



11 August 2026

Project No. CA0059450.9400

Bijaya Adhikari, PhD. Science and Regulatory Coordinator

Inuvialuit Water Board

P.O. Box 2531, Inuvik, NT, X0E 0T0

Tel: (867) 678-8610

Fax: (876) 678-2943

Email: adhikarib@inuvwb.ca

**NOTICE OF MODIFICATION - ADDITIONAL REMEDIATION EQUIPMENT, FORMER UNIPKAT I-22
WELLSITE REMEDIATION PROJECT UNDER WATER LICENCE N5L8-1848, INUVIALUIT SETTLEMENT
REGION, NORTHWEST TERRITORIES**

INTRODUCTION

On behalf of Shell Canada Limited (Shell), WSP Canada Inc. is submitting this Notice of Modification for additional remediation equipment and updated schedule to the Inuvialuit Water Board (IWB) for the soil remediation activities at Unipkat I-22 (the Project) in the Inuvialuit Settlement Region (ISR), Northwest Territories (the Site). This notice is provided in compliance with Part F, Item 1 of the IWB Water Licence N5L8-1848. The location of the Site is presented in Figure A1 (Appendix A).

The proposed additional equipment for soil petroleum hydrocarbons (PHCs) remediation and the updated project schedule are presented in the following sections.

ADDITIONAL REMEDIATION EQUIPMENT

In the Water Licence application submitted to the IWB for the Project, Shell proposed using multiple enhanced thermal conduction (ETC) treatment cells to remediate soil containing PHCs at concentrations above the soil quality objectives (SQOs). The type of ETC treatment cell was not specified in the application as summer 2025 activities were underway to determine the best suited technology for the site conditions.

Following the summer 2025 activities, it was determined that the ETC Quonset hut system used successfully at another Shell site in the ISR (i.e., West Channel, on Inuvialuit Private Lands) would not be suitable for use at the Site due to the high moisture, saturated soils. The alternative equipment proposed for the Site is called ETC TecZero (Appendix B), a bin-based solution paired with Iron Creek's proprietary thermal oxidizer technology to generate conductive heating in a similar fashion to the ETC Quonset hut system used at West Channel. The TecZero will be more efficient at processing the saturated soils that have been encountered at the Site and was successfully trialed for higher moisture soils at the West Channel site in 2025. Shell is proposing to use three arrays of four TecZero bins at the Site, for a total of 12 TecZero bins. Each array of four TecZero bins will be connect to a thermal oxidizer unit.

In addition, the ETC TecZero system may be used for management of contact snow and ice at the Site. The TecZero can similarly melt snow and ice accumulated during winter soil treatment operations. One of the TecZero arrays will have a quench tower to evaporate the water generated during the snow and ice melting operations (Appendix B). The water will be pumped from a TecZero bin through the quench tower, directly into the process exhaust and ultimately be released as water vapour, visible as a water condensation plume. During the evaporative cycle, any entrained hydrocarbons will also be circulated through the high temperature thermal oxidizer airflow and will be destroyed.

The TecZero bins and some supporting equipment (including three loaders and three excavators) will be mobilized to the Site on the J. Wurmlinger barge camp in August/September 2026, and stored onboard until it can be offloaded from the frozen-in barge at the start of the winter 2027 field program.

PROJECT TIMELINE

The updated Project schedule is presented in Table 1 below.

Table 1: Updated Project Schedule

Project Activity	Estimated Time Frame ²
Engagement and consultation	Ongoing
Regulatory permitting and reporting	Ongoing
Logistics planning	Ongoing
Winter field program – excavated 44 cubic metres of soil containing barite at concentrations above the SQOs, drilled 24 boreholes (installed 10 thermistors), removed 76 wood pilings, removed the grout slab from approximately 85 square metres area around the well centre	March/April 2026 (completed)
Topographic survey	Late July 2026
Pre-mobilization and anchoring of barge camp (J. Wurmlinger) with remediation equipment onboard	August/September 2026
Summer field program – thermistor system maintenance and trenching of thermistor cables	September 2026
Winter field program – Ice road profiling and construction	December 2026 to January 2027
Winter field program – PHC soil remediation using TecZero (winter) and final wood pilings removal	January to April 2027
Post-remedial groundwater monitoring well and thermistor installation (if needed)	April 2027
Demobilization of barge camp	June 2027
Post-remedial monitoring ¹	July to August 2027
Contingency (in case of unforeseen delays) ²	December 2027 to April 2028

Notes: Winter 2027 demobilization is planned via ice road in advance of barge camp demobilization.

