

**RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:**
**Bid Receiving - PWGSC / Réception des
soumissions - TPSGC**
100-167 Lombard Avenue
Winnipeg
Manitoba
R3B 0T6
Bid Fax: (204) 983-0338

REQUEST FOR PROPOSAL DEMANDE DE PROPOSITION

**Proposal To: Public Works and Government
Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Proposition aux: Travaux Publics et Services
Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

Comments - Commentaires

Title - Sujet Tundra Mine Care and Maintenance	
Solicitation No. - N° de l'invitation EW699-151890/A	Date 2015-02-27
Client Reference No. - N° de référence du client PWGSC-EW699-151890	
GETS Reference No. - N° de référence de SEAG PW-\$GMP-010-6322	
File No. - N° de dossier GMP-4-37239 (010)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2015-03-19	Time Zone Fuseau horaire Central Daylight Saving Time CDT
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Kozak, Tammy	Buyer Id - Id de l'acheteur gmp010
Telephone No. - N° de téléphone (204) 807-0189 ()	FAX No. - N° de FAX (204) 983-7796
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: DEPARTMENT OF PUBLIC WORKS AND GOVERNMENT SERVICES CANADA ATB PLACE, NORTH TOWER 10025 JASPER AVE EDMONTON Alberta T5J1S6 Canada	

Instructions: See Herein

Instructions: Voir aux présentes

Vendor/Firm Name and Address

**Raison sociale et adresse du
fournisseur/de l'entrepreneur**

Issuing Office - Bureau de distribution

Public Works and Government Services Canada/Travaux
publics et Services gouvernementaux Canada
Suite 1650
635 - 8th Ave. S.W.
Bureau 1650
635 - 8e avenue, SO
Calgary
Calgary
Alberta
T2P 3M3

Delivery Required - Livraison exigée See Herein	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

Solicitation No. - N° de l'invitation

EW699-151890/A

Client Ref. No. - N° de réf. du client

PWGSC-EW699-151890

Amd. No. - N° de la modif.

File No. - N° du dossier

GMP-4-37239

Buyer ID - Id de l'acheteur

gmp010

CCC No./N° CCC - FMS No/ N° VME

See Attached Document

Care and Maintenance Activities

At

Tundra Mine, Northwest Territories

For

Project Number:R.0147137.001

Solicitation Number:EW699-151890/A

IMPORTANT NOTICE TO BIDDERS

TWO-ENVELOPE BID

This Bid shall be submitted following a “two-envelope” procedure. Refer to SI06 of the Special Instructions to Bidders.

DEPARTMENTAL REPRESENTATIVE’S AUTHORITY

See related changes to GC2.1 of R2820D that have been included in the Standard Acquisition Clauses and Conditions (SACC).

INSURANCE TERMS

The Certificate of Insurance and its instructions has been replaced see Annex B. (Completed certificate is NOT required at bid closing).

SUPPORT THE USE OF APPRENTICES

Through Canada’s Economic Action Plan 2013, the Government of Canada Proposes to support the employment of apprentices in federal construction projects. Refer to SI18.

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R2710T GENERAL INSTRUCTIONS TO BIDDERS (GI) (2014-09-25)

The following sections of clause R2710T are set out in Web site;

<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/R>

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SPECIAL INSTRUCTIONS TO BIDDERS (SI)

SI01 INTRODUCTION

1. Public Works and Government Services Canada (PWGSC) intends to retain a Contractor to provide construction services for the project as set out in this Request for Proposal (RFP).
2. Bidders responding to this RFP are requested to submit a full and complete quotation (refer to SI06 'Submission of Bid'). The bid will cover not only the qualifications, experience and organization of the Bidder (Envelope 1 - Qualifications), but also the pricing and terms offered (Envelope 2 - Price).

SI02 INTEGRITY PROVISIONS – ASSOCIATED INFORMATION

By submitting a bid, the Bidder certifies that the Bidder and its Affiliates are in compliance with the provisions as stated in GI01 of Integrity Provisions – Bid Security Requirements, R2710T. The associated information required within Integrity Provisions will assist Canada in confirming that the certifications are true.

SI03 BID DOCUMENTS

1. The following are the bid documents:
 - a. Request for Proposal – Page 1
 - b. Special Instructions to Bidders;
 - c. General Instructions - Construction Services - Bid Security Requirements R2710T (2014-09-25);
 - d. Clauses & Conditions identified in "Contract Documents";
 - e. Drawings and Specifications;
 - f. Bid and Acceptance Form and related Appendix(s); and
 - g. Any amendment issued prior to solicitation closing.

Submission of a bid constitutes acknowledgement that the Bidder has read and agrees to be bound by these documents.

2. General Instructions - Construction Services - Bid Security Requirements R2710T is incorporated by reference and is set out in the Standard Acquisition Clauses and Conditions (SACC) Manual, issued by Public Works and Government Services Canada (PWGSC). The SACC Manual is available on the PWGSC Web site:

<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/R>

SI04 ENQUIRIES DURING THE SOLICITATION PERIOD

1. Enquiries regarding this bid must be submitted in writing to the Contracting Officer named on the Request for Proposal - Page 1 as early as possible within the solicitation period. Except for the approval of alternative materials as described in GI15 of R2710T, enquiries should be received no later than five (5) calendar days prior to the date set for solicitation closing to allow sufficient time to provide a response. Enquiries received after that time may not result in an answer being provided.
2. To ensure consistency and quality of the information provided to Bidders, the Contracting Officer shall examine the content of the enquiry and shall decide whether or not to issue an amendment.

3. All enquiries and other communications related to this bid sent throughout the solicitation period are to be directed ONLY to the Contracting Officer named on the Request for Proposal - Page 1. Failure to comply with this requirement may result in the bid being declared non-responsive.

SI05 BIDDERS' TELECONFERENCE

A bidders' teleconference will be held March 10th, at 10:30 am CST. The scope of the requirement outlined in the bid solicitation will be reviewed during the conference and questions will be answered. It is recommended that bidders who intend to submit a bid attend.

Bidders are requested to register via email Contracting Authority to confirm attendance and receive the call in information. Bidders are requested to provide the person(s) who will be attending and a list of issues they wish to table by 3:00pm Friday March 06, 2015.

Any clarifications or changes to the bid solicitation resulting from the bidders' conference will be included as an amendment to the bid solicitation. Bidders who do not attend will not be precluded from submitting a bid.

SI06 SUBMISSION OF BID

Section GI09 of R2710T is replaced by the following:

1. The bid shall be submitted following a "two-envelope" procedure in which the Bidder submits the "Technical, Management & Organizational and Aboriginal Opportunities Consideration" components of their bid in envelope 1 (**original and four (4) copies**) and the Bid and Acceptance Form and any required associated document(s) in a envelope 2 (**original only**). Both envelopes shall be enclosed and sealed together in a third envelope, the bid envelope. All envelopes are to be provided by the Bidder.

Note: Bid Security to be included in envelope 1.

2. The bid envelope shall be addressed and submitted to the office designated on the Front Page "Request for Proposal" for the receipt of the bids. The bid must be received on or before the date and time set for solicitation closing. Prior to submitting the bid, the Bidder shall ensure that the following information is clearly printed or typed on the face of the bid envelope:
 - a. Name of Project & Solicitation Number;
 - b. Name of Bidder;
 - c. Return address; and
 - d. Closing Date and Time.
3. All document(s), shall be enclosed and sealed in an envelope with the following information clearly printed or typed on the face of the envelope:
 - a. Envelope 1 - Technical, Management & Organizational Qualifications and Aboriginal Opportunities Consideration;
 - b. Solicitation Number; and
 - c. Name of Bidder.
4. The Bid and Acceptance Form, and any required associated document(s), shall be enclosed and sealed in an envelope with the following information clearly printed or typed on the face of the envelope:
 - a. Envelope 2 - Price
 - b. Solicitation Number; and
 - c. Name of Bidder.

The bid shall be in Canadian currency. Exchange rate fluctuation protection is not offered. Any request for exchange rate fluctuation protection shall not be considered.

5. Timely and correct delivery of bids is the sole responsibility of the Bidder.
6. Electronic Bids (including faxed bids) Will Not Be Accepted due to the nature of this solicitation.

SI07 REVISION OF BID

A bid may be revised by letter or facsimile in accordance with GI10 of R2710T. The facsimile number for receipt of revisions is (204) 983-0338.

SI08 OPENING OF BIDS / EVALUATION

1. Due to the nature of this solicitation, there will be no public bid opening.
2. Envelope 1 – Technical, Management & Organizational Qualifications and Aboriginal Opportunities Considerations (AOC) - will be opened in private: this envelope will be opened first to evaluate the submittal requirements. Requirements will be evaluated on a Pass or Fail basis. Failure to meet any or all of the mandatory requirement(s) will render the bid non-compliant and no other consideration will be given to the bid.
3. Each rated evaluation criterion has a point allotment that reflects its importance in bid submissions. The degree to which the bid satisfies the requirement of each criterion will be assessed and a score will be assigned ranging from 0 to the total point allotment, with 0 meaning the bid completely fails to satisfy the requirements, and the total allotment meaning the bid fully meets the outlined criterion.
4. The Technical Portion has a mandatory minimum pass mark of 60%. Each bid must achieve a minimum of 60% overall score for the Technical portion, and a minimum of 60% overall score for the Management and Organizational portion. Bids that fail to achieve the minimum score in either portion will be considered technically unacceptable and will be given no further consideration.
5. The contractor will be selected on the basis of the Assessed Best Value with the highest combined rating of Merit - 70% (Technical, Management and Organizational and Aboriginal Opportunities Consideration) and Cost - 30% (Price)
6. Additional points will be assessed for the Aboriginal Opportunities Consideration (AOC) portion with no minimum pass mark. However, it does add additional points to the maximum total points available overall.
7. Envelope 2 - Price: Only those envelopes from Bidder's that meet the mandatory requirements of the Technical, Management & Organizational Qualifications shall be considered. Envelope 2 submittals will be evaluated against the mandatory requirements, failure to comply with any or all of the mandatory requirement(s) will render the bid non-compliant and no other consideration will be given to the bid.
8. Refer to Annex G Evaluation Criteria

SI09 SELECTION METHOD – 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 technical evaluation criteria; and
 - (c) The Technical Portion has a mandatory minimum pass mark of 60%. Each bid must achieve a minimum of 60% overall score for the Technical portion (the rating is performed on a scale of 165 points – pass mark is 99), and a minimum of 60% overall score for the Management and Organizational portion (rating is performed on a scale of 165 points – pass mark is 99 points). Bids that fail to achieve the minimum score pass mark in either portion will be considered technically unacceptable and will be given no further consideration.
2. Bids not meeting (a) or (b) or (c) will be declared non-responsive. Neither the responsive bid that receives the highest number of points nor the one that proposed the lowest price will necessarily be accepted. The contract will be awarded based on a determination of best value taking into account both the technical merit of the proposals and the price evaluations. To arrive at an overall score achieved by a firm, a weighting has been established whereby technical merit will be valued at 70% of the bid and price at 30%. The Contract will be awarded to the bidder with the highest Total Score.

Technical Score = $\frac{\text{Bidder' Points}}{\text{Maximum Points}} \times 70\%$

Cost Score = $\frac{\text{Lowest Bid}}{\text{Bidder' Cost}} \times 30\%$

Total Score = Technical Score + Cost Score

SI10 COMPLETION OF SUBMISSION

The Bidder shall base the Bid on the applicable bid documents listed in the Special Instructions to Bidders. It is the responsibility of the Bidder to obtain clarification on any terms, conditions or technical requirements contained in this document.

SI11 INSUFFICIENT FUNDING

In the event that the lowest compliant bid exceeds the amount of funding allocated for the Work, Canada in its sole discretion may

- a. cancel the solicitation; or
- b. obtain additional funding and award the Contract to the Bidder submitting the lowest compliant bid; and/or
- c. negotiate a reduction in the bid price and/or scope of work of not more than 15% with the Bidder submitting the lowest compliant bid. Should an agreement satisfactory to Canada not be reached, Canada shall exercise option (a) or (b).

SI12 DEBRIEFINGS

After contract award, 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 of receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

SI13 BID VALIDITY PERIOD

1. Canada reserves the right to seek an extension to the bid validity period prescribed in BA04 of the Bid and Acceptance Form. Upon notification in writing from Canada, Bidders shall have the option to either accept or reject the proposed extension.

2. If the extension referred to in paragraph 1. of SI14 is accepted, in writing, by all those who submitted bids, then Canada shall continue immediately with the evaluation of the bids and its approvals processes.
3. If the extension referred to in paragraph 1. of SI14 is not accepted in writing by all those who submitted bids then Canada shall, at its sole discretion, either
 - a. continue to evaluate the bids of those who have accepted the proposed extension and seek the necessary approvals; or
 - b. cancel the Request for Proposal.
4. The provisions expressed herein do not in any manner limit Canada's rights in law or under GI11 of R2710T.

SI14 CONSTRUCTION DOCUMENTS

The successful Contractor will be provided with (1) paper copy of the drawings, the specifications and the amendments upon acceptance of the offer. Additional copies, up to a maximum of one (1), will be provided free of charge upon request by the Contractor. Obtaining more copies shall be the responsibility of the Contractor including costs.

SI15 PUBLIC WORKS AND GOVERNMENT SERVICES CANADA AND DEFENCE CONSTRUCTION CANADA APPRENTICE PROCUREMENT INITIATIVE

1. To encourage employers to participate in apprenticeship training, Contractors bidding on construction and maintenance contracts by Public Works and Government Services Canada (PWGSC) are being asked to sign a voluntary certification, signaling their commitment to hire and train apprentices.
2. Canada is facing skills shortages across various sectors and regions, especially in the skilled trades. Equipping Canadians with skills and training is a shared responsibility. In Economic Action Plan (EAP) 2013, the Government of Canada made a commitment to support the use of apprentices in federal construction and maintenance contracts. Contractors have an important role in supporting apprentices through hiring and training and are encouraged to certify that they are providing opportunities to apprentices as part of doing business with the Government of Canada.
3. Through the Economic Action Plan 2013 and support for training programs, the Government of Canada is encouraging apprenticeships and careers in the skilled trades. In addition, the government offers a tax credit to employers to encourage them to hire apprentices. Information on this tax measure administered by the Canada Revenue Agency can be found at: www.cra-arc.gc.ca. Employers are also encouraged to find out what additional information and supports are available from their respective provincial or territorial jurisdiction.
4. Signed certifications (Appendix 4) will be used to better understand contractor use of apprentices on Government of Canada maintenance and construction contracts and may inform future policy and program development.
5. The Contractor hereby certifies the following:
In order to help meet demand for skilled trades people, the Contractor agrees to use, and require its subcontractors to use, reasonable commercial efforts to hire and train registered apprentices, to strive to fully utilize allowable apprenticeship ratios* and to respect any hiring requirements prescribed by provincial or territorial statutes.

The Contractor hereby consents to this information being collected and held by PWGSC, and Employment and Social Development Canada to support work to gather data on the hiring and training of apprentices in federal construction and maintenance contracts.

To support this initiative, a voluntary certification signaling the Contractor's commitment to hire and train apprentices is available at Appendix 4.

If you accept fill out and sign Appendix 4

** The journey person-apprentice ratio is defined as the number of qualified/certified journey persons that an employer must employ in a designated trade or occupation in order to be eligible to register an apprentice as determined by provincial/territorial (P/T) legislation, regulation, policy directive or by law issued by the responsible authority or agency.*

SI16 MANDATORY HEALTH AND SAFETY

HEALTH AND SAFETY-NORTHWEST TERRITORIES/NUNAVUT WCB AND SAFETY PROGRAM

1. The recommended Bidder shall provide to the Contracting Authority, prior to Contract award:
2. a Workers Compensation Board Claims Cost Summary (NT);
3. a Workers Compensation Board letter of good standing and written confirmation from a Workers Compensation Board of coverage for all Directors, Principals, Proprietors or Partners who will be or who are anticipated to be present on the work site(s); and
4. a Certificate of Recognition (COR) or Registered Safety Plan (RSP) acceptable to the Authority Having Jurisdiction (AHJ). A health and safety policy and program, as required by the respective provincial/territorial Occupational Health and Safety Act, will be acceptable in lieu of a COR or RSP. If none is required by law, complete and return a provided declaration form instead.
5. The recommended Bidder shall deliver all of the above documents to the Contracting Authority on or before the date stated (usually 3-5 days after notification) by the Contracting Authority. Failure to comply will result in a breach of promise, at which time the Contracting Authority will be free to approach the next highest ranked responsive Bidder.

SI17 WEB SITES

The connection to some of the Web sites in the solicitation documents is established by the use of hyperlinks. The following is a list of the addresses of the Web sites:

Treasury Board Appendix L, Acceptable Bonding Companies
<http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=14494§ion=text#appl>

Buy and Sell <https://www.achatsetventes-buyandsell.gc.ca>

Canadian economic sanctions <http://www.international.gc.ca/sanctions/index.aspx?lang=eng>

Contractor Performance Evaluation Report (Form PWGSC-TPSGC 2913)
<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/2913.pdf>

Bid Bond (form PWGSC-TPSGC 504) <http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/504.pdf>

Performance Bond (form PWGSC-TPSGC 505) <http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/505.pdf>

Labour and Material Payment Bond (form PWGWSC-TPSGC 506)
<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/506.pdf>

Standard Acquisition Clauses and Conditions (SACC) Manual
<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>

PWGSC, Industrial Security Services <Http://ssi-iss.tpsgc-pwgsc.gc.ca/index-eng.html>

PWGSC, Code of Conduct and Certifications
<http://www.tpsgc-pwgsc.gc.ca/app-acq/cndt-cndct/index-eng.html>

PWGSC Consent to a Criminal Record Verification (PWGSC-TPSGC 229)
<Http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/229.pdf>

Construction and Consultant Services Contract Administration Forms Real Property Contracting
<Http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/formulaires-forms-eng.html>

SI18 COMPREHENSIVE LAND CLAIMS AGREEMENTS (CLCA)

The proposed requirement is subject to the Tlicho Land Claims Agreement and Self-Government Agreement.

The requirements of the Tlicho Land Claim and Self Government Agreement will apply to this procurement. The provisions that apply are contained in: Chapter 26, the Tlicho Land Claim and Self Government Agreement, clauses 26.3, 26.3.1 (a).

The area of the contract is in the Monfwi Gogha De Niitlee identified in the Tlicho Land Claims and Self-Government Agreement and proximate to Yellowknife and the Akaitcho Dene First Nation Communities of Dettah and N'Dilo.

SUPPLEMENTARY CONDITIONS (SC)

SC01 SECURITY REQUIREMENTS, DOCUMENT SAFEGUARDING LOCATION

There is no security requirement applicable to this Contract.

SC02 INSURANCE TERMS

1) Insurance Contracts

- (a) The Contractor must, at the Contractor's expense, obtain and maintain insurance contracts in accordance with the requirements of the Certificate of Insurance. Coverage must be placed with an Insurer licensed to carry out business in Canada.
- (b) Compliance with the insurance requirements does not release the Contractor from or reduce its liability under the Contract. The Contractor is responsible for deciding if additional insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any additional insurance coverage is at the Contractor's expense, and for its own benefit and protection.

2) Period of Insurance

- (a) The policies required in the Certificate of Insurance must be in force from the date of contract award and be maintained throughout the duration of the Contract.
- (b) The Contractor must be responsible to provide and maintain coverage for Products/Completed Operations hazards on its Commercial General Liability insurance policy, for a period of six (6) years beyond the date of the Certificate of Substantial Performance.

3) Proof of Insurance

- (a) Before commencement of the Work, and no later than thirty (30) days after acceptance of its bid, the Contractor must deposit with Canada a Certificate of Insurance on the form attached herein.
- (b) Upon request by Canada, the Contractor must provide originals or certified true copies of all contracts of insurance maintained by the Contractor pursuant to the Certificate of Insurance.

4) Insurance Proceeds

In the event of a claim, the Contractor must, without delay, do such things and execute such documents as are necessary to effect payment of the proceeds.

5) Deductible

The payment of monies up to the deductible amount made in satisfaction of a claim must be borne by the Contractor.

SC03 WORKPLACE SAFETY AND HEALTH

- 1. EMPLOYER / CONTRACTOR / PRINCIPAL CONTRACTOR / CONSTRUCTOR
- 2. SUBMITTALS
- 3. PERMITS, NOTIFICATIONS
- 4. SITE SPECIFIC SAFETY PLAN
- 5. MINE HEALTH AND SAFETY
- 6. HEALTH AND SAFETY PLAN COMPLIANCE
- 7. LABOUR AUTHORITY CONTACTS

1.0 EMPLOYER / CONTRACTOR / PRINCIPAL CONTRACTOR / CONSTRUCTOR

1.1 The Contractor shall, for the purposes of the NWT Safety Act and Regulations, and for the duration of the Work of the Contract:

1.1.1 act as the Employer, where there is only one employer on the work site, in accordance with the Authority Having Jurisdiction;

1.1.2 assume the role of Contractor/Principal Contractor/Constructor, where there are two or more employers involved in work at the same time and space at the work site, in accordance with the Authority Having Jurisdiction; and

1.1.3 agree, in the event of two or more Contractors working at the same time and space at the work site, without limiting the General Conditions, to the Departmental Representative's order to:

1.1.3.1 assume, as the Contractor/Principal Contractor/Constructor, the responsibility for the Departmental Representative's other Contractor(s); or

2. SUBMITTALS

2.1 The Contractor shall provide to Canada:

2.1.1 prior to the pre-construction meeting, a transmittal and copy of a completed Notice of Project form PWGSC - TPSGC 458 (form will be provided to the proposed contractor prior to award), as sent to the Authority Having Jurisdiction (AHJ); and

2.1.2 prior to commencement of work and without limiting the terms of the General Conditions:

2.1.2.1 copies of all other necessary permits, notifications and related documents as called for in the scope of work/specifications and/or by the AHJ; and

2.1.2.2 a site specific Health and Safety Plan as requested.

NOTE: Please do not include any forms that include personal 3rd party information such as the names of the contractor's employees and their related claims information.

3.0 PERMITS, NOTIFICATIONS

3.1.1 prior to any pre-construction meeting, a transmittal and copy of the Advance Notification of Project form, contained herein, as sent to the Authority Having Jurisdiction (AHJ); and

3.1.2 prior to commencement of work, copies of all other necessary permits, notifications and related documents as called for in the scope of work/Statement of Work and/or the AHJ.

4.0 SITE SPECIFIC SAFETY PLAN

4.1 The Contractor shall provide to the Departmental Representative, prior to commencement of work, a Site Specific Safety Plan detailing the specific safety programs related to the general operation and maintenance of the mine and any regulated hazardous activities. The plan must comply with the Mine Health & Safety Act and contract Statement of Work where so noted. Where there is any conflict between the two, the Mine Health & Safety Act shall prevail. This plan must include, but shall not be limited to, programs covering all aspects of mine safety:

1. Site Security and Public Safety;
3. Working Procedures for, Petroleum Hydrocarbons, Arsenic and other hazardous materials as required;
4. Decontamination Procedures & containment;
6. Respiratory Protection;
7. Confined Space Entry;
8. OSH Committees;
9. Supervision and Training;
10. Certification of Qualified Persons;
11. Emergency Procedures and Fire Safety;
12. First Aid;
14. Electrical;
15. Working Alone;
16. Accident/Incident Investigation and Reporting;
18. Hazardous Materials;
19. Environmental Emergency/Spill Response Plan; and
20. Wildlife Safety
21. Lockout Tagout Procedures

5.0 MINE HEALTH & SAFETY

5.1 The Contractor shall, for the purposes of the Mine Health and Safety Act S.N.W.T, 1994 and subsequent regulations, commencing April 01, 2005, for the duration of the work of the contract:

5.1.1 Assume the role of the Mine Manager and discharge those duties and responsibilities required and as specified in the Mine Health and Safety Act S.N.W.T, 1994 and subsequent regulations.

5.1.2 The contractor shall appoint two qualified persons, one to act in the role of Mine Manager and one to act in the role of Acting Manager.

5.1.2.1 The persons appointed to the position of Manager and Acting Manager must meet or exceed the qualifications and criteria outlined in the Mine Health and Safety Act S.N.W.T, 1994 and subsequent regulations for those positions.

5.1.2.2 The Contractor must notify the authority having jurisdiction and the Departmental Representative of their appointees to the positions of Mine Manager and Acting Manager in accordance with the Mine Health and Safety Act S.N.W.T, 1994 and subsequent regulations.

5.1.3 The contractor shall appoint only certified Supervisor(s) as required in the Mine Health and Safety Act S.N.W.T, 1994 and subsequent regulations.

5.1.3.1 The persons appointed to the position of Supervisor(s) must meet or exceed the qualifications and criteria outlined in the Mine Health and Safety Act S.N.W.T, 1994 and subsequent regulations for those positions.

5.1.3.2 The Contractor must notify the authority having jurisdiction of their Supervisor(s) in accordance with the Mine Health and Safety Act S.N.W.T, 1994 and subsequent regulations.

6.0 HEALTH AND SAFETY PLAN COMPLIANCE

6.1 The contractor shall remove from site any persons who are not in compliance with the Site Specific Health and Safety Plan, and the contractor shall not permit a person who has been removed to return to the work site until such time as compliance can be ensured.

7.0 LABOUR AUTHORITY CONTACTS

7.1 The contacts below represent the Labour Authority in the jurisdiction of the NT. They are not representatives of the Workers Compensation. In NT, the WCB has separate divisions for each.

7.2 Do not contact the persons referenced below for issues pertaining to WCB or WCB Clearances.

Those queries must be directed specifically to the WCB, and where the WCB has both a Labour and Compensation component, WCB issues must be directed to the Compensation / Employer Services sections.

Workers' Compensation Board Northwest Territories and Nunavut Mine Safety
Box 8888 Yellowknife, NT, X1A 2R3
Attention: Chief Inspector of Mines
Telephone: (867) 669-4412
Facsimile: (867) 873-0262

CONTRACT DOCUMENTS (CD)

1. The following are the contract documents:

- a. Contract Page when signed by Canada;
- b. Duly completed Bid and any Appendices attached thereto;
- c. Drawings and Specifications;
- d. General Conditions and clauses
 - GC1 General Provisions R2810D (2014-09-25);
 - GC2 Administration of the Contract R2820D (2014-09-25);
 - GC3 Execution and Control of the Work R2830D (2014-03-01);
 - GC4 Protective Measures R2840D (2008-05-12);
 - GC5 Terms of Payment R2850D (2014-06-26);
 - GC6 Delays and Changes in the Work R2860D (2013-04-25);
 - GC7 Default, Suspension or Termination of Contract R2870D (2008-05-12);
 - GC8 Dispute Resolution R2882D (2012-12-12);
 - GC9 Contract Security R2890D (2014-06-26);
 - GC10 Insurance R2900D (2008-05-12);
 - Allowable Costs for Contract Changes under GC6.4.1 R2950D (2014-06-26);

Supplementary Conditions

- e. Any amendment issued or any allowable bid revision received before the date and time set for solicitation closing;
- f. Any amendment incorporated by mutual agreement between Canada and the Contractor before acceptance of the bid; and
- g. Any amendment or variation of the contract documents that is made in accordance with the General Conditions.

2. The documents identified by title, number and date above are incorporated by reference and are set out in the Standard Acquisition Clauses and Conditions (SACC) Manual, issued by Public Works and Government Services Canada (PWGSC). The SACC Manual is available on the PWGSC Web site:

<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/R>

3. The language of the contract documents is the language of the Bid and Acceptance Form submitted.

BID AND ACCEPTANCE FORM (BA)

BA01 IDENTIFICATION

Project Title: Tundra Mine Care and Maintenance
Project Number: R.014137.001

BA02 BUSINESS NAME AND ADDRESS OF BIDDER

Name: _____

Address: _____

Telephone: _____ Fax: _____ PBN: _____

BA03 THE OFFER

The Bidder offers to Canada to perform and complete the Work for the above named project in accordance with the Bid Documents for the **TOTAL BID AMOUNT** summarized below and detailed in the Combined Price Form and Unit Price Table.

Total Bid for Lump Sum Amount (LINE 3) from ANNEX H – Combined Price Forms	\$
Total Bid for Unit Price Table (Line 6) From Unit Price Table	ADD \$
TOTAL BID AMOUNT Excluding applicable taxes	\$

BA04 BID VALIDITY PERIOD

The bid shall not be withdrawn for a period of (ninety) 90 days following the date of solicitation closing.

BA05 ACCEPTANCE AND CONTRACT

Upon acceptance of the Contractor's offer by Canada, a binding Contract shall be formed between Canada and the Contractor. The documents forming the Contract shall be the contract documents identified in Contract Documents (CD).

BA06 CONSTRUCTION TIME

The Contractor shall perform and complete the Work within fifty-six (56) weeks from the date of notification of acceptance of the offer.

1. OPTION TO EXTEND THE CONTRACT

The Contractor grants to Canada the irrevocable option to extend the term of the Contract by up to one (1) additional one (1) year period(s) under the same conditions. The Contractor agrees that, during the

extended period of the Contract, it will be paid in accordance with the applicable provisions as set out in the Basis of Payment.

Canada may exercise this option at any time by sending a written notice to the Contractor at least thirty (30) calendar days before the expiry date of the Contract. The option may only be exercised by the Contracting Authority, and will be evidenced for administrative purposes only, through a contract amendment.

BA07 BID SECURITY

The Bidder is enclosing bid security with its bid in accordance with GI08 - Bid Security Requirements of R2710T - General Instructions to Bidders.

BA08 SIGNATURE

Name and title of person authorized to sign on behalf of Bidder (Type or print)

Signature

Date

ANNEX A

SPECIFICATIONS

See Attached Document

ANNEX B

CERTIFICATE OF INSURANCE

See Attached Document

(Not required at solicitation closing)

ANNEX C

DEPARTMENTAL REPRESENTATIVE'S AUTHORITY

TO BE DETERMINED AT CONTRACT AWARD

Contracting Authority is:

Tammy Kozak

Supply Specialist

BB 204-807-0189

Fax: 204-983-7796

tammy.kozak@pwgsc-tpsgc.gc.ca

Public Works and Government Services Canada

Suite 100 – 167 Lombard Avenue

Winnipeg, Manitoba R3B 0T6

Technical Authority is:

Name: _____

Title: _____

Department: _____

Division: _____

Telephone: ____ - ____ - _____

E-mail: _____

ANNEX D **CONTRACT**

VOLUNTARY REPORT FOR APPRENTICES EMPLOYED DURING THE

(This report is not required at bid closing)

The Contractor should compile and maintain records on the number of apprentices and their trade that were hired to work on the contract.

The Contractor should provide this data in accordance with the format below. If no apprentices were hired during the contract period, the Contractor should still provide a "nil" report. The data should be submitted six months after the Contract award or at the end of the Contract, whichever comes first to the Contracting Authority.

