



# Exploration and Mining Services

## Schedule of Rates - CAD

Effective January 1, 2010 (Supersedes Rate Schedule Dated January 1, 2009)



**INSPECTORATE**

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ISO:9001-2008



Inspectorate America Corporation

Exploration and Mining Services

Rate Schedule - CAD

Effective January 1, 2010

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***Inspectorate boasts 8 state of the art Exploration & Mining Service (EMS) hub laboratories around the world. In North America we have two state-of-the-art, ISO 9001:2008 certified, 30,000 ft<sup>2</sup> full service laboratories. These are located in Reno, Nevada, and Vancouver, British Columbia. These labs are served by a network of sample preparation facilities designed to conveniently provide fast, cost effective solutions for our clients' assay needs.***

Committed to Quality, Service & Convenience

### 1) Quality

- ❖ ISO certified 9001:2008
- ❖ Participant in round robin testing, such as CanMet
- ❖ BC Certified Assayers, experienced technicians and chemists

### 2) Client Service

- ❖ Professional staff to handle all questions and concerns
- ❖ Sample pick-up services
- ❖ Secure online data retrieval through iFind

### 3) Global Presence

- ❖ The Inspectorate Group has locations in over 100 countries
- ❖ Eight strategically located hub laboratories servicing the Mining and Mineral Exploration industry
- ❖ Wide network of sample preparation facilities

Inspectorate's roots began as an assayer to the Bank of England and the Royal Mint in 1885, since that time our experience has proven to be our greatest asset. That experience has allowed us to grow into a world class international provider of analytical, inspection, and testing services.

Inspectorate's Exploration and Mining Services (EMS) address a full spectrum of analytical and testing requirements throughout the life cycle of a mine; we will be with you all the way. From ultra low level (ppb) elemental scans during generative work through exploration drill programs, feasibility, metallurgical and environmental studies we take pride in helping you prove your projects true value.

# Overview of Services

## SERVICES PROVIDED:

### Sample Preparation Facilities

- ❖ Local sample preparation sites for soils, rock chips, drill core, etc.

#### Americas sample preparation locations:

- ❖ Whitehorse, Yukon Territory (Spring 2010)
- ❖ Durango & Hermosillo, Mexico
- ❖ Guatemala City, Guatemala
- ❖ Medellin, Columbia
- ❖ Quito, Ecuador.

### On site sample pick-up

- ❖ Pick-up services available from Inspectorate sample prep and lab locations.

### Fire Assay

- ❖ providing total determination of gold, silver, platinum, and palladium in rock or soil samples by high temperature fusion method

### Classical Wet Assay

- ❖ A highly accurate and very precise method for determination of mineral concentrates and metallurgical samples

### Geochemical Analysis

- ❖ Offers an economical and accurate analysis for the determination of rock or soil samples with low to moderate mineral concentration

### ICP Analysis

- ❖ Inductively Coupled Plasma - capable of determining the concentration of 30+ elements in solution simultaneously using the intensity of light emitted by sample solution while aspirating into an argon gas plasma flame at extremely high temperatures

### Whole Rock Analysis by ICP

- ❖ A complete digestion of sample using Lithium Metaborate Fusion, followed by acid leaching. The sample solution is then scanned through the ICP, elements are reported as percentage of oxide; separate LOI Analysis is also included.

### Sulfur and Carbon Group Analysis

- ❖ Four different species of sulfur and carbon elements can be assayed as individuals or as a group; useful for metallurgical study.

### Environmental Analysis

- ❖ Accurate and precise instrumentation analysis for determination of water and solid samples with very low mineral concentration; package or individual analysis available.

**IMPORTANT: PLEASE NOTE THAT NO ANALYSIS PERFORMED BY INSPECTORATE'S EXPLORATION AND MINING SERVICES GROUP IS FOR SETTLEMENT OR EXCHANGE PURPOSES.** Settlement grade assays are available from our High Grade Laboratory located in Reno, NV, the rates for these services are included in this fee schedule for convenience.

*Geochemistry results are used to satisfy different objectives driven by customer needs. Objectives generally fall into four categories where results are used to determine one or more of the following: 1. Locations of ore bodies, 2. Economic value of ores, 3. Mining process effectiveness, 4. Environmental cost estimates. Depending on the need, different analytical methods are available that deliver the client's objectives with the greatest value per dollar.*

### Objectives:

#### 1. Location of ore bodies

The best methods offer consistent results of maximum elements at the lowest cost. Total or near total determinations are not usually necessary, allowing a semi-quantitative, cheaper aqua regia digest to be utilized. This digest is usually coupled with multi-element, ICP-AES packages to provide results for cost-effective decision making. For soil samples, lower detection limits may be necessary, requiring an ICP-MS package. In either case, it is recommended to use the cold vapor method for mercury determinations. Stream sediments may be analyzed at relatively large sample weights with cyanide bottle roll tests for very low level gold.

#### 2. Economic value of ore

Total or near total results are required. Either four-acid digestion or an assay-grade digestion is recommended with ICP or AAS determinations. Packages are available. Ore of very high grades may use wet-titration or fusion (whole rock) methods.

#### 3. Mining process effectiveness

Typically this involves tests to duplicate and estimate basic mining production recoveries from cyanide, autoclaving and roasting processes. Cyanide shake tests are meant to estimate the ore's gold-leaching potential. Conversely, the inability to leach can be estimated with cyanide "preg rob" tests, and carbon and sulfur content and speciation determinations.

#### 4. Environmental cost estimation

Many of the aforementioned tests can be used to determine the ore's make up and how it will respond to environmental conditions within an active or inactive mine setting. Tests include whole rock determinations to determine the major constituents of the ore on a macro level, and acid-base accounting tests that estimate the ore's potential to generate or neutralize acid-rock drainage.

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## Sample Preparation

**Sample preparation is the foundation of the analytical testing process for geologic samples. Results quality can only be acceptable if preparation quality is acceptable as well.**

Geologic samples require proper preparation for accurate results. Accurate results are representative of the entire sample submitted. This requires the sample to be adequately homogenized such that the portion selected for analysis represents the whole.

Typically, this requirement is met when the lab adequately crushes and homogenizes the sample, and removes a representative sub-sample which is pulverized (pulped) and homogenized. The pulp is used for testing purposes where sub-samples (aliquots) are taken that represent the original sample submitted, and the pulp is ground fine enough for adequate digestion by fire assay or other geochemistry methods.

There are many ways to prepare samples such that acceptable results can be attained economically with even challenging ore types. Please inquire for available options.

### Routine Sample Preparation

	Description	Rate Unit	Code
Rock/Chips/Drill Core	Up to 2kg sample, dried up to 24hrs, crushed, riffle split to ~250g and pulverized to >90% -150 mesh	\$7.35 per sample	SP-RX-2K
Soils/Humus/Sediments	Up to 1kg, dried @60oC, sieved to -80 mesh and riffle split	\$3.15 per sample	SP-SS-1K
Pan Concentrates	Up to 500g sample, pulverized to -150 mesh	\$9.45 per sample	SP-PC-500
Rejects	Up to 2kg sample, riffle split ~250g and pulverized to >90% -150 mesh	\$5.25 per sample	SP-RJ-2K
Pulp Handling	Handling of submitted pulps	\$1.00 per sample	SP-PU
Overweight Rocks/Chips/ Drill Core	Overweight samples will incur additional prep charge on a per kg basis, this is calculated as an average of the total batch	\$0.65 per kg/sample	SP-RX-OW
Overweight Soils/Humus/Sediments	Overweight samples will incur additional prep charge on a per kg basis, this is calculated as an average of the total batch	\$2.10 per kg/sample	SP-SS-OW
Additional Pulp Sizes	For pulps requiring preparation >250g	\$0.80 per 250g/sample	SP-PU-OW
Additional Sieve Sizes	Extra sieve sizes in addition to the sizes provided in routine prep	\$3.70 per sieve /500g sample	SP-SV
Core cutting	HQ, NQ, PQ	By quotation / per foot	SP-DC-CC

### Additional Preparation Options

	Description	Rate Unit	Code
Transfers	Transfer to cloth bags for drying when required. (NB Cloth bags available for purchase, see below)	\$1.50 per sample	SP-TF
Excess drying	Any samples with excess moisture requiring >24hr drying time	\$3.15 per sample	SP-DY
Crushing only	Sample crushed to >80%, -10 mesh	\$1.60 per kg/sample	SP-RX-CR
Splitting only	Riffle splitting of -10 mesh samples	\$1.00 per kg/sample	SP-SL
Pulverization only	<250g, -10 mesh, pulverization only, to >90% @ -150 mesh	\$3.70 per sample	SP-PV-250
	250g-1000g, -10 mesh, pulverization only, to >90% @ -150 mesh	\$5.25 per sample	SP-PV-1000
	>1000g, -10 mesh, pulverization only, to >90% @ -150 mesh	\$5.25 per kg/sample	SP-PV-OW

## Sample Preparation (Cont.)

### Additional Preparation Options (cont.)

	Description	Rate Unit	Code
Retain Plus Fraction	Save fraction +80mesh on Soils/Humus/Stream Sediments	\$1.00 per sample	SP-SS-RF
Barren Silica Wash	Extra pulverizer wash between samples, using barren silica sand (recommended)	\$2.30 per sample	SP-PV-BW
Barren Rock Wash	Extra crusher wash between samples, using barren rock	\$2.10 per sample	SP-CR-BW
Compositing (Vol)	Compositing pulps per client's instructions (volumetric) Includes homogenizing	\$1.60 per fraction	SP-CP-VL
Compositing (Grav)	Compositing pulps per client's instructions (gravimetric) Includes homogenizing	\$3.40 per fraction	SP-CP-GV
Homogenization	Entire Pulp is rolled on wax paper to achieve homogeneity	\$1.00 per sample	SP-PU-HM

### Storage/Handling/Disposal

	Description	Rate Unit	Code
Storage	Pulps retained for 3 months Rejects retained for 1 month Excess storage for pulps (beyond 3 months) Excess storage for rejects (beyond 1 months) Minimum total storage fee, per month	No Charge No Charge \$0.10 per sample/month \$0.40 per sample/month \$50.00 per month	ST-PU-1M ST-RJ-1M ST-MIN-1M
Returns	Returns of samples available upon request	at cost	ST-RTN
Disposal	Pulp disposals Reject disposal	\$0.10 per sample \$0.40 per sample	ST-PU-DS ST-RJ-DS
Special Handling	Any special handling shall be charged per hour of warehouse labor	\$50.00 per hour	ST-SH-1H
Freight Charge	Courier charge from Prep lab to Assay lab for analysis at cost	at cost per sample	SH-PL-AL

### Miscellaneous

	Description	Rate Unit	Code
	Minimum Charge Moisture LOI (0.01-100%) pH Specific Gravity Solid (0.01-10) Specific Gravity with Wax (0.01-10)	\$200.00 per job \$10.50 per sample \$10.50 per sample \$10.50 per sample \$11.50 per sample \$13.65 per sample	MIN-JOB SP-H20 SP-LOI SP-PH SP-SG-S SP-SG-W

### Supplies

Supplies such as; cloth sample bags, bottles, assay tags, zip-ties, soil gusset bags, burlap sacks, and shipping labels are available upon request, please contact your local Inspectorate office for prices.

