

## TESTING AND CALIBRATION LABORATORY ACCREDITATION PROGRAM (LAP)

### Scope of Accreditation

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

Location Name or Operating as (if applicable): **LAKEFIELD**

Contact Name: Valerie Kuch

Address: P.O. Box 4300, 185 Concession Street  
Lakefield, ON  
K0L 2H0

Telephone: 705-761-6854

Website: [www.sgs.ca](http://www.sgs.ca)

Email: [Valerie.kuch@sgs.com](mailto:Valerie.kuch@sgs.com)

<b>SCC File Number:</b>	15254
<b>Accreditation Standard(s):</b>	ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories
<b>Fields of Testing:</b>	Chemical/Physical
<b>Program Specialty Area:</b>	Mineral Analysis
<b>Initial Accreditation:</b>	1995-03-06
<b>Most Recent Accreditation:</b>	2023-07-07
<b>Accreditation Valid to:</b>	2027-03-06

#### 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. - NATURAL RESOURCES - MINERALS – BURNABY
- 151001 – SGS CANADA INC. - NATURAL RESOURCES - MINERALS – DELTA
- 151041 – SGS CANADA INC. - NATURAL RESOURCES - MINERALS – COCHRANE
- 15745 – SGS CANADA INC. – NATURAL RESOURCES – MINERALS – RED LAKE

The physical sample preparation involving accredited test methods for Minerals Analysis as listed on the scope of accreditation may be performed at the SGS CANADA INC. - NATURAL RESOURCES -

MINERALS – LAKEFIELD location, at other sites listed within the group accreditation, or at offsite sample preparation laboratories that are monitored regularly for quality control and quality assurance practices:

- SGS Canada Inc., Garson – 1209 O’Neil Drive West, Garson, Ontario P3L 1L5
- SGS Canada Inc., Val-d’Or – 2905 7E Rue Val-d’Or Quebec, J9P 6P6
- SGS Canada Inc., Grand Falls-Windsor – 3 Duggan St., Grand Falls-Windsor NL A2A 2K7

*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 document issued separately.*

## METALLIC ORES AND PRODUCTS

### Mineral Analysis Testing

**Assay, Umpire Assay Work**

**Contract Settlement Assaying**

#### **Mineral Assaying**

G_PHY24V (was G_PHY02V)	Determination of LOI and LOD in catalytic converter material at various temperatures by TGA analysis [LOI]
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 <sub>2</sub> O <sup>+</sup> ]
GT_AAS43V100 (was GC/GT_AAS42V)	Determination of Silver in Trade Products by Multi-Acid Digest and Atomic Absorption Spectrometry [Ag]
GC_CLA27V (was GC/GT_CLA37V)	The Determination of Calcium Fluoride in Fluorspar by EDTA Titration [Ca, CaCO <sub>3</sub> , CaF <sub>2</sub> ]
GT_CON03V (was GC/GT_CON03V)	Determination of Total Copper in Ores, Concentrates, Metallurgical Products and Metals by Electrogravimetry [Cu]
GC_CON07V and GT_CON07V (was GC/GT_CON07V)	Determination of Total Nickel by Electrogravimetry [Ni]
GC_CON08V	Determination of Total Iron by Titration using Potassium Dichromate [Fe]
GT_CON08V	Determination of Total Iron by Titration with Potassium Dichromate in Trade Products [Fe]
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]
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_FAI35V10 (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 Spectrometry [Au, Pt, Pd]
GT_FAI35V10 (was part of GC/GT_FAI34V)	Determination of Gold, Platinum and Palladium in Trade Materials by Lead Fusion and Inductively Coupled Plasma Optical Emission Spectrometry [Au, Pt, Pd]
GT_ICP11C100V (was GC/GT_ICP11V)	Determination of Metals in Trade Products by Microwave Digestion and Inductively Coupled Plasma Emission Spectrometry [As, Sb, Se, Cd, Pb, Zn]
GC_ISE20V (was GC/GT_ISE05V)	Determination of Fluoride in Ores, Metallurgical Products, Concentrates by Ion Selective Electrode [F]
GC_ICP46C	Preparation and Determination of Thirty (30) Elements in Highly Mineralized Samples (Ores, Concentrates and Process Control Products) by Strong Acid Digest with Fusion and Inductively Coupled Plasma – Atomic Emission Spectrometry [Ag, Al, As, Ba, Be, Bi, Cd, Ca, Cr, Co, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Se, Sn, Sr, Ti, Ti, V, Y, Zn]
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]