ANNEX E **COMPLETE LIST OF EACH INDIVIDUAL WHO ARE CURRENTLY DIRECTORS OF THE BIDDER**

NOTE TO BIDDERS
WRITE DIRECTOR'S SURNAMES AND GIVEN NAMES

ANNEX F **VOLUNTARY CERTIFICATION TO SUPPORT THE USE OF APPRENTICES**

Note; The contractor will be asked to fill out a report every six months or at project completion as per sample "Voluntary Reports for Apprentices Employed during the Contract" provided at Annex D

Name: _____

Signature: _____

Company Name: _____

Company Legal Name: _____

Solicitation Number: _____

Number of company employees: _____

Number of apprentices planned to be working on this contract: _____

Trades of those apprentices:

See attached ANNEX L - Evaluation and Rating Grid

ITEM	CATEGORY	Available Points
1.0	Technical Proposal	
1.1	<p>Mobilization and Logistical considerations - The bidder must provide a mobilization plan. The plan must include a detailed description on how all equipment, fuel, materials, waste containers, supplies and personnel proposed for use at the site will be transported to the site. The only equipment that should be assumed to be available at site is that outlined in Appendix 3. Bidders will be evaluated on the overall content of their plan. The plan should include (but is not limited) to the following:</p> <ul style="list-style-type: none"> • A list of equipment and supplies to be brought to the site supported by photos, size, weight, condition and age/hours of heavy equipment and description of Preventive Maintenance Plan and critical parts inventories for owner furnished equipment. • A description of air and/or overland transportation to the site including details related to anticipated aircraft type and confirmation aircraft used for the work satisfy all requirements for airworthiness and navigation in accordance with appropriate legislation and is suitable for the transport of proposed equipment.. • A back-up plan with decision framework for when back-up plan would be implemented and if proposed plan has limitations • Details of fuel management, including expected volumes, types of fuel, transportation, storage and transfer. Demonstrate how proposed fuel management satisfies the requirements outlined in the current, approved Spill Contingency Plan, in accordance with the Mackenzie Valley Water Board Water Licence # MV2009L8-008. • A detailed methodology of site improvements or repairs to be undertaken with respect to access routes • A demonstrated understanding of and compliance with applicable regulatory requirements and management plans approved by the Mackenzie Valley Land and Water Board, as they relate to this task • Details of health and safety considerations specific to this task which includes an understanding of the chemical, physical and environmental risks associated with this task, including plans for providing emergency medical support and evacuation. • A demonstrated understanding of the risks associated with this task and identified mitigation measures to address these risks 	/20
1.2	<p>Supply, Operation and Maintenance of Camp Facilities - The bidder must provide a plan detailing camp operations and facilities and services to be provided. Bidders will be evaluated on the overall content of their plan. The plan should include (but is not limited) to the following:</p> <ul style="list-style-type: none"> • A description, location and conceptual layout of camp facility. • The capacity at the camp(s), number of personnel, working hours, crew rotations, and flights. 	/25

ITEM	CATEGORY	Available Points
	<ul style="list-style-type: none"> Source(s) of domestic water and proposed treatment process if needed during operating season and during startup/shutdown. Included estimated daily consumption and total volume of water needed from each source. Details of wastewater management plan & solid waste management plan and demonstrated compliance with management plans currently approved under the Water License. Include estimated daily blackwater, greywater volume estimates per day or per week. Details on the communications system. Details of the Wildlife Safety management plan. The provisions for the Departmental Representatives at the camp. A demonstrated understanding and compliance with applicable regulatory requirements and management plans approved under the Water Licence, related to this task Details of health and safety considerations specific to this task which includes an understanding of the chemical, physical and environmental risks associated with this task, including plans for providing emergency medical support and evacuation. A demonstrated understanding of the risks associated with this task and identified mitigation measures to address these risks 	
1.3	<p>Construction of Tailings Water Treatment Plant - Bidder must provide details of the configuration and construction of the Tailings Water Treatment Plant. Bidders will be evaluated on the overall content of their plan. The plan should include (but is not limited to) the following:</p> <ul style="list-style-type: none"> Details on the proposed water treatment plant, intake and discharge locations, material and chemical storage locations and spill containment considerations. Construction methodology plant layout A demonstrated understanding of the risks associated with this task and identified mitigation measures to address these risks A demonstrated understanding of and compliance with applicable regulatory requirements and approved management plans, related to this task Details of health and safety considerations specific to this task, which includes an understanding of the chemical, physical and environmental risks associated with this task, under both routine and emergency conditions, and outlined mitigation measure. 	/25
1.4	<p>Operation of Tailings Water Treatment Plant - The bidder must provide a plan detailing how the tailings impacted water will be pumped, treated and discharged. Bidders will be evaluated on the overall content of their plan. The plan should include (but is not limited to) the following:</p> <ul style="list-style-type: none"> Details on the proposed water treatment system and operation protocols. Demonstration of how the proposed water treatment methodology is proven or well justified to meet the requirements of the specifications A demonstrated understanding of the risks associated with this task and identified mitigation measures to address these risks A demonstrated understanding of and compliance with applicable regulatory requirements and approved management plans, as they relate to this task Details of health and safety considerations specific to this task which clearly illustrate an understanding of the chemical, physical and environmental risks associated with this task. 	/30
1.5	<p>Filter and/or Straight Discharge of Unimpacted Water - The bidder must provide details on how non-tailings impacted water will be pumped, tested, filtered as required, and discharged. Bidders will be evaluated on the overall content of their plan. The plan should include (but not limited to) the following topics:</p>	/15

ITEM	CATEGORY	Available Points
	<ul style="list-style-type: none"> • Testing and sampling protocols and determination of whether water requires treatment or filtering prior to discharge • Methodology for segregation of unimpacted water from impacted water, filtration system, intake and discharge locations • Demonstration of how the proposed water treatment methodology is proven or well justified to meet the requirements of the specifications • A demonstrated understanding of and compliance with applicable regulatory requirements and approved management plans, as they relate to this task including, but not limited to, sediment and erosion control. • Details of health & safety considerations specific to this task which clearly illustrate an understanding of the chemical, physical and environmental risks associated with this task. 	
1.6	<p>Earthworks - The bidder must provide details on how minor earthworks will be completed. Bidders will be evaluated on the overall content of their plan The plan should include (but not limited to) the following topics:</p> <ul style="list-style-type: none"> • Methodology for WTP pad construction, access road and airstrip maintenance, berm and dam repair and aggregate material production if required • A demonstrated understanding of and compliance with applicable regulatory requirements and approved management plans, as they relate to this task • Details of health and safety considerations specific to this task which includes an understanding of the chemical, physical and environmental risks associated with this task 	/10
1.7	<p>Demobilization - The bidder must provide a detailed description on how all equipment, fuel, materials, supplies and personnel proposed for use at the site will be transported from the site. Bidders will be evaluated on the overall content of their plan. The plan should include (but not limited to) the following topics:</p> <ul style="list-style-type: none"> • Identified and described air or ground transportation from the site for final demobilization including details related to anticipated aircraft type • Identified back-up plan if proposed plan has limitations, with decision framework for when back-up plan would be implemented • A detailed description of demobilization, identifying equipment, supplies and waste removal, and close-out of site • A demonstrated understanding of and compliance with applicable regulatory requirements and approved management plans, as they relate to this task • Details of health and safety considerations specific to this task which includes an understanding of the chemical, physical and environmental risks associated with this task, including mitigations and plans for providing emergency medical support and evacuation. • Outlined risks and provided mitigation measures associated with this task 	/15

ITEM	CATEGORY	Available Points
1.8	<p>Schedule - The bidder must provide a schedule of activities that illustrate the duration of each of the major tasks. Bidders will be evaluated on the overall content of their plan. The plan should include (but not limited to) the following topics:</p> <ul style="list-style-type: none"> • Details of each task broken down into sufficient sub tasks so project progress can be easily monitored by the Departmental Representative. Include both work activities as well as submittals • The critical path of activities within the schedule and what "float" is included within the duration of the specified activities. • A schedule clearly demonstrating the sequence of work activities within each construction season • Written assurance that the proposed schedule will be adhered to and that the time and cost associated operating expenses required to perform the known contract work in addition to the proposed schedule will be at the Contractor's cost. 	/15
1.9	<p>Clear, Concise and Complete Proposal Provided a clear, concise and complete proposal that is well organized. All criteria were addressed in the order outlined in the RFP.</p>	/5
1.10	<p>Project Understanding The bidder will be evaluated on their demonstrated overall environmental stewardship and on their demonstrated understanding of the unique nature of the project, scope of the work, relative to, but not limited to the constraints of working in a remote northern location with potentially limited support and access, and of the key logistical regulatory and environmental challenges associated with the proposed work with limited access.</p>	/5
1.0	Total Points Available	/165
	<p>MINIMUM OVERAL POINTS ACCEPTABLE for TECHNICAL PROPOSAL (60% Pass Mark) 60% of 165 = 99 points pass mark</p>	PASS or FAIL
2.0	Management and Organization Proposal	
2.1	<p>Company/Joint Venture/ Consortium Qualifications and Experience - The bidder must provide details on the qualifications on the company/joint venture/consortium, historical background demonstrating experience specifically related to similar scope of work activities at remote northern locations. The bidder will be evaluated on their overall qualifications and experience. Details should include the company's Health and Safety Management System and/or Certificate of Recognition or equivalent.</p>	/20

ITEM	CATEGORY	Available Points
2.2	<p>Client References - The bidder must provide evidence of up to three (3) similar projects successfully completed. A “similar project” for this evaluation is generally defined as projects completed which consisted of the treatment of arsenic impacted water and water management in a remote, northern location.</p> <p>Bidders will be evaluated on the overall content of their references. Project references should include (but not limited to) the following:</p> <ul style="list-style-type: none"> - The project must have been undertaken within the last ten (10) years, by the company or key sub-contractors. - Indicate the role undertaken by key members of the proposed project team proposed for this project. - the project team and their roles, – <i>the</i> project objectives, – <i>the</i> scope of services, - budget, - completion date - deliverables. <p>Preference will be given to projects including the experience and performance of the key personnel to be assigned to this project regardless of their past association with the current proponent firm.</p> <p>Points will be awarded to bidder for degree of overall achievement in each of the referenced projects, and are not awarded on a project-by-project basis.</p> <p>Provide a client reference (name, address, phone and email of client contact). The Evaluation Board reserves the right to contact the references to verify the information provided in the bid.</p>	/20

ITEM	CATEGORY	Available Points
2.3	<p>3.3 Qualifications of Key Individuals The bidder must provide resumes (up to 2 pages in length) for the following positions. Resumes should include experience on similar projects, experience working in remote Northern environments and experience in the proposed project role. The bidder will be evaluated in accordance with the following:</p> <p><u>A. Project Manager & back-up</u> /25 /15 - Demonstrated significant experience managing remediation, care and maintenance and water treatment projects in remote location, similar in scale and scope to the proposed project. - Demonstrated experience in financial and schedule control and liaison with client.</p> <p><u>B. Mine Manager/Site Superintendent and cross-shift</u> /25 /20 - Individual must have Supervisor's Certificate, Level II and provide proof upon request. Demonstrated experience managing personnel in a remote camp setting. - Demonstrated experience as site superintendent with experience on remediation projects similar in scope to the proposed project, including water treatment and water management.</p> <p><u>C. Onsite and Offsite Health & Safety Coordinator</u> /10 /5 - Demonstrated experience working in remote areas on remediation projects similar in scope to the proposed project. - Demonstrated experienced in developing and implementing site specific health and safety programs for remediation projects, including water treatment/management</p> <p><u>D. Water Treatment Specialist</u> /15 - Demonstrated field experience on remediation projects similar in scope to the proposed project. - Demonstrate experience including water treatment plant commissioning and operation, sampling and quality control</p> <p>NOTE: Back-up personnel are personnel assigned to the project if the identified personnel are not available due to illness, change in employment, etc. Cross-shift personnel are personnel who will regularly replace the identified personnel for shift changes during the site work.</p>	/115
2.4	<p>Organization Chart - The bidder must provide a detailed Organization Chart of the Project Team showing AANDC, PWGSC, Departmental Representative, Contractor's Staff, and Sub-Contractors. The bidder will be evaluated on the overall content of chart. The chart should include (but is not limited) to the following:</p> <ul style="list-style-type: none"> • All of the resource elements including Contractor personnel and subcontractors. • Identification of who will be responsible for overall control and for the provisions for controlling costs and conformance to the Statement of Work. • The lines of communication for all parties. 	/10
	Total Points Available	165
	MINIMUM OVERAL POINTS ACCEPTABLE for TECHNICAL PROPOSAL (60% Pass Mark) 60% of 165 = 99 points pass mark	PASS or FAIL

ITEM	CATEGORY	Available Points
3.0	Aboriginal Opportunity Considerations (AOC) Criteria The area of the contract is in the Monfwi Gogha De Niitlee identified in the Tlicho Land Claims and Self-Government Agreement and proximate to Yellowknife and the Akaitcho Dene First Nation Communities of Dettah and N'Dilo	Weight
3.1	Training: Bidder will be evaluated on their undertaking of a commitment with respect to delivery of on-the-job training and apprenticeship programs for Aboriginal people from the area of the contract at no additional cost under this project. “Training and Apprenticeship”: is considered delivered when the receiving individuals have acquired certifiable work skills. This is typically achieved through an independent third party certification process.	/15
3.2	Aboriginal Labour: Bidder included a firm guarantee to use Aboriginal employment content from the area of the contract in carrying out the work. The percentages identified below relate specifically to on-site labour hours regardless of whether they are Prime Contractor staff and/or Sub-contractor staff. Percentages should be supported by list of specific positions that may or will be staffed by Aboriginal personnel. AOC employment will be confirmed during care and maintenance activities based on supporting documentation provided by the Contractor. 0 - 49% - of total labour hours 0 - 5 points 50 - 59% - of total labour hours 6 – 8 points 60 - 84% - of total labour hours 9 – 12 points 85 - 100% - of total labour hours 13 – 15 points	/15
3.3	Aboriginal Labour Recruitment Plan: Bidder will be evaluated on their written plan of consultations, measures and proposed procedures to be taken to deliver on the Aboriginal Employment commitments made in the bid. The bidder should identify how percentages would be achieved by listing on-site positions that will be staffed by Aboriginal employees.	/10
3.4	Sub-contractors/Suppliers: Bidder Included a firm guarantee to use Aboriginal Sub-Contractors for services or the procurement of supplies and equipment from the area of the contract associated with the project. Ranges are based on expenditures for equipment associated, supplies and/or services as a percentage of the total estimated cost for the remediation contract not the number of businesses used. 0 - 39% - 0 – 5 points 40 - 59% - 6 – 8 points 60 - 79% - 9 – 12 points Greater than 80% 13 – 15 points Note: if the Prime Contractor is an Aboriginal owned business, the total dollar value of the Aboriginal contracting shall also include the contractor's share of the remediation contract	/15
3.	TOTAL POINTS AVAILABLE	/55
TOTAL POINTS (Item 1 + Item 2 + Item 3)		/385

ANNEX H**COMBINED PRICE FORM**

- 1) The prices per unit shall govern in establishing the Total Extended Amount. Any arithmetical errors in this Appendix will be corrected by Canada.
- 2) Canada may reject the bid if any of the prices submitted do not reasonably reflect the cost of performing the part of the work to which that price applies.
- 3) The successful bidder will be required to complete ANNEX I-Lump Sum Breakdown upon request of the Contracting Authority. The submission will be a condition precedent to award.
- 4) It is MANDATORY bidders submit rates/prices for every line item in both Contract and Option Year in the following pricing tables.
- 5) GST, if applicable, is not included and is to be shown as a separate item on any resulting invoice. Payment will be made in accordance with the following pricing.
- 6) The quantities and estimates specified below are provided for evaluation purposes only.

LUMP SUM

The Bidder offers to perform and complete the Work in accordance with the Bid Documents for "Lump Sum Amount (LSA) indicated. The Lump Sum Amount designates Work to which a Lump Sum Arrangement applies.

- (a) Work included in the "LUMP SUM AMOUNT" represents all work not included in the "UNIT PRICE TABLE".

LUMP SUM AMOUNT (LSA) CONTRACT YEAR (56 Weeks from Date of Award) Excluding Applicable Taxes	\$ LINE 1
LUMP SUM AMOUNT (LSA) for OPTION YEAR PERIOD (56 Weeks immediately following contract period) Excluding Applicable Taxes	\$ Line 2
TOTAL BID for LUMP SUM AMOUNT (LSA) for BOTH YEARS = (Line 1 + Line 2) EXCLUDING APPLICABLE TAXES	\$ Line 3

UNIT PRICE TABLE – MUST BE COMPLETED by Bidders

The Unit Price Table designates Work to which a Unit Price Arrangement applies.

1. Work included in each item is as described in the referenced specification section.
2. The Price per Unit shall not include any amounts for Work that is not included in that unit price item.
3. The extended prices will be calculated by multiplying the estimated quantity by the unit price for both the contract year and the option year.

		UNIT PRICE TABLE						
Line #	Item #	Description	Estimated		CONTRACT YEAR		OPTION YEAR	
			Qnt	Unit	Unit Price	Extended Price	Unit Price	Extended Price
7.	01 29 83-1	Package & Transport of Departmental Representative's Samples	50	kg	\$	\$	\$	\$
8.	01 29 83-2	Contractor's Testing Requirements	340	kg	\$	\$	\$	\$
9.	01 31 19-2	Monthly Progress Meeting	3	Each	\$	\$	\$	\$
10.	01 31 19-3	Departmental Representative's Transportation, Yellowknife to Site Monthly Meetings	3	Return Trips	\$	\$	\$	\$
11.	01 35 32-2	Wildlife Monitor including ATV	90	Days	\$	\$	\$	\$
12.	01 54 00-2	Operation and Maintenance of Camp	13	week	\$	\$	\$	\$
13.	01 54 00-3	Departmental Representative and Authorized Visitor Room and Board	90	pers days	\$	\$	\$	\$
14.	01 54 00-4	Departmental Representative and Authorized Visitor Casual Meals	20	Each	\$	\$	\$	\$
15.	01 54 00-5	Departmental Representative Transport to Site	7	Pers-Trips	\$	\$	\$	\$
16.	44 41 13-1	Provision of Water Treatment Plant – A ceiling cost of \$900,000.00 will be added to all bids. The ceiling price is subject to downward adjustment so as not to exceed the actual costs reasonably incurred in the performance of the Work and computed in accordance with the Basis of Payment.	1	Provisional Cost Sum	\$900,000.00	\$900,000.00	\$	\$
17.	44 41 13-3	Water Treatment and Discharge	50,000	m3	\$	\$	\$	\$
18.	44 41 13-4	Dewatering/Filtering and Discharge	50,000	m3	\$	\$	\$	\$
19.	01 53 00-2	Mobilization – Construction Equipment – A ceiling cost of \$350,000.00 will be added to all bids. The ceiling price is subject to downward adjustment so as not to exceed the actual costs reasonably incurred in the performance of the Work and computed in accordance with the Basis of Payment.	1	Provisional Cost Sum	\$350,000.00	\$350,000.00		
Sub-Total for each year						\$ Line 4		\$ Line 5
TOTAL BID for UNIT PRICE TABLE (=Sub-total for Contract plus Sub-total for Option Year) Excluding applicable tax(es)						\$ LINE 6		

ANNEX I**LUMP SUM BREAKDOWN**

1. The table below is for information purposes only and will not form part of the Contract.
2. The Lump Sum Breakdown is not required at time of bid closing.
3. Prior to contract award, the assessed best value bidder/contractor will be required to complete the table below.
4. **The total of the table below must equal the LUMP SUM AMOUNT (LSA) from the APPENDIX 1 total submitted at the time of solicitation closing.**

Line #	Item #	Description	Estimated		Contract Year Unit Price	Option Year Unit Price
			Qnt	Unit		
20.	BOPC	BALANCE OF PROJECT COSTS	1	Lump Sum	\$	\$
21.	01 11 00-1	Worker Orientation Seminar	1	Lump Sum	\$	\$
22.	01 31 19-1	Pre-Construction Meeting	1	Lump Sum	\$	\$
23.	01 35 32-1	Site Specific Health & Safety Plan	1	Lump Sum	\$	\$
24.	01 35 43-1	Environmental Protection Supplies	1	Lump Sum	\$	\$
25.	01 53 00-1	Mobilization	1	Lump Sum	\$	\$
26.	01 53 00-3	Demobilization	1	Lump Sum	\$	\$
27.	01 54 00-1	Camp Supply and Start Up	1	Lump Sum	\$	\$
28.	01 54 00-6	Communication Links	1	Lump Sum	\$	\$
29.	01 78 00-1	Seasonal Water Treatment Summary Report	1	Lump Sum	\$	\$
30.	31 22 15-1	Site Road Upgrade & Maintenance & Water Treatment Plant Pad Construction	1	Lump Sum	\$	\$
31.	44 41 13-2	Design Installation, Commissioning, Maintenance, Decommissioning of Water Treatment Plant	1	Lump Sum	\$	\$
Sub-Total					\$	\$
					LINE 1	LINE 2

ANNEX J**GUARANTEE OF ABORIGINAL CONTENT**

1. **Guarantee of Aboriginal Employee Content - Aboriginal Contractors & Aboriginal Sub-Contractors List - On Site**

Name & Position Title (Provide name(s) where possible)	Aboriginal Employee	Non Aboriginal Employee

Guarantee of Aboriginal Content for Labour- % Aboriginal Labour Content"

- * **To be submitted with Bid. If left blank, no points will be assessed.**

Total On-Site Estimated Person Hours for This Project:

* _____

Total On-Site Estimated **Aboriginal** Person Hours for This Project:

* _____

Total No. On-Site Non- **Aboriginal** Person Hours for This Project:

* _____

Total No. On-Site **Aboriginal** Person Hours For This Project =
Total No. On-Site Person Hours for This Project

* _____ %

2. **Guarantee of Aboriginal Content for Contracting - Aboriginal Professional Services And Aboriginal Suppliers**

Name of Contractor and Location (If Available)	Aboriginal Company	Non-Aboriginal Company

Guarantee of Aboriginal Content for Contracting

Estimated Value of Aboriginal Content for Contracting - % Aboriginal Sub-Contractor/Business Content

***To be submitted with Bid. If left blank, no points will be assessed.**

Total Estimated Cost for Supplies/Materials, Equipment And
Services Procured From **Aboriginal** for This Project = * _____ %
 Total Estimated Cost for This Project

Note: The **Aboriginal** Content for Contracting is calculated by dividing the total dollar value **Aboriginal** contracting content by the total dollar value of the contract for the time period specified. If the Prime Contractor is an **Aboriginal** firm, the total dollar value of **Aboriginal** contracting shall also include the Prime Contractor's share of the contract, which is the total dollar value of the contract minus the dollar value of all non Aboriginal subcontracts for the time period specified.

ANNEX K ABORIGINAL EMPLOYMENT INCENTIVE AND PENALTY CONDITIONS CHECKLIST

ABORIGINAL EMPLOYMENT INCENTIVE AND PENALTY CONDITIONS

1. Under the provisions of the proposed contract, where the contractor meets the **Aboriginal** employment target and meets the **Aboriginal** Sub-contractor/Supplier target specified and guaranteed in his bid (as per ANNEX J), the contractor will be paid the agreed contract price.
2. In the event the contractor does not meet the guaranteed number of **Aboriginal** employee hours working on the project and fails to demonstrate they have made diligent efforts to fulfill their **Aboriginal** employment targets, an amount of up to 1% of the final contract value may be deducted from the hold back provisions as liquidated damages and reallocated to AANDC.
3. In the event the contractor does not meet the guaranteed percentage of **Aboriginal** Sub-contractors/Suppliers, and fails to demonstrate they have made diligent efforts to fulfill their **Aboriginal** sub-contractors/Suppliers targets, an amount of up to 1% of the final contract value may be deducted from the hold back provisions as liquidated damages and reallocated to AANDC.
4. In the event the contractor hires additional onsite **Aboriginal** resources above the established employment targets that were guaranteed in the bid, which results in **Aboriginal** employment benefits, subject to the approval of the Departmental Representative, the contractor may be eligible to request an incentive bonus of up to 1% of the final contract value that may be paid to the contractor at the end of the project.
5. In the event the contractor exceeds the percentage of **Aboriginal** Sub-contractors/Suppliers targets that were guaranteed in the bid, subject to the approval of the Departmental Representative, the contractor may be eligible to request an incentive bonus of up to 1% of the final contract value that may be paid to the contractor at the end of the project.
6. Contractors who exceed the guaranteed AOC target under one criterion but fall short on the other may be evaluated for a penalty and a bonus. The **Aboriginal** Incentive and Penalty Conditions as specified above in 2.,3.,4..and 5.will be assessed based on the formulas identified herein.

ABORIGINAL EMPLOYMENT INCENTIVE AND PENALTY CONDITIONS AND CHECKLIST

ABORIGINAL EMPLOYMENT INCENTIVE AND PENALTY CHECKLIST PROJECT: CARE AND MAINTENANCE ACTIVITIES AT TUNDRA MINE, NORTHWEST TERRITORIES CONTRACTOR: _____			
STEP#	FINAL STATISTICS	% PROPOSED	% ACHIEVED
1	Percentage of On-site Aboriginal Labour Person Hours		
2	Percentage of Aboriginal Sub-Contracting/Supplier		
3	Final Contract Value	\$	
4	Guaranteed Onsite Aboriginal employment target met, exceeded or fell short? Met - No applicable penalty or bonus. Exceeded - Contractor may be eligible to request an incentive bonus of up to 1% of the final contract value, that may be paid to the contractor at the end of the project; Proceed to Table 1A Shortfall - Contractor may be penalized up to 1% of the final contract value Proceed to Table 2A		
5	Guaranteed Aboriginal Sub-contracting/Supplier target met, exceeded or fell short? Met - No applicable penalty or bonus. Exceeded - Contractor may be eligible to request an incentive bonus of up to 1% of the final contract value that may be paid to the contractor at the end of the project; Proceed to Table 1B Shortfall - Contractor may be penalized up to 1% of the final contract value Proceed to Table 2B		
6	COMMENTS: 		

TABLE 1A - ASSESSMENT OF ONSITE ABORIGINAL LABOUR INCENTIVE BONUS			
ITEM#	REQUIREMENT	WEIGHT	SCORE
1	INCREASED ONSITE ABORIGINAL LABOUR: Note: Aboriginal participation for training that has been accounted and paid for within and external to the contract shall be considered ineligible for the incentive process and will be excluded as such. Calculate the percentage increase of Onsite Aboriginal labour for the project based on the following: $\% \text{ Increase} = \frac{\text{Actual} - \text{Proposed}}{100\% - \text{Proposed}\%}$ <div style="display: flex; justify-content: space-between;"> <div> 0 - 33% of total onsite labour hours 34 - 66 % of total onsite labor hours 67 - 100 % of total onsite labour hours </div> <div> 0 - 15 points 16 - 45 points 46 - 60 points </div> </div>	60	
2	CONTRACTOR DUE DILIGENCE: Case-by-case-consideration is given to contractor's ability to demonstrate diligent efforts to increase the onsite Aboriginal labour targets. Points awarded for contractor due diligence based on the following scale: 0-20 points - Contractor demonstrated little to no effort and made no attempt to increase the targets. 21-30 points - Contractor demonstrated moderate effort while attempting to increase the Aboriginal targets. 31-40 points - Contractor demonstrated outstanding effort while attempting to increase the Aboriginal targets.	40	
3	TOTAL ASSESSED SCORE	100	
4	RECOMMENDED ABORIGINAL LABOUR INCENTIVE BONUS (final contract value) x 1% x (total assessed score/100)	\$	
5	COMMENTS/JUSTIFICATIONS:		
6	SIGNATURE OF EVALUATION PANEL: Departmental Representative (PWGSC): _____ Project Lead (AANDC): _____ Contracting Officer (PWGSC): _____		

TABLE 1B - ASSESSMENT OF ABORIGINAL SUB-CONTRACTING/SUPPLIER INCENTIVE BONUS			
ITEM#	REQUIREMENT	WEIGHT	SCORE
1	INCREASED ABORIGINAL SUB-CONTRACTING/SUPPLIER TARGET: Calculate the percentage increase of Aboriginal Sub-Contracting/Supplier costs for the project based on the following: $\% \text{ Increase} = \frac{\text{Actual} - \text{Proposed}}{100\% - \text{Proposed}\%}$ 0 - 33% of total Sub-Contracting/Supplier Costs 0 - 15 points 34 - 66 % of total Sub-Contracting/Supplier Costs 16 - 45 points 67 - 100 % of total Sub-Contracting/Supplier Costs 46 - 60 points	60	
2	CONTRACTOR DUE DILIGENCE: Case-by-case-consideration is given to contractor's ability to demonstrate diligent efforts to increase sub-contracting/supplier targets. Points awarded for contractor due diligence based on the following scale: 0-20 points - Contractor demonstrated little to no effort and made no attempt to increase the targets. 21-30 points - Contractor demonstrated moderate effort while attempting to increase the Aboriginal targets. 31-40 points - Contractor demonstrated outstanding effort while attempting to increase the Aboriginal targets.	40	
3	TOTAL ASSESSED SCORE	100	
4	RECOMMENDED ABORIGINAL SUB-CONTRACTING/SUPPLIER INCENTIVE BONUS (final contract value) x 1% x (total assessed score/100)	\$	
5	COMMENTS/JUSTIFICATIONS:		
6	SIGNATURE OF EVALUATION PANEL: Departmental Representative (PWGSC): _____ Project Lead (AANDC): _____ Contracting Officer (PWGSC): _____		

TABLE 2A - ASSESSMENT OF ONSITE ABORIGINAL LABOUR PENALTY			
ITEM#	REQUIREMENT	WEIGHT	SCORE
1	<p>Calculate the percentage of target achieved for Onsite Aboriginal content based on the following formula, where:</p> <p>Target percentage = $\frac{\text{Achieved}}{\text{Proposed}} = \frac{\quad}{\quad} \%$</p> <p>51% - 100% = 30 - 60 points</p> <p>Notes: Target percentage of 50% or less receives zero points</p>	60	
2	<p>CONTRACTOR DUE DILIGENCE:</p> <p>Case-by-case-consideration is given to contractor's ability to demonstrate diligent efforts to achieve Onsite Aboriginal employment targets.</p> <p>Points awarded for contractor due diligence based on the following scale:</p> <p>0-20 points - Contractor demonstrated little to no effort and made no attempt to meet the Aboriginal employment target.</p> <p>21-30 points - Contractor demonstrated moderate effort while attempting to meet the Aboriginal employment target.</p> <p>31-40 points - Contractor demonstrated outstanding effort while attempting to meet the Aboriginal employment target.</p>	40	
3	TOTAL ASSESSED SCORE	100	
4	<p>TOTAL CALCULATED PENALTY:</p> <p>$(100 - \text{total assessed score})\% \times (\text{Final contract value}) \times (1\%)$</p>	\$	
5	COMMENTS/JUSTIFICATIONS:		
6	<p>SIGNATURE OF EVALUATION PANEL:</p> <p>Departmental Representative (PWGSC): _____</p> <p>Project Lead (AANDC): _____</p> <p>Contracting Officer (PWGSC): _____</p>		

TABLE 2B - ASSESSMENT OF ABORIGINAL SUB-CONTRACTING/SUPPLIER PENALTY

ITEM#	REQUIREMENT	WEIGHT	SCORE
1	<p>Calculate the percentage of target achieved for Aboriginal content based on the following formula, where:</p> <p>Target percentage = $\frac{\text{Achieved}}{\text{Proposed}} = \frac{\quad}{\quad} \%$</p> <p>51% - 100% = 30 - 60 points</p> <p>Note: Target percentage of 50% or less receives zero points.</p>	60	
2	<p>CONTRACTOR DUE DILIGENCE:</p> <p>Case-by-case-consideration is given to contractor's ability to demonstrate diligent efforts to achieve Aboriginal sub-contracting / supplier targets.</p> <p>Points awarded for contractor due diligence based on the following scale:</p> <p>0-20 points - Contractor demonstrated little to no effort and made no attempt to meet the Aboriginal sub-contracting/ supplier target.</p> <p>21-30 points - Contractor demonstrated moderate effort while attempting to meet the Aboriginal sub-contracting/ supplier.</p> <p>31-40 points - Contractor demonstrated outstanding effort while attempting to meet the Aboriginal sub-contracting/ supplier.</p>	40	
3	TOTAL ASSESSED SCORE	100	
4	<p>TOTAL CALCULATED PENALTY: (100 - total assessed score)% x (Final contract value) x (1%)</p>	\$	
5	COMMENTS/JUSTIFICATIONS:		
6	<p>SIGNATURE OF EVALUATION PANEL:</p> <p>Departmental Representative (PWGSC): _____</p> <p>Project Lead (AANDC): _____</p> <p>Contracting Officer (PWGSC): _____</p>		

See Attached Document

Rating Scales and Categories For Consensus Scoring

	Categories	Maximum Score	5	10	15
Q u a l i f i e d	Excellent	Exceptional. Should ensure extremely effective performance.	5	9-10	14-15
	Very Good	Above average and more than adequate for effective performance.	4	8	12-13
	Good	Average and should be adequate for effective performance.		7	11
	Fair	Just acceptable and should meet minimum performance requirements.	3	6	9-10
U n q u a l i f i e d	Unsatisfactory	Unacceptable. Insufficient for performance requirements	0-2	0-5	0-8

20	25	30	35	40	45	50	55	60
18-20	23-25	27-30	32-35	36-40	41-45	45-50	50-55	54-60
16-17	20-22	24-26	28-31	32-35	36-40	40-44	44-49	48-53
14-15	18-19	21-23	25-27	28-31	32-35	35-39	39-43	42-47
12-13	15-17	18-20	21-24	24-27	27-31	30-34	33-38	36-41
0-11	0-14	0-17	0-20	-23	0-26	0-29	0-32	0-35

Public Works and Government Services Canada

Specifications for the

Care & Maintenance of

Tundra Mine, Northwest Territories

Project No.: R.014137

Public Works and Government Services Canada

**FINAL
Tender Specifications**

February 24, 2015

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PART 1 GENERAL

1.1 Precedence

- .1 Division 1 sections take precedence over technical specification sections in other Divisions of this specification.

1.2 Background Information

.1 Introduction

- .1 The site has been abandoned by the owner and is under the care and responsibility of the Department of Aboriginal Affairs and Northern Development Canada (AANDC).
- .2 Phase I Remediation was conducted at the site in 2008 and consisted of building demolition, sealing of mine openings and construction of a non- hazardous waste landfill.
- .3 Phase II Remediation was conducted at the site between 2010 and 2014 and consisted of contaminated water treatment, relocation and consolidation of Tailings deposits, excavation and treatment of hydrocarbon contaminated soil and waste rock, installation of some geomembrane and geotextile within the Tailings Containment Area (TCA) and borrow material production and placement.

.2 Site Location

- .1 The site is located approximately 240km NE of Yellowknife.

.3 Site Hazards

- .1 Hazards that may be encountered at the site include, but are not limited to:
 - .1 Blasting caps
 - .2 Contaminated water
 - .3 Metals contaminated water
 - .4 Metals contaminated soil and Potentially Acid Generating (PAG) waste rock
 - .5 Hydrocarbon contaminated soil and waste rock
 - .6 Site conditions including steep slopes and rugged terrain
 - .7 Wildlife

.4 Site Access

- .1 Access to the site is restricted to:
 - .1 An unlicensed, operational 1,500 m gravel airstrip approximately 1.5km to the north of the site, accessible year round.
 - .2 Winter road via a 30km spur from the Tibbitt to Contwoyto Joint Venture Winter ice road. The Tibbitt to Contwoyto Joint Venture Winter ice road is constructed and operated by others.

.5 Site Conditions

- .1 Confirm existing conditions prior to mobilization.
- .2 Existing site infrastructure is limited to:
 - .1 Airstrip
 - .2 Operational gravel haul road between Airstrip and 2011-2014 camp facilities.
 - .3 Existing unlined sewage Lagoon cells constructed from borrow materials.
 - .4 Liner and bermed areas that contained 2011-2014 Upper and Lower Tank Farm fuel tanks.
 - .5 Levelled and compacted areas where the 2011-2014 camp was located.
 - .6 10" HDPE waterline running along the east side of the former Lower East Dam from East Upper Dam to Hambone Lake.

.6 Supporting Documents can be found in Appendix 5 and include:

- .1 Water treatment reports for 2011-2013

1.3

Description of Work

- .1 Work for this Contract comprises the Care and Maintenance activities at Tundra Mine including, but not limited to, the following:
 - .1 Tasks Associated with Pre-mobilization
 - .1 Preparation of Planning documents and submittals including, but not limited to, Site Specific Health and Safety Plan (includes On- Site Contingency and Emergency Response Plan, Spill Contingency Plan, Fire Response Plan, Wildlife Management Plan)
 - .2 Tasks Associated with Mobilization Activities
 - .1 Mobilization and Demobilization of all Contractor equipment and facilities needed to complete the Work,
 - .2 Upgrading of site road network including winter access roads and airstrip to facilitate access to site, as required.
 - .3 Tasks Associated with Site Support Activities
 - .1 As-built survey
 - .2 Provision of the following site support services:
 - .1 Construction Camp, including provision, operation, maintenance, catering and janitorial service.
 - .2 Provision and maintenance of Departmental

- Representative's Vehicles, as specified.
 - .3 All fuel required to carry out operations outlined in this Scope of Work
 - .4 Safety, fire protection, office and medical services, as specified in Section 01 35 32 - Site Specific Health and Safety for Contaminated Sites.
 - .5 Room and Board for Departmental Representative and Departmental Representative's Authorized Personnel on site.
 - .6 Transportation services for Departmental Representative and Departmental Representative's Authorized Personnel from Yellowknife, NWT to site.
 - .7 Communication services for Contractor and Departmental Representative and Departmental Representative Support Staff.
 - .8 Provision of Wildlife Monitors, as specified in Section 01 35 32 - Site Specific Health and Safety for Contaminated Sites.
- .4 Tasks Associated with Water Management
 - .1 Water collected within the TCA
 - .1 Treatment of tailings-impacted water contaminated with arsenic, lead, copper and other heavy metals and discharge of successfully treated water to Hambone Lake,
 - .2 Water treatment includes on-site monitoring of influent and effluent for treatment process modification purposes.
 - .3 Collection and off-site transport of WTP effluent samples to the Contractors testing laboratory for regulatory compliance and treatment process verification purposes.
 - .2 Water collected within Former Upper Pond or north end of Lower Pond
 - .1 Filtering and Dewatering of potentially non-impacted freshet water from work areas within Lower and Former Upper Pond
- .5 Tasks Associated with Earthworks
 - .1 Maintain all site roads and access areas, including but not limited to, the airstrip, roads to and from the camp, the borrow area and all other work areas.
 - .2 Construct a level gravel pad of crushed rock to support the Water Treatment Plant
 - .3 Complete berm and dam repairs as required and as directed by the Departmental Representative

- .6 Tasks Associated with Demobilization
 - .1 Disassemble / demolish site facilities
 - .2 On-site burning of untreated, unpainted Wooden Debris and Off-site transport and disposal of non-combustible waste, hazardous waste material generated during the life of the contract, to Contractor's Designated Waste Disposal Facilities.
 - .3 Stage facilities, equipment, waste for demobilization
 - .4 Demobilize.