## Precious Metals

**Fire assay is unrivaled as the method for economical determination of gold content in geologic samples. Its effectiveness is widely recognized which makes it the standard for all analytical processes that offer gold results.**

The fire assay process works by breaking down the sample's chemical bonds liberating the noble metals which are collected by a fluxing agent, usually lead. The lead is retrieved and oxidized upon which it is absorbed into a cupel, leaving behind a bead of noble metals. As decomposition of the rock material can frequently exceed 99.9%, gold recoveries will be similar.

Nearly all rock types are sufficiently decomposed when the proper flux formula is utilized in adequate quantities under proper time and temperature conditions. The true genius of the process, however, is that there are many visual indicators that provide testimony to the effectiveness of the flux formula used. Our experienced, attentive technicians document any problem indicators to avoid reporting erroneous results due to gold losses, as well as to adjust the flux for reassays.

### Quick Reference

Analyte	Description	Detection range (ppm)	Rate	Unit	Code
Au	Au by Fire Assay with AA Finish, 1AT	Au: 0.005 - 10	\$13.75	per sample	Au-1AT-AA
Au, Ag	Au by Fire Assay with AA Finish, 1AT, and Ag by Aqua Regia digest and AA finish.	Ag: 0.1 - 100	\$17.60	per sample	PKG-AuAg
Au, Pt, Pd	Au, Pt, Pd by Fire Assay with AA/ICP Finish, 1AT	Au: 0.002 - 5 Pt, Pd: 0.005 - 10	\$19.00	per sample	PKG-PGM

Overlimits for Au automatically run at 1ppm, unless otherwise requested

### Fire Assay

Analyte	Instrument	Weight	Detection range (ppm)	Rate	Unit	Code
Au	AA	1AT	0.005 - 10	\$13.75	per sample	Au-1AT-AA
		2AT		\$16.50		Au-2AT-AA
Au	ICP	1AT	0.002 - 5	\$14.85	per sample	Au-1AT-ICP
		2AT		\$17.60		Au-2AT-ICP
Au	ICP-MS Ultra-trace detection, achieved by Pd in quart and increased QC protocol	1AT	0.0005 - 0.01	\$19.25	per sample	Au-1AT-MS
		2AT		\$22.00		Au-2AT-MS
Au	Gravimetric (ore grade)	1AT	0.1 - 1,000	\$16.50	per sample	Au-1AT-GV
		2AT		\$19.25		Au-2AT-GV
Au Ag	Gravimetric (ore grade)	1AT	See Au and Ag Grav	\$19.25	per sample	AuAg-1AT-GV
		2AT		\$22.00		AuAg-2AT-GV
Ag	Gravimetric (ore grade)	1AT	5 - 5,000	\$17.05	per sample	Ag-1AT-GV
		2AT		\$19.80		Ag-2AT-GV
Pt	ICP	1AT	0.005 - 10	\$14.85	per sample	Pt-1AT-ICP
		2AT		\$17.60		Pt-2AT-ICP
Pd	ICP	1AT	0.005 - 10	\$14.85	per sample	Pd-1AT-ICP
		2AT		\$17.60		Pd-2AT-ICP
Rh	ICP	1AT	0.005 - 10	\$19.25	per sample	Rh-1AT-ICP
		2AT		\$22.00		Rh-2AT-ICP

When multiple elements are run by the same method all elements after the first will be charged at 50% discount

Overlimits for Au automatically run at 1ppm, unless otherwise requested

Sample weights may vary at assayers discretion depending on the sample matrix, for example high sulfide content requires smaller sample weight to achieve proper fusion.

## Acid Digest

Analyte	Instrumentation	Digestion (included)	Detection range (ppm)	Rate	Unit	Code
Ag Trace	AA	AR 4-Acid	0.1 - 100	\$5.25	per sample	Ag-AR-TR
			0.5 - 500	\$8.25	per sample	Ag-4A-TR
Ag Ore	AA	AR 4-Acid	1 - 1000	\$9.00	per sample	Ag-AR-OR
			1 - 1000	\$12.00	per sample	Ag-4A-OR
Au	AA	AR / Organic extraction	0.01 - 10	\$9.50	per sample	Au-AR-AA
Au Trace	ICP-MS	AR	0.001 - 1	\$12.60	per sample	Au-AR-MS

Ag by ICP available on request

## Carbons, Concentrates and High Grade

Analyte	Type	Detection range (ppm)	Rate	Unit	Code
Au	Concentrate (run in duplicate and averaged)	10 - 10,000	\$57.75	per sample	Au-CON
Ag		10 - 10,000	\$57.75	per sample	Ag-CON
Au, Ag		as above	\$78.75	per sample	AuAg-CON
Au on carbon	Carbon up to 50g sample	0.1 - 10,000	\$31.50	per sample	Au-C
Ag on carbon	Carbon up to 50g sample	1-10,000	\$31.50	per sample	Ag-C
Au, Ag on carbon	Carbon up to 50g sample	as above	\$47.25	per sample	AuAg-C
Overweight sample size	for additional roasting cost		\$10.50	per 50g/sample	Carb-OW

Ores requiring NiS fusion, or bullions see High Grade page

## Cyanide Leach

	Analyte	Description	Detection range (ppm)	Sample Weight	Rate	Unit	Code
Ore Grade	Au	1hr Cyanide leach with AA finish	0.03-50	≤15g	\$12.00	per sample	Au-15-CN
	Au	1hr Cyanide leach with AA finish	0.03-50	30g	\$12.60	per sample	Au-30-CN
	Additional elements	Ag, Cu added to above analysis	Ag: 0.03 - 50 Cu: 0.1 - 50		\$4.20	per element	Ag-30-CN Cu-30-CN
	Au	24hr Cyanide leach with AA finish	0.01-200	1000g	\$23.60	per sample	Au-1000-CN
	Additional elements	Ag, Cu added to above analysis	Ag: 0.03 - 50 Cu: 0.1 - 50		\$4.20	per element	Ag-1000-CN Cu-1000-CN
Cyanide solution analysis	Au	Direct read of Cyanide solution by AA	0.03-50	N/A	\$7.35	per sample	Au-Sol-CN
	Ag	Direct read of Cyanide solution by AA	0.03-50	N/A	\$7.35	per sample	Ag-Sol-C
	Au Ag	Direct read of Cyanide solution by AA	0.03-50	N/A	\$9.45	per sample	AuAg-Sol-CN
Preg Rob Leach	Au	Cyanide leach with Au spiked solution	0.03-50	≤15g	\$12.00	per sample	Au-15-PR-CN
	Au	Cyanide leach with Au spiked solution	0.03-50	30 g	\$12.60	per sample	Au-30-PR-CN

## Metallic Screen

Analyte	Description	Detection range (ppm)	Rate	Unit	Code	
Au	Includes sample screened to 150 mesh*, entire oversize fraction and individual minus fractions are assayed by fire assay with a gravimetric finish	0.1-1000	500g	\$42.25	per sample	Au-Met-500
			1000g	\$47.25	per sample	Au-Met-1000
Au + Ag		Au 0.1-1000, Ag 5-1000	500g	\$50.00	per sample	AuAg-Met-500
			1000g	\$55.00	per sample	AuAg-Met-1000

\* Other weights and screen sizes available upon request.

## Base Metals

	Analytes		Digestion (included)	Detection Limit	Rate	Unit	Codes:
Trace, Base Metal Suite	Cu, Pb, Zn, Mo, Sb, Ni	Digested sample is read on ICP	Aqua Regia 4-Acid	Cu, Pb, Zn (1-10,000ppm), Sb (5-2,000ppm), Ni (1-2,000ppm)	\$8.90	per sample	BM-AR-TR
				Cu, Pb, Zn (1-10,000ppm), Sb (5-2,000ppm), Ni (1-2,000ppm)	\$11.90	per sample	BM-4A-TR
Ore Grade Base Metal Suite	Cu, Pb, Zn,	Digested sample is read on AA / ICP	Aqua Regia 4-Acid	0.01-20%	\$15.20	per sample	BM-AR-OR
				0.01-20%	\$18.20	per sample	BM-4A-OR
Additional elements, added to ore grade base metal suite with same digestion	Mo			0.01-20%	\$4.75	per element	BM-Mo-OR
	Sb			0.01-20%	\$4.75	per element	BM-Sb-OR
	Ni			0.01-20%	\$4.75	per element	BM-Ni-OR
	Ag		0.1 - 1000 ppm	\$4.75	per element	BM-Ni-OR	
Concentrate Grade (samples run in duplicate and the average is reported)	Cu	Classical wet titration		10-100%	\$36.75	per element/sample	Cu-CON
	Fe			10-100%	\$36.75	per element/sample	Fe-CON
	Pb			10-100%	\$31.50	per element/sample	Pb-CON
	Zn			10-100%	\$31.50	per element/sample	Zn-CON
	Mo			10-100%	\$47.25	per element/sample	Mo-CON
	Sb			10-100%	\$47.25	per element/sample	Sb-CON
	Ni			10-100%	\$47.25	per element/sample	Ni-CON

## Multi Element ICP

For recommendations on choice of instrumentation and digestions please see “Selecting the right geochemical analysis”. In short, aqua regia digestion will yield semi-quantitative results that represent the leachable portion for each element. 4-Acid is a more complete digestion and is considered “near total”, and thus gives quantitative results for most elements in the majority of sample matrices. In order to aid your decision making process the table below indicates which elements are only partially leached in aqua regia or lost due to volatility in 4-acid.

