



RESPONSE TO
SNC-LAVALIN ENGINEERS & CONSTRUCTORS
INC.

REQUEST FOR INFORMATION

COVERING

Expression of Interest - Guarani
Watershed Project

BY

SGS ENVIRONMENTAL SERVICES

**185 Concession Street
Lakefield, Ontario K0L 2H0
Phone 705-652-2111
Fax 705-652-6441**

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EXECUTIVE SUMMARY

SGS is pleased to respond to SNC-Lavalin's "Request for Expression of Interest for International Laboratory support". SGS has approached this request with the objective of providing SNC-Lavalin with a world-class laboratory service, meeting and exceeding all of your requirements and key performance indicators.

SGS is a service organization with multiple business lines. As such, we have technical knowledge and expertise in many areas from mining to processing, extraction, product marketing, environmental and tailings, staffing services, certification, data hosting and management, project management and process optimization and control. All of this is available to assist you.

SGS has earned the reputation of market leader in many of these areas and we believe no one else can offer such a wide range of valuable services to SNC-Lavalin.

SGS believes very strongly that we have the world-class laboratory capabilities that SNC-Lavalin needs and more.

We look forward to discussing our capabilities in greater detail as the project specifics become available.

Future contact for this project can be directed to;

Chris Sullivan, B.Sc., C. Chem.
Sales Manager
Environmental Services
Tel: (705) 652-2111
Fax: (705) 652-6441
Cell: (705) 927-0111
Email: chris.sullivan@sgs.com

1.0 UNDERSTANDING OF THE SCOPE OF THE EOI

SGS will meet SNC-Lavalin's objectives and minimize your outsourcing risks by providing:

- Cost certainty with high quality and competitively priced analytical support.
- Extensive analytical capabilities allowing a full service approach to cover analysis of water, soil, rock as well as any biota or additional matrices that may be deemed necessary.
- Quality Assurance through an extensive QA/QC Management Program backed with ISO 17025 accreditation.
- A workplace in which health and safety, ethics, and corporate governance are paramount. SGS is fully committed to global, national, and local H&S requirements. Integrity has been the cornerstone of the SGS Group for 128 years.
- Integrated solutions. SGS has integrated our business lines of Oil, Gas & Chemicals, Environment, Minerals, Technical Staffing, Climate Change and Industrial Services to supply SNC-Lavalin with comprehensive solutions for mining, extraction, upgrading and tailings management in addition to the requirements set forth in the RFI.

1.1 CAPABILITY

1.1.1 SGS SA

SGS is the global leader in inspection, verification, certification and testing services. Founded in 1878, SGS is recognized as the global brand in quality and integrity. With over 43,000 employees, SGS operates a network of over 1,000 offices and laboratories around the world.

The SGS Group has revenues in excess of CAD\$ 3.3 billion, a debt free balance sheet, and is listed on the Swiss Stock Exchange where it is included in the Swiss Market Index (SMI).

SGS is a global, integrated service provider. We offer access to a comprehensive range of technical capabilities. Our professionals have the knowledge and experience to provide support, operational strength and troubleshoot any problem – we do it daily for our clients in our facilities all over the world. SGS can ensure an efficient start up to this project and is committed to the sustainability of SNC-Lavalin's operation.

The SGS Group has an ethical compliance program, based on our Code of Integrity and Professional Conduct, to ensure the highest standards of integrity are applied to all of our activities worldwide in accordance with international best practice.

Integrity is the core of SGS, it is the common thread through all our activities. The purpose of this Code is to lay down rules of behavior and to provide guidance in our day-to-day business. These rules apply to all employees of SGS. Our joint venture partners, agents, intermediaries, consultants and subcontractors are also required to comply with them. It is the responsibility of all of us, at all levels of our organization, to live by our Code.

For further information on the Code of Integrity and Professional Conduct please see Appendix 2.