1.4 Definitions

- .1 Departmental Representative: Within the context of these Specifications, the term Departmental Representative refers to the person exercising the roles and attributes of Canada under the contract including but not limited to Public Works and Government Services (PWGSC) personnel and the Resident Engineer.
- .2 Departmental Representative's Authorized Personnel: Within the context of these Specifications, the term Departmental Representative's Authorized Personnel refers to personnel appointed by Departmental Representative or authorized on-site by Departmental Representative. Departmental Representative's Authorized Personnel provide recommendations/technical guidance to Departmental Representative as required, for the enforcement of these specifications.
- .3 Contractor: The Contractor procured to undertake the site management and operation services, decontamination/demolition, Care and Maintenance remediation and restoration Work is defined, within the context of these specifications, as Contractor.
- .4 Contractor's Site Superintendent: Contractor's resident site representative, who is authorized to make decisions on behalf of Contractor.
- .5 The word "provide" means supply and install, operate, submit or any other procedure necessary to complete the work as intended.
- .6 Authorities Having Jurisdiction (AHJ): Governmental agency or sub-agency that regulates the codes and standards that are to be met during the remediation processes.

1.5 Submittals

- .1 All submittals in accordance with Section 01 33 00 - Submittal Procedures.

1.6 On-Site Documents

- .1 Maintain at the job site, one copy each of the following:
 - .1 Contract drawings.
 - .2 Contract Specifications.

- .3 Requests for Clarification and responses.
- .4 Addenda.
- .5 Task Authorizations.
- .6 Change Orders.
- .7 Reviewed shop drawings.
- .8 Other modifications to Contract.
- .9 Field test reports.
- .10 Copy of approved Work Schedule.
- .11 Manufacturers' installation and application instructions.
- .12 Material and Safety Data Sheets Specifications.
- .13 Site Specific Health and Safety Plan, including:
 - .1 Spill Contingency Plan
 - .2 Fire Safety Plan, and
 - .3 Emergency Response Plan
- .14 Copies of permits/approvals and/or authorizations including
 - .1 Water Licenses
 - .2 Land Use Permit
 - .3 Quarry Permit
- .15 Waste Management Plan.
- .16 Labour conditions and wage Schedules.
- .17 Canada Labour Code – Part II.
- .18 Site Medic Credentials
- .19 Wildlife monitor credentials.
- .20 Up-to-date record drawings.
- .21 License for Radio Communication.
- .22 All applicable Territorial permits and licenses.
- .23 All applicable Federal permits and licenses.
- .24 Copies of manifests and bills of loading.
- .25 Hazardous Material Audit.
- .26 Burn Permit.
- .27 Worker Training Program and Records.
- .28 WCB Notification of Project.
- .29 Letter of Good Standing with WSCC.
- .30 GNWT Mine Health and Safety Act.
- .31 Other documents as specified.

1.7 Work Schedule

- .1 Provide and maintain Work Schedule in accordance with instructions of Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart.
- .2 Notify the Departmental Representative of planned Work a minimum of two (2) days prior to commencement activity.

1.8 Contractor Use of Site

- .1 Contractor's use of site is restricted to the terms and conditions of the issued permits, and all applicable guidelines and regulations.

- .2 Coordinate use of premises under the direction of the Departmental Representative.
- .3 Do not disturb Archaeological, Historical and Restricted Access Areas, as indicated in the contract drawings or as identified during site work.
- .4 Use of site shall comply with the environmental requirements of Section 01 35 43 - Environmental Procedures.
- .5 Maintain airstrip landing and staging areas free of materials, equipment and personnel. Allow use of airstrip by other parties

1.9 Examination of Site

- .1 Prior to mobilization, perform a Pre-Mobilization Site Visit to check field conditions and obtain actual conditions required to execute the Work as described in Section 01 31 19 – Project Meetings.
- .2 Commencement of mobilization constitutes acceptance of existing conditions, and verification of dimensions.

1.10 Furnished Items

- .1 Furnished equipment on-site available for use to complete the Work are identified in Appendix 3 - Furnished Equipment. Furnished equipment is provided as-is and becomes the responsibility of the Contractor upon mobilization to site. Furnished equipment should be inspected and maintained on a regular basis and returned to the Crown at the end of the contract in as good or better condition than at the start of the contract.
- .2 Equipment and items located onsite, but not included in the Work and not available for use under the contract are listed in Appendix 4 - Restricted Equipment.

1.11 Permits and Licenses

- .1 A Land Use Permit (#MV2009X0019) and Water Use License (#MV2009L8-008) have been issued for the site. All restrictions and requirements of these apply to Contractor. Copies of the Land Use Permit and Water Use License and approved management plans can be found at

- .1 Land Use Permit:
<http://www.mvlwb.ca/Boards/mv/Registry/2009/MV2009X0019/MV2009X0019%20-%20AANDC%20-%20CARD%20-%20Tundra%20Mine%20-%20Extension%20Request%20approval%20letter%20-%20Dec11-14.pdf>

- .2 Land Use Permit Management Plans
<http://www.mvlwb.ca/Boards/mv/SitePages/search.aspx?keywordsearch=mv2009X0019>

- .3 Water License:
<http://www.mvlwb.ca/Boards/mv/Registry/2009/MV2009L8-0008/MV2009L8-0008%20-%20AANDC-CARD%20-%20Amendment%20Approved%20-%20Aug28-13.pdf> ,

- .4 Water License Management Plans

<http://www.mvlwb.ca/Boards/mv/SitePages/search.aspx?keywordsearch=mv2009l8-0008>

- .2 Be responsible for obtaining and paying for all permits, licenses and approvals associated with the development and operation of any and all construction camps.
- .3 Register, obtain and pay for all required licenses and permits for individual tradesmen employed for Work as referenced in the various Sections of the Contract Specifications for the duration of employment.
- .4 Obtain and pay for any other licenses or permits required to perform the activities required on site, i.e. burn permit, etc.
- .5 Provide supplemental information to the regulators for any necessary license amendments or reporting requirements.
- .6 Pay all costs associated with complying with the requirements for the permits and licenses noted in the above clauses.

1.12

Site Supervision

- .1 Designate Contractor's Site Superintendent to be on site at all times during construction, to have full authority to make decisions for Contractor, to be knowledgeable of the requirements of the contract, and to act upon Departmental Representative's instructions.
- .2 Notify Departmental Representative one (1) week in advance of Site Superintendant change and provide updated delegation of authority.

1.13

Additional Drawings

- .1 Departmental Representative may furnish additional drawings to assist with proper execution of the Work. These drawings will be issued for clarification only. Such drawings have the same meaning and intent as if they were included with plans referred to in Contract documents.

1.14

Worker Orientation Seminar

- .1 Develop, prior to the start of Work, course material for a Worker Orientation Seminar. The seminar is intended to describe the care and maintenance activities at the site, and provide instruction for the applicable health, safety, and environmental policies and regulations as related to the site Work activities. Course material to be prepared and presented in English and the local language and dialect. The seminar will be reviewed by the Departmental Representative. Review comments are to be addressed and the course material resubmitted within 5 days, for review and acceptance by the Departmental Representative
- .2 Submit two (2) hard copies and one (1) electronic copy of the Worker Orientation Seminar course material to Departmental Representative for review at least 10 days prior to the seminar. Include information describing the facility to

be used for conducting the seminars.

- .3 The Orientation Course to address, but is not necessarily limited to, the following topics:
 - .1 Project Communication:
 - .1 Roles of Departmental Representative and Departmental Representative's authorized representatives.
 - .2 Roles of Contractor and Contractor's authorized representatives.
 - .3 Lines of Project communication.
 - .2 Regional Overview of the Tundra Mine Area:
 - .1 Land use of area (hunting, fishing activities, etc.).
 - .2 Location of site relative to communities.
 - .3 Heritage resources including location of gravesites.
 - .4 Climate.
 - .5 Geology and hydrology.
 - .6 Flora and fauna.
 - .3 Project Organization/Schedule/Administration:
 - .1 Personnel policies.
 - .2 Supervisory reporting relationships.
 - .3 Communication.
 - .4 Payroll and banking procedures.
 - .5 Work schedules and hours.
 - .6 Camp rules.
 - .4 Environmental Issues and Protection Procedures:
 - .1 Climate.
 - .2 Land use.
 - .3 Water resources/fisheries.
 - .4 Terrestrial resources.
 - .5 Heritage resources.
 - .6 Spill contingency plans/procedures.
 - .7 Training activities.
 - .5 General Site Specific Health and Safety:
 - .1 Responsibility for Safety.
 - .2 Team Work.
 - .3 Work attitudes/productivity.
 - .4 Anti-Harassment Policy.
 - .5 First aid procedures.
 - .6 Protective equipment and clothing.
 - .7 Safe operation of equipment and tools.
 - .8 WHMIS requirements.
 - .9 Wildlife awareness.
 - .10 Emergency Communication Protocols
 - .6 Work Specific Task Requirements:
 - .1 Treatment and discharge of tailings-impacted water
 - .2 Other water treatment activities
 - .3 Dewatering activities

- .4 Environmental mitigation procedures.
- .5 Emergency spill response training.
- .4 Prior to the start of Work, conduct Worker Orientation Seminars for all supervisors, foremen, Contractor's general Workforce, Departmental Representative and Departmental Representative's Authorized Personnel based on the course material reviewed by Departmental Representative. Conduct Worker Orientation Seminars for personnel starting work after the date of the Worker Orientation Seminar and Departmental Representative's Authorized Personnel unable to attend Worker Orientation Seminar. Require each attendee to sign a record of attendance upon completion of the seminar. Retain this record of attendance, for Departmental Representative's review upon request.

1.15

Measurement of Payment

- .1 Work under this contract will be paid for as follows:
 - .1 Lump sum pay items will be paid at the lump sum price tendered for each lump sum item listed in the Basis of Payment Schedule.
 - .2 Unit price items will be paid at the unit price tendered for each unit price item listed in the Basis of Payment Schedule.
 - .3 Indirect project costs will be paid at the lump sum price tendered for "Balance of Project Costs" (BOPC-1) on the Basis of Payment Schedule.
 - .4 Provisional Cost Sum Items will be paid according to the actual costs expended, as certified by the Departmental Representative for each provisional cost item listed in the Basis of Payment Schedule. Retain receipts for all Provisional Cost Sum Items.
- .2 Unit price items, lump sum pay items and provisional cost recoverable items will be paid under the Basis of Pricing of the proposed contract. All other items, whether specifically defined in the specific sections of the Specifications or not, will be paid under Item BOPC-1, Balance of Project Costs, in the Basis of Payment Schedule.
- .3 Direct costs include all costs directly attributable to a particular pay item including equipment, operators, materials, equipment maintenance and depreciation, etc. All direct costs for lump sum and unit price items are to be included in the appropriate price item in the Basis of Payment Schedule.
- .4 Indirect costs include all costs not directly attributable to the pay items including profit, supervision, overhead, administration, CGL Insurance, Workers' Safety and Compensation Commission (WSCC), Contractor's allowance for equipment maintenance and depreciation repairs, and any other relevant costs. All indirect costs associated with specific unit price or lump sum items will be included in Item BOPC-1, Balance of Project Costs, in the Basis of Payment Schedule.
- .5 Include costs for Work, goods or services required in this section that are not covered by appropriate payment clauses in other sections in Item BOPC-1, Balance of Project Costs, in the Basis of Payment Schedule.
- .6 Notify Departmental Representative of planned Work activities at least two (2)

days in advance of operations to permit required measurements for payment.

- .7 All costs for the preparation of the Worker Orientation Seminar Material and for conducting the seminars on-site, including the preparation of meeting room facilities as required, are to be included in the lump sum price for Worker Orientation Seminar, Item 01 11 00-1, as indicated in the Basis of Payment Schedule. The Worker Orientation Seminar will be paid upon review by Departmental Representative of the Worker Orientation Seminar course material, and upon conducting the seminar prior to the start of Work.
- .8 Except as indicated above, work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate the cost of this Work as a separate line item in the Contract Work Breakdown Structure (CWBS) specified in Section 01 32 18 - Construction Progress Schedules – Bar (GANTT) Chart.

PART 2 PRODUCTS

- .1 Not Used.

PART 3 EXECUTION

- .1 Not Used

END OF SECTION

PART 1 – GENERAL

1.1 General

- .1 Particular requirements for inspection and testing, to be carried out by a testing laboratory approved by the Departmental Representative, are specified under various sections.
- .2 Provide and pay for all sampling, packaging, transportation to an accredited laboratory and analysis required for all Contractor's samples to meet the requirements specified.
- .3 Provide and pay for all transportation required for all Departmental Representative's samples to the Departmental Representative's designated commercial analytical laboratory depot in Edmonton, Alberta.

1.2 Submittals

- .1 Provide all submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit to the Departmental Representative fifteen (15) days prior arrival on site, details of Contractor's proposed methodology to complete sampling and testing requirements including, but not limited to:
 - .1 The Contractor's proposed analytical laboratory.
 - .2 Details of proposed sampling personnel and protocols.
 - .3 Details of the proposed sample packaging and transportation methods.
 - .4 A copy of the Contractor's proposed laboratory's current ISO 17025 certification valid for all analytical tests to be completed.
- .3 Proposed methodologies shall meet or exceed requirement of specifications, certified laboratory requirements and industry best practice. Departmental Representative will review Contractor's submittal.
- .4 The Contractor's proposed analytical laboratory must be independent from the Contractor and acceptable to the Departmental Representative.

1.3 Testing Responsibilities and Payment

- .1 Departmental Representative will appoint and pay for the services of an analytical testing laboratory required for Quality Assurance (QA) and investigative objectives including, but not limited to, the following:
 - .1 Confirmatory testing as described in this Section.
 - .2 Confirmatory testing for the effluent discharge criteria
- .2 Contractor will appoint and pay for sampling, testing and quality control of Contractor's own work including the following:
 - .1 Inspection and testing required by laws, ordinances, rules, regulations or orders of public authorities.
 - .2 Inspection and testing completed exclusively for Contractor's convenience.

- .3 Testing of potable water as described in these Specifications and the Canadian Drinking Water Guideline (CDWG).
 - .4 Testing water quality from the Water Treatment Plant.
 - .5 Testing of sewage effluent as indicated in Section 01 54 00 - Camp Facilities or as requested by Departmental Representative.
 - .6 Testing of wash water resulting from all cleaning activities prior to discharge
 - .7 All tests required by Contractor to monitor conformance and quality control of Contractor's work.
 - .8 Inspection and testing required by the conditions of permits obtained by the Contractor for the Work.
- .3 Where tests or inspections by the Contractors' designated testing laboratory reveal Work not in accordance with contract requirements, pay costs for additional tests or inspections as requested by Departmental Representative to verify acceptability of corrected Work.

1.4 Contractor's Responsibilities

- .1 Provide labour and facilities to:
 - .1 Provide assistance and access to Work to be inspected and tested by Departmental Representative.
 - .2 Complete Contractors testing requirements.
 - .3 Make good Work disturbed by inspection and testing.
- .2 Notify Departmental Representative five (5) days in advance of operations to allow for assignment of personnel and scheduling of test.
- .3 Instruct Contractors' designated testing laboratory to include Departmental Representative on result distribution list via facsimile or e-mail.
- .4 Maintain interior temperature of coolers at approximately 4°C during transport, using ice or ice packs.
- .5 Assume all responsibility for samples compromised during transport including all costs for re-sampling, shipping, analysis and any resulting delays.

1.5 Confirmatory Testing

- .1 Confirmatory sampling will be carried out by the Departmental Representative. The actual location, frequency and method of testing will be determined by Departmental Representative
- .2 It is anticipated that test results will be available within approximately ten (10) calendar days from the date that samples are transported from the site for laboratory analysis.
- .3 Deliver Departmental Representative's samples to Departmental Representative's designated testing laboratory depot in Edmonton within two (2) days maximum from site departure from Tundra Mine.
- .4 Be responsible for all costs associated with the packaging, handling and transport

of Departmental Representative's samples from the site to Departmental Representative's designated testing laboratory depot in Edmonton, Alberta. It is critically important that Contractor expeditiously delivers samples from the site and transfers them to a commercial air service. Where cargo transfers are required from charter to commercial air service, provide personnel at transfer locations to facilitate timely transfers.

1.6 Measurement for Payment

- .1 Packaging, handling and off-site transport of Departmental Representative's samples to the Departmental Representative's designated testing laboratory depot in Edmonton will be measured for payment by kilogram shipped off site and will be paid for under Package and Transport of Departmental Representative's Samples, Item 01 29 83-1 in the Basis of Payment Schedule.
- .2 Sampling, packaging, handling, off-site transport and testing of Contractor's samples at Contractor's proposed analytical laboratory for Contractor's Testing Requirements will be measured for payment by kilogram shipped off site and will be paid for under Contractor's Testing Requirements, Item 01 29 83-2 in the Basis of Payment Schedule.
- .3 Except as indicated above, work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate cost of the work of this section as a separate line item in the Contract Work Breakdown Structure (CWBS) specified in Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart.

PART 2 - PRODUCTS

2.1 Not Used

PART 3 - EXECUTION

3.1 Not Used

END OF SECTION

PART 1 – GENERAL

1.1 Administrative

- .1 Responsibilities of Departmental Representative:
 - .1 Schedule and administer project meetings throughout the progress of the Work.
 - .2 Prepare agenda for meetings unless otherwise specified.
 - .3 Preside at meetings unless otherwise specified.
 - .4 Record the meeting minutes unless otherwise specified. Include significant proceedings and decisions. Identify actions by parties.
 - .5 Reproduce and distribute copies of minutes within three (3) days after meetings and transmit to meeting participants, affected parties not in attendance and Departmental Representative.
- .2 Responsibilities of Contractor:
 - .1 Provide physical space and make arrangements for meetings unless otherwise specified.
 - .2 Representative of Contractor, Sub-Contractor and suppliers attending meetings will be qualified and authorized to act on behalf of party each represents.

1.2 Project Start-up Teleconference Meeting

- .1 Within ten (10) days after award of Contract, request a meeting of parties in contract to discuss and resolve administrative procedures and responsibilities.
- .2 Departmental Representative, Contractor, AANDC, major Sub-Contractors, field representatives and supervisors will be in attendance.
- .3 Establish time and contact information for the meeting and notify parties concerned minimum five (5) days before meeting.
- .4 Departmental Representative will chair the meeting and take minutes. Meeting agenda to include:
 - .1 Appointment of official representative of participants in the Work.
 - .2 Preliminary Schedule of Work.
 - .3 Preliminary Schedule of submission of Work Plan and Cost Breakdown and other submissions.
 - .4 Preliminary requirements for temporary facilities, site security, camp facilities, equipment and proposed method of mobilization and demobilization to minimize disturbances to the environment.
 - .5 Review of known hazards.
 - .6 Set-up of Pre-Construction meeting time and location.

1.3 Pre-Construction Meeting

- .1 As determined at Start-up Teleconference Meeting, request a meeting of parties in contract to discuss and resolve administrative procedures and responsibilities.

- .2 Pre-Construction Meeting to be held at location of Contractor's choice prior to Contractor Mobilization to site.
- .3 Departmental Representative, Contractor, AANDC, major Sub-Contractors, field representatives and supervisors are to be in attendance.
- .4 Establish time and location of meeting and notify parties concerned minimum ten (10) days before meeting.
- .5 Agenda to include:
 - .1 Appointment of official representative of participants in the Work.
 - .2 Schedule of Work: in accordance with Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart.
 - .3 Schedule of submissions in accordance with Section 01 33 00 – Submittal Procedures including but not limited to:
 - .1 Site Specific Health and Safety Plan (SSHSP).
 - .1 Emergency Response Plan.
 - .2 Spill Contingency Plan.
 - .3 Wildlife Management Plan.
 - .2 Insurance and transcripts.
 - .3 Equipment to be used by Contractor.
 - .4 Proposed camp facilities in accordance with Section 01 54 00 - Camp Facilities.
 - .5 Location of equipment and proposed methods for mobilization and demobilization.
 - .6 Shop Drawings
 - .4 Requirements for temporary facilities, site sign, offices, storage sheds, utilities, fences in accordance with Section 01 52 00 - Construction Facilities.
 - .5 Delivery schedule of specified equipment.
 - .6 Proposed changes, change orders, procedures, approvals required, mark-up percentages permitted, time extensions, administrative requirements.
 - .7 Departmental Representative provided products, if any.
 - .8 Record drawings in accordance with Section 01 33 00 - Submittal Procedures.
 - .9 Maintenance manuals in accordance with Section 01 78 00 - Closeout Submittals.
 - .10 Take-over procedures, acceptance, warranties in accordance with Section 01 78 00 - Closeout Submittals.
 - .11 Monthly progress claims, administrative procedures, photographs, hold backs.
 - .12 Appointment of inspection and testing agencies or firms.
 - .13 Regulatory Issues.
 - .14 Aboriginal Opportunity Considerations and reporting.
 - .15 Project Photograph requirements.
 - .16 Regulatory Review of all permits required to complete Work.

1.4 Inter-Season Meeting

- .1 If Work activities continue for greater than one year, request a meeting of parties in contract at location of Contractor's choice to discuss the previous and upcoming

construction season and resolve issues arising from same.

- .2 Departmental Representative, Contractor, AANDC, major Sub-Contractors, field inspectors and supervisors are to be in attendance.
- .3 Establish time and location of meeting and notify parties concerned minimum ten (10) days before meeting.
- .4 Departmental Representative will preside.
- .5 Agenda may include, but not be limited to:
 - .1 Summary of the previous season's site activities.
 - .2 Comparison of progress achieved with the Project Schedule.
 - .3 Schedules and action Contractor plans to take to get back on Schedule, if required.
 - .4 Confirmation of quantities.
 - .5 Health, safety and security issues.
 - .6 Summary of interactions with AHJ.
 - .7 Work plan for the following season, if any.
 - .8 Camp requirements.
 - .9 AOC Content
- .6 Departmental Representative will record minutes of meetings and circulate to attending parties and affected parties not in attendance within seven (7) days after meeting.

1.5 Post-Construction Meeting

- .1 Within ninety (90) days after completion of construction, request a meeting of parties in contract to discuss and resolve administrative procedures and responsibilities. The meeting will be a meeting between all parties in Yellowknife, NT. The Departmental Representative will provide a venue for the meeting.
- .2 Departmental Representative, Contractor, AANDC, major Sub-Contractors, field representatives and supervisors will be in attendance.
- .3 Establish time and contact information for the meeting and notify parties concerned minimum five (5) days before meeting.
- .4 Departmental Representative will chair the meeting and take minutes. Meeting will be informal and agenda to include, but is not limited to:
 - .1 Outstanding contractual issues.
 - .2 Holdback release.
 - .3 AOC Content.
 - .4 Lessons learned.
 - .5 Outstanding submittals.
 - .6 Outstanding reporting requirements.

1.6 Weekly Construction Meetings

- .1 During course of Work, Departmental Representative will schedule on-site weekly progress meetings.
- .2 Contractor, major Sub-contractors involved in Work and Departmental Representative are to be in attendance.
- .3 Departmental Representative will record minutes of meetings, to be reviewed and agreed upon by contractor prior to circulating to attending parties and affected parties not in attendance shortly after meeting.
- .4 Agenda to include, but not be limited to:
 - .1 Review of outstanding of unaddressed items from previous meeting.
 - .2 Review of Work progress since previous meeting.
 - .3 Field observations, problems, or conflicts.
 - .4 Problems which impede construction schedule.
 - .5 Project schedule review, identifying activities that are behind schedule and providing measures to regain slippage.
 - .6 Corrective measures and procedures to regain projected schedule.
 - .7 Status of outstanding submittals.
 - .8 Proposed changes to Work operations or construction schedule.
 - .9 Health, Safety and Environment incidents and issues from week.
 - .10 Correspondence from AHJ or expected visits from AHJ.
 - .11 Camp requirements.
 - .12 Other business.

1.7 Safety Meetings

- .1 Daily Safety Meeting: meeting to be held on-site daily during the construction season and to include Contractor, all staff, on-site Departmental Representative and Departmental Representative's authorized personnel. The Daily Safety Meeting may be split into task or crew specific meetings as required. Record attendance and discussion topic(s) for daily safety meeting(s) and make available to Departmental Representative as required.
- .2 Weekly Safety Meeting: Contractor to preside over weekly safety meeting held during the duration of the construction season for all site personnel including on-site Departmental Representative and Departmental Representative's Authorized Personnel.. Minutes are to be recorded and attendance taken. Post minutes and attendance list on-site and provide copy to Departmental Representative within three (3) days of the meeting.
- .3 Hold Joint Occupational Health and Safety Committee Meetings of select Contractor management and work staff regularly during construction activities to discuss site safety in accordance with requirements of AHJ.

1.8 Monthly Progress Meetings

- .1 Departmental Representative will schedule Progress Meetings to be held on-site at approximately monthly intervals during the construction season.

- .2 Departmental Representative, Contractor, AANDC, major Sub-Contractors, field inspectors and supervisors will be in attendance. Contractor will be responsible for providing return air transportation from Yellowknife to the Tundra site, allowing sufficient time to complete the monthly meeting and a site tour.
- .3 Departmental Representative will notify parties five (5) days prior to meetings.
- .4 Representative will record minutes of meetings and circulate to attending parties and affected parties not in attendance shortly after meeting.
- .5 Agenda may include, but not be limited to:
 - .1 Summary of the previous month's site activities.
 - .2 Comparison of progress achieved with the project schedule.
 - .3 Schedules and action Contractor plans to take to get back on schedule, if required.
 - .4 Confirmation of quantities.
 - .5 Health, Safety and Environment issues.
 - .6 Summary of interactions with AHJ.
 - .7 Work plan for the following month.
 - .8 Camp requirements.
 - .9 Other business.

1.9 Measurement for Payment

- .1 Include all direct costs for the Pre-Construction Meeting at location of Contractor's choice in the lump sum price for Pre- Construction Meeting , Item 01 31 19-1, as indicated in the Basis of Payment Schedule. Item 01 31 19-1 includes, but is not limited to, arranging for meeting facilities and travel and accommodation costs for Contractor's personnel only.
- .2 Include all direct costs for the Monthly Progress Meetings on site in the unit price for Monthly Progress Meeting, Item 01 31 19-2, as indicated in the Basis of Payment Schedule. The unit price for the Monthly Progress Meetings is to include arranging for meeting facilities and travel and accommodation costs for Contractor's personnel only.
- .3 Include all direct costs for the return transportation of Departmental Representatives and their authorized personnel to the site for Monthly Meetings in the unit price for Departmental Representative's Transportation, Yellowknife to Site Monthly Meetings, Item 01 31 19-3, as indicated in the Basis of Payment Schedule. The unit price for DR's Transportation, YK to Site, is to include travel costs for a maximum of ten (10) Crown and authorized Departmental Representatives per monthly meeting. .
- .4 Except as indicated above, work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate cost of the work of this section as a separate line item in the Contract Work Breakdown Structure (CWBS) specified in Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart.

PART 2 - PRODUCTS

2.1 Not Used

PART 3 - EXECUTION

3.1 Not Used

END OF SECTION

PART 1 – GENERAL

1.1 Definitions

- .1 Activity: element of Work completed during course of Project. Activity normally has expected duration, expected cost and expected resource requirements. Activities can be subdivided into tasks.
- .2 Bar (GANTT) Chart: graphic display of Schedule-related information. In a typical Bar Chart, activities or other Project elements are listed down the left side of the chart, dates are shown across the top, and activity durations are shown as date-placed horizontal bars. Bar Charts should be derived from commercially available computerized Project management systems.
- .3 Baseline: original accepted schedule that shows all Work activities completed within specified Contract duration.
- .4 Construction Work Week: Monday to Sunday, inclusive, will provide seven (7) days Work week and define Schedule calendar working days as part of Bar (GANTT) Chart submission.
- .5 Duration: number of work periods (not including nonworking periods) required to complete activity or other Project element. Usually expressed as days or work weeks.
- .6 Milestone: significant event in Project, usually completion of major deliverable.
- .7 Project Schedule: planned dates for completing activities and the planned dates for meeting milestones. Dynamic, detailed record of tasks or activities that must be accomplished to satisfy Project objectives. Monitoring and control process involves using Project Schedule in executing and controlling activities and is used as basis for decision making throughout Project life cycle.

1.2 Submittals

- .1 Provide all submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit the Bar (GANTT) Chart to Departmental Representative within seven (7) working days of the contract award date.
- .3 Submit Contract Work Breakdown Structure (CWBS) to the Departmental Representative thirty (30) days following contract award.

1.3 Baseline Schedule

- .1 Develop a Baseline schedule that includes all Work Activities and tasks and defines the total time period anticipated necessary to complete Work.
- .2 Identify Activities and tasks that lie on the critical path. Show float where possible.
- .3 Baseline Schedule must include, at minimum, milestone and Activity types as follows:

- .1 Award.
 - .2 Meetings.
 - .3 Permits.
 - .4 Mobilization.
 - .5 Testing of ponded water
 - .6 Set up and test water treatment plant.
 - .7 Water treatment operations.
 - .8 Camp start up and Shutdown.
 - .9 Interim Certificate of Completion.
 - .10 Demobilization.
 - .11 Closeout Submittals.
 - .12 Final Completion of all site Works.
 - .13 Final Disposal of all site waste including submission of waste manifests and disposal certificates.
 - .14 Final Certificate of Completion.
- .4 Update Baseline schedule prior to commencing each summer construction season, or as requested by Departmental Representative, to account for all approved scope changes, Task Authorizations or other project changes
- .5 Revise and resubmit Baseline schedule to incorporate Departmental Representative review comments.
- 1.4 Schedule Reporting
- .1 Monitor Work progress against Baseline schedule.
 - .2 Upon Departmental Representative request, provide the schedule status of each Work Activity or task relative to the Baseline.
 - .3 Upon Departmental Representative request, provide information identifying Work status to date, comparing current Activity or task progress to baseline, strategies to recover Work schedule slippage current forecasts, problem areas, anticipated delays and impact with possible mitigation actions.
 - .4 Activities considered behind schedule are those with projected start or completion dates later than current approved dates shown on baseline schedule.
 - .5 Discuss Schedule at regular site meetings. Identify activities that are behind schedule and provide measures to regain slippage.
- 1.5 Cost and Quality Controls
- .1 Provide a Contract Work Breakdown Structure (CWBS) based on Contractor's Cost Breakdown and any modifications requested by Departmental Representative as follows:
 - .1 CWBS to be an organization of the Work to be completed, services to be provided and data to be submitted by Contractor, as well as payments to be made to Contractor under the terms of the Contract.
 - .2 The CWBS to clearly define the Work elements of each item of the CWBS.

- .3 The CWBS to include a breakdown of pay items included under Item BOPC -1, Balance of Project Costs in the Basis of Payment Schedule. All unit price, lump sum, and provisional cost sum allowance pay items included in the Basis of Payment Schedule to also be included in the CWBS.
- .4 Prepare the CWBS in computerized spreadsheet format compatible with the most recent release of Microsoft Excel software. Provide CWBS in hard copy format.
- .5 Submit the CWBS within 20 days following contract award date.
- .2 Equipment and Material Control:
 - .1 Record data on status of construction material and equipment and report upon Departmental Representative's request.
- .3 Manpower Performance Measures:
 - .1 Record and report manpower listing for each company employed under this Contract, including Sub-Contractors, detailing daily man-hours (aboriginal and non- aboriginal) during the current month and cumulative total to date.
 - .2 Provide statistical reporting.
 - .3 Provide statistics related to lost time accidents hours upon Departmental Representative's request.
- 1.6 Measurement for Payment
 - .1 Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate the cost of the Work of this Section as a separate line item in the Contract Work Breakdown Structure (CWBS) specified in this Section.

PART 2 - PRODUCTS

- 2.1 Not Used

PART 3 - EXECUTION

- 3.1 Not Used

END OF SECTION

PART 1 – GENERAL

1.1 Definition

- .1 Submittals: Plans, reports, drawings, diagrams, illustrations, schedules, equipment lists, performance charts, and other information which are to be provided by Contractor.

1.2 Administrative

- .1 Provide Departmental Representative with Submittals, as indicated in this section. Submit as indicated and in orderly sequence so as to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for an extension of Contract time and no claim for extension by reason of such default will be allowed.
- .2 Work affected by Submittal is not to commence until the DR review is complete, any required modifications to submittal are made and finalized submittal is accepted by DR.
- .3 Present product data in SI Metric units.
- .4 Where items or information is not produced in SI Metric units, converted values are acceptable.
- .5 Submit requests for payment to Departmental Representative for review.
- .6 Submit requests for interpretation of Contract Documents and obtain instructions through the Departmental Representative.
- .7 Submit and process substitutions through Departmental Representative.
- .8 Submit and process Change Orders (CO's).
- .9 Review Submittals prior to submission to Departmental Representative. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and coordinated with requirements of Work and Contract Documents. Submittals not stamped, signed, dated and identified as to a specific Project will be returned without being examined and will be considered rejected.
- .10 Notify Departmental Representative, in writing at time of submission, of deviations from requirements of Contract Documents stating reasons for deviations.
- .11 Contractor's responsibility for errors and omissions in submission is not relieved by Departmental Representative's review of Submittals.
- .12 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Departmental Representative's review.
- .13 Keep on-site one copy of each reviewed and finalized submission.

1.3 Submittals

- .1 Submit draft Submittals for review by Departmental Representative within timeframe shown in Table 01 33 00-1. After review, revise to incorporate DR comments and resubmit finalized Submittal to Departmental Representative.
- .2 If required by regulations, submittals are to bear stamp and signature of qualified professional Engineer registered or licensed in Nunavut/NWT, Canada,
- .3 Allow fourteen (14) days for Departmental Representative's review of each Submittal.
- .4 Make changes to Submittals as Departmental Representative may require, consistent with Contract Documents and resubmit for review within five (5) days.
- .5 Modifications requested by Departmental Representative on Submittals are not intended to change Contract Price. If proposed modifications affect value of Work, state such in writing to Departmental Representative and receive written approval from the Departmental Representative prior to proceeding with Work.
- .6 Submissions are to include:
 - .1 Date and revision dates.
 - .2 Project title and number
 - .3 Name and address of:
 - .1 Contractor
 - .2 Sub-Contractor
 - .3 Supplier
 - .4 Manufacturer
 - .4 Contractor's stamp, signed by Contractor's authorized representative certifying approval of Submittal, verification of field measurements and compliance with Contract Documents.
 - .5 Details of appropriate portions of Work as applicable
 - .1 Fabrication, as required
 - .2 Layout, showing dimensions, including identified field dimensions, and clearances
 - .3 Setting or erection details
 - .4 Capacities, as required
 - .5 Performance characteristics, as required
 - .6 Standards, as required
 - .7 Single line and schematic diagrams, as required
 - .8 Relationship to adjacent Work, as required
 - .6 After finalization to incorporate Departmental Representative's comments on review of draft submittal, submit electronic copy to Departmental Representative. Also submit up to three (3) hard copies of submittal if requested by Departmental Representative.