	Description	Digestion	Rate	Code
Multi Element Package - 30 Trace levels	Sample digested and read on ICP-AES for elements in the Package - 30 suite (see elements and detection limits below)	Aqua Regia	\$9.00	30-AR-TR
		4-Acid	\$12.00	30-4A-TR
Multi Element Package - 30 Ultra Trace levels	Sample digested and read on ICP-MS and ICP-AES for elements in the Package - 30 suite (see elements and detection limits below)	Aqua Regia	\$14.00	30-AR-UT
		4-Acid	\$17.00	30-4A-UT
Multi Element Package - 50 Ultra Trace levels	Sample digested and read on ICP-MS and ICP-AES for elements in the Package - 50 suite (see elements and detection limits below)	Aqua Regia	\$18.00	50-AR-UT
		4-Acid	\$21.00	50-4A-UT

All ICP Packages Include digestion charge

Multi Element Packages - with Mercury by Cold Vapor added

Multi Element Package - 30 Trace levels	These packages are the same as detailed above with the exception of Mercury. Hg is volatile, therefore Hg by ICP is semi-quantitative only; these packages include Cold Vapor Analysis by AA (CVA) for Hg, giving a more stable reading and a detection range of: 0.01-3ppm. Hg is always dissolved in Aqua Regia.	Aqua Regia	\$13.50	30M-AR-TR
		4-Acid	\$19.50	30M-4A-TR
Multi Element Package - 30 Ultra Trace levels		Aqua Regia	\$18.50	30M-AR-UT
		4-Acid	\$24.50	30M-4A-UT
Multi Element Package - 50 Ultra Trace levels		Aqua Regia	\$22.50	50M-AR-UT
		4-Acid	\$28.50	50M-4A-UT

## Multi Element ICP (cont.)

Detection limits in ppm

Instrument:	Aqua Regia Digest		4-Acid Digest		
	ICP-AES	ICP-MS / ICP-AES	ICP-AES	ICP-MS / ICP-AES	
Multi Element Package - 30	Ag	0.1 - 100	0.01 - 100	0.5 - 100	0.01 - 100
	Al*	100 - 100,000	100 - 100,000	100 - 250,000	100 - 250,000
	As	5 - 10,000	0.1 - 10,000	5 - 10,000	0.1 - 10,000
	Ba*	10 - 10,000	5 - 10,000	10 - 10,000	5 - 10,000
	Bi	2 - 10,000	0.01 - 10,000	2 - 10,000	0.01 - 10,000
	Ca*	100 - 100,000	100 - 100,000	100 - 250,000	100 - 250,000
	Cd	0.5 - 1,000	0.01 - 1,000	0.5 - 1,000	0.01 - 1,000
	Co	1 - 10,000	0.1 - 10,000	1 - 10,000	0.1 - 10,000
	Cr*	1 - 10,000	1 - 10,000	1 - 10,000	1 - 10,000
	Cu	1 - 10,000	0.2 - 10,000	1 - 10,000	0.2 - 10,000
	Fe	100 - 100,000	100 - 100,000	100 - 250,000	100 - 250,000
	Hg (See NB)	3 - 10,000	3 - 10,000	Not reported	Not reported
	K*	100 - 100,000	100 - 100,000	100 - 100,000	100 - 100,000
	La*	2 - 10,000	0.2 - 10,000	10 - 10,000	0.5 - 10,000
	Mg*	100 - 100,000	100 - 100,000	100 - 250,000	100 - 250,000
	Mn	5 - 10,000	1 - 10,000	5 - 100,000	5 - 100,000
	Mo	1 - 10,000	0.05 - 10,000	1 - 10,000	0.05 - 10,000
	Na*	100 - 100,000	100 - 100,000	100 - 100,000	100 - 100,000
	Ni	1 - 10,000	0.2 - 10,000	1 - 10,000	0.2 - 10,000
	P*	10 - 50,000	5 - 10,000	10 - 10,000	10 - 10,000
	Pb	2 - 10,000	0.2 - 10,000	2 - 10,000	0.5 - 10,000
	Sb	2 - 10,000	0.05 - 10,000	5 - 10,000	0.05 - 10,000
	Sc*	1 - 10,000	0.1 - 10,000	1 - 10,000	0.1 - 10,000
	Sr*	1 - 10,000	0.2 - 10,000	1 - 10,000	0.2 - 10,000
	Ti*	100 - 100,000	50 - 100,000	100 - 100,000	50 - 100,000
	Tl*	10 - 10,000	0.05 - 10,000	10 - 10,000	0.02 - 10,000
	V	1 - 10,000	1 - 10,000	1 - 10,000	1 - 10,000
	W*	10 - 5,000	0.05 - 5,000	10 - 10,000	0.1 - 10,000
	Zn	2 - 10,000	1 - 10,000	2 - 10,000	2 - 10,000
	Zr*	2 - 1,000	0.5 - 1,000	1 - 10,000	0.5 - 500
Multi Element Package - 50 (includes all elements from the above package)	Be*		0.05 - 1,000		0.05 - 1,000
	Ce*		0.02 - 1,000		0.02 - 1,000
	Cs		0.05 - 1,000		0.05 - 1,000
	Ga		0.05 - 10,000		0.05 - 10,000
	Ge*		0.05 - 1,000		0.05 - 1,000
	Hf*		0.02 - 1,000		0.1 - 1,000
	In*		0.01 - 1,000		0.01 - 1,000
	Li		0.1 - 10,000		0.2 - 10,000
	Nb*		0.05 - 1,000		0.1 - 1,000
	Rb		0.1 - 10,000		0.1 - 10,000
	Re*		0.01 - 100		0.005 - 100
	S*		100 - 100,000		100 - 100,000
	Se †		0.2 - 1,000		0.5 - 1,000
	Sn*		0.2 - 1,000		0.2 - 1,000
	Ta*		0.01 - 1,000		0.05 - 1,000
	Te*		0.01 - 1,000		0.05 - 1,000
	Th*		0.2 - 10,000		0.2 - 10,000
	U		0.05 - 10,000		0.1 - 10,000
Y		0.05 - 1,000		0.1 - 1,000	

NB: Hg is volatile, therefore Hg by ICP is semi-quantitative only; for lower detection limits and increased accuracy Hg must be run by Cold Vapor AA. Hg is not reported on multi element ICP when digested by 4 acid.

\* Only partially digest in Aqua Regia

† Volatile elements do not report well with 4-Acid digestion

## Multi Element ICP (cont.)

### Rare Earth Analyses

Description	Analyte	Detection range (ppm)	Rate	Code	
REE Group by ICP-MS Rare Earth Elements by 'whole rock' digestion Fusion (Li2B4O7)	Ce	Cerium	0.1 -1,000	\$27.30	REE-LB-MS
	Dy	Dysprosium	0.1 -1,000		
	Er	Erbium	0.1 -1,000	This package can be added to the whole rock package (WR-FS-ICP) for a reduced price: \$17.30	WR-REE-AD
	Eu	Europium	0.1 -1,000		
	Gd	Gadolinium	0.1 -1,000		
	Hf	Hafnium	0.1 -1,000		
	Ho	Holmium	0.1 -1,000		
	La	Lanthanum	0.1 -1,000		
	Lu	Lutetium	0.1 -1,000		
	Nd	Neodymium	0.1 -1,000		
	Pr	Praseodymium	0.1 -1,000		
	Sm	Samarium	0.1 -1,000		
	Tb	Terbium	0.1 -1,000		
	Tm	Thulium	0.1 -1,000		
Yt	Ytterbium	0.1 -1,000			

### Water Analysis

Description	Analyte	Detection range (µg/L)	Analyte	Detection range	Rate	Code
Water analyses by ICP-MS scan	Ag	0.05 - 5000	Li	1 - 500,000	\$21.00	H2O-ICP
	Al	1 - 100,000	Mg	50 - 500,000		
	As	1 - 100,000	Mn	0.05 - 5,000		
	B	20 - 100,000	Mo	0.1 - 10,000		
	Ba	0.05 - 5,000	Na	50 - 500,000		
	Be	0.05 - 5,000	Ni	0.2 - 20,000		
	Ca	1 - 500,000	P	20 - 500,000		
	Cd	0.05 - 5,000	Pb	0.1 - 20,000		
	Co	0.02 - 2,000	Si	1 - 500,000		
	Cr	0.5 - 50,000	Sr	0.01 - 1,000		
	Cu	0.1 - 10,000	Tl	0.01 - 1,000		
	Fe	10 - 500,000	V	1 - 100,000		
	K	50 - 500,000	Zn	0.5 - 50,000		

## Exploration Packages

Package	Description	Analyte Detection Limit (ppm)			Rate	Code
10 Element General Exploration Package (GENX 10)	Au determined by 1AT Fire Assay/AA, Hg determined by Cold Vapor/AA All other elements determined by Multi-Element ICP with AR Digest	Au †	Gold	0.005 - 3	\$22.60	GENX-10
		Ag	Silver	0.1 - 100		
		As	Arsenic	5 - 10,000		
		Bi	Bismuth	2 - 10,000		
		Cu	Copper	1 - 10,000		
		Pb	Lead	2 - 10,000		
		Hg	Mercury	0.01 - 100		
		Mo	Molybdenum	1 - 10,000		
		Sb	Antimony	2 - 10,000		
		Zn	Zinc	2 - 10,000		
14 Element General Exploration Package (GENX 14)	As above with these additional four elements	Ba *	Barium	10 - 10,000	\$24.70	GENX-14
		Se	Selenium	2 - 1,000		
		Te *	Tellurium	1 - 1,000		
		Tl *	Thallium	10 - 10,000		
30 Element General Exploration Package (Au-30)	Au determined by 1AT Fire Assay/AA, Hg determined by Cold Vapor/AA All other elements determined by Multi-Element ICP with AR Digest	Au †	Gold	0.005 - 3	\$26.25	GENX-30
		Ag	Silver	0.1 - 100		
		Al *	Aluminum	100 - 100,000		
		As	Arsenic	5 - 10,000		
		Ba *	Barium	10 - 10,000		
		Bi	Bismuth	2 - 10,000		
		Ca *	Calcium	100 - 100,000		
		Cd	Cadmium	0.5 - 1,000		
		Co	Cobalt	1 - 10,000		
		Cr *	Chromium	1 - 10,000		
		Cu	Copper	1 - 10,000		
		Fe	Iron	100 - 100,000		
		Hg	Mercury	0.01 - 100		
		K *	Potassium	100 - 100,000		
		La *	Lanthanum	2 - 10,000		
		Mg *	Magnesium	100 - 100,000		
		Mn	Manganese	5 - 10,000		
		Mo	Molybdenum	1 - 10,000		
		Na *	Sodium	100 - 100,000		
		Ni	Nickel	1 - 10,000		
		P *	Phosphorous	10 - 50,000		
		Pb	Lead	2 - 10,000		
		Sb	Antimony	2 - 10,000		
		Sc *	Scandium	1 - 10,000		
		Sr *	Strontium	1 - 10,000		
		Ti *	Titanium	100 - 100,000		
		Tl *	Thallium	10 - 10,000		
		V	Vanadium	1 - 10,000		
		W *	Tungsten	10 - 5,000		
		Zn	Zinc	2 - 10,000		
Zr *	Zirconium	2 - 1,000				

