Land and Water Boards of the Mackenzie Valley

LAND USE PERMIT APPLICATION FORM

Subsection 19(2) and Schedule 2 of the Mackenzie Valley Land Use Regulations

Use an "X" to indicate which Board the Application is being made to:	Mackenzie Valley Land and Water Board:	X	Sahtu Land and Water Board:	
	Wek'èezhìı Land and Water Board:		Gwich'in Land and Water Board:	

To complete this Form, please refer to the LWB *Guide to the Land Use Permitting Process* (Guide) and fill in the grey fields; attach additional pages, as necessary. Indicate N/A in the grey fields for Items or parts of Items that are not applicable. An application package checklist is provided in the Guide. Review the following LWB guidance for formatting your Application Package:

- *Document Submission Standards*
- *Standard Outline for Management Plans*

If applicable, provide the existing or current Land Use Permit file number:	N/A		
Use an "X" to indicate if this Application is accompanied by an Application for a Water Licence:	Water Licence – in a non-federal area:		
	Water Licence – in a federal area:		

1. NAME AND CONTACT INFORMATION – APPLICANT

Project Name:	City of Yellowknife Phase I and II ESAs – Taylor Road		
Applicant's Name:	Vic Fontanilla		
Position:	Lands and Development Officer		
Company Name:	City of Yellowknife		
Mailing Address:	4807 52nd Street		
Community:	Yellowknife	Telephone:	867-920-5673
Prov/Terr:	NT	Email:	vfontanilla@yellowknife.ca
Postal Code:	X1A 2N4	Other:	

2. NAME AND CONTACT INFORMATION – APPLICANT'S HEAD OFFICE

Include a Certificate of Corporate Registration from the Government of the Northwest Territories in your Application Package. Included as Attachment A

Use an "X" to indicate this information is the same as Item 1 above:			x
Name:			
Position:			
Company Name:			
Mailing Address:			
Community:			
Prov/Terr:		Telephone:	
Postal Code:		Email:	
Field Supervisor:		Other:	

3. NAME AND CONTACT INFORMATION – CONTRACTORS AND SUB-CONTRACTORS

Include relevant names, responsibilities, and contact information. An additional table should be added for each contractor and sub-contractor.

Name:	Jackie Harman, Josee Lalonde, Tamlyn Mafika, Connor McLelland		
Position:	Junior professionals		
Company Name:	BluMetric Environmental Ltd.		
Mailing Address:	4916 49th Street		
Community:	Yellowknife	Telephone:	867-873-3500
Prov/Terr:	NT	Email:	
Postal Code:	X1A 1P3	Other:	
Name:	Shawn Grandguillot/Jennifer Grandguillot		
Position:			
Company Name:	Great Slave Drilling and Exploration		
Mailing Address:	9 Poplar Road		
Community:	Hay River	Telephone:	867-875-2922
Prov/Terr:	NT	Email:	jen@greatslavedrilling.com
Postal Code:	X0E 0R6	Other:	

	Use an "X" to indicate that contractor and/or subcontractor information is not available at this time.

4. LOCATION OF ACTIVITIES

Use the grey fields below to provide or reference the following information:

Traditional Place Name:	Taylor Road - Maps are included as Attachment B

Maps and Geographic Information System (GIS) Data: Include a map in your Application Package identifying local geographic features, watercourses and water sources, project structures, and location(s) of any proposed waste deposits. Provide geographic coordinates (latitude and longitude) of project features, and the maximum and minimum project boundary in degrees, minutes, seconds, or decimal degrees. Include

GIS data in your Application Package, if applicable. Refer to the LWB *Geospatial Data Submission Standards* for providing geographic information.

