	0.89	4A	ES
COMLAB	73	0.88	80	0.76	11219	-0.08	132	0.65	4969	0.03	1428	-0.14	29	-0.55	879	0.46	952	0.49	37	-0.43	4A	ES
COMLAB	73	0.86	74	0.18	11300	0.05	137	1.44	5190	0.71	1440	0.04	32	0.64	914	1.08	1040	1.94	42	1.85	4A	MS
COMLAB	93	3.00	66	-0.63	11218	-0.08	137	1.44	5167	0.64	1374	-0.96	31	0.24	833	-0.36	978	0.92	36	-0.86	4A	ES
COMLAB	73	0.88	131	3.00	11300	0.05	147	3.00	4972	0.04	1395	-0.64	32	0.64	871	0.32	920	-0.04	39	0.45	4A	ES
COMLAB	66	0.05	76	0.36	11370	0.16	132	0.65	4996	0.11	1464	0.41	32	0.64	873	0.35	912	-0.17	40	0.89	4A	AAS
COMLAB	76	1.24	93	2.05	10400	-1.40	130	0.33	4440	-1.61	1390	-0.72	34	1.44	852	-0.02	961	0.64	42	1.76	4A	ES
COMLAB	60	-0.67	90	1.75	10762	-0.82	124	-0.62	4851	-0.34	1358	-1.20	29	-0.55	820	-0.60	914	-0.14	36	-0.86	4A	ICP
COMLAB	54	-1.40	73	0.05	11425	0.25	119	-1.48	5028	0.21	1460	0.35	28	-0.95	760	-1.67	848	-1.23	31	-3.00	4A	ES
COMLAB	59	-0.79	66	-0.63	11473	0.33	129	0.17	5016	0.17	1467	0.45	29	-0.55	888	0.62	958	0.59	40	0.89	4A	ES
COMLAB	78	1.48	60	-1.22	10054	-1.95	133	0.81	4540	-1.30	1375	-0.94	31	0.24	836	-0.31	901	-0.35	38	0.01	4A	ICP
COMLAB	59	-0.84	73	0.06	>10000	ald	129	0.17	4982	0.07	1448	0.16	30	-0.35	894	0.73	1007	1.39	38	0.14		

Standard Deviations

Standard Deviations



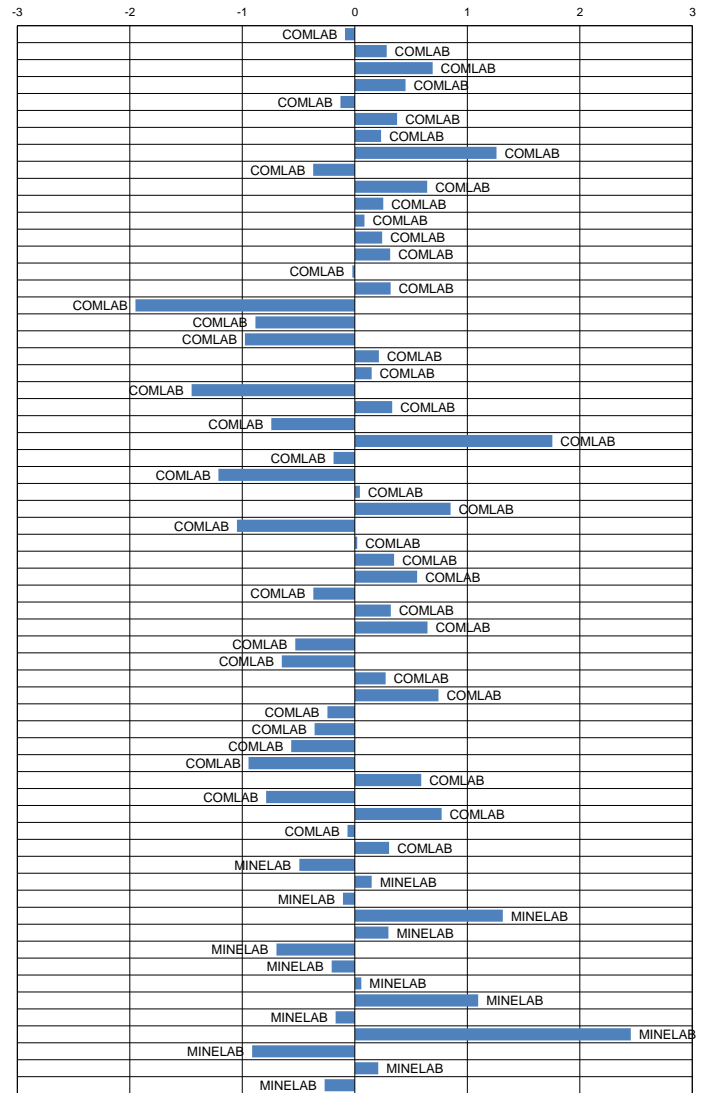
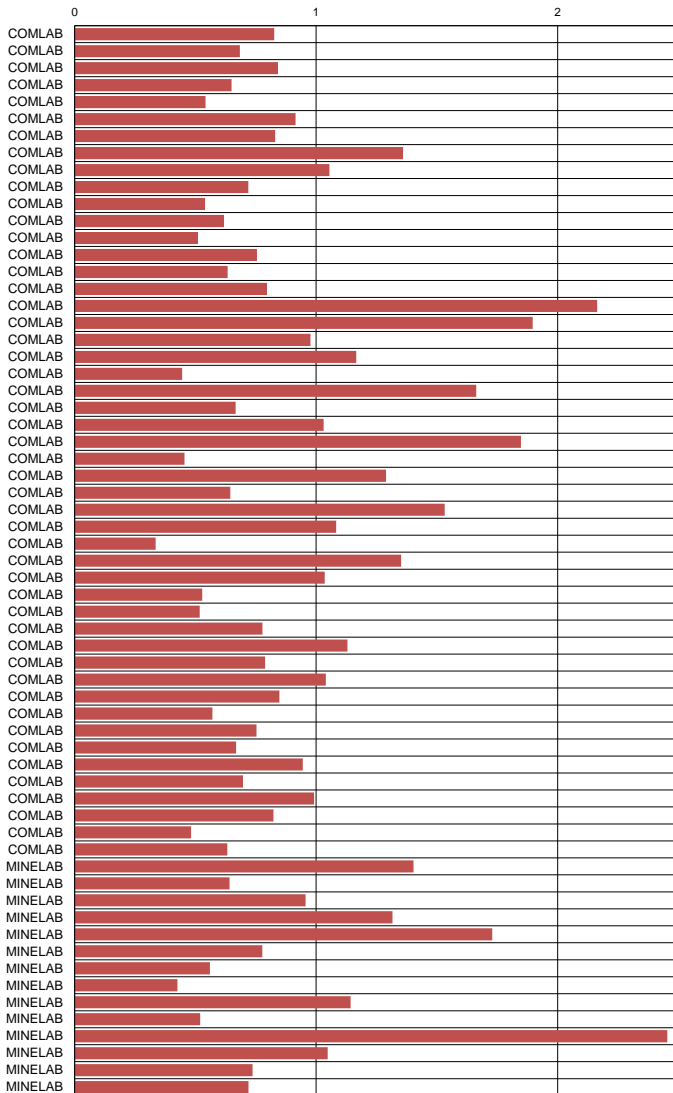
Nickel (Partial Digest) Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GBM918-1	GBM918-2	GBM918-3	GBM918-4	GBM918-5	GBM918-6	GBM918-7	GBM918-8	GBM918-9	GBM918-10
MEAN (ppm)	46	76	11042	128	4814	1408	29	798	908	35
STDEV (ppm)	10	15	865	9	420	115	3	61	55	2
95% CI (ppm)	3	4	245	2	107	29	1	15	14	1
95% CI (%)	5.58%	5.00%	2.22%	1.71%	2.22%	2.06%	2.59%	1.94%	1.57%	1.87%
MIN (ppm)	32	42	8910	107	4048	1139	23	667	761	29
MEDIAN (ppm)	45	74	11166	128	4747	1409	29	792	912	35
MAX (ppm)	70	106	12784	147	5732	1664	36	943	1040	40
IQR (ppm)	13	21	1102	9	567	138	4	86	66	3
COUNT	53	58	49	60	60	61	59	61	59	51

Standard Reference	GBM918-1		GBM918-2		GBM918-3		GBM918-4		GBM918-5		GBM918-6		GBM918-7		GBM918-8		GBM918-9		GBM918-10		Method	Reading
Lab Reference	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
COMLAB	88	3.00	67	-0.64	>10000	ald	118	-1.16	4570	-0.58	1350	-0.51	28	-0.35	780	-0.29	926	0.33	34	-0.58	AR	ICP
COMLAB	116	3.00	89	0.86	>10000	ald	120	-0.92	4601	-0.51	1385	-0.20	29	0.00	804	0.10	930	0.40	35	-0.16	AR	MS
COMLAB	79	3.00	74	-0.16	12200	1.34	130	0.24	4568	-0.59	1409	0.01	31	0.68	845	0.77	984	1.38	36	0.26	AR	ICP
COMLAB	45	-0.15	81	0.31	>10000	ald	142	1.64	4910	0.23	1540	1.15	33	1.37	778	-0.33	885	-0.41	36	0.26	AR	ICP
COMLAB	45	-0.15	77	0.04	11977	1.08	122	-0.69	5211	0.95	1369	-0.34	28	-0.35	772	-0.43	863	-0.81	34	-0.58	AR	AAS
COMLAB	36	-1.10	63	-0.91	11250	0.24	128	0.01	5610	1.90	1550	1.24	27	-0.69	882	1.38	941	0.60	38	1.09	AR	ES
COMLAB	38	-0.89	70	-0.43	11300	0.30	141	1.53	5330	1.23	1560	1.32	27	-0.69	840	0.69	854	-0.97	36	0.26	AR	ES
COMLAB	57	1.11	69	-0.50	11800	0.88	143	1.76	5480	1.59	1600	1.67	30	0.34	911	1.85	1040	2.39	39	1.51	AR	ICP
COMLAB	38	-0.89	59	-1.18	11945	1.04	119	-1.04	4606	-0.50	1307	-0.88	27	-0.69	943	2.38	832	-1.37	34	-0.58	AR	ES
COMLAB	54	0.79	101	1.67	>10000	ald	129	0.13	5280	1.11	1560	1.32	29	0.00	850	0.85	889	-0.34	36	0.26	AR	ES
COMLAB	56	1.00	64	-0.84	>10000	ald	132	0.48	5112	0.71	1477	0.60	30	0.34	825	0.44	892	-0.29	35	-0.16	AR	ES
COMLAB	39	-0.78	77	0.04	11500	0.53	125	-0.34	5280	1.11	1480	0.63	25	-1.37	851	0.87	927	0.35	35	-0.16	AR	ES
COMLAB	58	1.21	60	-1.11	11050	0.01	127	-0.11	4910	0.23	1395	-0.12	29	0.00	825	0.44	928	0.37	39	1.51	AR	ES
COMLAB	52	0.58	75	-0.09	11550	0.59	128	0.01	5490	1.61	1460	0.45	27	-0.69	880	1.34	950	0.76	32	-1.42	AR	AAS
COMLAB	37	-0.99	63	-0.91	11440	0.41	127	-0.11	5200	0.92	1510	0.89	27	-0.69	849	0.84	885	-0.41	35	-0.16	AR	ES,AAS
COMLAB	53	0.64	74	-0.15	nr	nr	125	-0.40	5360	1.30	1575	1.45	25	-1.44	871	1.20	931	0.42	35	-0.16	AR	MS
COMLAB	43	-0.36	77	0.04	6316	-3.00	109	-2.21	2748	-3.00	917	-3.00	32	1.02	481	-3.00	659	-3.00	25	-3.00	AR	ES
COMLAB	392	3.00	42	-2.34	12100	1.22	65	-3.00	5090	0.66	1193	-1.88	27	-0.69	809	0.18	128	-3.00	5	-3.00	AR	AAS
COMLAB	36	-1.07	71	-0.37	9396	-1.90	118	-1.15	4229	-1.39	1269	-1.21	25	-1.24	767	-0.51	898	-0.18	34	-0.75	AR	ICP
COMLAB	103	3.00	64	-0.84	9206	-2.12	127	-0.11	5347	1.27	1454	0.40	27	-0.69	737	-1.00	1017	1.97	36	0.26	AR	ES
COMLAB	47	0.06	78	0.11	11500	0.53	123	-0.57	4981	0.40	1498	0.78	29	0.00	865	1.10	867	-0.74	35	-0.16	AR	ES
COMLAB	37	-0.99	92	1.06	8910	-2.46	116	-1.39	4129	-1.63	1150	-2.25	27	-0.69	697	-1.65	761	-2.65	31	-1.84	AR	ES
COMLAB	39	-0.79	86	0.67	>5000	ald	135	0.84	>5000	ald	1481	0.63	28	-0.38	830	0.52	954	0.84	nr	nr	AR	ES
COMLAB	41	-0.57	65	-0.77	11612	0.66	124	-0.46	5058	0.58	1431	0.20	18	-3.00	776	-0.36	869	-0.70	27	-3.00	AR	AAS
COMLAB	78	3.00	141	3.00	11406	-0.42	124	-0.46	5378	1.34	1580	1.50	35	2.05	1015	3.00	1006	1.78	40	1.93	AR	AAS
COMLAB	47	0.06	87	0.72	10156	-1.02	128	0.01	4502	-0.74	1382	-0.23	30	0.34	759	-0.64	919	0.20	34	-0.58	AR	ES
COMLAB	33	-1.39	71	-0.34	10830	-0.24	107	-2.42	4976	0.39	1333	-0.66	24	-1.58	667	-2.15	843	-1.18	29	-2.55	AR	ES
COMLAB	33	-1.41	103	1.81	10641	-0.46	132	0.48	4669	-0.35	1362	-0.40	30	0.34	775	-0.38	916	0.15	37	0.67	AR	ES
COMLAB	64	1.84	91	0.99	14102	3.00	143	1.76	4242	-1.36	1398	-0.09	36	2.40	736	-1.02	856	-0.94	40	1.93	AR	AAS
COMLAB	45	-0.18	79	0.18	8393	-3.00	120	-0.94	4048	-1.83	1327	-0.71	25	-1.24	726	-1.18	890	-0.32	32	-1.25	AR	MS
COMLAB	42	-0.47	67	-0.64	10955	-0.10	127	-0.11	4750	-0.15	1417	0.08	29	0.00	792	-0.10	965	1.03	37	0.67	AR	ES
COMLAB	58	1.21	92	1.06	9857	-1.37	147	2.22	4249	-1.35	1250	-1.38	33	1.37	742	-0.92	947	0.71	40	1.93	3A	ICP
COMLAB	58	1.21	68	-0.57	10521	-0.60	142	1.64	4661	-0.36	1372	-0.32	34	1.71	764	-0.56	929	0.38	43	3.00	AR	ES
COMLAB	51	0.49	71	-0.36	10510	-0.61	118	-1.16	4648	-0.40	1386	-0.19	26	-0.89	804	0.10	919	0.21	33	-0.88	AR	ICP,AAS
COMLAB	42	-0.47	81	0.31	11600	0.65	132	0.48	5038	0.53	1471	0.55	32	1.02	822	0.39	879	-0.52	36	0.26	3A	AAS
COMLAB	46	-0.01	97	1.41	>10000	ald	139	1.29	5053	0.57	1401	-0.06	33	1.37	779	-0.31	896	-0.21	40	1.76	AR	ES
COMLAB	85	3.00	52	-1.69	9593	-1.67	124	-0.47	4222	-1.41	1245	-1.42	29	-0.12	728	-1.14	892	-0.28	35	-0.09	AR	AAS
COMLAB	49	0.27	82	0.36	>10000	ald	117	-1.27	4432	-0.91	1380	-0.25	25	-1.37	740	-0.95	845	-1.14	34	-0.58	AR	AAS
COMLAB	52	0.58	103	1.81	12000	1.11	141	1.53	4570	-0.58	1430	0.19	31	0.68	783	-0.25	739	-3.00	37	0.67	AR	ES
COMLAB	43	-0.36	102	1.74	>1000	ald	137	1.06	>1000	ald	>1000	ald	31	0.68	811	0.21	951	0.78	38	1.09	AR	MS
COMLAB	<50	bid	90	0.93	10600	-0.51	120	-0.92	4560	-0.61	1340	-0.59	<50	bid	785	-0.21	920	0.22	<50	bid	AR	ES
COMLAB	64	1.87	62	-1.00	10392	-0.75	122	-0.72	4677	-0.33	1420	0.11	27	-0.67	756	-0.70	878	-0.53	33	-0.87	AR	ES
COMLAB	40	-0.69	60	-1.13	10349	-0.80	120	-0.92	4756	-0.14	1352	-0.49	30	0.31	755	-0.70	836	-1.30	36	0.21	2A	ES
COMLAB	41	-0.57	73	-0.23	10843	-0.23	113	-1.74	4449	-0.87	1303	-0.92	25	-1.37	753	-0.74	833	-1.35	32	-1.42	AR	ES
COMLAB	52	0.58	71	-0.37	11628	0.68	131	0.36	5095	0.67	1483	0.65	31	0.68	888	1.48	982	1.34	35	-0.16	AR	ES
COMLAB	32	-1.52	54	-1.52	11210	0.19	125	-0.34	4872	0.14	1202	-1.80	31	0.68	711	-1.42	813	-1.71	34	-0.58	3A	AAS
COMLAB	70	2.47	87	0.72	11166	0.14	128	0.01	4706	-0.26	1415	0.06	38	3.00	815	0.28	965	1.03	36	0.26	3A	AAS
COMLAB	34	-1.26	87	0.74	11025	-0.02	127	-0.11	4344	-1.12	1412	0.03	29	-0.14	793	-0.09	938	0.55	37	0.76	AR	MS
COMLAB	45	-0.15	106	2.01	11300	0.30	131	0.36	5112	0.71	1292	-1.01	32	1.02	815	0.28	891	-0.30	35	-0.16	AD	AAS
MINELAB	40	-0.86	74	-0.15																		

Standard Deviations

Standard Deviations



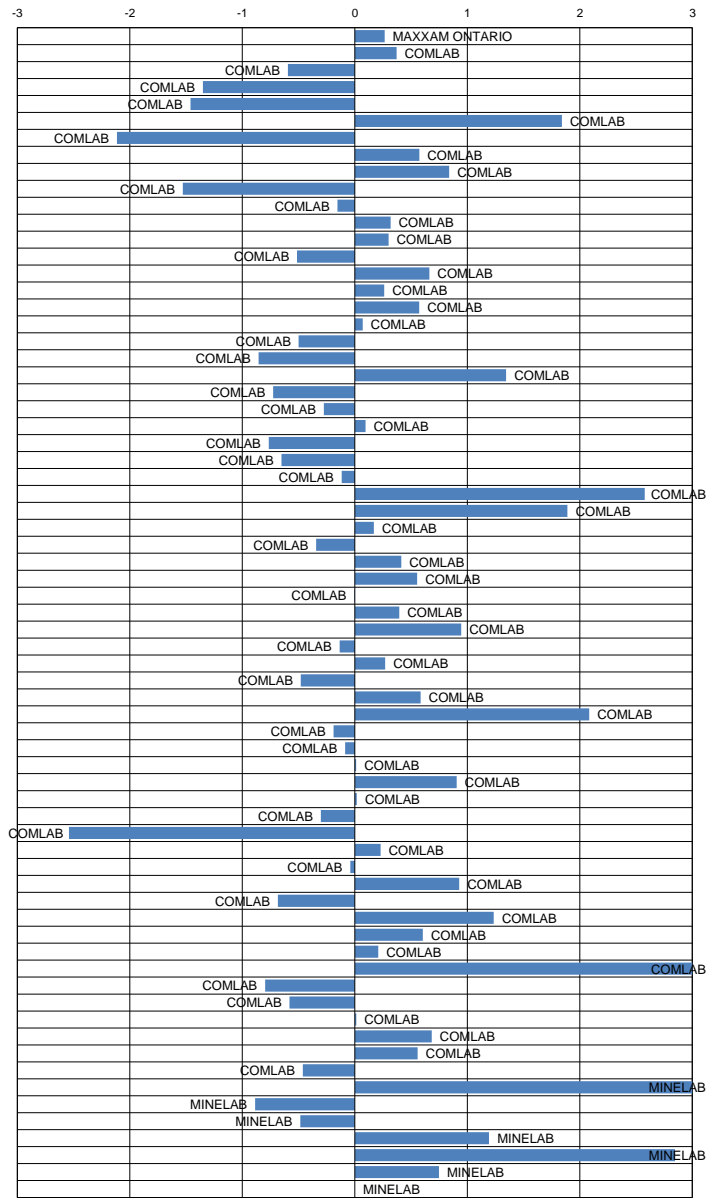
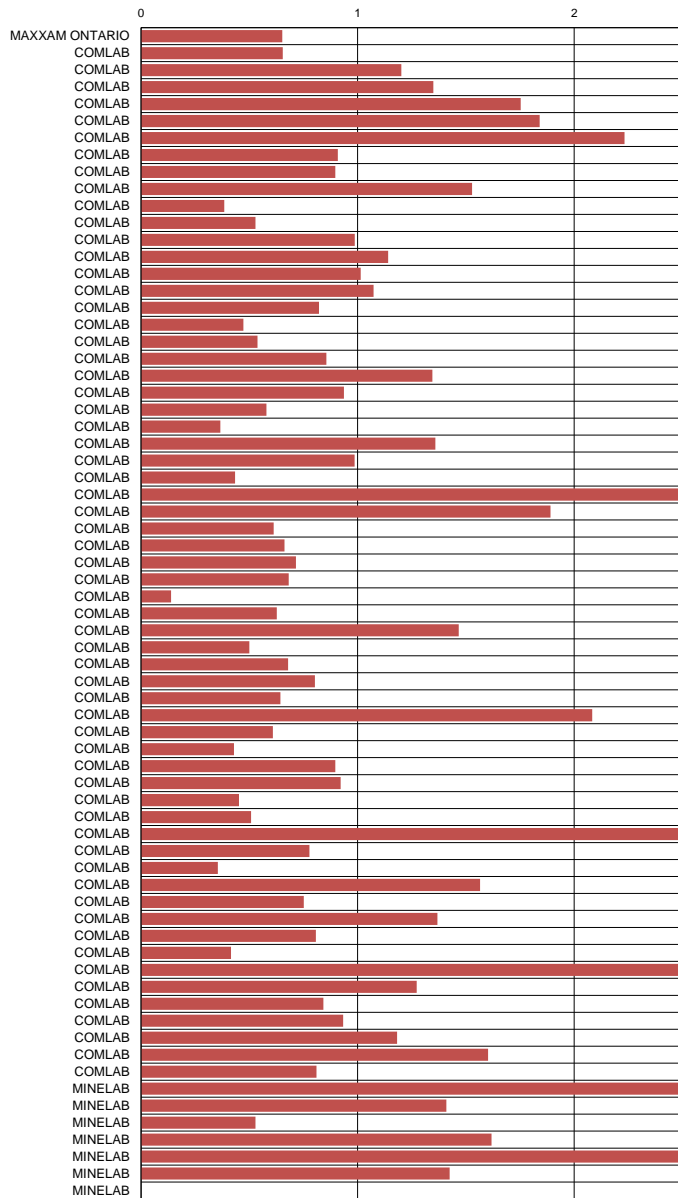
Arsenic (Total Digest) Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GBM918-1	GBM918-2	GBM918-3	GBM918-4	GBM918-5	GBM918-6	GBM918-7	GBM918-8	GBM918-9	GBM918-10
MEAN (ppm)	18	22	20	204	36	12	4	277	20	14
STDEV (ppm)	5	4	3	11	3	2	2	16	5	2
95% CI (ppm)	1	1	1	3	1	1	1	4	1	0
95% CI (%)	7.60%	5.20%	3.75%	1.40%	2.18%	4.74%	14.61%	1.41%	6.63%	3.42%
MIN (ppm)	8	11	14	177	29	9	2	237	7	10
MEDIAN (ppm)	17	23	20	204	36	12	4	278	21	14
MAX (ppm)	30	33	26	227	44	18	8	306	32	18
IQR (ppm)	6	6	4	11	3	3	3	20	5	2
COUNT	54	56	55	60	54	50	31	63	56	53