\*Only partially digest in Aqua Regia

† Au overlimits (>1ppm) automatically re-assayed 1AT FA/Gravimetric. To set different limit please state on submittal form

\$16.50

Au-1AT-GV

# Whole Rock

Description	Analytes		Detection Range	Rate	Code
Lithium Metaborate fusion, followed by nitric acid leach and ICP scan. LOI analysis included	Al <sub>2</sub> O <sub>3</sub>	MgO	0.01-100%	\$27.50	WR-FS-ICP
	BaO	MnO			
	CaO	Na <sub>2</sub> O			
	Cr <sub>2</sub> O <sub>3</sub>	P <sub>2</sub> O <sub>5</sub>			
	Fe <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>			
	K <sub>2</sub> O	TiO <sub>2</sub>			
Whole rock by XRF. LOI analysis included	Al <sub>2</sub> O <sub>3</sub>	MnO	0.01-100%	\$31.50	WR-XRF
	BaO	Na <sub>2</sub> O			
	CaO	P <sub>2</sub> O <sub>5</sub>			
	Fe <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>			
	K <sub>2</sub> O	TiO <sub>2</sub>			
	MgO				

# Single Elements

Aqua Regia  
add \$3.00

4-Acid  
add \$6.00

Fusion charge  
add \$10.00

\*Digestion charges will be applied only once to multiple elements requiring the same digestion process.

Analyte		Detection Range			Element Rate	
Aluminum	Ore Grade	0.01	- 20	%	\$4.75	Al-AR-OR Al-4A-OR
Antimony	Trace VGA	0.1	- 100	ppm	\$13.15	Sb-AR-TR
	Low Level	2	- 1000	ppm	\$3.70	Sb-AR-LL Sb-4A-LL
	Ore Grade	0.01	- 20	%	\$4.75	Sb-AR-OR Sb-4A-OR
Arsenic	Trace VGA	0.1	- 100	ppm	\$13.15	As-AR-TR
	Low Level	2	- 1000	ppm	\$3.70	As-AR-LL As-4A-LL
	Ore Grade	0.01	- 20	%	\$4.75	As-AR-OR As-4A-OR
Barium	Low Level	10	- 10000	ppm	\$3.70	Ba-AR-LL Ba-4A-LL
	Ore Grade	0.01	- 20	%	\$4.75	Ba-AR-OR Ba-4A-OR Ba-FS-OR
Beryllium	Low Level	2	- 1000	ppm	\$3.70	Be-AR-LL Be-4A-LL
Bismuth	Trace VGA	0.1	- 100	ppm	\$13.15	Bi-AR-TR
	Low Level	1	- 1000	ppm	\$3.70	Bi-AR-LL Bi-4A-LL
	Ore Grade	0.01	- 20	%	\$4.75	Bi-AR-OR Bi-4A-OR
Boron	Low Level	10	- 10000	ppm	\$3.70	B-AR-LL B-4A-LL
Cadmium	Low Level	0.1	- 10000	ppm	\$3.70	Cd-AR-LL Cd-4A-LL
	Ore Grade	0.01	- 20	%	\$4.75	Cd-AR-OR Cd-4A-OR
Calcium	Low Level	10	- 10,000	ppm	\$3.70	Ca-AR-LL Ca-4A-LL
	Ore Grade	0.01	- 20	%	\$4.75	Ca-AR-OR Ca-4A-OR
Chromium	Low Level	1	- 10000	ppm	\$3.70	Cr-AR-LL Cr-4A-LL
	Ore Grade	0.01	- 20	%	\$4.75	Cr-AR-OR Cr-4A-OR
Cobalt	Low Level	1	- 10000	ppm	\$3.70	Co-AR-LL Co-4A-LL
	Ore Grade	0.01	- 20	%	\$4.75	Co-AR-OR Co-4A-OR
Copper	Low Level	1	- 10000	ppm	\$3.70	Cu-AR-LL Cu-4A-LL
	Ore Grade	0.01	- 20	%	\$4.75	Cu-AR-OR Cu-4A-OR
Gallium	Low Level	2	- 1000	ppm	\$3.70	Ga-AR-LL Ga-4A-LL
Iron	Low Level	100	- 100,000	ppm	\$3.70	Fe-AR-LL Fe-4A-LL
	Ore Grade	0.01	- 20	%	\$4.75	Fe-AR-OR Fe-4A-OR
		Also see speciation section				
Lead	Low Level	1	- 10000	ppm	\$3.70	Pb-AR-LL Pb-4A-LL
	Ore Grade	0.01	- 20	%	\$4.75	Pb-AR-OR Pb-4A-OR
Lithium	Low Level	1	- 10000	ppm	\$3.70	Li-AR-LL Li-4A-LL
	Ore Grade	0.01	- 20	%	\$4.75	Li-AR-OR Li-4A-OR
Magnesium	Ore Grade	0.01	- 20	%	\$4.75	Mg-AR-OR Mg-4A-OR
Manganese	Low Level	5	- 10000	ppm	\$3.70	Mn-AR-LL Mn-4A-LL
	Ore Grade	0.01	- 20	%	\$4.75	Mn-AR-OR Mn-4A-OR
Mercury	Trace CVA	0.01	- 100	ppm	\$4.50	Hg-AR-TR
	Ore Grade	0.01	- 20	%	\$4.75	Hg-AR-OR
Molybdenum	Low Level	1	- 1000	ppm	\$3.70	Mo-AR-LL Mo-4A-LL
	Ore Grade	0.01	- 20	%	\$4.75	Mo-AR-OR Mo-4A-OR
Nickel	Low Level	1	- 1000	ppm	\$3.70	Ni-AR-LL Ni-4A-LL
	Ore Grade	0.01	- 20	%	\$4.75	Ni-AR-OR Ni-4A-OR
Phosphorus	Ore Grade	0.1	- 20	%	\$4.75	P-AR-OR P-4A-OR

## Single Elements (cont.)

Aqua Regia  
add \$3.00

4-Acid  
add \$6.00

Fusion charge  
add \$10.00

\*Digestion charges will be applied only once to multiple elements requiring the same digestion process.

Analyte		Detection Range		Element Rate		
Potassium	Ore Grade	0.1	- 20	%	\$4.75	K-AR-OR K-4A-OR
Selenium	Trace VGA Low Level	0.1 1	- 100 - 1000	ppm ppm	\$13.15 \$3.70	Se-AR-TR Se-AR-LL Se-4A-LL
Silica	Ore Grade (SiO <sub>2</sub> )	0.01	- 20	%	\$4.75	Si-FS-OR
Sodium	Ore Grade	0.01	- 20	%	\$4.75	Na-AR-OR Na-4A-OR
Strontium	Low Level Ore Grade	1 0.01	- 10000 - 20	ppm %	\$3.70 \$4.75	Sr-AR-LL Sr-AR-OR Sr-4A-LL Sr-4A-OR
Tellurium	Trace VGA Low Level	0.1 1	- 100 - 1000	ppm ppm	\$13.15 \$3.70	Te-AR-TR Te-AR-LL Te-4A-LL
Thallium	Low Level	2	- 2000	ppm	\$4.75	Tl-AR-LL Tl-4A-LL
Tin	Low Level Ore Grade	2 0.01	- 10000 - 20	ppm %	\$3.70 \$4.75	Sn-AR-LL Sn-4A-LL Sn-FS-OR
Titanium	Low Level Ore Grade	10 0.01	- 10000 - 20	ppm %	\$3.70 \$4.75	Ti-AR-LL Ti-AR-OR Ti-4A-LL Ti-4A-OR
Tungsten	Low Level Ore Grade	2 0.01	- 1000 - 20	ppm %	\$3.70 \$4.75	W-AR-LL W-4A-LL W-FS-OR
Vanadium	Low Level Ore Grade	5 0.01	- 10000 - 20	ppm %	\$3.70 \$4.75	V-AR-LL V-AR-OR V-4A-LL V-4A-OR
Zinc	Low Level Ore Grade	1 0.01	- 10000 - 20	ppm %	\$3.70 \$4.75	Zn-AR-LL Zn-AR-OR Zn-4A-LL Zn-4A-OR

### Concentrates

Analyte	Detection Range %	Rate	Code
Antimony	10 - 100	\$47.25	Sb-CON
Arsenic	10 - 100	\$47.25	As-CON
Bismuth	10 - 100	\$36.75	Bi-CON
Cadmium	10 - 100	\$36.75	Cd-CON
Calcium (CaO)	10 - 100	\$47.25	Ca-CON
Copper	10 - 100	\$36.75	Cu-CON
Iron	10 - 100	\$36.75	Fe-CON
Lead	10 - 100	\$31.50	Pb-CON
Manganese (MnO)	10 - 100	\$47.25	Mn-CON
Mercury	10 - 100	\$47.25	Hg-CON
Molybdenum	10 - 100	\$47.25	Mo-CON
Nickel	10 - 100	\$47.25	Ni-CON
Phosphorous (P <sub>2</sub> O <sub>5</sub> )	10 - 100	\$47.25	P-CON
Silica (SiO <sub>2</sub> )	10 - 100	\$47.25	Si-CON
Sulfur	10 - 100	\$47.25	S-CON
Tungsten (WO <sub>3</sub> )	10 - 100	\$47.25	W-CON
Zinc	10 - 100	\$31.50	Zn-CON

