

**TIMMINS ECONOMIC DEVELOPMENT CORPORATION**

**REQUEST FOR PROPOSAL**

**ON**

**“LITHOGEOCHEMICAL STUDY KIDD- MUNRO MEGATEM AREA”**

**IN THE**

**TIMMINS-KIRKLAND LAKE REGION OF NORTHERN ONTARIO**

**FOR**

**DISCOVER ABITIBI INITIATIVE**

**A project of innovation, cooperation and revitalization in the Abitibi region  
Northern Ontario**



## Preliminary Notes

- The contract for the Lithogeochemical Study will be with the Timmins Economic Development Corporation (TEDC) and will be directed by personnel from the Discover Abitibi Initiative.
- The contract shall be governed by the all laws covering contracts in Ontario and shall comply with all federal, provincial and municipal laws and By-Laws
- The contractor shall provide a Workplace Safety and Insurance clearance certificate before the final awarding of the contract.
- The personnel employed in the completion of this contract shall be members or equivalents of the Association of Geoscientists of Ontario (APGO)
- The RFP for the project is located on the Discover Abitibi Initiative website and the contractor must demonstrate their understanding of the size and requirement of the RFP
- Correspondence can be directed to the project manager as follows:

**Robert Calhoun, P.Geo.**  
**Project Manager**  
**Discover Abitibi Initiative**  
**12 Elm Street, North**  
**Timmins, Ontario P4N 6A1**  
**Tel 705-360-2600 ext 7085, Fax 705-360-2679**  
**Email: [rcalhoun@timmins.ca](mailto:rcalhoun@timmins.ca)**  
**Website: [www.discoverabitibi.com](http://www.discoverabitibi.com)**

- **The proposals shall be directed to Robert Calhoun and consist of three bound copies and one cd containing the complete proposal in Microsoft word format. Figures should be in universally readable format.**
- **Proposals are due by 4:00pm, November 5, 2010**

## Special Note

**The awarding of the final contract shall be at the sole discretion of the Timmins Economic Development Corporation and the Discover Abitibi Initiative management committee. The TEDC reserves the right to reject any or all proposals or to accept any proposal should it be deemed in the interest of the Corporation to do so and, in particular, if only one proposal is received, the Corporation reserves the right to reject it or any proposal.**

## REQUEST FOR PROPOSAL - RFP

The Timmins Economic Development Corporation, known here after as “*TEDC*”, is requesting proposals for a “*Lithogeochemical Study Kidd- Munro MegaTEM Area*”.

### 1/ INTRODUCTION

Specifications relating to: the Technical Proposal; Personnel; Deliverables; Budget; Quality Assurance/Quality Controls, Economic Benefits, Time Frame; Project Management; Data Management; Intellectual Property; etc. are outlined below.

*Bidders* shall prepare a proposal **addressing all requirements of this RFP**

The proposal should be concise. Each proposal will be evaluated solely on its own content. The restatement of the technical requirements with a statement to the effect of – “Intent to perform” will not be satisfactory. Specific details of “where, what, how and why” must be provided to ensure a clear indication of the *Bidder*’s understanding of the tasks involved and of their ability to carry them out. Any costs in preparing the RFP are solely at the *Bidder*’s expense

### 2/ DETAILS OF THE TECHNICAL PROPOSAL

Airborne geophysical surveys in the Abitibi greenstone belt (e.g., MegaTEM and other AEM systems) have identified large numbers of electromagnetic conductors that are routinely targeted for drilling during base metals exploration. A high proportion of these conductors are sulphide-bearing and carbonaceous interflow sediments, or graphitic argillite. These sediments often mark productive ore horizons and are primary targets for regional exploration. However, there are few reliable tools to evaluate the mineral potential of these lithologies or to detect possible economic mineralization off-hole or below the depth of drilling where ore-grade intersections are not encountered. The proposed project will develop new lithogeochemical and mineralogical tools to test graphitic argillite horizons for the presence of ore and ore-bearing lithologies at depth and to identify the most prospective horizons for follow-up exploration. A regional-scale sampling program of previously drilled intersections of sulphide-bearing and carbonaceous interflow sediments will be carried out in the areas covered by the Kidd-Munro East MegaTEM surveys.

Up to 1,000 samples from throughout these areas will be tested for key indicators of mineralization. The results will comprise a new regional geochemical database that can be used by companies actively engaged in mineral exploration in the Abitibi region.

