

Mackenzie Valley Highway Geotechnical Investigations

What We Heard Report

Prepared for:

Government of Northwest Territories

Prepared by:

K'alo-Stantec Limited

December 5, 2024

Project No.: 123514886



K'alo-Stantec

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1 Project Overview

The Government of the Northwest Territories, Department of Infrastructure (GNWT-INF) is advancing work on the Mackenzie Valley Highway (MVH) Project between Wrigley, Tulita, and Norman Wells, Northwest Territories (NWT). As part of this work, GNWT-INF is proposing to conduct geotechnical investigations over the next 2-5 years. The data will be collected to inform detailed design of the highway.

Geotechnical investigations will include drilling of boreholes and test-pitting at locations generally within a 1-kilometre-wide routing corridor along the Mackenzie Valley Winter Road (MVWR), and at prospective and potential borrow sources and quarries. The geotechnical activities will be different each year. The GNWT-INF will submit a plan of its studies to the Mackenzie Valley Land and Water Board (MVLWB) each year.

Geotechnical investigations will be located generally in the area of the Mackenzie Valley Winter Road (MVWR) between Wrigley and Prohibition Creek, in the Dehcho Region and Sahtu Settlement Area, including activities on Sahtu Settlement Lands. The GNWT-INF requires a Type 'A' Land Use Permit from the MVLWB. The permit will allow for drilling boreholes, excavating test pits, clearing access and helicopter landing pads, and using equipment more than 10 tonnes. A water license is not required.

Engagement was required with affected parties prior to submitting the application to the Mackenzie Valley Land and Water Board (MVLWB). This What We Heard Report summarizes the approach to identifying affected parties, the methods of engagement and communication used, and how issues and concerns raised by affected parties were addressed by the GNWT-INF.

The engagement process aimed to share information about the proposed geotechnical program, identify and address concerns related to the program activities, and gather feedback that will inform the preparation of the Type 'A' Land Use Permit application. It is important to note that this engagement is separate from ongoing consultation and engagement related to the broader Mackenzie Valley Highway project.

2 Engagement

2.1 Engagement Overview

The engagement process was designed to encourage participation and gather meaningful input. Early engagement took place during the week of October 22, 2024, for the purpose of identifying affected parties for engagement, and providing advance notice of the Project's upcoming engagement. Notification packages were sent to affected parties on November 1, 2024. The Notification included Project information, maps, and an invitation to participate in virtual information sessions. A copy of the notification letter can be found in Appendix A. Four virtual information sessions were held November 12 and 13, 2024. A presentation provided an overview of the Project, proposed 2025 activities, answer questions and collect feedback. A copy of the presentation available in Appendix B.

2.2 Affected Parties

The geotechnical investigations have the potential to affect parties who manage and use the land and resources in proximity to the area where the geotechnical investigations will occur. Feedback received during early engagement informed the list of affected parties invited to participate in engagement on the geotechnical investigations.

Table 2.2.1 Affected Parties Identified for Engagement

Dehcho First Nations	Tulita Land Corporation
Łı́ıdlı́ Kúę First Nation (LKFN)	Fort Norman Métis Land Corporation
Pehdzéh Kı́ First Nation (PKFN)	Norman Wells Land Corporation
Fort Simpson Métis Nation	Norman Wells Renewable Resource Council
Tulita District Land Corporation (TDLC)	GNWT-ECC Regional Inspector Sahtu
Tulita Renewable Resources Council (TRRC)	GNWT-ECC Regional Inspector Dehcho
Tulita Dene Band	Sahtu Secretariat Incorporated

2.3 Summary of Engagement Activities

The following table provides a detailed log of all engagement activities conducted by GNWT-INF with the affected parties. It includes key information such as the dates of engagement, the type of engagement

activity (e.g., written notification, phone calls/emails, virtual meetings), participating organizations and themes of discussion and communication.