¹Post-remedial monitoring will be conducted as outlined in the Reclamation, Closure and Monitoring Plan.

²In the event that permitting or other unforeseen project delays affect the proposed schedule, the estimated timeframes may be extended by one to two years, depending on the nature of the delay.

CLOSURE

We trust the information provided herein meets your requirements. If you have any questions about the contents of this letter, please contact the undersigned, or Kyle Thompson (1-403-691-3174; Kyle.Thompson@shell.com) at your convenience.

Yours truly,

WSP Canada Inc.



Stephanie Villeneuve, MSc
Environmental Scientist
WSP Canada Inc.
902-476-5769
stephanie.villeneuve@wsp.com

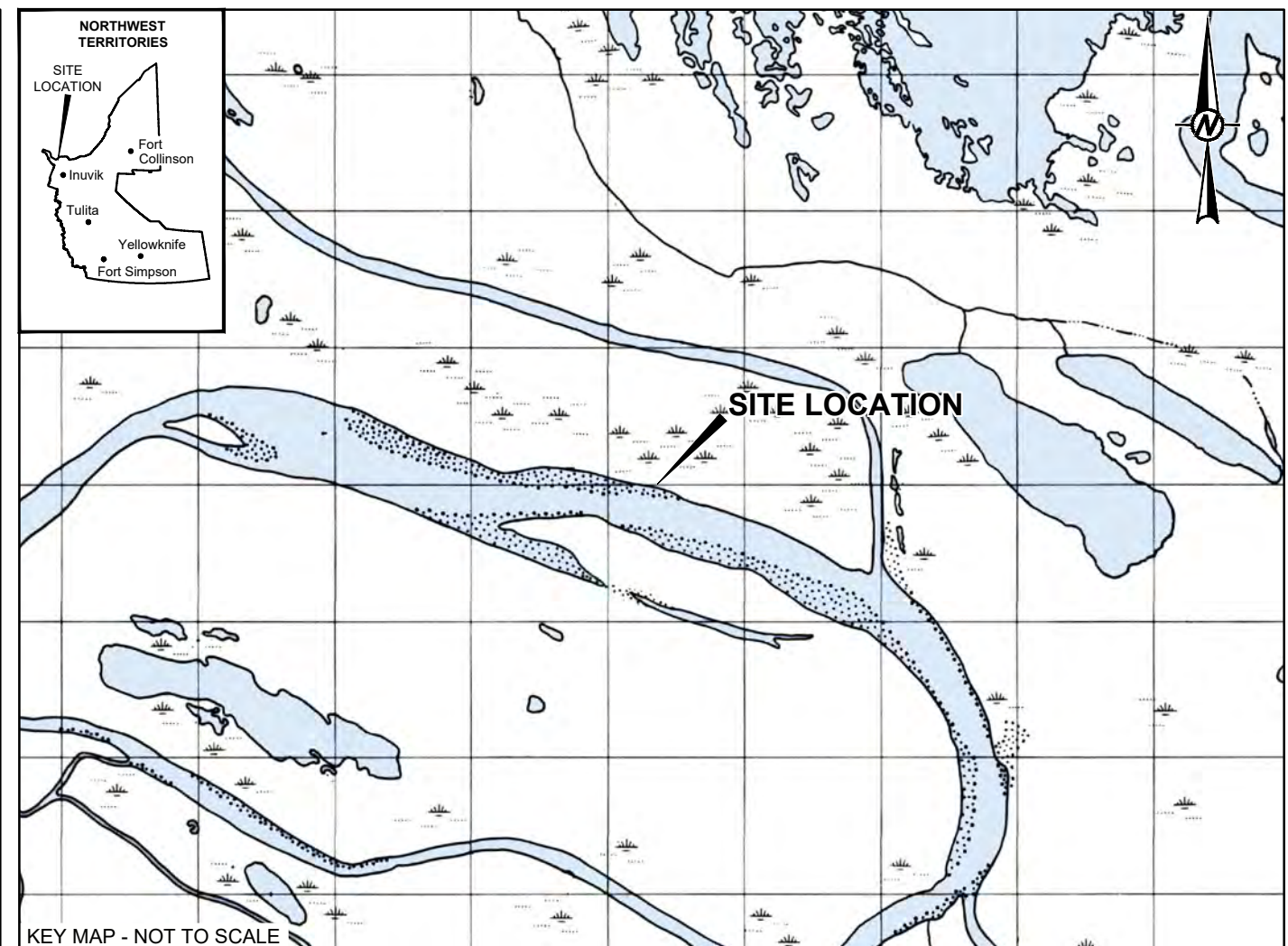


Julia Krizan, PhD
Senior Principal Biologist
WSP Canada Inc.
780-901-7357
julia.krizan@wsp.com