Miscellaneous	Rate	Code
Moisture	\$10.50	SP-H20
LOI (0.01-100%)	\$10.50	SP-LOI
pH	\$10.50	SP-PH
Specific Gravity Solid (0.01-10)	\$11.55	SP-SG-S
Specific Gravity with Wax (0.01-10)	\$13.65	SP-SG-W

## Speciation (carbon/sulfur/iron)

Analyte	Species/Type	Concentration	Detection range (%)	Rate	Code
Carbon	Total	Ore Grade	0.01 - 20	\$11.55	C-LECO
	Inorganic	Ore Grade	0.01 - 20	\$22.05	C-IN-OR
	Graphite	Ore Grade	0.01 - 20	\$22.05	C-GP-OR
	Organic	Ore Grade	0.01 - 20	\$22.05	C-OG-OR
	Package: Carbon Suite	Total, Inorganic, Graphite, Organic		\$68.25	C-PKG
	Graphite	Concentrate	10 - 100	\$52.50	C-GP-CON
Sulfur	Total	Ore Grade	0.01 - 100	\$31.50	S-GV-OR
	Elemental	Ore Grade	0.01 - 100	\$26.25	S-EL-OR
	Sulfide	Ore Grade	0.01 - 100	\$26.25	S-SD-OR
	Sulfate	Ore Grade	0.01 - 100	\$16.80	S-SF-OR
	Package: Sulfur Suite	Total, Elemental, Sulfide, Sulfate		\$84.00	S-PKG
Sulfur by acid leach	Sulfate sulfur by Na <sub>2</sub> CO <sub>3</sub> leach/ICP finish		0.01 - 20	\$15.75	S-SF-NA
	Sulfate sulfur by HCl leach/ICP finish		0.01 - 20	\$15.75	S-SF-HCL
	Sulfide sulfur by HNO <sub>3</sub> leach/ICP		0.01 - 20	\$15.75	S-SD-HNO
	Sulfide sulfur by Na <sub>2</sub> CO <sub>3</sub> leach/LECO finish		0.01 - 20	\$23.60	S-SD-LECO
Carbon & Sulfur LECO Analysis	Carbon	Ore Grade	0.01 - 20	\$11.55	C-LECO
	Sulphur	Ore Grade	0.01 - 20	\$11.55	S-LECO
	Carbon & Sulphur	Ore Grade	0.01 - 20	\$17.30	CS-LECO
Carbon Metallic Sample		Trace	0.001 - 5	\$21.00	C-M-LECO
Sulfur Metallic Sample		Trace	0.001 - 5	\$21.00	S-M-LECO
Carbon & Sulfur Metallic Sample		Trace	0.001 - 5	\$31.50	CS-M-LECO
Iron	Total	Concentrate	0.01 - 100	\$36.75	Fe-CON
	Ferrous	Concentrate	0.01 - 100	\$16.80	Fe2-CON
	Ferric	Concentrate	0.01 - 100	\$47.25	Fe3-CON
	Package: Iron Suite	Total, Ferrous, Ferric		\$52.50	Fe-PKG

# Environmental

## Static Test - Acid Base Accounting (ABA)

	Description	Rate	Code
ABA	Paste pH	\$63.00	E105
	Total Sulfur		
	Neutralization Potential (NP)		
	Maximum Potential Acidity (MPA)		
	Net Neutralization Potential (NNP)		
Modified ABA	As above but measures and uses sulfide in ABA calculation	\$84.00	E105M
	Inorganic Carbon	\$22.05	C-IN-OR

## Kinetic Test - Humidity Cell

	Parameter of Leachate analysis (weekly)	Rate	Code
	pH	\$8.40	E318
	Conductivity	\$8.40	E309
	Acidity as CaCO3	\$15.75	E301
	Alkalinity	\$15.75	E302
	Sulfate	\$15.75	E323
	ICP Package for Metals	\$42.00	E1728
	ICP Multi-Element Water Package	\$15.75	P1703
	Particle size - Sand, Silt, Clay in Percent	\$105.00	E206
	Original Moisture content	\$8.10	E207
	Monthly Summary Report	\$26.50/cell	E208

Full kinetic ARD tests performed by our metallurgical testing department, (humidity cell or column) - contact for quotation

## Environmental water analysis - ICP package for the mining industry.

Analyte	Detection limit (µg/L*)		Rate	Code
Ag	0.05 - 5,000	Mn	\$45.00	E-ICP
Al	1 - 100,000	Mo		
As	1 - 100,000	Na		
B	20 - 100,000	Ni		
Ba	0.05 - 5,000	P		
Be	0.05 - 5,000	Pb		
Bi	0.05 - 5,000	Sb		
Ca	1 - 500,000	Se		
Cd	0.05 - 5,000	Si		
Co	0.02 - 2,000	Sn		
Cr	0.5 - 50,000	Sr		
Cu	0.1 - 10,000	Ti		
Fe	10 - 500,000	Tl		
Hg	0.1 - 100,000	U		
K	50 - 500,000	V		
Li	1 - 500,000	Zn		
Mg	50 - 500,000			

Inorganic and Physical Tests

Parameter	Rate		Code	
	in water	in solids	in water	in solid
Acidity (as CaCO3)	\$14.96		E301W	
Alkalinity	\$14.96		E302W	
Anions - Chloride, Fluoride, Nitrate, Nitrite, Sulfate	\$36.75		E303W	
First Anion	\$19.95			
Each Additional	\$10.50			
BOD	\$31.50		E304W	
COD	\$31.50		E305W	
Chloride	\$19.95		E306W	
Coliform - Total or Fecal	\$24.15		E307W	
Coliform - Total & Fecal	\$33.60		E308W	
Color (True)	\$10.50		E309W	
Conductivity	\$7.56		E310W	
Cyanide - Free	\$26.25	\$31.50	E311W	E311S
Cyanide - W.A.D.	\$36.75	\$42.00	E312W	E312S
Cyanide - Total	\$36.75	\$42.00	E313W	E313S
Hardness	\$14.18		E314W	
Nitrogen - Ammonia	\$33.60	\$38.85	E315W	E315S
Nitrogen - Nitrate	\$14.18	\$19.43	E316W	E316S
Nitrogen - Nitrite	\$14.18	\$19.43	E317W	E317S
Nitrogen - Organic	\$33.60	\$44.10	E318W	E318S
Nitrogen - Kjeldahl	\$33.60	\$44.10	E319W	E319S
Oil & Grease	\$52.50	\$57.75	E320W	E320S
pH	\$7.61	\$7.98	E321W	E321S
Phosphates - Ortho	\$19.95		E322W	
Phosphates - Total	\$19.95		E323W	
Silica (Reactive)	\$19.95		E324W	
Solids - Total or TDS or TSS	\$19.95		E325W	
Sulfate	\$19.95		E326W	
Sulfide	\$24.94		E327W	
Turbidity	\$14.18		E328W	

\*\*Final cost subject to matrix concentration

Metal Cations by Atomic Absorption

Analyte		Detection limit		Rate	Code
		in water (mg/L)	in solids (ppm)		
Aluminum	Al	0.1	-10,000	\$14.30 for first element	**-CAT-AA eg: Ba-CAT-AA
Barium	Ba	0.1	-10,000		
Cadmium	Cd	0.005	-10,000	\$7.14 for each additional element	
Calcium	Ca	0.1	-10,000		
Chromium	Cr	0.05	-10,000		
Cobalt	Co	0.05	-10,000		
Copper	Cu	0.01	-10,000		
Iron	Fe	0.01	-10,000		
Lead	Pb	0.05	-10,000		
Lithium	Li	0.1	-10,000		
Magnesium	Mg	0.1	-10,000		
Manganese	Mn	0.01	-10,000		
Molybdenum	Mo	0.1	-10,000		
Nickel	Ni	0.01	-10,000		
Potassium	K0.	1	-10,000		
Silver	Ag	0.01	-10,000		
Sodium	Na	0.1	-10,000		
Strontium	Sr	0.1	-10,000		
Vanadium	V	0.2	-10,000		
Zinc	Zn	0.01	-10,000		

## High Grade Division Rates

High precision precious metal assays for commercial settlement and exchange purposes through fully-corrected fire assay, traditional wet chemistry, atomic absorption or ICP. Single-party assay pricing below; when analyses are for umpire or arbitration purposes a surcharge of 50% will apply. All these assays are performed at our high grade laboratory in Reno, NV – THESE ARE THE ONLY SETTLEMENT GRADE ASSAYS WITHIN THIS RATE BOOK.

Our High Grade fees include an allowance for normal preparation costs. Where additional preparation is necessary, a surcharge will be added at the rate of \$50.00 per hour. Where compositing of samples is required a fee of \$100 will be charged.

Our fee for undertaking exchange of assays on behalf of clients will be \$30.00 for the first element and \$15.00 per element thereafter. Our minimum High Grade invoice is \$250.00. All job instructions must be confirmed in writing.

Sample Returns: Excess sample portions, for High Grade, will be retained for a maximum of six months, after which we reserve the right of disposal. We will be happy to return unused portions or reserve samples to clients upon request. Return shipping will be charged at cost along with an administrative fee of \$50.00 per batch of samples returned.

Pilot Assay / QC Programs and Analytical Exercises: The prices within this High Grade section are for commercial settlement of refinable lots using industry tried, proven and accepted methods on multiple trials of samples with strict quality controls. We recognize that this may be more than is required for some specific client needs. Therefore we are pleased to offer a pilot assay program where we tailor the methods and number of trials for your specific purpose. This type of analysis is priced according to the requirements. Please speak with your Inspectorate contact for more details.