Minimum latitude:	62°44'00"	Maximum latitude:	62°44'54"
Minimum longitude:	114°39'21"	Maximum longitude:	114°38'03"

NTS Map Sheet No.: Provide the map sheet number:	085J

GIS Data: Use an "X" to indicate if GIS data is attached.	Attached:	X	Not Available:

Land Types: Use an "X" to indicate the type(s) of the land on which the activities are proposed:

Free Hold/ Private:		Commissioner's/ Territorial Lands:		Federal Land:		Municipal Land:	**X**

5. ELIGIBILITY

Refer to section 18 of the Mackenzie Valley Land Use Regulations. Use an "X" to indicate which one applies:

18(a)(i):		18(a)(ii):		18(a)(iii):		18(b):	**X**

6. RIGHTS AND/OR CONTRACTS TO SUPPORT ELIGIBILITY

Contact Indigenous, federal, and territorial governments, and other parties to ensure all appropriate rights, authorizations, permissions, dispositions, and contracts have been obtained or are in the process of being obtained (e.g., mineral exploration rights, quarry permits, licences of occupation, leases, access agreements and authorizations, etc.). List and provide confirmation of other authorizations that relate to the proposed activities; reference these in your Application Package (e.g., rights, permits, licences, etc.).

In January 2023, City Council adopted motion #0013-23 supporting residential infill development and Densification . The Taylor Road site is one of the planned areas. The proposed ESA I and II is the first step to determine if the area is suitable for residential development.

7. PERMIT TYPE AND CRITERIA

Refer to sections 4 and 5 of the Mackenzie Valley Land Use Regulations. Use an "X" to indicate which permitting criteria apply:

Type A				Type B				Type C	
4(a)(i):		4(b)(i):	**X**	5(a)(i):		5(b)(i):		(SLWB and WLWB only):	
4(a)(ii):		4(b)(ii):		5(a)(ii):		5(b)(ii):			
4(a)(iii):		4(b)(iii):		5(a)(iii):					
4(a)(iv):		4(b)(iv):	**X**	5(a)(iv):					
4(a)(v):				5(a)(v):					
				5(a)(vi):					

8. PROJECT DESCRIPTION

Include a project description in your Application Package, or for small-scale projects, describe the proposed activities in the grey field provided below. For each and all proposed water uses, include the name and type (e.g., lake, river) of water source(s), and the purpose and quantity of water to be used (rates, volumes (m^3/day)).

The project site is proposed to be developed into residential land. Located within the City of Yellowknife on Municipal Lands, the project site is located along Taylor Road and encompasses an area of 21.3 Hectares. Site location is shown on Figure 1 attached.

The work being undertaken is for a Phase II Environmental Site Assessment and will include:

- drilling three boreholes for installation of groundwater monitoring wells, locations were chosen to delineate potential areas where groundwater may have been impacted by neighbouring land uses
- drilling will be conducted as soon as permit is obtained, ideally in November or December 2023 or possibly January 2024
- it is estimated that the drilling program will take 2 to 3 days
- drilling rig is an estimated 4000 lbs
- backhoe excavating associated with collecting soil samples from test pits in areas of potential environmental concern
- projected drilling and testpit locations are shown on attached Figure 2
- expect access route is shown on Figure 3

The project is not expected to have any detrimental impact on land, water, flora or fauna.

Where applicable local contractors, equipment, labourers, and other local resources will be utilized for the project.

Indicate the total number of hectares to be used in each phase of the project, as well as through the life of the project.

21.3 Hectares.

9. CAMP

Describe the proposed camp size and layout. Indicate the number of person-days; explain, with rationale, any variations in the number of people that may be on site over the life of the project.

No camp will be set up on-site.

10. ROADS AND ACCESSES

Provide detailed information about the construction, location, and decommissioning of any roads and accesses.

Use an "X" to indicate if this is to be a pioneered road or access:	Yes		Use an "X" to indicate if the route has been laid out or ground-truthed:	Yes	
	No	**X**		No	**X**

N/A.

11. PROPOSED WASTE MANAGEMENT METHODS

Use the grey fields below to provide or reference the following information:

Waste Management Plan: Include a Waste Management Plan in your Application Package, if applicable, or for small-scale projects, describe the proposed waste management activities in the grey fields provided below. A template for the Plan can be found in the LWB *Guidelines for Developing a Waste Management Plan*.