Attachments: Appendix A: Figures
Appendix B: TecZero Technology Primer

APPENDIX A

Figures



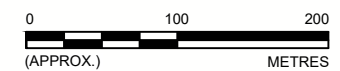
LEGEND

2024 SHORELINE

REFERENCE

IMAGE OBTAINED FROM GOOGLE EARTH © 2024 GOOGLE INC. USED WITH PERMISSION. GOOGLE AND GOOGLE LOGO ARE REGISTERED TRADEMARKS OF GOOGLE INC. IMAGERY DATE: 4 JUNE 2019. GOOGLE EARTH IMAGE IS NOT TO SCALE. DATUM: NAD83, PROJECTION: UTM ZONE 8.

TOPOGRAPHIC MAP 107C/04 OBTAINED FROM Canmatrix. © 1958 THE ARMY SURVEY ESTABLISHMENT, R.C.E. PROJECTION: TRANSVERSE MERCATOR; DATUM: NAD27; COORDINATE SYSTEM: UTM ZONE 8. TOPOGRAPHIC MAP HAS BEEN SHIFTED FROM NAD27 TO NAD83 FOR MAPPING PURPOSES.



CLIENT
SHELL CANADA LIMITED

PROJECT

FORMER UNIPKAT I-22 WELLSITE
INUVIALUIT SETTLEMENT REGION, NORTHWEST TERRITORIES

TITLE
SITE LOCATION PLAN

PROJECT NO.	PHASE-TASK
CA0059450.9400	2100-2605

REV.
0FIGURE
1

APPENDIX B

TecZero Technology Primer



Technology Primer

TecZero is Iron Creek's recently developed, thermal treatment technology. Using the conductive heating process from our proven Enhanced Thermal Conduction (ETC) technology, TecZero provides an indirect fired, bin based solution for mobile thermal treatment operations. Iron Creek's current, proprietary thermal oxidizer equipment is paired with the TecZero equipment to generate conductive heating capability in a similar fashion to our original ETC technology, but in a more efficient and versatile package.

Some of the benefits of the TecZero technology include:

- ❖ Ability to process saturated soils, sludges and high liquid content matrices;
- ❖ Refined conductive heating design provides more efficient heat transfer;
- ❖ Bin based system allows for quick & easy setup as well as a flexible site footprint;
- ❖ The elevated bin design minimizes conductive energy loss to the base soil within the treatment area, resulting in improved subsurface permafrost protection;
- ❖ Smaller batch sizes (+/- 29 m³ per bin) allow for quicker batch turn around times;
- ❖ Capable of higher sustained treatment temperatures compared to the ETC systems;
- ❖ Indirect fired heating system results in an exponentially smaller off gas footprint;
- ❖ Reduced labour inputs during process operations.



ICG Thermal Inc.

