

TESTING AND CALIBRATION LABORATORY ACCREDITATION PROGRAM (LAP)

Scope of Accreditation

Accredited Laboratory No. 184

Legal Name of Accredited Laboratory: **SGS CANADA INC. – MINERALS**

Location Name or Operating as (if applicable): LAKEFIELD

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SCC File Number:	15254
Accreditation Standard(s):	ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories
Fields of Testing:	Chemical/Physical
Program Specialty Area:	Mineral Analysis
Initial Accreditation:	1995-03-06
Most Recent Accreditation:	2021-07-26
Accreditation Valid to:	2023-03-06

SCC Group Accreditation:

This laboratory is a part of a Group Accreditation with the following facilities in accordance with SCC's policy on Group Accreditation documented in the Accreditation Services Accreditation Program Overview.

- 15919 – SGS CANADA INC., MINERALS – BURNABY, Accredited Laboratory No. 744

- 151001 – SGS CANADA INC., MINERALS – ENERGY, Accredited Laboratory No. 807
- 151041 – SGS CANADA INC., MINERALS – COCHRANE, Accredited Laboratory No. 841
- 15745 – SGS CANADA INC., MINERALS – RED LAKE, Accredited Laboratory No. 598

The physical sample preparation involving accredited test methods as listed on the scope of accreditation may be performed on location or at offsite SGS locations – which are monitored regularly for quality control and quality assurance practices.

Remarque: La présente portée d'accréditation existe également en français, sous la forme d'un document distinct.

Note: This scope of accreditation is also available in French as a separately issued document.

METALLIC ORES AND PRODUCTS

Mineral Analysis Testing

Mineral Assaying

G_PHY02V	The Preparation and Determination of LOI, LOD or % solids in various products at various temperatures by LECO TGA 701 [LOI, TGA]
G_PHY06V (was G_PHY03V)	Determination of specific gravity using gas pycnometer [SG]
G_PHY05V (was G_PHY09B)	Determination of Combined Water in Exploration Samples by Gravimetric Analysis [H ₂ O ⁺]
GC/GT_AAS42V	Preparation and Determination of Silver in Ores, Concentrates and Process Control and Trade Products by Acid Digest and Atomic Absorption Spectroscopy [Ag, AAS]
GC/GT_CLA37V	Preparation and Determination of Total Calcium, Calcium Carbonate and Calcium Fluoride in Fluorspar by Complexometric Titration [Ca, CaCO ₃ , CaF ₂ : Titration; modified from ASTM]
GT_CON03V (was GC/GT_CON03V)	Determination of Total Copper in Ores, Concentrates, Metallurgical Products and Metals by Electrogravimetry [Cu]
GC/GT_CON07V	Preparation and Determination of Nickel in Ores, Concentrates and Process Control and Trade Products by Electrogravimetry of Acid Solubles and Fusion - Atomic Absorption Spectrometry of Acid Insoluble [Ni, Electrogravimetry; AAS, ICP]
GC/GT_CON08V	The Preparation and Determination of Iron in Ores, Concentrates and Process Control and Trade Products by Fusion, Separation and

	Titration using Potassium Dichromate [Fe; Titration]
GC_CON11AV and GT_CON11AV (was GC/GT_CON11V)	Determination of Total Lead by Titration with EDTA [Pb]
GC_CON12AV and GT_CON12AV (was GC/GT_CON12V)	Determination of Total Zinc in Ores, Concentrates, Metallurgical Products and Metals by EDTA Titration [Zn]
GC/GT_CVA20C	Preparation and Determination of Mercury in Ores, Concentrates and Process Control and Trade Products by Strong Acid digest and Cold Vapour-Atomic Absorption Spectrometry [Hg, CV-AAS]
GC_FAA30V10 (was GC/GT_FAA35V)	Determination of Gold in Metallurgical products by Lead Fusion and Atomic Absorption Spectrometry [Au]
GC_FAA35V10 (was GC/GT_FAA35V)	Determination of Gold, Platinum and Palladium in Concentrates and Metallurgical products by Lead Fusion and Atomic Absorption Spectrometry [Au, Pt, Pd]
GT_FAA35V10 (was GC/GT_FAA35V)	Determination of Gold, Platinum and Palladium in Trade Materials by Lead Fusion and Atomic Absorption Spectrometry [Au, Pt, Pd]
GC_FAI35V (was part of GC/GT_FAI34V)	Determination of Gold, Platinum and Palladium in Concentrates and Metallurgical products by Lead Fusion and Inductively Coupled Plasma - Optical Emission Spectroscopy [Au, Pt, Pd]
GC/GT_FAI34V	Preparation and Determination of Gold, Platinum and Palladium in Concentrates and and Process Control and Trade Products by Lead Fusion and Inductively Coupled Plasma - Optical Emission Spectroscopy [Au, Pt, Pd; ICP-AES]
GC/GT_ICP11V	Preparation and Determination of Arsenic, Antimony, Selenium, Cadmium, Lead and Zinc in Ores, Concentrates and Process Control and Trade Products by Microwave Digest and Inductively Coupled Plasma - Atomic Emission Spectroscopy [As, Sb, Se, Cd, Pb, Zn; ICP-OES]
GC/GT_ISE05V	Preparation and Determination of Fluoride by in Ores, Process Control and Trade products, Battery Scraps and Low Grade Fluorspar by KOH Fusion, ISE Probe [F: ISE]
GC_ICP46C	Multi-Element Preparation and Determination of Thirty (30) Elements in Highly Mineralized