Waste Type	Management Method(s)
Garbage, personal garbage, sand and bentonite bag from drilling operations, PPE etc.	All garbage (sand bags etc.)will be removed from site and disposed of by contractor at local landfill
Sewage (Sanitary and greywater):	Site is located in city, breaks will be taken so that field staff can access public washroom facilities in town
Brush and trees:	Small amount of brush removal may be necessary to access the drilling locations, brush will remain on site
Overburden (Organic soils, waste material, etc.):	to the extent possible, topsoil in the vicinity of the testpits and wells will be set aside, overburden will be replaced around monitoring well or testpit locations and topsoil replaced. Any excess will remain onsite and spread in the vicinity of the boreholes
Drill Cuttings	We do not anticipate drilling into bedrock, therefore will not require drilling fluids. Drill cuttings will be used to backfill sections of boreholes or will be spread around boreholes
Other (describe):	Will not be using drilling fluids in overburden drilling

Off-site Disposal: If waste is proposed to be disposed of off-site within the NWT, written confirmation (e.g., an email, letter, etc.) from the facility/facilities indicating they will accept the waste is required. Include it/these in your Application Package. Please note this information will be required by the Board prior to commencement of activities.

12. EQUIPMENT

Identify the types of equipment proposed to be used.

Number	Type/Description	Size (weight in tonnes)	Proposed use
	Backhoe	25	Excavation
	Drill	All	Earthworks
	Pickup truck/service vehicle for drilling contractor	1 ton	Bringing supplies and staff to site

13. FUEL

Identify all fuel types proposed to be used.

Type of Fuel	Number of containers	Capacity of containers (e.g., litres, pounds)	Type of container (e.g., barrel, tank, tidy-tank)	Proposed storage or staging location(s)
Diesel:	1	450	Double walled tank with electric pump	Pickup Truck
Gasoline:				
Aviation Fuel:				
Propane:				
Other: (describe)				

14. METHODS OF FUEL TRANSFER

Describe the proposed methods to transfer fuel.

Diesel fuel will be pumped directly into the drill rig and heavy equipment with an electric pump. The diesel fuel will be contained in a 450L double walled tank on the back of the truck. Fuel transfers will be minimized on site.

15. SPILL CONTINGENCY PLAN

Include a Spill Contingency Plan in your Application Package, if applicable, or for small-scale projects, provide relevant details in the grey field provided below. An example of this Plan can be found in the INAC *Guidelines for Spill Contingency Planning*.

Spills could occur on site during fuel transfer if required. Spilled fuel could migrate into the groundwater system ultimately causing impacts to local surface water resources. Spill kits will be provided on site to clean up any inadvertent spills. The drilling contractor will bring spill response kits as outlined in Spill Contingency Plan . The drilling contractor will be responsible for spill response and will instruct on site team as to their responsibilities should a spill occur.

Spill contingency plan is included as Attachment C in this application.

16. PROPOSED PROJECT SCHEDULE AND TERM

Indicate the proposed project start and completion dates and the time of year the project activities are planned to occur. Describe any anticipated temporary closure(s) or seasonal shutdowns. Indicate the term requested.

Start Date:	October 1, 2023	Completion Date:	September 31, 2024
Drilling and testpitting program will be conducted in November 2023			
Term of Permit Requested:		1 year	

17. POTENTIAL ENVIRONMENTAL IMPACTS OF THE PROJECT AND PROPOSED MITIGATIONS

If the proposed project, or parts of the proposed project, may be exempt from preliminary screening, describe the rationale for the exemption in the grey field below. Include the date of the most recent screening, and/or the environmental assessment or impact review number.

Environmental impacts of diesel fuel maybe harmful to wildlife and aquatic life. Diesel is not readily biodegradable and has bioaccumulation potential in the environment. Given the volumes proposed for this project the impact to the environment can be mitigated through efficient spill response and recovery of this volume of fuel. Discharge into any water courses or water bodies will be avoided.