GC_AAS84T (was GC_SOL84T)	Multi-Element analysis of Non-Cyanide Process Solutions by Atomic Absorption Spectrometry [Cd, Co, Cu, Fe, Ni, Zn]
GE_CSA06V (was GE/GO/ GC/GT_CSA06V)	Determination of Sulfur and Carbon in Exploration Grade samples by Combustion and Infrared Detection [S, C]
GO_CSA06V (was GE/GO/GC/GT_CSA06V)	Determination of Sulfur and Carbon in Ore Grade Samples by Combustion and Infrared Detection [S, C]
GC_CSA06V (was GE/GO/GC/GT_CSA06V)	Determination of Sulfur and Carbon in Ores, Concentrates and Metallurgical Samples by Combustion and Infrared Detection [S, C]
GT_CSA06V (was GE/GO/GC/GT_CSA06V)	Determination of Sulfur and Carbon in Trade Samples by Combustion and Infrared Detection [S, C]
GC_CLA01V (was GE/GO/GC_CLA01V)	Ferrous Iron Determination by Titration with Potassium Dichromate [Fe <sup>2+</sup> ]
GE_AAS22E50 (was GE_AAS12E)	Determination 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]
GT_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 Trade samples with Proof Correction for Silver [Au, Ag]
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 <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub> , Fe <sub>2</sub> O <sub>3</sub> , MgO, CaO, Na <sub>2</sub> O, K <sub>2</sub> O, P <sub>2</sub> O <sub>5</sub> , MnO, TiO <sub>2</sub> , Cr <sub>2</sub> O <sub>3</sub> ; V <sub>2</sub> O <sub>5</sub> ; LOI; additions BaO; Ce <sub>2</sub> O <sub>3</sub> ; Nd <sub>2</sub> O <sub>3</sub> , La <sub>2</sub> O <sub>3</sub> ; Pr <sub>2</sub> O <sub>3</sub> , Sm <sub>2</sub> O <sub>3</sub> ; Nb <sub>2</sub> O <sub>5</sub> ,ThO <sub>2</sub> , Ta <sub>2</sub> O <sub>5</sub> ; SnO <sub>2</sub> ; SrO; ZrO <sub>2</sub> ; HfO <sub>2</sub> ; Y <sub>2</sub> O <sub>3</sub> ; WO <sub>3</sub> ; U <sub>3</sub> O <sub>8</sub> ; Co; Ni]
GC_CON13AV (was GO/GC/GT_CON13V)	Determination of Total Copper by Short Iodide Titration [ Cu]
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 (was GO/GC_AAS21C)	Determination 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 (was GO/GC_AAS21E)	Determination 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]
GO/GC_XRF75A, B, C, D (was GO/GC_XRF75F)	Determination of Elements in Ores and Process Control Products by Xray Fluorescence Spectrometry using Internal Standard Addition [As, Sn, Th, U]
GO/GC_XRF70V (was GO/GC_XRF77B)	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]
GO_FAG30V (was GO_FAG303/505)	Determination of Ore Grade Gold by Lead Fusion Fire Assay and Gravimetric Finish [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_CLA14A (was GT_CLA18V)	Determination of Platinum, Palladium and Rhodium in Automotive and Petroleum Catalysts by Sodium Peroxide Fusion, Tellurium collection and Atomic Absorption Spectrometry [Pt, Pd, Rh]
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 Deposition (Au, Ag and PGE) using Optical Microscopy and SEM/EDS [Gold, PGE]
ME-LR-MIN-MET-MS-A01	Measuring Magnetism by Saturated Field Isolation Magnetization Analyzer [Magnetic Iron, Fe <sub>3</sub> O <sub>4</sub> ]
ME-LR-MIN-MET-MS-A02	Low Intensity Magnetic Separation (LIMS) by Davis Tube [Davis Tube, LIMS, Magnetic Separation]

**Other (specify):**

Number of Scope Listings: 54

**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](http://www.scc.ca).

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Elias Rafoul  
Vice-President, Accreditation Services  
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