Table 2.3.3. Summary of Engagement Activities

Engagement Activity	Date	Participating Organizations	Themes of Discussion/Communication
Pre-Early Engagement (In-person meeting)	September 9, 2024	Tulita Renewable Resources Council	Shared upcoming Project information
Early Engagement (Email and phone calls)	October 22, 2024	Dehcho First Nations, Resource Management Committee Tulita District Land Corporation Tulita Renewable Resources Council Mackenzie Valley Land and Water Board Crown-Indigenous Relations and Northern Affairs Canada, NWT Region	Identifying potentially affected parties Preferred engagement methods
Notification Packages (Email)	November 1, 2024	Affected Parties	Shared Project Information Invitation to virtual information sessions
Virtual Information Sessions	November 12 – 13, 2024	Tulita District Land Corporation Pehdzéh Kǐ First Nation Łíídlıı Kúę First Nation Sahtu Secretariat Incorporated	Traditional knowledge and land use Tendering (Procurement) processes Increased detail on work locations Environmental and land concerns Monitoring and involvement in the Project Opportunities for local involvement Transparency and communication
Written Submissions (Email)	November 12, 2024	GNWT-ECC Regional Inspector Dehcho	Environmental and land concerns
Written Submissions (Email)	November 14, 2024	Pehdzéh Kǐ First Nation	Traditional knowledge and land use Environmental and land concerns Engagement

Feedback received is summarized in Sections 2.4 through 2.6. Analysis and Conclusions are detailed in Section 3.

2.4 Virtual Information Sessions

Four virtual information sessions were offered during this engagement process on Zoom. Information Sessions were hosted by GNWT-INF and included a presentation on the proposed geotechnical investigations by K'alo-Stantec. Following the presentation was an open discussion where participants had the opportunity to ask questions and provide input. A copy of the presentation can be found in Appendix B.

A total of seven participants attended.

Date and Time	Participating Organizations	No. of Attendees
Tuesday, November 12, 2024, at 9:00am	n/a	0
Tuesday, November 12, 2024, at 12:00pm	Pehdzéh Kì First Nation Tulita District Land Corporation Łíídlı́ Kúę First Nation	6
Wednesday, November 13, 2024, at 3:00 pm	Sahtu Secretariat Incorporated	1
Wednesday, November 13, 2024, at 7:00 pm	n/a	0

Specific comments from the two virtual information sessions are summarized in the table below.

Theme	Specific Comments
Monitoring and Involvement in the Project	<ul style="list-style-type: none"> Participant requested to actively participate as monitors in the upcoming work. Participant requested notice of tendering opportunities for this and other projects several times.
Transparency and Communication	<ul style="list-style-type: none"> Participant shared concerns include the lack of transparency around the procurement process and contracting. Participant requested ongoing communication with land users in these areas to avoid disruptions.
Environmental and Land Concerns	<ul style="list-style-type: none"> Participant raised the concern that a cabin, is situated directly on the right-of-way (ROW) of the proposed highway. Participant shared that they have repeatedly asked how the project plans to address the impact of construction so close to their cabin.
Opportunities for Local Involvement	<ul style="list-style-type: none"> Participant recommended adding in Sahtu and Dehcho helicopters services.
Traditional Knowledge and Land Use	<ul style="list-style-type: none"> Participant shared concerns about the geotechnical investigations potentially impacting traditional hunting, trapping, and cabin areas.

2.5 Written Submissions

This section summarizes all written feedback received throughout engagement.

The GNWT Dehcho Regional Inspector recommended mulching cleared trees to support revegetation and prevent the creation of a berm. Erosion concerns in the Strawberry Creek area should be addressed in the Geotechnical Investigation application.

Pehdzéh Kǵ First Nation requested additional information about the work locations to assess potential impacts on their Aboriginal and Treaty rights, and proposed mitigation measures. They shared the need for a confidentiality agreement to protect Indigenous knowledge, along with clarity on how the GNWT will handle, store, and safeguard it. Pehdzéh Kǵ First Nation expressed concerns that the engagement timelines for the bear den survey and geotechnical permit applications were insufficient for meaningful consultation.

2.6 Other Relevant Information Being Considered

In September, K'alo-Stantec met with the Tulita Renewable Resources Council (TRRC) to discuss upcoming project activities. During the meeting, K'alo-Stantec introduced the Winter 2025 geotechnical drilling programs sharing that GNWT-INF plans to conduct geotechnical drilling at several creek crossings this winter. K'alo Stantec shared that drilling will help gather information about the materials present at these sites, which will inform the project's design. Specifically, the data will be used to assess whether the creek banks can be 'cut' to reduce the steepness of the road near these crossings.