Unless the project could be exempt from preliminary screening, using the Impact-Mitigation Table below, or the more detailed Table in Appendix D of the Guide, identify all potential impacts and possible mitigations that are relevant to the proposed project, and indicate whether any of the mitigation measures have been developed as a result of input from affected parties. Possible potential impacts are listed below; however, these lists are not exhaustive and may not apply to all projects. All information provided should reflect the size, scale, and nature of the proposed project. Cumulative impacts and climate change must be considered. Attach additional pages if needed. Use landscape orientation if preferred.

Potential Impacts *Use an "X" to indicate which apply*	**X**	**Potential Project Impacts and Proposed Mitigations** *Describe the potential impact(s) and the proposed measure(s) to reduce each of these impacts.*
ABIOTIC COMPONENTS		
Land		
Soil contamination	X	Spills from diesel fuel, mitigated through spill response and recovery of volume of fuel. The primary risk of soil contamination is associated with the use of heavy equipment fueled by petroleum products. The Spill Contingency Plan includes provisions for spill response resources to be located on site and spill response procedures.
Soil compaction		N/A
Destabilization/erosion		N/A
Change in soil structure		N/A
Inability to support vegetation		N/A
Other		N/A
Water		
Groundwater		
Water table alteration		N/A
Infiltration changes	x	Boreholes will be completed with groundwater monitoring wells with a minimum of 3 metres of bentonite, sealing the well screen from the surface. This will eliminate routes of transportation to the subsurface and maintain existing infiltration to groundwater.
Changes in water quality	X	Boreholes will be completed with groundwater monitoring wells with a minimum of 3 metres of bentonite, sealing the well screen from the surface. This will eliminate routes of transportation to the subsurface.

Potential Impacts *Use an "X" to indicate which apply*	**X**	**Potential Project Impacts and Proposed Mitigations** *Describe the potential impact(s) and the proposed measure(s) to reduce each of these impacts.*
		The Spill Contingency Plan includes provisions for spill response resources to be located on site and spill response procedures.
Temperature changes		N/A
Other		N/A
Permafrost		
Loss or change in extent	X	Boreholes will be completed with groundwater monitoring wells with a minimum of 3 metres of bentonite sealing the well screen from the surface. The surface elevation will remain the same around the well to prevent water accumulation surrounding the well. This work to mitigate impacts to potential permafrost.
Changes in seasonal fluctuations		N/A
Change in persistence		N/A
Other		
Surface Water		
Water flow or level changes (permanent, temporary, seasonal)		N/A
Drainage pattern changes		N/A
Temperature changes		N/A
Changes in water quality	X	Avoidance of discharge of diesel fuel in water bodies/courses. The Spill Contingency Plan includes provisions for spill response resources to be located on site and spill response procedures.
Wetland impairment		N/A
Changes to aquatic habitat (see Biotic section below)		N/A
Other		
Air		
Changes in air quality	X	Localized air emissions from the drilling equipment are temporary and that airborne dust will be managed by applying water, as necessary.
Harm to living things		N/A
Increased greenhouse gases	X	Minimal increase in greenhouse gases do not warrant specific mitigation measures.
Other		
BIOTIC COMPONENTS		
Vegetation		
Direct loss of vegetation	X	Some loss of vegetation could occur as part of drilling activities, though, the loss of vegetation is considered minimal and not require specific mitigation measures.
Loss of Species at Risk or may-be-at-risk plants		N/A
Change in species composition		N/A
Introduction of non-native (invasive) species	X	Northwest Territory -based mobile equipment will be used to reduce the risk of introducing non-native