Table 01 33 00-1 Contractor Submittal Schedule		
Specification Section	Description	Date
01 11 00	Worker Orientation Seminar Information	10 days prior to seminar
01 11 00	Record of attendance at Worker Orientation Seminar	Upon Request
01 29 83	Sampling and Testing Methodology	15 days prior to arrival on site.
01 29 83	CAEAL Laboratory Certification	Upon Request
01 32 18	Contract Schedule (GANTT Chart)	Within 7 days of contract award date
01 32 18	Contract Work Breakdown Structure (CWBS)	20 days following contract award
01 32 18	Monthly Statistical Reporting	Monthly with progress claim
01 33 00	Site Photographs	Monthly with progress claim
01 33 00	Final Photographs	Prior to final progress claim
01 35 15	Wastewater Treatment Facilities effluent test results	When received
01 35 15	Wastewater Treatment Compliance Test Results	When received
01 35 15	Proposed changes to Camp Wastewater Treatment Plan and Design	As required, 70 days prior to change implementation
01 35 32	Draft Site Specific Health and Safety Plan	15 days after contract award
01 35 32	Final Site Specific Health and Safety Plan	10 days after receipt of comments
01 35 32	Inventory of health, safety, medical and first aid supplies	Within 10 days of mobilization
01 35 32	Minutes of Weekly Safety Meetings	At least once per week
01 35 32	Incident and Spill Reports	Verbal report immediately, followed by written report within 24 hours
01 35 32	Terms of Use for Firearms	Upon Request
01 35 32	Firearms Certificate	Upon Request
01 35 32	Proof of First Aid Credentials	20 days after contract award
01 35 32	Wildlife Monitor Qualifications	20 days after contract award
01 35 32	Wildlife Management Plan	15 days after contract award
01 35 32	Fire Safety Program	15 days after contract award
01 35 43	Inventory of Environmental Protection Supplies	30 days prior to mobilization
01 35 43	Erosion, Sediment and Drainage Control Plan	If changes to approved plans are required, 90 days prior to change
01 35 43	Spill Contingency Plan	If changes to approved plans are required, 90 days prior to change
01 41 00	MSDS Sheets	Upon delivery of materials
01 45 00	Contractor's inspection and test reports	When received
01 53 00	Mobilization Plan	15 days prior to mobilization
01 53 00	Material and Equipment List	15 days prior to mobilization
01 53 00	De-mobilization Plan	30 days prior to de-mobilization
01 54 00	Camp Layout	15 days prior to mobilization
01 54 00	Camp Inspection Report	10 days prior to mobilization
01 54 00	Camp Permits and Licenses	Within 30 days of camp start-up
01 54 00	Incineration Management Plan	If changes to approved plans are required, 90 days prior to change
01 54 00	Potable Water Test Results	Every four weeks
01 54 00	Sketch of proposed field laboratories	15 days prior to mobilization
01 54 00	Camp Rules	Prior to commencing operations
01 71 00	Survey Equipment Calibration Records	10 days prior to start of construction
01 71 00	Surveyor Information	10 days prior to start of construction
01 71 00	Survey Data and documentation submissions	As required and with Progress Claims

01 71 00	Drawings	As required and with Progress Claims
01 78 00	Project Close-out Documents	45 days after project completion
01 78 00	Seasonal Water Treatment Report	Within 60 days of last day of treatment
44 41 13	Contact Wastewater Treatment Facility Design, Operation and Maintenance Plan	If changes to the approved plan are required, 70 days prior to treatment of water
44 41 13	Commissioning Report and As-built Drawings	60 days after construction
44 41 13	Weekly Plant Operation Report	Within 3 days of end of week
44 41 13	Discharge monitoring procedure and Quality Control Plan	45 days prior to treatment of water

1.4 Photographs

- .1 Provide photographs to highlight and illustrate details of Submittals, as appropriate.
- .2 Water Treatment Plant Weekly Operations Reports and Weekly Site Operations Reports are to include a minimum of two photographs per day to accompany and further describe report text.
- .3 Upon Departmental Representative request, provide Water Treatment Plant Weekly Operations Report and Weekly Site Operations photos in "Joint Photographic Experts Group" (.jpg) format for Progress Photographs and Final Photographs.

1.5 Measurement for Payment

- .1 Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate cost of the work of this section as a separate line item in the Contract Work Breakdown Structure (CWBS) specified in Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart.

PART 2 - PRODUCTS

2.1 Not Used

PART 3 - EXECUTION

3.1 Not Used

END OF SECTION

PART 1 - GENERAL

1.1 Definitions

- .1 Camp Wastewater: Wash water, rinse water, water from operation of camp facilities, and/or any other liquid effluent stream created or encountered during camp activities, including, but not limited to, greywater, kitchen sumps and traps and blackwater.
- .2 Process Wastewater: Water created or encountered during Work activities including, but not limited to, wastewater streams from decontamination activities, equipment decontamination water and wash/rinse water.
- .3 Processed Wastewater: Camp or Process Wastewater processed through the Wastewater Treatment Facilities.
- .4 Treated Wastewater: Processed Wastewater which has been tested and shown to be in compliance with applicable discharge criteria and requirements of this Section and Section 01 35 43 - Environmental Procedures.
- .5 Contact Water: Water that exceeds the Maximum Daily Average Concentration identified in Section 44 41 13 2.1.1.4.

1.2 Regulatory Requirements

- .1 Comply with federal, provincial, territorial, and local anti-pollution laws, ordinances, codes, and regulations when disposing of waste materials, debris, and rubbish.

1.3 Submittals

- .1 Provide all Submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit Wastewater Treatment Facilities effluent testing results to the Departmental Representative as they are received.
- .3 Camp Wastewater Treatment Facility Design, Operation and Maintenance Plan must conform to approved plans. Proposed changes to the approved plans must be submitted to the Departmental Representative seventy days (70) prior to implementation of changes. Camp Wastewater Treatment Facility designs will be stamped by a professional engineer registered or licensed to practice in NWT/Nunavut.

1.4 Wastewater Treatment Facilities Design Requirements

- .1 Contain Camp Wastewater separately from Contact Wastewater:
- .2 Wastewater Treatment Facilities:
 - .1 Design Wastewater Treatment Facilities capable of treating Contact

Water generated from dewatering excavations, process water, and Work areas to meet the following Water License discharge:

Parameter	Maximum Allowable Concentration
Volatile Hydrocarbons	15 mg/L
Extractable Hydrocarbons	5 mg/L
Non-Aqueous Phase Liquid / Free Product	Not Present
Phenols	0.02 mg/L
pH	6 to 9
Total Arsenic	0.2 mg/L/L
Total Copper	0.01 mg/L
Total Lead	0.01 mg/L
Total Nickel	0.05 mg/L
Total Zinc	0.02 mg/L

- .2 Design Wastewater Treatment Facilities capable of treating Camp Wastewater to meet the following Water License discharge criteria:

Parameter	Maximum Allowable Concentration
pH	6 to 9
Mineral Oil and Grease	5.0mg/L and none visible
Total Suspended Solids	100 mg/L
BOD	120 mg/L
Fecal Coliforms	10,000 CFU/dL

- .3 Provide piping to transfer liquid/solid mixtures generated by dewatering operations which require transport to the wastewater treatment facility.
- .4 Wastewater Treatment Systems must be capable of receiving liquid/solid mixtures to not cause delay to dewatering operations.
- .5 In the event of a discrepancy between the above listed wastewater requirements and those provided in the Water License, the more stringent requirements will govern.

1.5 Wastewater Treatment Facilities Discharge Requirements

- .1 Provide adequate containment facilities for processed wastewater, prior to discharge, to complete testing and analytical requirements. Wastewater storage ponds meeting all requirements of AHJ are permitted.
- .2 Water discharge on-site must be in compliance with applicable permits, authorizations and approvals. Make adjustments to Wastewater Treatment Facilities or provide alternative equipment, at no additional cost, such that Processed Wastewater meets applicable permit requirements and limitations for discharge.
- .3 Wastewater discharges from site must be in compliance with applicable permit requirements.
- .1 Camp Wastewater and Process Wastewater is to be released onto the

ground at a location, reviewed and accepted by the Departmental Representative, that is a minimum of 30 m from natural drainage courses and 100 m from fish bearing waters and conform to discharge requirements set out by AHJ.

- .2 Treated effluent from the Tailing Water Treatment Plant will be discharged into Hambone Lake as detailed in Section 44 41 13 – Commercial Water Treatments Plants. Discharge treated WTP effluent to Hambone Lake or to downstream waterways in a manner such that no erosion occurs.
- .3 If unable to meet the discharge criteria, provide additional storage and/or treatment necessary to meet criteria prior to discharge.
- .4 No direct discharge is allowed to wetland or surface waters.
- .5 Contractor must obtain approval from AHJ prior to discharging Treated Wastewater.

- .4 Dispose of any Processed Wastewater not meeting effluent criteria and applicable permit requirements and limitations for discharge in accordance with Section 02 61 33 - Hazardous Waste Material, at the Contractor's expense including, but not limited to, transporting and disposing of Processed Wastewater to approved disposal facilities.

1.6 Wastewater Storage Facilities

- .1 Provide, operate, and maintain wastewater storage facilities to store wastewater, as required by Work operations
- .2 Provide pumps and piping to convey collected wastewater to designated wastewater storage facilities.
- .3 Provide storage facilities with minimum total live capacity such that effluent quality can be analyzed and approved prior to discharge.
- .4 Install wastewater storage facilities only in locations approved by Departmental Representative.
- .5 Support tank(s) on (temporary) above ground foundation(s).
- .6 Connect pumps, piping, valves, miscellaneous items, and necessary utilities as required for operation of facilities; and protect tanks, valves, pumps, piping, and miscellaneous items from freezing.
- .7 Do not operate wastewater storage facilities until inspected and approved by Departmental Representative.
- .8 Notify Departmental Representative three (3) days minimum in advance of when wastewater storage facility is anticipated to be full.
 - .1 Do not discharge additional liquids to filled facility following sampling.
 - .2 Departmental Representative will determine appropriate disposition of wastewater based on sample analysis.
- .9 Treat wastewater on site or transport and dispose of wastewater at Contractor's off-site disposal facilities only after, approved by Department Representative

- .10 Be responsible for transporting and disposing of wastewater to Contractor's off-site disposal facilities.
- .11 Be responsible for additional testing required by the Contractor's off-site disposal facilities.

1.7 Equipment Decontamination

- .1 Decontaminate equipment, including buckets, tracks and undercarriage, after working in potential and known tailings areas and prior to subsequent work or travel on non-tailings areas.
- .2 At minimum, complete the following steps during equipment decontamination:
 - .1 Mechanically remove loose waste solids, dirt, grit, and debris by manual methods without using steam or high-pressure water to minimize water usage and potential for contaminated rinsate generated.
 - .2 Should decontamination not be achieved using above, use high-pressure, low- volume, hot water or steam supplemented by detergents or solvents as appropriate and accepted by Departmental Representative. Complete an assessment as directed by Departmental Representative, to determine effectiveness of decontamination.
 - .3 Collect and dispose of the removed material within the Tailings Containment Area or at off-site disposal facility approved by Departmental representative.
- .3 Contain any rinsate created during the removal process as Process Wastewater.
- .4 Complete final decontamination of equipment, and materials which may have come in contact with tailings materials prior to removal from site.
- .5 Furnish and equip personnel engaged in equipment decontamination with protective equipment including suitable disposable clothing, respiratory protection, and face shields.
- .6 Each piece of equipment may be inspected by Departmental Representative or designate after decontamination and prior to removal from site and/or travel on non-tailings areas. Departmental Representative will have right to require additional decontamination to be completed, if deemed necessary.
- .7 Take appropriate measures necessary to minimize drift of mist and spray during decontamination, including provision of wind splash screens, as required.
- .8 Take special precautions to mitigate the tracking of tailings outside the TCA extent.

1.8 Water Control

- .1 Protect site from ponding or running water. Grade site to drain.

- .2 Direct surface waters that have not contacted potentially contaminated materials or areas to existing surface drainage systems.
- .3 Dispose of water in manner not injurious to public health or safety, to property, or to any part of Work completed or under construction.
- .4 Provide, operate, and maintain necessary equipment appropriately sized to keep staging pads, and other Work areas free from water.
- .5 Have on hand sufficient pumping equipment, machinery, and tankage in good working condition for emergencies, including power outage, and competent workers for operation of pumping equipment.

1.9 Dewatering

- .1 Dewater various parts of Work including, without limitation, structures, foundations, and Work areas, as required to complete work.
- .2 Employ construction methods, plant procedures and precautions such that Work, is stable, free from disturbance, and dry.
- .3 Provide sufficient and appropriate labour, plant, and equipment necessary to keep Work free of water including standby equipment necessary to provide continuous operation of dewatering system.
- .4 Upon request from Departmental Representative, test and analyze water generated from dewatering activities and treat to meet required discharge or disposal criteria.

1.10 Removal and Disposal

- .1 Remove surplus materials and temporary facilities from site.
- .2 Dispose of the following materials at appropriate off-site facilities identified by Contractor and approved by Departmental Representative: debris including excess construction material, non-contaminated litter and rubbish; disposable PPE worn during final cleaning; wastewater removed from wastewater storage tank, wastewater generated from decontamination operations including wastewater storage tank cleaning; and lumber from decontamination pads.

1.11 Testing

- .1 Carry out and pay for all testing required to confirm that wastewater complies with Treated Wastewater discharge criteria outlined in this Section. Submit records of this testing to Department Representative as received.
- .2 Carry out and pay for all testing required for the classification of waste and other licensed disposal facility acceptance requirements outlined in this Section and Section 01 29 83 – Payment Procedures for Testing Laboratory Services.

1.12 Measurement for Payment

- .1 Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate the cost of this Work as a separate line item in the Cost Breakdown specified in Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart.

PART 2 - PRODUCTS

2.1 Piping

- .1 Suitable material type, of sufficient diameter and structural thickness for purpose intended; satisfactorily tested for leaks with potable water before handling wastewater.

PART 3 - EXECUTION

3.1 Installation, Commissioning, Operation and Decommissioning of Wastewater Treatment Facilities

.1 Installation:

- .1 Provide labour, materials, and equipment and complete Work required for setup and construction of Wastewater Treatment Facilities.
- .2 Install component systems in accordance with installation procedures and manufacturer's recommendations.
- .3 Following installation of system, implement initial operation test in accordance with procedures developed by Contractor and submitted to Departmental Representative for review.
- .4 Install piping in accordance with manufacturer's instructions and test for leakage using potable water prior to commencing treatment operations.

.2 Operation:

- .1 Obtain and analyze influent and effluent samples required to operate the system.
- .2 Make system modifications required for effluent to satisfy effluent criteria based on analytical results.
- .3 Operate Wastewater Treatment Facilities by experienced, qualified personnel in accordance with manufacturer's instructions and procedures submitted by Contractor and accepted by Departmental Representative.
- .4 Operate the Wastewater Treatment Facilities such that storage tanks and storage ponds are either empty at the end of the construction season or have allowances for expansion of water due to freezing.

.3 Decommissioning/Dismantling:

- .1 Decontaminate and remove salvageable components of Wastewater Treatment Facilities including water treatment system, pumps, piping, and electrical equipment.
- .2 Dispose of non-salvageable equipment and materials at approved off-site disposal facilities. Decontaminate salvageable equipment within facility

area as required prior to removal from site.

END OF SECTION

PART 1 – GENERAL

1.1 Definitions

- .1 Separated Work Group: a work crew of any number of personnel working at a location where immediate medical attention from site medical personnel may not be possible due to environmental, mechanical or other factors.

1.2 References and Codes - Federal

- .1 Meet or exceed the most current issue of governing codes, standards and guidelines, and regulations applicable to Work and issued under the authority of the Government of Canada including, but not limited to the following:
 - .1 Canada Labour Code Part II – Occupational Health and Safety (R.S. 1985, c.L-2)
 - .2 Canada Mining Regulations (C.R.C.C. 1516)
 - .3 Export and Import of Import of Hazardous Waste and Hazardous Recyclable Material Regulations (EIHWHRMR) (SOR/2005-149).
 - .4 Canadian Environmental Protection Act, S.C. 1999 (S.C. 1999, c.33) a.SOR/2002-318
 - .5 Controlled Products Regulations (SOR/88-66) a.SOR/2001-254
 - .6 Inter-Provincial Movement of Hazardous Waste Regulations (SOR/2002-301).
 - .7 National Fire Code of Canada, 1995 a. 2002.
 - .8 Transportation of Dangerous Goods Act, 1992 (S.C. 1992, c.34) a.1999, c.31.
 - .9 Transportation of Dangerous Goods Regulations (SOR/2001-286) a.SOR/2011-60.
 - .10 Storage Tank Systems for Petroleum Products & Allied Petroleum Products Regulations (SOR/2008-197).
 - .11 Contaminated Sites Management Policy (INAC, 2002).
 - .12 Northern Affairs Contaminated Sites Management Policy (INAC, 2002).
 - .13 Construction Project Safety Management Guide, 5th Edition (PW GSC, 2008).
 - .14 Environment Canada Technical Document for Batch Waste Incineration, EC, 2010.
 - .15 National Building Code of Canada (NCR, 2010)

1.3 References and Codes – Northwest Territories

- .1 Meet or exceed the governing codes, standards and guidelines, and regulations applicable to Work and issued under the authority of the Government of the Northwest Territories as follows:
 - .1 Labour Standards Act, (R.S.N.W.T. 1988, c L-1) amended S.N.W.T., c.15, in force January 2004
 - .2 Public Health Act, R.S.N.W.T. 1988, c.P-12.
 - .3 Spill Contingency Planning and Reporting Regulations R-068-93.
 - .4 Fire Prevention Act, R.S.N.W.T. 1988, c F-6.
 - .5 Transportation of Dangerous Goods Act (1990, R.S.N.W.T. 1990, c 36).
 - .6 Used Oil and Waste Fuel Management Regulation, November 2003

- .7 Work Site Hazardous Materials Information System Regulations, (R.R.N.W.T. 1990 c.S-2)
- .8 Northwest Territories Mine Health & Safety Act (S.N.W.T. 1994, c.25 in force
December 15, 1995 SI-014-95)

1.4 Site Health and Safety Compliance Meetings

- .1 As part of the Monthly Progress Meeting, participate in compliance meeting to review reporting and adherence with Health and Safety requirements including the provision of hard copies of pertinent Health and Safety statistics for the month in review. Provide the Departmental Representative with an electronic copy of pertinent Health and Safety statistics for inclusion in the monthly meeting minute distribution.
- .2 Departmental Representative will record minutes, chair the meeting and distribute minutes to parties of record prior to the next Scheduled meeting.
- .3 Attendees:
 - .1 Contractor: Manager and/or Supervisor(s), representatives of major Sub-Contractors, and others as necessary.
 - .2 Departmental Representative and representatives of Independent Inspection Agencies.
 - .3 AANDC representative(s).
- .4 Agenda to include:
 - .1 Review and approval of minutes of previous meeting.
 - .2 Review of items of significance that could affect Work.
 - .3 Review of site inspections: Inspect the site on a monthly basis, or more or less often, as determined by the Contractor's SSHSP or as dictated by AHJ.
 - .4 Identify and record field observations, problems, and conflicts that must be noted in reports required by AHJ.
 - .5 Identify corrective measures and procedures to regain approval from AHJ.
 - .6 Identification of requirements for maintenance of quality standards needed for compliance with applicable Codes and Legislation.
 - .7 Review of site safety issues.
 - .8 Review of regulatory compliance.
 - .9 Other topics for discussion as appropriate to current status of the Work.

1.6 Submittals

- .1 Provide all submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit a draft Site Specific Health and Safety Plan no later than fifteen (15) days after contract award to the Departmental Representative for review. Incorporate and address Departmental Representative review comments into finalized Site Specific Health and Safety Plan and submit to Departmental Representative no later than ten (10) days following receipt of review comments.

- .3 Submit one (1) electronic copy of the final Site Specific Health and Safety Plan to the Departmental Representative ten (10) days prior to mobilization to site. Submit up to three (3) hard copies of final Site Specific Health and Safety Plan, as requested by Departmental Representative.
- .4 Update the Site Specific Health and Safety Plan as requested by Departmental Representative, up to twice per calendar year of construction.
- .5 The Site Specific Health and Safety Plan is to include, but is not limited to the following sections:
 - .1 A Statement of Contractor's Safety Policy.
 - .2 Environmental, Health and Safety Management Plan.
 - .3 Name and telephone number of Contractor's corporate Safety Officer and on-site Safety Representative.
 - .4 Safety Responsibilities of all on-site personnel.
 - .5 Emergency Response Plan.
 - .6 Anti-Harassment Policy.
 - .7 Anti-Violence Policy.
 - .8 Safe Work Practices and/or Job Procedures.
 - .9 Requirements for safety meetings and documentation.
 - .10 Safety Inspection Plan.
 - .11 Camp Rules and their enforcement.
 - .12 Traffic Plan, including site traffic rules and speed limits.
 - .13 First Aid Locations.
 - .14 Results of safety and health risk or hazard analysis for camp and construction activities.
 - .15 Procedures for, but not limited to, cold weather survival, heat stress, remote Work and general worker health and safety.
 - .16 Procedures for working near or adjacent to water hazards (within 3 metres).
 - .17 Buddy system and procedures for working alone.
 - .18 Workplace Hazardous Materials Information System (WHMIS) and Material Safety Data Sheet (MSDS) records. Personal Protective Equipment (PPE) Program, including Contaminated Sites Working and Decontamination Procedures.
 - .19 Personnel hygiene.
 - .20 Respiratory Protection Program.
 - .21 Procedures for emergency site communications.
 - .22 On-site Contingency and Emergency Response Plan.
 - .23 Fuel Management Plan, including details of safe standard operating procedures for transport and transferring fuel to and from containers and vehicles.
 - .24 Fire Safety Program.
 - .25 Wildlife Management Plan.
 - .26 Procedures for encountering suspected hazardous materials.
 - .27 Blasting Cap or unexploded ordnance (UXO) awareness and handling.
 - .28 Lockout/Tagout procedures for equipment that could become energized.
 - .29 Marine Safety.
 - .30 Details and Procedures for the Operation and Maintenance of an AED
- .6 The On-site Contingency and Emergency Response Plan is to address standard operating procedures to be implemented during emergency situations. Plan is to include

contributions from appropriate authorities including the Government of Northwest Territories Safety Act, Hospitals, RCMP, Ministry of Transportation, and Ministry of Health. Plan will identify off-site Emergency Response Coordinator through whom all information and coordination will flow in the event of an incident.

- .7 Complete an inventory of Contractor's health, safety, medical and first aid equipment and supplies on-site to assess compliance with AHJ requirements. Submit the inventory to Departmental Representative within ten (10) days of mobilization each season. Include a schedule for upgrading deficiencies to meet requirements of AHJ.
- .8 The PPE Program described within the SSHSP will include, but is not limited to, the following.
 - .1 Donning and doffing procedures.
 - .2 PPE Selection based upon site hazards and work activities.
 - .3 PPE use and limitations of equipment.
 - .4 Work mission duration, PPE maintenance and storage.
 - .5 PPE decontamination and disposal.
 - .6 PPE inspection procedures prior to, during, and after use.
 - .7 Evaluation of effectiveness of PPE program and limitations during temperature extremes, and other appropriate medical considerations.
 - .8 Medical surveillance requirements for personnel assigned to work at site.
 - .9 Contaminated site working and decontamination procedures for both personnel and equipment.
 - .10 Proof of respirator fit testing.

1.6 Construction Safety Measures

- .1 Designate a resident Health and Safety Officer to oversee Contractor's Site Specific Health and Safety Plan with the authority to enforce policies and procedures set out in the Site Specific Health and Safety Plan. Health and Safety Officer is to have acceptable training and experience in administering construction health and safety programs.
- .2 Observe and enforce construction safety measures required by the latest revisions of: Canada Labour Code, National Building Code of Canada, National Fire Code of Canada, Workers' Safety and Compensation Commission (WSCC), the applicable Occupational Health and Safety Regulations, and Territorial and local statutes and authorities.
- .3 In the event of discrepancies between any requirements of the above listed authorities, the more stringent requirements will govern.
- .4 Hold safety meetings as per this Section and as per Section 01 31 19 - Project Meetings.
- .5 Maintain at the site, five (5) safety hats with liners, five (5) safety hi-visibility vests, a supply of ear plugs, gloves, and safety glasses for use by Departmental Representative and visitors.
- .6 Maintain a supply of Tyvek or equivalent suits of various sizes as required for Contractor's staff, Departmental Representative and up to three (3) visitors for the duration of the Work.

- .7 Comply with all applicable health and safety policies and procedures from AHJ.
- .8 Departmental Representative or Departmental Representative's Authorized Personnel has the authority to stop Work on the contract if, in his/her opinion, the Work is being completed in an unsafe manner as required by the applicable safety legislation. Assign responsibility and obligation to the Contractor's Health and Safety Officer where required to stop or start work.
- .9 Verify that emergency procedures, including appropriate First aid facilities and First Aid personnel, are in place at the Work Site. First aid facilities and First Aid personnel must be in compliance with the NWT Mine Health and Safety Act.
- .10 Verify that procedures meet WSCC and HRSDC requirements.
- .11 PPE Program and Contaminated Sites Working and Decontamination procedures to be consistent with requirements OSHA's 29 CFR 1910.120 HAZWOPER and territorial environmental regulations for:
 - .1 Activities, where employees are likely to be exposed to 50% of Threshold Limit Values (TLV) listed by American Conference of Governmental Hygienists (ACGIH), TLVs and BEIs based on documentation of Threshold Limit Values (TLV) for Chemical Substances and Physical Agents and Biological Exposure Indices (BEI) 2004 and amendments thereto.
- .12 Hazardous Material Discovery
 - .1 Immediately stop Work and notify Departmental Representative for further instructions if suspected hazardous materials are encountered during course of Work.
- 1.7 Posting of Documents
 - .1 All relevant Health & Safety documents, including but not limited to, the Site Specific Health & Safety Plan, Emergency Response Plan, Notices and Orders received from the AHJs, permits, codes and regulations, will be posted conspicuously on site in an accessible location.
- 1.8 Filing of Notice
 - .1 File Notice of Work with Territorial AHJ prior to commencement of Work.
- 1.9 Regulatory Requirements
 - .1 Comply with specified standards, regulations and orders of AHJ to operate safely at sites containing hazardous or toxic materials and other hazards (such as wildlife encounters, falls, etc.).
 - .2 All equipment brought to the site must meet Mine Health and Safety Regulations, NWT.

1.10 Responsibility

- .1 Be responsible for safety of persons and property on-site and for protection of public off-site and environment to extent that they may be affected by the site and conduct of Work.
- .2 The health and safety of personnel and the public takes precedence.
- .3 Control access to the site. Persons with business at the site and who are not Contractor's employees must be oriented on site specific health and safety issues and be provided with access to a copy of the Site Specific Health and Safety Plan.
- .4 Contractor may refuse access to the site to any person not complying with site specific health and safety standards.
- .5 Comply with and enforce compliance by employees with safety requirements of contract documents, applicable Federal, Territorial and local statutes, regulations and ordinances, Worker Orientation Seminar, and with Site Specific Health and Safety Plan:
 - .1 Conduct appropriate safety training for all personnel working on the site.
 - .2 Conduct workplace safety inspections for all Work activities regularly and in accordance with all applicable acts and regulations.
 - .3 Maintain a log of first aid and safety supplies, and notify appropriate personnel for restocking after each incident, and periodical restocking to replace out dated or consumable (headache medicines, bandages) products.

1.11 Hazardous Material Communication Requirements

- .1 Comply with Work Site Hazardous Materials Information System Regulations of AHJ.
- .2 Provide Departmental Representative with Material Safety Data Sheets (MSDS) and documentation on any "hazardous" chemical that Contractor or Contractor Representatives plan to bring onto site; bound in one place and stored in accordance with the Site Specific Health and Safety Plan.

1.12 Unforeseen Hazards

- .1 Should any unforeseen or peculiar safety related factor, hazard, or condition become evident, stop Work, assess, take steps to mitigate if necessary at that time and immediately advise Departmental Representative verbally and in writing.
- .2 Monitor potential low oxygen and Lower Explosive Limits (LEL) areas with oxygen/LEL monitor if workers are working in and around area. These areas include but are not limited to trenches, excavations, confined spaces and areas near machinery exhaust.

1.13 Safety and Hygiene

- .1 Provide training for all persons entering the site in accordance with specified personnel training requirements, maintain log of who was trained by having the trainee sign the training log, what training was provided and by whom the training was

conducted.

.2 Personal Protective Equipment (PPE):

- .1 Furnish site personnel with appropriate PPE as required by legislation.
- .2 Verify that safety equipment and protective clothing is kept clean and well maintained.
- .3 All clothing and personal protective equipment used on site shall remain on site, to be either decontaminated or disposed of. No Work clothing is to leave Work site without having been properly decontaminated.
- .4 Outline and designate PPE for each site and Work activity in accordance with AHJ.

.3 Develop written PPE care and use procedures to be included in the PPE Program under the Site Specific Health and Safety Plan and verify that procedures are strictly followed by site personnel including, but not limited to, the following:

- .1 Provisions for prescription eyeglasses with side shields worn as safety glasses.
- .2 Provisions for steel toed safety shoes or boots covered by rubber overshoes when entering or working in potentially contaminated Work areas.
- .3 Dispose of or decontaminate PPE worn on-site at end of each workday.
- .4 Decontaminate reusable PPE before reissuing.
- .5 Provisions for decontamination arising from entry or exit into contaminated areas.

.4 Develop a written Respiratory Protection program to be included in the Site Specific Health and Safety Plan and strictly enforce compliance with the program by site personnel; include the following procedures as minimum:

- .1 Provide site personnel with extensive training in usage and limitations of, and qualitative fit testing for, air purifying and supplied air respirators in accordance with specified regulations.
- .2 Monitor, evaluate, and provide respiratory protection for site personnel.
- .3 Verify that levels of protection as listed have been chosen to be consistent with site specific potential airborne hazards associated with major contaminants identified on site.
- .4 Immediately notify Departmental Representative when level of respiratory protection required increases.
- .5 Verify that appropriate respiratory protection during Work activities is available and readily accessible; all personnel entering potentially contaminated Work areas will be supplied with and use appropriate respiratory protection.
- .6 Assess ability for site personnel to wear respiratory protection.
- .7 Verify that site personnel have passed respirator fit test prior to entering potentially contaminated areas.
- .8 Verify that facial hair does not interfere with proper respirator fit.
- .9 Submit proof of fit testing for site personnel to Departmental Representative. Update submission when new personnel are added to Work or when new Work activities occur.

.5 Heat Stress/Cold Stress: Implement heat stress and cold stress monitoring program as applicable and include in Site Specific Health and Safety Plan.

- .6 Personnel Hygiene and Personnel Decontamination Procedures: provide minimum as follows:
 - .1 Suitable containers for storage and disposal of used disposable PPE.
 - .2 Potable water and suitable sanitation facility.
 - .3 Access to hot water shower facilities.
 - .4 Provisions for proper disposal of contaminated PPE.

1.14 Site Communication

- .1 Post emergency numbers near site telephones and on site radios. Update emergency numbers as required.
- .2 Train personnel in the use of "buddy" system.
- .3 Radios must have sufficient range for continuous communication. Contractor must provide repeater stations and/or booster stations as required such that all workers are in live contact or have the ability to immediately contact base operations and wildlife monitors at all times.
- .4 Provide alarm system to notify employees of site emergency situations or to stop Work activities if necessary. Identify emergency stations and Muster Points. Test alarm system regularly and train personnel to use alarm system as required.
- .5 All equipment must have operational two-way radio communication while in operation.

1.15 Vehicle and Equipment Usage

- .1 Seatbelts must be worn at all times when vehicle or equipment is in operation.
- .2 Speed limits must be set and obeyed.
- .3 If road conditions are unsafe or marginally unsafe, maintain roads to acceptable standards. Do not risk property damage or injury.
- .4 Vehicles are not to be idled for longer than 10 minutes (warm up) unless explicitly used as a place of refuge during animal encounters or for personnel working outdoors during winter operations. Exceptions are to be made in consultation with Departmental Representative.
- .5 Complete vehicle maintenance and lubrication of equipment in a manner that avoids spillage of fuels, oils, grease and coolants. When refueling equipment, use leak free containers and reinforced rip and puncture proof hoses and nozzles. Remain in attendance for duration of refuelling operation and properly seal all storage container outlets after use.
- .6 Collect and dispose of used oil, grease and coolants from Contractor's vehicle maintenance activities as hazardous waste as detailed in Section 02 61 33 - Hazardous Waste Material.

- .7 Place drip pans under stationary equipment.
- .8 All vehicles brought to the site must have rotating beacons and buggy whips.
- .9 All stationary 'wheeled' equipment must be secured by wheel chocks.

1.16 Medical

- .1 Provide and maintain first aid and medical care and facilities for all workers as required by the Statutes of the NWT.
- .2 Maintain first aid supplies and sick quarters separate from general living quarters.
- .3 Provide the appropriate first aid kit, based on the number of workers, in accordance with the NWT Mine Health and Safety Act.
- .4 Establish an emergency response plan, acceptable to Departmental Representative, for the removal of any injured person to medical facilities or a doctor's care in accordance with applicable legislative and regulatory requirements. In the event that the Emergency Medical Technician (EMT) departs site with the patient, replace the EMT as soon as possible.
- .5 Provide proof of First Aid credentials to Departmental Representative prior to the start of each construction season. Provide the appropriate number of First Aid attendants on-site in accordance with the NWT Mine Health and Safety Act and a minimum of one (1) person trained in Wilderness First Aid for each separated work group.
- .6 Emergency and First Aid Equipment:
 - .1 Locate and maintain emergency and first aid equipment in appropriate location on site including first aid kit to accommodate number of site personnel at each camp as well as Separated Work Groups during site operations; portable emergency eye wash; fire protection equipment as required by legislation.
 - .2 Locate sufficient self-contained breathing apparatus units; blankets and towels; stretcher; and one (1) hand held emergency siren in all confined access locations.
 - .3 Locate and maintain an Automated External Defibrillator (AED) in an appropriate location at project area. Submit details and procedures related to the operation and maintenance of the Automated External Defibrillator unit following the "Best Practice Model for implementation of an External Automated Defibrillator Program" with the Site Specific Health and Safety Plan.
- .7 Provide a full time Emergency Medical Technician (EMT), with 1000 hours of classroom and practical training, and six (6) weeks of practical experience with required number of emergency response calls. The EMT will be territorially certified by a required exam and refresher exams every two (2) years. An EMT is a highly trained medical professional who responds to medical and trauma emergencies in the pre-hospital setting ("in-field") for the purpose of stabilizing a patient's condition before and during transportation to an appropriate medical facility.

1.17 Incidents and Accident Reports

- .1 Immediately report, verbally, followed by a written report within 24 hours, to Departmental Representative, all incidents and accidents of any sort arising out of or in connection with the performance of the Work, giving full details and statements of witnesses. If death or serious injuries or damages are caused, report the accident promptly as required under federal and territorial laws and regulations.
- .2 If a claim is made by anyone against the Contractor or Sub-Contractor on account of any accident, promptly report the facts in writing to Departmental Representative, giving full details of the claim.