The core services offered by SGS can be divided into four categories:

- **Testing Services.** SGS measures product quality, content and performance against various health, safety, regulatory and operational standards. We operate state-of-the-art laboratories on or near customers' premises. Today, SGS owns or operates over 1,000 laboratories, with over 200 laboratory operations located on customers' facilities.
- **Inspection Services.** SGS inspects and verifies the quantity, weight and quality of traded goods. Inspection typically takes place at the manufacturer's or supplier's premises or at time of loading or at destination during discharge.
- **Verification Services.** SGS validates a diverse selection of design, process and programs globally. Services range from the verification of codes of practice and design, trade assurance, and verification of green house gas emissions.
- **Certification Services.** SGS certifies that products, systems or services meet the requirements of standards set by governments, standardization bodies or by SGS customers. We also develop and certify our own standards.

1.1.2 SGS Canada

SGS has been active in Canada for over 65 years, is located in nine provinces and has over 1,000 employees. We are the leader in metallurgical testing, chemical analysis and laboratory outsourcing. We serve the oil and gas, minerals, environmental and industrial sectors from 25 locations, including 18 laboratories. SGS can provide expertise to support the oil, gas and petrochemical industries during all stages of operation. Our experienced staff provide you with the best solutions; safely, ethically, efficiently, on-time and on-budget.

1.1.3 SGS Lines of Business

1.1.3.1 SGS Oil, Gas and Chemicals Services

SGS specializes in providing expertise in management of laboratory operations, testing and inspection services, terminal operations, measurement engineering, training and consultancy to support oil, gas and petrochemical industries at all stages through design,

construction, exploration, production, transportation, processing and distribution of products. SGS OGC offers a comprehensive and flexible suite of services to our clients including:

- Laboratory testing and management
- Plant terminal operations (rail, truck loading and tank farm operations)
- Cargo inspection, sampling and custody transfers
- Product blending and additives management
- Customized training and auditing
- Calibration and measurement
- On-site gas testing for gas emissions
- Sample management
- Technical Staffing Services (TSS)

1.1.3.2 SGS Environmental Services

SGS offers laboratory testing services that cover the entire range of environmental analyses including water, air, soil and waste. Using state-of-the-art equipment, we regularly develop and validate new methods for both internal and external use. SGS Centers of Excellence provide support to our laboratories and method development teams. Additional services include:

- Environmental impact assessment
- Environmental auditing
- Environmental training
- Indoor environmental quality
- Air monitoring (including continuous emission monitoring)
- Stack testing
- Environmental emergency planning
- Site permitting
- Regulatory analyses and reporting
- Data handling and management

We have extensive knowledge and experience concerning Canadian environmental regulations. Since 1993, SGS has provided environmental and reclamation services throughout Canada. Our personnel are certified by the Associated Environmental Site Assessors of Canada (AESAC) and the Canadian Standards Association (CSA). We are also accredited by the Canadian Association of Environmental Analytical Laboratories (CAEAL) and have ISO 17025 auditors on staff.

1.1.3.3 SGS Minerals Services

With over 7,000 staff members with expertise in various disciplines, SGS offers a comprehensive range of technical capabilities. We are the market leader in geochemistry and processing technologies, providing an integrated scope of services from exploration to recycling. We have extensive experience performing mining tests and count Suncor Energy Inc., Shell CRC, UTS Energy Corp./Petro Canada and Paramount Resources as current clients.

1.1.3.3.1 Metallurgical Services

With more than 600 metallurgical professionals and facilities in Chile, England, Canada, Australia, Mexico and South Africa, SGS offers metallurgical testing, design and control to the global minerals industry. Hundreds of operating mines have been developed using the bankable feasibility studies or operational planning models generated by our staff. For 65 years, we have provided clients with flowsheet development, pilot plant testing, geometallurgy, production forecasting, on-site laboratories, start-up training, commissioning services, process control, plant optimization and operations. Integrating the technical leadership of Lakefield Research and Minnovex Technologies into SGS has yielded the expertise to test, model and optimize virtually all mineral processing and hydrometallurgical unit operations.