The drilling will occur at eight creek crossings, all located near the winter road. GNWT is in the process of preparing land use permit applications, which will be submitted in October. This drilling program may extend over the next three years, providing additional data to refine and advance the design of the project.

3 Analysis and Conclusions

3.1 Summary of Engagement Themes

This section analyzes the feedback gathered from the recent engagement activities and highlights the key themes that emerged. The findings reflect the insights shared from the written submissions, other relevant considerations and virtual feedback with affected parties. The analysis aims to identify common concerns, suggestions, and priorities expressed by participants to guide future project actions and enhance collaboration. The conclusions drawn will support a more comprehensive understanding of the community's needs and inform project decision-making.

The key themes identified from the feedback include:

Monitoring and Involvement in the Project

Participants expressed interest in participating as environmental monitors during the upcoming work.

Response Provided: GNWT-INF confirmed that no outreach had yet been made to environmental monitors but encouraged participants to contact GNWT-INF directly for further information.

Transparency and Communication

Participants highlighted the importance of clear and transparent communication throughout the engagement process. Key issues raised include the need for improved communication around tendering opportunities and the locations of proposed work.

Response Provided: GNWT-INF confirmed they have heard of communications issues and will bring it forward to discuss further.

Environmental and Land Concerns

Issues related to land, erosion, and environmental impacts were raised, particularly concerns over erosion in the Strawberry Creek area and local cabins. A participant expressed concern that their cabin is located directly on the right-of-way (ROW) of the proposed highway and noted they have repeatedly inquired about how the project plans to mitigate the impacts of construction near their cabin.

Response Provided: The GNWT is aware of the subject cabin and confirms that the proposed route of the MVH deviates from the winter road in this area by several kilometres. The location was reviewed with community participants during a helicopter tour in September 2024. Participants included the affected family. GNWT offered to follow up with the appropriate Tulita organization to make sure the information from that trip had been communicated to its membership.

Opportunities for Local Involvement

Participant recommended adding in Sahtu and Dehcho helicopters services.

Response Provided: GNWT-INF confirmed that this is a valid point and will consider adding local helicopter services as needed.

Traditional Knowledge and Land Use

Participants shared the desire to incorporate traditional knowledge into the project. Participants interested in sharing Indigenous knowledge about the proposed work locations, contingent on the establishment of a confidentiality agreement with the GNWT-INF.

Response Provided: The GNWT offered that the locations of temporary access trails would be done in early January, and that this would include participation by a community member to avoid/identify potential conflicts with traditional trails/traplines.

Engagement and Work in the Dehcho Region

Feedback received from PKFN identified concerns regarding short engagement timelines and inadequate review time for both the bear den survey and the geotechnical investigations.

Response Provided: The GNWT will defer the bear den surveys and geotechnical investigations until Fall 2025 and Winter 2026 to allow time for additional conversations.

3.2 Next Steps

Building on the feedback gathered through the recent engagement activities, the following next steps have been outlined to maintain continued communication, transparency, and collaboration with affected parties:

- Application for Type 'A' Land Use Permit from Mackenzie Valley Land and Water Board (November 2024)
- Pre-activity notification (January 2025)
- 2025 Geotechnical Activities (January – March 2025)
- Notification of future year's planned activities will be submitted to participating organizations 60 days prior to start.

Appendix A Notification Package



November 1, 2024

Mackenzie Valley Highway Geotechnical Investigations Program

We are pleased to share with you the enclosed information regarding the Government of the Northwest Territories Department of Infrastructure (GNWT-INF)'s proposed geotechnical investigations program for the Mackenzie Valley Highway. The geotechnical investigations will collect information needed to advance the detailed design of the highway. The GNWT-INF is applying to the Mackenzie Valley Land and Water Board for a Land Use Permit for these activities. Over the next 2 – 5 years, the GNWT-INF plans to drill boreholes, and excavate test pits in the area of the proposed highway and at borrow and quarry sources. The GNWT-INF will submit a specific plan of activities prior each year's activities.