	Samples (ores, concentrates and metallurgical test products) by Strong Acid Digest with Fusion and Inductively Couple Plasma – Atomic Emission Spectrometry [silver, Ag; aluminum, Al; arsenic, As; barium, Ba; beryllium, Be; bismuth, Bi; cadmium, Cd; calcium, Ca; chromium, Cr; cobalt, Co; copper, Cu; iron, Fe; potassium, K; lithium, Li; magnesium, Mg; manganese, Mn; molybdenum, Mo; sodium, Na; nickel, Ni; phosphorous, P; lead, Pb; antimony, Sb; selenium, Se; tin, Sn; strontium, Sr; thallium, Tl; titanium, Ti; vanadium, V; yttrium, Y; zinc, Zn; ICP-AES]
GC_IMS93A	Preparation and Determination of Rare Earth Elements in Concentrates and Process Control Products by Sodium Peroxide Fusion and Inductively Coupled Plasma - Mass Spectrometry [Ce, Dy, Er, Eu, Gd, Ho, La, Lu, Nd, Pr, Sm, Tb, Th, Tm, U, Yb, ICP-MS]
GC_SOL84T	Preparation and Determination of Cadmium, Cobalt, Copper, Iron, Nickel and Zinc in Acidic Metallurgical Process Solutions by Atomic Absorption Spectrometry [Cd, Co, Cu, Fe, Ni, Zn; AAS]
GE/GO/ GC/GT_CSA06V	Preparation and Determination of Sulfur and Carbon in Exploration samples, Ores, Concentrates and Process Control and Trade Products by Combustion - Infrared Detection [S, C; IR]
GC_CLA01V (was GE/GO/GC_CLA01V)	Ferrous Iron Determination by Titration with Potassium Dichromate [Fe ²⁺]
GE_AAS22E50 + GE_DIG22E50 (was GE_AAS12E)	Preparation (GE_DIG22E50) and Determination (GE_AAS22E50) of Silver in Exploration Samples by Nitric and Hydrochloric Acid Digest and Atomic Absorption Spectroscopy [Ag]
GC_FAG32V (was part of GO/GC/GT_FAG323)	Determination of Silver by Lead fusion Fire Assay, Gravimetric measurement and Gold by Lead Fusion Fire Assay and Atomic Absorption Spectrometry, in Ores, Concentrates and Metallurgical Products [Au, Ag]
GO/GC/GT_FAG323	Preparation and Determination of Silver in Ores, Concentrates and Process Control and Trade Products by Lead fusion, Gravimetric and Gold by

	Lead Fusion and Atomic Absorption Spectrometry [Au, Ag; AAS, Gravimetric]
GO/ GC/GT_XRF76V / R	Preparation and Determination of Major Element Oxides, LOI and Rare Earth Oxides in Oxide Ores, and Process Control and Trade Products by Borate Fusion and Xray Fluorescence Spectrometry [SiO ₂ , Al ₂ O ₃ , Fe ₂ O ₃ , MgO, CaO, Na ₂ O, K ₂ O, P ₂ O ₅ , MnO, TiO ₂ , Cr ₂ O ₃ ; V ₂ O ₅ ; LOI; additions BaO; Ce ₂ O ₃ ; Nd ₂ O ₃ , La ₂ O ₃ ; Pr ₂ O ₃ , Sm ₂ O ₃ ; Nb ₂ O ₅ ,ThO ₂ , Ta ₂ O ₅ ; SnO ₂ ; SrO; ZrO ₂ ; HfO ₂ ; Y ₂ O ₃ ; WO ₃ ; U ₃ O ₈ ; Co; Ni ; XRF]
GO/GC/GT_CON13V	Preparation and Determination of Total Copper in Ores, Concentrates and Process Control and Trade Products by Short Iodide Titration and Atomic Absorption Spectrometry [Cu, Titration, AAS]
GC_FAM42V10 (was GO/GC/GT_FAM363)	Determination of Platinum, Palladium, Rhodium, Ruthenium, and Iridium in Ores, Concentrates and Process Control Materials by Nickel Sulfide Fusion and Inductively Coupled Plasma Mass Spectrometry [Pt, Pd, Rh, Ru, Ir]
GT_FAM42V10 (was GO/GC/GT_FAM363)	Determination of Platinum, Palladium, Rhodium, Ruthenium and Iridium in Trade Products by Nickel Sulfide Fusion and Inductively Coupled Plasma Mass Spectrometry [Pt, Pd, Rh, Ru, Ir]
GC_AAS34C50 + GC_DIG34C50 (was GO/GC_AAS21C)	Preparation (GC_DIG34C50) and Determination (GC_AAS34C50) of Metals in Ores and Metallurgical Samples by Triple Acid Digestion and Atomic Absorption Spectrometry [Ag, Bi, Cd, Co, Cu, In, Ni, Pb, Zn]
GC_AAS34E50 + GC_DIG34E50 (was GO/GC_AAS21E)	Preparation (GC_DIG34E50) and Determination (GC_AAS34E50) of Low Level Silver in Ores and Metallurgical Samples by Triple Acid Digestion and Atomic Absorption Spectrometry [Ag]
GO/GC_CVA20B	Preparation and Determination of Mercury in Ores and Process Control Products by Cold Vapor - Atomic Absorption Spectroscopy [Hg, CVAAS]
GO/GC_XRF75F	Preparation and Determination of Arsenic, Tin, Antimony, Tantalum, Thorium and Uranium in Ores and Process Control Products by Xray Fluorescence Spectrometry using Internal Standard Addition [As, Sn, Th, U; XRF]