	Analyte/Description	USD Rate*	Code
Gold & Silver	Au	\$215.00	Au-HG
	Ag	\$197.00	Ag-HG
	Au, Ag	\$259.00	AuAg-HG
PGMs	Pt	\$284.00	Pt-HG
	Pd	\$284.00	Pd-HG
	Re	\$284.00	Re-HG
	Rh	\$316.00	Rh-HG
	Pt, Pd	\$457.00	PtPd-HG
	Ir	\$426.00	Ir-HG
	Ru	\$426.00	Ru-HG
	Os	\$500.00	Os-HG
PGMs in Catalysts	Pt and LOI	\$385.00	Pt-CAT
	Pt, Acid Soluble Re and LOI	\$569.00	PtRe-AS-CAT
	Pt, Total Re and LOI	\$810.00	PtRe-TOT-CAT
	Pt in Process Catalysts	\$301.00	Pt-PCAT
	Pd in Process Catalysts	\$301.00	Pd-PCAT
	Rh in Process Catalysts	\$301.00	Rh-PCAT
	Re in Process Catalysts	\$301.00	Re-PCAT
	Pt, Pd in Process Catalysts	\$487.00	PtPd-PCAT
	Pt, Pd, Rh in Process or Automotive Catalysts	\$674.00	PtPdRh-PCAT
	Au, Pd in Process Catalysts	\$517.00	AuPd-PCAT
	LOI only	\$150.00	LOI-CAT
	Ag in EO Cat (soluble)	\$225.00	Ag-AS-ECAT
	Ag in EO Cat (total)	\$273.00	Ag-TOT-ECAT
Base Metals	Al	\$132.00	Al-HG
	Bi	\$132.00	Bi-HG
	Br	\$165.00	Br-HG
	C	\$165.00	C-HG
	Cd	\$132.00	Cd-HG

## High Grade Division Rates (cont.)

Analyte/Description	USD Rate*	Code
Cl	\$165.00	Cl-HG
Co	\$132.00	Co-HG
Cu	\$132.00	Cu-HG
Fe	\$132.00	Fe-HG
Fl	\$165.00	Fl-HG
Hg	\$165.00	Hg-HG
K	\$165.00	K-HG
Mo	\$132.00	Mo-HG
Na	\$165.00	Na-HG
Ni	\$132.00	Ni-HG
P	\$132.00	P-HG
Pb	\$132.00	Pb-HG
S	\$165.00	S-HG
Sb	\$190.00	Sb-HG
Se	\$190.00	Se-HG
Si	\$132.00	Si-HG
SiO2	\$132.00	SiO2-HG
Sn	\$132.00	Sn-HG
Sr	\$190.00	Sr-HG
Te	\$190.00	Te-HG
Ti	\$190.00	Ti-HG
Tl	\$190.00	Tl-HG
V	\$191.00	V-HG
Zn	\$132.00	Zn-HG

### Miscellaneous

Moisture Content	\$89.00	H2O-HG
Base Metals Concentrates - complete analysis	\$1,900.00	BM-PKG-HG
Screen Analysis, upto 4 sieve sizes	\$160.00	SIV-HG
Additional sieve sizes, charged per sieve/sample	\$35.00	SIV1-HG

\* All High Grade analysis is performed at our High Grade Laboratory in Reno, NV, and is charged in USD

# Metallurgical Testing

Inspectorate's Metallurgical Division offers the Mining Industry a complete range of services from bench scale testing to pilot plant operation, including troubleshooting assistance in the field. We offer a complete investigative package from the exploration drill core phase through metallurgical testing to process development, for flowsheet design and bankable feasibility.

Mineral Processing	<ul style="list-style-type: none"><li>- Bench scale testing</li><li>- Continuous pilot plant operation</li><li>- Mill circuit design</li><li>- Bankable feasibility studies</li></ul>
Hydrometallurgy	<ul style="list-style-type: none"><li>- Diagnostic and bench scale testing</li><li>- Heap leach simulation, bio-leaching</li><li>- Continuous leaching, SX/EW pilot plant</li></ul>
Environmental	<ul style="list-style-type: none"><li>- ARD prediction and prevention</li><li>- Biological and chemical effluent treatment</li><li>- Water purification, reagent recycling</li><li>- Site remediation and rehabilitation</li></ul>
Analytical	<ul style="list-style-type: none"><li>- Complete exploration and metallurgical analytical services</li></ul>

## Mineral Processing:

Our Mineral Processing Laboratories are fully equipped to handle all metallurgical investigations from initial ore studies through bankable pilot plant, feasibility and mill circuit design. Testing services include:

### Comminution

Crushing  
Grinding (rod & ball mill)  
Bond Work Index  
Size Classification  
Screening

### Gravity Concentration

Jigs  
Shaking tables  
Elutriation  
Spirals  
Cone  
Heavy media cones  
Centrifugal heavy media separation  
Centrifugal concentrators (Falcon and Knelson)

### Pilot Plant

Complete pilot plant ore treatment from crushing to final product with throughput ranging from 1 to 5 tonnes per day, depending on ore hardness.

### Plant Technical Assistance

Our metallurgists can provide on-site plant assistance for troubleshooting and optimization.

### Flotation

Batch flotation tests  
Locked cycle tests  
Column flotation  
Special gas media flotation  
Reverse & flash flotation  
Agglomeration flotation  
Integrated processing

### Magnetic Separation (wet & dry, variable intensity)

Drum separator  
Belt separator  
High gradient separator

### Solid-Liquid Separation

Standard thickening procedures  
Differential settling  
Vacuum & pressure filtration

## Hydrometallurgy

We have extensive laboratory facilities to conduct a wide range of hydrometallurgical and bio-hydrometallurgical studies. These include the full scale up from individual batch tests through continuous bench tests to commercial sized pilot plant reactors. The testing capabilities include:

- Cyanidation studies (Merrill Crowe, CIP and CIL procedures)
- Pressure leaching
- Bottle roll and tank leaching
- Counter current closed circuit tank leaching
- Column leaching up to one meter diameter (4 tonnes)
- Diagnostic / sequential leaching
- Solvent extraction
- Ion exchange
- Electrowinning
- Differential precipitation
- Bio-oxidation of refractory gold ores and concentrates
- Biological leaching of base metal ores and concentrates
- Biological heap leach simulation
- Cyanide and ammonia detoxification
- EMEW electrowinning technology by Electrometals International
- Galvanox copper recovery process by Bateman Engineering

## Bankable Feasibilities

We are well recognized by major engineering firms for value-added input and quality work. The Metallurgical Division is fully qualified to complete "bankability" testing and mill design. Over the past 15 years, (formerly as Process Research Associates – PRA) we have provided this level of service to most of the major engineering firms working within the mining industry. Our independence, reliability and accountability has been firmly established.

Environmental

Inspectorate employs a variety of technologies to evaluate and treat contaminated effluents and soils. The laboratory provides capabilities for the evaluation of mine wastes in parallel with mill ore treatment testing and plant design. These tests include:

ARD static and kinetic testing	Acid-Base accounting
High density sludge evaluation	Natural attenuation of compounds
Chemical treatment of organic and inorganic wastes	Biological treatment
Cyanide regeneration and/or destruction	Remediation of contaminated soils
Environmental assessments	Site rehabilitation
Process optimization and integration	Waste and tailings disposal

## Petrographic / Mineralogical

Inspectorate's new petrographic laboratory provides full mineralogical service for metallurgical testing purposes. The laboratory specializes in optical and X-ray petrology and mineralogy of opaque (ore minerals), non-opaque (silicate) minerals, special procedures and techniques for polished mount (reflected light) and thin-section (transmitted light) preparations. Data from the petrographic laboratory includes modal analysis and diagnostic mineralogy which are important studies to all mining companies throughout the process from exploration drilling to final concentrate production.

**Contact Us:** For more information about our Metallurgical Division please contact:

Michael Redfearn, P.Eng. Commercial Manager Email: [mike.redfearn@inspectorate.com](mailto:mike.redfearn@inspectorate.com)

# Terms and Conditions

## Inspectorate America Corporation is the trading style of 0832484 B.C. Ltd (hereinafter referred to as “the Company”) GENERAL TERMS AND CONDITIONS OF BUSINESS (NOVEMBER 2007 EDITION)