Standard Reference	GBM918-1		GBM918-2		GBM918-3		GBM918-4		GBM918-5		GBM918-6		GBM918-7		GBM918-8		GBM918-9		GBM918-10		Method	Reading
	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
MAXXAM ONTARIO	26	1.45	28	1.41	20	-0.11	207	0.28	35	-0.42	12	-0.21	3	-1.05	290	0.83	24	0.63	14	-0.13	NAA	
COMLAB	58	3.00	28	1.27	21	0.35	205	0.10	37	0.09	12	-0.02	4	-0.38	276	-0.06	22	0.32	12	-0.94	NAA	
COMLAB	12	-1.22	22	-0.06	20	0.03	200	-0.35	35	-0.42	18	2.70	<3	bld	254	-1.46	5	3.00	11	-1.58	4A	ES
COMLAB	13	-1.03	19	-0.74	15	-1.76	177	-2.40	33	-1.10	10	-1.12	<3	bld	237	-2.54	18	-0.45	12	-1.00	4A	ICP
COMLAB	9	-1.80	28	1.31	14	-2.12	182	-1.96	33	-1.10	9	-1.60	<3	bld	251	-1.65	14	-1.24	3	3.00	4A	ICP
COMLAB	29	2.07	24	0.40	26	2.17	224	1.80	43	2.30	<20	bld	<20	bld	294	1.08	30	1.91	27	3.00	4A	AAS
COMLAB	9	-1.75	11	-2.60	7	3.00	161	3.00	11	3.00	6	3.00	5	0.59	126	3.00	10	-1.98	13	-0.40	4A	ES
COMLAB	13	-1.03	24	0.40	23	1.10	211	0.64	42	1.96	15	1.36	6	0.90	291	0.89	17	-0.65	14	0.16	4A	ES
COMLAB	21	0.50	30	1.84	31	3.00	207	0.26	39	0.94	16	1.55	4	-0.27	284	0.44	21	0.14	14	-0.02	4A	ES
COMLAB	<5	bld	<5	3.00	16	-1.40	202	-0.17	34	-0.76	11	-0.64	<5	bld	273	-0.25	<5	3.00	<5	3.00	4A	ES
COMLAB	19	0.13	22	-0.06	19	-0.33	214	0.90	35	-0.42	12	-0.17	<5	bld	274	-0.19	19	-0.25	12	-1.00	4A	ES
COMLAB	19	0.13	24	0.40	20	0.03	210	0.55	35	-0.42	13	0.31	5	0.34	268	-0.57	20	-0.06	18	2.47	4A	ES
COMLAB	18	-0.06	42	3.00	21	0.39	200	-0.35	39	0.94	9	-1.60	<5	bld	260	-1.08	24	0.73	15	0.74	4A	ES
COMLAB	14	-0.83	33	2.46	14	-2.12	193	-0.97	35	-0.42	9	-1.60	5	0.34	256	-1.33	22	0.33	12	-1.00	4A	ES
COMLAB	23	0.91	26	0.86	23	1.10	210	0.55	39	0.94	15	1.27	<5	bld	299	1.40	23	0.53	11	-1.58	4A	ICP
COMLAB	18	-0.06	24	0.40	21	0.39	189	-1.33	41	1.62	15	1.27	11	3.00	255	-1.40	16	-0.84	13	-0.42	4A	ES
COMLAB	30	2.26	23	0.17	17	-1.04	210	0.55	36	-0.08	15	1.27	<5	bld	286	0.57	21	0.14	16	1.31	4A	ES
COMLAB	15	-0.64	25	0.63	20	0.03	200	-0.35	35	-0.42	<10	bld	<10	bld	285	0.51	<10	bld	15	0.74	4A	ES
COMLAB	17	-0.25	23	0.17	16	-1.40	203	-0.08	36	-0.08	11	-0.64	<5	bld	268	-0.57	20	-0.06	11	-1.58	4A	ES
COMLAB	15	-0.64	16	-1.43	19	-0.33	199	-0.44	34	-0.76	11	-0.64	<5	bld	270	-0.45	13	-1.43	11	-1.58	4A	ES
COMLAB	25	1.29	41	3.00	23	1.10	222	1.62	41	1.62	14	0.79	<5	bld	284	0.44	25	0.92	16	1.31	4A	ES
COMLAB	15	-0.64	24	0.40	15	-1.76	210	0.55	29	-2.46	11	-0.64	<5	bld	272	-0.32	14	-1.24	13	-0.42	4A	ES
COMLAB	15	-0.64	18	-0.97	17	-1.04	209	0.46	37	0.26	13	0.31	<5	bld	274	-0.19	22	0.33	12	-1.00	4A	ES
COMLAB	20	0.38	24	0.38	21	0.31	205	0.10	38	0.43	11	-0.45	nr	nr	268	-0.57	23	0.47	13	-0.19	4A	MS
COMLAB	13	-1.03	20	-0.51	20	0.03	136	3.00	36	-0.08	14	0.79	8	2.02	189	3.00	21	0.14	6	3.00	5A	ES
COMLAB	20	0.33	28	1.31	20	0.03	177	-2.40	35	-0.42	10	-1.12	2	-1.33	257	-1.27	20	-0.06	11	-1.58	4A	ICP
COMLAB	17	-0.25	19	-0.74	20	0.03	209	0.46	37	0.26	13	0.31	2	-1.33	280	0.19	22	0.33	13	-0.42	4A	MS
COMLAB	48	3.00	45	3.00	47	3.00	224	1.80	54	3.00	24	3.00	7	1.46	301	1.52	46	3.00	35	3.00	4A	AAS
COMLAB	<40	bld	53	3.00	43	3.00	210	0.55	<40	bld	<40	bld	<40	bld	293	1.02	<40	bld	<40	bld	4A	AAS
COMLAB	16	-0.39	23	0.13	21	0.39	215	0.99	38	0.43	14	0.55	3	-1.00	291	0.89	23	0.53	12	-0.83	4A	MS
COMLAB	17	-0.25	17	-1.20	18	-0.69	210	0.55	34	-0.76	10	-1.12	<5	bld	269	-0.51	24	0.73	14	0.16	4A	ES
COMLAB	17	-0.25	22	-0.06	22	0.74	221	1.53	40	1.28	14	0.79	3	-0.77	286	0.57	24	0.73	13	-0.42	4A	MS
COMLAB	49	3.00	26	0.86	19	-0.33	206	0.19	36	-0.08	12	-0.17	<10	bld	278	0.06	21	0.14	16	1.31	4A	ES
COMLAB	<25	bld	<25	bld	<25	bld	204	0.01	36	-0.21	<25	bld	<25	bld	280	0.19	<25	bld	<25	bld	4A	AAS
COMLAB	<25	bld	<25	bld	<25	bld	200	-0.35	37	0.26	<25	bld	<25	bld	297	1.27	<25	bld	<25	bld	4A	ICP
COMLAB	26	1.56	28	1.38	26	2.07	191	-1.19	46	3.00	17	2.22	6	0.84	285	0.48	13	-1.41	15	0.50	4A	ES
COMLAB	20	0.33	25	0.63	18	-0.69	201	-0.26	34	-0.76	11	-0.64	<10	bld	269	-0.51	23	0.53	14	0.16	4A	MS
COMLAB	18	-0.06	21	-0.29	21	0.21	222	1.62	39	0.94	11	-0.64	3	-1.05	285	0.51	24	0.73	15	0.74	4A	MS
COMLAB	16	-0.45	23	0.17	18	-0.69	202	-0.17	13	3.00	11	-0.64	<10	bld	264	-0.83	26	1.12	14	0.16	4A	ES
COMLAB	17	-0.29	23	0.17	22	0.56	227	2.05	39	0.84	13	0.22	4	0.01	295	1.16	24	0.69	15	0.45	4A	MS
COMLAB	38	3.00	23	0.17	44	3.00	204	0.01	52	3.00	19	3.00	<10	bld	286	0.57	42	3.00	25	3.00	4A	AAS
COMLAB	16	-0.45	16	-1.43	19	-0.33	218	1.26	35	-0.42	12	-0.17	3	-0.77	288	0.70	21	0.14	13	-0.42	4A	MS
COMLAB	12	-1.22	23	0.17	19	-0.33	210	0.55	36	-0.08	12	-0.17	3	-0.77	285	0.51	22	0.33	14	0.16	4A	ICP
COMLAB	23	0.85	19	-0.67	21	0.39	199	-0.42	31	-1.71	13	0.22	8	1.95	257	-1.30	19	-0.31	16	1.14	4A	ES
COMLAB	27	1.68	28	1.31	24	1.46	203	-0.08	37	0.26	15	1.27	8	2.02	281	0.25	24	0.73	14	0.16	4A	ES
COMLAB	16	-0.49	27	1.15	21	0.35	199	-0.44	36	-0.08	12	-0.21	3	-0.83	275	-0.13	24	0.69	14	0.16	4A	ICP
COMLAB	17	-0.24	17	-1.31	18	-0.69	202	-0.20	35	-0.49	12	-0.21	3	-0.77	286	0.54	23	0.49	14	-0.13	4A	MS
COMLAB	<10	bld	<10	bld	<10	3.00	157	3.00	<10	3.00	<10	bld	<10	bld	246	-1.99	14	-1.26	4	3.00	4A	
COMLAB	15	-0.64	24	0.40	20	0.03	208	0.37	39	0.94	14	0.79	<5	bld	306	1.84	11	-1.83	14	0.16	4A	ES
COMLAB	16	-0.45	25	0.63	21	0.39	192	-1.06	36	-0.08	12	-0.17	4	-0.22	278	0.06	22	0.33	14	0.16	4A	ES
COMLAB	8	-1.95	22	0.02	29	3.00	193	-1.00	48	3.00	20	3.00	7	1.18	299	1.37	19	-0.24	15	0.90	4A	ICP
COMLAB	14	-0.83	21	-0.29	19	-0.33	187	-1.51	35	-0.42	12											

Standard Deviations

Standard Deviations



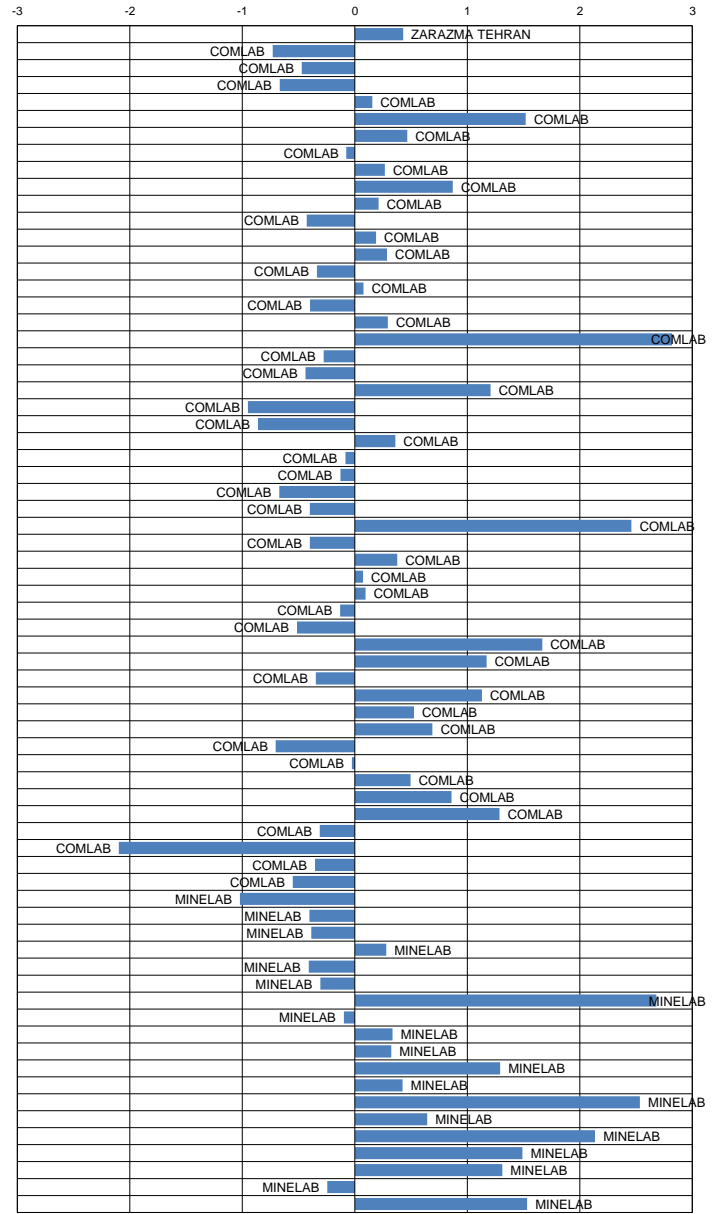
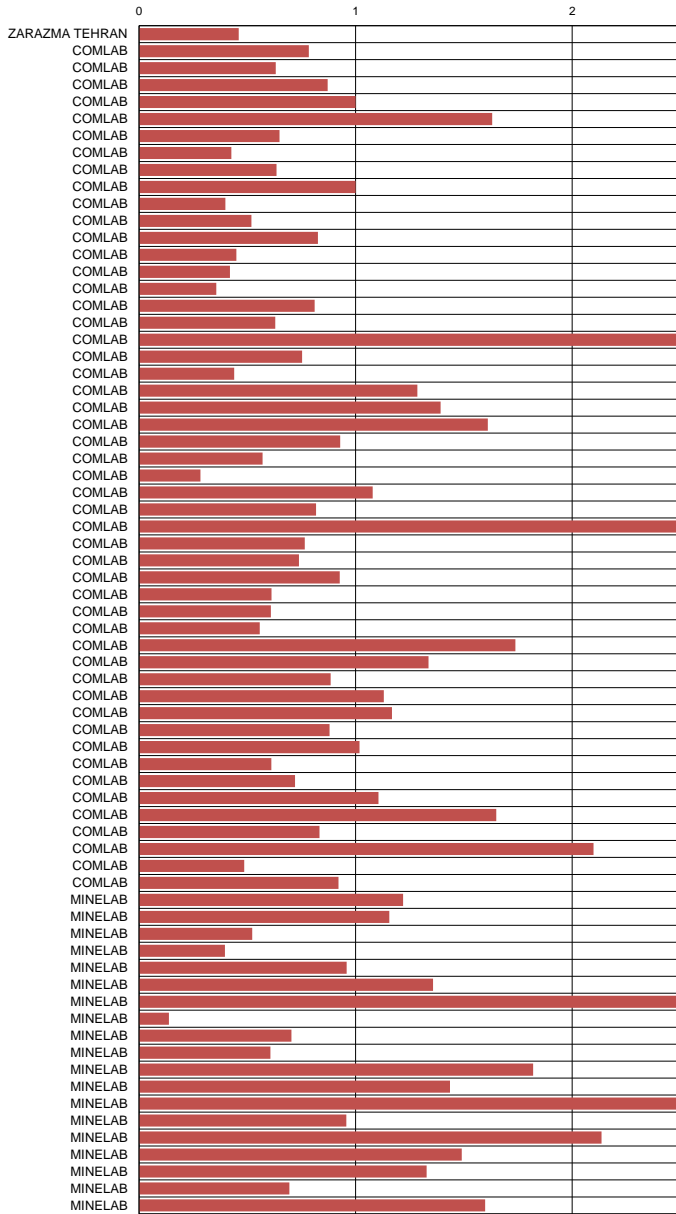
Arsenic (Partial Digest) Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GBM918-1	GBM918-2	GBM918-3	GBM918-4	GBM918-5	GBM918-6	GBM918-7	GBM918-8	GBM918-9	GBM918-10
MEAN (ppm)	19	24	19	199	35	12	3	265	7	13
STDEV (ppm)	6	5	2	13	4	2	1	20	3	2
95% CI (ppm)	1	1	1	3	1	0	0	5	1	1
95% CI (%)	7.51%	4.98%	3.52%	1.59%	3.26%	4.08%	10.00%	1.79%	12.81%	4.44%
MIN (ppm)	8	16	12	173	26	7	2	216	1	8
MEDIAN (ppm)	18	22	19	200	35	11	3	265	7	13
MAX (ppm)	33	34	25	233	47	16	6	318	13	18
IQR (ppm)	8	8	3	17	6	1	1	28	4	2
COUNT	60	59	56	62	59	53	42	68	48	53

Standard Reference	GBM918-1		GBM918-2		GBM918-3		GBM918-4		GBM918-5		GBM918-6		GBM918-7		GBM918-8		GBM918-9		GBM918-10		Method	Reading
Lab Reference	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
ZARAZMA TEHRAN	19	0.03	29	1.02	21	0.75	203	0.29	35	-0.05	11	-0.10	4	0.09	271	0.34	12	1.46	14	0.47	AR	ES
COMLAB	12	-1.24	19	-1.04	18	-0.26	191	-0.67	32	-0.76	12	0.24	<2	bld	246	-0.94	4	-0.95	11	-0.94	AR	ICP
COMLAB	12	-1.24	22	-0.39	20	0.55	197	-0.20	33	-0.54	12	0.24	2	-1.26	249	-0.79	5	-0.63	12	-0.47	AR	MS
COMLAB	14	-0.88	28	0.92	17	-0.66	177	-1.78	32	-0.76	11	-0.33	2	-1.26	240	-1.25	<2	bld	13	0.00	AR	ICP
COMLAB	14	-0.88	29	1.13	16	-1.06	216	1.31	33	-0.54	13	0.82	<2	bld	248	-0.84	13	1.94	12	-0.47	AR	ICP
COMLAB	25	1.10	22	-0.39	27	3.00	201	0.12	47	2.58	<20	bld	<20	bld	289	1.23	<20	bld	24	3.00	AR	AAS
COMLAB	16	-0.52	65	3.00	20	0.55	201	0.12	36	0.13	13	0.82	3	-0.36	264	-0.03	7	0.01	15	0.94	AR	ES
COMLAB	19	0.02	31	1.57	18	-0.26	200	0.04	36	0.13	11	-0.33	2	-1.26	264	-0.03	5	-0.63	13	0.00	AR	ES
COMLAB	15	-0.70	26	0.48	20	0.55	210	0.83	38	0.57	14	1.40	3	-0.36	278	0.68	6	-0.31	12	-0.47	AR	ICP
COMLAB	23	0.74	21	-0.61	22	1.35	199	-0.04	43	1.69	16	2.55	7	3.00	265	0.02	7	0.01	13	0.00	AR	ES
COMLAB	20	0.20	21	-0.61	20	0.55	204	0.36	36	0.13	11	-0.33	4	0.55	271	0.32	7	0.01	15	0.94	AR	ES
COMLAB	15	-0.70	19	-1.04	18	-0.26	201	0.12	35	-0.10	10	-0.91	2	-1.26	271	0.32	7	0.01	12	-0.47	AR	ES
COMLAB	20	0.20	24	0.05	17	-0.66	206	0.52	40	1.02	14	1.40	2	-1.26	265	0.02	3	-1.27	17	1.88	AR	ES
COMLAB	18	-0.16	32	1.78	19	0.15	206	0.52	34	-0.32	11	-0.33	4	0.55	278	0.68	7	0.01	13	0.00	AR	ES
COMLAB	15	-0.70	22	-0.39	19	0.15	195	-0.35	32	-0.76	10	-0.91	3	-0.36	270	0.27	6	-0.31	13	0.00	AR	ES
COMLAB	14	-0.83	26	0.39	19	0.27	199	-0.08	37	0.26	12	-0.04	nr	nr	273	0.42	6	-0.31	14	0.61	AR	MS
COMLAB	25	1.10	21	-0.61	19	0.15	183	-1.31	30	-1.21	13	0.82	3	-0.36	242	-1.15	4	-0.95	12	-0.47	AR	ES
COMLAB	16	-0.47	64	3.00	19	0.15	201	0.15	36	0.13	12	0.30	3	-0.72	282	0.88	6	-0.21	12	-0.28	AR	ICP
COMLAB	46	3.00	52	3.00	65	3.00	270	3.00	51	3.00	36	3.00	42	3.00	289	1.21	82	3.00	50	3.00	3A	AAS
COMLAB	11	-1.42	18	-1.26	19	0.15	189	-0.83	40	1.02	11	-0.33	<2	bld	249	-0.79	10	0.98	13	0.00	AR	ES
COMLAB	15	-0.70	23	-0.17	18	-0.26	184	-1.23	35	-0.10	11	-0.33	<5	bld	254	-0.54	5	-0.63	13	0.00	AR	ES
COMLAB	<25	bld	33	2.00	27	3.00	197	-0.20	37	0.35	<25	bld	<25	bld	282	0.88	<25	bld	<25	bld	AR	AAS
COMLAB	23	0.74	28	0.92	13	-2.27	123	-3.00	31	-0.99	8	-2.06	4	0.55	244	-1.04	7	0.01	8	-2.36	AR	ES
COMLAB	16	-0.52	20	-0.82	18	-0.26	148	-3.00	32	-0.76	8	-2.06	<5	bld	216	-2.46	<5	bld	22	3.00	AR	ES
COMLAB	14	-0.85	30	1.26	16	-1.08	202	0.22	38	0.47	11	-0.35	<10	bld	293	1.41	13	1.79	nr	nr	AR	ES
COMLAB	18	-0.16	29	1.13	18	-0.26	188	-0.91	35	-0.10	12	0.24	<5	bld	244	-1.04	10	0.82	12	-0.47	AR	ES
COMLAB	20	0.20	22	-0.39	18	-0.26	198	-0.12	35	-0.10	12	0.24	3	-0.36	248	-0.84	8	0.33	13	0.00	AR	MS
COMLAB	21	0.34	19	-1.08	16	-1.26	173	-2.10	31	-0.94	10	-0.85	5	1.51	238	-1.34	8	0.18	11	-1.18	AR	ES
COMLAB	13	-1.06	28	0.92	20	0.55	190	-0.75	33	-0.54	<10	bld	<10	bld	255	-0.49	<10	bld	10	-1.42	AR	ES
COMLAB	84	3.00	67	3.00	145	3.00	278	3.00	152	3.00	86	3.00	47	3.00	217	-2.41	60	3.00	66	3.00	AR	AAS
COMLAB	24	0.93	28	0.89	15	-1.62	194	-0.45	30	-1.23	11	-0.22	2	-1.35	260	-0.24	5	-0.66	13	-0.05	AR	MS
COMLAB	15	-0.70	24	0.05	21	0.95	204	0.36	40	1.02	13	0.82	4	0.55	301	1.84	5	-0.63	12	-0.47	AR	ES
COMLAB	27	1.45	21	-0.61	19	0.15	198	-0.12	26	-2.10	12	0.24	6	2.35	236	-1.45	8	0.33	14	0.47	AR	AAS
COMLAB	30	1.99	18	-1.26	19	0.15	184	-1.23	35	-0.10	13	0.82	4	0.55	265	0.02	7	0.01	13	0.00	1A	ICP
COMLAB	15	-0.70	17	-1.48	20	0.55	189	-0.83	35	-0.10	12	0.24	3	-0.36	260	-0.23	9	0.66	15	0.94	AR	ES
COMLAB	15	-0.70	19	-1.04	19	0.15	189	-0.83	35	-0.10	11	-0.33	2	-1.26	266	0.07	5	-0.63	12	-0.47	AR	ICP
COMLAB	27	1.45	25	0.26	25	2.56	209	0.75	44	1.91	20	3.00	3	-0.36	286	1.08	19	3.00	23	3.00	3A	AAS
COMLAB	20	0.20	20	-0.82	20	0.55	211	0.91	42	1.46	17	3.00	4	0.55	324	3.00	13	1.94	15	0.94	AR	MS
COMLAB	33	2.51	17	-1.49	17	-0.70	179	-1.60	32	-0.80	11	-0.33	2	-0.84	257	-0.40	8	0.18	13	0.01	AR	AAS
COMLAB	<50	bld	<50	bld	<50	bld	215	1.23	<50	bld	<50	bld	<50	bld	285	1.03	<50	bld	<50	bld	AR	AAS
COMLAB	14	-0.88	41	3.00	22	1.35	216	1.31	32	-0.76	13	0.82	2	-1.26	276	0.57	6	-0.31	16	1.41	AR	MS
COMLAB	21	0.38	32	1.78	22	1.35	192	-0.59	41	1.24	15	1.97	3	-0.36	268	0.17	7	0.01	15	0.94	AR	MS
COMLAB	15	-0.70	27	0.70	17	-0.66	173	-2.10	28	-1.65	12	0.24	<2	bld	244	-1.04	2	-1.59	14	0.47	AR	ES
COMLAB	21	0.40	23	-0.11	18	-0.43	197	-0.19	35	-0.13	11	-0.49	6	2.04	274	0.49	3	-1.24	12	-0.60	AR	MS
COMLAB	18	-0.16	21	-0.61	23	1.76	209	0.75	39	0.80	12	0.24	3	-0.36	286	1.08	10	0.98	14	0.47	2A	MS
COMLAB	23	0.74	27	0.70	22	1.35	184	-1.23	39	0.80	14	1.40	5	1.45	272	0.37	12	1.62	16	1.41	AR	ES
COMLAB	17	-0.34	19	-1.04	22	1.35	194	-0.43	42	1.46	20	3.00	10	3.00	284	0.98	20	3.00	17	1.88	AR	ES
COMLAB	15	-0.70	19	-1.04	18	-0.26	212	0.99	33	-0.54	11	-0.33	5	1.45	268	0.17	1	-1.91	11	-0.94	3A	AAS
COMLAB	8	-2.04	20	-0.79	3	-3.00	29	-3.00	3	-3.00	7	-2.49	3	-0.56	239	-1.30	1	-1.81	6	-3.00	AR	ICP
COMLAB	18	-0.22	21	-0.69	18	-0.30	193	-0.53	33	-0.61	11	-0.39	3	-0.47	251	-0.69	6	-0.30	14	0.66	AR	MS
COMLAB	23	0.74	18	-1.26	18	-0.26	205	0.44	28	-1.65	9	-1.48	3	-0.36	265	0.02	9	0.66	8	-2.36	AD	ES
MINELAB	12	-1.27	16	-1.76	12	-2.68	212	0.99	28	-1.57	9	-1.60	3	-0.22	263	-0.06	6	-0.42</				

Standard Deviations

Standard Deviations



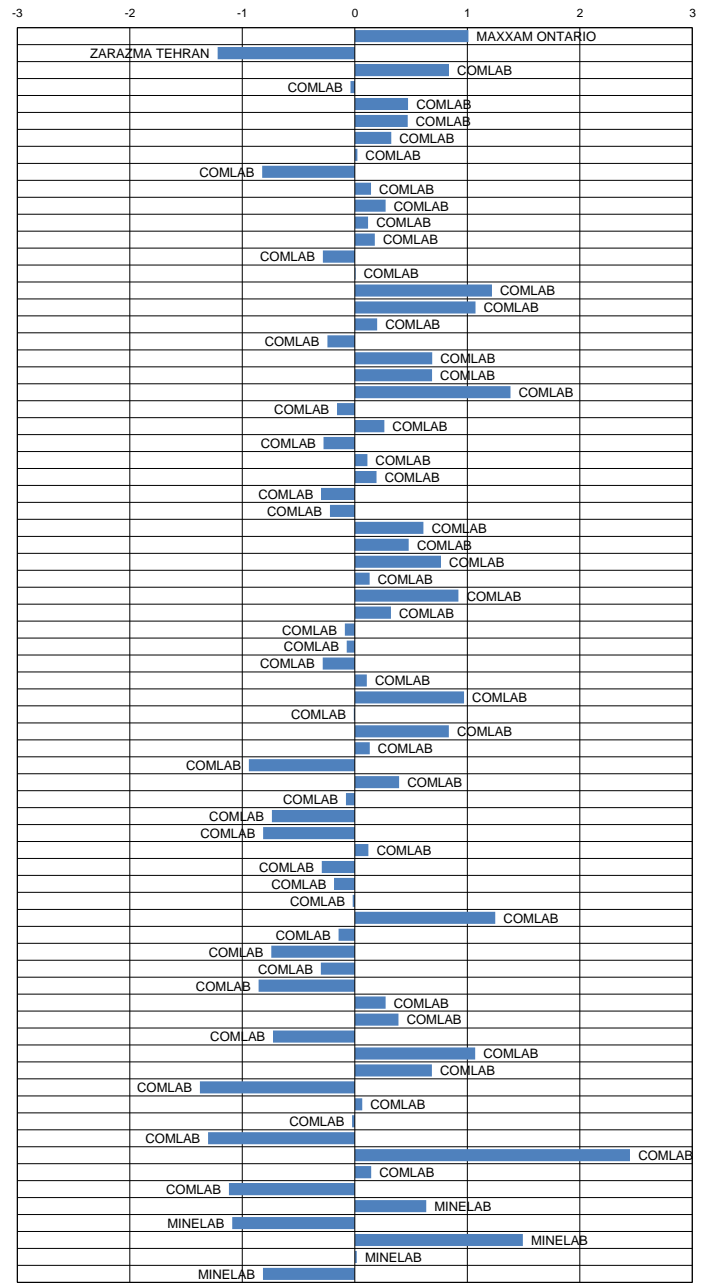
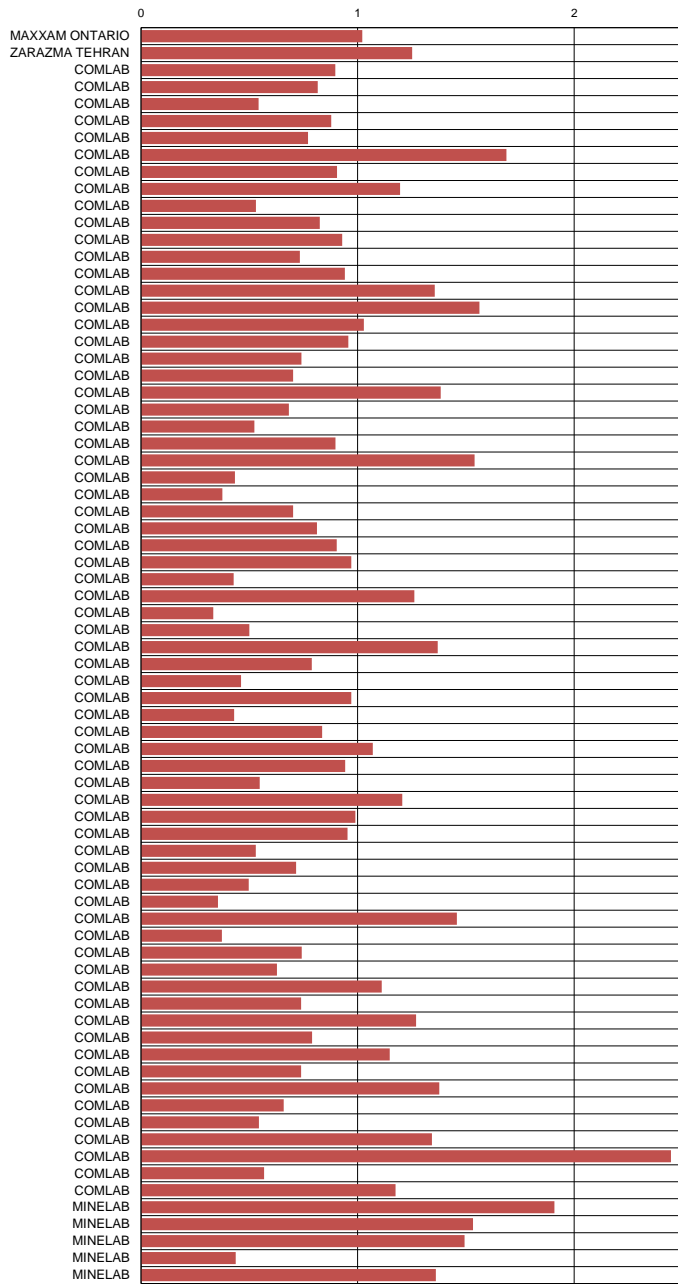
Cobalt (Total Digest) Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GBM918-1	GBM918-2	GBM918-3	GBM918-4	GBM918-5	GBM918-6	GBM918-7	GBM918-8	GBM918-9	GBM918-10
MEAN (ppm)	54	29	498	19	282	71	2	55	100	13
STDEV (ppm)	7	4	34	2	20	5	1	5	7	1
95% CI (ppm)	2	1	8	0	5	1	0	1	2	0
95% CI (%)	3.23%	3.72%	1.57%	1.91%	1.63%	1.48%	8.01%	1.91%	1.62%	1.75%
MIN (ppm)	39	21	407	15	228	60	1	43	84	11
MEDIAN (ppm)	52	28	506	19	284	71	2	56	100	13
MAX (ppm)	70	40	559	23	325	81	3	67	117	15
IQR (ppm)	7	5	47	2	24	5	0	6	10	1
COUNT	70	59	74	70	74	73	49	73	73	58