The proposed project responds to important new opportunities for sampling of conductors that were identified during the 2001-04 MegaTEM surveys, as well as during past exploration programs across the Timmins and Kidd-Munro areas. Although a large proportion of the identified conductors have been tested by shallow drilling, only limited characterization of the sampled lithologies has been carried out by assaying for major base and precious metals. The proposed project will test a full range of geochemical signatures in sulphide-bearing carbonaceous argillites in order to establish the most reliable techniques for targeting base metals. The emphasis will be on high-precision Lithochemical and mineralogical techniques that can detect concealed economic mineralization below drilled intersections or beyond the penetration of AEM. A regional Lithochemical data set will be generated that can be integrated with existing GIS compilations, including airborne geophysics and regional volcanic lithochemistry databases. This is expected to stimulate new exploration of favorable stratigraphy under deep cover in the Timmins and Kidd-Munro areas.

## **2.1 Project Scope**

The proposed project extends a 2001 pilot study in the area surrounding the Kidd Creek mine north of Timmins (unpublished report for Falconbridge Ltd. by M. Hannington, 2001, Geochemical signatures of barren and mineralized graphitic argillite horizons: Application to exploration for volcanogenic massive sulphides in the Kidd Creek region, 193 p.). In this study, high-precision trace element geochemistry was used to characterize barren versus mineralized carbonaceous argillite horizons near the mine. A suite of mobile metal signatures in the sulphide fraction of the argillites was found to be more effective than bulk Cu and Zn assays in identifying favorable stratigraphy for base metal mineralization. An empirical lithochemical index was defined that provided a strong indication of proximity to ore within conductive horizons. Larger-scale enrichments in redox-sensitive elements (e.g., Ni, Co, Se, Mo, As, Eu/Eu\*) also were found to be indicators of paleoconditions within the Kidd Creek basin that were favourable for base metal mineralization.

A follow-up study showed that similar geochemical anomalies also may be present in carbonaceous horizons in proximity to or hosting other ore deposit types (e.g., orogenic gold deposits; 2004 OMET study by C.T. Barrie and Associates).

The ability to target deep conductors is rapidly improving, with MegaTEM surveys now penetrating to below 250 m, but techniques to evaluate the significance of many conductive horizons after they have been drilled have not been developed. In particular, reliable tools for identifying hydrothermal input in interflow sedimentary rocks at the regional scale or for vectoring towards mineralization at the property scale are lacking. Because of highly variable background, assays of major base metals normally used to test sulphide-bearing argillite intersections can miss (or misidentify) a geochemical signal associated with a nearby base metal deposit. The proposed project will test new methods for identification of primary geochemical haloes within these lithologies, including subtle anomalies that may be sourced well below near-surface drill holes and beyond the depth of penetration of AEM surveys. In addition to providing direct indications of primary hydrothermal mineralization, sulphide-bearing carbonaceous sediments are also effective "chemical traps" for metals that may be remobilized from nearby ore deposits during burial, metamorphism and deformation. Secondary enrichments of certain mobile metals in the sulphide fractions of argillite horizons can greatly increase the size of a geochemical anomaly surrounding a buried ore deposit. These anomalies may be produced by a variety of mineral deposit types, in addition to volcanic-hosted massive sulphides, including orogenic gold deposits and ultramafic-hosted nickel deposits. Both types of anomalies will be tested in the regional survey.

An expanded litho-geochemical database for interflow sediments has the potential to greatly increase the knowledge of the subsurface geology in deeply covered areas of the surveyed townships. Shale and argillite units that are routinely targeted during drilling are derived from a range of possible source rocks in a prospective volcanic basin or sub-basin. The geochemistry of the sediments can be used to characterize the provenance of material in a local catchment, and thereby identify the presence of favourable host lithologies for ore (e.g., altered rhyolite) where these rock types are not exposed or intersected in near-surface drill holes.

Provenance indicators also may be used to identify the presence of host rocks for other ore deposit types (e.g., sediments derived from ultramafic source rocks that may contain concealed Ni deposits). Because fine-grained sediments in greenstone belts are mainly derived from erosion of volcanic rocks, a wide range of petrogenetic indicators developed for volcanic lithologies also may be applied to the interpretation of the shales and argillites. The currently available lithogeochemical database for the Abitibi in Ontario contains more than 10,000 analyses of volcanic rocks. Classification schemes based on these lithogeochemical data (e.g., FI, FII, FIII rhyolites) have been an important tool in identifying prospective versus nonprospective lithologies during regional and property-scale exploration for base metals. The current public domain database contains relatively few analyses of graphitic argillite, and no comparable lithogeochemical framework exists for the characterization of these fine-grained sediments that might be applied in exploration. The proposed project will provide critical new data for this purpose.