PO Box 2166 Station M Calgary, Alberta, Canada T2P 2M4
www.ironcreekgroup.com

TecZero – Process Flow Diagram

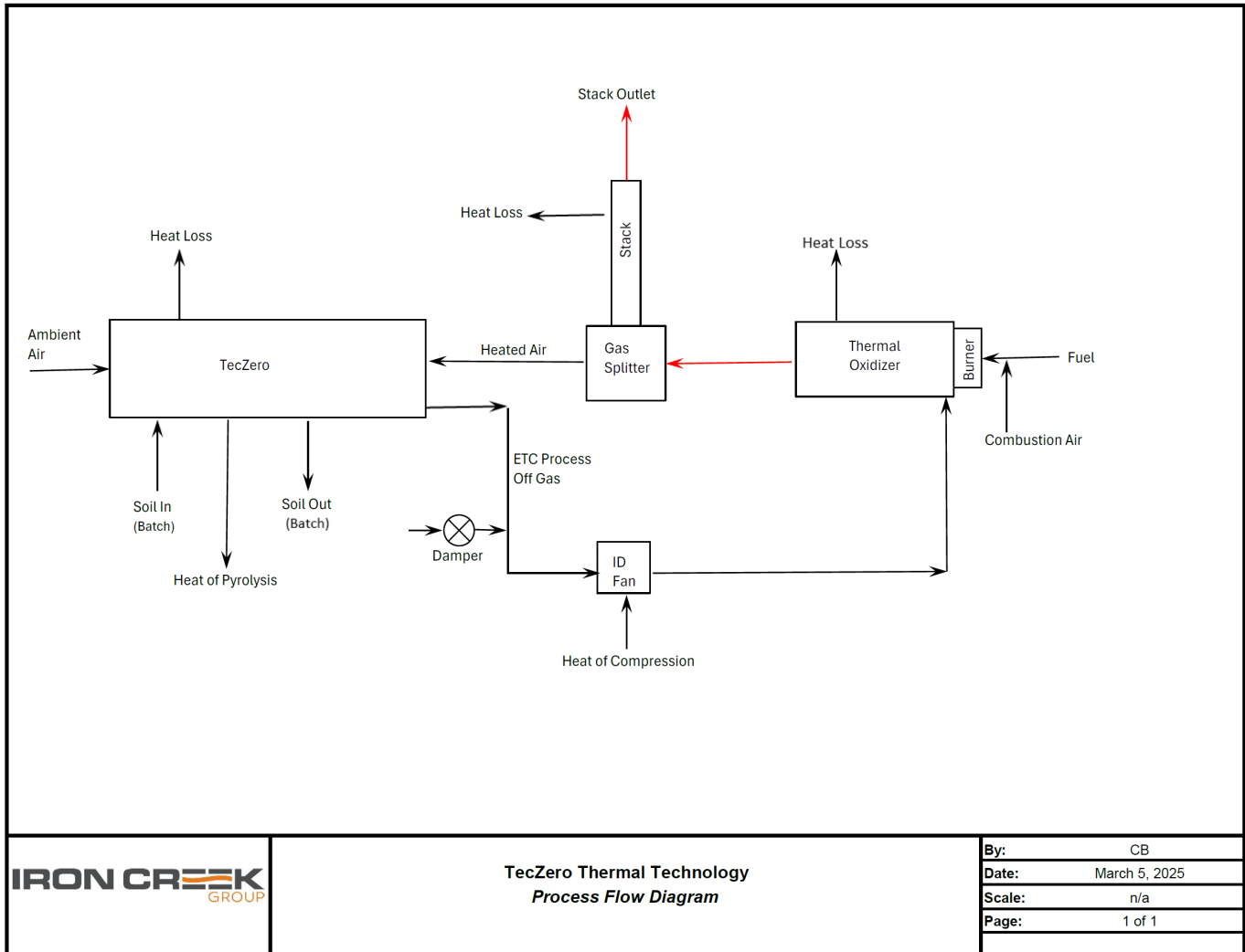


Photo 1: A single, operating TecZero thermal treatment unit connected to a thermal oxidizer.

ICG Thermal Inc.

PO Box 2166 Station M Calgary, Alberta, Canada T2P 2M4

www.ironcreekgroup.com

Ice & Snow Management

While being used for the ice & snow management, the TecZero process will be paired with one of Iron Creek's quench towers to provide an evaporative solution for the water generated during the melting operations. Melt water generated from the TecZero bin will be pumped through the quench tower feed nozzels, directly into the process exhaust. This will allow the water to be evaporated during heat exchange inside of the quench tower and ultimately recycled back into the regional water cycle as water vapour. Estimated evaporative capacity is expected to range between 10-20 m³ H₂O/day and could be as high as +/-35 m³ H₂O/day depending on system parameters and operational performance.

During the evaporative cycle, any potential residual hydrocarbon impacts will also be circulated through the high temperature thermal oxidizer airflow with temperatures up to 1,100 °F (+/-600 °C) and will be destroyed during that process. Exhaust from the operation will primarily be through the quench tower exhaust stack and there will be a visible water condensation plume as part of the evaporation operations. The exhaust component of the system is the normal byproducts of combustion that would be expected from combusting liquid hydrocarbon fuels, primarily diesel when deployed for Arctic Operations.