We ask that you review the information in this package and provide your feedback during one of our virtual engagement meetings (listed below), during the MVLWB's review process, or directly to the project team. Our team looks forward to advancing this important project.

Drilling Boreholes

In 2025, boreholes are proposed to be drilled near existing bridges and potential pipeline crossings to collect soil samples. The material properties of the soil samples will be analyzed in a laboratory to inform the design of new highway approaches, and to understand whether the material is suitable for use in construction.

There are 14 locations proposed for drilling boreholes (also identified on the attached maps):

- Ochre River Bridge
- Whitesand Creek Bridge
- Strawberry Creek Culvert
- Bob's Canyon Creek Culvert
- Dam Creek Bridge
- Blackwater River Bridge
- Steep Creek Bridge
- Pipeline Crossing KP 821
- Devil's Canyon Creek Bridge
- Saline River Bridge
- Seagrams Creek Bridge
- Little Smith Creek Bridge
- Gotcha Creek Bridge
- 12 Mile Creek Bridge

At each location, two 6-inch boreholes will be drilled on either side of the crossing using a track-mounted auger drill. Drilling locations will be set back from the river/creek bank by at least 100 meters. Strawberry Creek is the one exception, where the drill hole will be set back 70 meters from the creek.

.../2

Each borehole will be up to 30 meters deep (or until the auger stops). Samples will be collected every 3 meters from within each borehole, and sent to a laboratory for testing. All boreholes will be filled back in with the material that was drilled out, and remaining material will be left in a mound to cover each hole. Each hole will take less than one day to drill.

In future years, additional boreholes will be drilled along the potential alignment and at quarry sources. Thermistors or groundwater wells may be installed at that time.

Excavating Test Pits

Geotechnical investigations are also needed to understand whether identified potential borrow sources contain suitable material to construct the highway. The following locations will be investigated in 2025:

- 10.043 (existing source – Dehcho)
- 10.020 (existing source- Dehcho)
- 10.014A (Dehcho)
- 10.007 (Dehcho)
- 10.004 (Dehcho)
- 9.043 (existing source - Dehcho)
- Prospective sources between KM890-897 (Sahtu Land)
- 9.002 (existing source – Sahtu Land)

Other borrow sources will be investigated in future years.

Investigations will involve excavating up to 5 test pits at each location using a track-mounted excavator. Test pits are expected to be as deep as the excavator can reach, and approximately 2 meters wide. Samples collected from the test pits will also be sent to a laboratory to determine if the material could be used to construct the highway.

The test pit will be backfilled within in the same work day after samples are collected and logged.

Clearing Access and Helicopter Landing Pads

To access the proposed drilling and test pit locations in the winter, the GNWT-INF will need to clear access trails. These will be up to 6 m wide. Additionally, two new helicopter landing areas are proposed to be cleared for future archeological and geotechnical investigations along the “Bear Rock alignment Option”. The proposed locations are approximately 2 kilometers north of the Mackenzie Valley Winter Road where it passes Bear Rock – along the “Bear Rock Alignment Option”. Each area will require approximately 10 metres by 10 metres to be cleared of vegetation.

At each drilling and excavation location a temporary workspace approximately 10 meters by 10 meters (0.3 hectares) will be needed to set up the drilling rig and operate equipment.

Cleared brush and trees will be pushed to the side of the trail. A minimum of 10 cm of packed snow will be maintained to protect the ground surface from erosion and rutting. Existing cut lines will be used as much as possible to minimize need for new clearing.

Following the Project activities, areas of disturbance will be left to revegetate naturally.

Activities and Timelines

All geotechnical activities in 2025, and most geotechnical activities in future years are expected to take place between January 1 and March 31, annually. Heli-portable drilling will be considered in future years. In 2025, drilling expected to last about 28 days, and test pit digging to last about 35 days. A local environmental monitor will be present during all activities to oversee environmental and wildlife interactions.

Local Employment and Opportunities

Site access work, including vegetation and snow clearing for borehole locations in the Dehcho Region will be completed by Pehdzèh Ki Contractors Ltd. (PKCL) of Wrigley, NT, and by Willowlake Environmental Ltd. of Tulita, NT, for locations in the Sahtu Region. Environmental monitors from local communities will also be employed to support activities. Crews will stay in local commercial accommodations.