1.18 Security

- .1 Enforce the Camp Rules as provided under Section 01 54 00 - Camp Facilities.
- .2 Limit site access only to persons employed on the Project. Unauthorized persons will be permitted on site only with the approval of Departmental Representative or Contractor.

1.19 Wildlife Management

- .1 Develop a Wildlife Management Plan, as part of the Site Specific Health and Safety Plan, that addresses, as a minimum, the following:
 - .1 Avoidance of active animal dens.
 - .2 Avoidance of active nests;
 - .3 Disturbance minimizing of migration activities
 - .4 Minimizing disturbances caused by aircrafts
 - .5 Qualifications and training plans for wildlife monitors
 - .6 Firearms licensing requirements for Wildlife Monitors
 - .7 Firearms must be stored and used in accordance with all AHJ. Terms of Use for firearms must be submitted to Departmental Representative for review
 - .8 All wildlife encounters and sightings must be reported to Departmental Representative as part of the weekly report.
 - .9 All persons on site must be made aware of wildlife attractants and proper procedures to be followed in the event of wildlife encounter
 - .10 A minimum of one (1) person must be designated as a Wildlife Monitor for each Separated Work Group and trained in firearms and wildlife deterrent use. Qualifications and training plans for Wildlife Monitors must be submitted to Departmental Representative as part of the Site Specific Safety Plan.
 - .11 Wildlife deterrent electric wire fence and alarm system installed around the main camp facilities must be tested regularly and the results reported to the Departmental Representative as part of the weekly report.

1.20 Wildlife Monitors

- .1 Provide for the duration of the construction seasons, full-time wildlife monitors acceptable to Departmental Representative. Provide sufficient number of wildlife monitors with firearms and ammunition to protect the safety of all workers in all areas, day and night, including Departmental Representative and Departmental Representative's

support staff during site operations.

- .2 Assign a wildlife monitor to accompany Departmental Representative and Departmental Representative's support staff during all inspections and soil/material sampling activities that take place away from Work operations area(s).
- .3 All Wildlife Monitors are required to have valid certification for use of a firearm. Copies of the certification are to be included with the Site Specific Health and Safety Plan.
- .4 Assume full responsibility for reporting incidents associated with wildlife encounters.
- .5 Supply one All Terrain Vehicle (ATV) or pick-up truck per wildlife monitor to facilitate his/her duties. Wildlife monitors must be fully trained in the safe use of the equipment.
- .6 Provide the wildlife monitors with mobile communication radios with charging units for on-site communication between the wildlife monitors, Contractor base radio, and Departmental Representative and Departmental Representative's Authorized Personnel.
- .7 When possible, use non-lethal ammunition to deter wildlife prior to the use of lethal ammunition.

1.21 Fire Safety

- .1 Provide all fire prevention, fire protection and fire fighting services at the Project site.
- .2 Implement a Fire Safety Program that includes fire prevention, fire protection and fire fighting requirements, including establishment of a designated muster station. Submit Fire Safety Program in writing to Departmental Representative for review with the Site Specific Health and Safety Plan. Such review does not relieve Contractor from any obligations or responsibilities required by the Contract.
- .3 All personnel on-site including Sub-Contractors and other temporary personnel are to be briefed on fire safety requirements and are familiar with the fire prevention, fire protection and fire fighting program.
- .4 The Fire Safety Program to meet or exceed the most recent editions of the following codes and standards:
 - .1 NWT Mine Health and Safety Act.
 - .2 National Fire Code of Canada.
 - .3 Canada Labour Code
- .5 Personnel designated for fire fighting services must be provided with training for any special hazards that may be present. These personnel must also be provided with protective equipment as required by the National Fire Code of Canada.

1.22 Reporting Fires

- .1 A person discovering a fire and all fire related incidents is to report immediately, by fastest available means, to site superintendent. Site superintendent will inform

Departmental Representative.

- .2 A person discovering a fire will if possible, remain in the vicinity to direct fire fighting personnel.

1.23 Fire Extinguishers

- .1 Provide and maintain fire extinguishers in sufficient quantity and type to protect, in an emergency, the Work in progress and the physical plant on-site.

1.24 Smoking Precautions

- .1 Abide by applicable AHJ smoking regulations or the requirements of this Section, whichever are more stringent.
- .2 Do not permit smoking in hazardous areas. Exercise care in the use of smoking materials in non-restricted areas.
- .3 Provide and place signs prohibiting smoking in areas where smoking is not permitted.
- .4 Signs prohibiting smoking are to be in English and the local dialect and are to have black lettering not less than 50 mm high, with a 12 mm wide stroke on a yellow background. In lieu of lettering, symbols of not less than 150 mm by 150 mm may be used.
- .5 Smoking is prohibited within the camp buildings.
- .6 Smoking is prohibited within 7.5 metres of fuel storage and dispensing facilities.
- .7 Provide and place signs indicating that smoking within 7.5 metres of fuel storage and dispensing facilities is not permitted, and that the vehicle ignition must be turned off while the vehicle is being refuelled. Provide at least one weather-resistant sign at each fuel dispensing location. The signs are to have a minimum dimension of 200 mm and letters not less than 25 mm high. In lieu of lettering, signs may have international "No Smoking - Ignition Off" symbols not less than 100 mm in diameter. Install signs in a location visible to all drivers approaching the dispensing location, and at the dispensing unit.

1.25 Hazardous Substances

- .1 If the work entails the use of any toxic or hazardous materials or chemicals, or otherwise creates a hazard to life, safety or health, work is to be in accordance with the National Fire Code of Canada, Occupational Health and Safety Legislation, and WHMIS.
- .2 Departmental Representative is to be advised, and a "Hot Work" permit issued by Contractor's designated representative in all cases involving welding, burning or the use of blow torches and salamanders, in buildings or facilities. Special precautions are necessary to safeguard life and property from damage by fire or explosives.
- .3 Wherever work is being carried out in dangerous or hazardous areas involving the use

of heat, fire watchers equipped with sufficient fire extinguishers, are to be provided. The determination of dangerous or hazardous areas along with the level of precaution necessary for Fire Watch is to be at the discretion of Contractor. Notify Departmental Representative prior to that determination.

- .4 Provide proper ventilation and eliminate all sources of ignition where flammable liquids, such as lacquers or urethanes are used.
- .5 Store flammable substances in accordance with Section 01 35 43 – Environmental Procedures.

1.26 Questions and/or Clarifications

- .1 Direct any questions or clarification to the Departmental Representative.

1.27 Unique Hazards

- .1 Workers must receive training specific to the PPE requirements for working with site-specific unique hazards including, but not limited to, safe handling, disposal and emergency procedures for such hazards as:
 - .1 Tailings and water related to the tailings are impacted with elevated metal concentrations.
 - .2 Chemical reagents used on site in Wastewater Treatment Facilities and Water Treatment Plant.

1.28 Measurement for Payment

- .1 Include all direct costs for the preparation and completion of the Site Specific Health and Safety Plan in the lump sum price for Site Specific Health and Safety Plan, Item 01 35 32-1, as indicated in the Basis of Payment Schedule.
- .2 Payment for Item 01 35 32-1 - Site Specific Health and Safety Plan will be made in progress installments as follows:
 - .1 Eighty percent (80%) of the Lump Sum price for Payment Item 01 35 32-1 - Site Specific Health and Safety Plan will be paid upon acceptance by Departmental Representative of the Final Site Specific Health and Safety Plan, that incorporates review comments on the draft Health and Safety Plan
 - .2 Ten percent (10%) of the Lump Sum price for Payment Item 01 35 32-1 - Site Specific Health and Safety Plan will be paid upon completion of an annual update and its acceptance by Departmental Representative, incorporating additional or modified health and safety requirements to account for changing conditions..
 - .3 The balance (10%) of the of the Lump Sum price for Payment Item 01 35 32-1 - Site Specific Health and Safety Plan will be paid after the completion of the Work.

- .3 Provision of Wildlife Monitors, including the associated ATVs or pick-up trucks, will be measured for payment by the number of days for which Wildlife Monitor services are provided and will be paid under Wildlife Monitor including ATV, Item 01 35 32-2 in the Basis of Payment Schedule.
- .4 Except as indicated above, work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate cost of the work of this section as a separate line item in the Contract Work Breakdown Structure (CWBS) specified in Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart.

PART 2 - PRODUCTS

2.1 Not Used

PART 3 - EXECUTION

3.1 Not Used

END OF SECTION

PART 1 – GENERAL

1.1 Definitions

- .1 Environmental Pollution and Damage: presence of chemical, physical, biological elements or agents which adversely affect human health and welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade environment aesthetically, culturally and/or historically.
- .2 Environmental Protection: prevention/control of pollution and habitat or environment disruption during construction. Control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

1.2 Regulatory Overview

- .1 Comply with all applicable environmental laws, regulations and requirements of Federal, Territorial and other regional authorities, and acquire and comply with such permits, approvals and authorizations as may be required.
- .2 Comply with and be subject to all permits and approvals obtained from Departmental Representative to conduct the Work.
- .3 Pay specific attention to the Land Use Permits, Water License and Quarry Permits, including all currently approved management plans previously created to support those permits and licenses.
- .4 Pay specific attention to the Migratory Birds Convention Act, as amended in 1994.
- .5 Pay specific attention to the Storage Tank System for Petroleum Products and Allied Petroleum Products Regulations.

1.3 Submittals

- .1 Provide all submittals in accordance with Section 01 33 00 - Submittal Procedures.

1.4 Erosion, Sediment and Drainage Control Plan

- .1 An Erosion, Sediment and Drainage Control Plan has been submitted and approved by the Mackenzie Valley Land and Water Board. This document can be found on the Board's on-line public registry. The contractor must abide by the approved plan, or submit a new plan meeting the following requirements.
- .2 The Erosion, Sediment and Drainage Control Plan shall specifically address the protection of water bodies, water courses, fisheries and include the following:
 - .1 Details of grading activities to prevent surface drainage into or out of Work areas.

- .2 Details of erosion control works and materials to be used for specific Work activities, including the deployment of silt fencing, floating silt curtains and containment booms during site activities.
- .3 Work Schedule including the sequence and duration of all related Work activities, with consideration of timing windows specified by Department of Fisheries and Oceans (DFO) for in-water works.
- .4 The treatment of site runoff to prevent siltation of watercourses.
- .5 Dewatering procedures for excavated materials including silt removal procedures prior to discharge.
- .6 Stabilizing procedures during excavation.
- .7 Fish salvage efforts where applicable.
- .8 Maintenance and monitoring of erosion control works.
- .9 Reporting as required by AHJ.
- .10 The requirement for all approved discharge from dewatering activities to be released onto the ground at a location that is a minimum of 30 m from natural drainage courses and 100 m from fish bearing waters.
- .11 The requirement to have on hand sufficient pumping equipment, machinery, and tankage in good working condition for ordinary emergencies, including power outage, and competent workers for operation of pumping equipment.

1.16 Spill Contingency Plan

- .1 A Spill Contingency Plan has been submitted and approved by the Mackenzie Valley Land and Water Board. This document can be found on the Board's on-line public registry. The approved plan must be updated prior to each construction season. The contractor must abide by the approved plan, or submit a new plan meeting the following requirements.
- .2 Submit to Departmental Representative for approval, a detailed Spill Contingency Plan. Update and submit revised Plan prior to each construction season. Identify response capabilities by detailing response times, and types and volumes of spills to which Contractor can respond. Include the following information as a minimum:
 - .1 A description of pre-emergency planning.
 - .2 Personnel roles, lines of authority and communication, emergency phone numbers.
 - .3 Emergency alerting and response procedures.
 - .4 Evacuation routes and procedures, safe distances and places of refuge.
 - .5 Directions/methods of getting to nearest medical facility.
 - .6 Emergency decontamination procedures.
 - .7 Emergency medical treatment and First-Aid.
 - .8 Emergency equipment and materials: Include and provide, at minimum, booms (sorber and containment), sorbents for cleanup, fire extinguishers for A-B-C fires, overpacks for contaminated soils, pumps, hand shovels, picks and containment barriers, such as plastic sheeting.
 - .9 Emergency protective equipment: Including, at minimum, clothing, protective suits, respirators, etc. in accordance with NIOSH guidelines.
 - .10 Procedures for reporting incidents.
 - .11 Spill response and containment plans for all materials that could potentially be spilled.
 - .12 Site specific spill contingency plans for all locations where refined

petroleum products will be stored and used for refuelling including, but not limited to:

- .1 An inventory of response and clean-up equipment.
- .2 A site map with the location of storage facilities and the location of emergency equipment with spill response and clean-up equipment.
- .3 A cover page that clearly identifies the NT-NU 24-hour Spill Report Line and the name, job title and 24-hour telephone number for person(s) responsible for activating the Spill Contingency Plan.

1.5 Historical or Archaeological Sites

- .1 Historical or archaeological sites and items of historical or scientific interest such as cairns, tent rings, commemorative plaques, inscribed tablets, and similar objects found on-site will remain the property of the appropriate AHJ.
- .2 Give immediate notice to Departmental Representative if evidence of archaeological finds are encountered during Work activities, and await Departmental Representative's written instructions before proceeding with Work in this area.
- .3 Protect archaeological finds and similar objects found during course of Work.

1.6 Site Maintenance

- .1 Maintain cleanliness of Work and surrounding site to comply with federal, provincial, territorial, and local fire and safety laws, ordinances, codes, and regulations.
- .2 Coordinate cleaning operations with disposal operations to prevent accumulation of dust, dirt, debris, rubbish, and waste materials.
- .3 Upon completion of the work, clean away and dispose of all surplus material, supplies, rubbish and temporary works leaving the site to the requirements of Departmental Representative, AHJ, Water License and Land Use Permit.

1.7 Fires

- .1 Do not burn rubbish and waste materials on site unless a burn permit is provided in accordance with the land use permit and approved by AHJ.
- .2 Obtain all required permits from AHJ.
- .3 Where fires or burning permitted, prevent staining or smoke damage to structures, materials or vegetation which is to be preserved. Restore, clean and return to new condition stained or damaged Work.
- .4 Provide supervision, attendance and fire protection measures as required by AHJ and these Specifications.
- .5 Provide an ash collection system capable of containing ash until it is sampled. A water-tight metal tray with sides of at least 300 millimetres high is acceptable. A tray from materials on-site is acceptable. Provide means to protect the ash from wind

and water until it is sampled.

1.8 Disposal of Wastes

- .1 Do not bury rubbish and waste materials on-site.
- .2 Do not dispose of waste or volatile materials, such as mineral spirits, oil or paint thinner into waterways.

1.9 Fuel and Flammable Liquid Management

- .1 Comply with Canadian Environmental Protection Act (CEPA) Storage Tank Systems for Petroleum Products Regulations, CCME Codes of Practice and any regulations obtained from Territorial and other regional authorities, for setting up and operating temporary fuel tanks.
- .2 All vehicle and equipment refuelling must be conducted by appropriately trained personnel using the appropriate personal protective equipment in a manner which meets or exceeds regulatory requirements and in accordance to the accepted Fuel Management Plan including using drip pans
- .3 Records of fuel usage by activity must be maintained.
- .4 All fuel transports including mobile refuelling trucks and fuel transport to stationary equipment such as generators or pumps or distributed storage areas must occur in approved (CSA) containers with the notification and consent of site safety personnel.
- .5 Locate fuel storage areas as approved by AHJ and as specified in the Fuel Management Plan. Location to be reviewed by Departmental Representative. Provide secondary containment as required by AHJ.
- .6 Inspect fuel storage and dispensing facilities daily. Make available fire-fighting and spill response equipment for immediate access at each fuel storage location.
- .7 Store all barrels containing fuel and /or hazardous materials in an elevated position, either on their side with bungs facing 9 and 3 o'clock position, or on pallets, upright, and banded.
- .8 All barrels to be individually identified. Label will be to industry standards and will provide all information necessary for health and safety and environmental purposes. Make available, to all personnel, Material Safety Data Sheets for all materials maintained at site or along right-of-ways.
- .9 All barrels/fuel containers to be stored in accordance with the Land Use Permit and labelled with AANDC's name and Contractor's name, as required by the Land Use Permit. All tanks require registration, including of assignment of a registration number, with Environment Canada (EC) Federal Identification Registry for Storage tank Systems (FIRSTS)
- .10 Treat all waste petroleum products, including used oil filters, as hazardous materials.

- .11 Conduct regular inspections of all machinery hydraulic, fuel and cooling systems. Repair leaks immediately
- .12 Pre-assemble and maintain emergency spill equipment, including at least two fuel pumps, empty 200 litre barrels and absorbent material sufficient to clean up a 1000 litre spill at all fuel storage sites. Maintain spill mats or pans under mobile fuelling containers and a spill kit at the refuelling area.
- .13 Remove all full and empty barrels, fuel storage facilities and associated materials and equipment from site at conclusion of Work
- .14 All fuel drums delivered to site, owned by the Contractor, are to be returned to supplier by Contractor for reuse, or cleaned, crushed and disposed in accordance to Section 02 61 33 - Hazardous Waste Material. Fuel drums, if transported, are to comply with Section 02 61 33 - Hazardous Waste Material and applicable regulations.
- .15 The handling, storage and use of flammable liquids are to be governed by the current National Fire Code of Canada
- .16 Flammable liquids such as gasoline, kerosene and naphtha may be kept for ready use in quantities not exceeding 45 litres provided they are stored in approved safety cans bearing the Underwriter's Laboratory of Canada or Factory Mutual seal of approval. Storage of quantities of flammable liquids exceeding 45 litres for Work purposes requires permission of the permitting authority
- .17 Do not transfer flammable liquids in the vicinity of open flames or any type of heat-producing devices
- .18 Do not use flammable liquids having a flash point below 38°C such as naphtha or gasoline as solvents or cleaning agents.
- .19 Store flammable waste liquids, for disposal, in approved containers located in a safe ventilated area. Quantities are to be kept to a minimum and Departmental Representative is to be notified when disposal is required
- .20 Dispose of all flammable liquids in accordance with all applicable environmental regulations and with the requirements of Section 02 61 33 - Hazardous Waste Material

1.10 Erosion and Sediment Control

- .1 Plan and execute construction by methods to control surface drainage from water discharge areas, waste disposal areas, stockpiles, staging areas, and other Work areas. Prevent erosion and sedimentation.
- .2 Minimize amount of bare soil exposed at one time. Stabilize disturbed soils as quickly as practical. Strip vegetation, re-grade, or otherwise develop in such a way as to minimize erosion. Remove accumulated sediment resulting from construction activity from adjoining surfaces, drainage systems, and water courses, and repair damage caused by soil erosion and sedimentation as directed by Departmental Representative.

- .3 Provide and maintain temporary measures which may include, but are not limited to, silt fences, ditches, geotextiles, drains, berms, terracing, riprap, temporary drainage piping, sedimentation basins, vegetative cover, dikes, and any other construction required to prevent erosion and migration of silt, mud, sediment, and other debris off site or to other areas of site where damage might result, or that might otherwise be required by Laws and Regulations. Make sediment control measures available during construction. Place silt fences in ditches to prevent sediments from escaping from ditch terminations.
- .4 Plan construction procedures to avoid damage to Work or equipment encroachment onto water bodies or drainage ditch banks. In the event of damage, promptly take action to mitigate effects. Restore affected bank or water body to pre-existing condition.
- .5 Do not disturb existing embankments or embankment protection.
- .6 Periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures.
- .7 If soil and debris from site accumulate in low areas, ditches, or other areas where, in Departmental Representative's determination, it is undesirable, remove accumulation and restore area to original condition.
 - .1 Do not pump water containing suspended materials into waterways or drainage systems.
 - .2 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with AHJ requirements.

1.11 Work Adjacent to Waterways

- .1 Do not operate construction equipment in waterways.
- .2 Do not use waterway beds for borrow material.
- .3 Do not dump excavated fill, waste material or debris in waterways.
- .4 Do not use shoreline grounds (at least 30 m from edge) as staging or storage area, equipment/vehicle maintenance or overnight parking, storage of fuel or for stockpiling of granular fill and other deleterious material storage.
- .5 Design and construct temporary crossings to minimize erosion to waterways.
- .6 Do not skid construction materials across waterways.
- .7 Do not refuel equipment (except for boats) within 30 m of water bodies or on ice.
- .8 If stream or drainage course crossing is required, use methodologies in accordance with DFO requirements, and with consideration of DFO timing windows.
- .9 Install fish exclusion nets or flow diversion to prevent fish from migrating to the work site.

- .10 Effective sediment and erosion control measures to be installed prior to starting work to prevent entry of sediment into watercourses. Such measures to be inspected regularly and repaired if damaged by construction, precipitation or snowmelt.

1.12 Dust and Particulate Control

- .1 Execute Work using methods to minimize generation of airborne dust. Implement and maintain dust and particulate control measures as during Work determined necessary by applicable regulations and standards and in accordance with AHJ.
- .2 Provide positive means to prevent airborne dust generation. The use of oil for dust control is prohibited.
- .3 Prevent dust from spreading to beyond the immediate work area.
- .4 Departmental Representative or designate may stop work at any time when Contractor's control of dusts and particulates is inadequate.
- .5 If Contractor's dust and particulate control is not sufficient for controlling dusts and particulates into atmosphere, stop work. Contractor must discuss procedures that Contractor proposes to resolve problem. Make all necessary changes to operations prior to resuming work that may cause release of dusts or particulates.
 - .1 Cover or wet down dry materials and rubbish to prevent blowing dust and debris
 - .2 Provide dust control for temporary roads.

1.13 Environmental Protection Supplies

- .1 Comply with federal and territorial fisheries and environmental protection legislation, including preventing the loss or destruction of fish habitat, and minimizing the impact of sedimentation, siltation or otherwise causing a degradation in water quality.
- .2 Provide erosion, sediment and drainage control supplies necessary to complete all requirements of the Work in compliance with Federal and Territorial fisheries and environmental protection legislation.
- .3 Erosion, sediment and drainage control supplies are to include, but are not limited to the following:
 - .1 Minimum of 50 m of polypropylene silt fence (typical height of 0.9 m) and the necessary stakes for installation. These materials are to be used as necessary to prevent sediment transport into water bodies. Product acceptance will be based on compliance with the minimum/maximum average values found in Part 2 of this Section.
 - .2 Minimum of 30 lineal metres, and as required, of 200 mm diameter hydrophobic, sorbent booms. These materials are to be used as necessary to prevent the migration of hydrocarbons.
- .4 Supply, transport, install and maintain erosion, sediment and drainage controls

necessary to complete all work in accordance with the requirements of Departmental Representative.

- .5 The Contractor is responsible for all costs for the transport and disposal of unused Erosion, Sediment and Drainage Control supplies off-site upon completion of the Contract.
- .6 At the completion of construction, dispose of used silt fence off-site, as non-Hazardous Waste. Dispose of used absorbent boom in accordance with Section 02 61 33 - Hazardous Waste Material.

1.14 Notification

- .1 Departmental Representative will notify Contractor in writing of observed non-compliance with Federal, Territorial environmental laws or regulations, permits and other elements of the approved Contractor's Environmental Protection Plan.
- .2 Contractor, after receipt of such notice, will inform Departmental Representative of proposed corrective action and take such action accepted by Departmental Representative.
- .3 Work generating the non-compliance situation is to stop until corrective action, judged as satisfactory by Departmental Representative, has been taken.
- .4 No time extensions granted, or equitable adjustments allowed, to Contractor for such Work suspensions.

1.15 Measurement for Payment

- .1 Include all direct costs for the supply of Environmental Protection Supplies in the lump sum price for Environmental Protection Supplies, Item 01 35 43-1, as indicated in the Basis of Payment Schedule.
- .2 Except as indicated above, Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate cost of the work of this section as a separate line item in the Contract Work Breakdown Structure (CWBS) specified in Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart.

PART 2 - PRODUCTS

2.1 Polypropylene Silt Fence

- .1 Silt Fence: An assembled, ready to install unit consisting of geotextile attached to driveable posts. Geotextile to be uniform in texture and appearance, having no defects, flaws, or tears that would affect its physical properties; and contain sufficient ultraviolet ray inhibitor and stabilizers to provide minimum 2-year service life from outdoor exposure.

- .1 Minimum Grab Tensile Strength (ASTM D4632): 520 N.

- | | | |
|----|---|--------|
| .2 | Maximum Elongation (ASTM D4632): | 15%. |
| .3 | Minimum Puncture Strength (ASTM D4833): | 250 N. |
| .4 | Maximum Apparent Opening Size (ASTM D4751): | 500 µm |

- .2 Net Backing: Industrial polypropylene mesh joined to geotextile at both top and bottom with double stitching of heavy-duty cord, with minimum width of 750 mm.
- .3 Posts: Sharpened wood, approximately 50 mm square, protruding below bottom of geotextile to allow minimum 450 mm embedment; post spacing 2.4 m maximum. Securely fasten each post to geotextile and net backing using suitable staples.

2.2 Hydrophobic Sorbent Boom

- .1 200 mm dia. Polypropylene Material.
- .2 Minimum litres absorbed per 3 m length: 50 L.

PART 3 - EXECUTION

3.1 Erosion and Sedimentation Control

- .1 Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff to adjacent properties, according to requirements of AHJ.
- .2 Inspect, repair, and maintain erosion and sedimentation control measures during Work.
- .3 Implement erosion control methods as directed by Departmental Representative.

3.2 Installation:

- .1 Construct temporary erosion control items as required. Review actual alignment and/or location of various items with Departmental Representative prior to installation.
- .2 Do not construct silt traps or fencing in flowing streams or in swales without approval from AHJ.
- .3 Check erosion and sediment control measures daily.
- .4 Whenever sedimentation is caused by stripping vegetation, re-grading, or other development, remove it from adjoining surfaces, drainage systems, and watercourses, and repair damage as quickly as possible.
- .5 Maintain and/or repair damaged erosion control measures promptly.
- .6 Unless indicated or directed by Departmental Representative, remove temporary erosion and sediment control devices upon completion of Work. Spread accumulated sediments to form a suitable surface for seeding or dispose of, and shape area to permit natural drainage to satisfaction of Departmental Representative.

Materials once removed become property of Contractor.

END OF SECTION

PART 1 – GENERAL

1.1 References and Codes

- .1 Conduct Work to meet or exceed all requirements of Specifications and Drawings and Guidelines, legislation, regulations, standards, codes and other referenced documents issued under the authority of the Government of Canada and the Government of the Northwest Territories. Advise Departmental Representative of any discrepancies in the codes, standards and regulations applicable to the Work.

1.2 References and Codes - Federal

- .1 Meet or exceed the most current issue of governing codes, standards and guidelines, and regulations applicable to Work and issued under the authority of the Government of Canada including, but not limited to the following:
 - .1 Canada Labour Code Part II – Occupational Health and Safety (R.S. 1985, c.L-2)
 - .2 Canada Mining Regulations (C.R.C.C. 1516)
 - .3 Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations (EIHWHRMR) (SOR/2005-149).
 - .4 Canadian Environmental Protection Act, S.C. 1999 (S.C. 1999, c.33) a.SOR/2002-318
 - .5 Controlled Products Regulations (SOR/88-66) a.SOR/2001-254
 - .6 Inter-Provincial Movement of Hazardous Waste Regulations (SOR/2002-301).
 - .7 National Fire Code of Canada, 1995 a. 2002.
 - .8 Transportation of Dangerous Goods Act, 1992 (S.C. 1992, c.34) a.1999, c.31.
 - .9 Transportation of Dangerous Goods Regulations (SOR/2001-286) a.SOR/2011-60.
 - .10 Territorial Land Use Regulations (C.R.C., c.1524) a.98-43.
 - .11 Storage Tank Systems for Petroleum Products & Allied Petroleum Products Regulations (SOR/2008-197).
 - .12 Migratory Birds Convention Act.
 - .13 Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health (CCME, 1999).
 - .14 Canadian Water Quality Guidelines for the Protection of Aquatic Life (CCME, 1999).
 - .15 Contaminated Sites Management Policy (INAC, 2002).
 - .16 Northern Affairs Contaminated Sites Management Policy (INAC, 2002).
 - .17 A Federal Approach to Contaminated Sites (CSMWG, 2002).
 - .18 Risk Management Guidance Document (INAC, 2006).
 - .19 Treasury Board Policy on Management of Real Property (TB, 2007).
 - .20 Risk Management Tool & Reporting Tool User Guide (INAC, 2007).
 - .21 Canada-Wide Standard for Petroleum Hydrocarbons (PHC) in Soil (CCME, 2008).
 - .22 Construction Project Safety Management Guide, 5th Edition (PWGSC, 2008).
 - .23 Environment Canada Technical Document for Batch Waste Incineration, EC, 2010.

1.3 References and Codes – Northwest Territories

- .1 Meet or exceed the governing codes, standards and guidelines, and regulations applicable to Work and issued under the authority of the Government of the Northwest Territories as follows:
 - .1 Environmental Protection Act (R.S.N.W.T. 1988, c E-7) a. 1998, c.21, c.24

- .2 Labour Standards Act, (R.S.N.W.T. 1988, c L-1) amended S.N.W.T., c.15, in force January 2004
- .3 Public Health Act, R.S.N.W.T. 1988, c.P-12.
- .4 Spill Contingency Planning and Reporting Regulations R-068-93.
- .5 Fire Prevention Act, R.S.N.W.T. 1988, c F-6.
- .6 Transportation of Dangerous Goods Act (1990, R.S.N.W.T. 1990, c 36).
- .7 Used Oil and Waste Fuel Management Regulation, November 2003
- .8 Work Site Hazardous Materials Information System Regulations, (R.R.N.W.T. 1990 c.S-2)
- .9 Northwest Territories Mine Health & Safety Act (S.N.W.T. 1994, c.25 in force December 15, 1995 SI-014-95)

1.4 Standards, Guidelines and Policies

- .1 Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products, (PN 1326), 2003 CCME.
- .2 Storage Tank Systems for Petroleum Products & Allied Petroleum Products Regulations, CEPA, 2008.
- .3 Guidelines for Canadian Drinking Water Quality (Federal, Provincial, Territorial Committee on Health and the Environment) May 2008.
- .4 Guidelines for Effluent Quality and Wastewater Treatment at Federal Establishments (Federal Activities Branch, Environmental Conservation Directorate) April 1976.
- .5 Guideline for Waste Batteries (GNWT) September 1998.
- .6 Guideline for Waste Solvents (GNWT) September 1998.
- .7 Guideline for Contaminated Site Remediation (GNWT) November 2003.
- .8 Guideline for Ambient Air Quality (GNWT) December 2002.
- .9 Guideline for Dust Suppression (GNWT) February 1998.
- .10 Guideline for General Management of Hazardous Waste (GNWT) February 1998
- .11 Environmental Health and Safety Management System Manual (INAC) 2006.
- .12 Guidelines for Spill Contingency Planning (INAC) April 2007.
- .13 Mine Site Reclamation Guidelines for Northwest Territories (INAC) January 2007.

1.5 Permits and Licenses

- .1 The following permits and licenses will be provided to the Contractor, upon award of contract:
 - .1 Type "A" Water Use License #MV2009L8-008, granted by the Mackenzie Valley Land and Water Board in accordance with the Northwest Territories Waters Act.
 - .2 Type "A" Land Use License #MV2009X0019, granted by the Mackenzie Valley Land and Water Board in accordance with the Mackenzie Valley Resource Management Act.
- .2 Any deviation(s) from the current management plans may require permit amendments, plan re-submission and review, or field authorizations, prior to implementing any changes. Notify the Departmental Representative of any proposed deviations so approval for the deviation can be obtained. Approval may take up to ninety (90) days from the time of submission.

1.6 DFO Measures to Avoid Causing Harm to Fish and Fish Habitat

- .1 The Department of Fisheries and Oceans Canada (DFO) outline measures and conditions for avoiding the harmful alteration, disruption or destruction (HADD) to fish habitat and thus be in compliance with subsection 35(1) of the *Fisheries Act*. Contractor to incorporate the measures and conditions outlined on DFO's website, into their plans.

1.7 WHMIS

- .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labelling and provision of material safety data sheets acceptable to AHJ.

1.8 Submittals

- .1 Provide all submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit copies of Material Safety Data Sheet (MSDS) to Departmental Representative upon delivery of materials to site

1.9 Measurement for Payment

- .1 Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate the cost of this Work as a separate line item in the Cost Breakdown specified in Section 01 32 18 – Construction Progress Schedules – Bar (GANTT) Chart.

PART 2 – PRODUCTS

2.1 Not Used

PART 3 – EXECUTION

3.1 Not Used

END OF SECTION

PART 1 – GENERAL

1.1 General

- .1 Conduct and pay for Contractors' own Quality Control inspections, sampling and testing as required to provide Work that is of suitable quality to meet requirements of Specifications, regulations and AHJ.

1.2 Inspection

- .1 Allow Departmental Representative access to Work. If part of Work is in preparation at locations other than place of Work, allow access to such Work whenever it is in progress.
- .2 Give timely notice requesting inspection if Work is designated for special tests, inspections or approvals by Departmental Representative, instructions, or law, of place of Work.
- .3 If Contractor covers or permits to be covered Work that has been designated for special tests, inspections or approvals before such is made, uncover such Work, have inspections or tests satisfactorily completed and make good such Work.
- .4 Departmental Representative may order any part of Work to be examined if Work is suspected to be not in accordance with Contract Documents. If, upon examination such work is found not in accordance with Contract Documents, correct such Work and pay cost of examination and correction. If such Work is found in accordance with Contract Documents, Departmental Representative is to pay cost of examination and replacement.

1.3 Submittals

- .1 Provide all submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit electronic copies of Contractors inspection and test reports to Departmental Representative as received.

1.4 Independent Inspection Agencies

- .1 Independent Inspection/Testing Agencies will be engaged by the Departmental Representative for purpose of inspecting and/or testing portions of Work. Cost of such services is to be borne by Departmental Representative.
- .2 Provide equipment required for executing inspection and testing by appointed agencies.
- .3 Employment of inspection/testing agencies does not relax responsibility to complete Work in accordance with Contract Documents.
- .4 If defects are revealed during inspection and/or testing, appointed agency will request additional inspection and/or testing to ascertain full degree of defect. Correct defect and irregularities as advised by Departmental Representative at no cost to Departmental Representative. Pay costs for retesting and re-inspection.

1.5 Procedures

- .1 Notify appropriate agency and Departmental Representative in advance of requirement for tests, in order that attendance arrangements can be made.
- .2 Submit samples and/or materials required for testing, as specifically requested in Specifications. Submit with reasonable promptness and in an orderly sequence so as not to cause delay in Work.
- .3 Provide labour and facilities to obtain and handle samples and materials on-site. Provide sufficient space to store and cure test samples.

1.6 Rejected Work

- .1 Remove defective Work, whether result of poor workmanship, use of defective products or damage and whether incorporated in Work or not, which has been rejected by Departmental Representative as failing to conform to Contract Documents. Replace or re-execute in accordance with Contract Documents.
- .2 Make good other Contractor's Work damaged by such removals or replacements promptly.
- .3 If in the opinion of the Departmental Representative it is not expedient to correct defective Work or Work not completed in accordance with Contract Documents, Departmental Representative may deduct from Contract Price the difference in value between Work completed and that called for by Contract Documents, amount of which will be determined by the Departmental Representative.

