

TIMMINS ECONOMIC DEVELOPMENT CORPORATION

REQUEST FOR PROPOSALS

ON

PROFESSIONAL SERVICES

FOR

REPROCESSING OF SPECTREM AEM DATA

IN THE

TIMMINS-KIRKLAND LAKE REGION OF NORTHERN ONTARIO

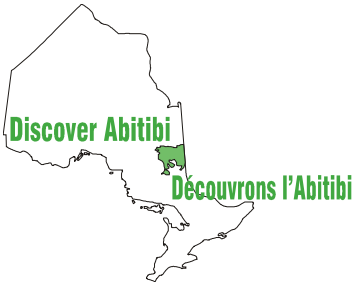
FOR

DISCOVER ABITIBI INITIATIVE

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



October 2004



Discover Abitibi

A project of innovation, cooperation and revitalization

Découvrons l'Abitibi

Un projet d'innovation, de coopération et de renouvellement

Request For Proposal

Interpretation of Airborne Data

Extending Knowledge to be Extracted from Leading Edge Surveys, New Directions and Applications

Timmins-Kirkland Region of Northern Ontario

PROPOSAL

The Timmins Economic Development Corporation wishes to extend the knowledge base of airborne electromagnetic (EM) and magnetic survey data acquired in the Timmins-Kirkland Lake area. The purpose of the proposed program is to apply new processes to extend the interpretation beyond the present generally applied methodologies. It is desired to know what more information can be extracted from the data than is currently being developed, and to understand the benefits of such information. The following will outline the expected applications and outcomes.

Questions regarding this RFP may be directed to Robert Calhoun, Discover Abitibi, Project Manager, by email at rcalhoun@city.timmins.on.ca.

DISCOVER ABITIBI INITIATIVE DESCRIPTION

The Discover Abitibi Initiative is a regional economic development project charged with the completion of 19 projects within the Timmins to Kirkland Lake corridor of the Western Abitibi Greenstone belt. The initiative is directed through the Timmins Economic Development Corporation (TEDC). The initiative is funded in part by FedNor-Industry Canada, the Northern Ontario Heritage Fund Corporation and several private sector partners.

Airborne EM and Magnetic Survey, General Applications

The airborne EM/magnetic contractors for Ontario Treasure Hunt (OTH) and Discover Abitibi have provided basic suites of products for the various surveys undertaken. These standard products extract only a limited amount of the information available in modern magnetic and EM data sets. Analyses of magnetic and electromagnetic, physical and spatial parameters are to be developed in the proposed program. A demonstration of the extent of processed products and the exploration usefulness is desired from the successful bidder.

A number of EM/magnetic surveys are available for this project. The survey chosen, while not universally representative of the surveys flown in the area, has many aspects in common with the others. The products will become a general guide for the other airborne time-domain surveys in the area, including various GeoTEM and MegaTEM surveys. The Spectrem, Matheson survey flown under the auspices of the Ontario Geological Survey, Treasure Hunt program (OTH) has been chosen for this evaluation. It contains the geographic, geologic and geophysical essentials of a survey within the Discover Abitibi area: it crosses the volcanic, sedimentary and structural elements that core the area, it has a variety of magnetic and electromagnetic responses, is a time domain EM survey, and has a range of overburden (thickness and character) that is representative of the extremes of the Abitibi area.

The choice of the Spectrem survey has a special potential benefit, as it is the least well understood airborne time-domain system that has been flown recently in the Timmins - Kirkland Lake area. The execution of the present proposal presents an opportunity for learning more about the product of this system, as well as broader aspects of airborne geophysical methods. The full survey length is about 11,000 line km on 284 survey lines. All of this will be processed. These data exist as channel data and as halfwave data. Recommendations from the bidder, on the use of the halfwave data, are encouraged.

The cost-benefits as well as exploration benefits of this processing through information obtained, are to be demonstrated, given the primary survey acquisition cost, with comparisons to add-on processing costs. An assessment of the benefits of each methodology will be

undertaken. Identification of the applications that may be made from the new information developed by this processing will be assessed. How these products be implemented in any exploration program will be demonstrated.

PROJECT DESCRIPTION

The following processing applications will be applied to the airborne data:

1) Time Constant Analysis

Developing time constants will rank EM anomalies. These will be more detailed than provided by the prime survey contractor. Measuring the maximum time constant in a given decay above a pre-defined noise level will accomplish this. The AdTau application (a BHP Billiton proprietary software) accomplishes this, and separates conductances from shallow and deep portions of conductors. These will be presented in plan and in profile.

