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The Articles contains in this document are mandatory in their entirety, unless otherwise indicated. Acceptance of these Articles, in their entirety, as they appear in this document, is a Mandatory requirement of this RFP. Suppliers submitting a proposal containing statements implying that their proposal is conditional on modification of these clauses or containing terms and conditions that purport to supersede these clauses or derogate from them will be considered non-responsive.

Bidders with concerns regarding the provisions of the Bid Solicitation document (including the Resulting Contract Clauses) should raise such concerns in accordance with the Enquiries provision of this RFP.



PART 1 - GENERAL INFORMATION

1.1 Introduction

The bid solicitation is divided into seven parts plus attachments and annexes, as follows:

- Part 1 General Information: provides a general description of the requirement;
- Part 2 Bidder Instructions: provides the instructions, clauses and conditions applicable to the bid solicitation;
- Part 3 Bid Preparation Instructions: provides bidders with instructions on how to prepare their bid;
- Part 4 Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria that must be addressed in the bid, and the basis of selection;
- Part 5 Certifications: includes the certifications to be provided;
- Part 6 Security Requirements: includes specific requirements that must be addressed by bidders; and
- Part 7 Resulting Contract Clauses: includes the clauses and conditions that will apply to any resulting contract.

The Annexes include the Statement of Work and the Basis of Payment.

The Appendixes include the Evaluation Criteria and the Financial Proposal Form.

1.2 Summary

By means of the RFP, Natural Resources Canada (NRCan) is seeking proposals from bidders for:

1.2.1 The objective of this project is to have a third-party (hereafter referred to as the 'contractor') evaluate the SCFE technology using CO₂ as the solvent with TBP/HNO₃ adduct as the chelating agent for its potential to extract rare earth elements from mineral samples. Three mineral samples will be used as feeds for this project, namely a mineral concentrate, a pre-treated mineral concentrate, and a leach residue. Supercritical CO₂ containing TBP/HNO₃ complex would be used to extract REE directly from the solid matrices. The extraction results on the three feeds will be analyzed and compared in order to understand the REE extraction achievable from each. Parameters that effect the extraction recovery and kinetics will also be investigated.

Department: **Natural Resources Canada**

Period of Contract: 7 months

Delivery Date: August 30, 2019

1.3 Debriefings

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.



PART 2 - BIDDER INSTRUCTIONS

2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The **2003** (2018-05-22) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation with the modifications to the text below. If there is a conflict between the provisions of 2003 and this document, this document prevails.

- **In the complete text content (except Section 3)**
 - Delete: "Public Works and Government Services Canada" and
 - Insert: "Natural Resources Canada."
 - Delete: "PWGSC" and
 - Insert: "NRCan"
- **Section 2:**
 - Delete: "Suppliers are required to" and
 - Insert: "It is suggested that suppliers"
- **Subsection 1 of Section 8:** Delete Entirely
- **Under Subsection 2 of Section 20:** Not applicable

Subsection 5.4 of **2003**, Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Insert: 120 days

2.2 Submission of Bids

It is the Bidders responsibility to ensure that proposals are delivered to the following location, by the time and date indicated on page 1 of this RFP document:

Natural Resources Canada
Bid Receiving Unit (Mailroom)
588 Booth Street
1-107A
Ottawa, ON
K1A 0Y7
Attention: Abbas Khokhar

It is requested that the Bidder's name, return address, Request for Proposal Number, and Bid Closing Date appear legibly on the outside of the envelope containing the Bidder's proposal. Failure to do so may result in bids being misdirected. **NRCan will not assume responsibility for proposals directed to any other location.**



The onus is on the Bidder to ensure that the proposal is delivered to the location above. Not complying with the above instructions may result in NRCan's inability to ascertain reception date and/or to consider the bid prior to contract award. Therefore, NRCan reserves the right to reject any proposal not complying with these instructions.

2.2.1 Due to the nature of the bid solicitation, bids transmitted by facsimile or electronic mail to NRCan will not be accepted.

2.2.2 Due to the nature of the bid solicitation, bids transmitted by electronic mail to NRCan will not be accepted.

2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than 3 (three) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by Bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated and the enquiry can be answered to all Bidders. Enquiries not submitted in a form that can be distributed to all Bidders may not be answered by Canada.

2.4 Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in **Ontario**.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the Bidders.