1.7 Measurement for Payment

- .1 Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate the cost of this Work as a separate line item in the Cost Breakdown specified in Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart.

PART 2 - PRODUCTS

2.1 Not Used

PART 3 - EXECUTION

3.1 Not Used

END OF SECTION

PART 1 – GENERAL

1.1 Installation and Removal

- .1 Provide temporary utilities to facilitate all construction and camp activities.
- .2 Remove from site all temporary utilities after use.
- .3 Provide all temporary utilities consisting of the design, supply, construction, maintenance, operation and removal of utilities and services required to support the Work. Temporary utilities to satisfy requirements of Specifications, Water License, Land Use Permit, Federal, Territorial and local regulations and Authorities Having Jurisdiction (AHJ).

1.2 Submittals

- .1 Provide all submittals in accordance with Section 01 33 00 - Submittal Procedures.

1.3 Existing Services

- .1 The location of equipment and utility services specified or indicated on the Drawings is to be considered as approximate.
- .2 A 10" HDPE pipeline running along the east side of the former Lower East Dam from East Upper Dam to Hambone Lake is available for contractors use as a Water Treatment Plant discharge line. Contractor is responsible for confirming the functionality of the waterline prior to use.
- .3 The shop facility is available for contractors use. Contractor is responsible for confirming the condition of the shop before use.
- .4 Before commencing Work, establish location and extent of services in area of Work, and notify Departmental Representative of any items that differ from those indicated in Drawings and Specifications.
- .5 Where unknown services are encountered, immediately advise Departmental Representative and confirm findings in writing.

1.4 Water Supply

- .1 Provide continuous supply of potable water for camp use.
- .2 Abide by terms of Water Licence regarding water supply and usage.

1.5 Temporary Power and Light

- .1 Provide, operate, and maintain an electrical power supply system, in accordance with governing regulations, to service Contractor's site power requirements.
- .2 Install temporary facilities as necessary for power distribution, such as power cable

and pole lines, in accordance with governing regulations and subject to Departmental Representative's approval.

- .3 Provide lighting and power at site for use during Work by Contractor, Sub-Contractors, and Departmental Representative's support personnel including outdoor lighting for night shift as applicable.

1.6 Temporary Heating and Ventilation

- .1 Provide temporary heating required during construction period, including attendance, maintenance and fuel.
- .2 Construction heaters used inside building must be vented to outside or be flameless type. Solid fuel salamanders are not permitted.
- .3 Provide temporary heat and ventilation in enclosed areas as required to:
 - .1 Facilitate progress of Work.
 - .2 Provide adequate ventilation to meet health regulations for safe working environment.
 - .3 Protect Work and products against dampness and cold.
 - .4 Prevent moisture condensation on surfaces.
 - .5 Provide ambient temperatures and humidity levels necessary for storage and installation of materials.
- .4 Provide ventilation for temporary facilities as follows:
 - .1 Provide Carbon Monoxide detectors for occupied areas.
 - .2 Prevent accumulations of dust, fumes, mists, vapours or gases in areas occupied during construction.
 - .3 Provide local exhaust ventilation to prevent harmful accumulation of hazardous substances into atmosphere of occupied areas.
 - .4 Dispose of exhaust materials in manner that will not result in harmful exposure to persons.
 - .5 Ventilate storage spaces containing hazardous or volatile materials.
 - .6 Ventilate temporary sanitary facilities.
 - .7 Continue operation of ventilation and exhaust system for time after cessation of Work process to complete removal of harmful elements.
- .5 Maintain strict supervision of operation of temporary heating and ventilating equipment to:
 - .1 Conform with applicable codes and standards.
 - .2 Enforce safe practices.
 - .3 Prevent abuse of services.
 - .4 Prevent damage to finishes.
 - .5 Vent direct-fired combustion units to outside.
- .6 Be responsible for damage to Work due to failure in providing adequate heat and protection during construction.

1.7 Fire Protection

- .1 Provide and maintain temporary fire protection equipment during performance of Work required by insurance companies having jurisdiction and governing codes, regulations and bylaws.

1.8 Signs and Notices

- .1 Signs and notices for safety and instruction to be in English, and the local dialect.
- .2 Maintain approved signs and notices in good condition for duration of Project, and dispose of off-site on completion of Project, or earlier if directed by Departmental Representative.

1.9 Measurement for Payment

- .1 Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate the cost of this Work as a separate line item in the Cost Breakdown specified in Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart.

PART 2 - PRODUCTS

2.1 Not Used

PART 3 - EXECUTION

3.1 Not Used

END OF SECTION

PART 1 – GENERAL

1.1 Definitions

- .1 Construction Facilities; Areas, buildings, earth structures, engineered structures, equipment or facilities erected or installed by Contractor for purpose of undertaking or expediting Work.

1.2 Submittals

- .1 Provide all submittals in accordance with Section 01 33 00 – Submittal Procedures.
- .2 Submit to the Departmental Representative drawings or other information to indicate relative position of various services and equipment when requested by Departmental Representative.

1.3 Installation and Removal

- .1 Provide construction facilities in order to execute Work expeditiously.
- .2 Remove from site all such Construction Facilities after use.
- .3 Provide design, supply, construction, maintenance, operation and removal of Construction Facilities and services required to support the Work. Provide Construction Facilities at the Site, and any other location where Construction Facilities are essential to the Work. Construction Facilities are to satisfy requirements of Federal, Territorial and local authorities having jurisdiction, and comply with the requirements of Specifications.

1.4 Location of Equipment and Fixtures

- .1 Location of equipment indicated or specified are to be considered as approximate.
- .2 Inform Departmental Representative of impending installation and obtain approval for actual location if deviating from specified location.

1.5 Access

- .1 Provide and maintain adequate access, including snow removal, to working areas of the Site, camp, utilities and offices during all periods of work by Contractor, subcontractors and any other contractors completing work for Departmental Representative.
- .2 Remove snow, as may be required, to gain access to Site, as required, to meet the project schedule.

1.6 Departmental Representative Vehicles

- .1 A Crown Furnished pick-up truck will be provided for exclusive use of the Departmental Representative

- .2 Provide one (1), two-passenger side-by-side seating four-wheel drive all-terrain vehicle (ATV) for use by Departmental Representative for the duration of the work activity. The ATV must meet the following criteria, at minimum:
 - .1 500 cc or greater gasoline or equivalent diesel engine;
 - .2 Roll-over protection system;
 - .3 Hard enclosure with glass windshield and windshield wipers;
 - .4 Pick-up style rear box suitable for carrying samples and equipment;
 - .5 Buggy whips and rotating beacon;
 - .6 Tire repair kit and air pump.
 - .3 The use of these Departmental Representative vehicles will not be shared with Contractor.
 - .4 Vehicles provided for purposes of this contract are accepted at risk of Contractor whether in possession of Contractor or Departmental Representative.
 - .5 Deliver vehicles to location of camp at Site.
 - .6 Store vehicles in accordance with manufacturer's recommendations.
 - .7 Maintain all vehicles in good running order for duration of Project. If vehicles are out of commission for any period of time, provide other replacement vehicles.
 - .8 Repair and maintain vehicles expeditiously.
 - .9 Provide and pay for all fuel and lubricants required to operate the vehicles for the duration of the Project.
 - .10 Provide applicable insurance for damage to vehicles and ATVs under use by Departmental Representative or Departmental Representative's Authorized Personnel, or absorb costs for damage to same.
- 1.7 Site Storage/Loading
- .1 Confine Work and operations of employees by Contract Documents. Do not unreasonably encumber premises with products.
 - .2 Do not load or permit to load any part of Site with a weight or force that will endanger the Work.
- 1.8 Equipment, Tool and Material Storage
- .1 Provide lockable weatherproof sheds for storage of tools, equipment and materials, and maintain, in a clean and orderly condition.
 - .2 Locate materials not required to be stored in weatherproof sheds on site in a manner to cause least interference with Work activities.
- 1.9 Sanitary Facilities
- .1 Provide sanitary facilities for Work force in accordance with governing regulations

and ordinances.

- .2 Post notices and take such precautions as required by local health authorities. Keep area and premises in sanitary condition.

1.10 Construction Signage

- .1 Maintain approved signs and notices in good condition for duration of Project and dispose of off-site on completion of Project or earlier if directed by Departmental Representative.

1.11 Removal or Shut-Down of Construction Facilities

- .1 Schedule and obtain approval from Departmental Representative to remove Construction Facilities from site.
- .2 When project is closed down at end of construction season, keep Construction Facilities operational until close down is approved by Departmental Representative.
- .3 Winterize and secure camp, equipment and vehicles at the end of each construction season.

1.12 Measurement for Payment

- .1 Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate the cost of this Work as a separate line item in the Cost Breakdown specified in Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart.

PART 2 - PRODUCTS

2.1 Not Used

PART 3 - EXECUTION

- 3.1 Not used.

END OF SECTION

PART 1 – GENERAL

1.1 General

- .1 Provide all labour, equipment and materials, and perform all Work necessary for mobilization to, and demobilization from, the Site including all Departmental Representative provided supplies, equipment and material.
- .2 Mobilization is to include transportation to Site of Contractor's labour, equipment, materials and assembling, erecting, and preparing Site in readiness to start Work, all in accordance with Contractor's Schedule.
- .3 Demobilization is to include dismantling and removal from Site of all Contractor equipment, labour, Construction Facilities, camp facilities and materials and all waste resulting from Contractor activities; as well as the winterization of any Crown Furnished equipment assets that were used.
- .4 Decontaminate and clean all equipment used on Site prior to demobilization according to Section 01 35 15 – Special Project Procedures for Contaminated Sites.
- .5 Do not mobilize to the site without written authorization from the Departmental Representative.
- .6 All mobilization and demobilization methods to comply with the requirements of all applicable codes, standards, guidelines, permits, approvals and/or authorizations.

1.2 Mobilization and Demobilization Plan and Equipment List

- .1 Provide Mobilization and Demobilization Plans which shall include, but not be limited to, the following items:
 - .1 Proposed mode(s), route, and timing
 - .2 In-transit storage or staging areas
 - .3 Equipment, labour and other requirements required for mobilization or demobilization activities
 - .4 Construction equipment list of all equipment and materials to be transported to or from Site to complete the Work, as indicated in these specifications.
- .2 Compile a complete Construction Equipment List comprised of manufacturer name, model number, year, and hours for construction equipment that is being mobilized to site.

1.3 Submittals

- .1 Provide all submittals in accordance with Section 01 33 00 – Submittal Procedures.
- .2 Submit to Departmental Representative one (1) electronic copy and up to (3) hard copies, as requested by Departmental Representative, of the Mobilization Plan, including material and equipment list, fifteen (15) days prior to Mobilization.

- .3 Submit to Departmental Representative one (1) electronic copy and up to (3) hard copies, as requested by Departmental Representative, of the Demobilization Plan, thirty (30) days prior to demobilization

1.4 Measurement for Payment

- .1 Include all costs for mobilization of all equipment and materials, including the submission of the Mobilization Plan, in the lump sum price for Mobilization, Item 01 53 00-1, as indicated in the Basis of Payment Schedule. The lump sum price for Mobilization is to include all labour, equipment, materials, meals, accommodation, flights and any other costs necessary to undertake mobilization work required. Costs associated with the transportation of construction equipment required for activities outlined in Section 31 22 15 are to be excluded from this pay item.
- .2 Include all costs for mobilization of all construction equipment required for activities outlined in Section 31 22 15, in the provisional cost sum price for Mobilization – Construction Equipment, Item 01 53 00-2, as indicated in the Basis of Payment Schedule. The provisional cost for Mobilization – Construction Equipment is to include transportation costs associated with the mobilization of construction equipment. Costs associated with the mobilization of all other equipment and materials required for all other project activities are to be excluded from this pay item.
- .2 Include all costs for demobilization of all equipment, waste and materials including the submission of the Demobilization Plan in the lump sum prices for Demobilization, Item 01 53 00-3 – Demobilization, as indicated in the Basis of Payment Schedule. The lump sum price for Demobilization is to include all labour equipment, materials, meals, accommodation, flights and any other costs necessary to undertake the work required including the winterization of Crown owned equipment used during Care and Maintenance activities.
- .3 Payment for Demobilization will be made after satisfactory cleanup of the site, shutdown, takedown, packaging, and cleanup of camp facilities, removal from the site of all equipment, materials and waste as indicated.
- .4 Except as indicated above, work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate cost of the work of this section as a separate line item in the Contract Work Breakdown Structure (CWBS) specified in Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart.

PART 2 - PRODUCTS

- 2.1 Not Used

PART 3 - EXECUTION

- 3.1 Not Used

END OF SECTION

PART 1 – GENERAL

1.1 General

- .1 Provide and operate complete camp facilities services, including provision, preparation and serving of food, for construction personnel, Departmental Representative and other specified site visitors.
- .2 The location of the construction camp is to be approved by Departmental Representative and comply with the camp location and footprint constraints of the approved permits, licenses and Authorities Having Jurisdiction (AHJ). Submit layout of camp thirty (30) days prior to mobilization. Submission is to include full details demonstrating compliance with all codes and standards.
- .3 Provision of camp facilities services to consisting of, design, supply, installation operation and maintenance of hard sided camp facilities including
 - .1 All associated facilities.
 - .2 Utilities and services required for camp facilities such as heating, lighting, fuel, potable and domestic water systems.
 - .3 Sewage collection, treatment and disposal systems.
 - .4 Waste, refuse, and garbage collection and disposal system, including provision of dedicated camp garbage incinerator.
 - .5 Camp facilities fire prevention.
 - .6 Alarm and fire fighting system.
 - .7 Camp and site facilities safety and security service.
 - .8 Meals and catering service.
 - .9 Shower/wash facilities.
 - .10 Sleeping and washroom facilities.
 - .11 Bedding and bedding laundry services.
 - .12 Janitorial services.
 - .13 Personnel laundry facilities.
 - .14 Recreational facilities.
 - .15 First Aid facilities and service.
 - .16 Snow removal services for camp operations.
 - .17 Camp re-supply and staff rotation.
- .4 Provide and pay for:
 - .1 Potable and domestic water systems;
 - .2 Sewage collection, treatment, and disposal systems;
 - .3 Refuse and garbage collection and disposal systems;
 - .4 Power, heating and lighting systems associated with the operation of the camp.
- .5 Obtain and pay for, as part of provision of construction camp services, any and all licences, permits, and authorizations required to comply fully with all laws, ordinances and regulations of the Federal, Territorial and local authorities in connection with the performance of work of this Section.
- .6 Provide construction camp services for own workforce, Departmental Representative, and Departmental Representative's authorized personnel as follows:

- .1 Departmental Representative: 1 for duration of the Work.
 - .2 Allow for an additional 4 personnel at any one time to accommodate AANDC personnel, PWGSC personnel, visitors, and shift change overlap.
 - .3 Separate sleeping quarters are to be provided for cook(s), cook's helpers and for female staff.
 - .4 Have a maximum of 50 people at the camp at any one time, unless camp is permitted to accommodate greater. The AANDC supplied camp sleeps up to 22 people.
- .7 Camp Facilities shall not be older than twenty (20) years.
- .1 Contractor to arrange to have the proposed camp facilities inspected by a third-party building inspector prior to mobilization.
 - .2 Submit inspection report to the Departmental Representative ten (10) days prior to mobilization. The inspection report is to include planned corrective action for identified deficiencies.
- .8 Provide and maintain a digital communication system for the site consisting of full duplex and secure voice, real time fax and high speed internet. Provide three (3) separate phone lines for the Departmental Representative. Communication system must accommodate virtual private network (VPN) connections. The communication system is to be based on monthly charges with unlimited internet access. Provide wireless 802.11 B/G network access points such that the entire camp area has wireless network access.
- .9 Maintain one (1) handheld satellite telephone on-site for emergency purposes or when the main communication system is non-functional. Use of the handheld satellite telephone for primary site communications for extended periods is not acceptable.
- .10 Maintain one (1) handheld satellite telephone on-site for exclusive use by the Departmental Representative.
- .11 Shared use areas, kitchen dining areas and sleeping quarters shall be maintained as smoke- free areas. Provide a smoking area at Contractor's discretion, in accordance with Federal, Territorial and local regulations and guidelines.
- .12 Be responsible for security and surveillance of the camp and site facilities at all times including during winter months and when camp is not occupied. Provide security, site surveillance or other means to protect the camp and site facilities from vandalism and tampering,

1.2 Requirements of Regulatory Agencies

- .1 Construction camp, including its facilities, utilities, services, location and operation is subject to the approval of Departmental Representative and is to be designed, established and operated in accordance with applicable Federal, Territorial and local codes, regulations and requirements governing construction camp facilities.

- .2 Camp facilities location to be established at the approved camp location, as indicated. Camp facilities and service area locations are subject to Departmental Representative's approval.
- .3 Obtain applicable licences, permits and authorizations associated with establishing camp. Submit proof of same to Departmental Representative within thirty (30) days of camp start-up. Pay for all costs for the inspection of camp and electrical facilities by AHJ officials.
- .4 Comply with all requirements of the Water Use License, Land Use Permit and all other licenses, permits and authorizations.
- .5 Operate the camp in accordance with camp rules, as specified in this Section, and the provisions of Section 01 35 32 – Site Specific Health and Safety for Contaminated Sites.

1.3 Environmental Requirements

- .1 Comply with requirements of Environmental Regulatory Agencies and the provisions of Section 01 35 43 - Environmental Procedures.
- .2 Submit to Departmental Representative before opening of camp facilities, proof of adherence to all environmental regulations. Display all applicable regulatory permits in prominent location within camp.
- .3 Provide and pay for sampling and analyses of any camp water supply, as indicated in Section 01 29 83 - Payment Procedures for Testing Laboratory Services, to prove that the water quality satisfies the Health Canada Guidelines for Canadian Drinking Water Quality. The sampling and analysis is to be provided at the water supply source and at the distribution source prior to consumption.
- .4 Provide commercially sealed bottled water that meets Health Canada Guidelines for Canadian Drinking Water Quality until it is demonstrated, by a minimum of two consecutive sets of analytical test results, that the local source meets the Health Canada Guidelines for Canadian Drinking Water Quality. In the absence of analytical test results, local sources must not be used, and the supply of bottled water must be maintained. Submit information on bottled water, including the source and water quality test results to the Departmental Representative prior to opening the camp. If a local source is used, submit water quality test results every four (4) weeks during camp operation to the Departmental Representative and AHJ as required.
- .5 Provide and pay for equipment, supplies and materials required to treat the water in accordance with the Health Canada Guidelines for Canadian Drinking Water Quality.
- .6 The Contractor will carry out quality control sampling and testing of the camp water source at minimum every four weeks, as long as the camp is operational.
- .7 Comply with sewage treatment, disposal and closure requirements as outlined in Section 01 35 15 - Special Project Procedures for Contaminated Sites.
- .8 Install and maintain fire protection equipment as specified in Section 01 35 32 - Site Specific Health and Safety for Contaminated Sites.

1.4 Camp Facilities Installation and Removal

- .1 Establish accepted temporary buildings, shops, offices and facilities as required.
- .2 Place all camp facilities so as not to interfere with any construction or other site activities and in locations that comply with approved licenses.
- .3 Carry out all work necessary to protect environment, such as constructed pads (if required), prior to actual installation of camp facilities.
- .4 Locate camp generators a minimum distance of 30 metres away from any sleeping facility, camp kitchen or an area with constant human presence.
- .5 Winterize and secure camp, equipment, and vehicles at the end the construction season (if required).
- .6 If providing own camp, remove camp facilities at completion of Work, clean up and leave Site in condition satisfactory to Departmental Representative.
- .7 If using Crown Furnished camp, clean-up and winterize the facility prior to leaving Site in condition satisfactory to Departmental Representative.

1.5 Cleaning of Sewage Tanks and Lines

- .1 Prior to winterization of Camp Wastewater lines, rinse lines with wash water. Sample, analyse, treat, and dispose of, as required, Camp Wastewater in accordance with Section 01 35 15 – Special Project Procedures for Contaminated Sites and Section 01 35 43 – Environmental Procedures
- .2 Treat sewage sludge as hazardous material specified under Section 02 61 33 – Hazardous Waste Material and treat accordingly.

1.6 Site Location

1. Locate camp facilities in compliance with the camp location and footprint constraints of the approved licenses and Authorities Having Jurisdiction (AHJ).
2. Locate incinerator or burn areas downwind of camp facilities.
3. Locate camp facilities on existing pads or disturbed areas.
4. Locate the medic's centre in the camp facilities. Locate the medic's centre with an office, or other facility where other workers are present.
5. Locate the communications centre in the camp facilities.

1.7 Construction Camp

- .1 Carry out all work necessary to protect the environment prior to actual installation of the camp facilities.
- .2 Place all camp facilities so as not to interfere with any construction or other site activities.

- .3 Provide and maintain camp in good operating condition and provide adequate and suitable furnishings.
- .4 Consider the possibility of wildlife encounters when determining the layout of the camp. Refer to bear or wildlife safety literature when selecting the camp layout, facility spacing, and location of the kitchen, food storage, washroom and sleeping facilities.
- .5 Install a working wildlife deterrent electric wire fence and alarm system around the main camp facilities. A working wildlife deterrent is to be provided and a replacement will be made available within 24 hours should the primary system fail or malfunction. Test the alarm system as specified in Section 01 35 32 – Site Specific Health and Safety for Contaminated Sites.
- .6 Incinerate all kitchen waste in order to avoid attracting wildlife.
- .7 If providing own camp demobilize and remove the construction camp from the Site at the completion of the Work. Grade as necessary to match surrounding terrain and to provide positive drainage as directed by Departmental Representative.
- .8 If using Crown Furnished camp, winterize the construction camp as directed by Departmental Representative, at the completion of the Work prior to leaving site

1.8 Maintenance

- .1 Maintain camp, power generators, fuel storage facilities, water system, garbage disposal containers, heating and cooling units, appliances and furniture in neat, clean and good operating condition, and make repairs as necessary.
- .2 Heat camp facilities to maintain environmental controlled conditions between 20 and 22°C continuously.
- .3 Maintain camp facilities in tidy and sanitary condition. Clean camp common areas daily. Clean and sanitize toilets, urinals, wash basins, showers, washing machine, and washing tubs daily.
- .4 Keep common areas free of insects, pests and wildlife through garbage control, proper screens, pesticides and other non-smoke producing methods.
- .5 Provide adequate bug, pest and wildlife control for all buildings and camp facilities.
- .6 In the event of temporarily vacating camp, clean up and leave camp facilities in a safe, tidy and secure condition.

1.9 Departmental Representative's Sleeping Quarters

- .1 Sleeping quarters for Departmental Representative and Departmental Representative's Authorized Personnel are to be within the camp complex, but segregated from those for Contractor's staff.
- .2 For Departmental Representative's Authorized Personnel, provide a, minimum of 4.6 square metres of floor space for each occupant, with one dimension not to be less than

2 metres.

- .3 It is anticipated that Departmental Representative's Authorized Personnel will include both male and female personnel. Design and operate the construction camp with due consideration of the separate and private requirements for this work force.
- .4 Provide, for use by resident Departmental Representative, single sleeping quarters with a minimum floor area of 6 square metres.
- .5 Sleeping quarters for other Departmental Representative's Authorized Personnel, as indicated in this Section, to provide for maximum double occupancy with a minimum floor area of 9.2 square metres. Design camp facilities such that specialist inspectors generally are accommodated in single occupancy rooms. Double occupancy of specialist inspectors' accommodations will be considered by Departmental Representative for short periods of time only, and at Departmental Representative's discretion.
- .6 Provide a minimum of 11 cubic metres of air space for each occupant.
- .7 Provide storage lockers and/or shelving to store personal items. Provide at least one (1) power outlet per occupant. Provide one (1) reading light above each bed.
- .8 Provide key locks and keys for Departmental Representative and Departmental Representative's Authorized Personnel sleeping quarters upon their use of these facilities.

1.10 Departmental Representative's Site Office

- .1 Provide office accommodation and furniture on-site for Departmental Representative. The use of this facility will not be shared with Contractor. Shared office and sleeping quarters for the Departmental Representative is not acceptable.
- .2 Provide electrical lighting system, giving a minimum of 200 lux, using surface mounted, shielded commercial fixtures with 10% upward lighting component.
- .3 Departmental Representative's office is to have a minimum floor space of 20 square metres' unless less space is accepted in writing by Departmental Representative, and furnished with the following:
 - .1 Two double-pedestal desks with top surfaces not less than 150 cm by 75 cm.
 - .2 Two desk chairs.
 - .3 Two chairs, stacking type.
 - .4 One four-drawer file cabinets with locking mechanisms.
 - .5 One bookcase, not less than 90 cm wide by 30 cm deep by 120 cm high, complete with adjustable shelves.
 - .6 One double-tray in/out paper distribution baskets.
 - .7 One waste paper basket.
 - .8 Four duplex receptacles, 120 V, 60 Hz equipped with surge protection.
 - .9 Two UPS (Uninterruptible Power Supply) bars.
 - .10 One plan table.
 - .11 One Ethernet port and one phone/facsimile port.

- .4 Provide and maintain at Departmental Representative's office one Multiple Function Centre (MFC) with capabilities for printing, copying, and scanning. This unit is to be for Departmental Representative's exclusive use and is to be Windows compatible with Parallel, USB and Ethernet interfaces. Provide the MFC with all required consumable supplies such that it provides continuous operation. The MFC is required to also meet the following specifications:
 - .1 Print Function: Black and White and Colour with a minimum of 32 MB of memory.
 - .2 Copy Function: Black and White and Colour with capabilities for Automatic Document Feed (ADF) and Reduction / Enlargement.
 - .3 Scan Function: Black and White and Colour scan capabilities with a minimum optical scan resolution of 600 x 2400 dots per inch (dpi) and capabilities to scan to e- mail, image, OCR and file.
- .5 Provide, for the use by Departmental Representative and Departmental Representative's Authorized Personnel, two (2) mobile communication radios, complete with charging units. The radios are to allow for on-site communication between Departmental Representative, Departmental Representative's Authorized Personnel and Contractor. Install repeater stations as required to provide for radio communication in all Work areas.
- .6 Provide one each of telephone, fax and Ethernet to Departmental Representative's office.
- .7 It is critically important that the communication equipment provided by Contractor for Departmental Representative's use is reliable and of the highest quality. Immediately repair or replace faulty equipment. The equipment is to be operational from the day the Work commences.

1.11 Field Laboratories

- .1 Supply and pay for two (2) separate field laboratories, complete with furniture, for the use by the Departmental Representative's Authorized Personnel. The two (2) labs will include an environmental analytical lab and a geotechnical lab. The two (2) laboratories may be combined in one (1) module unit.
- .2 Locate the field laboratories in the camp complex and make ready for use three (3) days prior to the first day Work commences for which testing is required, and remain available for the duration for which testing is required.
- .3 The analytical lab will have a minimum floor area of 40 square metres complete with one satellite telephone, heating system, lighting system, a minimum of three (3) 110 volt, 60 cycle electric outlets, water and sewer system, sink, work benches, two (2) garbage cans, refrigerator, freezer, shelving and clothes rack, two (2) desks, two (2) 0.75 metre x 1.50 metre tables, three (3) chairs, one (1) four-drawer filing cabinet and adequate windows. Provide a minimum of 30 square metres of shelf area.
- .4 The geotechnical lab will have a minimum floor area of 20 square metres complete with a heating system, lighting system, a minimum of four (4) 110 and one (1) 220 volt, 60 cycle electric outlets, water and sewer system, sink, work benches, garbage cans, shelving, one (1) desk, one (1) 0.75 metre x 1.50 metre table, two (2) chairs, one (1)

four-drawer filing cabinet and adequate windows. Provide a minimum of 10 square metres of shelf area.

- .5 Provide and maintain one phone line and internet connection in each laboratory.
- .6 Equip the analytical lab with a standard refrigerator with a total minimum capacity of 0.48 cubic metres (17 cubic feet) and a chest freezer with a total minimum capacity of 0.28 cubic metres (10 cubic feet).
- .7 Equip the geotechnical lab with the following granular material testing equipment:
 - .1 One (1) forced convection bench top laboratory oven with digital controls, stainless steel interior and suitable for effective drying of soil samples.
 - .2 One (1) 1.5" sample splitter.
 - .3 One (1) 6" Proctor Mould for the Standard Proctor Test: ASTM 698.
 - .4 One (1) Standard Proctor Hammer.
 - .5 One (1) Motorized Sieve Shaker compatible with 8" sieves.
 - .6 One (1) Set of 8" Sieves to include the following opening sizes in millimetres: 100, 75, 50, 25, 20, 16, 12.5, 10, 5, 2.5, 1.25, 0.630, 0.425, 0.150, 0.08.
 - .7 One (1) wash sieve (0.075 mm opening) with reinforced screen.
 - .8 Two (2) soft sieve brushes.
 - .9 Pans and Tares:
 - each 13" x 9" x 2" metal
 - each 26" x 18" x 3.5" metal
 - each 9.3" x 5.3" x 2.7" metal
 - each 3 qt. round metal mixing bowl
 - 100 aluminium pie plates - 200 mm min. diameter (for use in oven).
 - .10 One (1) precision grade electronic scale with accuracy and readability to 0.1 grams and a minimum capacity of 20 kilograms.
 - .11 One (1) pair of oven mitts.
- .8 Clean both laboratories at least two times per week, and maintain all electric lights, heating, water and sewer systems in good working condition during the period the laboratory is required. Maintain facility in acceptable condition.
- .9 Provide power to each of the laboratories on a 24 hour/day basis while the Work is in progress. Equip all power supplies with adequate surge protection. Damage to equipment resulting from power surges will be repaired or replaced at no cost to the Departmental Representative or Authorized Personnel.
- .10 Submit to the Departmental Representative for review a sketch of the proposed laboratories with the construction camp layout and siting plan as specified in this section.
- .11 Provide Departmental Representative with key-locks for the field laboratories prior to commencement of activities requiring laboratory services being in operation.

1.12 Kitchen/Dining Complex

- .1 The functional design of the kitchen is to include all equipment necessary for food storage, preparation, cooking and the serving of three meals daily to meet camp population requirements.

- .2 Provide dishwashing and garbage handling equipment consistent with the required function of the kitchen.
- .3 Provide seating capacity of the dining area to meet maximum camp population requirements.
- .4 Store all non-perishable food supplies in adequate containers kept in an orderly manner and under sanitary conditions, in a vermin-proof enclosure.
- .5 Store all perishable food supplies in properly refrigerated indoor areas within the construction camp to preclude the attraction of wildlife.

1.13 Ablution and Latrine Facilities

- .1 Provide ablution and latrine facilities as per AHJ and codes requirements and as per camp occupancy requirements as follows:
 - .1 Toilets as required.
 - .2 Urinals as required.
 - .3 Wash basin of stainless steel, porcelain, with one mirror over each basin as required.
 - .4 Individual shower units with non-slip flooring together with adjacent dressing cubicles as required.
- .2 Maintain separate ablution and latrine facilities for female/male populations.
- .3 Maintain separate ablution and latrine facilities for Departmental Representative and Departmental Representative's Authorized Personnel. Maintain separate facilities for Departmental Representative's male and female staff.
- .4 Clean ablution and latrine facilities daily. Supply adequate amounts of hand soap, paper towels and toilet tissue in washrooms.

1.14 Fire Protection Equipment

- .1 Install and maintain fire protection equipment as specified in Section 01 35 32 - Site Specific Health and Safety for Contaminated Sites.

1.15 Linen, Bedding and Laundry

- .1 Supply three (3) blankets, two (2) sheets, two (2) pillows and two (2) pillow cases for each person living in camp facilities.
- .2 Change two sheets and two pillow case once per week and whenever a change of occupant occurs.
- .3 Launder sheets and pillow covers regularly to provide weekly supply of clean linen.
- .4 Provide clean blankets to all camp occupants.
- .5 Cooking staff is to wear suitable kitchen attire. Launder kitchen attire daily.

1.16 Food Schedule

- .1 Provide food of the highest quality giving a balanced diet and served under acceptable standards of cleanliness by experienced personnel. Eggs and dairy products are to be Grade "A". Canned fruit and vegetables to be choice or fancy.
- .2 Beef to be Canada Grade "A", pork to be Grade "I", turkey, chicken or other fowl to be "utility" or better.
- .3 Provide choices of traditional food.
- .4 Provide healthy choices in food preparation.
- .5 As a minimum, provide three meals a day. Provide casual meals or fourth meals if irregular shifts are worked or irregular travel by personnel is required. Consult with Departmental Representative to set meal times for casual or fourth meals.
- .6 Main courses to be served at meals are classified as follows:
 - .1 First Line: Beef steak, roast beef, roast pork, veal cutlets, baked ham, ham steak, chicken, turkey, pork chops, roast lamb, roast veal, vegetarian lasagne, pasta with meatless sauce, quiche.
 - .2 Second Line: Fish, short ribs, spare ribs, stews, meat pies, liver, curried dishes, spaghetti and meatballs, sausages, salisbury steak, swiss steak, ground beef, corned beef, vegetarian chili, omelettes, vegetarian baked beans, vegetarian patties.
 - .3 Third Line: Hot dogs, vegetarian hot dogs, omelettes, chili con carne, baked beans, chicken and turkey turnovers, dishes using leftover meats, bagels and cream cheese, soup and sandwiches.
 - .4 Breakfast Line: Eggs, toast, bacon, sausage, ham, toast, hash browns, waffles, porridge, cereal, fruit, yogurt, milk and fruit juice.
- .7 Serve breakfast line daily. At supper, serve a hot main course, one first line and a choice between a second and third line. At lunch, serve a hot main course, one second line and one third line. Do not repeat the same selection more than twice weekly. Beef steak is to be served at least once per week. Provide a vegetarian option upon request.
- .8 Provide box lunches for all camp occupants who will not be in camp for noon meal.
- .9 Contractor will be given twelve hours notice to serve fourth and/or casual meals to work forces of other contractors and Departmental Representative.
- .10 Provide "Mug Up" nightly at 21:00 hours, consisting of tea, coffee, hot chocolate, fruit juice and any leftover pastries at cook's discretion. Make coffee available at coffee breaks.
- .11 Make available daily apples and oranges; serve other types of fresh fruit at least once per week.
- .12 Provide beverages and snacks at all times. A variety of snacks shall be available,

including snacks that are appropriate for diabetics or persons with blood sugar concerns. Snacks may consist of fresh fruit or vegetables, granola bars, cheese and crackers, bannock, or other suitable items.

- .13 Fresh salads are to be provided daily.
- .14 Provide whole milk each day; powdered milk is not acceptable for drinking but may be used in cooking.
- .15 Provide pure juice each day.
- .16 Schedule food re-supply flights, as necessary, to maintain variety in the menu and that fresh produce, milk and juice is continually available.

1.17 Service Facilities

- .1 Install, hook-up, test and make necessary repairs to sewage, water supply, heating, and electrical services.
- .2 Situate power plant in camp area to minimize noise, and prevent exhaust fumes from blowing through camp during prevailing winds.
- .3 Ground all buildings and electrical equipment with an approved grounding system.