Reconnaissance and property-scale logging and sampling of shale/argillite horizons will be carried out during two field seasons. Sampling will be integrated with previous site-specific pilot studies, with existing geophysical data, and with ongoing regional mapping and exploration programs, across multiple townships where AEM conductors have been identified and drilled. Sampling will focus on the 10 townships encompassed by the Kidd-Munro East MegaTEM area. Follow-up sampling may be conducted in other townships not covered by the 2001-04 MegaTEM surveys (e.g., Fox-Stimson, Currie-Bowman, Dundonald, and Central Porcupine Camp). The results of the project will be delivered in written reports and as a georeferenced database. Regular project meetings will be held with partners to coincide with the delivery of an annual report. Practical workshops may be planned in conjunction with project meetings to achieve full technical transfer.

The end result will be to develop exploration targeting parameters to more effectively explore for as yet undiscovered base and precious metal deposits in the parts of the Abitibi covered by extensive overburden or at depth. This should include providing specific and refined 3D exploration models to allow for precise targeting of unknown deposits.

The project will involve a substantial fieldwork component with laboratory studies being those necessary to support/confirm the field data.

The project will require the involvement of highly qualified professionals who will carry out the fieldwork. These individuals will have particular expertise in various areas of specialization:

- Stratigraphy
- Structure
- Volcanology
- Litho geochemistry
- Felsic, mafic and ultramafic igneous rocks
- Alteration
- Metamorphism
- Geochronology
- Integrating geophysical data

If graduate students are involved, then a high ratio of field and laboratory supervision by the Principal Investigators will have to be guaranteed.

The proposal should provide details of the specific locations of the field study areas and will explain why these have been chosen and what, how and why specific data will be generated at each location.

## **2.2 Generation of refined deposit models and specific exploration guidelines**

The generation of new base and precious metal exploration targets is the **key goal** of this project hence the proposal will explain how the field/laboratory studies will aid in the targeting and discovery of new deposits in the approximately 80% of the Abitibi which is covered by Pleistocene deposits and also at depth throughout the Abitibi.

## **3/ DATA MANAGEMENT, INTEGRATION, ARCHIVING**

The proposal will provide specific details on how:

### **3.1 Existing data will be incorporated into the project.**

Within the Abitibi there already exists a data set with regard to: rock types, structure, alteration, geochronology, isotopes, litho geochemistry, geophysics, etc. How will this data (i) be screened for “Quality”; (ii) how will it be captured, organized and incorporated into the project in order to produce equal and

complete coverage throughout the Abitibi, and (iii) how will it be used as the basis of a “gap analysis” to highlight where/what critical data is currently missing in the Project area?

- 3.2 New data, originating from the project, will be “seamlessly” added to the “existing” data?
- 3.3 How the many different data sets produced by the various methodologies involved, and obtained at a wide variety of scales throughout the entire Abitibi will be integrated into maps and reports?
- 3.4 How all the data sets will be “archived” but also will be available and easy to access and use in any subsequent project

#### **4/ QUALITY ASSURANCE / QUALITY CONTROL (QA / QC)**

The proposal will provide specific details on how QA/QC will be achieved for the various technical components:

- 4.1 in the field
- 4.2 in the laboratory
- 4.3 by subcontractors
- 4.4 in reports and datasets
- 4.5 in the archived material
- 4.6 against the project timetable

#### **5/ DELIVERABLES**

The proposal will provide specific details of the form, scales, content, and timing of the deliverables in relation to the scope of work described in Section 2, the Technical Proposal. A clear distinction should be made between factual (reproducible) data sets and interpretation data sets.

An important aspect of the proposed work is to generate local, Abitibi-based follow-up. Hence “workshops” in the Abitibi area to initiate a “hands on” delivery of the new results/new interpretations to Timmins/Kirkland Lake explorationists should be considered as a component of the deliverables.

The deliverables shall include but are not restricted to the following table:

- Overall Project deliverables
- Quarterly progress reports (Project Coordinator)
- Summary of Field work reports (Project coordinator & PIs)
- Final map(s) in OGS P map format & report in OGS Open File format (Project coordinator & PIs). Details of completion available upon request.