The photos below provide a visual overview of Iron Creek's quench towers in operation:

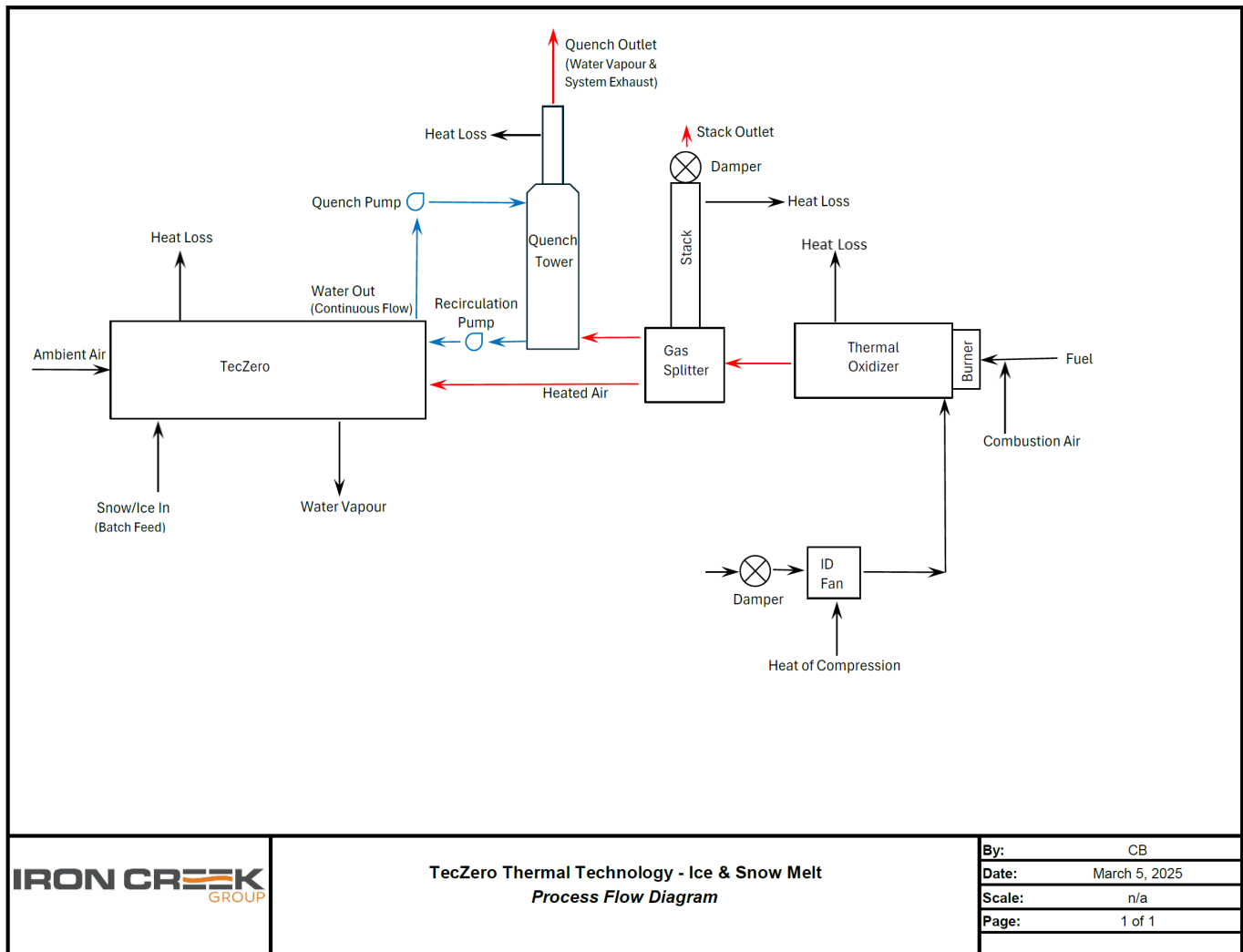


ICG Thermal Inc.

PO Box 2166 Station M Calgary, Alberta, Canada T2P 2M4

www.ironcreekgroup.com

TecZero Snow & Ice Management – Process Flow Diagram



With Iron Creek’s new TecZero mobile thermal treatment technology, clients get all of the benefit of our proven Enhanced Thermal Conduction process but in a smaller, more versatile and more efficient package.

Contact us today to discuss how TecZero can become part of your remediation solution.

Chad Belenky
Chief Operating Officer

IRON CREEK
GROUP
ICG Thermal Inc.
Box 2166 Station “M”
Calgary, Alberta, Canada
T2P 2M4
P (403) 831 7275
E chad@ironcreekgroup.com

www.ironcreekgroup.com

ICG Thermal Inc.
PO Box 2166 Station M Calgary, Alberta, Canada T2P 2M4
www.ironcreekgroup.com