2.5 Improvement of Requirement During Solicitation Period

Should bidders consider that the specifications or Statement of Work contained in the bid solicitation could be improved technically or technologically, bidders are invited to make suggestions, in writing, to the Contracting Authority named in the bid solicitation. Bidders must clearly outline the suggested improvement as well as the reason for the suggestion. Suggestions that do not restrict the level of competition nor favour a particular bidder will be given consideration provided they are submitted to the Contracting Authority at least three (3) days before the bid closing date. Canada will have the right to accept or reject any or all suggestions.



2.6 Bidders' Conference – Not Applicable

2.7 Optional Site Visit – Not Applicable

2.8 Basis for Canada's Ownership of Intellectual Property

Natural Resources Canada has determined that any intellectual property rights arising from the performance of the Work under the resulting contract will belong to Canada, on the following grounds:

(6.4.1) the main purpose of the contract, or of the deliverables contracted for, is to generate knowledge and information for public dissemination;



PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

Canada requests that Bidders provide their bid in separately bound sections as follows:

Section I: Technical Bid (1 hard copy)

Section II: Financial Bid (1 hard copy) in a separate file and document

Section III: Certifications (1 hard copy)

Prices should appear in the financial bid only. No prices should be indicated in any other section of the bid.

Canada requests that Bidders follow the format instructions described below in the preparation of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) format;
- (b) use a numbering system that corresponds to the bid solicitation.

Section I: Technical Bid

In their technical bid, Bidders should demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will meet these requirements. Bidders should demonstrate their capability and describe their approach in a thorough, concise and clear manner for carrying out the work.

The technical bid should address clearly and in sufficient depth the points that are subject to the evaluation criteria against which the bid will be evaluated. Simply repeating the statement contained in the bid solicitation is not sufficient. In order to facilitate the evaluation of the bid, Canada requests that Bidders address and present topics in the order of the evaluation criteria under the same headings. To avoid duplication, Bidders may refer to different sections of their bids by identifying the specific paragraph and page number where the subject topic has already been addressed.

Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Financial Proposal Form in Appendix "B". The total amount of Applicable Taxes must be shown separately.

Section III: Certifications

Bidders must submit the certifications required under Part 5.



PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

4.1.1 Technical Evaluation

Mandatory and point rated technical evaluation criteria are included in **Appendix “A” – Evaluation Criteria**.

4.2 Basis of Selection

4.2.1 Highest Combined Rating of Technical Merit and Price

- 1. To be declared responsive, a bid must:
 - a. comply with all the requirements of the bid solicitation; and
 - b. meet all mandatory criteria; and
 - c. obtain the required minimum of (60) sixty points overall for the technical evaluation criteria which are subject to point rating.
The rating is performed on a scale of (100) hundred points.

The table below illustrates an example where all three bids are responsive and the selection of the contractor is determined by a 60/40 ratio of technical merit and price, respectively. The total available points equal 135 and the lowest evaluated price is \$45,000 (45).

Basis of Selection - Highest Combined Rating Technical Merit (60%) and Price (40%)				
		Bidder 1	Bidder 2	Bidder 3
Overall Technical Score		115/135	89/135	92/135
Bid Evaluated Price		\$55,000.00	\$50,000.00	\$45,000.00
Calculations	Technical Merit Score	$115/135 \times 60 = 51.11$	$89/135 \times 60 = 39.56$	$92/135 \times 60 = 40.89$
	Pricing Score	$45/55 \times 40 = 32.73$	$45/50 \times 40 = 36.00$	$45/45 \times 40 = 40.00$
Combined Rating		83.84	75.56	80.89
Overall Rating		1st	3rd	2nd



PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

Bidders must provide the required certifications and additional information to be awarded a contract.

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default if any certification made by the Bidder is found to be untrue, whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority will render the bid non-responsive or constitute a default under the Contract.

5.1 Certifications Required with the Bid

Bidders must submit the following duly completed certifications as part of their bid.

5.1.1 Declaration of Convicted Offences

In accordance with the [Ineligibility and Suspension Policy \(http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html\)](http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html), the Bidder must provide with its bid the required documentation, as applicable, to be given further consideration in the procurement process.

5.2 Certifications Precedent to Contract Award and Additional Information

The certifications and additional information listed below should be submitted with the bid but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame specified will render the bid non-responsive.

5.2.1 Integrity Provisions – List of Names

In accordance with the [Ineligibility and Suspension Policy \(http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html\)](http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html), the Bidder must provide with its bid the required documentation, as applicable, to be given further consideration in the procurement process.