2) Conductivity Depth Imaging

Conductivity depth imaging or CDI sections will develop conductivity and depth of cover and of bedrock anomalies. Various possible software packages may be used to do this. These are EM Flow (EMCOM, Australia), AirStem (BHP Billiton) or new UBC software.

3) Plate Fitting

Plate fitting will define EM anomaly source geometry (depth to top, dip, lateral extent). It is expected that several levels of plate fitting will be accomplished. First, a complete set of plate solutions for the entire data set will be developed. The software dScan (BHP Billiton) will do this to provide a starting point for more specific modelling software. Second, Fplate, (BHP Billiton) and EM Flow and Maxwell (Electromagnetic Imaging Technology - EMIT, Australia) may be used to develop detailed plate fitting in the second stage.

4) Magnetic Modelling

Plate solutions (3D) magnetic anomalies will be developed. Various software packages are available to complete this.

5) Stacked Plots

All EM and magnetic profile/section products will be presented on stacked plots. This will include primary data profiles and derived products such as time constants, CDIs, plate solutions (both EM and magnetic), along with Track Maps (or strip maps) along the flight path.

PRODUCTS

Basic processing report included in a detailed interpretation and analysis report.

The results will be provided as PDFs and Geosoft data bases and maps). Tiff images are expected for sections and located and located tiffs for the plan maps. The report will be in both PDF and Microsoft Word (2000 or higher).

A single staked plot is required for each line containing profiles (EM, mag, interpretation), sections and track plots identified above (items 1 – 4, as 5). Track plots identifying ground track features, registered in UTM co-ordinates, will be scaled and in NAD 83. Plan maps will be prepared as needed (eg. Time constant – tau; interpretation; EM and mag. together or separate [plate model presentations in plan] as determined in consultation with Discover Abitibi). There are 284 survey lines in the survey. It will be seen that a number of survey lines are too short to be processed usefully. It will be seen that two boundary lines, east and west, can be usefully processed. Tie lines and the north and south boundary lines are not to be considered in this proposal, as they lie sub-parallel to the geological strike. It may be argued, and would need to be demonstrated by the bidder that tie lines and boundary lines will provide a useful product.

Plan maps of the prior release (OTH, MNM - Geophysical Data Set 1101, Matheson Area) will not be repeated. Geotiff images are required for all plan maps developed in this project. These will be prepared and located in NAD 83, UTM Zone 17.

Print ready files for stacks and plan maps will be prepared under instruction of Discover Abitibi / MNM Publication Services. Costing for the making of hardcopy maps should be included in the bid, however it remains to be determined if this element will be executed.

MISCELLANEOUS ELEMENTS

- A complete copy of each proposal should be delivered to the Discover Abitibi Initiative project manager on or before 4:00pm, October 15, 2004 at the following location (see additional requirements below):

Robert Calhoun, Discover Abitibi Project Manager

Timmins Economic Development Corporation

54 Spruce Street South

Timmins, Ontario P4N 2M5

- 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.”
- The proposal must include a section describing the methodology and timing related to the work requested. The final products are due on or before January 31, 2005
- A full description of the qualifications of all staff who will or may complete any technical function in the completion of the work requested by 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
- Erasures, overwriting or strikeouts must be initialled by the person signing on behalf of the organization submitting a proposal
- 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
- All consultants are to be members in good standing with the Association of Professional Geoscientists of Ontario or equivalent and further shall be licensed to practise in Ontario

Should a consultant identify discrepancies or omissions from the RFP prior to the closing date, the Project Manager should be notified by e-mail 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 e-mail will not be considered for this project and will be returned to the consultant unopened.

The Project Management Team will review qualifying proposals. The criteria for evaluation will be expertise, overall project proposal such as methods for collection, final data output, references and final costs.

Evaluation:

Expertise	20%
Overall project proposal	20%
Final data output	30%
References	10%
Final costs	20%

The preferred candidate for this project will then be recommended to the TEDC Board for engagement of services. A formal contract between the TEDC and the successful firm or individual as per the Request for Proposal and the response 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 4:00 pm October 8, 2004. 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

54 Spruce Street South

Timmins, ON

P4N 2M5

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