## 6/ INTELLECTUAL PROPERTY

The “Intellectual Property” resulting from the proposal belongs to *TEDC*; however, the ability of the *Bidder* to publish, give presentations etc. will not unreasonably be withheld by *TEDC* but prior to publishing/presentations the *Bidders* first must have written authorization from the *TEDC*.

## 7/ INFORMATION ON THE *BIDDERS*: Personnel/Staffing:

Details of the Project coordinator; address, phone, fax, email

Details of Principal Investigators: with addresses, phone, fax, email

Resumes should be provided giving full names; citizenship; education and/or professional qualifications with years and granting institution; languages spoken; employment record, including employers, years and places of employment, type of work performed; and the extent of previous experience relevant to the function to be delegated in this project.

Management, relationship between the above Individuals

An organization chart for this project (with names and functions) should be provided showing the reporting responsibilities of the personnel involved.

Information should be provided on **Project Experience, Current Work load, Capacity to undertake this Project**

Information should be provided on the relationship of the *Bidders* to any other analogous projects that they are currently involved with:

- Similar projects recently undertaken, Either in the Ontario Abitibi, or, on parallel topics elsewhere, but occurring in the same time frame as this proposal; including location, size, budget, date, client, contact name and telephone number.

- Capacity, particularly in terms of current workload, flexibility in term of being able to cope with workload variations, any overlapping capabilities of personnel should be discussed.

The **Bidder** certifies that all statements made with regard to the education and the experience of the individuals proposed to participate in and complete this project is accurate and factual. **TEDC** reserves the right to verify any information provided in this regard and that untrue statements may result in the proposal being declared non compliant. Should verification by **TEDC** disclose untrue statements, **TEDC** shall have the right to treat any contract resulting from this Bid as being in default and terminate it accordingly.

## **8/ SUBCONTRACTORS**

If the **Bidders** propose to sub-contract any of the work within the bid (e.g. High Precision Geochronology, Multi element analyses of Litho geochemistry samples, etc.) then the division of work and delineation of responsibilities must be described in detail. The **Bidders** shall act as the prime contactor and shall negotiate, sign all contracts and take full responsibility for the project. For all sub-contracts, an acknowledgement letter from the sub-contractor, with details of the proposed arrangement, must accompany the proposal.

The **Bidders** should explain their relationship to subcontractors, if any are going to be involved in the project:

If subcontractors are to be used in the Project **full details** of their expertise, experience, capabilities to carry out the delegated work must be provided.

If the **Bidder** has proposed a person (or persons) to fulfill any portion of this project who is not a Principal Investigator, or who is not directly supervised by a Principal Investigator the **Bidders** should provide written permission from such person (persons) (i.e. a Subcontractor) to provide the services designated in relation to the work to be performed in fulfillment of this project.

## **9/ TIME FRAME / TIME TABLE**

The proposal will provide specific details of how the project will be organized in relationship to the total proposed time frame and will also provide a detailed timetable for each technical component, and also a detailed timetable for project completion, report

writing and the presentation of the final deliverables. **The project fieldwork and report writing should be complete by December 31, 2011 to allow publication by the OGS publication Branch by March 31, 2012.**

## **10/ ESTIMATED COSTS**

The proposal will provide specific details of the costs to carry out the Technical Proposal described in Section 2.

**10.1** The Estimated Costs will provide full details by Technical component, e.g. Personnel, Salaries, travel/room/board; number of lithochemical analyses; number of high precision geochronology determinations, etc.

**10.2** The proposal will also provide an indication of the flow of funds required for the project, **through time**, in order to establish the basis of “cash calls” from *TEDC* and payment schedule should be included.

These costs must be the “**Total All Inclusive Project Costs** (excluding GST). The *Bidder* must bear in mind that **no payments other than the Total All Inclusive Project Costs** will be made to the *Bidder* by the *TEDC*.

**10.3** *TEDC* will withhold 10% of the total final approved budget until full and complete delivery of all data, reports, maps etc. in an acceptable format is complete.

## **11/ PROJECT MANAGEMENT**

The proposal will indicate the reporting relationship between the Project Team and the *TEDC*, the Project Manager of Discover Abitibi, and/or the Technical Steering Committee of Discover Abitibi.

The proposal will provide specific details on how coordination between the Principal Investigators, any graduate students and any subcontractors will be achieved.