1. Unless otherwise specifically agreed in writing the Company undertakes services in accordance with these general conditions (hereinafter called “General Conditions”) and accordingly all offers or tenders of service are made subject to these General Conditions. All resulting contracts, agreements or other arrangements will in all respects be governed by these General Conditions. These General Conditions shall be governed by English law, except to the extent that the law of the place where such arrangements or contracts are made or carried out shall preclude any of the General Conditions, in which case such local law shall prevail to the extent that it is at variance with the General Conditions.
2. The Company is an enterprise engaged in the trade of inspection and testing.  
As such, it:
  - ❖ carries out such standard services as are referred to in General Condition 6.
  - ❖ renders advisory and special services as may be agreed by the Company and as referred to in General Condition 7.
  - ❖ issues reports and/or certificates as referred to in General Condition 8.
3. The Company acts for the persons or bodies from whom the instructions to act have originated (hereinafter called “the Principal”). No other party is entitled to give instructions, particularly on the scope of inspection or delivery of report or certificate, unless so authorised by the Principal and agreed by the Company. The Company will however be deemed irrevocably authorised to deliver at its discretion the report or the certificate to a third party if following instructions by the Principal a promise in this sense had been given to this third party or such a promise implicitly follows from circumstances, trade custom, usage or practice.
4. The Company will provide services in accordance with:
  - ❖ the Principal's specific instructions as confirmed by the Company;
  - ❖ the terms of the Company's Standard Order Form and/or Standard Specification Sheet if used;
  - ❖ any relevant trade custom, usage or practice;
  - ❖ such methods as the Company shall consider appropriate on technical, operational and/or financial grounds.
5.
  - ❖ All enquiries and orders for the supply of services must be accompanied by sufficient information specifications and instructions to enable the Company to evaluate and/or perform the services required.
  - ❖ Documents reflecting engagements contracted between the Principal and third parties, or third parties' documents, such as copies of contracts of sale, letters of credit, bills of lading, etc., are (if received by the Company) considered to be for information only, without extending or restricting the mission or obligations accepted by the Company.
6. The Company's standard services may include all or any of the following:
  - ❖ sample preparation;
  - ❖ geochemical analysis;
  - ❖ fire assay;
  - ❖ inductively coupled plasma analysis (ICP-AES + ICP-MS);
  - ❖ atomic absorption spectrograph;
  - ❖ sulfur and carbon group assays;
  - ❖ environmental analyses.
7. Special services where the same exceed the scope of standard services as referred to in General Condition 6 will only be undertaken by the Company by particular arrangement.  
Such special services are illustratively not exhaustively:
  - ❖ advisory and consultation services;
  - ❖ laboratory audits;
  - ❖ outsourced laboratory projects;
  - ❖ mine site sample preparation and laboratory facilities (setup and/or operation);
8.
  - ❖ Subject to the Principal's instructions as accepted by the Company, the Company will issue reports and certificates of inspection which reflect statements of opinion made with due care within the limitation of instructions received but the Company is under no obligation to refer to or report upon any facts or circumstances which are outside the specific instructions received.
  - ❖ Reports or certificates issued following testing or analysis of samples contain the Company's specific opinion on those samples only but do not express any opinion upon the bulk from which the samples were drawn. If an opinion on the bulk is requested special arrangements must be made in advance with the Company for the inspection and sampling of the bulk.
9. The Principal will:
  - ❖ ensure that instructions to the Company and sufficient information are given in due time to enable the required services to be performed effectively;
  - ❖ procure all necessary access for the Company's representatives to enable the required services to be performed effectively;
  - ❖ supply, if required, any special equipment and personnel necessary for the performance of the required services;
  - ❖ ensure that all necessary measures are taken for safety and security of working conditions, sites and installations during the performance of service and will not rely, in this respect, on the Company's advice whether requested or not;
  - ❖ take all necessary steps to eliminate or remedy any obstruction to or interruptions in the performance of the required services;
  - ❖ inform the Company in advance of any known hazards or dangers, actual or potential, associated with any order or samples or testing including, for example, presence or risk of radiation, toxic or noxious or explosive elements or materials, environmental pollution or poisons;
  - ❖ fully exercise all its rights and discharge all its liabilities under any related contract whether or not a report or certificate has been issued by the Company failing which the Company shall be under no obligation to the Principal.
10. The Company shall be entitled at its discretion to delegate the performance of the whole or any part of the services contracted for with the Principal to any agent or subcontractor.
11. All technicians and other personnel supplied by the Company in the performance of any services shall at all times remain employees, agents or sub-contractors (as the case may be) of the Company. As such, all such persons shall be answerable to and subject to the instructions of the Company at all times. Unless otherwise agreed by the Company, such persons shall not be obliged to follow any instructions of the Principal.
12. If the requirements of the Principal necessitate the analysis of samples by the Principal's or by any third party's laboratory the Company will pass on the result of the analysis but without responsibility for its accuracy. Likewise where the Company is only able to witness an analysis by the Principal's or by any third party's laboratory the Company will provide confirmation that the correct sample has been analysed but will not otherwise be responsible for the accuracy of any analysis or results.
13.
  - ❖ The Company undertakes to exercise due care and skill in the performance of its services and accepts responsibility only where such skill and care is not exercised and negligence against the Company is proven.
  - ❖ The liability of the Company in respect of any claims for loss, damage or expense of whatsoever nature and howsoever arising in respect of any breach of contract and/or any failure to exercise due skill and care by the Company shall in no circumstances exceed a re-performance of service or refund of service fee in respect of the specific service required under the particular contract with the Company which gives rise to such claims provided however that the Company shall have no liability in respect of any claims for indirect or consequential loss including loss of profit and/or loss of future business and/or loss of production and/or cancellation of contracts entered into by the Principal. Where the fee or commission payable relates to a number of services and a claim arises in respect of one of those services the fee or commission shall be apportioned for the purposes of this paragraph by reference to the estimated time involved in the performance of each service.
  - ❖ The limit of liability of the Company under the terms of Condition 13.2 may be increased upon request received by the Company in advance of the performance of the service to such figure as may be agreed upon payment of additional fees equal to an appropriate fraction of the increase in such compensation or as may be agreed upon.

- ❖ All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from these General Conditions.
- 13.5 Service provided is subject to detection limits and confidence intervals inherent in Company's current methodology. It is the Principal's responsibility to inform themselves as to the Company's detection limits and confidence intervals relevant to that particular set of assay results.
- 13.6 Nothing in these General Conditions limits or excludes the liability of the Company:
  - 13.6.1 for death or personal injury resulting from negligence; or
  - 13.6.2 for any damage or liability incurred by the Principal as a result of fraud or fraudulent misrepresentation by the Company; or
  - 13.6.3 for any liability which cannot be restricted or excluded by law.
- 13.7 This Condition 13 sets out the entire financial liability of the Company (including any liability for the acts or omissions of its employees, agents and sub-contractors) to the Principal in respect of any breach of these General Conditions, any use made by the Principal of the services and any representation, statement or tortious act or omission (including negligence) arising in connection with these General Conditions.
- 14. The Principal shall guarantee, hold harmless and indemnify the Company and its officers, employees, agents or subcontractors against all claims made by any third party for loss, damage or expense of whatsoever nature and howsoever arising relating to the performance, purported performance or non-performance of any services to the extent that the aggregate of any such claims relating to any one service exceed the limit mentioned in Condition 13. The Principal shall indemnify the Company against all claims for damages relating to industrial or intellectual property rights arising out of use of service. The Principal acknowledges it is its full responsibility to make assessment of suitability for any purpose of service, report and content.
- 15. Every officer, employee, agent or subcontractor of the Company shall have the benefit of the limitation of compensation and the indemnity contained in these General Conditions and so far as relates to such limitations any contract entered into by the Company is entered into not only on its own behalf but also as agent and trustee for every such person as aforesaid.
- 16. In the event that any unforeseen problems or expenditure arise in the course of carrying out any of the contracted services the Company shall be entitled to make additional charges to cover additional time and cost necessarily incurred to complete the service.
- 17.
  - 17.1. The Principal will punctually pay not later than 30 (thirty) days after the relevant invoice date or within such other period as may have been agreed in writing by the Company all proper charges rendered by the Company failing which, and without prejudice to any other rights or remedies available to the Company, interest will become due at the rate of 15 (fifteen) per cent per annum from the date of invoice until payment.
  - 17.2. All prices quoted and charges due under these General Conditions shall, unless the Company confirms otherwise in writing, be exclusive of any value added or sales tax which shall be charged in addition at the prevailing rate.
  - 17.3. The Principal shall not be entitled to retain or defer payment of any sums due to the Company on account of any dispute, cross claim or set off which it may allege against the Company.
  - 17.4. In the event of any suspension of payment arrangement with creditors, bankruptcy, insolvency, receivership or cessation of business by the Principal the Company shall be entitled to suspend all further performance of its services forthwith and without liability and all sums payable to the Company shall become immediately due and payable.
- 18. In the event of the Company being prevented by reason of any cause whatsoever outside the Company's control from performing or completing any service for which an order has been given or an agreement made, the Principal will pay to the Company:
  - 18.1. the amount of all abortive expenditure actually made or incurred,
  - 18.2. a proportion of the agreed fee or commission equal to the proportion (if any) of the service actually carried out;
 and the Company shall be relieved of all responsibility whatsoever for the partial or total non-performance of the required service.
- 19. The Company shall be discharged from all liability to the Principal for all claims for loss, damage or expense unless proceedings are issued and served on the Company within 6 (six) months after the date of the performance by the Company of the service which gives rise to the claim or in the event of any alleged non-performance within 6 (six) months of the date when such service should have been completed.
- 20. Without prejudice to any other rights or remedies which it may have, the Company may terminate any or all contracts for the provision of services pursuant to these General Conditions without liability to the Principal immediately on giving notice to the Principal if:
  - 20.1. the Principal commits a material breach of any of the terms of these General Conditions and (if such a breach is remediable) fails to remedy that breach within 30 days of the Principal being notified in writing of the breach; or
  - 20.2. an order is made or a resolution is passed for the winding up of the Principal, or circumstances arise which entitle a court of competent jurisdiction to make a winding-up order of the Principal; or
  - 20.3. an order is made, or documents are filed with a court of competent jurisdiction, for the appointment of an administrator to manage the affairs, business and property of the Principal; or
  - 20.4. a receiver is appointed of any of the Principal's assets or undertaking, or circumstances arise which entitle a court of competent jurisdiction or a creditor to appoint a receiver or manager of the Principal; or
  - 20.5. the Principal makes any arrangement or composition with its creditors, or makes an application to a court of competent jurisdiction for the protection of its creditors in any way; or
  - 20.6. the Principal ceases, or threatens to cease, to trade; or
  - 20.7. the Principal takes or suffers any similar or analogous action in any jurisdiction in consequence of debt.
- 21. On termination of any or all contracts for the provision of services for any reason:
  - 21.1 the Principal shall immediately pay to the Company all of the Company's outstanding unpaid invoices and interest and, in respect of services supplied but for which no invoice has been submitted, the Company may submit an invoice, which shall be payable immediately on receipt; and
  - 21.2. the accrued rights of the parties as at termination shall not be affected.
- 22. The Company is neither an insurer nor a guarantor and disclaims all liability in such capacity. Principals seeking a guarantee against loss or damage should obtain appropriate insurance.
- 23. No alteration, amendment or waiver of any of these General Conditions shall have any effect unless made in writing and signed by an officer of the Company.
- 24.
  - 24.1. If any provision (or part of a provision) of these General Conditions is found by any court or administrative body of competent jurisdiction to be invalid, unenforceable or illegal, the other provisions will remain in force.
  - 24.2. If any invalid, unenforceable or illegal provision would be valid, enforceable or legal if some part of it were deleted, that provision will apply with whatever modification is necessary to make it valid, enforceable and legal.
- 25. Each of the parties acknowledges and agrees that, in entering into any contract for the provision of services pursuant to these General Conditions it does not rely on any undertaking, promise, assurance, statement, representation, warranty or understanding (whether in writing or not) of any person (whether party to these conditions or not) relating to the subject matter of these General Conditions, other than as expressly set out in or referred to in these General Conditions.
- 26. All contracts for the provision of services entered into pursuant to these General Conditions are made for the benefit of the Company and the Principal only and (where applicable) their successors and permitted assigns and are not intended to benefit, or be enforceable by, anyone else.
- 27. Notices given under these General Conditions shall be in writing, sent for the attention of the person, and to such address or fax number as the relevant party may notify to the other party from time to time and shall be delivered personally, sent by fax or sent by pre-paid, first-class post or recorded delivery. A notice is deemed to have been received, if delivered personally, at the time of delivery, in the case of fax, at the time of transmission, in the case of pre-paid first class post or recorded delivery, 48 hours from the date of posting and, if deemed receipt under this Condition 27 is not within business hours (meaning 9.00 am to 5.30 pm Monday to Friday on a day that is a business day), at 9.00 am on the first business day following delivery. To prove service, it is sufficient to prove that the notice was transmitted by fax, to the fax number of the party or, in the case of post, that the envelope containing the notice was properly addressed and posted.
- 28.
  - 28.1. Any dispute or claim arising out of or in connection with these General Conditions or their subject matter, shall be governed by, and construed in accordance with, the law of Canada.
  - 28.2. The parties irrevocably agree that the courts of Canada shall have non-exclusive jurisdiction to settle any dispute or claim that arises out of or in connection with these General Conditions or its subject matter.