Standard Reference	GBM918-1		GBM918-2		GBM918-3		GBM918-4		GBM918-5		GBM918-6		GBM918-7		GBM918-8		GBM918-9		GBM918-10		Method	Reading
	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
MAXXAM ONTARIO	58	0.60	42	3.00	530	0.93	19	-0.05	300	0.91	75	0.89	<5	bld	60	1.03	110	1.50	13	0.28	NAA	
ZARAZMA TEHRAN	51	-0.42	23	-1.52	422	-2.25	19	-0.31	228	-2.71	61	-2.12	2	0.12	49	-1.33	88	-1.70	13	0.05	4A	ES
COMLAB	70	2.24	30	0.25	520	0.64	<30	bld	290	0.41	70	-0.21	<30	bld	60	1.03	110	1.50	<30	bld	4A	ICP
COMLAB	30	-3.00	34	1.21	511	0.38	19	-0.05	290	0.41	71	0.01	3	1.44	56	0.16	91	-1.22	13	0.28	4A	ES
COMLAB	53	-0.08	30	0.25	512	0.40	19	-0.05	295	0.66	74	0.67	2	-0.22	60	1.03	112	1.78	13	0.28	4A	ICP
COMLAB	67	1.83	25	-0.94	544	1.34	20	0.60	300	0.91	77	1.33	2	-0.22	57	0.37	102	0.35	12	-0.88	4A	ICP
COMLAB	54	0.06	57	3.00	491	-0.21	20	0.60	289	0.36	71	0.01	3	1.44	55	-0.06	92	-1.08	12	-0.88	4A	AAS
COMLAB	58	0.54	25	-0.99	432	-1.94	21	1.05	250	-1.60	63	-1.71	6	3.00	46	-2.07	106	0.96	16	3.00	4A	ES
COMLAB	47	-0.90	27	-0.46	496	-0.06	18	-0.57	279	-0.14	73	0.41	1	-1.54	47	-1.73	92	-1.08	11	-2.16	4A	ES
COMLAB	68	1.99	47	3.00	528	0.89	18	-0.96	289	0.38	71	-0.10	2	0.45	49	-1.49	92	-1.14	11	-1.58	4A	ES
COMLAB	50	-0.49	30	0.25	495	-0.09	19	-0.05	293	0.56	74	0.67	3	1.44	59	0.81	95	-0.65	13	0.28	4A	ES
COMLAB	53	-0.08	31	0.49	547	1.43	18	-0.70	304	1.11	72	0.23	1	-1.87	59	0.81	104	0.64	12	-0.88	4A	ES
COMLAB	56	0.33	24	-1.18	536	1.11	18	-0.70	291	0.46	76	1.11	1	-1.87	60	1.03	108	1.21	13	0.28	4A	ES
COMLAB	47	-0.90	28	-0.23	527	0.84	18	-0.70	302	1.01	72	0.23	1	-1.87	56	0.16	96	-0.51	12	-0.88	4A	ES
COMLAB	52	-0.21	47	3.00	515	0.49	18	-0.70	285	0.16	66	-1.09	1	-1.87	59	0.81	94	-0.79	13	0.28	4A	ES
COMLAB	56	0.33	27	-0.46	559	1.78	21	1.25	314	1.61	79	1.77	4	3.00	63	1.69	98	-0.22	14	1.44	4A	ICP
COMLAB	68	1.97	30	0.25	479	-0.56	22	1.90	279	-0.14	63	-1.75	7	3.00	67	2.56	103	0.49	16	3.00	4A	ES
COMLAB	48	-0.76	47	3.00	527	0.84	18	-0.70	291	0.46	72	0.23	3	1.44	56	0.16	95	-0.65	11	-2.04	4A	ES
COMLAB	39	-1.99	27	-0.46	519	0.61	18	-0.70	261	-1.04	69	-0.43	<3	bld	54	-0.28	96	-0.51	15	2.60	4A	ES
COMLAB	52	-0.21	37	1.93	511	0.38	19	-0.05	290	0.41	73	0.45	3	1.44	60	1.03	100	0.06	14	1.44	4A	ES
COMLAB	53	-0.08	34	1.21	517	0.55	20	0.60	285	0.16	73	0.45	3	1.44	58	0.59	103	0.49	14	1.44	4A	ES
COMLAB	54	0.06	71	3.00	549	1.49	21	1.25	319	1.86	76	1.11	3	1.44	63	1.69	103	0.49	14	1.44	4A	ES
COMLAB	52	-0.21	27	-0.46	513	0.43	17	-1.35	287	0.26	76	1.11	2	-0.22	59	0.81	92	-1.08	12	-0.88	4A	ES
COMLAB	48	-0.76	30	0.25	539	1.20	19	-0.05	297	0.76	70	-0.21	3	1.44	55	-0.06	98	-0.22	13	0.28	4A	ES
COMLAB	47	-0.88	34	1.21	521	0.67	18	-0.76	300	0.91	65	-1.26	nr	nr	53	-0.61	97	-0.42	12	-1.35	4A	MS
COMLAB	61	1.01	28	-0.23	440	-1.71	21	1.25	243	-1.94	63	-1.75	6	3.00	50	-1.16	97	-0.36	16	3.00	5A	ES
COMLAB	51	-0.32	34	1.14	509	0.33	19	0.02	267	-0.73	71	-0.10	2	-0.05	58	0.64	100	0.04	14	0.98	4A	ICP
COMLAB	48	-0.76	25	-0.94	499	0.02	19	-0.05	281	-0.04	70	-0.21	2	-0.22	54	-0.28	102	0.35	12	-0.88	4A	ES
COMLAB	50	-0.51	<40	bld	524	0.76	<40	bld	295	0.68	70	-0.14	<40	bld	50	-1.09	92	-1.02	<40	bld	4A	AAS
COMLAB	52	-0.21	26	-0.70	504	0.17	20	0.60	280	-0.09	74	0.67	4	3.00	58	0.59	104	0.64	14	1.44	4A	ES
COMLAB	54	0.06	24	-1.18	539	1.20	21	1.25	325	2.16	77	1.33	2	-0.22	52	-0.72	104	0.64	13	0.28	4A	ES
COMLAB	57	0.47	29	0.01	498	-0.01	22	1.90	270	-0.59	69	-0.43	4	3.00	57	0.37	110	1.50	14	1.44	4A	ES
COMLAB	50	-0.49	25	-0.94	501	0.08	19	-0.05	284	0.11	72	0.23	3	1.44	56	0.16	103	0.49	13	0.28	4A	MS
COMLAB	67	1.76	28	-0.20	490	-0.24	21	1.18	273	-0.44	67	-0.82	5	3.00	57	0.33	111	1.64	16	3.00	4A	ES
COMLAB	54	0.00	nr	nr	515	0.49	19	-0.05	289	0.36	73	0.37	<5	bld	57	0.42	102	0.35	13	0.63	4A	AAS
COMLAB	49	-0.62	32	0.73	463	-1.03	19	-0.05	280	-0.09	74	0.67	2	-0.22	57	0.37	93	-0.94	13	0.28	4A	ICP
COMLAB	70	2.24	29	0.01	470	-0.83	18	-0.70	263	-0.94	63	-1.75	3	1.44	39	-3.00	109	1.35	14	1.44	4A	ES
COMLAB	56	0.36	31	0.56	502	0.12	16	-1.74	303	1.06	71	-0.08	bld	bld	55	-0.02	101	0.16	8	-3.00	4A	ES
COMLAB	49	-0.62	31	0.49	509	0.32	19	-0.05	289	0.36	73	0.45	2	-0.22	56	0.16	107	1.07	12	-0.88	4A	ES
COMLAB	55	0.22	30	0.32	524	0.76	20	0.79	315	1.66	75	0.81	2	0.28	59	0.81	117	2.50	14	1.56	4A	MS
COMLAB	48	-0.76	28	-0.23	513	0.43	19	-0.05	292	0.51	72	0.23	2	-0.22	55	-0.06	106	0.92	12	-0.88	4A	ES
COMLAB	54	0.07	48	3.00	529	0.91	21	0.99	298	0.81	74	0.67	2	0.45	58	0.57	106	0.85	13	0.05	4A	MS
COMLAB	52	-0.21	55	3.00	468	-0.88	18	-0.70	279	-0.14	71	0.01	4	3.00	53	-0.50	90	-1.37	12	-0.88	4A	AAS
COMLAB	48	-0.76	28	-0.23	424	-2.17	17	-1.35	240	-2.09	69	-0.43	2	-0.22	51	-0.94	97	-0.36	12	-0.88	4A	MS
COMLAB	58	0.60	44	3.00	481	-0.50	19	-0.05	282	0.01	72	0.23	2	-0.22	57	0.37	101	0.21	13	0.28	4A	ICP
COMLAB	46	-0.98	32	0.61	472	-0.78	21	1.25	286	0.21	61	-2.17	<2	bld	50	-1.18	95	-0.68	16	3.00	4A	ES
COMLAB	42	-1.58	31	0.49	504	0.17	17	-1.35	281	-0.04	71	0.01	1	-1.87	58	0.59	94	-0.79	10	-3.00	4A	ES
COMLAB	55	0.25	24	-1.23	443	-1.62	19	-0.37	249	-1.64	65	-1.22	2	0.45	49	-1.38	93	-0.97	12	-0.42	4A	ICP
COMLAB	47	-0.90	31	0.49	507	0.26	19	-0.05	298	0.81	74	0.67	2	-0.22	59	0.81	101	0.21	12	-0.88	4A	ES
COMLAB	52	-0.19	25	-0.97	532	0.99	17	-1.54	296	0.71	73	0.41	2	-0.55	54	-0.39	91	-1.22	13	-0.19	4A	
COMLAB	49	-0.62	27	-0.46	490	-0.24	18	-0.70	284	0.11	74	0.67	2	-0.22	54	-0.28	105	0.78	12	-0.88	4A	ES
COMLAB	48	-0.76	28	-0.23																		

Standard Deviations

Standard Deviations



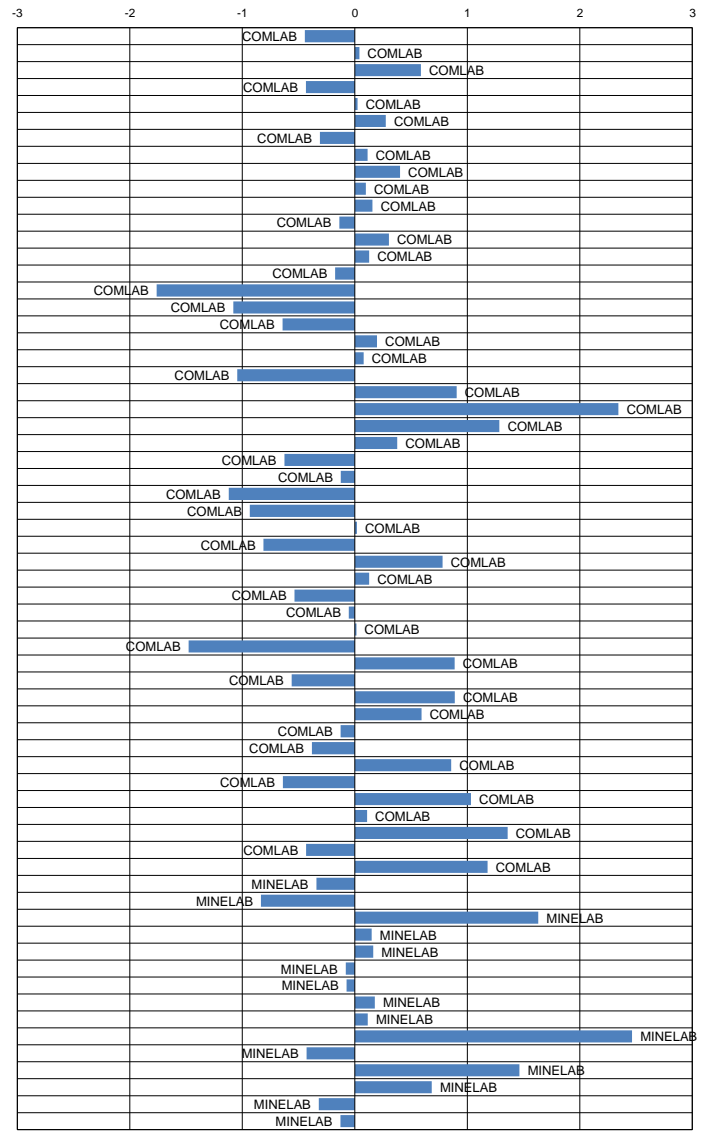
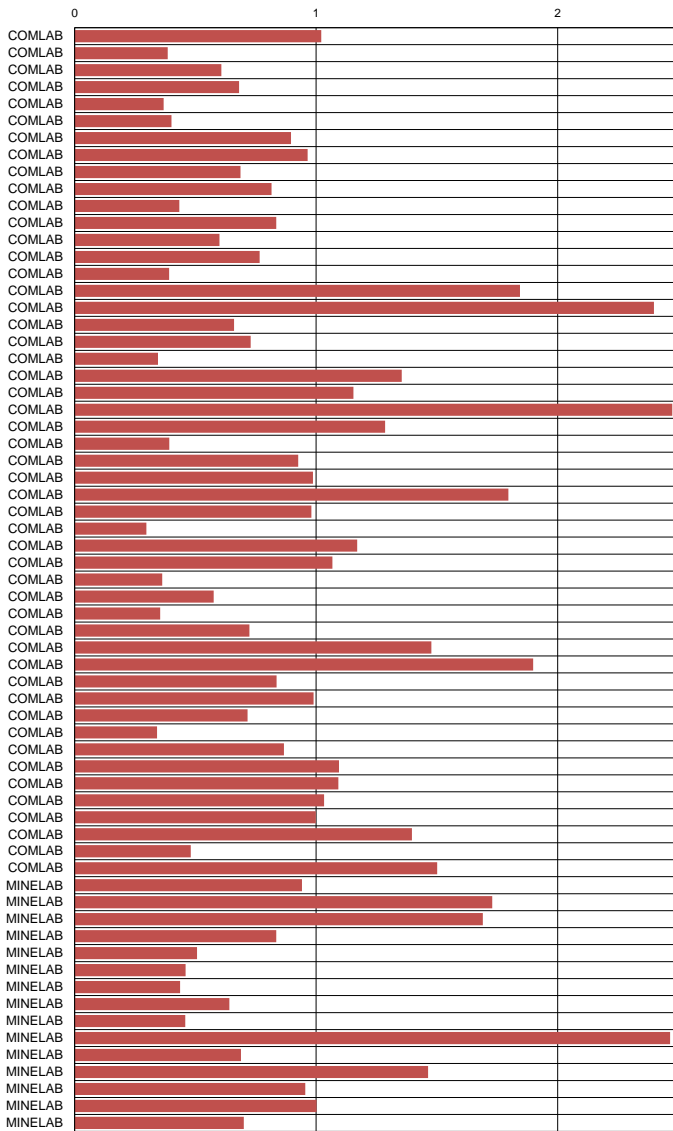
Cobalt (Partial Digest) Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GBM918-1	GBM918-2	GBM918-3	GBM918-4	GBM918-5	GBM918-6	GBM918-7	GBM918-8	GBM918-9	GBM918-10
MEAN (ppm)	29	31	487	18	277	69	2	52	98	12
STDEV (ppm)	6	6	40	1	24	7	0	7	9	2
95% CI (ppm)	2	1	10	0	6	2	0	2	2	0
95% CI (%)	5.56%	4.85%	2.08%	2.16%	2.21%	2.55%	2.17%	3.18%	2.44%	3.30%
MIN (ppm)	15	20	386	15	220	51	2	35	75	9
MEDIAN (ppm)	28	30	490	18	278	70	2	52	97	12
MAX (ppm)	46	43	583	22	335	85	2	70	118	16
IQR (ppm)	7	9	54	2	31	8	0	8	10	2
COUNT	60	56	61	56	62	63	36	62	61	55

Standard Reference	GBM918-1		GBM918-2		GBM918-3		GBM918-4		GBM918-5		GBM918-6		GBM918-7		GBM918-8		GBM918-9		GBM918-10		Method	Reading
Lab Reference	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
COMLAB	45	2.48	29	-0.28	438	-1.23	18	-0.10	244	-1.37	64	-0.75	2	0.41	44	-1.22	84	-1.44	11	-0.92	AR	ICP
COMLAB	26	-0.51	34	0.61	504	0.42	18	-0.10	283	0.23	70	0.09	2	0.41	50	-0.31	90	-0.80	13	0.38	AR	MS
COMLAB	52	3.00	31	0.07	496	0.22	18	-0.10	289	0.47	70	0.09	2	0.41	57	0.75	103	0.58	13	0.38	AR	ICP
COMLAB	26	-0.51	32	0.25	445	-1.06	19	0.57	255	-0.92	63	-0.89	2	0.41	46	-0.92	88	-1.02	12	-0.27	AR	ICP
COMLAB	28	-0.19	34	0.61	484	-0.08	19	0.57	271	-0.26	69	-0.05	2	0.41	52	-0.01	87	-1.12	13	0.38	AR	AAS
COMLAB	27	-0.35	32	0.25	510	0.57	19	0.57	299	0.88	74	0.66	2	0.41	52	-0.01	98	0.05	12	-0.27	AR	ES
COMLAB	24	-0.82	26	-0.82	508	0.52	19	0.57	296	0.76	76	0.94	1	-3.00	53	0.14	87	-1.12	12	-0.27	AR	ES
COMLAB	27	-0.35	27	-0.64	546	1.46	19	0.57	302	1.01	77	1.08	1	-3.00	58	0.90	101	0.37	12	-0.27	AR	ICP
COMLAB	36	1.07	26	-0.82	490	0.07	19	0.57	282	0.19	67	-0.33	2	0.41	66	2.11	95	-0.27	14	1.03	AR	ES
COMLAB	22	-1.13	40	1.67	523	0.89	17	-0.78	297	0.80	75	0.80	2	0.41	51	-0.16	92	-0.59	11	-0.92	AR	ES
COMLAB	26	-0.51	26	-0.82	506	0.47	19	0.57	276	-0.06	72	0.37	2	0.41	56	0.60	99	0.15	13	0.38	AR	ES
COMLAB	24	-0.82	36	0.96	521	0.84	17	-0.78	297	0.80	72	0.37	1	-3.00	53	0.14	101	0.37	12	-0.27	AR	ES
COMLAB	25	-0.66	26	-0.82	516	0.72	19	0.57	290	0.51	74	0.66	2	0.41	58	0.90	101	0.37	13	0.38	AR	ES
COMLAB	23	-0.98	26	-0.82	509	0.54	18	-0.10	284	0.27	73	0.52	3	3.00	53	0.14	94	-0.38	11	-0.92	AR	ES
COMLAB	22	-1.21	31	-0.02	502	0.37	18	-0.10	284	0.27	68	-0.26	nr	nr	54	0.34	97	-0.10	11	-0.85	AR	MS
COMLAB	28	-0.19	27	-0.64	343	-3.00	13	-3.00	177	-3.00	51	-2.59	2	0.41	35	-2.59	90	-0.80	9	-2.22	AR	ES
COMLAB	33	0.59	5	-3.00	20	-3.00	15	-2.13	10	-3.00	124	3.00	<1	-3.00	19	-3.00	145	3.00	12	-0.27	AR	AAS
COMLAB	26	-0.46	27	-0.64	431	-1.41	17	-0.51	252	-1.05	68	-0.19	2	-1.16	51	-0.12	98	0.09	11	-0.98	AR	ICP
COMLAB	29	-0.03	23	-1.35	482	-0.13	18	-0.10	327	2.03	74	0.66	2	0.41	47	-0.77	112	1.54	12	-0.27	AR	ES
COMLAB	33	0.59	26	-0.82	496	0.22	18	-0.10	274	-0.14	72	0.37	2	0.41	53	0.14	95	-0.27	13	0.38	AR	ES
COMLAB	27	-0.35	37	1.14	386	-2.53	16	-1.45	227	-2.07	54	-2.16	2	0.41	47	-0.77	75	-2.40	12	-0.27	AR	ES
COMLAB	23	-1.00	35	0.79	525	0.94	21	1.88	307	1.20	76	0.90	<10	bld	58	0.91	113	1.61	nr	nr	AR	ES
COMLAB	52	3.00	40	1.67	461	-0.66	38	3.00	312	1.42	112	3.00	12	3.00	125	3.00	221	3.00	39	3.00	AR	AAS
COMLAB	38	1.38	43	2.21	529	1.04	21	1.92	311	1.37	73	0.52	<10	bld	55	0.44	107	1.01	15	1.68	AR	AAS
COMLAB	32	0.39	34	0.66	490	0.06	19	0.37	279	0.06	75	0.73	2	0.41	53	0.20	107	0.96	12	-0.07	AR	MS
COMLAB	38	1.35	29	-0.23	457	-0.75	16	-1.18	265	-0.52	57	-1.81	<2	bld	43	-1.33	87	-1.15	12	-0.01	AR	ES
COMLAB	46	2.64	40	1.67	479	-0.21	18	-0.10	270	-0.30	69	-0.05	1	-3.00	51	-0.16	96	-0.17	10	-1.57	AR	ES
COMLAB	15	-2.23	30	-0.11	484	-0.08	9	-3.00	256	-0.88	72	0.37	5	3.00	37	-2.28	98	-3.00	<1	-3.00	AR	AAS
COMLAB	27	-0.29	32	0.23	363	-3.00	17	-0.84	231	-1.92	66	-0.46	2	-1.94	51	-0.19	95	-0.27	11	-0.66	AR	MS
COMLAB	28	-0.19	26	-0.82	489	0.04	18	-0.10	280	0.10	71	0.23	2	0.41	52	-0.01	105	0.79	12	-0.27	AR	ES
COMLAB	31	0.28	31	0.07	435	-1.30	17	-0.78	251	-1.08	54	-2.16	2	0.41	37	-2.28	76	-2.30	14	1.03	AR	AAS
COMLAB	30	0.12	38	1.32	471	-0.41	20	1.25	257	-0.84	68	-0.19	4	3.00	57	0.75	102	0.47	16	2.33	3A	ICP
COMLAB	26	-0.51	27	-0.64	507	0.49	19	0.57	277	-0.02	71	0.23	2	0.41	52	-0.01	101	0.37	13	0.38	AR	ES
COMLAB	23	-1.05	26	-0.78	486	-0.03	17	-0.84	281	0.14	70	0.06	2	-1.94	52	-0.03	97	-0.09	11	-0.79	AR	ICP
COMLAB	26	-0.51	28	-0.46	497	0.24	18	-0.10	292	0.60	73	0.52	<4	bld	52	-0.01	93	-0.48	12	-0.27	3A	AAS
COMLAB	34	0.77	21	-1.73	449	-0.96	19	0.37	272	-0.22	77	1.01	2	-0.37	56	0.54	107	1.01	12	-0.27	AR	MS
COMLAB	25	-0.63	23	-1.30	441	-1.15	15	-2.44	249	-1.17	56	-1.91	2	-2.64	45	-1.12	85	-1.35	11	-1.06	AR	AAS
COMLAB	38	1.41	20	-1.94	462	-0.64	28	3.00	271	-0.26	54	-2.22	9	3.00	70	2.75	105	0.77	22	3.00	3A	AAS
COMLAB	21	-1.29	36	0.96	>100	ald	17	-0.78	>100	ald	66	-0.47	<5	bld	48	-0.62	96	-0.17	10	-1.57	AR	AAS
COMLAB	26	-0.51	115	3.00	524	0.92	21	1.92	288	0.43	77	1.08	2	0.41	60	1.20	98	0.05	13	0.38	AR	MS
COMLAB	27	-0.35	38	1.32	534	1.17	19	0.57	293	0.64	78	1.22	2	0.41	57	0.75	102	0.47	12	-0.27	AR	MS
COMLAB	<50	bld	<50	bld	480	-0.18	<50	bld	260	-0.71	70	0.09	<50	bld	55	0.44	95	-0.27	<50	bld	AR	ES
COMLAB	43	2.21	25	-0.94	461	-0.66	18	-0.37	267	-0.42	71	0.22	2	-1.24	46	-0.97	95	-0.26	10	-1.38	AR	ES
COMLAB	28	-0.21	26	-0.78	583	2.38	19	0.51	330	2.17	68	-0.19	2	2.76	58	0.84	108	1.10	12	-0.01	2A	MS
COMLAB	23	-0.98	41	1.85	433	-1.35	16	-1.45	248	-1.21	64	-0.75	2	0.41	47	-0.77	86	-1.23	11	-0.92	AR	ES
COMLAB	37	1.22	36	0.96	499	0.29	19	0.57	280	0.10	75	0.80	<5	bld	59	1.05	116	1.97	16	2.33	AR	ES
COMLAB	35	0.91	23	-1.35	453	-0.86	21	1.92	256	-0.88	64	-0.75	<5	bld	51	-0.16	102	0.47	15	1.68	3A	AAS
COMLAB	28	-0.19	33	0.43	521	0.84	23	3.00	279	0.06	73	0.52	12	3.00	56	0.60	127	3.00	16	2.33	3A	AAS
COMLAB	28	-0.22	31	0.12	476	-0.28	17	-0.57	251	-1.10	70	0.11	2	-1.55	51	-0.22	97	-0.08	12	-0.55	AR	MS
COMLAB	42	2.01	39	1.50	568	2.01	18	-0.10	326	1.99	62	-1.04	3	3.00	49	-0.47	109	1.22	15	1.68	AD	AAS
MINELAB	26	-0.49	27	-0.65	423	-1.61	20	1.30	243	-1.43	58	-1.54	2	0.96	47	-0.70	99	0.17	13	0.57	AR	ES
MINELAB	32	0.44	83	3.00	397	-2.25	17	-0.78	220	-												

Standard Deviations

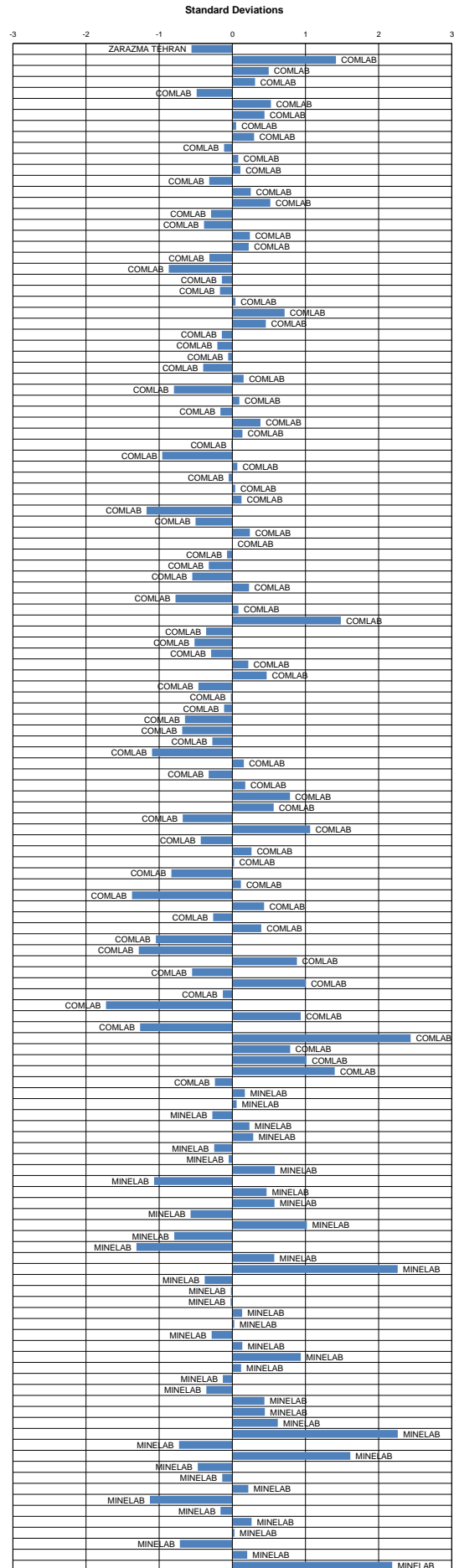
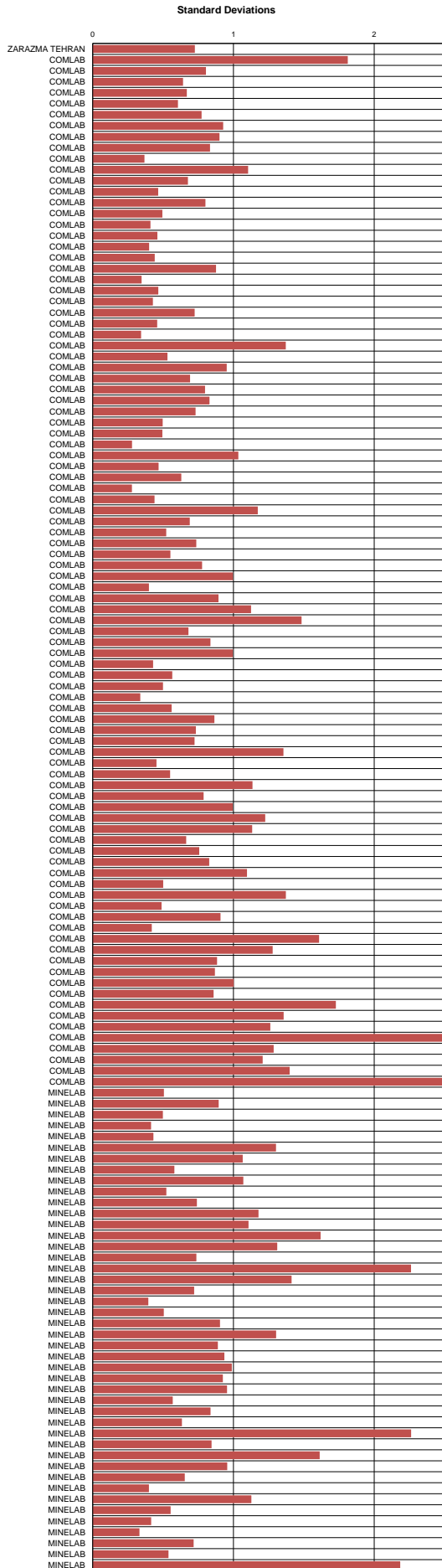
Standard Deviations