- Bidders who are incorporated, including those bidding as a joint venture, must provide a complete list of names of all individuals who are currently directors of the Bidder or, in the case of a private company, the owners of the company.
- Bidders bidding as sole proprietorship, as well as those bidding as a joint venture, must provide the name of the owner(s).
- Bidders bidding as partnerships do not need to provide lists of names.

Name of Bidder: _____

OR

Name of each member of the joint venture:



Member 1: _____
 Member 2: _____
 Member 3: _____
 Member 4: _____

Identification of the administrators/owners:

SURNAME	NAME	TITLE

5.2.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "[FCP Limited Eligibility to Bid](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)" list (http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) available from [Employment and Social Development Canada \(ESDC\) - Labour's](#) website.

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "[FCP Limited Eligibility to Bid](#)" list at the time of contract award.

5.2.3 Status and Availability of Resources

The Bidder certifies that, should it be awarded a contract as a result of the bid solicitation, every individual proposed in its bid will be available to perform the Work as required by Canada's representatives and at the time specified in the bid solicitation or agreed to with Canada's representatives. If for reasons beyond its control, the Bidder is unable to provide the services of an individual named in its bid, the Bidder may propose a substitute with similar qualifications and experience. The Bidder must advise the Contracting Authority of the reason for the substitution and provide the name, qualifications and experience of the proposed replacement. For the purposes of this clause, only the following reasons will be considered as beyond the control of the Bidder: death, sickness, maternity and parental leave, retirement, resignation, dismissal for cause or termination of an agreement for default.

If the Bidder has proposed any individual who is not an employee of the Bidder, the Bidder certifies that it has the permission from that individual to propose his/her services in relation to the Work to be performed and to submit his/her résumé to Canada. The Bidder must, upon request from the Contracting Authority, provide a written confirmation, signed by the individual, of the permission given to the Bidder and of his/her availability.



5.2.4 Education and Experience

The Bidder certifies that all the information provided in the résumés and supporting material submitted with its bid, particularly the information pertaining to education, achievements, experience and work history, has been verified by the Bidder to be true and accurate. Furthermore, the Bidder warrants that every individual proposed by the Bidder for the requirement is capable of performing the Work described in the resulting contract.

5.2.5 Former Public Servant

Contracts awarded to former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts awarded to FPSs, bidders must provide the information required below before contract award. If the answer to the questions and, as applicable the information required have not been received by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to comply with Canada's request and meet the requirement within the prescribed time frame will render the bid non-responsive.

Definitions

For the purposes of this clause, "former public servant" is any former member of a department as defined in the [Financial Administration Act](#), R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

- a. an individual;
- b. an individual who has incorporated;
- c. a partnership made of former public servants; or
- d. a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

"lump sum payment period" means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

"pension" means a pension or annual allowance paid under the [Public Service Superannuation Act](#) (PSSA), R.S., 1985, c. P-36, and any increases paid pursuant to the [Supplementary Retirement Benefits Act](#), R.S., 1985, c. S-24 as it affects the PSSA. It does not include pensions payable pursuant to the [Canadian Forces Superannuation Act](#), R.S., 1985, c. C-17, the [Defence Services Pension Continuation Act](#), 1970, c. D-3, the [Royal Canadian Mounted Police Pension Continuation Act](#), 1970, c. R-10, and the [Royal Canadian Mounted Police Superannuation Act](#), R.S., 1985, c. R-11, the [Members of Parliament Retiring Allowances Act](#), R.S. 1985, c. M-5, and that portion of pension payable to the [Canada Pension Plan Act](#), R.S., 1985, c. C-8.

Former Public Servant in Receipt of a Pension

As per the above definitions, is the Bidder a FPS in receipt of a pension? **Yes** () **No** ()

If so, the Bidder must provide the following information, for all FPSs in receipt of a pension, as applicable:



- a. name of former public servant; _____
- b. date of termination of employment or retirement from the Public Service. _____

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with [Contracting Policy Notice: 2012-2](#) and the [Guidelines on the Proactive Disclosure of Contracts](#).

Work Force Adjustment Directive

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive? **Yes** () **No** ()

If so, the Bidder must provide the following information:

- a. name of former public servant; _____
- b. conditions of the lump sum payment incentive; _____
- c. date of termination of employment; _____
- d. amount of lump sum payment; _____
- e. rate of pay on which lump sum payment is based; _____
- f. period of lump sum payment including:
 - start date _____
 - end date _____
 - and number of weeks _____
- g. number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

Professional fees	Amount
_____	_____
_____	_____

For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including Applicable Taxes.

5.2.6 Aboriginal Designation

Who is eligible?