Exploration & Mining Services

### Sample Submittal Form

*Inspectorate use only*

Prep: \_\_\_\_\_ Lab: \_\_\_\_\_

Job Number: \_\_\_\_\_

Date received: \_\_\_\_\_

Received by: \_\_\_\_\_

Released by: \_\_\_\_\_

**Laboratory Addresses:**  
 Vancouver, BC 11620 Horseshoe Way, Richmond, BC, V7A 4V5, Canada T(604) 272-7818 F(604) 272-0851  
 Reno, NV 605 Boxington Way, Suite 104, Sparks, NV, 89434, USA T(775) 359-6311 F(775) 359-2944

**Please note, incomplete sample submittal forms will result in the delay of the start time of analysis.**

Master Submittal Reference #: \_\_\_\_\_

If you have a 'Master Submittal Form' just enter its reference number and the sample reference numbers. You can make this your Master Submittal Form by checking this box:

### 1. Client Info

**Submitted by (please print):** \_\_\_\_\_ Email: \_\_\_\_\_

**Signature:** \_\_\_\_\_ Cell: \_\_\_\_\_

Company Name: \_\_\_\_\_ Phone, Fax: \_\_\_\_\_

Purchase Order #: \_\_\_\_\_ Quotation reference #: \_\_\_\_\_

Address 1 (# Street) \_\_\_\_\_ Project: \_\_\_\_\_

Address 2 (City, State, Zip) \_\_\_\_\_ Lot #: \_\_\_\_\_

### 2. Reporting and Invoicing

**Results to (if different from 'Client Info'):** Copied to:

Name: \_\_\_\_\_ Email 1: \_\_\_\_\_

Address (# Street, City, State, Zip) \_\_\_\_\_ Email 2: \_\_\_\_\_

Email \_\_\_\_\_ Email 3: \_\_\_\_\_

Cell \_\_\_\_\_ Email 4: \_\_\_\_\_

Phone \_\_\_\_\_ Email 5: \_\_\_\_\_

Fax \_\_\_\_\_ Email 6: \_\_\_\_\_

**Invoice to (if different from 'Results to'):**

Name \_\_\_\_\_ Email \_\_\_\_\_

Company name \_\_\_\_\_ Phone \_\_\_\_\_

Address (# Street, City, State, Zip) \_\_\_\_\_ Fax \_\_\_\_\_

### 3. Sample & Analysis Details

No. of samples	Sample Type	Sample IDs	Analysis										Options							
			Precious Metals*			Multi Element ICP**				GENX (Au-FA, Hg-CVA, ICP)			Other Analysis (please state codes from rate book)	Over-limits †		Rush		Reporting Units for PMs		
			Au	Ag	Pt	Digestion AR		4 Acid		Hg-CVA	10	14		30	Whole Rock	Yes (max)	No		5 day (1.5x)	3 day (2x)
	Rock/Chips/DC Soils/Sediments Plan Coms Rejects Other																			<input type="checkbox"/> ppm <input type="checkbox"/> ppb <input type="checkbox"/> g/t <input type="checkbox"/> oz/t <input type="checkbox"/> mg/t

\* Unless otherwise requested these are run Fire Assay, 1AT, Ag by AR digest, AA/ICP finish  
 \*\* Unless otherwise requested the 30 package is ICP-AES, and the 50 package is ICP-AES and ICP-MS  
 † Overlimits for gold are automatically set to 1ppm (1g/t), if another limit is required please state (max 10ppm, or 3ppm with GENX). Custom overlimit: \_\_\_\_\_ ppm

Additional Instructions: \_\_\_\_\_

### 4. Sample Storage (fees apply after 90 days)

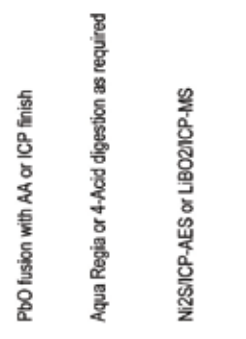
Pulps:  Store until further notice (default)  Discard  Return Return to: \_\_\_\_\_

Rejects:  Store until further notice (default)  Discard  Return Address: \_\_\_\_\_



## Quick Reference Periodic Table

Common Methods of Analyses Performed at Inspectorate's Exploration & Mining Laboratories



atomic number → 79	Au
symbol →	
Method of analysis →	
Alternative method of analysis →	
atomic weight (gmol) → 197	
name → Gold	

1 1.0 Hydrogen	2 4.00 Helium	INSPECTORATE www.inspectorate.com/vars																			
3 7.0 Lithium	4 9.0 Beryllium	5 10.8 Boron	6 12.0 Carbon	7 14.0 Nitrogen	8 16.0 Oxygen	9 19.0 Fluorine	10 20.2 Neon	11 23.0 Sodium	12 24.3 Magnesium	13 27.0 Aluminum	14 28.1 Silicon	15 31.0 Phosphorus	16 32.1 Sulfur	17 35.5 Chlorine	18 40.0 Argon						
19 39.1 Potassium	20 40.1 Calcium	21 45.0 Scandium	22 47.9 Titanium	23 50.9 Vanadium	24 52.0 Chromium	25 54.9 Manganese	26 58.9 Iron	27 58.9 Cobalt	28 58.7 Nickel	29 63.6 Copper	30 65.4 Zinc	31 69.7 Gallium	32 72.6 Germanium	33 74.9 Arsenic	34 79.0 Selenium	35 79.9 Bromine	36 83.8 Krypton				
37 85.5 Rubidium	38 87.6 Strontium	39 88.9 Yttrium	40 91.2 Zirconium	41 92.9 Niobium	42 95.9 Molybdenum	43 98.9 Technetium	44 101.1 Ruthenium	45 102.9 Rhodium	46 106.4 Palladium	47 107.9 Silver	48 112.4 Cadmium	49 114.8 Indium	50 118.7 Tin	51 121.8 Antimony	52 127.6 Tellurium	53 128.9 Iodine	54 131.3 Xenon				
55 132.9 Cesium	56 137.3 Barium	57 138.9 Lanthanum	58 178.5 Hafnium	59 181.0 Tantalum	60 183.8 Tungsten	61 186.2 Rhenium	62 188.2 Osmium	63 190.2 Iridium	64 195.1 Platinum	65 197.0 Gold	66 200.6 Mercury	67 204.4 Thallium	68 207.2 Lead	69 209.0 Bismuth	70 209.0 Polonium	71 210.0 Astatine	72 222.0 Radium				
87 223.0 Francium	88 227.0 Radium	89 227.0 Actinium	90 232.0 Thorium	91 231.0 Protactinium	92 238.0 Uranium	93 237.0 Neptunium	94 244.0 Plutonium	95 243.0 Americium	96 247.0 Curium	97 251.0 Berkelium	98 259.0 Californium	99 265.0 Einsteinium	100 271.0 Fermium	101 285.0 Mendelevium	102 289.0 Nobelium	103 293.0 Lawrencium	104 294.0 Rutherfordium	105 297.0 Dubnium	106 301.0 Roentgenium	107 304.0 Tennessine	108 307.0 Oganesson

58 140.1 Cerium	59 140.9 Praseodymium	60 144.2 Neodymium	61 150.4 Promethium	62 158.9 Europium	63 162.0 Gadolinium	64 167.3 Terbium	65 168.9 Dysprosium	66 173.0 Holmium	67 175.0 Erbium	68 176.3 Thulium	69 176.3 Ytterbium	70 176.3 Lutetium	71 176.3 Ytterbium	72 176.3 Lutetium	73 176.3 Ytterbium	74 176.3 Lutetium	75 176.3 Lutetium	76 176.3 Lutetium	77 176.3 Lutetium	78 176.3 Lutetium	79 176.3 Lutetium	80 176.3 Lutetium	81 176.3 Lutetium	82 176.3 Lutetium	83 176.3 Lutetium	84 176.3 Lutetium	85 176.3 Lutetium	86 176.3 Lutetium	87 176.3 Lutetium	88 176.3 Lutetium	89 176.3 Lutetium	90 176.3 Lutetium	91 176.3 Lutetium	92 176.3 Lutetium	93 176.3 Lutetium	94 176.3 Lutetium	95 176.3 Lutetium	96 176.3 Lutetium	97 176.3 Lutetium	98 176.3 Lutetium	99 176.3 Lutetium	100 176.3 Lutetium	101 176.3 Lutetium	102 176.3 Lutetium	103 176.3 Lutetium	104 176.3 Lutetium	105 176.3 Lutetium	106 176.3 Lutetium	107 176.3 Lutetium	108 176.3 Lutetium	109 176.3 Lutetium	110 176.3 Lutetium	111 176.3 Lutetium	112 176.3 Lutetium	113 176.3 Lutetium	114 176.3 Lutetium	115 176.3 Lutetium	116 176.3 Lutetium	117 176.3 Lutetium	118 176.3 Lutetium	119 176.3 Lutetium	120 176.3 Lutetium
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# Inspectorate America Corporation

## Exploration and Mining Services America's Hub Laboratories;

### Vancouver;

11620 Horseshoe Way  
Richmond, British Columbia  
V7A 4V5, Canada  
T: +1 604 272 7818  
E: [vancouver.lab@inspectorate.com](mailto:vancouver.lab@inspectorate.com)

### Reno;

605 E. Boxington Way  
Suite 101  
Sparks, Nevada  
89434, USA  
T: +1 775 359 6311  
E: [m&m.info@inspectorate.com](mailto:m&m.info@inspectorate.com)

### Lima;

Av. Elmer Faucett  
No. 444  
Callao, Peru  
T: +51 1 613 8080  
E: [insperu@inspectorate.com.pe](mailto:insperu@inspectorate.com.pe)



#### Laboratories

- Vancouver - Canada
- Reno - USA
- Lima - Peru
- London - UK
- Johannesburg - RSA
- Perth - Australia
- Kalgoorlie - Australia
- Leonora - Australia
- Kendari - Indonesia
- Antofagasta - Chile

#### Americas' Sample Prep:

- Whitehorse, Yukon Territory
- Durango & Hermosillo, Mexico
- Guatemala City, Guatemala
- Medellin, Columbia
- Quito, Ecuador
- Las Bambas, Peru



**INSPECTORATE**

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