Potential Impacts *Use an "X" to indicate which apply*	**X**	**Potential Project Impacts and Proposed Mitigations** *Describe the potential impact(s) and the proposed measure(s) to reduce each of these impacts.*
		(invasive) species.
Effects on plant health (dust, metals, toxins)		N/A
Increased risk of fire	X	Risk of fire is anticipated to be low due to the bedrock dominated nature of site and the nature of the geotechnical drilling program.
Compaction of vegetation		N/A
Other		
Terrestrial Wildlife Habitat		
Direct loss or removal of habitat, dens, or nests	X	Some loss of vegetation could occur as part of drilling activities, though, the loss of vegetation is considered minimal and not require specific mitigation measures.
Loss or removal of keystone species and/or Species at Risk habitat		N/A
Fragmentation of wildlife corridor		N/A
Direct injury or mortality		N/A
Disturbances to key lifecycle stages: breeding, feeding, nesting, staging		N/A
Effects on population abundance		N/A
Change in species diversity		N/A
Effects on wildlife health (toxins, metals, etc.)		N/A
Changes to migratory movement patterns		N/A
Changes to predator-prey relationships		N/A
Human-wildlife conflicts		N/A
Other		N/A
Aquatic Habitat		
Breeding disturbances		N/A
Change in species diversity		N/A
Effects on health (toxins, metals, sediment, etc.)		N/A
Changes to migratory movement patterns		N/A
Changes to predator-prey relationships		N/A
Effects on population abundance		N/A
Change in species diversity		N/A
Other		N/A
CULTURAL COMPONENTS		
Wildlife Harvesting		
Loss or reduction in game species populations		N/A
Effects on traditional land use, subsistence, and harvesting rights		N/A
Other		N/A
Cultural Integrity and Heritage Resources		
Change to or loss of cultural integrity		N/A
Change to or loss of traditional lifestyle		N/A
Change to or loss of heritage resource		N/A

Potential Impacts *Use an "X" to indicate which apply*	**X**	**Potential Project Impacts and Proposed Mitigations** *Describe the potential impact(s) and the proposed measure(s) to reduce each of these impacts.*
Other		N/A
Social and Economic Well-being		
Increased human health hazard and risk	X	N/A
Economic opportunities or losses (employment, training)		N/A
Change in ecological, cultural, social, or economic values identified for protection in approved Land Use Plans		N/A
Impairment of the recreational or traditional uses of the land or water		N/A
Impairment of the aesthetic quality of the land or water		N/A
Changes to the use of the area by other non-Indigenous people (e.g., trappers, outfitters, residents, hunters, forest harvesters, other authorized projects)		N/A
Other		N/A

18. CLOSURE AND RECLAMATION

Use the grey field below to provide or reference the following information:

Closure and Reclamation Plan: Include a Closure and Reclamation Plan in the Application Package, if applicable, or for small-scale projects, describe the proposed closure and reclamation activities in the grey field provided below. Describe any temporary closure(s) and seasonal shutdowns. Please also refer to the LWB/AANDC *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories*.

Closure Cost Estimate: Prepare a Closure Cost Estimate and include it in your Application Package. Applicants are encouraged to contact Board staff, prior to applying, to determine which closure-cost-estimate template is most suited to the activities being applied for. Guidance is provided in section 2.2 of the LWB/GNWT/CIRNAC *Guidelines for Closure and Reclamation Cost Estimates for Mines*. If the Application is submitted concurrently with a Water Licence Application, the estimate should include a breakdown of water- and land-related activities and liabilities.

Groundwater monitoring wells will be left in place to allow ongoing groundwater monitoring if required. When monitoring is not longer required wells will be removed and decommissioned as outlined in ASTM D5299-99 Standard for Decommissioning of Monitoring wells

19. ADDITIONAL SUPPORTING INFORMATION

Use the grey field below to provide or reference the following information:

Engagement: Conduct engagement, prepare an Engagement Record and Engagement Plan in accordance with the LWB *Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits*, and include them in your Application Package. Templates are provided in the Guidelines. Please also refer to *Information for Proponents on MVLWB's Engagement Requirements*.