1.18 Recreation

- .1 Provide an area for recreation for all camp occupants.
- .2 Area to be of a size suitable for accommodating at least 50% of camp occupants, and to be suitably furnished with loungers, and stacking chairs.
- .3 Provide two (2) televisions and DVD players for use by camp occupants. Alternatively, provide a satellite system.
- .4 Provide a minimum of 20 DVD movies and rotate these movies every two weeks or provide two (2) televisions with satellite link.
- .5 Provide an assortment of books (soft cover) and magazines for reading.

1.19 Camp Rules

- .1 Prepare a set of Camp Rules and submit to the Departmental Representative, prior to commencing operations, for review.
- .2 In order to protect all camp occupants, the following activities are strictly prohibited and are to result in disciplinary action:
 - .1 Tampering with smoke or fire detectors/alarms, any other safety equipment or electrical outlets/fixtures.
 - .2 Possession and consumption or use of alcohol or illegal drugs.
 - .3 Possession or use of unauthorized firearms, ammunition or other lethal weapons.

- .4 Fighting, physical violence, stealing, vandalism or destruction of property.
- .5 Harassment in any form.
- .3 The employee or visitors departure from the site for any of the above reasons will be on the first available scheduled transportation. Should this person wish to leave immediately, the costs will be the responsibility of the employee.
- .4 Make all camp residents familiar with all emergency procedures, exits, signals and alarms. Keep accesses to fire equipment clear at all times, and immediately report any damaged fire or safety apparatus to your supervisor.
- .5 Keep living areas as clean as possible.
- .6 Have warm emergency clothing available at all times during the winter.
- .7 Keep clothing or other flammable goods away from baseboard heaters.
- .8 Employees must store/remove all personal effects and belongings when going off rotation or permanently off site.
- .9 No loose clothing, dangling neckwear, bracelets, rings or similar articles are to be worn where there is a risk of coming into contact with moving machinery or electrical energized equipment.
- .10 Provide a copy of Camp Rules to all camp occupants prior to or upon arrival in camp.
- .11 Enforce the Camp Rules.

1.20 Laundry Facilities

- .1 Within the camp, provide both personnel laundry facilities and facilities dedicated to the camp (ex: bedding, kitchen linens)
- .2 Laundry facilities for washing of PPE (ex: coveralls and other exterior Work clothing) to be located separately from the personnel and camp laundry facilities.

1.21 Security

- .1 Restrict access to camp. Only persons employed on project are to be allowed normal access. Unauthorized persons will be permitted on site only with approval of Departmental Representative and/or Contractor.

1.22 Access to the Work

- .1 Be responsible for the transport of personnel and equipment to the various work areas on the site.

1.23 Air Transportation

- .1 Provide return air transportation services for Departmental Representative and Departmental Representative's Authorized Personnel from the Contractor's Charter Base to the Site.

- .2 It is anticipated that air transport of Departmental Representative's Authorized Personnel will be scheduled to coincide with the transport of Contractor's workforce to and from the site.
- .3 Departmental Representative will advise Contractor of Departmental Representative's and Departmental Representative's personnel air transportation requirements two (2) days in advance of trip departure.

1.24 Measurement for Payment

- .1 Include all costs for the supply, erection, connection, start-up and inspection of camp and electrical facilities by AHJ officials in the lump sum payment for Camp Supply and Start-Up, Item 01 54 00-1, as indicated in the Basis of Payment Schedule.
- .2 All direct costs for the operation and maintenance of all camp facilities and equipment will be measured for payment by the weekly unit rate for Operation and Maintenance of Camp , Item 01 54 00-2 as indicated in the Basis of Payment Schedule. Operation and Maintenance of Camp is to include, but is not limited to, potable water treatment and sewage treatment, on-site mobile communication equipment, charter flights, as well as the provision of catering, rooms, and laundry and janitorial services for the camp.
- .3 Room and board and associated services for Departmental Representative and Authorized Personnel will be measured for payment by the person-day for each day that personnel reside overnight at the camp under Departmental Representative and Authorized Visitor Room and Board, Item 01 54 00-3 in the Basis of Payment Schedule.
- .4 Casual meals for visitors authorized by Departmental Representative will be measured for payment by the number of meals served and will be paid under Departmental Representative and Authorized Visitor Casual Meals, Item 01 54 00-4 in the Basis of Payment Schedule.
- .5 Air transportation from the Contractor's Charter Base to Site for Departmental Representative and Departmental Representative's Authorized Personnel will be measured for payment by the number of person return trips and will be paid under Departmental Representative Transport to Site, Item 01 54 00-5 in the Basis of Payment Schedule.
- .6 Include all direct costs for the supply and installation of satellite and/or long distance communication links, including those provided for the Departmental Representative and Departmental Representative Authorized Personnel, in the lump sum price for Communication Links, Item 01 54 00-6, as indicated in the Basis of Payment Schedule.
- .7 Supply of Departmental Representative's consumable office supplies will be considered incidental to the work and will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate cost of the work as a separate line item in the Contract Work Breakdown Structure (CWBS) specified in Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart.
- .8 The provision of security or surveillance for the camp and Site facilities, including times

when camp is not occupied, will be considered incidental to the work and will not be measured for payment. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate cost as a separate line item in the Contract Work Breakdown Structure (CWBS) specified in Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart.

- .9 Except as indicated above, work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate cost of the work of this section as a separate line item in the Contract Work Breakdown Structure (CWBS) specified in Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart.

PART 2 - PRODUCTS

- 2.1 Not Used

PART 3 - EXECUTION

- 3.1 Not Used

END OF SECTION

PART 1 GENERAL

1.1 Description

- .1 This section presents existing facilities, equipment, materials and supplies available at Site for the Contractor's use.

1.2 On-Site Crown Furnished Equipment and Supplies

- .1 Crown-furnished, on-site facilities, equipment, materials and supplies available for Contractor use are identified in Appendix 3. Equipment, materials and supplies are provided as-is.
- .2 Inspection prior to use is to be undertaken by the contractor and the Departmental Representative to determine equipment condition.
- .3 Commencement of use of equipment and facilities provided constitutes acceptance of existing conditions and verification of dimensions.

1.3 Submittals

- .1 Maintenance Plan and Schedule for Crown Furnished Products
 - .1 Maintenance program must meet manufacturer and/or AHJ requirements

1.4 Measurement of Payment

- .1 Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate cost of the Work of this section as a separate line item in the Contract Work Breakdown Structure (CWBS) specified in Section 01 32 18 Construction Progress Schedules – Bar (GANTT).

PART 2 PRODUCTS

2.1 Not Used

PART 3 EXECUTION

3.1 Not Used

END OF SECTION

PART 1 – GENERAL

1.1 Qualifications of Surveyor

- .1 Surveyor is to be qualified with surveying experience and certification acceptable to Departmental Representative.
- .2 Surveyor cannot be an Employee of Contractor.

1.2 Survey Reference Points

- .1 Existing base horizontal and vertical survey reference points are designated on Drawings.
- .2 Locate, confirm and protect survey reference points prior to starting Work. Preserve permanent reference points during Work. Condition and accuracy of existing reference points is unknown. Contractor to re-establish local control points where required.
- .3 Make no changes or relocations to existing reference points without prior written notice and approval from Departmental Representative.
- .4 Report to Departmental Representative when reference point is lost or destroyed, or requires relocation.
- .5 Replace damaged reference points in accordance with original survey control requirements.

1.3 Survey Requirements

- .1 Establish stable temporary survey control points for use in laying out Work. Re-establish local control points at the start of each construction season.
- .2 Establish lines and levels, locate and lay out, by instrumentation.
- .3 Conduct periodic survey of all Site areas disturbed by Contractor activities such that drawings can be produced to show accurately the state of Site ground conditions at the completion of each construction, and at other intervals as requested by Departmental Representative.
- .4 Provide to the Departmental Representative up to twenty (20) hours of surveyor services using the Contractor's surveyor and equipment per season
- .5 Maintain survey accuracy to 0.01 m vertically and 0.1 m horizontally. Submit data in UTM NAD83Datum.
- .6 Survey Equipment to include:
 - .1 Surveying Total Station with data recording capability, tripod, spare battery, battery charger, downloading hardware and software and all associated ancillary items cables, hardlock, etc.).
 - .2 Automatic level with tripod.
 - .3 Single prism with 5 m collapsible range pole.

- .4 Triple prism with tripod.
 - .5 50 m cloth tape (steel reinforced).
 - .6 5 m collapsible level rod.
 - .7 Magnetic pin finder (high frequency).
 - .8 One 1.2 m carpenter's level.
- .7 The use of either a Total Station unit or a GPS Real Time Kinetic unit is acceptable.
- .8 Calibrate all equipment prior to the construction season. Submit to the Departmental Representative documentation certifying the calibration of the equipment ten (10) days prior to the start of the construction season.

1.4 Survey Markers

- .1 Provide all survey markers and other items required to complete Work as specified, including, but not limited to:
- .1 Pointed stakes (minimum 1.2 m in length, 12 mm thick, 38 mm wide)
 - .2 Pointed hubs (minimum 0.5 m in length, 20 mm thick, 38 mm wide)
 - .3 Nails (100 mm long), spikes (250 mm long), pins (1 m long), etc.
 - .4 Fluorescent paint, flagging, etc.
 - .5 Felt markers, chalk, wax pens, etc.
- .2 Maintain supply of survey markers for Departmental Representative's use.

1.5 Records

- .1 Maintain a complete, accurate log of control and survey work as it progresses.

1.6 Submittals

- .1 Provide all submittals in accordance with Section 01 33 00 – Submittal Procedures.
- .2 Submit name and address of Surveyor to Departmental Representative thirty (30) days prior to Mobilization.
- .3 Upon request of Departmental Representative, submit documentation to verify accuracy of field Work.
- .4 Submit survey data in both hard copy and electronic form.
- .5 Submit raw survey data in electronic form containing (at minimum):
- .1 Date of survey.
 - .2 Description of survey (e.g. Landfill Berms – Finished grade, or Water treatment Pad – as built, etc.)
 - .3 Point numbers, Northing, Easting, elevation, description.
- .6 Describe each survey sufficiently by date, and status of Work progress, to allow intermediate progress surveys for each construction feature to be clearly differentiated from completed construction step surveys of the same construction feature.

- .7 At completion of all Work, submit certificate signed by surveyor certifying and noting those elevations and locations of completed Work that conform and do not conform with Contract Documents.
 - .8 Submit all drawings electronically in accordance with PWGSC protocols for AutoCAD drawings, and by hard copy.
 - .9 Submit to the Departmental Representative documentation certifying the calibration of the equipment ten (10) days prior to construction commencement each season.
 - .10 Submit electronic survey files to Departmental Representative as requested.
- 1.7 Measurement for Payment
- .1 Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate cost of the work of this section as a separate line item in the Contract Work Breakdown Structure (CWBS) specified in Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart.

PART 2 - PRODUCTS

- 2.1 Not Used

PART 3 - EXECUTION

- 3.1 Not Used

END OF SECTION

PART 1 – GENERAL

1.1 Closeout Procedures

- .1 Contractor and all Sub-Contractors to conduct an inspection of Work, identify deficiencies and defects, and repair as required to conform to Contract Documents.:
- .2 Notify Departmental Representative when Contractor considers Work ready for Substantial Completion inspection.
- .3 Accompany Departmental Representative on Substantial Completion inspection to determine Work items that require completion or correction.
- .4 Comply with Departmental Representative's instructions for completion or correction of Work items identified as deficient during Substantial Completion Inspection.
- .5 Notify Departmental Representative that defects have been corrected and deficiencies have been completed and request Departmental Representative's final completion inspection.
- .6 Accompany Departmental Representative on Final Completion inspection to assess corrections completed following Substantial Completion inspection.
- .7 If Work is deemed incomplete by Departmental Representative during final completion inspection, complete outstanding items and request re-inspection.

1.2 Measurement for Payment

- .1 Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate cost of the work of this section as a separate line item in the Contract Work Breakdown Structure (CWBS) specified in Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart.

PART 2 - PRODUCTS

2.1 Not Used

PART 3 - EXECUTION

3.1 Not Used

END OF SECTION

PART 1 – GENERAL

1.1 Project Record Documents

- .1 Project Record Documents are to include, but not be limited to;
 - .1 Addresses and telephone numbers of Contractor with name of responsible parties,
 - .2 Schedule of products and systems, indexed to content of volume,
 - .3 Compiled Contractor Submittals with revision dates and names
 - .4 A summary of Health and Safety issues, Environmental issues and performance indicators.
 - .5 Product Data
 - .6 Seasonal Water Treatment Summary Report
- .2 For each product or system, list names, addresses and telephone numbers of subcontractors and suppliers, including local source of supplies and replacement parts
- .3 Mark product data clearly to identify specific products and component parts, and data applicable to installation; delete inapplicable information.

1.2 Recording Actual Site Conditions

- .1 Securely store record documents and samples in field office apart from documents used for construction.
- .2 Label record documents and file in accordance with Section number listings in List of Contents of this Project Manual.
- .3 Maintain record documents in clean, dry and legible condition. Do not use record documents for construction purposes.
- .4 Keep record documents and samples available for inspection by Departmental Representative.
- .5 Submit Record Documents forty-five (45) days after project completion.

1.4 Permit Reporting

- .1 Thirty (30) days after the completion of each construction season, submit the following to the Departmental Representative:
 - .1 Copies of all documents and permits obtained by the Contractor.
 - .2 Results of all testing carried out by the Contractor.
 - .3 Any other pertinent information.
 - .4 Copies of all shipping documents identifying the shipper, the receiver and all carriers involved in the transport of materials.
 - .5 Information as required by the Land Use Permit.
 - .6 Information as required by the Water License.
 - .7 Information as required by the Quarry Permit.
 - .8 Information as required by all other applicable regulatory bodies and AHJ.
 - .9 Copies of all Transportation of Dangerous Goods documentation.

- .10 Copies of all Certificates of Destruction.
 - .11 Copies of all waste manifests.
 - .12 Copies of all weigh scale tickets.

 - .2 Consolidate and submit the above information in one (1) digital copy in Portable Document Format (PDF), up to two (2) hard copies, as requested by Departmental Representative and as electronic data files for test results, as requested by Departmental Representative.
- 1.5 Measurement for Payment
- .1 Include all direct costs for the Seasonal Water Treatment Summary Report in the lump sum price for Seasonal Water Treatment Summary Report, Item 01 78 00-1, as indicated in the Basis of Payment Schedule.

 - .2 Except as indicated above, work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate cost of the work of this section as a separate line item in the Contract Work Breakdown Structure (CWBS) specified in Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart.

PART 2 - PRODUCTS

- 2.1 Not Used

PART 3 - EXECUTION

- 3.1 Not Used

END OF SECTION

PART 1 GENERAL

1.1 Description

- .1 This section specifies the requirements for the collection, containerization, transportation and disposal of hazardous waste.
- .2 This includes hazardous waste that the contractor brings to or produces on site.

1.2 Definitions

- .1 Hazardous Waste Materials: Wastes materials that are designated as “hazardous” under Territorial or Federal legislation or guidelines; or as “dangerous goods” under the TDGA. The following items are designated as “hazardous” in accordance with the aforementioned legislation:
 - .1 Batteries.
 - .2 Solvents.
 - .3 Oils Containing Polychlorinated biphenyls (PCB) in excess of 2 ppm.
 - .4 Petroleum Distillates
 - .5 Drum Sludge.
 - .6 Soils and paint containing PCBs at concentrations in excess of 50 ppm (mg/kg) and/or leachable lead in excess of 5 ppm (mg/L).
 - .7 Material, including wastewater, groundwater and surface water, identified to be hazardous as the result of testing.
 - .8 Electrical equipment including, but not necessary limited to, capacitors, transformers, and regulators which contain or are suspected to contain PCBs at concentrations in excess of 50 mg/kg.
 - .9 Chemicals
 - .10 Miscellaneous Hazardous Materials defined as those materials not classified as 1 to 9 above but suspected to fall under the definition of Hazardous Wastes and Materials as stated in this Section.
- .2 Unknown Hazardous Material: material designated as hazardous in accordance with the definition of hazardous waste material in this Section, and which has not been specifically identified for collection and disposal as part of other work components.
- .3 Processing: the sampling, testing, packaging, and containerization of hazardous materials.
- .4 Shipping Container: a container which meets applicable TDGA Requirements for the transport of hazardous material and contains hazardous material.
- .6 Temporary Storage Area: the designated area, approved by Departmental Representative, for the storage of packaging and/or shipping containers prior to transport off-site. Requirements for the Temporary Storage Area are outlined in this Section.

- .7 Drum: for the purposes of these specifications a drum is a 205 L or smaller steel container used to hold fuel or other liquids.
- .8 Contractor's Receiving Site for Hazardous Materials: The Licensed Hazardous Waste Disposal Facilities, designated by Contractor and pre-approved by Departmental Representative, for the disposal of all hazardous waste specified under the provisions of this contract. Contractor must be able to provide documentation from the Designated Hazardous Waste Disposal Facilities indicating full responsibility for all hazardous waste accepted from Tundra Mine
- .9 Calibrated Scale: Scale certified by Measurement Canada for legal trade.

1.3

Qualifications and Personnel Protection

- .1 Be thoroughly familiar with and knowledgeable about existing site conditions, scope of work and requirements of the Specifications.
- .2 Only Contractor's personnel capable of demonstrating a history of satisfactory experience in the area of hazardous waste management and can satisfy Federal and Territorial requirements will be permitted to supervise and direct the work of this Section. Contractor's Superintendent responsible for the work of this Section is to have appropriate level of experience in the area of hazardous waste management.
- .3 Follow at all times, guidelines such as those established in Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities: NIOSH Publication No.85-115, or Hazardous Waste Worker Training Manual: Canadian LIUNA-Contractors Training Council, 1992.
- .4 All activities involving the handling of hazardous materials are to be directly supervised by Contractor's Hazardous Waste Specialist who has successfully completed a 40 hour training course for Hazardous Waste Activities in compliance with OSHA 29 CFR 1910.120 or other approved equivalent training courses such as the Canadian Hazardous Waste Workers Program.
- .5 Contractor's personnel trained as described in this Section are to instruct and direct all workers with respect to the waste management procedures and labour and safety practices to be followed in carrying out the work.
- .6 Provide workers with protection appropriate to the potential type and level of exposure. Establish specific safety protocols prior to commencing cleanup activities.
- .7 Provide suitable safety clothing and equipment as required during the course of the work. Supply sufficient quantities of protection equipment to fit all site personnel including Departmental Representative, Departmental Representative's staff, and site visitors.
- .8 Trained and certified personnel are required to complete all Transportation of Dangerous Goods Act (TDGA) documentation and recording requirements.

1.4 Measurement for Payment

- .1 Departmental Representative is to carry out baseline and post-use soil sampling and analyses of the Temporary Storage Area prior to placement, and upon removal, of the Hazardous Material Containers. Contractor is responsible for any soil contamination resulting from the improper storage and handling of hazardous materials over the duration of site remediation activities. In the event of such contamination, submit to Departmental Representative a plan for site remediation in accordance with all Federal, Provincial and Territorial Regulations to be enacted upon immediately following approval by Departmental Representative. All cleanup costs will be borne by Contractor.
- .2 Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Pricing Schedule. Indicate the cost of this work as a separate line item in the cost breakdown specified in Section 01 32 18- Construction Progress Schedules — Bar (GANTT) Chart.

PART 2 PRODUCTS

2.1 Hazardous Waste Material Containers:

- .1 Hazardous Waste Containers:
 - .1 Containers are to satisfy the requirements of the latest edition of the *Transportation of Dangerous Goods (TDG) Act* and Regulations, and in meant the requirements related to the transport of material over ice roads or my marine transport methods.
 - .2 Submit details of the containers to Departmental Representative for review prior to commencement of the work. These details are to include written confirmation from Transport Canada that Contractor's proposed containers satisfy TDGA regulatory requirements for marine transport.
 - .3 Containers are to include all necessary liners to satisfy the TDGA requirements for ground transport via the winter road and local highway system.
- .2 For packaging and containerization requirements of hazardous waste materials, all requirements of the *TDG Act* and Regulations must be met.
- .3 Provide access for Departmental Representative to inspect all Hazardous Material Packaging as directed by Departmental Representative.

PART 3 EXECUTION

3.1 General Requirements

- .1 Conduct all work in accordance with all appropriate Federal, Provincial and Territorial legislation, and international conventions.

- .2 Individuals shipping and receiving hazardous waste materials are to be licensed under the *TDGA* and Regulations, and appropriate territorial environmental acts and regulations.
- .3 Only trained individuals or individuals working under the direct supervision of trained persons are to handle or transport dangerous goods.
- .4 Establish Temporary Storage Areas at the site, subject to approval by Departmental Representative, to provide a secure area for Hazardous Waste Material prior to shipment for disposal as described in this Section.

3.2 Protection

- .1 Perform work in an environmentally acceptable manner. Comply with requirements of Section 01 35 43 – Environmental Protection.
- .2 Avoid releasing any hazardous materials into the environment during handling of hazardous waste materials.
- .3 In the event of a spill, invoke the emergency response plan and take appropriate action.
- .4 Provide a full range of cleanup and protective equipment at the site to contain and cleanup spills, and protect personnel, as required. The cleanup equipment is to include booms (sorber and containment), sorbents for cleanup, fire extinguishers for A-B-C fires, overpacks for contaminated soils, pumps, hand shovels, picks and containment barriers, such as plastic sheeting. Personnel protective equipment is to include clothing, protective suits, respirators, etc. to comply with potential emergency conditions and in accordance with NIOSH guidelines.
- .5 Site personnel handling hazardous waste material are required to wear environmental protection equipment in accordance with NIOSH guidelines.
- .6 Establish a Temporary Storage Area as indicated.

3.3 Temporary Storage Area

- .1 Establish a Temporary Storage Area at the site for the purpose of:
 - .1 Sorting, packaging, sampling, and processing hazardous waste materials;
 - .2 Consolidation of compatible liquids and solids, packaging for shipment; and
 - .3 Consolidation of crushed drums and non-hazardous debris prior to transfer off- site to the Contractor's Receiving Site.
- .2 Establish the Temporary Storage Area to:
 - .1 be of sufficient size and capacity to accommodate the volume of hazardous material and equipment to be disposed of off-site, and the volume of non- hazardous debris as well as the number of drums to be transferred to the Contractor's Receiving Site, and

- .2 isolate hazardous materials, and drum contents and wash water from other work operations.
- .3 Immediately clean up any spills, leaks, or other releases of liquid or sediment from this area as per Section 01 35 43 - Environmental Protection, and in accordance with the Site Specific Health and Safety Plan for Contaminated Sites.
- .4 Submit details of the Temporary Storage Area to Departmental Representative for review and approval prior to commencing remediation activities.
- .5 Submit to Departmental Representative a detailed inventory of the Temporary Storage Area indicating the location and contents of each container and assigned Environment Canada Registration numbers (as required) and packaging configuration.

3.4 Removal and Sorting of Hazardous Waste Materials

- .1 Continually monitor the care and maintenance operation to identify potentially hazardous material.
- .2 Immediately suspend the operation if suspected hazardous material or debris is identified and allow visual confirmation of the nature of the material or debris to be established.
- .3 Store suspicious material in a secured area or secured containers, if the nature of the material or debris can not be confirmed. Advise Departmental Representative about the findings. Material needs to be seized until the nature of the material is confirmed by Departmental Representative. Testing for classification will be carried out and paid for by Departmental Representative.
- .4 Remove hazardous waste materials from their place of origin, place in containers, and transport containers to the Temporary Storage Area.
- .5 Remove hazardous liquid waste drums from their place of origin, place in containers, and transport containers to the Temporary Storage Area.
- .6 Remove and sort drums as described in this Section.
- .7 Avoid releasing any hazardous materials into the environment during the handling of hazardous waste materials.
- .8 Invoke the approved emergency response plan and take the appropriate action in the event of a spill or other emergency situation.
- .9 Have available, a full range of cleanup and protective equipment (PPE) at the site to contain and cleanup spills, and protect personnel as required. The cleanup is to include booms (sorbent and containment), sorbents for cleanup, over-packs for drums and contaminated soils, pumps, hand shovels, and picks.

Personnel protective equipment as per Section 01 35 32 Site Specific Health

and Safety Plan is to include clothing protective suits respirators etc in accordance with NIOSH Guidelines and to comply with anticipated and potential emergency conditions.

3.5 Management of Leachable Lead Painted Materials

- .1 Not Used

3.6 Drum Processing

- .1 All drums known to contain liquids are to be considered as hazardous and managed as previously described in this Section.
- .2 All drums free of liquid will be consolidated and containerized for transfer to the Temporary Storage Area and for transport to the Contractor's Receiving Site.

3.7 Inventory of Containers

- .1 Provide a numbering system and maintain an inventory of all containers to be transported and disposed of off-site.
- .2 Label all containers, using spray paint or other means, with the Container number and contents (e.g. Haz Soil, Haz Debris, etc.).
- .3 Submit to Departmental Representative, a copy of the inventory of the contents of each container.

3.8 Packaging, Labelling and Inventory

- .1 Provide a numbering system and maintain an inventory of all containers with Hazardous Waste Materials to be transported and disposed of off-site.
- .2 Package and label each "hazardous material" in accordance with the "Class" and "Packaging Group" as per TDGA.
- .3 Submit to Departmental Representative, a copy of the inventory of the contents of each container.
- .4 Provide certificates to the Departmental Representative of the hazardous waste material disposal once the waste material has been received by the Contractor's Receiving Site and prior to final payment.

END OF SECTION

PART 1 GENERAL

1.1 Description

- .1 This Section specifies general requirements for the excavation of aggregates to be incorporated into the Work as granular fill.
- .2 There is no requirement to blend, crush and/or screen granular materials as part of this work. Suitable material has been stock-piled on site and is available for the Contractor's use as approved by the Departmental Representative. Moisture conditioning of material from borrow sources will be required.

1.2 Source Approval

- .1 Abide by conditions of the Quarry Permit, Land Use Permit and Water Licence and/or other requirements of Authorities Having Jurisdiction (AHJ).
- .2 Obtain Type A and E/F Materials from the West Lower Pond Borrow Area. Obtain Type D Materials from the Airstrip
- .3 Indicated stockpiles are to be used. Approval to excavate borrow material from new areas will be granted by Departmental Representative based on areas that do not require new access roads, areas that have minimal ice-rich permafrost and areas located away from water bodies.
- .4 If, in the opinion of the Departmental Representative, materials from the proposed source do not meet, or cannot reasonably be processed to meet specified requirements, locate an alternative source or demonstrate that material from source in question can be processed to meet specified requirements.
- .5 Should a change of material source be proposed during Work, advise Departmental Representative one (1) week in advance of proposed change to allow sampling and testing.
- .6 Acceptance of a material at source does not preclude future rejection if it is subsequently found to vary spatially, or if it fails to conform to requirements specified, or if its field performance is found to be unsatisfactory.

1.3 Production Sampling

- .1 Provide Departmental Representative with ready access to source and processed material for purpose of sampling and testing.
- .2 Samples are to be obtained according to industry acceptable practices.

1.4 Measurement of Payment

- .1 Location, access to and development of aggregate sources including construction of haul roads, stripping, handling, stockpiling, replacement of organics, and any necessary restoration will be incidental to the Work of this section and will not be measured separately.
- .2 Work under this section will not be measured. Include all costs in Item BOPC-1,

Balance of Project Costs in the Basis of Payment Schedule. Indicate cost of the Work of this section as a separate line item in the Contract Work Breakdown Structure (CWBS) specified in Section 01 32 18 Construction Progress Schedules – Bar (GANTT).

PART 2 PRODUCTS

2.1 Materials

- .1 Aggregate materials are to be sound, hard, durable material free from soft, thin, elongated or laminated particles, organic material or other deleterious substances.
- .2 Flat and elongated particles are those whose greatest dimension exceeds five (5) times their least dimension.
- .3 Waste rock sources used as fill will be reviewed by Departmental Representative prior to use as fill materials to assess the potential for acid generation.
- .4 Fine aggregates satisfying requirements of applicable sections are to be one of following:
 - .1 Natural sand.
 - .2 Manufactured sand.
- .5 Coarse aggregates satisfying requirements of applicable sections are to be one of following:
 - .1 Crushed rock.
 - .2 Gravel composed of naturally formed particles of stone.
- .6 Type A Material:
 - .1 Type A Material is defined as soil / rock material (fine aggregate) with a grain size distribution as presented in Table 310517-1. Sorting and/or screening may be required to achieve the specified gradation.

Table 31 05 17-1: Gradation for Type A Material

% Passing	Coarse Limit (mm)	Fine Limit (mm)
100	150	0.18
60	89	0.13
20	50	0.08

- .7 Type D Material:
 - .1 Type D Material is defined as an esker deposit with a grain size distribution as presented in Table 310517-2. Sorting and/or screening may be required to achieve the specified gradation.

Table 31 05 17-2: Gradation for Type D Material

% Passing	Coarse Limit (mm)	Fine Limit (mm)
100	100	35
85	80	20
50	6	2.5
15	1.5	0.62

.8 Type E/F Material:

- .1 Type E/F Material is defined as coarse rock material with a grain size distribution as presented in Table 310517-3. Sorting and/or screening may be required to achieve the specified gradation.

Table 31 05 17-3: Gradation for Type E/F Material

% Passing	Coarse Limit (mm)	Fine Limit (mm)
100	105	50
85	85	40
50	70	30
15	24	8

.9 Materials classified as unsuitable will include:

- .1 Material of widely varying moisture density characteristics.
.2 Soils with moisture content exceeding optimum moisture by 5% or more.
.3 Soils containing organic material, snow, ice or other deleterious material.
.4 Contaminated soils.
.5 Potentially Acid Generating Rock.

PART 3 **EXECUTION**

3.1 **Development of Aggregate Source**

- .2 Remove any debris (known or unknown) from the area prior to excavating borrow materials.
- .3 Any significant deposits of organic material, as determined by Departmental Representative, are to be avoided and left undisturbed during development of an aggregate source.
- .4 Strip an area ahead of excavating operation sufficient to prevent contamination of aggregate by deleterious materials.
- .5 Excavate borrow source in a manner that promotes drainage and prevents water saturating potential borrow material.
- .6 Notify the Departmental Representative whenever unsuitable materials are encountered in borrow sources.

3.2 Processing

- .1 Process aggregate using methods that prevent contamination, segregation and degradation.
- .2 Blending to decrease percentage of flat and elongated particles is permitted.
- .3 Moisture condition aggregate, as required to achieve the specified density and/or degree of saturation.
- .4 Dry aggregate, as required, to provide ease of handling during freezing temperatures or to place and compact according to this Specification.
- .5 Aggregate materials will be subject to continual sampling during production. Provide the Departmental Representative with ready access to source and processed material for sampling and testing purposes.

3.3 Handling

- .1 Handle and transport aggregates to avoid segregation, contamination and degradation.
- .2 Transport aggregate materials from borrow sources and processing areas to Work areas via existing access routes where available. Maintain and provide for dust control on the access routes used and at Work and processing areas.

3.4 Stockpiling

- .1 If required, stockpile aggregates on-site in locations indicated or designated by Departmental Representative. Stockpiles are not to be located on undisturbed tundra.
- .2 Stockpiling sites are to be level, well drained, and of adequate bearing capacity and stability to support stockpiled materials and handling equipment. Avoid areas with soft, fine-grained soils that may contaminate stockpiled materials.
- .3 Separate aggregate stockpiles far enough apart to prevent intermixing.
- .4 Reject intermixed or contaminated materials. Remove and dispose of rejected materials as directed by Departmental Representative within forty-eight (48) hours of rejection.
- .5 Stockpile materials in uniform layers of three (3) metre maximum thickness.
- .6 Complete each layer over the entire stockpile area before beginning next layer.
- .7 Uniformly spot-dump aggregates delivered to stockpile in trucks and build up stockpile as specified.
- .8 Coning of piles or spilling of material over edges of pile will not be permitted.
- .9 During snowy conditions, prevent ice and snow from becoming mixed into stockpile.

3.5 Reclamation of Aggregate Source and Stockpile Cleanup

- .1 When source excavation is completed, dress sides of excavation to achieve gentle slopes, maximum of 3H:1V, which fit local topography, and provide swales or ditches as required to prevent surface standing water.
- .2 Trim off and dress slopes of waste material piles and leave site in neat condition.
- .3 Flatten remaining stockpiles to low piles with sides that have a maximum slope of 3H:1V, or as directed by Departmental Representative.
- .4 Leave stockpile site in a tidy, well drained condition, free of standing surface water to satisfaction of Departmental Representative.

END OF SECTION

PART 1 GENERAL

1.1 Description

- .1 This Section specifies requirements for:
 - .1 The loading, hauling and placement of Type A Material.
 - .2 The loading, hauling and placement of Type D Material.
 - .3 The loading, hauling and placement of Type E/F Material.
 - .4 Construction and maintenance of Water Treatment Plant pad
 - .5 Maintenance and upgrading of site roads.
 - .6 The supply and installation of culverts.
 - .7 Reshaping of disturbed site areas.

1.2 Definitions

- .1 Reshaping: The levelling and grading, to a maximum depth of 600 mm, including the movement of boulders, of designated areas to blend in with the natural terrain and provide positive drainage. Reshaping does not require the supply and placement of additional granular fill material. Excavation of the terrain to a depth greater than 600 mm during reshaping operations will be considered Common Excavation.
- .2 Scarifying: The disturbance or loosening of a soil to a minimum depth of 300 mm to allow for compaction or aeration.
- .3 Regrading: The supply and placement of granular fill in designated areas to blend in with the natural terrain and provide positive drainage.
- .4 Common Excavation: Excavation of all materials except rock, as defined herein, including waste rock, road fills, dam fills, topsoil, soil, gravel, cobbles and boulders of all sizes to the lines and grades indicated.
- .5 Rock: such solid fragments of rock, wherever found, which is sound and highly durable against deterioration and weathering and is not contaminated by hydrocarbons and is not potential acid generating
- .6 Aggregate Materials: Type A, Type D and Type E/F Material as specified in Section 31 05 17 – Aggregate
- .7 Unsuitable Material: Excavated material unsuitable for use in Work or surplus to requirements.
- .8 Borrow Material: Material obtained from approved areas and required for regrading requirements.
- .9 Specific classifications of granular materials are described in Section 31 05 17 – Aggregate Materials.
- .10 Haul Roads: Roads constructed or upgraded from existing access routes for the purpose of hauling material or equipment to complete the Work.
- .11 Bulk Fill: Material obtained from approved areas that has not been screened,

blended and/or crushed to satisfy gradation specifications.

1.3 Site Conditions

- .1 Suspend operations whenever climatic conditions are unsatisfactory for grading to conform with this Specification.
- .2 Do not operate equipment in Work areas until the material has dried sufficiently to prevent excessive rutting.
- .3 Areas to be graded are to be free from debris and excessive snow, ice or standing water prior to grading Work beginning.
- .4 Contractor is advised that soft ground conditions may be prevalent at the site during periods of maximum thaw of the permafrost. Schedule and carry out work to minimize disturbance to permafrost soils.
- .5 Contractor is advised that existing access roads to be used during construction activities may require repair and upgrading.