Ore Grade Copper Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GBM918-11	GBM918-12	GBM918-13	GBM918-14	GBM918-15	GBM918-16
MEAN (ppm)	4736	2138	8112	242639	8513	29639
STDEV (ppm)	166	107	389	6975	318	1043
95% CI (ppm)	28	12	66	1223	55	180
95% CI (%)	0.60%	0.51%	0.81%	0.50%	0.64%	0.61%
MIN (ppm)	4300	1880	7274	225187	7900	27100
MEDIAN (ppm)	4751	2147	8074	241758	8539	29646
MAX (ppm)	5181	2400	9161	261986	9398	32643
IQR (ppm)	204	114	475	8479	396	1366
COUNT	133	133	136	126	131	130

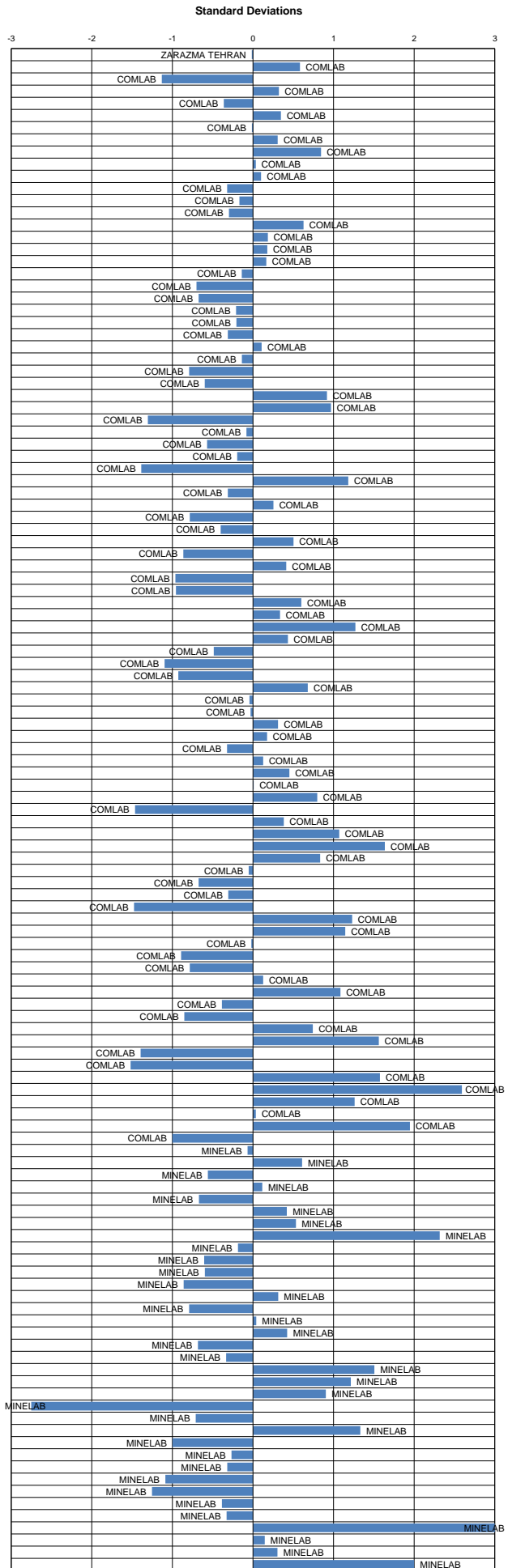
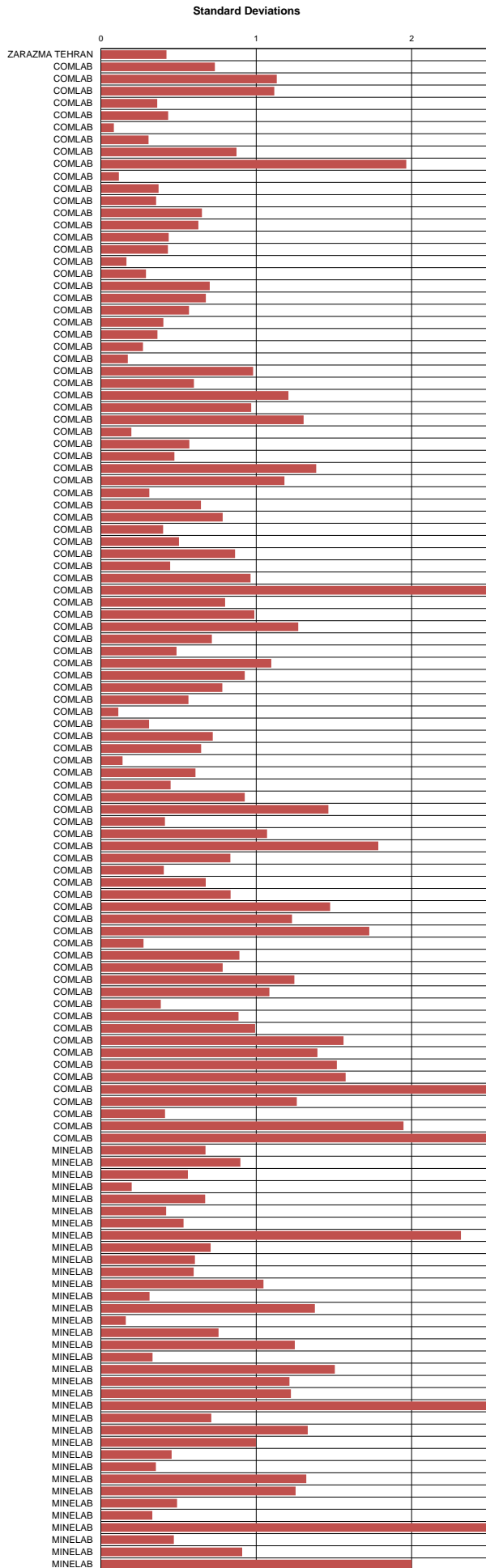
Standard Reference	GBM918-11		GBM918-12		GBM918-13		GBM918-14		GBM918-15		GBM918-16		Method	Reading
Lab Reference	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
ZARAZMA TEHRAN	4819	0.50	2123	-0.15	7971	-0.36	237017	-0.81	8058	-1.43	28483	-1.11	AR	ES
COMLAB	5250	3.00	2490	3.00	8420	0.79	253000	1.49	8960	1.41	28400	-1.19	FUS	ICP
COMLAB	4750	0.08	2180	0.41	8670	1.44	236220	-0.82	8200	0.31	30030	0.37	4A	AAS
COMLAB	4690	-0.28	2150	0.12	8710	1.54	251000	1.20	8450	-0.20	29100	-0.52	4A	AAS
COMLAB	4790	0.32	2160	0.22	8780	-0.62	231000	-1.67	8180	-1.05	29500	-0.13	4A	ES
COMLAB	4862	0.76	2193	0.64	8294	0.47	263271	1.52	8546	0.10	29394	-0.24	4A	AAS
COMLAB	4791	0.33	2210	0.71	9090	2.52	236054	-0.94	8539	0.08	29580	-0.06	FUS	ES
COMLAB	4414	-1.94	2069	-0.88	8366	0.65	253839	1.61	8544	0.10	30241	0.58	4A	ES
COMLAB	4842	0.64	2283	2.41	9399	-0.44	238262	-0.48	8234	-0.88	30207	-1.54	4A	AAS
COMLAB	4641	-0.57	1964	-1.71	7994	-0.30	240892	-0.25	8883	1.16	30679	1.00	3A	ES
COMLAB	4720	-0.10	2200	0.61	7830	-0.72	243000	0.05	8730	0.68	29600	-0.04	4A	ES
COMLAB	4800	0.38	2100	-0.37	8800	1.77	253000	1.49	8000	-1.61	28600	-1.00	FUS	XRF
COMLAB	4870	0.81	2120	-0.18	7890	-0.57	232000	-1.53	8600	0.27	28900	-0.71	4A	ES
COMLAB	4630	-0.64	2150	0.12	8330	0.56	247000	0.63	8610	0.31	30200	0.54	FUS	ES
COMLAB	4890	0.93	2200	0.81	8020	2.34	239000	-0.52	8540	0.09	29300	-0.33	4A	ES
COMLAB	4700	-0.22	2200	0.61	8000	-0.29	238000	-0.67	8300	-0.67	29100	-0.52	4A	ICP
COMLAB	4664	-0.44	2145	0.07	7803	-0.79	241916	-0.10	8220	-0.92	29496	-0.14	4A	ES
COMLAB	4810	0.44	2270	1.30	7920	-0.49	244000	0.20	8460	-0.17	29800	0.15	4A	ES
COMLAB	4840	0.63	2120	-0.18	nr	nr	nr	nr	nr	nr	nr	nr	4A	ES
COMLAB	4785	0.47	2150	0.12	7840	-0.70	238000	-0.67	8270	-0.76	29600	-0.13	4A	AAS
COMLAB	4620	-0.70	2010	-1.26	7690	-1.08	231510	-1.60	8520	0.02	29020	-0.59	3A	ES
COMLAB	4730	-0.04	2200	0.61	7940	-0.44	242000	-0.09	8360	-0.62	29200	-0.42	AR	ES
COMLAB	4680	-0.34	2140	0.02	8210	0.25	234000	-1.24	8710	0.48	29300	-0.33	AR	ES
COMLAB	4830	0.57	2180	0.41	8030	-0.21	239000	-0.52	8650	0.43	29200	-0.42	4A	ES
COMLAB	4830	0.67	2170	0.32	8160	-0.03	249900	1.04	8900	0.90	31180	1.49	4A	AAS
COMLAB	4850	0.69	2160	0.22	8460	0.90	246400	0.54	8640	0.40	29650	0.01	AR	AAS
COMLAB	4730	-0.04	2180	0.41	8080	-0.08	239700	-0.42	8220	-0.92	29830	0.18	4A	AAS
COMLAB	5040	1.83	2270	1.30	7590	-1.34	236000	-0.95	8630	0.37	27100	-2.44	4A	ES
COMLAB	4760	0.14	2190	0.51	8410	0.77	234000	-1.24	8480	-0.10	29200	-0.42	4A	ES
COMLAB	4800	0.38	nr	nr	8500	1.10	240300	-0.34	8500	-0.04	2990	-3.00	4A	VOL
COMLAB	4725	0.38	2145	0.07	7850	-1.10	255500	-1.84	8360	-0.51	29990	0.34	4A	AAS
COMLAB	4650	-0.52	2120	-0.18	7420	-1.78	238200	-0.64	8470	-0.14	28030	-1.54	4A	AAS
COMLAB	4900	0.99	2200	0.61	8570	1.18	238000	-0.67	8250	-0.83	28900	-0.71	3A	ES
COMLAB	4730	-0.04	2020	-1.16	7909	-0.52	235942	-0.96	8668	0.49	30907	1.23	4A	AAS
COMLAB	4815	0.47	2114	-0.24	8091	-0.05	242300	-0.05	8622	0.34	31544	1.88	4A	VOL
COMLAB	4725	0.38	2184	0.45	8178	0.17	236889	-0.82	8917	0.96	nr	nr	4A	AAS
COMLAB	4620	-0.70	2120	-0.18	8160	0.12	242690	0.01	8600	0.27	30050	0.39	4A	AAS
COMLAB	4510	-1.36	1963	-1.72	7979	-0.34	>100000	ald	8019	-1.55	29838	0.19	AR	AAS
COMLAB	4673	-0.38	2105	-0.32	8054	-0.15	241017	-0.35	8613	0.32	30987	1.29	3A	VOL
COMLAB	4506	-1.39	2072	-0.65	8237	0.32	242832	0.03	8539	0.08	31002	1.31	3A	AAS
COMLAB	4663	-0.44	2126	-0.12	8101	-0.03	241715	-0.13	8559	0.14	30481	0.81	4A	ES
COMLAB	4784	0.67	2170	0.32	8320	0.54	237000	-0.81	8600	0.27	29600	-0.13	4A	ES
COMLAB	4363	-2.25	2033	-1.03	7947	-0.42	>100000	ald	8266	-0.78	28202	-1.38	AR	ES
COMLAB	4549	-1.13	2087	-0.50	7885	-0.58	246540	0.56	8244	-0.85	29100	-0.52	4A	AAS
COMLAB	4880	0.87	2200	0.61	8040	-0.18	238000	-0.67	8750	0.75	29700	0.06	4A	ES
COMLAB	4998	1.58	2202	0.63	7972	-0.36	239600	-0.44	8108	-0.27	29500	-0.13	4A	TITR
COMLAB	4475	-1.56	2128	-0.54	8147	0.09	240419	-0.32	8620	0.34	30126	0.47	4A	AAS
COMLAB	4890	0.83	2180	0.41	8120	0.02	233000	-1.38	8160	-1.11	28900	-0.80	4A	ICP
COMLAB	4760	0.14	2260	1.20	7960	-0.39	238000	-0.67	8120	-1.24	27200	-2.34	4A	AAS
COMLAB	4867	0.79	2180	0.41	8127	0.04	243520	0.13	8350	-0.51	30179	0.52	4A	ES
COMLAB	4710	-0.16	1986	-1.50	7532	-1.49	>50000	ald	8185	-1.03	29940	0.29	AR	ES
COMLAB	4425	-1.88	2038	-0.98	9063	2.45	240788	-0.27	8625	0.35	30499	0.82	AR	AAS
COMLAB	4895	0.85	2361	2.20	8334	0.57	245429	1.72	8668	0.46	33432	3.00	4A	AAS
COMLAB	4839	0.62	2173	0.35	7998	-1.32	238220	-0.63	8462	-0.16	28598	-1.00	4A	ES
COMLAB	4722	-0.09	2235	0.96	7404	-1.82	236558	-0.87	8176	-1.06	29405	-0.22	4A	ES
COMLAB	4543	-1.17	2117	-0.21	7677	-1.12	238700	-0.56	8185	2.12	28880	-0.80	4A	ES
COMLAB	4843	0.64	2177	0.39	7945	-0.43	248709	0.87	8448	-0.20	29684	0.04	4A	AAS
COMLAB	4800	0.38	2200	0.61	8000	-0.29	249800	0.81	8360	0.27	30600	0.92	4A	ES
COMLAB	4561	-1.06	2120	-0.18	7962	-0.38	243390	0.11	8368	-0.46	28790	-0.81	4A	ICP
COMLAB	4807	0.43	2134	-0.04	7901	-0.54	244192	0.22	8355	-0.50	29951	0.30	4A	ES
COMLAB	4866	0.78	2195	0.66	7944	-0.43	241483	-0.17	8153	-1.13	29336	-0.29	4A	AAS
COMLAB	4844	0.65	2112	-0.26	7593	-1.33	235350	-1.04	8087	-1.34	29052	-0.56	AR	TITR
COMLAB	4607	-0.78	2090	-0.47	8167	0.14	232007	-1.52	8316	-0.82	28744	-0.66	AR	ES
COMLAB	4875	0.84	2190	0.51	8040	-0.18	240823	-0.26	8510	-1.47	30112	0.98	4A	ES
COMLAB	4400	-2.03	1900	-2.34	7700	-1.06	243600	0.14	7900	-1.93	30300	0.63	4A	ICP
COMLAB	4930	1.17	2130	-0.08	8130	0.05	237000	-0.81	8660	0.46	29800	0.15	4A	AAS
COMLAB	4724	-0.07	2187	0.48	7790	-0.83	244011	0.20	8160	-1.11	29006	-0.61	4A	ES
COMLAB	4582	-0.93	1978	-1.57	8399	0.74	244000	0.20	10938	3.00	29251	-0.37	AR	MS
COMLAB	4826	0.64	2186	0.49	8386	0.69	248973	1.02	8640	1.34	30996	1.63	FUS	ES
COMLAB	4751	0.09	2063	-0.74	8136	0.63	238790	-0.55	8988	1.50	30120	0.46	ES	ES
COMLAB	4720	-0.10	1944	-1.91	8030	-0.21	25529	-3.00	8356	-0.49	31350	1.64	3A	AAS
COMLAB	4749	0.08	2117	-0.21	8685	1.47	247862	0.75	9398	2.79	31207	1.50	3A	ICP
COMLAB	4590	-0.88	2147	0.09	7959	-0.39	246878	0.61	8205	-0.97	28550	-1.04	4A	ES
COMLAB	4978	1.46	2212	0.73	7698	-1.06								



Ore Grade Lead Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GBM918-11	GBM918-12	GBM918-13	GBM918-14	GBM918-15	GBM918-16
MEAN (ppm)	54	23	1936	21	23347	7360
STDDEV (ppm)	8	6	82	7	1970	285
95% CI (ppm)	2	1	15	2	360	48
95% CI (%)	3.25%	6.40%	0.77%	8.17%	1.54%	0.65%
MIN (ppm)	36	9	1700	5	18686	6601
MEDIAN (ppm)	53	21	1934	20	23038	7360
MAX (ppm)	76	39	2161	38	28861	8026
IQR (ppm)	11	10	108	5	1951	296
COUNT	86	73	117	65	116	118

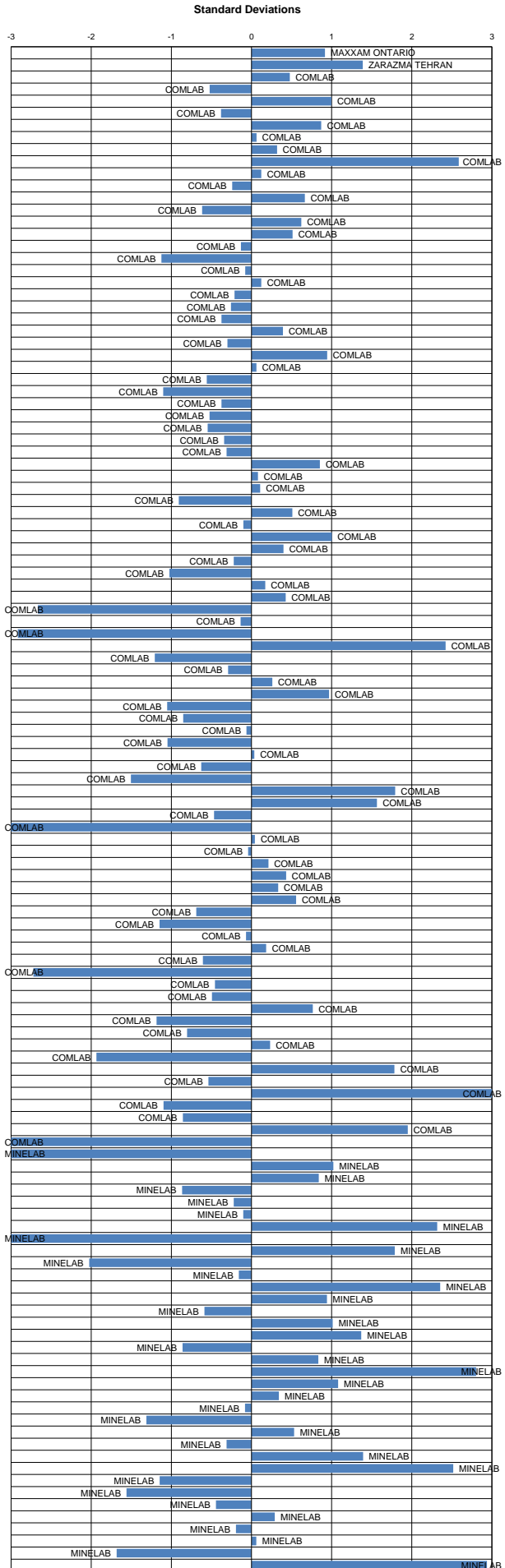
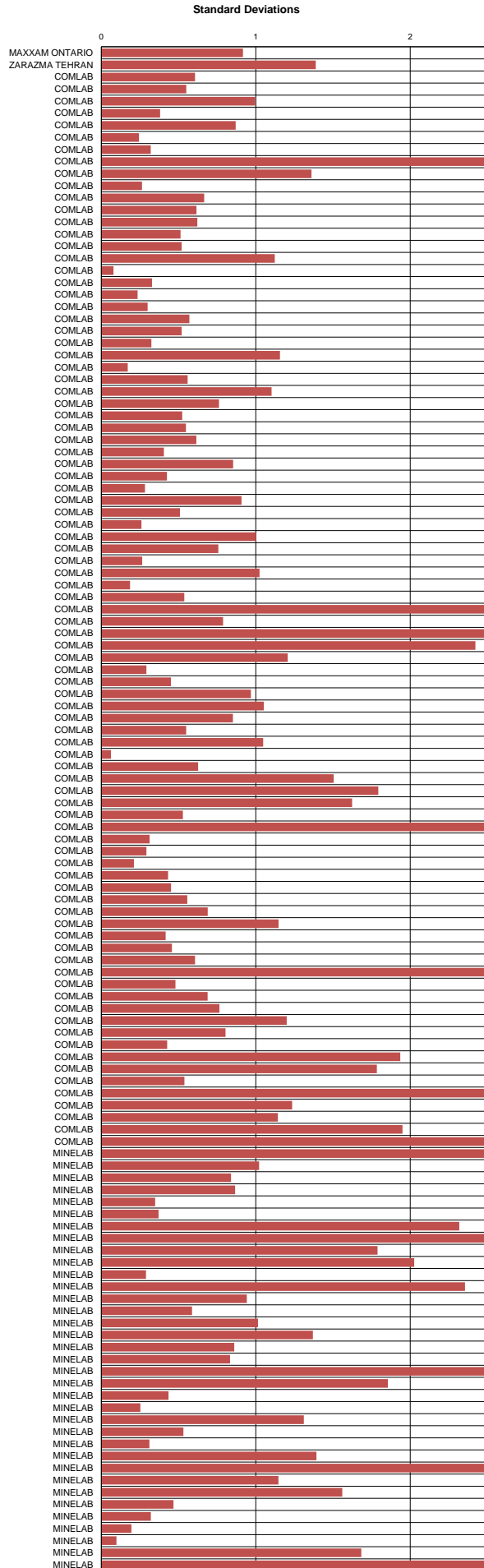
Standard Reference	GBM918-11		GBM918-12		GBM918-13		GBM918-14		GBM918-15		GBM918-16		Method	Reading
	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
ZARAZMA TEHRAN	53	-0.12	21	-0.36	1913	-0.28	18	-0.40	22597	-0.38	7522	0.61	AR	ES
COMLAB	100	3.00	<100	bld	2000	0.78	<100	bld	25700	1.19	7300	-0.23	FUS	ICP
COMLAB	60	0.73	30	1.03	1920	-0.19	20	-0.11	21200	-1.09	6800	-2.11	4A	AAS
COMLAB	40	-1.70	18	-0.83	2070	1.63	16	-0.69	21000	-1.19	7500	0.53	4A	ES
COMLAB	<100	bld	<100	bld	1900	-0.43	<20	bld	23000	-0.13	7220	-0.53	4A	ES
COMLAB	<100	bld	<100	bld	1925	-0.13	<100	bld	25643	-0.17	7361	0.00	4A	AAS
COMLAB	53	-0.12	<50	bld	1929	-0.08	<50	bld	23221	-0.06	7388	0.11	FUS	ES
COMLAB	43	-1.31	15	-1.28	1939	0.03	144	3.00	24496	0.58	7440	0.30	4A	ES
COMLAB	104	3.00	93	3.00	2009	0.89	64	3.00	23263	-0.04	7807	1.69	4A	AAS
COMLAB	<100	bld	<100	bld	1800	-1.65	<100	bld	37840	3.00	7029	-1.25	3A	ES
COMLAB	50	-0.48	10	-2.07	1950	0.17	30	1.34	23300	-0.02	7400	0.15	4A	ES
COMLAB	<100	bld	<100	bld	1900	-0.43	<100	bld	23500	0.08	7200	-0.60	FUS	XRF
COMLAB	60	0.73	20	-0.52	1930	-0.07	20	-0.11	23900	0.28	7170	-0.72	4A	ES
COMLAB	<100	bld	<100	bld	1900	-0.43	100	3.00	21400	-0.99	7500	0.53	FUS	ES
COMLAB	50	-0.48	20	-0.52	2000	0.78	20	-0.11	25000	0.84	7430	0.26	4A	ES
COMLAB	100	3.00	bld	bld	2000	0.78	bld	bld	22600	-0.38	7400	0.15	4A	ICP
COMLAB	62	0.97	30	1.03	1998	0.76	34	1.91	22597	-0.38	7402	0.16	4A	ES
COMLAB	50	-0.48	30	1.03	1970	0.42	20	-0.11	23500	0.08	7360	0.00	4A	ES
COMLAB	nr	nr	nr	nr	nr	nr	nr	nr	22500	-0.43	7400	0.15	4A	ES
COMLAB	60	0.73	30	1.03	1870	-0.80	30	1.34	21000	-1.19	7330	-0.11	4A	ES
COMLAB	<100	bld	<100	bld	1900	-0.43	<100	bld	21400	-0.99	7200	-0.60	3A	ES
COMLAB	60	0.73	20	-0.52	1980	0.54	20	-0.11	21200	-1.09	7340	-0.08	4A	MS
COMLAB	40	-1.70	20	-0.52	1960	0.29	20	-0.11	21700	-0.84	7340	-0.08	AR	ES
COMLAB	60	0.73	20	-0.52	1880	-0.68	20	-0.11	23500	0.08	7270	-0.34	4A	ES
COMLAB	50	-0.48	30	1.03	1930	-0.07	20	-0.11	23000	-0.18	7510	-0.57	AR	AAS
COMLAB	60	0.73	20	-0.52	1940	0.05	20	-0.11	22500	-0.43	7350	-0.04	4A	AAS
COMLAB	70	1.94	30	1.03	1810	-1.53	30	1.34	23900	0.28	7060	-1.13	4A	ES
COMLAB	60	0.73	30	1.03	1850	-1.04	20	-0.11	22900	-0.23	7220	-0.53	4A	ES
COMLAB	nr	nr	nr	nr	1900	-0.43	nr	nr	27100	1.91	7700	1.28	4A	AAS
COMLAB	105	3.00	28	0.72	1976	0.49	29	1.19	26830	1.77	7531	0.65	5A	ES
COMLAB	<200	bld	<200	bld	1800	-1.65	<200	bld	22300	-0.53	6900	-1.74	4A	AAS
COMLAB	57	0.36	<50	bld	1950	0.17	<50	bld	22900	-0.23	7310	-0.19	3A	ES
COMLAB	46	-0.97	14	-1.45	1859	-0.93	27	0.90	nr	nr	7305	-0.21	4A	AAS
COMLAB	nr	nr	nr	nr	1853	-1.00	nr	nr	23691	0.17	7424	0.24	4A	AAS
COMLAB	128	3.00	116	3.00	1875	-0.74	<100	bld	22518	-0.42	6526	-3.00	AR	AAS
COMLAB	51	-0.36	11	-1.93	2090	1.87	19	-0.31	24675	0.67	7625	1.00	3A	ES
COMLAB	49	-0.61	<40	bld	1877	-0.71	25	0.61	23070	-0.14	7338	-0.08	3A	AAS
COMLAB	52	-0.24	22	-0.21	1900	-0.43	21	0.04	26000	1.35	7320	-0.15	4A	MS
COMLAB	<100	bld	<100	bld	1898	-0.46	<100	bld	21372	-1.00	7124	-0.89	AR	ES
COMLAB	43	-1.33	14	-1.45	1852	-1.02	18	-0.40	23000	-0.18	7357	-0.01	4A	AAS
COMLAB	55	0.12	22	-0.21	1970	0.42	19	-0.25	25500	1.09	7360	0.00	4A	ES
COMLAB	56	0.24	19	-0.67	1824	-1.36	22	0.18	22400	-0.48	7160	-0.76	4A	ES
COMLAB	51	-0.33	20	-0.55	2003	0.82	21	-0.02	24278	0.47	7347	-0.05	4A	AAS
COMLAB	<125	bld	<125	bld	1820	-1.40	<125	bld	22800	-0.28	7040	-1.21	4A	ICP
COMLAB	382	3.00	108	3.00	1609	-3.00	<10	bld	30702	3.00	6601	-2.87	4A	AAS
COMLAB	60	0.76	25	0.21	2001	0.80	81	3.00	22757	-0.30	7705	1.30	4A	ES
COMLAB	<100	bld	<100	bld	1855	-0.98	<100	bld	27160	1.94	7373	0.05	AR	ES
COMLAB	88	3.00	75	3.00	2063	1.54	38	2.49	25188	0.93	7713	1.33	AR	AAS
COMLAB	42	-1.45	17	-0.98	1974	0.46	9	-1.64	22516	-0.42	7693	1.26	AR	AAS
COMLAB	53	-0.12	<50	bld	1895	-0.49	<50	bld	23130	-0.11	7133	-0.86	4A	ES
COMLAB	<50	bld	<50	bld	1885	-0.62	<50	bld	20340	-1.53	7056	-1.15	4A	ES
COMLAB	58	0.49	33	1.49	1907	-0.35	22	0.18	20300	-1.55	7126	-0.88	4A	ES
COMLAB	59	0.61	31	1.18	2061	1.52	28	1.05	23045	-0.15	7538	0.67	4A	AAS
COMLAB	100	3.00	100	3.00	2000	0.78	<100	bld	22000	-0.68	7300	-0.23	4A	AAS
COMLAB	49	-0.61	49	-0.36	1921	-0.18	16	-0.40	23280	-0.09	7303	0.12	4A	ICP
COMLAB	55	0.16	30	1.04	1940	0.05	17	-0.53	24885	0.78	7386	0.10	4A	ES
COMLAB	47	-0.85	20	-0.52	1990	0.66	18	-0.40	21736	-0.82	7541	0.68	4A	ES
COMLAB	nr	nr	nr	nr	1967	0.38	nr	nr	20488	-1.45	7388	0.11	AR	AAS
COMLAB	54	0.00	19	-0.67	1934	-0.02	<10	bld	24013	0.34	7376	0.06	AR	ES
COMLAB	57	0.36	24	0.10	1948	0.15	19	-0.25	22883	-0.24	7742	1.44	4A	ICP
COMLAB	49	-0.61	32	1.34	1900	-0.43	22	0.18	24700	0.69	7300	-0.23	4A	ICP
COMLAB	57	0.36	21	-0.36	2133	2.39	110	3.00	23724	0.19	7309	-0.19	4A	ES
COMLAB	46	-0.92	22	-0.15	1870	-0.80	26	0.79	21100	-1.14	6710	-2.45	AR	MS
COMLAB	<100	bld	<100	bld	2000	0.78	<100	bld	23258	-0.05	7469	0.41	4A	ES
COMLAB	52	-0.24	28	0.72	1970	0.42	22	0.18	28550	2.64	7400	0.15	ES	ES
COMLAB	48	-0.73	20	-0.52	2271	3.00	9	-1.70	22905	-0.22	7925	2.13	3A	AAS
COMLAB	53	-0.12	23	-0.06	1958	0.27	18	-0.40	26876	1.79	7476	0.44	3A	ICP
COMLAB	53	-0.12	34	1.64	1966	0.37	19	-0.25	23664	0.16	7178	-0.69	4A	ES
COMLAB	42	-1.45	16	-1.14	1905	-0.37	<20	bld	23030	-0.16	6965	-1.49	FUS,4A	ICP
COMLAB	49	-0.61	9	-2.22	1830	-1.28	9	-1.70	22500	-0.43	7570	0.79	3A	AAS
COMLAB	62	0.99	43	3.00	1578	-3.00	17	-0.55	21018	-1.18	7295	-0.24	4A	AAS
COMLAB	120	3.00	100	3.00	2050	1.39	<100	bld	26400	1.55	7560	0.76	4A	AAS
COMLAB	62	0.97	33	1.49	2158	2.70	17	-0.54	21626	-0.87	7787	1.61	4A	AAS
COMLAB	57	0.36	29	0.87	1925	-0.13	16	-0.69	24098	0.38	7277	-0.31	4A	AAS
COMLAB	102	3.00	78	3.00	1788	-1.79	38	2.52	21784	-0.79	7336	-0.09	3A	AAS
COMLAB	50	-0.48	20	-0.52	1900	-0.43	<20	bld	21500	-0.94	7100	-0.98	4A	AAS
COMLAB	49	-0.61	21	-0.36	1855	-0.98	13	-1.12	27400	2.06	7175	-0.70	AR	MS
COMLAB	92	3.00	76	3.00	2070	1.63	389	3.00						