Land Use Plans: Contact the applicable Land Use Planning Board or the Tłı̨chǫ Government for assistance in interpreting the requirements of the relevant land use plan(s). Include a Land Use Plan Conformity Table, or if applicable, written confirmation of conformity from the Tłı̨chǫ Government, in your Application Package, demonstrating how the project meets the requirements of the Land Use Plan, if applicable.

Traditional Knowledge (TK): Provision of TK is mandatory for applications to the SLWB. Other applicants are strongly encouraged to include TK.

Studies Undertaken to Date: List any relevant studies that support the proposed activities and include them in your Application Package.

Engagement with adjacent neighbours and other interested parties and stakeholders has been initiated and will be conducted by the City of Yellowknife. In addition, a Public Advertisement related to scheduled works will be advertised, including but not limited to radio, paper, and social media ads.

The engagement plan is included as Attachment D

20. FEES

Refer to the Guide for assistance in determining relevant fees.

Type of Fee	Amount ($)
Application fee (if applicable):	$150
Land-use fees (for federal areas only):	$
Total Fees:	$

If fees are submitted separately, indicate how and when they will be delivered to the Board's office.

21. SIGNATURE

Vic Fontanilla	Lands and Development Officer
Applicant's Name (print) or	Position (print)

Company Name	

	2023/09/15
Signature	Date

Review the application package checklist provided in the Guide, and submit completed applications to the Regulatory Manager or Executive Director identified on the "Contact Us" pages of the respective Land and Water Board (www.mvlwb.com, www.wlwb.ca, www.slwb.com, www.glwb.com).

Attachment A - Certificate of Corporate Registration from the Government of the Northwest Territories

No.: **506442**

Northwest Territories

Territoires du Nord-Ouest

BUSINESS CORPORATIONS ACT

CERTIFICATE OF INCORPORATION

LOI SUR LES SOCIÉTÉS ACTIONS

CERTIFICAT DE CONSTITUTION

I HEREBY CERTIFY THAT the articles of

JE CERTIFIE PAR LA PRÉSENTE QUE les statuts de

506442 NORTHWEST TERRITORIES INC.

is this day incorporated under the Business Corporations Act *of the Northwest Territories* as set out in the attached Articles of Incorporation

est, ce jour, constituée en vertu de la *Loi sur les sociétés par actions* des Territoires du Nord-Ouest, tel qu'indiqué aux statuts constitutifs ci-joints.