GO/GC_XRF77B	Preparation and Determination of Base Metals (in Sulphide Ores and Process Control Products by Potassium Pyrosulfate Fusion and Xray Fluorescence Spectrometry [Cu, Ni, Co, Fe, Pb, Zn, Cr, Mn, Mo; XRF]
GO_FAG30V (was GO_FAG303/505)	Determination of Ore Grade Gold by Lead Fusion Fire Assay and Gravimetric Finish [30g; Au]
GO_FAI30V10 (was GO_FAI303)	Determination of Gold, Platinum and Palladium in Ore Grade Samples by Lead Fusion Fire Assay and Inductively Coupled Plasma Optical Emission Spectroscopy [Au, Pt, Pd]
GT_BUL36V	Gravimetric Determination of Gold, Silver and Base Metals for Gold Bullion [Au, Ag]
GT_CLA18V	Preparation and Determination of Platinum, Palladium and Rhodium in Automotive and Petroleum Catalysts by Sodium Peroxide Fusion, Tellurium collection and Atomic Absorption Spectrometry [Pt, Pd, Rh; AAS]
GT_CLA17T (was GT_SOL88V)	Gravimetric Determination of Rhodium in Concentrated Rhodium Solutions using Sodium Borohydride [Rh]
GT_CLA18T (was GT_SOL89V)	Gravimetric Determination of Palladium in Palladium Concentrate Solutions using Dimethylglyoxime [Pd]
GT_CLA19T (was GT_SOL90V)	Gravimetric Determination of Platinum in Concentrated Platinum Solutions Using Hydrazine [Pt]
ME-LR-MIN-MET-DS-A02	Determining Bulk Density [Wax Core]
ME-LR-MIN-MET-MN-D01	Qualitative Mineral Identification by XRD (X-Ray Diffraction Analysis) [XRD, Qualitative, Mineralogy, Crystallinity]
ME-LR-MIN-MET-MN-D03	Semi-Quantitative Mineral Identification by X-Ray Diffraction Analysis [XRD, Semi-Quantitative, Mineralogy, Crystallinity]
ME-LR-MIN-MET-MN-D04	Clay Speciation by X-Ray Diffraction [XRD, Mineralogy, Clay]
ME-LR-MIN-MET-MN-D05	Quantitative Rietveld Method of Mineral Identification by X-Ray Diffraction Analysis [XRD, Quantitative, Mineralogy, Crystallinity]
ME-LR-MIN-MET-MN-G01	Determination of Precious Metal Department (Au, Ag and PGE) using Optical Microscopy and SEM/EDS [Gold, PGE]

ME-LR-MIN-MET-MS-A01	Measuring Magnetics by Satmagan Saturation Magnetization Analyzer [Magnetic Iron, Fe ₃ O ₄]
ME-LR-MIN-MET-MS-A02	Low Intensity Magnetic Separation (LIMS) by Davis Tube [Davis Tube, LIMS, Magnetic Separation]

Number of Scope Listings: 50

Notes:

ISO/IEC 17025:2017: General Requirements for the Competence of Testing and Calibration Laboratories

RG-MINERAL: SCC Requirements and Guidance for the Accreditation of Mineral Analysis Testing Laboratories

This document forms part of the Certificate of Accreditation issued by the Standards Council of Canada (SCC). The original version is available in the Directory of Accredited Laboratories on the SCC website at www.scc.ca.

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 Vice-President, Accreditation Services
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