1.4 Protection

- .1 Prevent damage to benchmarks, existing buildings, surface or underground service or utility lines which are to be used to support ongoing construction activities until such time as they are to be demolished. Immediately repair any damage to the above or replace the above in the event of damage, at no cost to Departmental Representative.
- .2 Protect archaeological sites from construction and construction traffic.
- .3 Protect unanticipated archaeological resources encountered during construction, suspend all activities in that area and notify Departmental Representative immediately.
- .4 Protect all monitoring wells and survey monuments. Repair or replace, at no cost to the Departmental Representative, any monitoring wells or survey monuments damaged by the Contractor's operations.
- .5 Protect and do not disturb spawning beds and breeding grounds as identified or required by the Authorities Having Jurisdiction (AHJ) during construction.
- .6 Environmental protection measures are to be in accordance with the Erosion, Sediment and Drainage Control Plan and Section 01 35 43 - Environmental Procedures.

1.5 Measurement of Payment

- .1 Include all direct costs for the construction and maintenance of the Water Treatment Plant pad, upgrading, construction, maintenance and decommissioning of site accesses, including site roads and airstrip, to support Contractor's work, in the lump sum price under Site Road Upgrade and Maintenance and Water Treatment

Plant Pad Construction, Item 31 22 15-1 in the Basis of Payment Schedule.

- .2 The following work items will be incidental to the Work described in this Section, and will not be measured separately:
 - .1 Water for moisture conditioning, compaction and dust control.
 - .2 All construction surveying, including layout of facilities, slope staking, and supply and installation of witness grade stakes to monitor the depth of granular material placement.
 - .3 Reshaping and regrading of Contractor's laydown areas including the supply, placement and compaction of granular material.
 - .4 Draining of wet areas prior to regrading operations.
 - .5 Removal and disposal or burial of abandoned utility lines exposed by Contractor during the excavation or granular materials.
- .3 No measurement for payment will be made for:
 - .1 Rejected material.
 - .2 Surplus material.
 - .3 Excavation, and stripping and replacement of organic material beyond specified limits.
 - .4 Excavation to prove borrow sources.
 - .5 Placement of granular fill beyond the limits and depths specified, unless specifically authorized by Departmental Representative.
- .4 Except as indicated above, work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate cost of the Work of this section as a separate line item in the Contract Work Breakdown Structure (CWBS) specified in Section 01 32 18 Construction Progress Schedules – Bar (GANTT).

PART 2 PRODUCTS

2.1 Materials

- .1 Aggregate Materials must meet requirements of Section 31 05 17 – Aggregate Materials.

PART 3 EXECUTION

3.1 Site Preparation

- .1 Unless specifically indicated, do not remove existing topsoil or organic materials from fill placement areas.
- .2 Borrow and materials sourcing and reclamation requirements are described in Section 31 05 17 – Aggregate Materials.

3.2 Placement, Moisture Conditioning, and Compaction of Granular Fill Material

- .1 Set grades and lay out work in detail from control points in areas of granular fill placement. Verify the original ground topography by survey.

- .2 Haul granular fill material from approved aggregate stockpiles to designated areas.
- .3 Place granular fill material to the lines, grades, elevations and dimensions indicated, or agreed to with Departmental Representative. Remove grade stakes from area once work is completed.
- .4 Maintain natural drainage patterns, unless otherwise directed, and fill depressions to avoid any ponding of water adjacent to embankments.
- .5 Do not place granular fill on snow or surface ice.
- .6 All fill material are to be placed in an unfrozen state. Fill material to be free from debris, snow and ice. Do not place granular fill if the outside air temperature is below 0°C, unless otherwise directed by Departmental Representative.
- .7 A surface with positive drainage must be maintained during construction to provide ready runoff of surface water. Do not place material in free standing water. Drain low areas, before placing material.
- .8 Do not dump fill material over the side slopes of berms.
- .9 Place and compact fill material in horizontal lifts.
- .10 Cease construction at any sign of movement or bulging in the embankments to allow assessment by Departmental Representative.
- .11 Moisture condition granular fill as required to meet placement requirements. If material is excessively moist, aerate by scarifying with suitable equipment until moisture content is corrected.
- .12 If granular fill has dried out prematurely due to weather conditions, scarify surface, adjust moisture condition and re-compact at Departmental Representative's discretion. No extra payment will be made for extra costs incurred as a result of any extra work.
- .13 Compaction equipment must be capable of obtaining required placement requirements uniformly in materials on project. Hand equipment must be available for compaction in areas where large equipment cannot access and around instrumentation. Tracked or tired equipment may be substituted for dedicated compaction equipment, provided it can demonstrate satisfactory compactive effort as specified in this section.
- .14 Shape finished surface to required cross-section and grade, or as directed by Departmental Representative.

3.3

Regrading

- .1 Place, compact, blade and trim Type A and Type D Material to elevation, grades, and cross-section dimensions indicated or directed by Departmental Representative.

- .2 Supply and install witness grade stakes in areas to be regraded to monitor the depth of granular material. The grade stakes are to be placed on a grid spacing acceptable to Departmental Representative for each specific regrade area. Immediately replace all grade stakes that are damaged or displaced by Contractor operations.
- .3 Moisture condition and place granular fill material as necessary to meet placement requirements in accordance to Clause 3.2 of this Section.

3.4 Reshaping

- .1 Blade and trim material to elevation, grades, and cross-section dimensions indicated or directed by Departmental Representative. Obtain Departmental Representative's approval before reshaping any area.
- .2 Make use of material within the area designated for reshaping to provide a surface that is smooth and compact with stable slopes.
- .3 Blend the final reshaped surface with the natural terrain and provide positive drainage.

3.5 Finishing and Tolerances

- .1 All areas to be covered with granular material are to be uniform without projections or depressions exceeding 50 mm in 3 m.
- .2 Granular fill surfaces to be within 50 mm of design elevations but not uniformly high or low.
- .3 Finished surfaces are to be graded to promote positive drainage and minimize standing water.

3.6 Maintenance

- .1 Maintain finished surfaces in a condition in accordance with this Section.

END OF SECTION

PART 1 GENERAL

1.1 Definitions

- .1 Final Effluent: the treated clarified water drawn from geotube (or other clarification system) sumps and discharged from site.
- .2 Hambone Lake: the natural lake located adjacent to East Lower Dam, as indicated on the Drawings, and the first natural water body proposed to receive Final Effluent from the Water Treatment System.
- .3 Lower Pond: the area defined by the North Dam, and the Tailings Containment Area Perimeter, as indicated on the Drawings.
- .4 Plant Discharge: the water containing precipitate that is discharged from the Water Treatment Plant to geotubes or some other clarification system.
- .5 Plant Feed: the water drawn from the Tailings Containment Area or Lower Pond for treatment in the Water Treatment Plant.
- .6 Tailings Containment Area (TCA): the area including all tailings deposits, waste water in contact with tailings, and associated containment structures.
- .7 Former Upper Pond: the area defined by Road Dam, New Dam and East Upper Dam, as indicated on the Drawings.
- .8 Water Treatment Plant: the facility supplied, constructed and operated by the Contractor, to precipitate (convert to solid form) dissolved contaminants in water drawn from the Tailings Containment Area.
- .9 Water Treatment System: the combination of facilities supplied, constructed and operated by the Contractor to draw water from the Tailings Containment Area or Lower Pond, precipitate dissolved contaminants in the water, separate precipitates from the water, and discharge clarified treated water from site.

1.2 Submittals

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit Contact Wastewater Treatment Facility Design, Operation and Maintenance Plan must conform to approved plans. Proposed changes to the approved plans must be submitted to the Departmental Representative seventy days (70) prior to implementation of changes. Process Wastewater Treatment Facility designs will be stamped by a professional engineer registered or licensed to practice in NWT/Nunavut. Plan shall include, but not be limited to:
 - .1 Plant Design:
 - .1 Process flow diagram showing plant components, directions and rates of flow of water for treatment, fresh water as necessary, reagents and precipitate sludge.
 - .2 Instrumentation and process control diagram.

- .3 Proposed layout of major equipment and associated facilities, including pipelines for water and sludge transport.
- .4 Proposed design of final effluent discharge system.
- .3 Plant Operation and maintenance details

.3 Plant Supply, Installation and Commissioning:

- .1 Submit Plant Commissioning Report and As-built Drawings within sixty (60) days after construction. Include the following information:
 - .1 Manufacturer's printed product literature and datasheets for major components of plant, and include product characteristics, performance criteria, physical size, finish and limitations.
 - .2 Details of plant commissioning procedures, methods and results of testing.
- .4 Submit a discharge monitoring procedure and quality control (QC) program for approval by Department Representative to calculate a time weighted daily average discharge concentration at least forty-five (45) days prior sampling.
- .5 Provide Weekly Plant Operation Report for every week in which plant was operated, within three (3) days after the end of the week. The report shall include the following information:
 - .1 Daily plant operating time in hours.
 - .2 Daily volume treated and discharged in cubic metres.
 - .3 Average hourly discharge rates in cubic metres.
 - .4 Time weighted daily average discharge concentrations of arsenic (total) in milligrams per litre.
 - .5 Short narrative of operating events, times of discharge.

1.3 Closeout Submittals

- .1 Submit a seasonal report of operation of the water treatment system for the season and status at end of season within sixty (60) days of the last day of seasonal discharge of treated water. Report is to include, but not be limited to, treatment regime, changes to treatment regime or set-up, tracking of volume treated and reagents used, lab analyses of contaminants of concern and other required parameters, fuel consumed, upsets/issues and corrective action, system maintenance overall system performance, downstream effects, and recommendations for next season.

1.4 Extra Materials

- .1 Not used.

1.5 Delivery, Storage and Handling

- .1 Packaging Waste Management: remove for reuse packaging materials, or separate and dispose of packaging waste materials in accordance with Section 01 35 15 – Special Project Procedures for Contaminated Sites.

1.6 Measurement of Payment

- .1 Include all direct costs for the supply, of the Water Treatment Plant in the provisional cost for Provision of the Water Treatment Plant, Item 44 41 13-1, as indicated in the Basis of Payment Schedule.
- .2 Include all direct costs for the design, installation, commissioning, maintenance and decommissioning of the Water Treatment Plant in the lump sum price for Design, Installation, Commissioning, Maintenance, Decommissioning of Water Treatment Plant, Item 44 41 13-2, as indicated in the Basis of Payment Schedule.
- .3 Payment for water treatment will be based on the volume of water treated in the water treatment plant to the maximum daily average concentration, and discharged from site and measured for payment using a certified calibrated flow meter, in accordance with the specifications herein. Water treatment will be measured for payment by the cubic metres and paid under Water Treatment and Discharge, Item 44 41 13-3, as indicated in the Basis of Payment Schedule.
- .4 Payment for dewatering/pump, filter and discharge activities for water not exceeding the maximum daily average concentration, with the exception of TSS, will be based on volume discharged from site and measured using a certified calibrated flow meter, in accordance with the specifications herein. Dewatering and Pump and Discharge activities will be will be measured for payment by the cubic metre and paid under Dewatering/Filtering and Discharge, Item 44 41 13-4, as indicated in the Basis of Payment Schedule.
- .5 Except as otherwise indicated herein, Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate cost of work of this section as a separate line item in the Contract Work Breakdown Structure (CWBS) specified in Section 01 32 18 – Construction Progress Schedules – Bar (GANTT) Chart.

PART 2 PRODUCTS

2.1 Packaged or Site Constructed Plant

- .1 Basic Design:
 - .1 Plant shall precipitate arsenic from solution by reaction with a ferric iron reagent and lime.
 - .2 Plant shall separate precipitate and other solids from the treated water and dewater the resulting sludge to allow it to be transported to designated disposal area without spillage.
 - .3 Plant, or associated feed water handling systems, shall remove suspended solids from feed water as necessary to maintain efficient precipitation and solid-liquid separation after precipitation.
 - .4 Plant shall produce treated water for discharge with a time weighted daily average concentration of less than 0.2 mg of arsenic (total) per

litre. All criteria, including arsenic concentration, to be met for disposal of tailings effluent are:

Parameter	Maximum Daily Average Concentration
Total Arsenic	0.20 mg/L
Total Copper	0.01 mg/L
Total Lead	0.01 mg/L
Total Nickel	0.05 mg/L
Total Zinc	0.02 mg/L
Total Ammonia (as N)	5 mg/L
Nitrate (as N)	5 mg/L
Nitrite (as N)	0.4 mg/L
Total Suspended Solids	15 mg/L
pH	6 to 9

- .5 Plant shall produce precipitate with a minimum ratio of iron to arsenic (by weight) of five (5) to one (1) (5:1).
- .6 Plant shall treat and discharge water at a maximum rate of 300 cubic metres per hour (as per the Water Licence). This maximum rate cannot be exceeded at any time.
- .7 Plant shall include a flow meter on the final effluent stream discharged from site, which shall be used for recording the water volume treated and discharged.

2.2 Consumables

- .1 Provide all consumables required for operation of plant, including replacement wear parts, filter media, electrical power, and chemical reagents.
- .2 Provide spare parts as necessary to ensure efficient operation and minimum downtime caused by plant failures.

PART 3 EXECUTION

3.1 Installation

- .1 Provide pad of compacted crushed rock to support plant and associated equipment and facilities.
- .2 Locate plant and associated equipment and facilities such that other site operations and remediation tasks will not be affected.
- .3 Designate storage area, or areas, and storage facilities for plant consumables such that they are adequately protected against damage, spillage or deterioration.
- .4 Construct plant and all water transport systems on constructed pad.

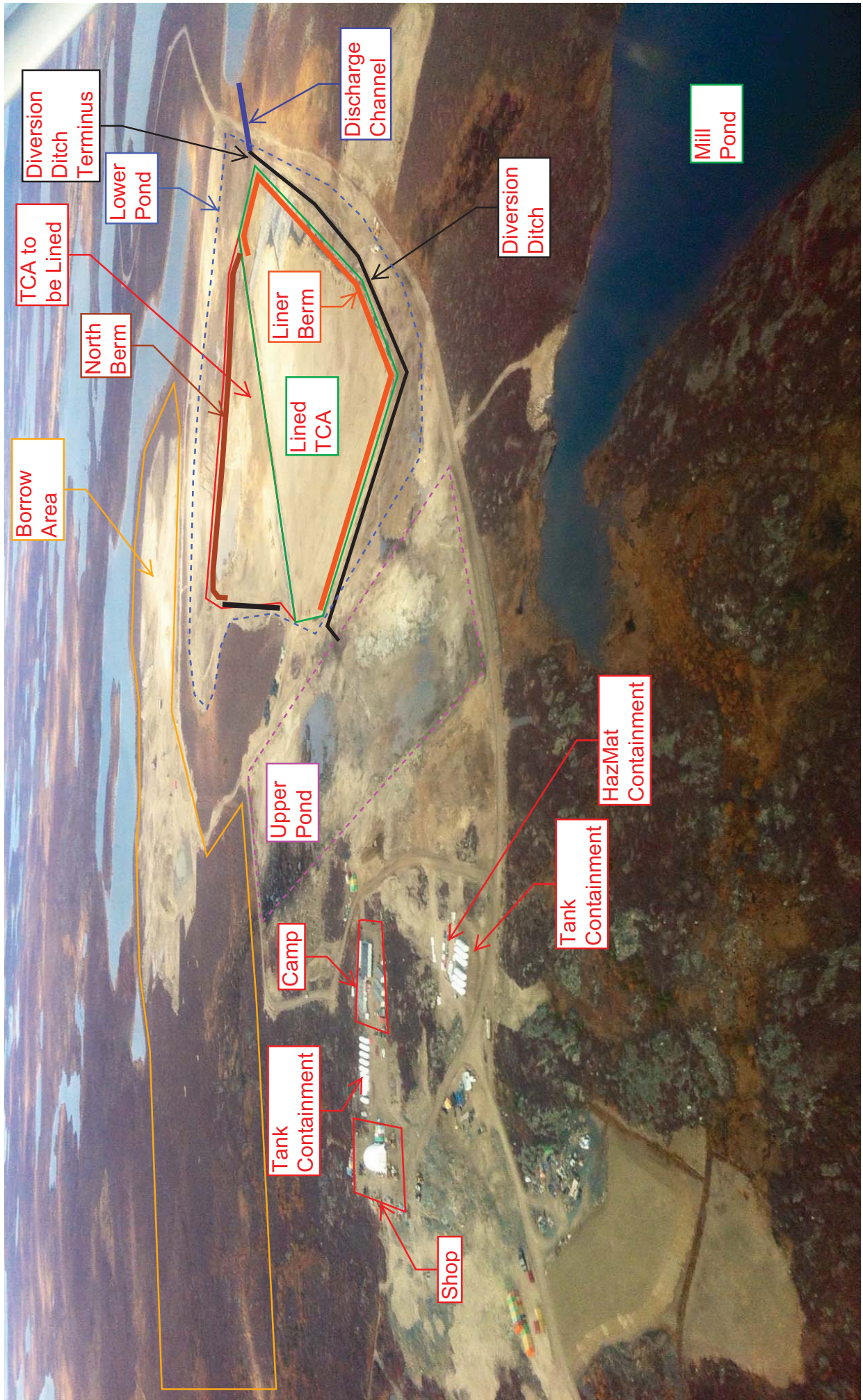
3.2

Operation

- .1 Discharge treated water with a time weighted daily average concentration of less than 0.2 milligrams of arsenic (total) per litre.
- .2 Other than arsenic concentration, treated effluent to comply with all terms and conditions of the Water License.
- .3 Produce iron-arsenic precipitate with a minimum ratio of iron to arsenic (by weight) of five (5).
- .4 Treat and discharge water at a maximum hourly average rate of 300 cubic metres per hour.
- .5 Prior to treatment, sample and test ponded water including, but not limited to, freshet collected in Lower Pond at the start of the season, to determine treatment option.
 - .1 Water exceeding maximum daily average concentration to be treated using the water treatment plant.
 - .2 Water not exceeding the maximum daily average concentration, with the exception of TSS, to be filtered as required, and discharged as directed by the Departmental Representative.
- .6 Discharge final effluent from the site in accordance with the design approved by Departmental Representative, such that erosion of granular materials or sediments at point of discharge or immediately downstream does not occur.
- .7 Transport dewatered precipitate sludge and dispose of in TCA.
- .8 The location of the Water Treatment Plant is to be determined with the approval of the Departmental Representative.

END OF SECTION

APPENDIX 1
AERIAL PHOTOGRAPH



APPENDIX 2
REPORTING TEMPLATES

Project Statistics

EHS PERFORMANCE

Safety		Q1	Q2	Q3	Q4	TOTAL TO DATE	EVIDENCE/EXPLANATION
Major Incident	#					0	
Moderate Incident	#					0	
Minor Incident	#					0	
Near misses	#					0	
Incidents, Inspections and Audits		Q1	Q2	Q3	Q4	TOTAL TO DATE	EVIDENCE/EXPLANATION
Environment Incidents	#					0	
	Volume (L) spilled					0.0	
Inspections/Audits (external)	# performed					0	
	# non-compliances					0	
Inspections/Audits (internal)	# performed					0	
	# non-compliances					0	
EHS Training (p-hrs)		Q1	Q2	Q3	Q4	TOTAL TO DATE	EVIDENCE/EXPLANATION
Awareness training	EHS policy & procedures					0	
	HAZWOPER					0	
	WHMIS					0	
H&S training	First Aid					0	
	Wildlife safety					0	
	Water safety					0	
	Fire response					0	
	Other					0	
Environmental training	Spills response					0	
	Other					0	
Other corrective actions	New procedures					0	
	Other initiatives					0	

SOCIO-ECONOMIC PERFORMANCE

Employment		Q1	Q2	Q3	Q4	TOTAL TO DATE	EVIDENCE/EXPLANATION
Total Employment	# persons					0	
	p-hrs					0	
Employment - Northern	# persons					0	
	p-hrs					0	
Employment - Aboriginal	# persons					0	
	p-hrs					0	
Employment - AOC	# persons					0	
	p-hrs					0	
Employment - Women	# persons					0	
	p-hrs					0	
Workforce Training		Q1	Q2	Q3	Q4	TOTAL TO DATE	EVIDENCE/EXPLANATION
Total Training	# persons					0	
	p-hrs					0	
Training - Northern	# persons					0	
	p-hrs					0	
Training - Aboriginal	# persons					0	
	p-hrs					0	
Training - AOC	# persons					0	
	p-hrs					0	
Training - Women	# persons					0	
	p-hrs					0	
Purchase of Goods and Services		Q1	Q2	Q3	Q4	TOTAL TO DATE	EVIDENCE/EXPLANATION
Total Suppliers	# suppliers					0	
	Value (\$)					\$0	
Suppliers - Northern	# suppliers					0	
	Value (\$)					\$0	
Suppliers - Aboriginal	# suppliers					0	
	Value (\$)					\$0	
Suppliers - AOC	# suppliers					0	
	Value (\$)					\$0	

STAKEHOLDER ENGAGEMENT

Communication Activities						TOTAL TO DATE	EVIDENCE/EXPLANATION
Community Consultation Events	#					0	
	# persons					0	
Media Events	#					0	



MV2009L8-0008 – Annual Water Licence – Information Template

As per Part B, Item 3 of the Water License MV2009L8-0008, information on the following is required for the Annual Report for Tundra Mine for each calendar year.

- a. The monthly and annual quantities in cubic metres of Water obtained from Matthews Lake and other sources. (This includes camp water and water used for dust suppression.)

January	m ³
February	m ³
March	m ³
April	m ³
May	m ³
June	m ³
July	m ³
August	m ³
September	m ³
October	m ³
November	m ³
December	m ³
2015 Total	m³

- b. The monthly and annual quantities in cubic metres of TCA Water discharged to Hambone Lake from the TCA Water treatment facility.

June	m ³
July	m ³
August	m ³
September	m ³
2015 Total	m³

- c. The average daily discharge rate of treated Water from the TCA Water treatment facility into Hambone Lake. _____ m³

June 1 - June 30, 2015				
July 1 – July 31, 2015				
Aug 1 - Aug 31, 2015				
Sept 1 - Sept 21, 2015				
Daily Average				m3



- d. The estimated monthly and annual quantities in kg of sludge generated from the TCA Water treatment facility.

June	kg
July	kg
August	kg
September	kg
2015 Total	kg

- e. The monthly and annual quantities in cubic metres of Tailings excavated from Upper Pond for placement into Lower Pond and any excavation contingency measure implemented. **None in 2015**
- f. The monthly and annual quantities in cubic metres of petroleum hydrocarbon contaminated (PHC) impacted soil and rock placed in the Land Treatment Area. **None in 2015**
- g. The monthly and annual quantities in cubic metres of soil and rock placed below the TCA cover, placed above the TCA cover, and used elsewhere on site. **None in 2015**
- h. The monthly and annual quantities in cubic metres of PHC contaminated groundwater and free-phase product removed and a description of how this material was managed.
- i. The monthly and annual quantities in cubic metres of PAG Waste Rock excavated and deposited in Lower Pond. **None in 2015**
- j. The estimated monthly and annual quantities in cubic metres of Sewage deposited in the Sump.

January	m ³
February	m ³
March	m ³
April	m ³
May	m ³
June	m ³
July	m ³
August	m ³
September	m ³
October	m ³
November	m ³
December	m ³



2015 Total	m³
-------------------	----------------------

- k. The monthly and annual quantities in cubic metres of Water discharged from the equipment decontamination facility and treated by the wastewater treatment facility. **None in 2015**
- l. The monthly and annual quantities in cubic metres of non-hazardous and hazardous waste generated during remediation activities.

January	kg
February	kg
March	kg
April	kg
May	kg
June	kg
July	kg
August	kg
September	kg
October	kg
November	kg
December	kg
2015 Garbage incinerated Total	kg

2015 Scrap Metal Total	kg
2015 Scrap Wood Total	kg

Using a density of 500 kg's for incinerated ash.

January	Cubic Meters
February	Cubic Meters
March	Cubic Meters
April	Cubic Meters
May	Cubic Meters
June	Cubic Meters
July	Cubic Meters
August	Cubic Meters
September	Cubic Meters
October	Cubic Meters
November	Cubic Meters
December	Cubic Meters
2015 Garbage	



incinerated Total	Cubic Meters
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Using a density of 7850 kg's for Steel & Iron.

Using a density of 580 kg's for Plywood and pine.

2015 Scrap Metal Total	Cubic Meters
2015 Scrap Wood Total	Cubic Meters

- m. A summary of modifications and/or major maintenance work carried out on the water supply and waste disposal facilities, including all associated structures.
- n. Tabular summaries of all data generated under the “Surveillance Network Program” and a discussion of any problems with data collection, analysis or results.
Provided by AANDC
- o. A list of unauthorized discharges.
- p. A summary of any remediation work completed during the year and an outline of any work anticipated for the next year.
- q. A summary of any studies requested by the Board that relate to Waste disposal, Water use, or Remediation and a brief description of any future studies planned.
Provided by AANDC
- r. Any other details on Water Use or Waste disposal requested by the Board by November 1 of the year being reported.
Provided by AANDC
- s. A description of any trenches and Sumps excavated.
Provided by AANDC
- t. Any revision to the Contingency Plan as referred to in Part F.
Provided by AANDC
- u. Any revisions to the approved Phase 2 Remedial Action Plan.
Provided by AANDC
- v. Any revisions to the plans as referred to in Part D.
Provided by AANDC

APPENDIX 3
CROWN FURNISHED PRODUCTS

Tundra Mine Site**Appendix C - Crown Furnished Equipment**

This equipment must be returned in as good or better condition.

Equipment List
Modular Camp (Dorm A) (6 trailers)
- 1 Sleeper trailer (serial# 14186-1254-S(A)-09N01)
- 1 sleeper trailer (serial# 14191-1254-S(F)-10N01)
- 1 Recreational trailer (serial# 14187-1254-R(B)-10N01)
- 1 Washcar trailer (serial# 14188-1254-WC(C)-10N01)
- 1 Kitchen trailer (serial# 14189-1254-K(D)-10N01)
- 1 Diner trailer (serial# 14190-1254-D(E)-10N01)
includes associated diesel tank, 4-1000gal propane tanks c/w skid and 2 - 700gal propane tank c/w skid and contents, Reverse osmosis commercial water treatment system, Satellite communication system,
Westland Incinerator model CY1020FA-D (serial # 2K4 326)
1994 Ford Pick-up (VIN # 1FTEX14N2RKB08442)
Ingersol Rand portable compressor (serial 3 0706120068)
420D CAT backhoe loader (serial # BLN-11540) c/w bucket, hoe and any other attachments
CAT Pallet forks (serial # 6W-8832)
61000 L enviro tank (serial# C-244060)
CD 150 6" godwin pump (serial# B000005230)
6" multi-equip pump
50kW Isuzu gen set (serial # 223520)
50kW Isuzu gen set (serial # 240229)
60 Kw John Deere gen set on a skid (serial# T0405T745806) c/w a 250 gallon Northgate fuel tank
Wobbly wheel roller

APPENDIX 4
RESTRICTED EQUIPMENT

Tundra Mine Site

Appendix D - Restricted Equipment

Equipment List
Polaris side-by-side ATV with hardtop
Bombardier 2-seater ATV
Metal trailer



CERTIFICATE OF INSURANCE

Page 1 of 2

Description and Location of Work TUNDRA MINE – Care and Maintenance	Contract No. EW699-151890/NCS/001
	Project No. R.014137.001

Name of Insurer, Broker or Agent	Address (No., Street)	City	Province	Postal Code
Name of Insured (Contractor)	Address (No., Street)	City	Province	Postal Code
Additional Insured Her Majesty the Queen in Right of Canada as represented by the Minister of Public Works and Government Services				

Type of Insurance	Insurer Name and Policy Number	Inception Date D / M / Y	Expiry Date D / M / Y	Limits of Liability		
Commercial General Liability Umbrella/Excess Liability				Per Occurrence	Annual General Aggregate	Completed Operations Aggregate
				\$	\$	\$
				\$	\$	\$
Environmental Impairment Liability Insurance				\$ <input type="checkbox"/> Per Incident <input type="checkbox"/> Per Occurrence		Aggregate \$
Automobile Liability				\$ <input type="checkbox"/> Per Incident <input type="checkbox"/> Per Occurrence		Aggregate \$

I certify that the above policies were issued by insurers in the course of their Insurance business in Canada, are currently in force and include the applicable insurance coverage's stated on page 2 of this Certificate of Insurance, including advance notice of cancellation / reduction in coverage.

Name of person authorized to sign on behalf of Insurer(s) (Officer, Agent, Broker)

Telephone number

Signature

Date D / M / Y

General

The insurance policies required on page 1 of the Certificate of Insurance must be in force and must include the insurance coverage listed under the corresponding type of insurance on this page.

The policies must insure the Contractor and must include Her Majesty the Queen in Right of Canada as represented by the Minister of Public Works and Government Services as an additional Insured.

The insurance policies must be endorsed to provide Canada with not less than thirty (30) days notice in writing in advance of a cancellation of insurance or any reduction in coverage.

Without increasing the limit of liability, the policies must protect all insured parties to the full extent of coverage provided. Further, the policies must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued to each.

Commercial General Liability

The insurance coverage provided must not be substantially less than that provided by the latest edition of IBC Form 2100.

The policy must either include or be endorsed to include coverage for the following exposures or hazards if the Work is subject thereto:

- (a) Blasting.
- (b) Pile driving and caisson work.
- (c) Underpinning.
- (d) Removal or weakening of support of any structure or land whether such support be natural or otherwise if the work is performed by the insured contractor.

The policy must have the following minimum limits:

- (a) **\$5,000,000** Each Occurrence Limit;
- (b) **\$10,000,000** General Aggregate Limit per policy year if the policy contains a General Aggregate; and
- (c) **\$5,000,000** Products/Completed Operations Aggregate Limit.

Umbrella or excess liability insurance may be used to achieve the required limits.

Environmental Impairment Liability Insurance

The Contractor must obtain Type 1: "Pollution Legal Liability - Fixed Site Coverage", Type 2: "Contractors Pollution Liability", Type 4: "Contractors Professional Liability" insurance, and maintain it in force throughout the duration of the Contract, in an amount usual for a contract of this nature, but for not less than \$1,000,000 per accident or occurrence and in the annual aggregate. If the policy is written on a claims-made basis, coverage must be in place for a period of at least 12 months after the completion or termination of the Contract.

The Type 1: "Pollution Legal Liability - Fixed Site Coverage", Type 2: "Contractors Pollution Liability", Type 4: "Contractors Professional Liability" insurance policy must include the following:

Additional Insured: Canada is added as an additional insured, but only with respect to liability arising out of the Contractor's performance of the Contract. The interest of Canada as additional insured should read as follows: Canada, represented by Public Works and Government Services Canada.

Notice of Cancellation: The Insurer will endeavour to provide the Contracting Authority thirty (30) days written notice of policy cancellation.

Separation of Insureds: The policy must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued to each.

Contractual Liability: The policy must, on a blanket basis or by specific reference to the Contract, extend to assumed liabilities with respect to contractual provisions.

Incidental Transit Extension: The policy must extend to losses arising from any waste, products or materials transported, shipped, or delivered via any transportation mode to a location beyond the boundaries of a site at which the Contractor or any entity for which the Contractor is legally liable is performing or has performed the operations described in the contract.

Litigation Rights: Pursuant to subsection 5(d) of the [Department of Justice Act](#), S.C. 1993, c. J-2, s.1, if a suit is instituted for or against Canada which the Insurer would, but for this clause, have the right to pursue or defend on behalf of Canada as an Additional Named Insured under the insurance policy, the Insurer must promptly contact the Attorney General of Canada to agree on the legal strategies by sending a letter, by registered mail or by courier, with an acknowledgement of receipt.

For other provinces and territories, send to:

*Senior General Counsel,
Civil Litigation Section,
Department of Justice
234 Wellington Street, East Tower
Ottawa, Ontario K1A 0H8*

A copy of the letter must be sent to the Contracting Authority. Canada reserves the right to co-defend any action brought against Canada. All expenses incurred by Canada to co-defend such actions will be at Canada's expense. If Canada decides to co-defend any action brought against it, and Canada does not agree to a proposed settlement agreed to by the Contractor's insurer and the plaintiff(s) that would result in the settlement or dismissal of the action against Canada, then Canada will be responsible to the Contractor's insurer for any difference between the proposed settlement amount and the amount finally awarded or paid to the plaintiffs (inclusive of costs and interest) on behalf of Canada.

Automobile Liability Insurance

The Contractor must obtain Automobile Liability Insurance, and maintain it in force throughout the duration of the Contract, in an amount usual for a contract of this nature, but for not less than \$2,000,000 per accident or occurrence.

The policy must include the following:

Third Party Liability - \$2,000,000 Minimum Limit per Accident or Occurrence

Accident Benefits - all jurisdictional statutes

Uninsured Motorist Protection Notice of Cancellation: The Insurer will endeavour to provide the Contracting Authority thirty (30) days written notice of cancellation.

EW699-151890 – TUNDRA MINE Care and Maintenance
Project No: R.014137.001

Tammy Kozak
Telephone: 204-807-0189
Fascimile: 204-983-7796
Email: tammy.kozak@pwgsc.gc.ca

Public Works and Government Services Canada (PWGSC) on behalf of Aboriginal Affairs and Northern Development Canada (AANDC) intends to engage a qualified contractor for Care and Maintenance activities with construction components at the Tundra Mine Site, NT. The work for this requirement will include but not be limited to Work Associated with Pre-mobilization; Mobilization Activities; Site Support Activities; Water Management; Earthworks and Demobilization all of which are detailed in the construction specifications.

The complete requirement details for the Tundra Care and Maintenance can be found fully described in the Specifications.

COMPREHENSIVE LAND CLAIMS AGREEMENTS (CLCA)

The proposed requirement is subject to the Tlicho Land Claims Agreement and Self-Government Agreement.

The requirements of the Tlicho Land Claim and Self Government Agreement will apply to this procurement. The provisions that apply are contained in: Chapter 26, the Tlicho Land Claim and Self Government Agreement, clauses 26.3, 26.3.1 (a).

The area of the contract is in the Monfwi Gogha De Niitlee identified in the Tlicho Land Claims and Self-Government Agreement and proximate to Yellowknife and the Akaitcho Dene First Nation Communities of Dettah and N'Dilo.

Bidders are responsible for obtaining copies of bid forms and special instructions and amendments issued prior to bid closing, and are to ensure they are addressed in the submitted bid.

This procurement contains MANDATORY requirements. Failure to comply will result in rejection of your bid.

Standard terms and conditions for this procurement are incorporated by reference into, and form part of, the bid and contract documents. The standard documents are issued by Public Works and Government Services Canada and may be viewed at: <https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>.

Firms intending to submit bids on this project should obtain bid documents through the GETS service provider on the Government of Canada Web site at <http://buyandsell.gc.ca/procurement-data/tenders>.

Firms that obtain bid documents from a source other than the official site run the risk of not receiving a complete package.

The Crown retains the right to negotiate with suppliers on any procurement.