- a) An Aboriginal business, which can be:
 - i. a band as defined by the Indian Act
 - ii. a sole proprietorship
 - iii. a limited company
 - iv. a co-operative



- v. a partnership
- vi. a not-for-profit organization

in which Aboriginal persons have at least 51 percent ownership and control,

OR

- b. A joint venture consisting of two or more Aboriginal businesses or an Aboriginal business and a non-Aboriginal business(es), provided that the Aboriginal business(es) has at least 51 percent ownership and control of the joint venture.

When an Aboriginal business has six or more full-time employees at the date of submitting the bid, at least thirty-three percent of them must be Aboriginal persons, and this ratio must be maintained throughout the duration of the contract.

The bidder must certify in its submitted bid that it is an Aboriginal business or a joint venture constituted as described above.

- Our Company is NOT an Aboriginal Firm, as identified above.
- Our Company is an Aboriginal Firm, as identified above.



PART 6 - SECURITY REQUIREMENTS

6.1 Security Requirements

There are no security requirements associated with this requirement.



PART 7 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

7.1 Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work at Annex "A" and the Contractor's technical bid entitled _____, dated _____. (to be completed at contract award)

7.2 Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual)(<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

7.2.1 General Conditions

[2035](#) (2018-06-21), General Conditions - Higher Complexity - Services, apply to and form part of the Contract.

- As applicable, replace references to Public Works and Government Services Canada (PWGSC) with Natural Resources Canada (NRCan).

7.2.2 Supplemental General Conditions

The following clauses apply to this contract:

[4007](#) (2010-08-16), Canada to Own Intellectual Property Rights in Foreground Information

7.3 Dispute Resolution

Mediation

If a dispute arising from this contract cannot be settled amicably through negotiation, then the parties agree in good faith to submit the dispute to mediation as administered by the Arbitration and Mediation Institute of Canada Inc. (AMIC). The parties acknowledge receipt of the rules of AMIC. The cost of mediation shall be borne equally by the parties.

Arbitration

If the parties cannot resolve the dispute through mediation within sixty (60) days, the parties agree to submit the dispute to arbitration pursuant to the Commercial Arbitration Act (Canada). The party requesting such arbitration shall do so by written notice to the other party/parties. The cost of the arbitration and fees of the arbitrator shall be borne equally by the parties. The arbitration shall take place in the city where the contractor carries on business before a single arbitrator to be chosen jointly by the parties. If the parties cannot agree on the choice of arbitrator within thirty (30) days of written notice to submit the dispute to arbitration, each party will choose a representative who will select the arbitrator. The parties may determine the procedure to be followed by the arbitrator in conducting the proceedings, or may ask the arbitrator to do so. The arbitrator shall issue a written award within thirty (30) days of hearing the parties. The award may be entered in any court having jurisdiction and enforced as a judgment of that court.

Meaning of "Dispute"



The parties agree that the word "dispute" in this clause refers to a dispute of fact or of law, other than a dispute of public law.

The parties understand that the Procurement Ombudsman appointed pursuant to Subsection 22.1(1) of the *Department of Public Works and Government Services Act* will, on request or consent of the parties to participate in an alternative dispute resolution process to resolve any dispute between the parties respecting the interpretation or application of a term and condition of this contract and their consent to bear the cost of such process, provide to the parties a proposal for an alternative dispute resolution process to resolve their dispute. The Office of the Procurement Ombudsman may be contacted by telephone at 1-866-734-5169 or by e-mail at boa.opo@boa.opo.gc.ca.

7.4 Security Requirements

7.4.1 There is no security requirement applicable to this Contract.

7.5 Term of Contract

7.5.1 Period of the Contract

The period of the Contract is from date of Contract to August 30, 2019 inclusive

7.6 Comprehensive Land Claims Agreements (CLCAs) – Not Applicable

7.7 Authorities

7.7.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: **Abbas Khokhar**
Title: Procurement Officer
Organization: Natural Resources Canada
Address: 580 Booth Street
Ottawa, ON K1A 0E4
Telephone: 343-292-7009
Facsimile: 613-947-5477
E-mail address: abbas.khokhar@canada.ca

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

7.7.2 Project Authority (to be provided at contract award)

The Project Authority for the Contract is:

Name:
Title:
Organization:
Address:
Telephone:
Facsimile:
E-mail address:



The Project Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Project Authority; however, the Project Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

7.7.3 Contractor's Representative (to be provided at contract award)

Name:

Title:

Organization:

Address:

Telephone:

Facsimile:

E-mail address

7.8 Proactive Disclosure of Contracts with Former Public Servants

By providing information on its status, with respect to being a former public servant in receipt of a [Public Service Superannuation Act](#) (PSSA) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with [Contracting Policy Notice: 2012-2](#) of the Treasury Board Secretariat of Canada.