Ore Grade Zinc Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GBM918-11	GBM918-12	GBM918-13	GBM918-14	GBM918-15	GBM918-16
MEAN (ppm)	1265	838	3191	54	25423	22479
STDEV (ppm)	98	72	1312	19	1165	616
95% CI (ppm)	18	13	241	4	210	118
95% CI (%)	1.40%	1.54%	0.75%	7.92%	0.83%	0.53%
MIN (ppm)	1000	635	29250	5	22220	20976
MEDIAN (ppm)	1273	847	31800	50	25371	22453
MAX (ppm)	1530	1010	35129	102	28700	24180
IQR (ppm)	109	81	1674	18	1209	819
COUNT	120	120	115	79	119	105

Standard Reference	GBM918-11		GBM918-12		GBM918-13		GBM918-14		GBM918-15		GBM918-16		Method	Reading
Lab Reference	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
MAXAM ONTARIO	1300	0.85	850	0.09	31400	<200	bld	<200	25220	0.92	23000	0.85	NAA	
ZARAZMA TEHRAN	1327	0.63	909	0.17	32200	0.24	51	-0.15	26505	0.93	24972	3.00	AR	ES
COMLAB	1300	0.36	800	-0.53	32300	0.29	<100	bld	25200	-0.19	23300	-1.33	FUS	ICP
COMLAB	1290	0.26	850	0.17	31970	0.04	60	0.32	24720	-0.60	21860	-1.00	4A	AAS
COMLAB	1170	-0.96	690	-2.06	33100	0.90	50	-0.20	26300	0.75	23300	-1.33	4A	ES
COMLAB	1230	-0.35	860	0.31	31700	-0.16	50	-0.20	25000	-0.36	22100	-0.62	4A	ES
COMLAB	1305	0.41	862	0.33	32469	0.42	<100	bld	26244	0.70	23391	1.48	4A	AAS
COMLAB	1280	0.15	846	0.11	31558	-0.27	90	1.89	25444	0.22	22750	0.44	FUS	ES
COMLAB	11243	3.00	798	-0.56	32648	0.56	419	3.00	25527	0.09	22670	0.31	4A	ES
COMLAB	1481	2.20	988	2.09	34226	1.76	102	2.51	29374	3.00	25140	3.00	4A	AAS
COMLAB	1214	-0.52	831	-0.10	31124	-0.60	<100	bld	28013	2.22	21706	-1.26	3A	ES
COMLAB	1300	0.36	800	0.09	31400	-0.39	40	-0.72	25000	-0.36	22500	0.03	4A	ES
COMLAB	1300	0.36	800	-0.53	32900	0.75	<100	bld	25700	0.24	23100	1.01	FUS	XRF
COMLAB	1340	0.77	840	0.03	31100	-0.62	50	-0.20	24900	-0.45	22000	-0.78	4A	ES
COMLAB	1300	0.36	900	0.86	32500	0.45	<100	bld	25900	0.41	23100	1.01	FUS	ES
COMLAB	1330	0.66	870	0.45	32700	0.60	60	0.32	26100	0.58	22700	0.36	4A	ES
COMLAB	1300	0.36	900	0.86	30800	-0.85	100	2.41	26100	0.58	22400	-0.13	4A	ICP
COMLAB	1251	-0.14	796	-0.59	30354	-1.19	42	-0.61	23392	-1.74	22210	-0.44	4A	ES
COMLAB	1320	0.56	900	0.86	31800	-0.09	50	-0.20	25400	-0.02	22400	-0.13	4A	ES
COMLAB	1280	0.15	840	0.03	32800	0.67	nr	nr	25400	-0.02	22300	-0.29	4A	ES
COMLAB	1340	0.77	870	0.45	31400	-0.39	50	-0.20	25100	-0.28	22500	0.03	4A	ES
COMLAB	1300	0.36	800	-0.53	32000	0.06	<100	bld	24600	-0.71	22400	-0.13	3A	ES
COMLAB	1270	0.05	880	0.59	32300	0.29	40	-0.72	24300	-0.96	22200	-0.45	AR	ES
COMLAB	1270	0.05	850	0.17	32600	0.52	50	-0.20	25200	-0.19	23000	0.85	AR	ES
COMLAB	1340	0.77	870	0.45	31500	-0.32	50	-0.20	24700	-0.62	22500	0.03	4A	ES
COMLAB	1290	0.26	850	0.17	31500	-0.32	nr	nr	25600	0.15	25100	3.00	4A	AAS
COMLAB	1320	0.56	880	0.59	31700	-0.16	30	-1.24	25600	0.15	22600	0.20	AR	AAS
COMLAB	1290	0.15	840	0.03	31700	-0.16	50	-0.20	24000	-1.22	22300	-0.29	4A	AAS
COMLAB	1340	0.77	900	0.86	30500	-1.08	60	0.32	24300	-0.96	21700	-1.26	4A	ES
COMLAB	1290	0.26	910	1.00	30700	-0.93	50	-0.20	26100	0.58	22000	-0.78	4A	ES
COMLAB	nr	nr	nr	nr	30600	-1.00	nr	nr	25100	-0.28	22300	-0.29	4A	AAS
COMLAB	1129	-1.38	735	-1.44	31234	-0.52	90	1.89	25133	-0.25	21940	-0.88	5A	ES
COMLAB	1300	0.36	800	-0.53	30200	-1.31	<100	bld	25900	0.41	22400	-0.13	4A	AAS
COMLAB	1310	0.46	841	0.04	32100	0.14	52	-0.09	24700	-0.62	22200	-0.45	3A	ES
COMLAB	1139	-1.28	874	0.50	33980	1.57	79	1.31	25874	0.39	22848	0.60	4A	AAS
COMLAB	1231	-0.34	834	-0.06	32815	0.69	115	3.00	25509	0.07	22161	-0.52	4A	AAS
COMLAB	1247	-0.18	860	0.31	31756	-0.12	nr	nr	25261	-0.14	22840	0.59	AR	AAS
COMLAB	1189	-0.77	781	-0.79	30756	-0.88	<100	bld	24365	-0.91	21906	-0.93	AR	AAS
COMLAB	1264	-0.01	861	0.32	32647	0.56	41	-0.67	25697	0.24	22931	0.73	3A	AAS
COMLAB	1200	-0.66	805	-0.46	31800	-0.09	40	-0.72	25700	0.24	22200	-0.45	4A	ES
COMLAB	1197	-0.69	820	-0.25	32787	0.66	<100	bld	26363	0.81	23423	1.53	AR	ES
COMLAB	1340	0.77	861	0.32	31210	-0.54	48	-0.30	27100	1.44	22660	0.29	4A	AAS
COMLAB	1280	0.15	840	0.03	32000	0.06	50	-0.20	25100	-0.28	22200	-0.45	4A	ES
COMLAB	1182	-0.84	776	-0.86	30380	-1.17	60	0.32	24170	-1.08	21970	-0.83	4A	ES
COMLAB	1269	0.04	834	-0.06	31888	-0.02	48	-0.29	25716	0.25	22654	0.28	4A	AAS
COMLAB	1310	0.46	892	0.75	31700	-0.16	49	-0.25	26500	0.92	22800	0.52	4A	ICP
COMLAB	1890	3.00	966	1.78	25400	-3.00	66	0.64	23100	-1.99	20400	-3.00	4A	AAS
COMLAB	1277	0.12	85	-3.00	33200	0.98	43	-0.56	24805	-0.53	21953	-0.85	4A	ES
COMLAB	1112	-1.55	693	-2.02	27190	-3.00	<100	bld	22220	-2.75	19730	-3.00	AR	ES
COMLAB	1238	0.80	850	0.17	34750	2.16	5	-2.54	27875	2.10	25430	3.00	AR	AAS
COMLAB	1191	-0.75	844	0.08	30209	-1.30	42	-0.81	23671	-1.50	21976	-0.82	AR	ES
COMLAB	1349	0.86	883	0.63	30946	-0.74	49	-0.25	25313	-0.09	22453	-0.04	4A	AAS
COMLAB	1312	0.48	862	0.33	32354	0.33	<50	bld	25089	-0.29	22929	0.73	4A	ES
COMLAB	1304	0.40	906	0.95	32900	0.75	53	-0.04	26000	0.50	23500	1.66	4A	ES
COMLAB	1126	-1.41	723	-1.60	30847	-0.81	53	-0.04	24139	-1.10	21715	-1.24	4A	AAS
COMLAB	1300	0.36	900	0.86	30800	-0.85	100	2.41	25100	-0.28	21600	-1.43	4A	AAS
COMLAB	1205	-0.61	838	0.00	31475	-0.34	45	-0.46	24744	-0.58	22927	0.73	4A	ICP
COMLAB	1273	0.08	834	-0.06	30625	-0.98	56	0.13	24220	-1.03	21785	-1.13	4A	ES
COMLAB	1294	0.30	849	0.15	32048	0.10	41	-0.67	25477	0.05	22454	-0.04	4A	ES
COMLAB	1422	1.60	956	1.64	30665	-0.95	nr	nr	24779	-0.55	22248	-0.37	AR	AAS
COMLAB	1203	-0.63	799	-0.54	29549	-1.80	322	3.00	23859	-1.30	21637	-1.37	AR	ES
COMLAB	1402	1.80	963	1.80	33467	1.18	61	0.38	26817	1.24	25133	3.00	4A	ICP
COMLAB	1100	-1.69	739	-1.38	31800	-0.09	85	1.62	27500	1.78	25300	3.00	4A	ICP
COMLAB	1305	0.41	846	0.11	32035	0.09	76	1.16	24752	-0.58	21915	-0.92	4A	ES
COMLAB	946	-3.00	657	-2.52	25500	-3.00	65	0.56	20800	-3.00	9740	-3.00	AR	MS
COMLAB	1264	-0.01	809	-0.40	32614	0.53	<100	bld	24973	-0.39	22467	-0.02	FUS,4A	ES
COMLAB	1499	2.38	1010	2.40	31260	-0.50	57	0.17	25630	0.18	22600	0.20	ES	
COMLAB	1224	-0.42	855	0.24	32120	0.16	41	-0.67	25750	0.28	22600	0.20	3A	AAS
COMLAB	1213	-0.53	781	-0.79	32851	0.71	291	3.00	25641	0.19	22722	0.40	3A	ICP
COMLAB	1175	-0.91	779	-0.82	31683	-0.18	41	-0.67	26046	0.53	22873	0.64	4A	ES
COMLAB	1257	-0.08	831	-0.10	32223	0.23	58	0.22	25786	0.31	23170	1.12	FUS	ICP
COMLAB	1140	-1.27	780	-1.09	30800	-0.85	9	-2.33	25100	-0.28	21900	-0.94	3A	AAS
COMLAB	1156	-1.11	765	-0.74	29612	-1.76	59	0.25	24640	-0.67	21854	-1.01	4A	AAS
COMLAB	1340	0.77	890	0.72	31100	-0.62	<100	bld	25300	-0.11	22800	0.52	4A	AAS
COMLAB	1181	-0.85	771	-0.93	31524	-0.30	68	0.74	25291	-0.11	23069	0.96	4A	A



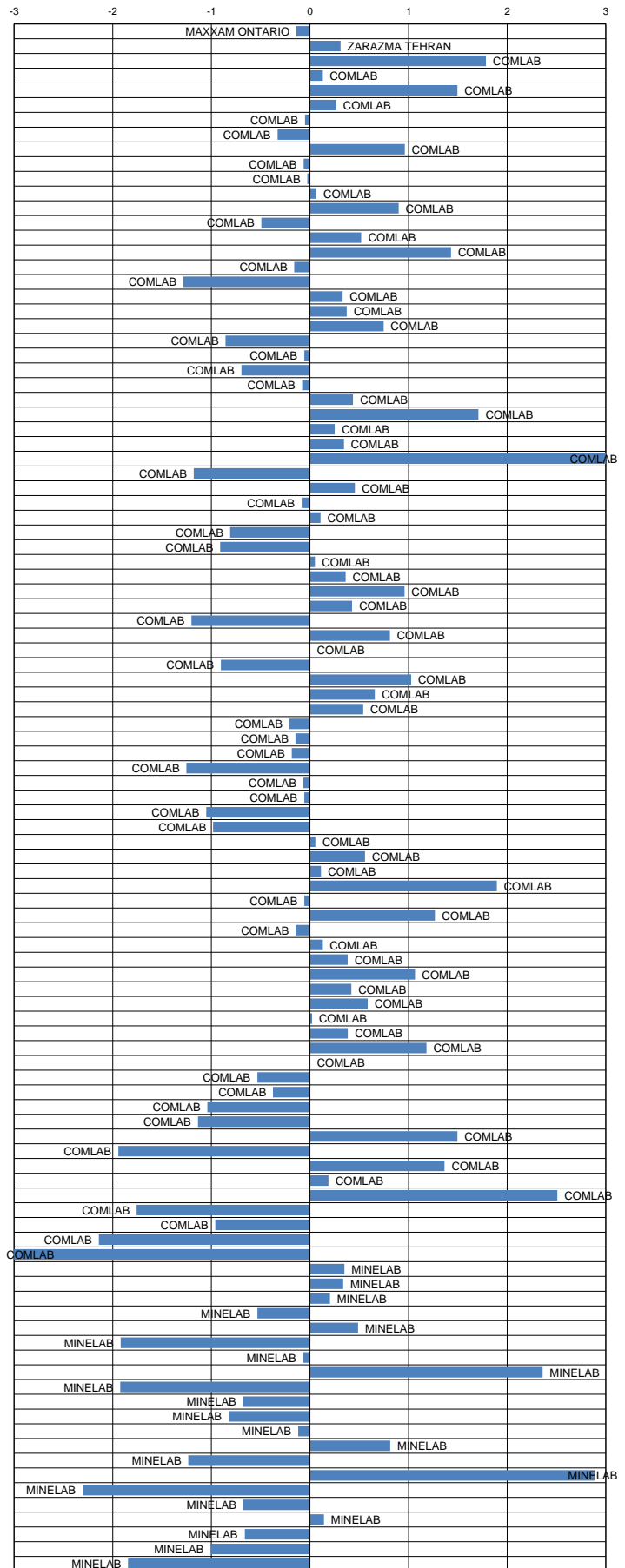
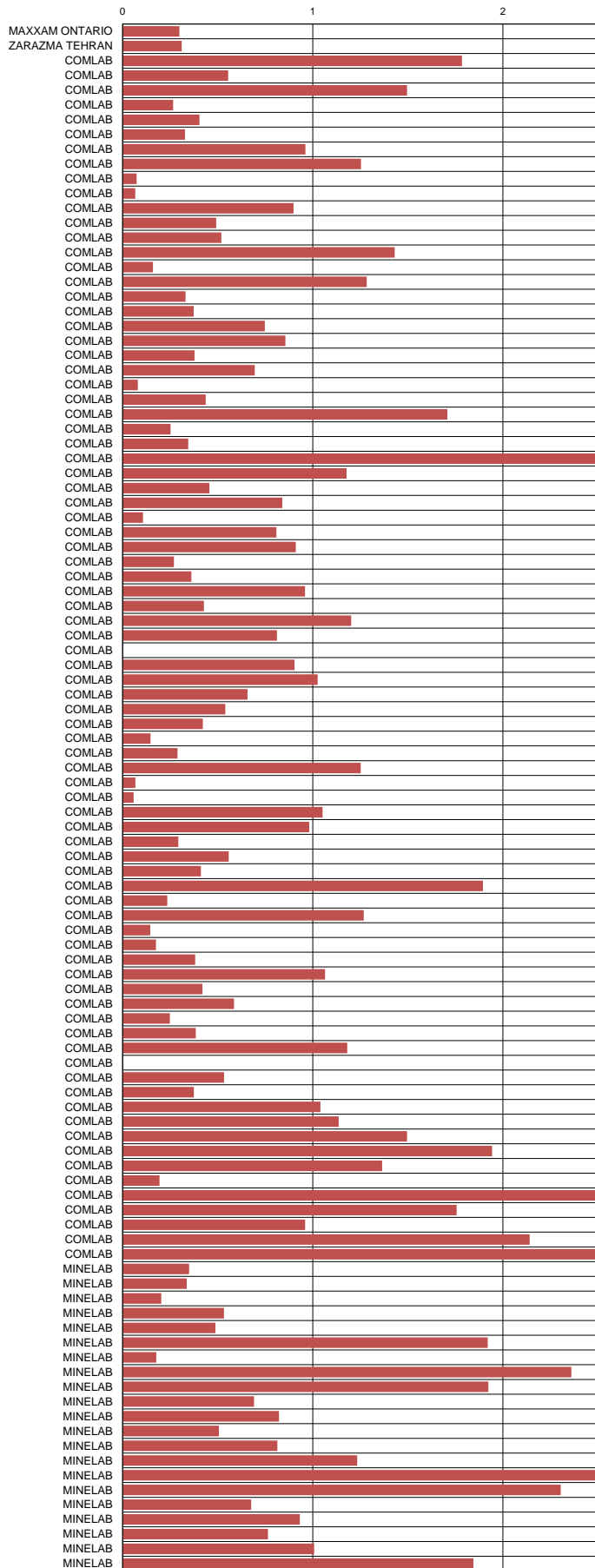
Ore Grade Nickel Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GBM918-11	GBM918-12	GBM918-13	GBM918-14	GBM918-15	GBM918-16
MEAN (ppm)	19404	11398	42	150	52	300
STDEV (ppm)	928	630	6	16	7	15
95% CI (ppm)	185	124	1	3	1	3
95% CI (%)	0.95%	1.08%	3.07%	2.26%	2.79%	1.03%
MIN (ppm)	17084	10045	30	108	38	261
MEDIAN (ppm)	19500	11500	41	150	51	300
MAX (ppm)	21762	13147	55	192	70	333
IQR (ppm)	1074	750	6	18	9	19
COUNT	98	101	78	90	86	91

Standard Reference	GBM918-11		GBM918-12		GBM918-13		GBM918-14		GBM918-15		GBM918-16		Method	Reading
Lab Reference	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
MAXXAM ONTARIO	19000	-0.44	11500	0.16	47	0.88	180	1.83	55	0.51	310	0.68	NAA	
ZARAZMA TEHRAN	19640	0.25	11629	0.37	42	0.01	165	0.91	55	0.51	330	2.02	AR	ES
COMLAB	20800	1.50	12700	2.06	<50	blid	160	0.60	110	3.00	270	-2.00	FUS	ICP
COMLAB	19010	-0.42	11830	0.68	20	-3.00	130	-1.24	50	-0.23	270	-2.00	4A	AAS
COMLAB	21000	1.72	12200	1.27	30	-2.07	130	-1.24	50	-0.23	300	0.01	4A	ES
COMLAB	19600	0.21	11600	0.32	60	3.00	150	-0.01	70	2.73	300	0.01	4A	ES
COMLAB	18982	-0.45	11621	0.35	38	-0.68	221	3.00	41	-1.57	333	2.22	4A	AAS
COMLAB	19091	-0.34	11197	-0.32	50	1.40	147	-0.19	52	0.06	298	-0.12	FUS	ES
COMLAB	20261	0.92	12029	1.00	39	-0.44	138	-0.75	43	-1.24	291	-0.57	4A	ES
COMLAB	18180	-1.32	12148	1.19	52	1.75	152	0.11	59	1.10	312	0.81	4A	AAS
COMLAB	19311	-0.10	11428	0.05	52	1.75	152	0.11	47	-0.68	308	0.54	3A	ES
COMLAB	19450	0.05	11450	0.08	40	-0.34	150	-0.01	60	1.25	300	0.01	4A	ES
COMLAB	20040	0.69	12100	1.11	<500	blid	<500	blid	<500	blid	<500	blid	FUS	XRF
COMLAB	19150	-0.27	10950	-0.71	110	3.00	140	-0.62	60	1.25	300	0.01	4A	ES
COMLAB	19850	0.48	11750	0.56	30	-2.07	160	0.60	40	-1.71	310	0.68	FUS	ES
COMLAB	21100	1.83	12050	1.03	50	1.40	120	-1.85	50	-0.23	300	0.01	4A	ES
COMLAB	19400	0.00	11200	-0.31	blid	blid	100	-3.00	60	1.25	290	-0.66	4A	ICP
COMLAB	18779	-0.67	10204	-1.89	39	-0.51	152	0.11	49	-0.38	309	0.61	4A	ES
COMLAB	19500	0.10	11750	0.56	50	1.40	140	-0.62	60	1.25	300	0.01	4A	ES
COMLAB	19800	0.43	11600	0.32	nr	nr	nr	nr	nr	nr	nr	nr	4A	ES
COMLAB	20200	0.86	11800	0.64	40	-0.34	150	-0.01	60	1.25	290	-0.66	4A	ES
COMLAB	18710	-0.75	10790	-0.96	40	-0.34	130	-1.24	40	-1.71	280	-1.33	3A	ES
COMLAB	19000	-0.44	11600	0.32	40	-0.34	150	-0.01	50	-0.23	290	-0.66	AR	ES
COMLAB	18700	-0.76	11000	-0.63	40	-0.34	130	-1.24	40	-1.71	280	-1.33	AR	ES
COMLAB	19400	0.00	11300	-0.16	50	1.40	160	0.60	60	1.25	300	0.01	4A	ES
COMLAB	19550	0.16	11850	0.72	30	-2.07	150	-0.01	30	-3.00	300	0.01	AR	AAS
COMLAB	21100	1.83	12400	1.59	60	3.00	140	-0.62	30	-3.00	310	0.68	4A	ES
COMLAB	19500	0.10	11650	0.40	140	3.00	150	-0.01	60	1.25	300	0.01	4A	ES
COMLAB	19600	0.21	11700	0.48	nr	nr	nr	nr	nr	nr	nr	nr	4A	AAS
COMLAB	27208	3.00	16450	3.00	105	3.00	159	0.54	59	1.10	281	-1.26	5A	ES
COMLAB	18230	-1.26	10710	-1.09	50	1.40	150	-0.01	60	1.25	310	0.68	4A	AAS
COMLAB	20100	0.75	11500	0.16	48	1.05	146	-0.26	56	0.65	313	0.88	3A	ES
COMLAB	20105	0.76	10816	-0.92	34	-1.38	136	-0.87	42	-1.42	290	-0.66	3A	AAS
COMLAB	19600	0.21	11400	0.00	40	-0.34	160	0.60	50	-0.23	310	0.68	4A	ES
COMLAB	18051	-1.46	11297	-0.16	38	-0.68	146	-0.26	45	-0.97	292	-0.53	AR	ES
COMLAB	18300	-1.19	11000	-0.63	47	0.88	152	0.11	50	-0.23	315	1.01	4A	AAS
COMLAB	19200	-0.22	11600	0.32	45	0.53	150	-0.01	55	0.51	320	1.35	4A	ES
COMLAB	19940	0.58	11490	0.15	41	-0.16	192	2.56	53	0.21	308	0.54	4A	ES
COMLAB	20400	1.07	11931	0.85	41	-0.14	204	3.00	51	-0.10	303	0.21	4A	AAS
COMLAB	19900	0.53	11600	0.32	44	0.36	149	-0.07	55	0.51	306	0.41	4A	ICP
COMLAB	18200	-1.30	10700	-1.11	154	3.00	163	0.79	73	3.00	410	3.00	4A	AAS
COMLAB	20000	0.64	12017	0.98	47	0.83	157	0.40	57	0.76	312	0.79	4A	ES
COMLAB	>5000	ald	>5000	ald	<100	blid	151	0.03	<100	blid	298	-0.14	AR	ES
COMLAB	18313	-1.18	11000	-0.63	<1	-3.00	38	-3.00	<1	-3.00	290	-0.66	AR	AAS
COMLAB	20714	1.41	11802	0.64	47	-0.16	142	-0.50	47	-0.68	292	-0.53	AR	AAS
COMLAB	20219	0.88	11673	0.44	36	-1.03	164	0.85	50	-0.23	298	-0.12	4A	ES
COMLAB	20031	0.68	11653	0.40	42	0.01	154	0.23	46	-0.83	310	0.68	4A	ES
COMLAB	19600	0.21	11000	-0.63	42	0.01	141	-0.56	47	-0.68	279	-1.40	4A	ES
COMLAB	19278	-0.14	11299	-0.16	45	0.53	146	-0.26	51	-0.09	297	-0.19	4A	AAS
COMLAB	19500	0.10	11100	-0.47	100	3.00	200	3.00	100	3.00	300	0.01	4A	AAS
COMLAB	17880	-1.64	10854	-0.86	45	0.53	144	-0.38	55	0.51	286	-0.93	4A	ICP
COMLAB	19339	-0.07	11358	-0.06	37	-0.84	147	-0.20	46	-0.86	288	-0.77	4A	ES
COMLAB	19394	-0.01	11332	-0.10	45	0.53	142	-0.50	54	0.36	310	0.68	4A	ES
COMLAB	18653	-0.81	10582	-1.29	nr	nr	nr	nr	nr	nr	347	3.00	4A	ES
COMLAB	18493	-0.98	10779	-0.98	40	-0.34	148	-0.13	47	-0.68	308	0.54	AR	ES
COMLAB	19183	-0.24	11617	0.35	52	1.75	152	0.11	63	1.69	356	3.00	4A	ICP
COMLAB	19700	0.32	11900	0.80	35	-1.20	122	-1.73	38	-2.01	352	3.00	4A	ICP
COMLAB	19889	0.52	11209	-0.30	38	-0.68	140	-0.62	53	0.21	307	0.48	4A	ES
COMLAB	21300	2.04	12500	1.75	38	-0.73	152	0.11	45	-0.94	127	-3.00	AR	MS
COMLAB	19568	0.18	11214	-0.29	39	-0.51	146	-0.26	47	-0.68	301	-0.08	FUS	ES
COMLAB	20680	1.37	12130	1.16	45	0.53	110	-2.46	53	0.21	292	-0.53	ES	
COMLAB	19255	-0.16	11316	-0.13	67	3.00	163	0.79	54	0.36	332	2.15	3A	ICP
COMLAB	19687	0.31	11370	-0.04	46	0.71	168	1.09	55	0.51	312	0.81	4A	ES
COMLAB	19920	0.56	11529	0.21	54	2.08	154	0.23	58	0.91	303	0.21	FUS	ICP
COMLAB	20200	0.86	12200	1.27	41	-0.16	182	1.95	51	-0.09	308	0.54	3A	AAS
COMLAB	19960	0.60	11550	0.24	37	-0.87	144	-0.35	49	-0.33	282	-1.22	4A	AAS
COMLAB	19900	0.53	11800	0.64	<100	blid	170	1.22	<100	blid	330	2.02	4A	AAS
COMLAB	19193	-0.23	11568	0.27	33	-1.55	165	0.91	48	-0.53	333	2.22	4A	AAS
COMLAB	19794	0.42	11618	0.35	34	-1.38	145	-0.32	50	-0.23	299	-0.06	4A	AAS
COMLAB	21300	2.04	11600	0.32	40	-0.34	200	3.00	50	-0.23	300	0.01	4A	AAS
COMLAB	>1000	ald	>1000	ald	39	-0.51	147	-0.19	46	-0.83	296	-0.26	AR	MS
COMLAB	19000	-0.44	11000	-0.63	35	-1.20	141	-0.56	52	0.06	303	0.21	FUS	ICP
COMLAB	19000	-0.44	11200	-0.31	55	2.27	160	0.60	60	1.25	300	0.01	4A	ES
COMLAB	18548	-0.92	10668	-1.16	41	-0.22	144	-0.38	50	-0.18	273	-1.79	4A	ICP
COMLAB	19059	-0.37	10200	-1.90	40	-0.34	157	0.42	52	0.06	299	-0.06	FUS,4A	ES,AAS
COMLAB	21000	1.72	12200	1.27	<100	blid	100	-3.00	<100	blid	300	0.01	FUS	ICP
COMLAB	17525	-2.02	10224	-1.86	41	-0.16	137	-0.81	47	-0.68	274	-1.73	4A	ES
COMLAB	20711	1.41	12231											