1.1.3.3.2 Analytical Services

SGS Canada has provided chemical analysis and on-site laboratories to the global mineral industry since 1954. We offer a full range of standardized methods and procedures that are suitable for global databases. SGS has strong regional facilities worldwide, over a hundred on-site operations, including remote areas of Mongolia, Russia and Africa. We are constantly expanding to provide service and capacity wherever our clients need us.

1.1.3.4 SGS Industrial Services

SGS is a global service provider that provides technical verification, inspection, testing and conformity assessment. We assure that the quality and performance of your product or installation meets your requirements, whether they are regulatory, voluntary or client specific. Our goal is to help to improve the integrity, quality and efficiency of equipment, to assure safe and healthy working conditions and to minimize environmental impact. We have extensive experience assessing and minimizing metal failure and corrosion in harsh operating environments.

1.1.4 McMurray Resources (Research and Testing) Ltd.

SGS is proud to partner locally in Fort McMurray with McMurray Resources (Research and Testing) Ltd (MRRT) to provide oil sands expertise and service delivery. MRRT was established in 1981 as a privately owned company to provide professional and technical field and laboratory services to the oil sands and construction industries. MRRT is 100% locally owned and operated, offering multi-disciplinary oil sands services in:

- Reclamation and environmental
- Geological and geotechnical consulting
- Analytical laboratory testing
- Pilot plant operations
- Construction monitoring
- Materials testing

MRRT employs local Fort McMurray personnel with a variety of solid and proven field experience, providing a wide range of services.

INTRODUCTION

At SGS we believe our extensive experience in all areas of providing laboratory support will be a significant asset to your project.

1.2 TURNAROUND TIMES

SGS has significant experience in analytical support and we understand the critical need for prompt reporting. There are several major factors which affect the expediency of analysis and delivery of results:

- Automation, workflow and laboratory design
- Quality Management System and Six Sigma principles
- Laboratory Information Management System (LIMS) and data management
- Scheduling and training

1.2.1 Lab Closures Procedures and Turnaround Time

SGS is committed to client satisfaction and therefore utilises a 7 day per week and 24 hour per day coverage, as required to complete projects within a specified time. SGS has multiple lab capabilities as well as generator back-up capabilities to handle microbiological parameters during power outages. Where catastrophic situations would prevent analysis at one SGS's local sites capabilities are available to use one or more of our Laboratories across Canada and internationally to ensure project requirements are met.

1.2.2 Quality Management System and Six Sigma Principles

We use a Six Sigma approach that enhances the quality management system into a business building tool. It implants a rigorous framework and methodology for business improvement and then links it directly to financial performance. Projects are prioritized and based on the cost associated with poor quality.

SGS' certification business enhances the awareness of benefits produced from quality documentation.

Many SGS laboratories are ISO 17025 accredited. SGS staff in Canada participates in this process through one of the internationally recognized accreditation bodies. SGS has trained ISO 17025 assessors who volunteer for CAEAL (Canadian Association for Environmental Analytical Laboratories), in addition to occupying seats on the Board of Directors.

1.2.3 Laboratory Information Management System (LIMS) and Data Management

SGS uses Laboratory Information Systems (LIMS) to maximize sample throughput and to improve overall laboratory efficiency. An online instrument interface system automatically records analytical information that enables analysts to structure and manage their workload by creating technique-specific worksheets. Using LIMS also

leads to significant quality improvements through its ability to monitor, track and communicate quality control data through Shewhart control charts. The LIMS also provides quality data, sample tracking and sample and analysis statistics. A presentation, training and access to live data through the Web portal or our internal viewing tool software can be reviewed on acceptance of this RFI.

1.2.4 Laboratory / Operational Interface

SGS knows the importance of laboratory data for operational control and optimization. In addition to our work as a laboratory producing data, we also work in data management, data interpretation and utilization.