7.9 Payment

7.9.1 Basis of Payment – Firm Price.

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm price as specified in Annex B for a cost of \$ _____ (amount inserted at contract award). Customs duties are included and Applicable Taxes are extra.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

7.9.2 Method of Payment

Multiple Payments

Canada will pay the Contractor upon completion and delivery of units in accordance with the payment provisions of the Contract if:

- a. an accurate and complete invoice and any other documents required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- b. all such documents have been verified by Canada;
- c. the Work delivered has been accepted by Canada.

7.10 Invoicing Instructions

Invoices shall be submitted using one of the following methods:

E-mail:



nrcan.invoiceimaging-servicedimageriedesfactures.nrcan@canada.ca

Note: Attach "PDF" file. No other formats will be accepted

OR

Fax:

Local NCR region: **613-947-0987**

Toll-free: **1-877-947-0987**

Note: Use highest quality settings available.

Please do not submit invoices using more than one method as this will not expedite payment.

Invoices and all documents relating to a contract must be submitted on the Contractor's own form and shall bear the following reference numbers: Contract number: _____ (Inserted at Contract Award).

Invoicing Instructions to suppliers: <http://www.nrcan.gc.ca/procurement/3485>

7.11 Certifications

7.11.1 Compliance

The continuous compliance with the certifications provided by the Contractor in its bid and the ongoing cooperation in providing additional information are conditions of the Contract. Certifications are subject to verification by Canada during the entire period of the Contract. If the Contractor does not comply with any certification, fails to provide the additional information, or if it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

The Contractor understands and agrees that, when an Agreement to Implement Employment Equity (AIEE) exists between the Contractor and Employment and Social Development Canada (ESDC)-Labour, the AIEE must remain valid during the entire period of the Contract. If the AIEE becomes invalid, the name of the Contractor will be added to the "[FCP Limited Eligibility to Bid](#)" list. The imposition of such a sanction by ESDC will constitute the Contractor in default as per the terms of the Contract.

7.12 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

7.13 Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) the supplemental general conditions [4007](#) (2010-08-16) - Canada to Own Intellectual Property Rights in Foreground Information
- (c) the general conditions [2035](#) (2018-06-21), General Conditions - Higher Complexity – Services;
- (d) Annex A, Statement of Work;



- (e) Annex B, Basis of Payment;
- (f) the Contractor's bid dated _____,

7.14 Foreign Nationals (Canadian Contractor or Foreign Contractor)

SACC Manual clause A2000C _____ (*insert date*) Foreign Nationals (Canadian Contractor)

OR

SACC Manual clause A2001C _____ (*insert date*) Foreign Nationals (Foreign Contractor)

7.15 Insurance

The Contractor is responsible for deciding if insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any insurance acquired or maintained by the Contractor is at its own expense and for its own benefit and protection. It does not release the Contractor from or reduce its liability under the Contract.

7.16 Contract Administration

The parties understand that the Procurement Ombudsman appointed pursuant to Subsection 22.1(1) of the *Department of Public Works and Government Services Act* will review a complaint filed by [*the supplier or the contractor or the name of the entity awarded this contract*] respecting administration of this contract if the requirements of Subsection 22.2(1) of the *Department of Public Works and Government Services Act* and Sections 15 and 16 of the *Procurement Ombudsman Regulations* have been met, and the interpretation and application of the terms and conditions and the scope of the work of this contract are not in dispute. The Office of the Procurement Ombudsman may be contacted by telephone at 1-866-734-5169 or by e-mail at boa.opo@boa.opo.gc.ca.



ANNEX "A" - STATEMENT OF WORK

SW1 Title

Application of Supercritical Fluid Extraction to extract and recover REE

SW2 Background

In recent years, a steady, reliable, and secure supply of critical metals has become increasingly important to major industrialized economies that seek to sustain their industrial base and develop advanced technologies, such as clean energy. In light of this, Canada, with its significant critical metal reserves, has an opportunity to supply some of the global demand for critical metals. However, to transition from promising mineral deposits to marketable products, investment in fundamental R&D and expertise is needed to address the complex technological challenges around the production, separation and processing of critical metals, and to better understand the global market for these key commodities.