The proposal will contain details of how the projects’ progress will be monitored, with specific milestones and performance measures being outlined.

## **13/ RESPONSIBILITIES OF THE BIDDER**

The HSE, insurance, Workmen’s Compensation aspects of all field operations are the responsibility of the *Bidder*, as is egress to any land where the *Bidder* will require the express written permission of both the surface and mineral rights holders.

The bidder must provide a statement of insurance coverage, saving harmless TEDC from any event held to be in the Contractor's area of responsibility during the period of any contract developing out of a bid made by the contractor. The successful consultant will submit proof of liability insurance coverage of a minimum of \$2,000,000.00 (job specific coverage).

All contractual arrangements for lease of vehicles, instruments, use of laboratories, etc. are the responsibility of the *Bidder*.

#### **14/ LEGAL ENTITY AND CORPORATE NAME**

The *Bidder* should provide a statement as to whether it is a sole proprietorship, partnership or corporate entity, indicating the laws under which the partnership or corporate entity was registered or formed, together with the registered or corporate name. Also, the *Bidder* should provide a statement identifying the country where the controlling interest/ownership (name if applicable) of its organization is located.

#### **15/ INSURANCE**

The bidder must provide a statement of insurance coverage, saving harmless TEDC from any event held to be in the Contractor's area of responsibility during the period of any contract developing out of a bid made by the contractor.

The successful consultant will submit proof of liability insurance coverage of a minimum of \$2,000,000.00 (job specific coverage) and that the firm is in good standing with the W.S.I.B;

#### **16/ MISCELLANEOUS ELEMENTS**

A complete copy of the proposal should be delivered to the project at the following location:

**Robert Calhoun, Project Manager**

**12 Elm Street North**

**Timmins, Ontario P4N 6A1**

A full description should be provided of any omissions or deviations from the requirements set forth in this RFP. Any additional elements should be clearly outlined and cost estimates presented separately so that the subcommittee may consider the value added and distinguishes such elements from the required elements of the RFP. The effect of any omission on the total cost shall also be included. If there are no omissions or deviations from this RFP, the respondent shall state the following: "This proposal contains no omissions or deviations from the RFP."

No payment will be made to a consultant for the preparation and submission of a proposal.

The lowest or any tender will not necessarily be accepted.

A detailed outline of the firm's per diem rates and a breakdown of subcontractor rates.

All prices must be quoted in Canadian dollars, to include all applicable taxes.

Conditional bids will not be accepted.

Adjustments to the proposal by telephone, fax, telegram, e-mail will not be accepted.

The person signing on behalf of the organization submitting a proposal must initial erasures, overwriting or strikeouts.

Proposal submissions constitute a firm offer and if successful will constitute part of the agreement.

The consultant must have a clause in their proposal that indicates that prices are open for ninety (90) days from the proposal closing date

All consultants shall comply with all the legislation and regulations, which may be applicable to completing this proposal.

All proposals must be complete, legible and signed in ink by an authorized official.

Should a consultant find discrepancies or omissions from the RFP prior to the closing date, the Project Manager is to be contacted as soon as possible in order that a written instruction or an addendum can be issued.

Any proposals received after the above referenced deadline or received by facsimile or by email will not be considered for this project and will be returned to the consultant unopened.

The Project Management Team will review qualifying proposals. The preferred candidate for this project will then be recommended to the TEDC Board for engagement of services. A formal

contract will then be entered into between the TEDC and the successful firm as per the Request for Proposal to the satisfaction of the TEDC and executed as required.

The TEDC reserves the right to ultimately select, in its own best judgment, which firm it deems most qualified to undertake this project. The TEDC may select any proposal or reject all proposals and is not bound to accept the proposal with the lowest price.

**In addition, firms are advised that the awarding of any contract relating to this project is contingent upon confirmation of partnership funding in support of this project.**

**Consultants wishing to respond to the RFP must register by e-mail no later than October 29, 2010. A brief e-mail confirming your intentions to submit a response and a key contact should be identified. We require complete mailing address, telephone and e-mail address. Questions regarding the project will be answered via e-mail and sent to all firms.**

**Please register with:** Mr. Robert Calhoun  
Project Manager  
Timmins Economic Development Corporation  
12 Elm Street North  
Timmins, ON  
P4N 6A1

Tel: 705-360-2600 ext 7085

Fax: 705-360-2679

E-mail: rcalhoun@timmins