Standard Deviations

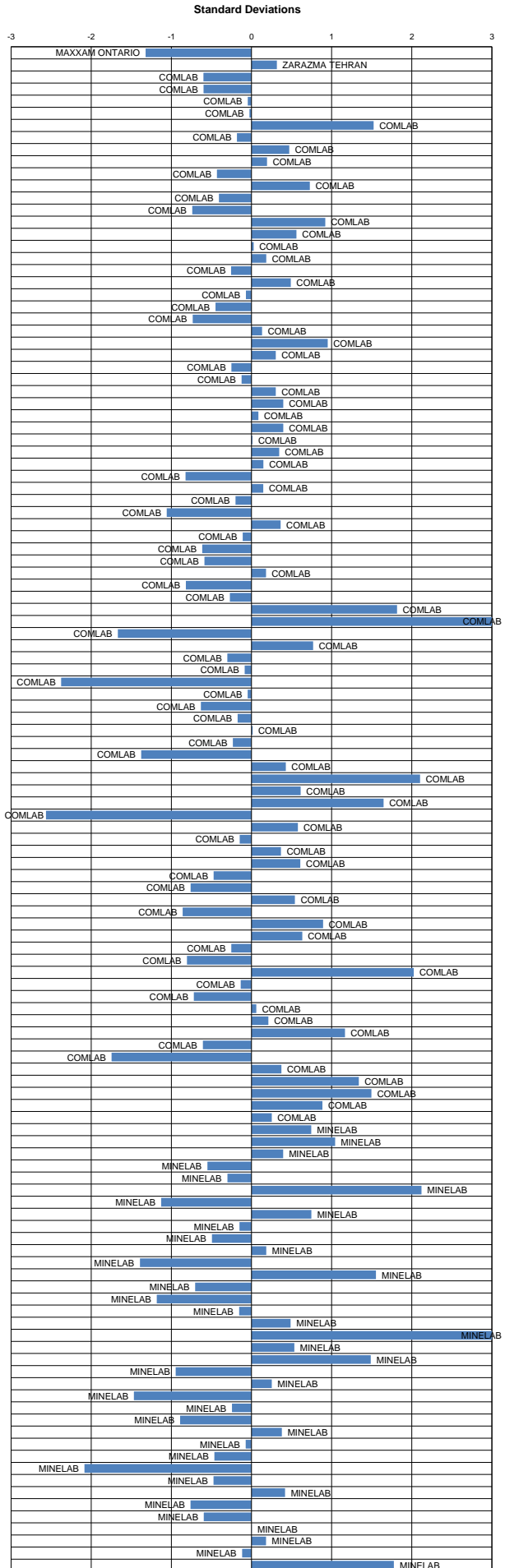
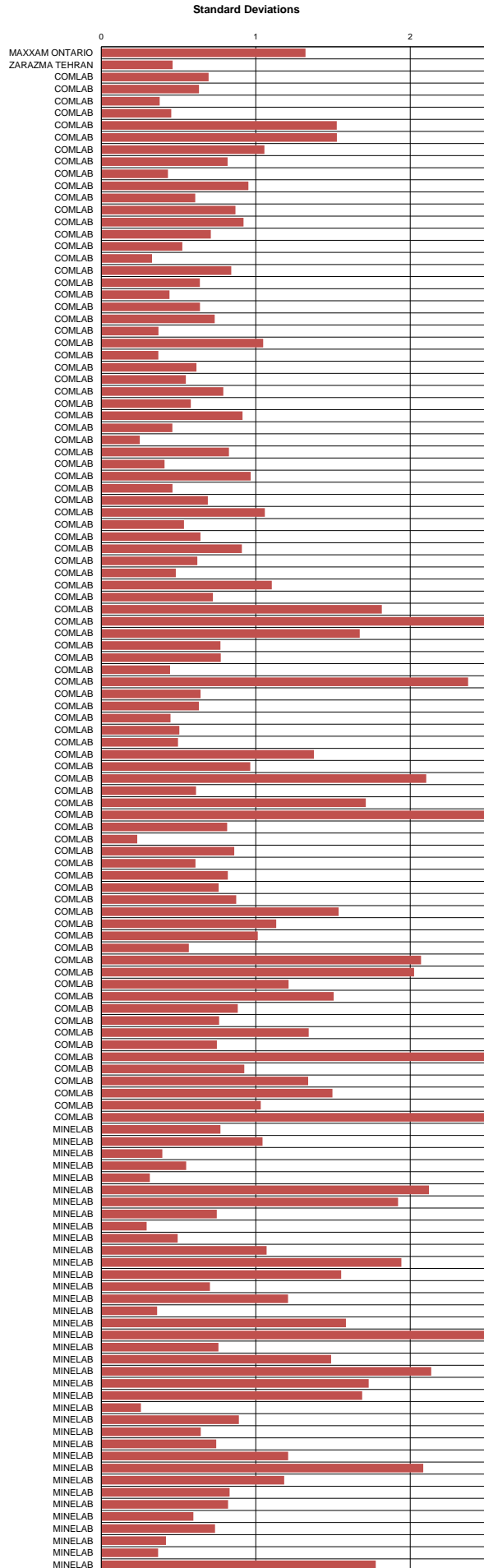
Standard Deviations



Ore Grade Silver Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GBM918-11	GBM918-12	GBM918-13	GBM918-14	GBM918-15	GBM918-16
MEAN (ppm)	53.6	9.6	8.5	110.6	29.0	36.3
STDEV (ppm)	2.3	1.1	0.7	3.5	2.3	1.8
95% CI (ppm)	0.4	0.2	0.1	0.7	0.4	0.3
95% CI (%)	0.82%	2.01%	1.53%	0.60%	1.45%	0.90%
MIN (ppm)	47.0	7.0	7.0	102.8	22.6	31.3
MEDIAN (ppm)	53.7	9.6	8.4	110.2	29.0	36.0
MAX (ppm)	58.1	12.0	10.1	120.0	35.0	41.1
IQR (ppm)	3.0	1.0	1.0	4.0	2.2	2.3
COUNT	111	116	110	109	115	113

Standard Reference	GBM918-11		GBM918-12		GBM918-13		GBM918-14		GBM918-15		GBM918-16		Method	Reading
Lab Reference	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
MAXAM ONTARIO	47.0	-2.60	8.0	-1.48	8.0	-0.71	108.0	-1.61	29.0	-0.01	34.0	-1.33	NAA	
ZARAZMA TEHRAN	54.0	0.18	9.5	-0.05	8.7	0.31	109.3	0.17	29.4	0.17	39.3	1.68	AR	ES
COMLAB	54.0	0.18	9.0	-0.53	8.0	-0.71	111.0	0.10	26.0	-1.32	34.0	-1.33	4A	ES
COMLAB	53.0	-0.25	9.0	-0.53	8.0	-0.71	111.0	0.10	27.0	-0.88	34.0	-1.33	4A	AAS
COMLAB	55.0	0.61	8.9	-0.62	8.3	-0.27	112.0	0.39	28.6	-0.18	36.0	-0.19	4A	ES
COMLAB	55.0	0.61	9.0	-0.53	8.0	-0.71	113.0	0.67	29.0	-0.01	36.0	-0.19	4A	ES
COMLAB	58.0	1.88	<20.0	bid	<20.0	bid	116.0	1.53	33.0	1.75	38.0	0.94	4A	AAS
COMLAB	51.4	-0.94	9.5	-0.10	9.2	1.03	139.2	3.00	25.0	-1.76	32.3	-2.32	4A	ES
COMLAB	54.0	0.18	12.0	2.33	9.0	0.74	114.0	0.96	25.0	-1.76	37.0	0.37	4A	AAS
COMLAB	53.2	-0.16	9.3	-0.24	7.7	-1.14	109.5	-0.32	40.8	3.00	36.4	0.03	3A	ES
COMLAB	53.0	-0.25	9.0	-0.53	8.0	-0.71	109.0	-0.47	28.0	-0.44	36.0	-0.19	4A	ES
COMLAB	52.0	-0.67	11.0	1.38	9.0	0.74	115.0	1.24	32.0	1.31	37.0	0.37	3A	AAS
COMLAB	55.0	0.61	9.0	-0.53	8.0	-0.71	105.0	-1.61	29.0	-0.01	36.0	-0.19	4A	ES
COMLAB	53.0	-0.25	8.0	-1.48	8.0	-0.71	112.0	0.39	24.0	-2.19	36.0	-0.19	FLUS	ES
COMLAB	57.0	1.46	10.0	0.42	9.0	0.74	116.0	1.53	30.0	0.43	38.0	0.94	4A	ES
COMLAB	54.0	0.18	10.0	0.42	9.0	0.74	114.0	0.96	28.0	-0.44	39.0	1.51	4A	ICP
COMLAB	53.3	-0.12	9.6	0.04	9.6	1.61	109.4	-0.35	27.1	-0.84	36.0	-0.19	4A	ES
COMLAB	53.0	-0.25	10.0	0.42	9.0	0.74	110.0	-0.18	29.0	-0.01	37.0	0.37	4A	ES
COMLAB	51.0	-1.10	8.0	-1.48	8.0	-0.71	112.0	0.39	30.0	0.43	38.0	0.94	4A	ES
COMLAB	57.0	1.46	10.0	0.42	9.0	0.74	112.0	0.39	28.0	-0.44	37.0	0.37	4A	ES
COMLAB	53.0	-0.25	9.0	-0.53	9.0	0.74	108.0	-0.75	29.0	-0.01	37.0	0.37	3A	ES
COMLAB	54.0	0.18	8.0	-1.48	8.0	-0.71	112.0	0.39	27.0	-0.88	36.0	-0.19	AR	ES
COMLAB	52.0	-0.67	8.0	-1.48	8.0	-0.71	109.0	-0.47	27.0	-0.88	36.0	-0.19	AR	ES
COMLAB	55.0	0.61	10.0	0.42	8.0	-0.71	111.0	0.10	29.0	-0.01	37.0	0.37	4A	ES
COMLAB	56.0	1.03	nr	nr	nr	nr	119.0	2.10	31.0	0.87	36.0	-0.19	4A	AAS
COMLAB	54.0	0.18	10.0	0.42	9.0	0.74	113.0	0.67	29.0	-0.01	36.0	-0.19	AR	AAS
COMLAB	53.0	-0.25	10.0	0.42	7.0	-2.16	113.0	0.67	29.0	-0.01	36.0	-0.19	4A	AAS
COMLAB	55.2	0.69	9.4	-0.15	8.0	-0.71	111.0	0.10	30.1	0.48	34.3	-1.16	4A	ES
COMLAB	55.0	0.61	10.0	0.42	8.0	-0.71	108.0	-0.75	32.0	1.31	38.0	0.94	4A	ES
COMLAB	53.8	0.10	10.4	0.80	9.5	1.47	110.0	-0.18	30.3	0.56	35.7	-0.36	FA	GRAV
COMLAB	52.0	-0.67	18.0	3.00	8.0	-0.71	109.0	-0.47	28.0	-0.44	36.0	-0.19	5A	ES
COMLAB	56.0	1.03	10.0	0.42	9.0	0.74	110.0	-0.18	29.0	-0.01	37.0	0.37	4A	AAS
COMLAB	52.8	-0.33	9.6	0.04	9.0	0.74	110.0	-0.18	29.0	-0.01	36.0	-0.19	3A	MS
COMLAB	56.1	1.07	9.1	-0.43	9.2	1.03	107.1	-1.01	30.6	0.70	37.6	0.71	4A	AAS
COMLAB	53.8	0.10	9.7	0.14	8.8	0.45	107.9	-0.78	29.9	0.39	37.4	0.60	4A	AAS
COMLAB	51.0	-1.10	8.0	-1.48	8.0	-0.71	106.0	-1.32	30.0	0.43	35.0	-0.76	AR	AAS
COMLAB	53.0	-0.25	9.6	0.04	9.0	0.74	109.2	-0.70	29.5	0.21	37.8	0.63	3A	AAS
COMLAB	51.0	-1.10	10.0	0.42	8.7	0.31	107.0	-1.04	30.7	0.74	35.4	-0.53	4A	MS
COMLAB	51.0	-1.10	7.0	-2.43	8.0	-0.71	107.0	-1.04	30.7	0.74	35.4	-0.53	AR	ES
COMLAB	53.2	-0.16	9.9	0.33	8.5	0.02	114.2	1.01	28.2	-0.36	38.7	1.34	4A	AAS
COMLAB	50.5	-1.31	10.0	0.42	9.0	0.74	110.0	-0.18	30.0	0.43	35.0	-0.76	4A	MS
COMLAB	48.5	-2.16	8.4	-1.10	8.3	-0.27	107.0	-1.04	29.4	0.17	37.6	0.71	4A	ES
COMLAB	50.4	-1.35	8.6	-0.91	8.2	-0.42	111.0	0.10	28.2	-0.36	35.3	-0.59	4A	AAS
COMLAB	56.0	1.03	10.0	0.42	8.0	-0.71	111.0	0.10	30.0	0.43	36.0	-0.19	4A	ICP
COMLAB	50.0	-1.52	10.0	0.42	7.0	-2.16	104.0	-1.89	30.0	0.43	36.0	-0.19	4A	AAS
COMLAB	53.3	-0.12	8.3	-1.20	7.8	-1.00	115.4	1.36	27.8	-0.53	36.1	-0.14	4A	ES
COMLAB	62.9	3.00	11.3	1.67	<10.0	bid	118.9	2.35	31.5	1.09	38.0	0.96	AR	AAS
COMLAB	115.0	3.00	65.0	3.00	66.0	3.00	193.0	3.00	100.0	3.00	86.0	3.00	AR	AAS
COMLAB	45.0	-3.00	9.3	-0.24	8.5	0.02	100.0	-3.00	26.0	-1.32	32.0	-2.46	AR	AAS
COMLAB	57.0	1.46	11.0	1.38	9.0	0.74	113.0	0.67	29.0	-0.01	37.0	0.37	4A	ES
COMLAB	55.0	0.61	10.0	0.42	8.0	-0.71	112.0	0.39	25.0	-1.76	35.0	-0.76	4A	ES
COMLAB	54.0	0.18	10.0	0.42	8.0	-0.71	111.0	0.10	27.0	-0.88	37.0	0.37	4A	ES
COMLAB	43.7	-3.00	8.0	-1.48	7.1	-2.01	96.8	-3.00	25.0	-1.76	29.8	-3.00	4A	AAS
COMLAB	51.0	-1.10	9.0	-0.53	9.0	0.74	111.0	0.10	28.0	-0.44	38.0	0.94	4A	AAS
COMLAB	49.6	-1.69	9.1	-0.43	8.2	-0.42	110.2	-0.13	27.8	-0.53	35.3	-0.59	4A	ICP
COMLAB	54.2	0.27	9.2	-0.34	8.3	-0.35	112.6	0.56	27.8	-0.53	35.2	-0.65	4A	AAS
COMLAB	56.0	1.03	10.0	0.42	8.0	-0.71	111.0	0.10	29.0	-0.01	35.0	-0.76	4A	ES
COMLAB	53.8	0.10	9.5	-0.07	8.1	-0.59	105.3	-1.52	30.1	0.45	36.8	0.24	AR	AAS
COMLAB	50.0	-1.52	10.0	0.42	7.0	-2.16	104.0	-1.89	28.0	-0.44	35.0	-0.76	AR	ES
COMLAB	54.2	0.27	10.1	0.52	9.4	1.32	105.0	-1.61	29.4	0.17	39.7	1.90	4A	ICP
COMLAB	61.0	3.00	16.0	3.00	11.0	3.00	115.0	1.24	31.0	0.87	39.0	1.51	AR	AAS
COMLAB	54.0	0.18	10.0	0.42	10.0	2.19	116.0	1.53	30.0	0.43	37.0	0.37	4A	ES
COMLAB	57.0	1.46	13.0	3.00	10.0	0.43	124.0	3.00	30.0	0.43	36.0	-0.19	4A	ES
COMLAB	43.8	-3.00	7.6	-1.86	7.3	-1.72	90.0	-3.00	22.6	-2.81	28.7	-3.00	AR	MS
COMLAB	57.0	1.46	11.0	1.38	8.0	-0.71	111.0	0.10	31.0	0.87	37.0	0.37	AR	ES
COMLAB	53.2	-0.16	9.3	-0.24	8.3	-0.27	109.9	-0.21	29.6	0.26	35.9	-0.25	AAS	
COMLAB	51.6	-0.84	9.8	0.23	8.8	0.45	130.5	3.00	28.0	-0.44	36.0	-0.19	3A	AAS
COMLAB	54.0	0.18	10.0	0.42	8.5	0.02	113.6	0.84	32.0	1.31	37.9	0.88	1A	ICP
COMLAB	54.3	0.31	10.0	0.42	8.7	0.31	109.7	-0.27	26.0	-1.32	32.3	-2.29	4A	ES
COMLAB	48.9	-1.99	9.3	-0.24	8.3	-0.27	106.7	-1.14	28.4	-0.27	35.2	-0.65	AR	AAS
COMLAB	58.0	1.88	8.8	-0.72	9.0	0.74	110.0	-0.18	28.8	-0.09	39.2	1.62	3A	AAS
COMLAB	51.2	-1.02	11.7	2.03	7.5	-1.39	104.9	-1.64	25.4	-1.58	33.6	-1.55	4A	AAS
COMLAB	56.1	1.07	11.9	2.23	10.1	2.33	109.0	-0.47	30.0	0.43	35.9	-0.25	4A	AAS
COMLAB	52.0	-0.67	11.0	1.38	10.0	2.19	109.0	-0.47	30.0	0.43	38.0	0.94	4A	AAS
COMLAB	55.6	0.86	9.0	-0.53	8.4	-0.13	108.0	-0.75	29.2	0.08	34.5	-1.04	4A	AAS



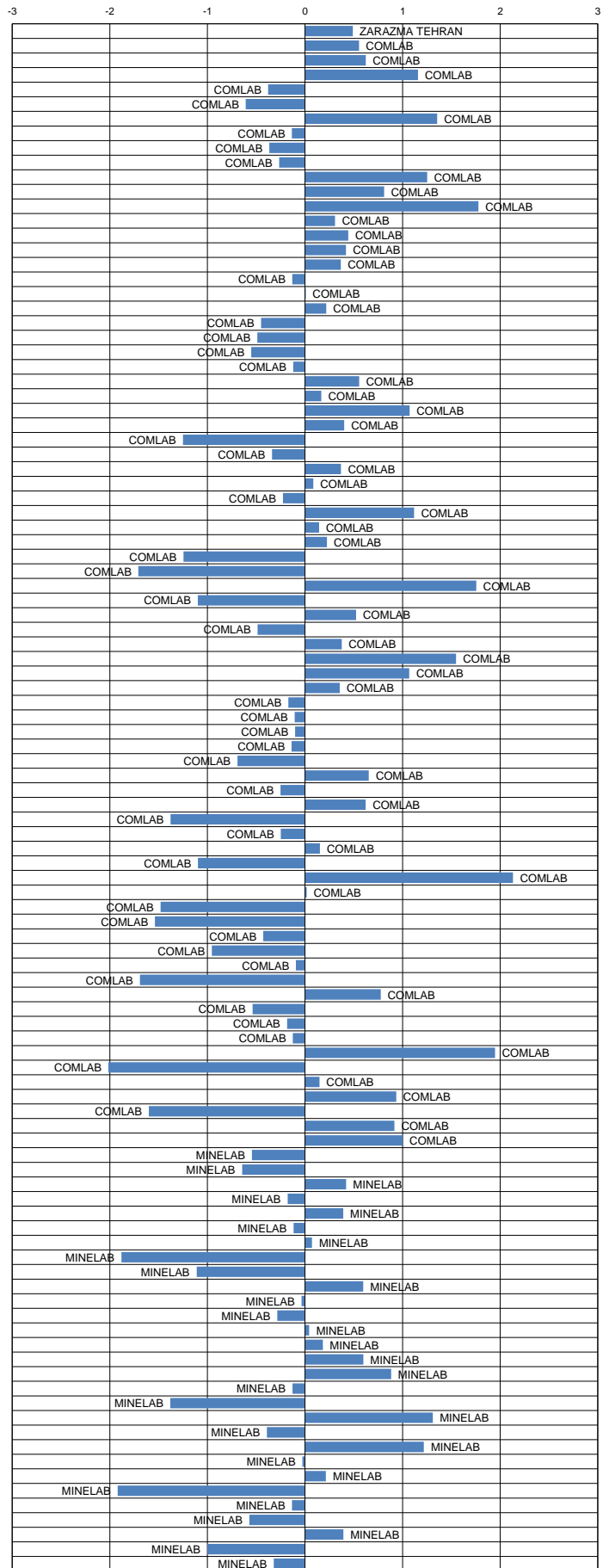
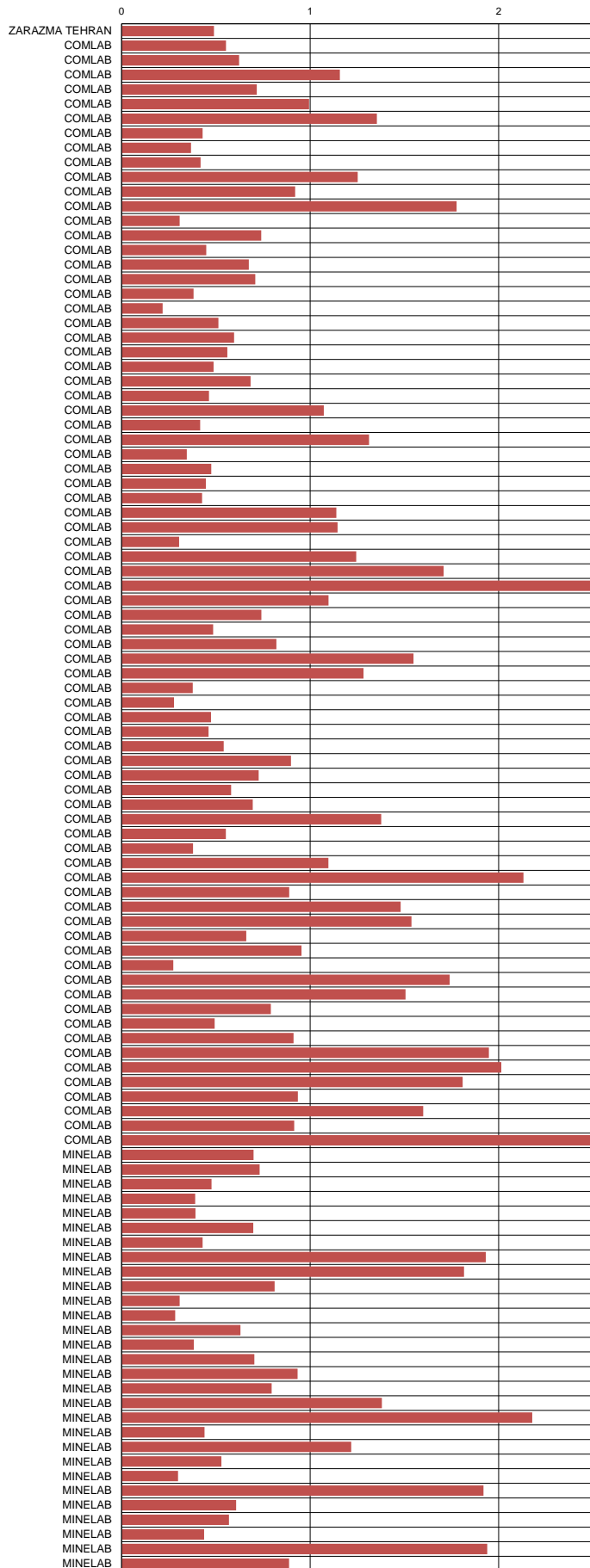
Ore Grade Sulphur Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GBM918-11	GBM918-12	GBM918-13	GBM918-14	GBM918-15	GBM918-16
MEAN (%)	6.87	11.44	2.85	3.64	3.26	4.89
STDEV (%)	0.38	0.43	0.12	0.19	0.17	0.17
95% CI (%)	0.07	0.09	0.02	0.04	0.03	0.03
95% CI (rel %)	1.08%	0.78%	0.81%	1.02%	1.02%	0.70%
MIN (%)	6.15	10.43	2.54	3.14	2.82	4.42
MEDIAN (%)	6.84	11.44	2.86	3.63	3.29	4.92
MAX (%)	7.94	12.50	3.14	4.10	3.70	5.38
IQR (%)	0.42	0.58	0.14	0.26	0.23	0.21
COUNT	102	88	101	100	100	101