Rare earth elements (REE) represent an opportunity for Canada to enter an emerging and globally strategic market. However, the metallurgy for Canadian ores containing REE involves a complex sequence of individual separation, refinement, alloying and formation stages before they can be used in the production of permanent magnets, consumer electronics and other high value-added high-tech products. Natural Resources Canada has been directed through Budget 2015 to undertake a significant effort to support the development of rare earth elements and chromite in order to maximize Canadian value and benefits from these deposits.

Supercritical fluid extraction (SCFE) is an emerging green technology that recently has been used for the recovery of various metals, and is gaining interest in the extraction and separation of lanthanides and actinides. This is a fast growing field due to the desirable properties of supercritical fluids (SCFs) as solvents.

The objective of this proposal will be to evaluate the SCFE technology using CO₂ as the solvent with TBP/HNO₃ adduct as the chelating agent for its potential to extract rare earth elements from mineral samples. Three mineral samples will be used as feeds for this project, namely a mineral concentrate, a pre-treated mineral concentrate, and a leach residue. Supercritical CO₂ containing TBP/HNO₃ complex would be used to extract REE directly from the solid matrices. The extraction results on the three feeds will be analyzed and compared in order to understand the REE extraction achievable from each. Parameters that effect the extraction recovery and kinetics will also be investigated.

SW3 Project Requirements

SW3.1 Tasks, Deliverables, Milestones and Schedule

The following tasks are proposed:

- 1) Perform a literature review on the application of SCFE technology in REE extraction from primary sources. This should include the extraction of REE from ore samples, the separation of actinides from lanthanides, the separation of REE (fractionation) into groups or individual elements, and various potential chelating agents.
- 2) Design and perform experiments using supercritical CO₂ to extract REE from the three (3) feed samples. Conduct a full mass balance using the solution and solid test products to calculate and compare the recoveries. The three (3) feed samples to be provided are:



- mineral concentrate
 - pre-treated (acid baked) concentrate
 - leach residue produced after acid-baking and water-leaching of the concentrate
- 3) Characterize chelating agents and their effect on the extraction recovery and kinetics. Studies should include, but not limited to:
- a. Phase-equilibrium behaviour of the TBP/HNO₃ adduct in supercritical CO₂
 - b. TBP/HNO₃ adduct compositions (mol/L H⁺ in adduct) and concentrations in CO₂ (mol% adduct in supercritical phase)
 - c. Water and acid content of various TBP/HNO₃ adducts and their stoichiometries
 - d. Applicability of other chelating agents besides TBP/HNO₃
- 4) Evaluate the applicability and technical feasibility of the SCFE process in the extraction of REE. Discuss further area of work in SCFE for REE processing.

Deliverables:

Deliverable 1: An initial meeting within ten (10) working days of signing the contract. The date, type (telephone, video-conference, WebEx, in person) and place of the meeting (if in person) will be decided jointly between NRCan and the supplier. The objective of the meeting is to discuss the proposal, in general, and to clarify the schedule and the work breakdown table.

Deliverable 2: Progress Review Meetings as per schedule determined during Deliverable 1.

Deliverable 3: Witness points requiring NRCan’s attendance as per schedule determined during Deliverable 1.

Deliverable 4: Interim Report. The Contractor must provide one electronic copy of the interim report, which must contain the literature review on SCFE and all work completed to date as outlined in the Statement of Work, by March 29, 2019.

Deliverable 5: Draft Report. The Contractor must provide one electronic copy of the draft report, which must contain all the study findings as per the Statement of Work by August 16, 2019. Natural Resources Canada will review and provide comments to the Contractor within five (5) working days after receiving the draft report.

Deliverable 6: Final Report. Submission of the final report (in English), which must address all changes/comments provided by NRCan in Deliverable 5. One electronic copy must be received by NRCan by August 30, 2019.

Deliverable 7: All test products including solids and solutions, properly labelled, are to be shipped to NRCan-CanmetMINING, or an address that will be provided by NRCan-CanmetMINING, at the completion of this work.

Schedule:

Task	Dates
Initial Meeting (Deliverable #1)	Within 10 working days of Contract Award Date (CAD).
Progress Meetings (Deliverable #2)	As per schedule decided in Deliverable 1



Witness Points (Deliverable #3)	As per schedule decided in Deliverable 1
Interim Report (Deliverable #4)	March 29, 2019
Draft Report (Deliverable #5)	August 16, 2019
Final report (Deliverable #6)	August 30, 2019

1. Taxes as Related to Bids Received

2. Funding Limitation

The maximum funding available for the Contract resulting from the bid solicitation is **\$50,000.00** (Applicable Taxes extra). Bids valued in excess of this amount will be considered non-responsive. Projects will be evaluated based on the highest technical score within budget.