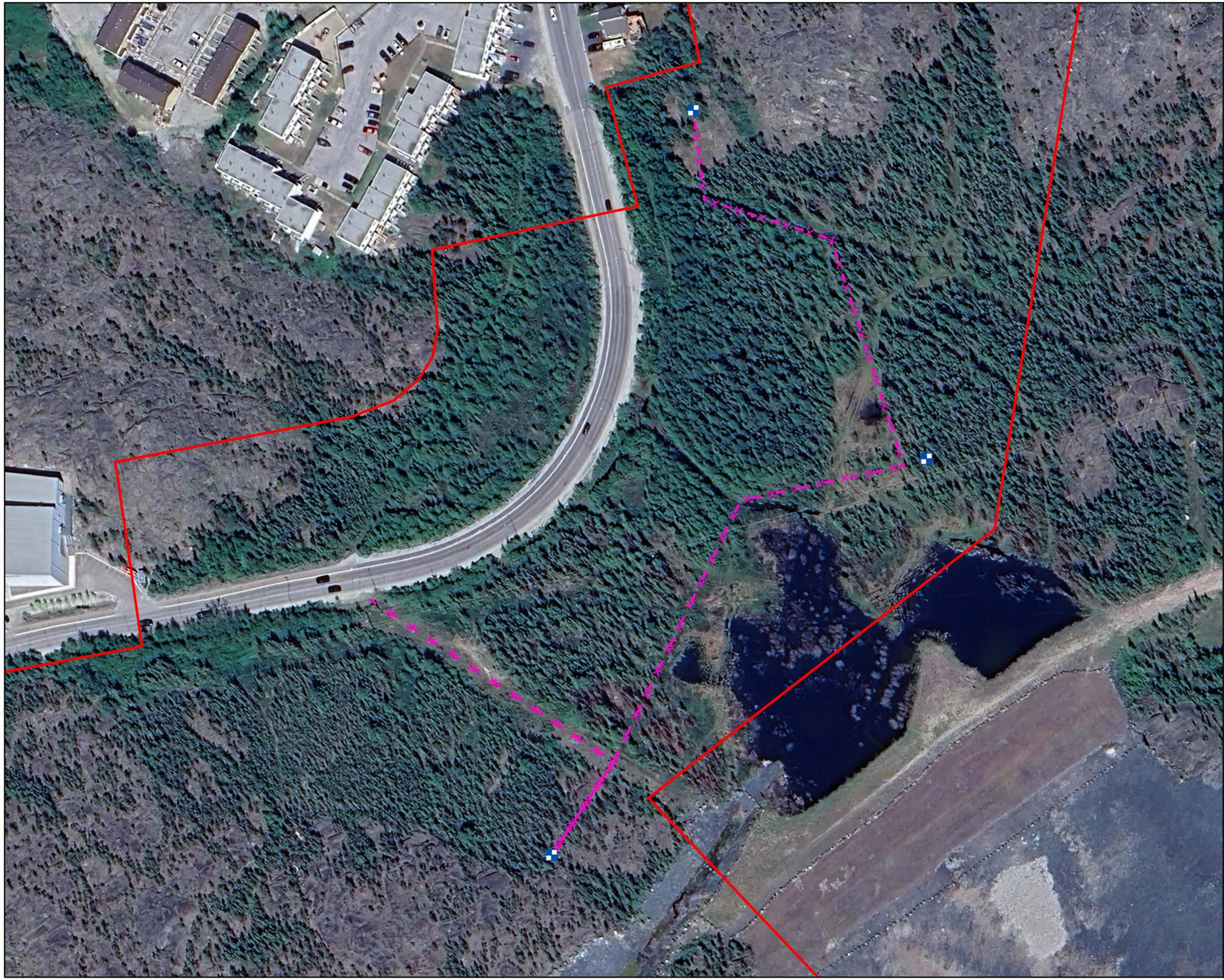
Date of Incorporation
Date de la constitution

2011-12-15

REGISTRAR OF CORPORATIONS NORTHWEST TERRITORIES
SEAL
SCEAU
REGISTRAIRE DES SOCIÉTÉS PAR ACTIONS TERRITOIRES DU NORD-OUEST

Alana Hehr

REGISTRAR OF CORPORATIONS
REGISTRAIRE DES SOCIÉTÉS PAR ACTIONS



LEGEND

- Proposed Borehole Location
- Property Boundary
- Proposed Access Route

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

DO NOT SCALE DRAWING.
THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS.

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CLIENT

City of Yellowknife

PROJECT

Taylor Road,
Yellowknife, NWT

TITLE

Proposed Access Route

BluMetric™ Environmental

4916 49th Street,
PO Box 11086
Yellowknife, NT, X1A 1P3
TEL: (867) 873-3500
FAX: (867) 873-3499
Email: info@blumetric.ca
Web: http://www.blumetric.ca