Standard Reference	GBM918-11		GBM918-12		GBM918-13		GBM918-14		GBM918-15		GBM918-16		Method	Reading
Lab Reference	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
ZARAZMA TEHRAN	6.98	0.30	11.88	1.04	2.86	0.12	3.73	0.44	3.32	0.38	5.01	0.66	AR	ES
COMLAB	6.94	0.19	11.70	0.62	2.95	0.87	3.72	0.41	3.33	0.44	5.03	0.78	CSA	IR
COMLAB	7.01	0.38	11.47	0.08	3.01	1.38	3.75	0.57	3.29	0.20	5.09	1.13	CSA	IR
COMLAB	6.90	0.09	11.80	0.85	2.99	1.21	3.96	1.68	3.31	0.32	5.38	2.79	4A	ES
COMLAB	6.60	-0.70	11.30	-0.32	2.90	0.45	3.70	0.31	3.30	0.26	4.50	-2.26	4A	ES
COMLAB	6.45	-1.10	11.72	0.67	2.68	-1.42	3.44	-1.07	3.05	-1.22	4.98	0.50	CSA	IR
COMLAB	7.24	0.99	11.89	1.06	2.94	0.78	3.84	1.05	4.00	3.00	5.11	1.24	3A	ES
COMLAB	6.72	-0.39	11.20	-0.56	2.81	-0.32	3.56	-0.43	3.34	0.50	4.96	0.38	CSA	IR
COMLAB	6.87	0.01	11.40	-0.09	2.80	-0.40	3.54	-0.54	3.10	-0.92	4.85	-0.25	FUS	XRF
COMLAB	7.03	0.43	11.45	0.03	2.81	-0.32	3.49	-0.80	3.15	-0.63	4.84	-0.31	4A	ES
COMLAB	7.17	0.80	12.00	1.32	3.02	1.46	3.90	1.36	3.42	0.98	5.17	1.59	FUS	ES
COMLAB	7.60	1.94	11.80	0.85	3.02	1.46	3.58	-0.33	3.35	0.56	4.96	0.38	4A	ES
COMLAB	7.02	0.40	12.20	1.79	3.06	1.80	3.96	1.68	3.59	1.99	5.66	3.00	CSA	IR
COMLAB	6.89	0.06	11.56	0.29	2.91	0.53	3.69	0.25	3.35	0.56	4.92	0.15	CSA	IR
COMLAB	6.65	-0.57	11.30	-0.32	2.95	0.87	3.86	1.15	3.41	0.92	5.00	0.61	CSA	IR
COMLAB	7.12	0.67	11.40	-0.09	2.94	0.78	3.76	0.62	3.30	0.26	4.94	0.27	CSA	IR
COMLAB	7.21	0.91	11.85	0.97	2.85	0.02	3.78	0.73	3.10	-0.92	4.98	0.50	4A	ES
COMLAB	6.97	0.27	12.05	1.44	2.85	0.02	3.42	-1.17	3.08	-1.04	4.84	-0.31	3A	ES
COMLAB	6.95	0.22	>10.00	ald	2.90	0.45	3.70	0.31	3.14	-0.69	4.85	-0.25	AR	ES
COMLAB	6.91	0.11	>10.00	ald	2.87	0.19	3.70	0.31	3.31	0.32	4.92	0.15	AR	ES
COMLAB	6.78	-0.23	10.95	-1.14	2.87	0.19	3.43	-1.12	3.24	-0.09	4.84	-0.31	CSA	IR
COMLAB	6.72	-0.39	11.25	-0.44	2.74	-0.91	3.51	-0.70	3.31	0.32	4.75	-0.82	CSA	IR
COMLAB	6.49	-0.99	11.45	0.03	2.78	-0.57	3.47	-0.91	3.23	-0.15	4.77	-0.71	4A	ES
COMLAB	6.74	-0.33	11.45	0.03	2.71	-1.16	3.58	-0.33	3.41	0.92	4.92	0.15	CSA	IR
COMLAB	6.72	-0.39	11.63	0.22	2.96	0.95	3.71	0.36	3.54	1.69	4.98	0.50	CSA	IR
COMLAB	7.10	0.62	11.57	0.55	2.83	-0.15	3.62	-0.12	3.15	-0.63	5.02	0.73	AR	ES
COMLAB	7.31	1.17	12.10	1.56	2.93	0.70	3.90	1.36	3.41	0.92	5.02	0.73	CSA	IR
COMLAB	6.85	-0.04	11.80	0.85	2.89	0.36	3.70	0.31	3.31	0.32	5.00	0.61	CSA	IR
COMLAB	6.34	-1.38	8.95	-3.00	2.81	-0.34	3.68	0.18	2.86	-2.33	4.78	-0.63		GRAV
COMLAB	6.76	-0.28	11.35	-0.20	2.85	0.02	3.61	-0.17	3.13	-0.74	4.78	-0.65	3A	AAS
COMLAB	6.97	0.27	11.30	-0.32	2.89	0.36	3.80	0.83	3.39	0.80	4.94	0.27	4A	ES
COMLAB	6.89	0.06	11.52	0.20	2.94	0.78	3.51	-0.70	3.19	-0.39	4.99	0.55	AR	ES
COMLAB	6.54	-0.86	11.26	-0.41	2.81	-0.32	3.74	0.52	3.27	0.09	4.83	-0.36	CSA	IR
COMLAB	7.42	1.46	12.46	2.40	2.84	-0.06	3.88	1.26	3.44	1.10	4.99	0.55	4A	ES
COMLAB	7.55	1.80	8.92	-3.00	2.86	0.07	3.80	0.81	3.26	0.00	5.10	1.19	4A	ES
COMLAB	6.78	-0.23	11.51	0.17	2.89	0.36	3.64	-0.01	3.33	0.44	5.00	0.61	CSA	IR
COMLAB	6.43	-1.15	10.65	-1.85	2.71	-1.16	3.50	-0.75	3.08	-1.04	4.63	-1.51	CSA	IR
COMLAB	6.18	-1.81	7.30	-3.00	2.58	-2.27	3.44	-1.07	3.03	-1.34	4.76	-0.77		
COMLAB	22.30	3.00	28.70	3.00	1.86	-3.00	9.35	3.00	17.50	3.00	5.16	1.53	CSA	IR
COMLAB	6.50	-0.97	11.00	-1.03	2.69	-1.33	3.30	-1.81	3.13	-0.74	4.77	-0.71	CSA	IR
COMLAB	7.07	0.54	11.91	1.11	2.77	-0.66	3.73	0.46	3.31	0.32	5.13	1.36	CSA	IR
COMLAB	6.76	-0.28	11.00	-1.03	2.80	-0.40	3.60	-0.22	3.19	-0.39	4.79	-0.59		GRAV
COMLAB	7.00	0.35	11.90	1.09	3.00	1.29	3.60	-0.22	3.40	0.86	4.70	-1.11	CSA	IR
COMLAB	7.94	2.83	13.25	3.00	2.92	0.62	3.87	1.20	3.37	0.68	5.06	0.96	4A	ES
COMLAB	7.70	2.20	13.26	3.00	2.81	-0.32	3.91	1.41	3.20	-0.33	4.97	0.44	4A	ES
COMLAB	7.24	0.99	11.46	0.05	2.84	-0.06	3.75	0.57	3.32	0.38	4.93	0.21	4A	ES
COMLAB	6.83	-0.10	11.30	-0.32	2.83	-0.15	3.52	-0.64	3.31	0.32	4.87	-0.13	CSA	IR
COMLAB	6.89	0.06	11.80	0.85	2.73	-0.99	3.66	0.10	3.13	-0.74	4.91	0.10	CSA	IR
COMLAB	7.07	0.54	11.65	0.50	2.80	-0.40	3.65	0.04	3.11	-0.86	4.82	-0.42	4A	ES
COMLAB	7.19	0.85	11.26	-0.41	2.89	0.36	3.63	-0.06	3.19	-0.39	4.69	-1.17	GRAV	IR
COMLAB	6.30	-1.50	11.05	-0.91	2.72	-1.08	3.50	-0.75	3.36	0.62	4.80	-0.54	CSA	IR
COMLAB	7.18	0.84	12.22	1.84	2.89	0.38	3.72	0.43	3.22	-0.22	5.01	0.66	4A	ICP
COMLAB	6.20	-1.76	11.25	-0.44	2.82	-0.23	3.63	-0.06	3.29	0.20	5.03	0.78		
COMLAB	6.92	0.14	12.00	1.32	2.94	0.78	3.60	-0.22	3.42	0.98	5.02	0.73	CSA	IR
COMLAB	6.85	-0.04	10.63	-1.89	2.65	-1.67	3.38	-1.38	2.96	-1.75	4.63	-1.51	4A	ES
COMLAB	6.73	-0.36	11.60	0.38	2.91	0.53	3.58	-0.33	2.98	-1.64	4.88	-0.08	CSA	IR
COMLAB	6.73	-0.36	11.42	-0.04	2.87	0.19	3.59	-0.27	3.36	0.62	5.03	0.78	CSA	IR
COMLAB	6.46	-1.07	11.09	-0.81	2.73	-0.99	3.28	-1.91	3.18	-0.45	4.66	-1.34	CSA	IR
COMLAB	7.84	2.57	12.98	3.00	3.07	1.89	3.97	1.73	3.44	1.10	5.33	2.51	1A	ICP
COMLAB	7.02	0.40	11.90	1.09	2.85	0.02	3.87	1.20	3.06	-1.16	4.64	-1.46	4A	ES
COMLAB	6.27	-1.58	10.86	-1.35	2.77	-0.66	3.20	-2.33	3.06	-1.16	4.58	-1.80	CSA	IR
COMLAB	6.23	-1.68	10.70	-1.73	2.77	-0.66	3.40	-1.28	3.06	-1.16	4.42	-2.72	CSA	IR
COMLAB	6.65	-0.57	10.90	-1.26	2.93	0.70	3.49	-0.80	3.23	-0.15	4.81	-0.48	CSA	IR
COMLAB	6.38	-1.29	10.80	-1.50	2.73	-0.99	3.45	-1.01	3.12	-0.80	4.87	-0.13	CSA	IR
COMLAB	6.74	-0.33	11.34	-0.23	2.88	0.28	3.58	-0.33	3.22	-0.21	4.94	0.27	CSA	IR
COMLAB	4.28	-3.00	2.70	-3.00	2.60	-2.10	3.24	-2.12	3.28	0.15	4.88	-0.08	CSA	IR
COMLAB	7.44	1.51	12.50	2.50	2.81	-0.32	3.90	1.36	2.94	-1.87	5.15	1.47	4A	ES
COMLAB	7.02	0.40	11.06	-0.88	2.82	-0.23	3.71	0.36	2.93	-1.93	4.73	-0.94	4A	ICP
COMLAB	6.62	-0.65	11.03	-0.95	2.94	0.78	3.62	-0.12	3.28	0.15	4.84	-0.31	CSA	IR
COMLAB	6.37	-1.31	10.90	-1.26	2.93	0.70	3.54	-0.54	3.50	1.45	4.93	0.21	CSA	IR
COMLAB	7.20	0.88	12.80	3.00	3.10	2.14	4.10	2.42	3.70	2.64	5.00	0.61	4A,FUS	ICP
COMLAB	6.25	-1.63	10.43	-2.36	2.68	-1.42	3.07	-3.00	2.93	-1.93	4.59	-1.74	CSA	IR
COMLAB	6.82	-0.12	2.75	-3.00	10.01	3.00	3.90	1.36	3.51	1.51	4.57	-1.86	CSA	IR
COMLAB	7.10	0.62	11.70	0.62	3.00	1.29	3.81	0.89	3.59	1.99	4.93	0.21	AR,IH	GRAV
COMLAB	6.30													

Standard Deviations

Standard Deviations

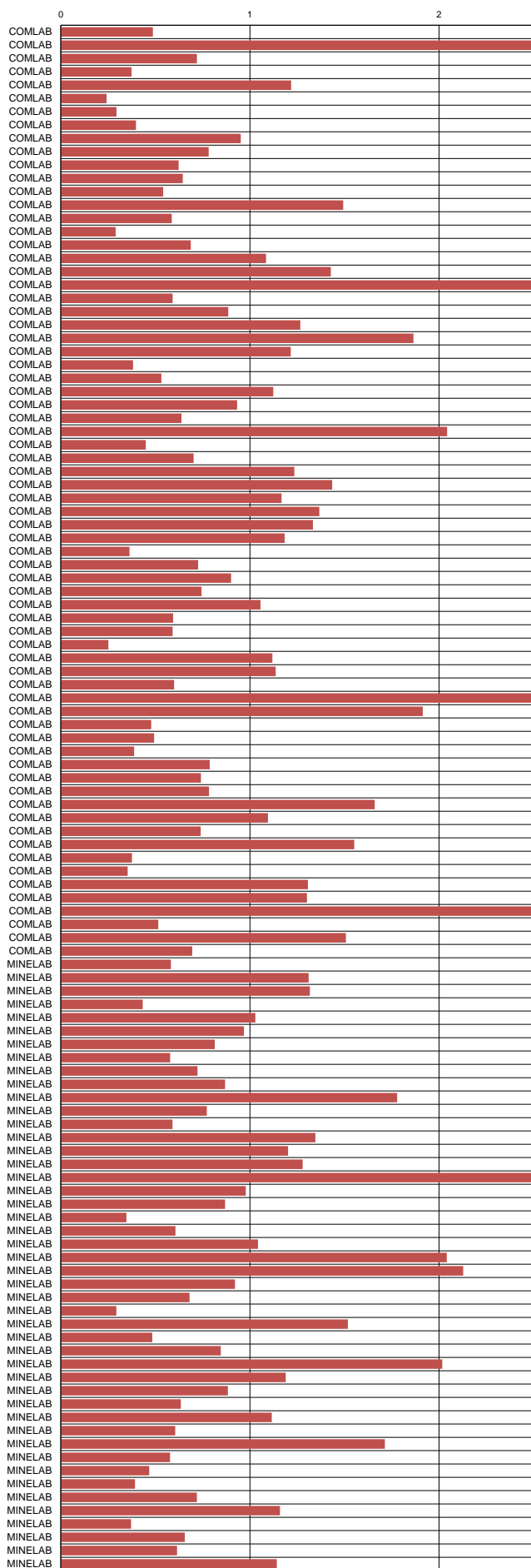


Sulphur Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

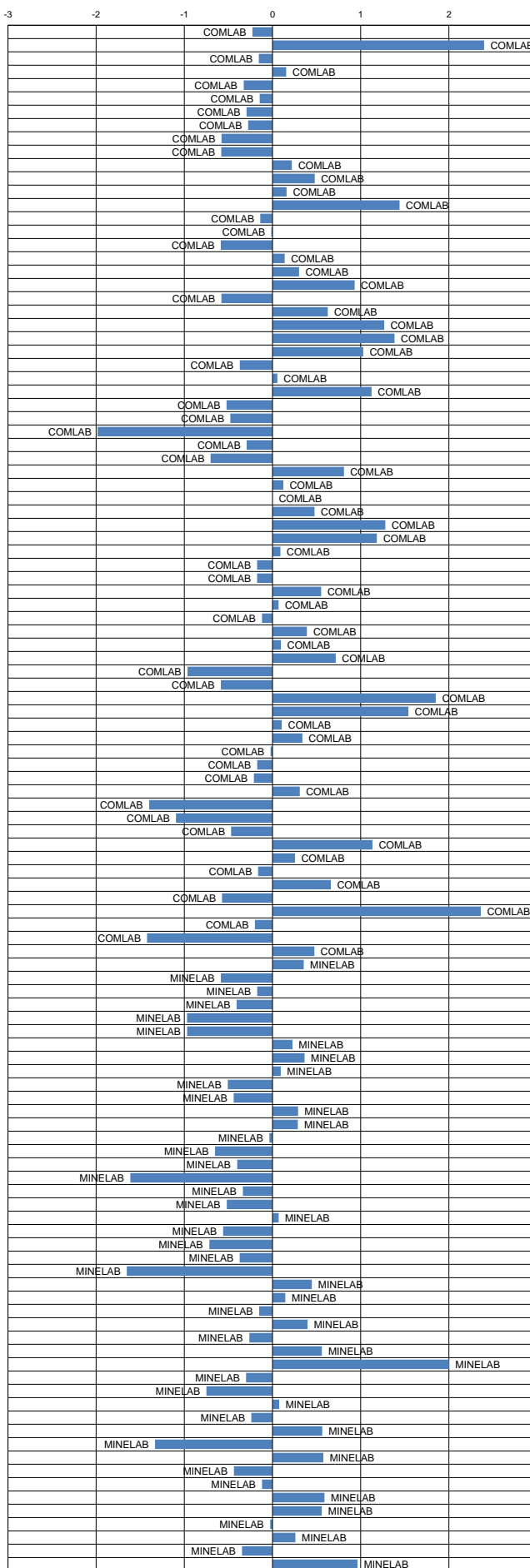
Standard Reference	GS918-1	GS918-2	GS918-3	GS918-4	GS918-5	GS918-6	GS918-7	GS918-8	GS918-9	GS918-10
MEAN (%)	11.33	1.14	13.10	18.19	0.26	0.31	0.06	0.23	6.68	3.56
STDEV (%)	0.47	0.06	0.56	0.83	0.03	0.04	0.02	0.02	0.27	0.15
95% CI (%)	0.09	0.01	0.11	0.16	0.01	0.01	0.00	0.00	0.05	0.03
95% CI (ref %)	0.81%	0.97%	0.83%	0.90%	2.11%	2.19%	5.77%	1.66%	0.79%	0.82%
MIN (%)	10.15	0.99	11.70	15.94	0.19	0.21	0.02	0.18	5.99	3.13
MEDIAN (%)	11.30	1.14	13.10	18.16	0.26	0.31	0.07	0.23	6.66	3.55
MAX (%)	12.45	1.30	14.48	20.48	0.33	0.40	0.11	0.28	7.46	3.88
IQR (%)	0.57	0.08	0.64	0.90	0.03	0.04	0.02	0.02	0.40	0.21
COUNT	102	109	102	100	105	106	88	100	104	105

Standard Reference	GS918-1		GS918-2		GS918-3		GS918-4		GS918-5		GS918-6		GS918-7		GS918-8		GS918-9		GS918-10		Method	Reading
	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
COMLAB	11.20	-0.27	1.09	-0.86	13.00	-0.18	18.90	0.86	0.26	0.09	0.32	0.35	0.05	-0.83	0.22	-0.46	6.67	-0.04	3.42	-0.93	CSA	IR
COMLAB	14.38	3.00	1.42	3.00	16.78	3.00	22.93	3.00	0.41	3.00	0.51	3.00	0.12	3.00	0.17	3.00	0.37	-3.00	4.62	3.00	CSA	IR
COMLAB	11.40	0.15	1.16	0.33	13.10	0.00	18.90	0.86	0.28	-0.80	0.23	-2.20	0.07	0.30	0.19	-2.02	6.64	-0.15	3.62	0.39	CSA	IR
COMLAB	11.40	0.15	1.18	0.67	13.30	0.36	18.50	0.37	0.25	-0.20	0.31	0.07	0.05	-0.83	0.23	0.05	6.77	0.32	3.66	0.65	CSA	IR
COMLAB	11.83	1.06	1.08	-1.03	13.32	0.39	18.04	-0.18	0.21	-1.68	0.25	-1.63	0.12	3.00	0.18	-2.53	6.59	-0.34	3.51	-0.33	CSA	IR
COMLAB	11.20	-0.27	1.14	-0.01	13.05	-0.09	18.10	-0.11	0.25	-0.26	0.30	-0.21	0.07	0.30	0.21	-0.98	6.70	0.07	3.58	0.12	CSA	IR
COMLAB	11.30	-0.06	1.11	-0.52	13.05	-0.09	18.10	-0.11	0.25	-0.26	0.30	-0.21	0.05	-0.83	0.22	-0.46	6.61	-0.26	3.54	-0.14	CSA	IR
COMLAB	11.15	-0.37	1.15	0.16	13.05	-0.09	17.50	-0.83	0.25	-0.26	0.31	0.07	0.06	-0.27	0.23	0.05	6.26	-1.54	3.61	0.32	CSA	IR
COMLAB	10.40	-1.96	1.13	-0.18	12.60	-0.90	17.20	-1.19	0.26	0.09	0.32	0.35	0.09	1.42	0.22	-0.46	6.27	-1.50	3.34	-1.45	CSA	IR
COMLAB	10.45	-1.85	1.17	0.50	12.05	-1.89	17.45	-0.89	0.26	0.09	0.32	0.35	0.06	-0.27	0.23	0.05	6.43	-0.92	3.41	-0.99	CSA	IR
COMLAB	11.51	0.39	1.14	-0.01	13.41	0.55	18.82	0.76	0.24	-0.62	0.33	0.64	0.04	-1.39	0.24	0.57	6.88	0.72	3.65	0.58	CSA	IR
COMLAB	11.60	0.58	1.19	0.84	13.10	0.00	18.30	0.13	0.26	0.09	0.32	0.35	0.05	-0.83	0.25	1.09	6.84	0.57	3.86	1.96	CSA	IR
COMLAB	11.60	0.58	1.12	-0.35	13.50	0.72	18.60	0.49	0.24	-0.62	0.30	-0.21	0.06	-0.27	0.22	-0.46	6.94	0.94	3.68	0.78	CSA	IR
COMLAB	12.26	1.97	1.23	1.52	13.91	1.46	18.84	0.78	0.25	-0.26	0.33	0.64	0.08	0.86	0.26	1.61	7.46	2.83	4.31	3.00	CSA	IR
COMLAB	11.40	0.15	1.11	-0.52	13.40	0.54	18.50	0.37	0.24	-0.62	0.28	-0.78	0.08	0.86	0.21	-0.98	6.77	0.32	3.45	-0.73	CSA	IR
COMLAB	11.20	-0.27	1.10	-0.69	13.00	-0.18	18.10	-0.11	0.26	0.09	0.31	0.07	0.06	-0.27	0.24	0.57	6.81	0.47	3.59	0.19	CSA	IR
COMLAB	11.30	-0.06	1.04	-1.71	13.05	-0.09	17.45	-0.89	nr	nr	0.32	0.35	nr	nr	nr	nr	6.63	-0.19	3.33	-1.52	CSA	IR
COMLAB	11.97	1.36	0.99	-2.56	13.39	0.52	18.99	0.86	0.21	-1.68	0.29	-0.50	0.08	0.86	0.24	0.57	6.92	0.87	3.71	0.98	CSA	IR
COMLAB	10.70	-1.33	1.44	3.00	12.40	-1.26	17.30	-1.07	0.32	2.21	0.36	1.49	0.08	0.86	0.25	1.09	6.45	-0.84	3.39	-1.12	CSA	IR
COMLAB	10.61	-1.52	2.38	3.00	11.74	-2.45	14.42	-3.00	1.75	3.00	1.27	3.00	0.76	3.00	0.45	3.00	6.21	-1.72	4.17	3.00	AR	GRAV
COMLAB	10.86	-0.99	1.11	-0.52	12.93	-0.31	17.40	-0.95	0.24	-0.62	0.30	-0.21	0.05	-0.83	0.23	0.05	6.49	-0.70	3.45	-0.73	CSA	IR
COMLAB	12.00	1.42	1.13	-0.18	13.90	1.44	19.20	1.22	0.24	-0.62	0.29	-0.50	0.07	0.30	0.23	0.05	7.04	1.30	3.84	1.83	CSA	IR
COMLAB	11.60	0.58	1.19	0.84	13.20	0.18	18.70	0.61	0.32	2.21	0.35	1.21	0.10	1.99	0.29	3.00	6.96	1.01	3.72	1.04	CSA	IR
COMLAB	10.80	-1.11	1.17	0.55	13.06	-0.08	17.19	-1.21	0.33	2.56	0.78	3.00	0.42	3.00	0.32	3.00	6.99	1.13	4.24	3.00	CSA	GRAV
COMLAB	13.70	3.00	1.16	0.33	17.50	3.00	41.50	3.00	0.27	0.44	0.28	-0.78	0.07	0.30	0.24	0.57	6.64	-0.15	3.65	0.58	CSA	IR
COMLAB	11.13	-0.42	1.11	-0.52	12.90	-0.36	18.18	-0.01	0.24	-0.62	0.28	-0.78	0.06	-0.27	0.23	0.05	6.52	-0.59	3.53	-0.20	CSA	IR
COMLAB	11.40	0.15	1.12	-0.35	13.20	0.18	18.80	0.74	0.24	-0.62	0.30	-0.21	0.07	0.30	0.21	-0.98	6.62	-0.23	3.80	1.57	CSA	IR
COMLAB	11.65	0.68	1.21	1.18	13.57	0.84	18.99	0.96	0.30	1.50	0.36	1.49	0.09	1.42	0.26	1.61	6.98	1.08	3.63	0.45	CSA	IR
COMLAB	11.39	0.13	1.22	1.35	12.07	-1.86	15.13	-3.00	0.24	-0.62	0.29	-0.50	0.06	-0.27	0.23	0.05	6.40	-1.03	3.64	0.52	CSA	IR
COMLAB	11.00	-0.69	1.10	-0.69	12.60	-0.90	16.30	-2.28	0.26	0.09	0.32	0.35	0.07	0.30	0.22	-0.46	6.53	-0.55	3.57	0.06	CSA	IR
COMLAB	7.33	-3.00	1.04	-1.71	8.78	-3.00	6.45	-3.00	0.14	-3.00	0.22	-2.48	0.07	0.30	0.19	-2.02	6.39	-1.06	3.43	-0.86	CSA	IR
COMLAB	11.30	-0.06	1.16	0.33	12.77	-0.60	18.43	0.29	0.26	0.09	0.31	0.07	0.04	-1.39	0.22	-0.46	6.57	-0.41	3.44	-0.79	CSA	IR
COMLAB	11.10	-0.48	1.09	-0.86	13.00	-0.18	18.05	-0.17	0.25	-0.26	0.29	-0.50	0.03	-1.95	0.21	-0.98	6.47	-0.77	3.43	-0.86	CSA	IR
COMLAB	12.35	2.16	1.15	0.16	14.46	2.45	20.08	2.28	0.24	-0.62	0.30	-0.21	0.05	-0.83	0.22	-0.46	6.98	1.08	3.88	2.09	CSA	IR
COMLAB	11.03	-0.63	1.14	-0.01	12.49	-1.10	12.71	-3.00	0.32	2.21	0.25	-1.63	0.11	2.55	0.28	2.64	6.63	-0.19	3.62	0.39	GRAV	IR
COMLAB	19.80	3.00	1.00	-2.39	12.90	-0.36	16.10	-2.52	0.25	-0.26	0.31	0.07	0.09	1.42	0.25	1.09	6.60	-0.30	3.60	0.26	CSA	IR
COMLAB	10.60	-1.54	1.15	0.16	16.40	3.00	29.10	3.00	0.23	-0.97	0.49	3.00	0.06	-0.27	0.23	0.05	6.24	-1.61	3.55	-0.07	CSA	IR
COMLAB	12.30	2.06	1.25	1.86	14.36	2.27	20.48	2.76	0.28	0.80	0.31	0.07	0.06	-0.27	0.23	0.05	7.31	2.28	3.70	0.91	CSA	IR
COMLAB	12.00	1.42	1.21	1.18	14.01	1.64	19.20	1.22	0.28	0.80	0.33	0.64	0.07	0.30	0.25	1.09	7.21	1.92	3.81	1.63	CSA	IR
COMLAB	11.40	0.15	1.13	-0.18	12.70	-0.72	18.50	0.37	0.26	0.09	0.32	0.35	0.07	0.30	0.23	0.05	6.94	0.94	3.49	-0.47	CSA	IR
COMLAB	11.85	1.11	1.04	-1.71	13.17	0.12	18.45	0.31	0.24	-0.62	0.24	-1.92	0.06	-0.27	0.23	0.05	6.84	0.57	3.65	0.58	CSA	IR
COMLAB	11.58	0.53	1.07	-1.20	13.13	0.05	18.29	0.12	0.25	-0.12	0.16	-3.00	-0.05	blid	0.22	-0.51	7.10	1.52	3.72	1.04	AR	GRAV
COMLAB	11.90	1.21	1.12	-0.35	13.55	0.81	18.60	0.49	0.24	-0.62	0.33	0.64	0.07	0.30	0.23	0.05	7.16	1.74	3.75	1.24	4A	ES
COMLAB	10.88	-0.94	1.09	-0.86	12.62	-0.87	17.61	-0.70	0.29	1.15	0.36	1.49	0.08	0.86	0.27	2.13	6.47	-0.77	3.44	-0.79	CSA	IR
COMLAB	11.20	-0.27	1.13	-0.18	12.71	-0.71	17.33	-1.04	0.29	1.15	0.32	0.35	0.07									