ANNEX "B" - BASIS OF PAYMENT

All-inclusive firm price to perform the work is in Canadian funds, applicable taxes excluded. Any Travel and Living Expenses and other miscellaneous expenses must be included in the firm price.

DESCRIPTION	Dates	FIRM PRICE (applicable taxes excluded)
Initial Meeting (Deliverable #1)	Within 5 working days of Contract Award Date (CAD).	\$ _____
Progress Meetings (Deliverable #2)	As per schedule decided in Deliverable 1	\$ _____
Interim Report (Deliverable #4)	March 29, 2019	\$ _____
Draft Report (Deliverable #5)	August 16, 2019	\$ _____
Final Report (Deliverable #6)	August 30, 2019	\$ _____
Total Firm Price :		\$ _____



APPENDIX “A” - EVALUATION CRITERIA

Bidders are advised to address these criteria in the following order and in sufficient depth in their proposals to enable a thorough assessment. NRCan’s assessment will be based solely on the information contained within the proposal. NRCan may confirm information or seek clarification from bidders.

Bidders are advised that only listing experience without providing any supporting data to describe responsibilities, duties and relevance to the criteria will not be considered demonstrated for the purpose of this evaluation.

The Bidder should provide complete details as to where, when (month and year) and how (through which activities/ responsibilities) the stated qualifications/experience were obtained. Experience gained during formal education shall not be considered work experience. All criteria for work experience shall be obtained in a legitimate work environment as opposed to an educational setting. Co-op terms are considered work experience provided they are related to the required services.

Bidders are also advised that the month(s) of experience listed for a project whose time frame overlaps that of another referenced project will only be counted once. For example: project one time frame is July 2001 to December 2001; project two time frame is October 2001 to January 2002; the total months of experience for these two project references is seven (7) months.

1. TECHNICAL CRITERIA

1.1 MANDATORY EVALUATION CRITERIA

Item	Mandatory Requirement	Compliant (Yes/No)	Reference to Bidder’s Proposal
M1	<p>Work Plan</p> <p>The Bidder MUST provide a proposal including a detailed work plan for fulfilling the mandate, specifically describing the work to be done to meet the requirements and a full description of how all deliverables described in this Statement of Work will be met.</p> <p>The work plan should include:</p> <ul style="list-style-type: none"> - Identification of the Project Manager (primary contact); - Detailed information on the work to be performed, a complete description of the activities to be carried out, the approach to completing the activities, and resources name(s) allocated for completing each task. - A table showing the breakdown of all the tasks to be performed, the resource name(s) allocated for each, the anticipated number of work hours to complete each task, with the anticipated schedule and all deliverable dates (as weeks after contract signing). 	<input type="checkbox"/> Yes <input type="checkbox"/> No	



Item	Mandatory Requirement	Compliant (Yes/No)	Reference to Bidder's Proposal
M2	<p>Bidder's Proposed Resources Experience</p> <p>Each of the following MUST be met and clearly demonstrated:</p> <ol style="list-style-type: none"> 1) A project technical lead who will be responsible for the technical content, findings and recommendations of this study and report. 2) The project lead must have a Post Graduate Degree (Masters or PhD) from a recognized university and should provide the Name of University, Department, and Year obtained. 3) The project lead must have recent experience (within the last 5 years, up to the date of bid closing on at least two (2) RRE Rare Earth projects of similar nature as detailed "Annex A" statement of work. 	<input type="checkbox"/> Yes <input type="checkbox"/> No	
M3	The bidder must provide at least one (1) resource with experience performing literature searches, organizing and compiling of data, and assessing the reliability of technical data (Minimum two (2) projects within the last ten (10) years).		
M4	The bidder must provide at least one (1) resource with experiences using Supercritical fluid extraction (SCFE) SCFE reactor (Minimum two (2) projects within the last five (5) years).		
M5	The bidder must provide a curriculum vitae (CV) for each proposed resource. For experience, the Bidder must indicate the name of the resource and demonstrate how they meet the criteria in the curriculum vitae (CV). An individual can address more than one of the items above if qualified.		
M6	Bidder must identify and demonstrate access to a suitable SCFE reactor, equipped with a modifier pump.		