Engagement on the Geotechnical Program

The GNWT-INF has been engaging throughout the Sahtu and Dehcho Regions on the Mackenzie Valley Highway for many years. We request that you review the information in this package on the proposed geotechnical program and provide your feedback on the proposed activities, including any concerns. Your feedback will be used to make adjustments to the Project and will be submitted to the Mackenzie Valley Land and Water Board along with the Land Use Permit application.

GNWT-INF representatives will hold virtual engagement meetings at the following times, should you wish to discuss any aspects of the proposed activities with us:

- Tuesday, November 12, 2024 at 9:00am
<https://stantec.zoom.us/j/91361107383?pwd=1WybiGLbUv3cLxylHFpLa8rubCv8nG.1>
- Tuesday, November 12, 2024 at 12:00pm
<https://stantec.zoom.us/j/93854109946?pwd=xN1zZbbFjJAVdbhSYsDmUFnRjqeJsb.1>
- Wednesday, November 13, 2024 at 3:00pm
<https://stantec.zoom.us/j/91741394740?pwd=Ssyaerltrn02eTi1R8bnQPsyfdrLbx.1>
- Wednesday, November 13, 2024 at 7:00pm
<https://stantec.zoom.us/j/95395051295?pwd=k30IXMp2hVw3NdeoQSoHnhHmI3yxY2.1>

Please review the information in this notification package. You may ask us questions during the virtual engagement meetings, or you may direct comments to Patricia Coyne at Patricia_Coyne@gov.nt.ca or 867-767-9082 prior to November 15, 2024.

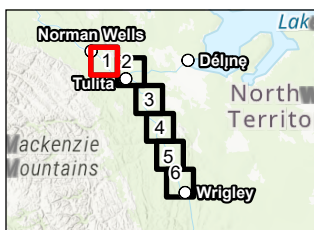
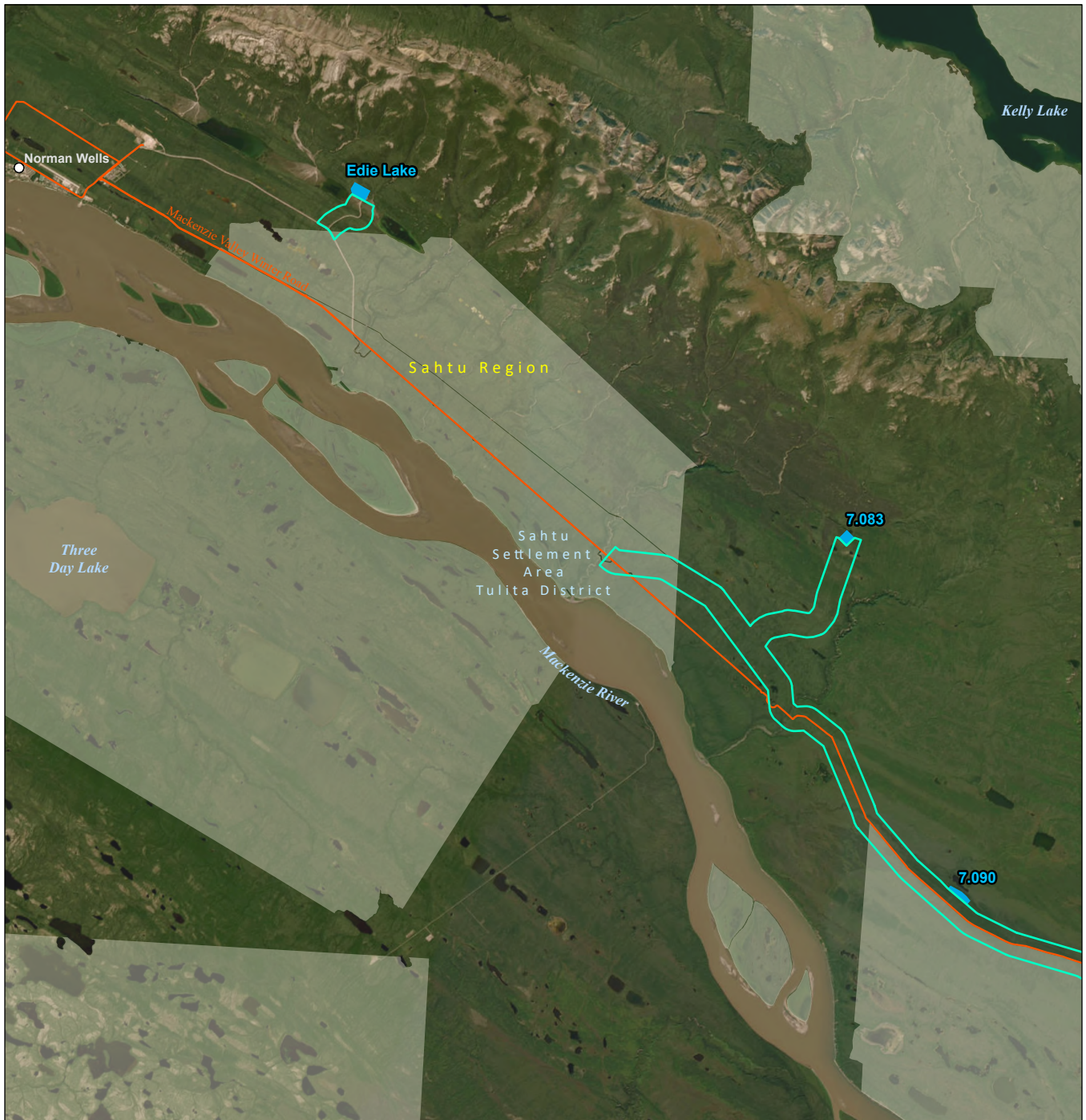
We would be pleased to meet with you to discuss the 2025 geotechnical program and your interests in more detail. I would like to thank you in advance for your consideration of this request and look forward to hearing back from you.