PROJECT #	DATE
230503	**November 09, 2023**

DRAWN	CHECKED	FIG NO.	REV
ZS	**JH**	**03**	**0**

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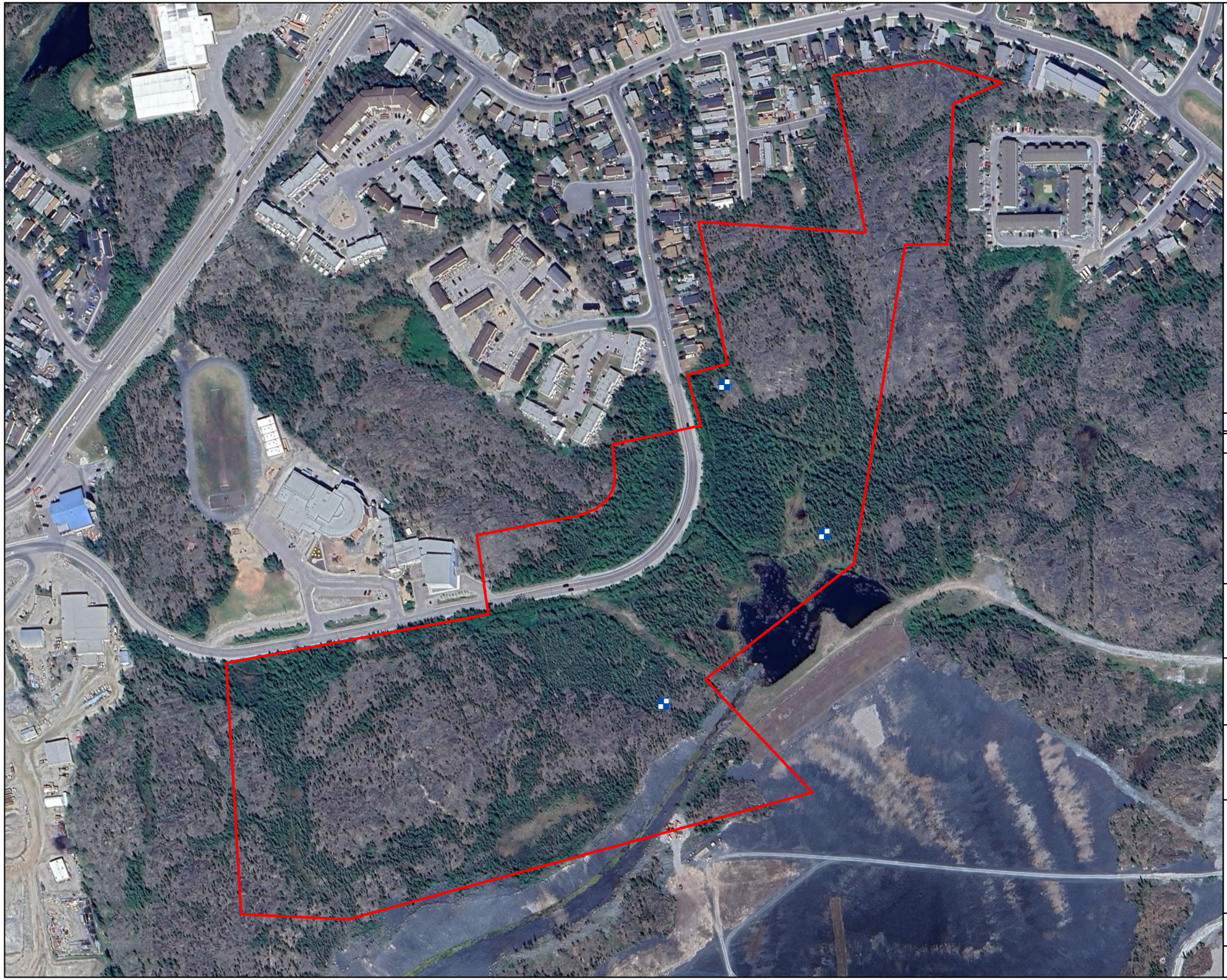

LEGEND

Property Boundary

Proposed Borehole Location

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

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THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS.

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0 75 150 Metres

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CLIENT

City of Yellowknife

PROJECT

Taylor Road,
Yellowknife, NWT

TITLE

Proposed Borehole Locations

BluMetric™ Environmental

4916 49th Street,
PO Box 11086
Yellowknife, NT, X1A 1P3
TEL: (867) 873-3500
FAX: (867) 873-3499
Email: info@blumetric.ca
Web: http://www.blumetric.ca

PROJECT #	DATE
230503	**November 09, 2023**

DRAWN	CHECKED	FIG NO.	REV
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