Item	Point Rated Requirement	Points Breakdown for each requirement:	Max Points	Illustrated Compliance
R1	<p>Bidder's Proposed Resources Experience</p> <p>Experience conducting literature searches, organizing and compiling of data, and assessing the reliability of technical data</p>	Description demonstrates the relevance experience (up to 4 points per project for total of 8). Breakdown of points	8	



Item	Point Rated Requirement	Points Breakdown for each requirement:	Max Points	Illustrated Compliance
	Two (2) project examples with brief description were provided under M3.	for each project, as follows: <ul style="list-style-type: none"> • Description and relevance of project (2 point) • Level of involvement in the project (2 point) 		
R2	Bidder's Proposed Resources Experience: Experiences leading research project related to SCFE. Experiences in REE processing is an asset. Two (2) project examples with brief description to be provided under M4.	Description demonstrates the relevance of the experience (up to 12 points per project for total of 24 points). Breakdown of points for each project, as follows: <ul style="list-style-type: none"> • Description and relevance of project (3 point) • Level of involvement in the project (6 point) • Project related to REE (3 point) 	24	
R3	Bidder's Proposed Resources Experience Experiences performing experiments using a SCFE reactor. Two (2) project examples with brief description to be provided under M4.	Description demonstrates the relevance experience (up to 6 points per project for total of 12). Breakdown of points for each project, as follows: <ul style="list-style-type: none"> • Description and relevance of project (3 point) • Level of involvement in the project (3 point) 	12	
R4	Work Plan The Bidder's plan clearly demonstrates an approach that will lead to the successful	Bidder's plan clearly demonstrates their approach to completing all the	44	



Item	Point Rated Requirement	Points Breakdown for each requirement:	Max Points	Illustrated Compliance
	<p>completion of the project, and specifies the resource required for completing each tasks:</p> <ol style="list-style-type: none"> 1) Review the application of SCFE on REE 2) Design and perform experiments, calculating extraction recoveries on each of the three (3) feeds 3) Investigate chelating agents and their effect on REE extraction 4) Evaluate the technical feasibility of SCFE on REE, discuss further area of research 	<p>tasks as outlined in their work plan (11 points per task up to 44). Breakdown of points for each task, as follows:</p> <ul style="list-style-type: none"> • Demonstrates understanding of the task and its relevance (3 points) • Clarity in explaining the approach in detail, includes proposed modifications beyond those listed in the SOW to improve the experimental design (6 points) • Allocation of resources (2 points) 		
R5	<p>Work Plan</p> <p>Bidder's plan clearly identifies for each tasks:</p> <ul style="list-style-type: none"> • the number of work hours anticipated, • schedule and deliverable dates, <u>in table format</u>. <p>Bidder's plan must also include strategies for overcoming challenges and ensuring deliverables are met on time.</p>	<p>Bidder's plan clearly illustrates the level of effort for each tasks, schedule and deliverable dates, as outlined in their work plan:</p> <ul style="list-style-type: none"> • Provided the number of work hours for each tasks (4 points) • Included schedule and deliverable dates (4 points) • Included strategies for meeting the deliverables time (4 points) 	12	
Total Points Available			100	
Total Points Needed to be Considered Compliant (60%)			60	



2. FINANCIAL CRITERIA

2.1 MANDATORY FINANCIAL CRITERIA

Bidders must provide financial details as requested in this appendix. Proposals which do not contain pricing details as requested below shall be considered incomplete and non-responsive.

2.1.1 FUNDING LIMITATION

The maximum funding available for the Contract resulting from the bid solicitation is \$50,000.00 (Applicable Taxes extra). Bids valued in excess of this amount will be considered non-responsive. This disclosure does not commit Canada to pay the maximum funding available.

This maximum **included a) the Price to perform the Work, b) any Travel and Living and c) Miscellaneous Expenses that may be required.**

Any bids received in excess of this maximum funding will be automatically deemed non-responsive and will not be evaluated.

2.1.2 COST BREAKDOWN

It is mandatory to present a cost breakdown to support the Financial Proposal (Appendix "B" - Financial Proposal Form).

DESCRIPTION	FIRM UNIT COST	LEVEL OF EFFORT	COST \$
			\$ _____
			\$ _____
Total			\$ _____



APPENDIX “B” – FINANCIAL PROPOSAL FORM

1. FIRM PRICE

Bidder tendered all-inclusive firm price to perform the work is Canadian funds, applicable taxes excluded. Any Travel and Living Expenses and other miscellaneous expenses must be included in the firm price.

DESCRIPTION	FIRM PRICE (applicable taxes excluded)
	\$ _____
A - Total Firm Price (taxes extra):	\$ _____