SGS Environmental Services has in place a live link into our LIMS data base to allow real time data viewing as well as historical data retrieval. All data is available for export into spreadsheet formats for ease of Data Management. This service is provided to our clients at no cost to allow operational cost savings and ease of data control.

1.2.5 Contingency Planning for Exceptional Circumstances

Our Ontario-based experience in water analysis for public safety and our operational response to the impact of events like the recent hurricanes Katrina and Rita has given us extensive experience in contingency planning. Responses we have in place throughout the world include:

- Planned alternate lab facilities and sample transport to these sites
- Backup satellite communication with other lab sites
- Mobile generators capable of powering entire labs for extended periods of time
- Cross training of staff so they can be deployed elsewhere
- Cross notifications to clients and government officials
- Hydrogen generators to ensure gas supplies
- Remote diagnostic and calibration capabilities to allow our Centers of Excellence to support remote labs

1.3 PERSONNEL

All senior technical and supervisory chemists hold a Bachelor of Science degree and 90% of the technicians have either a University or College Education. Technician training and proficiency records are kept on file as per our accreditation. SGS has a mandatory annual WHIMIS training requirement for all employees.

SGS Environmental Services employs approximately 60 analytical personnel dedicated to the environmental laboratory. Senior chemists are cross-trained to operate several instruments. In cases where an employee is absent, alternate technicians are transferred to the needed area for the period required. This is also the case when a sudden increase of work occurs in a specific area. Microbiological support in both London Ontario and Lakefield Ontario ensures reliability in meeting regulatory and budgetary obligations. Cross training of all staff allows immediate transfer capabilities to handle sudden surges in sample load or emergency and RUSH reporting requirements.

1.4 TEAM APPROACH

SGS is committed to a long term approach for all our clients. The SGS Group has a compliance program, based on its **Code of Integrity and Professional Conduct** to ensure that the highest standards of integrity are applied to all its activities worldwide in accordance with international best practice.

Integrity is at the core of the business of the SGS Group, it is the common thread through all our activities. The purpose of this Code of Integrity and Professional Conduct is to lay down our rules of behaviour in all our dealings for the SGS Group and to provide guidance in our day-to-day business.

Our mission is to support our clients in developing sustainable solutions, allowing them to focus on their core business. SGS offers you guidance and assistance in complying with environmental regulations and in assessing your environmental performance. We provide you with state-of-the-art laboratory and monitoring facilities, with experienced and knowledgeable consultants, together with a comprehensive range of specialized environmental services

All our services are tailored to meet your specific requirements and will help you in managing your business risks, in increasing your business efficiency and in enhancing your business reputation.

SGS Environmental Services is dedicated to the provision of quality analysis from the point of client request through shipping and analysis beyond the final report to the long term project approach. SGS has implemented an online shipping request form via our website or the direct shipping request through our shipping department. All bottles are new specifically designed bottles for trace analysis containing all preservatives (as required) for analysing each specific parameter. All parameters are analysed as per the recommended procedures and license protocols to ensure applicable data results are

presented. Multi technician and supervisory data viewing is utilised to ensure accuracy of results. Long term data storage (minimum 7 years) is in place to ensure historical availability.

In summary SGS is dedicated to a role beyond provision of data in order to ensure that compliance management is achieved for all clients as well as the laboratory to ensure project confidence.

2.0 CONCLUSION

SGS has the capabilities and technical expertise to provide analytical support for water, soil and rock media. Our goal is to ensure a customer experience that exceeds SNC-Lavalin operational and key performance indicator expectations.

SGS is the world leader in outsourcing with over 200 laboratories worldwide under our management. We are also a multifaceted, integrated solution provider, with advanced technologies, processes and systems to offer in the development of your exciting Guarani Watershed Project.

SGS will provide SNC-Lavalin with:

- Cost certainty and competitive pricing.
- Operational performance, consistency and sustainability.
- ISO 17025 accreditation
- Retainable, long term, technical and management expertise operating in a safe working environment.