Standard Deviations



Standard Deviations



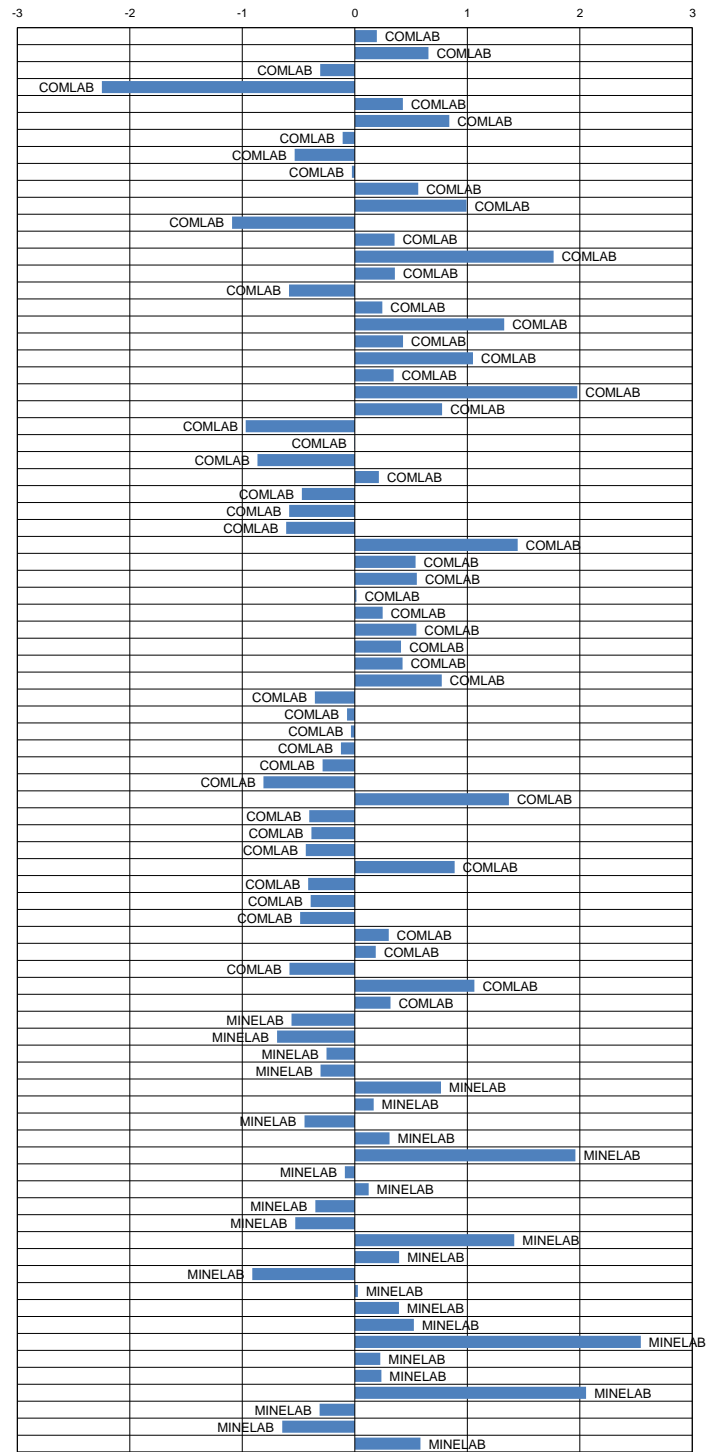
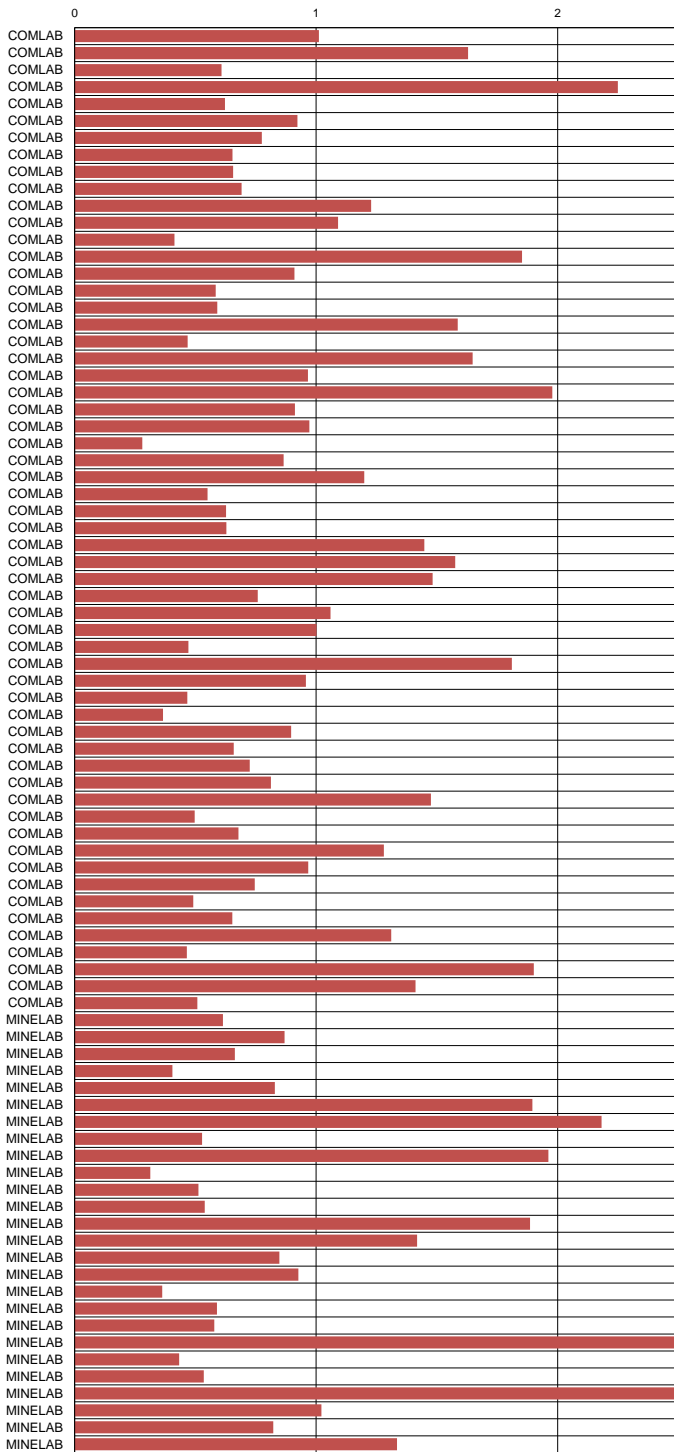
Carbon Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2018

Standard Reference	GS918-1	GS918-2	GS918-3	GS918-4	GS918-5	GS918-6	GS918-7	GS918-8	GS918-9	GS918-10
MEAN (%)	1.27	0.16	1.08	0.51	0.04	6.92	0.38	0.18	0.93	0.47
STDEV (%)	0.10	0.02	0.12	0.06	0.01	0.23	0.02	0.02	0.06	0.03
95% CI (%)	0.02	0.00	0.03	0.01	0.00	0.05	0.01	0.00	0.01	0.01
95% CI (rel %)	1.87%	2.64%	2.61%	2.72%	7.48%	0.77%	1.45%	2.39%	1.37%	1.55%
MIN (%)	1.03	0.12	0.82	0.41	0.01	6.36	0.32	0.14	0.78	0.39
MEDIAN (%)	1.24	0.16	1.05	0.49	0.04	6.93	0.38	0.17	0.94	0.47
MAX (%)	1.55	0.21	1.37	0.65	0.07	7.51	0.45	0.22	1.08	0.56
IQR (%)	0.12	0.02	0.18	0.09	0.02	0.24	0.03	0.02	0.07	0.03
COUNT	73	77	71	73	69	74	78	75	75	78

Standard Reference	GS918-1		GS918-2		GS918-3		GS918-4		GS918-5		GS918-6		GS918-7		GS918-8		GS918-9		GS918-10		Method	Reading
	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
COMLAB	1.33	0.61	0.13	-1.53	1.28	1.69	0.63	2.09	0.03	-0.79	7.05	3.00	0.37	0.22	0.16	-0.84	0.98	0.85	0.44	-0.91	CSA	IR
COMLAB	1.53	2.56	0.14	-0.99	1.25	1.44	0.59	1.42	0.04	0.01	7.78	3.00	0.37	-0.58	1.10	3.00	0.15	-3.00	0.46	-0.30	CSA	IR
COMLAB	1.17	-0.95	0.16	0.08	0.97	-0.90	0.44	-1.10	0.03	-0.79	7.16	1.05	0.39	0.22	0.16	-0.84	0.94	0.14	0.47	0.01	CSA	IR
COMLAB	1.03	-2.31	0.08	-3.00	0.82	-2.15	0.41	-1.61	0.03	-0.79	6.14	-3.00	0.34	-1.79	0.08	-3.00	0.78	-2.71	0.40	-2.14	CSA	IR
COMLAB	1.31	0.42	0.16	0.08	1.25	1.44	0.59	1.42	0.04	0.01	6.83	-0.37	0.40	0.62	0.18	0.24	0.99	1.03	0.45	-0.61	CSA	IR
COMLAB	1.35	0.81	0.19	1.69	1.19	0.94	0.57	1.08	0.05	0.80	6.82	-0.41	0.40	0.62	0.19	0.78	0.98	0.85	0.51	1.24	CSA	IR
COMLAB	1.18	-0.85	0.17	0.62	0.96	-0.98	0.49	-0.26	0.03	-0.79	6.90	-0.07	0.40	0.62	0.18	0.24	0.85	-1.47	0.53	1.85	CSA	IR
COMLAB	1.24	-0.26	0.15	-0.45	1.14	0.52	0.51	0.07	0.03	-0.79	6.69	-0.98	0.37	-0.58	0.15	-1.39	0.90	-0.58	0.44	-0.91	CSA	IR
COMLAB	1.25	-0.17	0.19	1.69	1.01	-0.56	0.50	-0.09	0.04	0.01	6.85	-0.28	0.35	-1.38	0.19	0.78	0.97	0.67	0.44	-0.91	CSA	IR
COMLAB	1.63	3.00	0.15	-0.45	1.27	1.60	0.55	0.75	0.04	0.01	7.04	0.54	0.38	-0.18	0.18	0.24	0.94	0.14	0.47	0.01	CSA	IR
COMLAB	1.23	-0.36	0.21	2.77	1.05	-0.23	0.54	0.58	0.06	1.60	7.23	1.36	0.45	2.63	0.21	1.87	0.90	-0.58	0.48	0.32	CSA	IR
COMLAB	1.16	-1.04	0.15	-0.45	0.97	-0.90	0.44	-1.10	0.01	-2.38	6.85	-0.28	0.35	-1.38	0.15	-1.39	0.89	-0.75	0.43	-1.22	CSA	IR
COMLAB	1.28	0.12	0.16	0.08	1.15	0.60	0.56	0.92	0.04	0.01	7.02	0.45	0.41	1.02	0.17	-0.30	0.95	0.31	0.48	0.32	CSA	IR
COMLAB	1.66	3.00	nr	nr	1.76	3.00	0.72	3.00	nr	nr	7.02	0.45	0.39	0.22	nr	nr	1.11	3.00	0.46	-0.30	CSA	IR
COMLAB	1.38	1.10	0.15	-0.45	1.34	2.19	0.57	1.08	0.04	0.01	6.45	-2.01	0.40	0.62	0.17	-0.30	0.99	1.03	0.48	0.32	CSA	IR
COMLAB	1.20	-0.65	0.15	-0.45	0.98	-0.81	0.45	-0.93	-0.10	blid	6.90	-0.07	0.35	-1.38	0.17	-0.30	0.93	-0.04	0.45	-0.61	CSA	IR
COMLAB	1.24	-0.26	0.16	0.08	1.01	-0.56	0.47	-0.60	0.04	0.01	7.39	2.05	0.40	0.62	0.17	-0.30	0.96	0.49	0.50	0.93	CSA	IR
COMLAB	1.68	3.00	0.14	-0.99	2.28	3.00	0.76	3.00	0.04	0.01	7.06	0.62	0.40	0.62	0.22	2.41	1.04	1.91	0.46	-0.30	CSA	IR
COMLAB	1.29	0.22	0.16	0.08	1.28	1.69	0.56	0.92	0.05	0.80	6.88	-0.15	0.39	0.22	0.18	0.24	0.93	-0.04	0.48	0.32	CSA	IR
COMLAB	1.62	3.00	0.14	-0.99	2.19	3.00	0.83	3.00	0.03	-0.79	6.89	-0.11	0.38	-0.18	0.21	1.87	1.08	2.63	0.44	-0.91	CSA	IR
COMLAB	1.36	0.90	0.14	-0.99	1.32	2.02	0.60	1.59	0.03	-0.79	7.11	0.84	0.38	-0.18	0.16	-0.84	1.00	1.20	0.46	-0.30	CSA	IR
COMLAB	1.79	3.00	0.17	0.62	2.56	3.00	1.05	3.00	0.06	1.60	6.98	0.28	0.41	1.02	0.22	2.41	1.21	3.00	0.53	1.85	CSA	IR
COMLAB	1.22	-0.46	0.19	1.69	1.15	0.60	0.53	0.41	0.07	2.39	6.93	0.06	0.41	1.02	0.20	1.33	0.92	-0.22	0.50	0.93	CSA	IR
COMLAB	1.21	-0.56	0.14	-0.99	0.87	-1.73	0.21	-3.00	0.02	-1.59	6.91	-0.03	0.37	-0.58	0.17	-0.30	0.88	-0.93	0.47	0.01	CSA	IR
COMLAB	1.27	0.03	0.15	-0.45	1.12	0.35	0.49	-0.26	0.05	0.80	6.96	0.19	0.38	-0.18	0.17	-0.30	0.92	-0.22	0.47	0.01	CSA	IR
COMLAB	1.20	-0.65	0.14	-0.99	0.98	-0.81	0.42	-1.44	0.02	-1.59	6.88	-0.15	0.37	-0.58	0.16	-0.84	0.86	-1.29	0.46	-0.30	CSA	IR
COMLAB	1.42	1.49	0.07	-3.00	1.22	1.19	0.54	0.58	0.02	-1.43	6.80	-0.50	0.42	1.42	0.20	1.33	0.94	0.14	0.50	0.93	CSA	IR
COMLAB	1.20	-0.65	0.16	0.08	0.96	-0.98	0.46	-0.77	0.03	-0.79	6.77	-0.63	0.37	-0.58	0.17	-0.30	0.91	-0.40	0.48	0.32	CSA	IR
COMLAB	1.21	-0.56	0.15	-0.45	0.99	-0.73	0.48	-0.43	0.03	-0.79	6.64	-1.19	0.39	0.22	0.16	-0.84	0.89	-0.75	0.46	-0.30	CSA	IR
COMLAB	1.23	-0.36	0.16	0.08	0.98	-0.81	0.49	-0.26	0.03	-0.79	6.67	-1.06	0.37	-0.58	0.15	-1.39	0.88	-0.93	0.47	0.01	CSA	IR
COMLAB	1.37	1.00	0.20	2.23	1.17	0.77	0.55	0.75	0.14	3.00	7.10	0.80	0.43	1.82	0.24	3.00	0.96	0.49	0.49	0.62	CSA	IR
COMLAB	1.45	1.78	0.14	-0.99	1.72	3.00	0.71	3.00	0.06	1.60	6.51	-1.75	0.36	-0.98	0.16	-0.84	1.00	1.20	0.45	-0.61	CSA	IR
COMLAB	1.27	0.03	0.22	3.00	1.31	1.94	0.59	1.42	0.09	3.00	6.40	-2.23	0.37	-0.58	0.19	0.78	0.88	-0.93	0.44	-0.91	CSA	IR
COMLAB	1.17	-0.95	0.17	0.62	0.99	-0.73	0.44	-1.10	0.06	1.60	7.24	1.40	0.38	-0.18	0.18	0.24	0.89	-0.75	0.47	0.01	CSA	IR
COMLAB	1.36	0.90	0.15	-0.45	1.10	0.19	0.44	-1.10	0.06	1.60	7.75	3.00	0.36	-0.98	0.17	-0.30	0.98	0.85	0.43	-1.22	CSA	IR
COMLAB	1.32	0.51	0.19	1.69	1.08	0.02	0.49	-0.26	0.06	1.60	6.45	-2.01	0.43	1.82	0.18	0.24	0.95	0.31	0.52	1.54	CSA,FUS	IR,ES
COMLAB	1.32	0.51	0.17	0.62	1.16	0.69	0.54	0.58	0.04	0.01	7.05	0.58	0.40	0.62	0.17	-0.30	0.96	0.49	0.48	0.32	CSA	IR
COMLAB	1.67	3.00	0.12	-2.06	1.15	0.60	0.47	-0.60	-0.01	blid	7.16	1.05	0.45	2.63	0.14	-1.93	0.84	-1.64	0.56	2.77	CSA	IR
COMLAB	1.23	-0.36	0.19	1.69	1.05	-0.23	0.49	-0.26	0.05	0.80	6.90	-0.07	0.43	1.82	0.20	1.33	0.98	0.85	0.54	2.16	CSA	IR
COMLAB	1.20	-0.65	0.15	-0.45	0.97	-0.90	0.46	-0.77	0.04	0.01	6.70	-0.93	0.38	-0.18	0.18	0.24	0.92	-0.22	0.48	0.32	CSA	IR
COMLAB	1.22	-0.46	0.16	0.08	1.00	-0.65	0.46	-0.77	0.04	0.01	6.92	0.02	0.40	0.62	0.17	-0.30	0.94	0.14	0.49	0.62	CSA	IR
COMLAB	1.10	-1.63	0.15	-0.45	1.06	-0.15	0.42	-1.44	0.04	0.01	7.92	3.00	0.36	-0.98	0.18	0.24	0.94	0.14	0.50	0.93	CSA	IR
COMLAB	1.18	-0.85	0.17	0.62	0.97	-0.90	0.45	-0.93	0.05	0.80	7.15	1.01	0.38	-0.18	0.18	0.24	0.89	-0.75	0.46	-0.30	CSA	IR
COMLAB	1.22	-0.46	0.15	-0.45	1.12	0.35	0.60	1.59	0.03	-0.79	6.50	-1.80	0.36	-0.98	0.18	0.24	0.90	-0.58	0.47	0.01	CSA	IR
COMLAB	1.21	-0.56	0.14	-0.83	1.03	-0.40	0.49	-0.31	0.03	-1.03	6.68	-1.02	0.35	-1.47	0.15	-1.28	0.91	-0.45	0.44	-0.79	CSA	IR
COMLAB	1.62	3.00	0.15	-0.45	1.98	3.00	0.88	3.00	0.04	-0.07	7.13	0.92	0.41	0.98	0.18	0.29	1.05	2.09	0.50	0.93	CSA	IR
COMLAB	1.20	-0.65	0.15	-0.45	1.02	-0.48	0.49	-0.26	0.04	0.01	6.97	0.23	0.39</									

Standard Deviations

Standard Deviations



MAXXAM ONTARIO - NEUTRON ACTIVATION ANALYSIS REPORT

NAA Results - Gold and Base Metals

		G918-1	G918-2	G918-3	G918-4	G918-5	G918-6	G918-7	G918-8	G918-9	G918-10	GLG918-1	GLG918-2	GLG918-3	GLG918-4	GLG918-5	GBM918-1	GBM918-2	GBM918-3	GBM918-4	GBM918-5	GBM918-6	GBM918-7	GBM918-8	GBM918-9	GBM918-10	GBM918-11	GBM918-12	GBM918-13	GBM918-14	GBM918-15	GBM918-16	
Sb	ppm	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	1.3	0.4	0.9	127	0.3	1.4	0.4	0.7	2.8	0.6	0.3	<0.2	507	1.8	0.4	2.3	0.6	33.7	1.4	28.5	547	
As	ppm	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	22.5	20.9	13.6	58.5	1.1	25.8	28.4	19.6	207	35	11.9	2.5	290	23.5	13.5	43	18.5	191	3.7	13.7	843	
Ba	ppm	332	296	244	346	327	429	386	417	332	344	<100	485	190	<100	397	254	546	<100	554	<100	<100	113	11700	<100	197	169	<100	1730	496	331	287	
Br	ppm	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	3	<2	<2	<2	<2	6	2	4	2	<2	<2	5	<2	8	5	<2	<2	<2	<2	
Cd	ppm	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	15.6	<10	173	<10	82	34	
Ce	ppm	33	33	29	36	35	37	36	33	31	35	22	42	24	21	47	22	45	15	24	<10	<10	147	<10	30	28	<10	14	158	122	39	34	
Cs	ppm	2	2	<2	2	<2	2	2	2	2	2	2	3	<2	2	2	4	3	<2	4	<2	<2	<2	<2	<2	6	<2	<2	<2	2	2	<2	
Cr	ppm	102	104	146	104	105	58	107	109	99.6	103	176	17	4650	72	18	186	15	659	80	446	103	16	1350	1550	63	2390	655	39	74	53	111	
Co	ppm	21	22	31	22	21	12	21	22	21	23	53	33	266	15	30	58	42	530	19	300	75	<5	60	110	13	1030	512	59	11	30	97	
Eu	ppm	1.1	1	1.5	1.3	1.2	0.9	1.1	1	0.9	1.1	1.7	0.5	0.6	0.9	1.4	1.6	0.5	<0.5	0.7	<0.5	<0.5	0.9	<0.5	<0.5	0.7	<0.5	<0.5	1.7	1.7	1.1	1.6	
Au	ppb	365	1460	530	1250	865	3550	6000	33000	48500	1500	111	56	84	20	15	99	46	177	145	124	23	<5	13	5	617	1160	235	2750	20	7520	25000	
Hf	ppm	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	5	<5	<5	<5	<5	<5	<5	10	<5	12	<5	<5	<5	8	5	14	<5	
Ir	ppb	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	317	<50	183	<50	<50	<50	<50	<50	1210	315	<50	<50	<50	<50	
Fe	%	5.2	5.2	7.1	5.3	5.3	3.3	5.6	5.3	5.1	5.3	8.3	1.4	13.9	66.8	7.9	8.7	1.5	2.3	3.8	1.6	0.5	<0.5	5.3	20	3.6	5.4	2.4	5.3	3.6	6.9	8.8	
La	ppm	19	18	14	19	20	21	20	18	17	19	9	25	10	8	24	9	25	7	12	4	2	63	3	7	15	4	7	86	65	22	17	
Lu	ppm	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.1	0.5	0.4	0.4	<0.2	0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	0.2	0.1	0.1	0.6	0.4	0.5	0.4
Mo	ppm	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	17	<10	<10	<10	<10	20	<10	<10	40	<10	<10	<10	<10	<10	35	<10	<10	19	13	157	105	
Ni	ppm	24	27	28	29	28	<20	27	35	<20	26	72	89	3160	39	29	84	99	11300	130	5000	1450	30	860	980	40	19000	11500	47	180	55	310	
Rb	ppm	91	104	65	92	90	165	84	87	105	85	<20	195	<20	<20	71	<20	188	<20	46	<20	<20	<20	<20	<20	137	<20	<20	80	69	95	54	
Sm	ppm	4.2	4.3	4.7	4.4	4.3	3.8	4.4	4.2	4.1	4.3	4.6	3.5	2.3	2.6	5.7	4.9	3.4	0.9	2.3	0.6	0.4	6.6	0.8	1	2.7	0.5	0.9	11	8.1	4.2	4	
Sc	ppm	18.5	18.2	26.2	18.9	19.2	10.6	19.6	19.1	17.9	19	30.5	3.3	18.1	20.6	23.3	31.7	3.5	4	9.7	2.1	0.8	5.2	10.7	19.6	8.7	8.5	3.9	11.6	4.8	15.4	18.7	
Se	ppm	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	23	
Ag	ppm	<5	9	<5	<5	<5	<5	20	9	26	7	<5	<5	<5	<5	<5	<5	<5	8	<5	6	<5	<5	8	<5	<5	47	8	8	105	29	34	
Na	%	2.36	1.96	2.32	2.47	2.41	1.85	2.47	2.37	1.99	2.47	2.06	1.64	0.444	0.0103	2.26	2.16	1.7	0.54	0.89	0.52	0.136	0.0436	0.0925	0.0341	2.59	0.608	0.532	2.24	1.25	2.27	1.79	
Ta	ppm	<2	2	<2	2	<2	2	<2	<2	<2	2	<2	3	<2	<2	2	<2	2	<2	<2	<2	<2	<2	<2	<2	3	<2	<2	<2	<2	2	<2	
Te	ppm	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	
Tb	ppm	1	1	1	1	1	1	1	<1	<1	<1	1	1	<1	<1	2	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	1	1	2
Th	ppm	12.5	12.3	6.3	13	12.5	17.5	13.9	11.9	11.5	12.7	1	22.8	2.4	0.9	13.2	0.7	22.8	6.4	3.7	3	1.2	72.8	<0.5	93.1	6.4	<0.5	6.1	28.8	16.2	13.7	8.4	
Sn	ppm	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	341	<200	<200	<200	<200	<200	<200	<200	375	344	<200	<200	<200	<200	
W	ppm	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	37	<5	<5	<5	<5	5	<5	<5	<5	<5	<5	44	<5	<5	5	<5	<5	<5	
U	ppm	8	7	3	7	7	10	8	8	8	7	1	13	1	10	6	<1	14	2	1	1	1	3	<1	12	2	2	2	5	8	7	5	
Yb	ppm	2.7	2.9	3.2	2.9	2.7	2.6	2.9	2.7	2.9	2.8	3.1	2.4	1.3	0.8	3.5	3.1	2.5	0.5	1.4	<0.5	<0.5	1.4	<0.5	<0.5	0.9	<0.5	<0.5	4.2	2.3	3.1	2.6	
Zn	ppm	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	205	<200	485	<200	<200	200	<200	940	410	1140	400	<200	290	<200	<200	1300	850	33200	<200	26500	23000	
Zr	ppm	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	

SUMMARY REPORT OF INDIVIDUAL LABORATORY PERFORMANCE
Zarazma Minerals Studies Company

GOLD SAMPLES

Analysis	Samples Sent	Reported	Number of Outliers
Fire Assay	Yes (10)	Yes	0
Aqua Regia	Yes (10)	No	-
Low Level	Yes (5)	Yes	1

Au & Ag IN CARBON SAMPLES

The laboratory were not sent any samples for Au & Ag in carbon analysis.

Analysis	Reported	Number of Outliers
Gold	-	-
Silver	-	-

BASE METAL SAMPLES

10 Base Metal samples were sent to the laboratory for analysis by Total and / or Partial methods.

Analysis	Total Digest		Partial Digest	
	Reported	Number of Outliers	Reported	Number of Outliers
Silver	Yes	0	No	-
Copper	Yes	0	No	-
Lead	Yes	0	No	-
Zinc	Yes	0	No	-
Nickel	Yes	0	No	-
Arsenic	No	-	Yes	0
Cobalt	Yes	0	No	-

ORE GRADE BASE METAL SAMPLES

6 Ore Grade Base Metal samples were sent to the laboratory for analysis.

Analysis	Reported	Number of Outliers
Copper	Yes	0
Lead	Yes	0
Zinc	Yes	1
Nickel	Yes	0
Silver	Yes	0
Sulphur	Yes	0

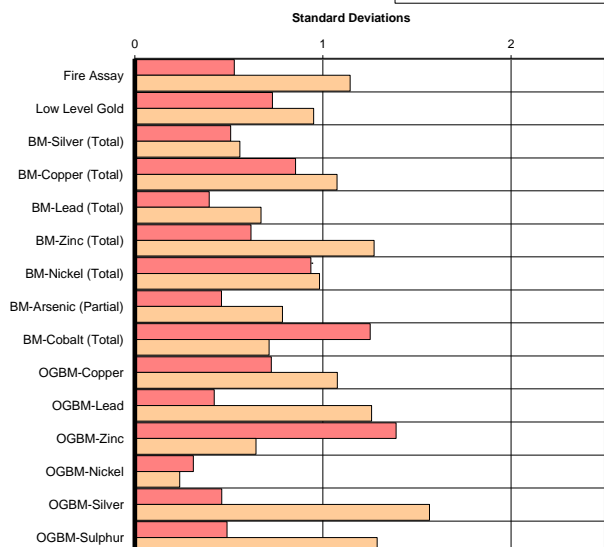
SULPHUR SAMPLES

The laboratory were not sent any Sulphur samples for analysis.

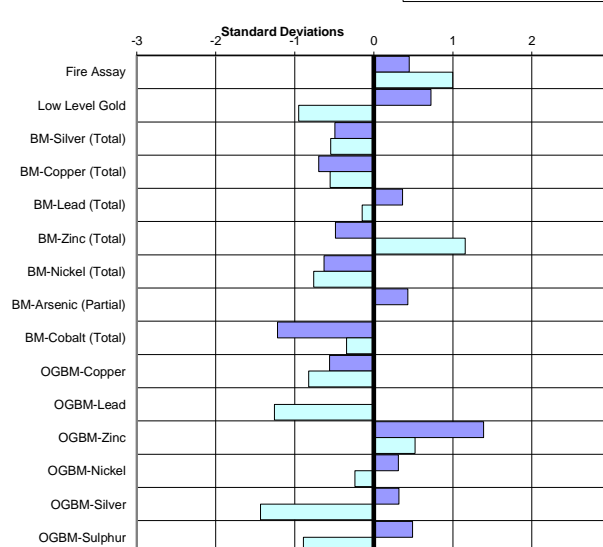
Analysis	Reported	Number of Outliers
Sulphur	-	-
Carbon	-	-

ERROR GRAPHS

Mean of Absolute Standardized Values October 2018 April 2018



Mean of Standardized Values October 2018 April 2018



FURTHER INFORMATION

The samples analysed in this survey are available for purchase. Please contact us or visit www.geostats.com.au for a complete listing of available materials.

To discuss this report, please contact us on +618 9314 2566, or srr@geostats.com.au