Sincerely,

A handwritten signature in black ink, appearing to read 'Patricia Coyne', with a stylized flourish at the end.

Patricia Coyne
Manager
Mackenzie Valley Highway Environmental Affairs
Infrastructure

Attachment



- Proposed Borehole Location (2025 Drilling Program)
- Prospective / Potential Borrow Source (2025 Test Pitting Program)
- Prospective / Potential Quarry Source
- MVH Alignment Routing Corridor
- Community
- Northwest Territories Highway
- Winter Road
- District Boundary
- Region Boundary
- Sahtu Land
- Settlement Area Boundary

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Project Location Wrigley to Norman Wells, NWT
Prepared by DS on 10/31/2024
TR by JD on 10/31/2024

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Government of the Northwest Territories
Mackenzie Valley Highway Project

Figure No.

1 of 6

Title

**Mackenzie Valley Highway Geotechnical
Investigations Study Areas**

Notes

1. Coordinate System: NAD 1983 UTM10

2. Data Sources: GNWT (Government of the Northwest Territories) Centre for Geomatics. n.d. Inventory of Landscape Change Map Viewer, GNWT. Centre for Geomatics. n.d. Open Data, MVLWB. n.d. Public Registry, Sahtu Land and Water Board. n.d. Public Registry, Environment and Natural Resources GNWT, Government of Canada, Stantec, Wilson and Haas 2012, and Caslys Consulting Ltd.

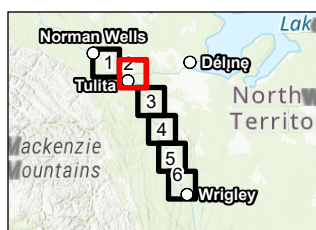
3. Background: World Topographic Map: Northwest Territories, Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA,

NRCAN, Parks Canada

World Imagery: Earthstar Geographics

World Hillshade: Esri, USGS. Imagery date: 2021

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Project Location

Wrigley to Norman Wells, NWT

Prepared by DS on 10/31/2024

TR by JD on 10/31/2024

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Government of the Northwest Territories
Mackenzie Valley Highway Project

Figure No.

2 of 6

Title

**Mackenzie Valley Highway Geotechnical
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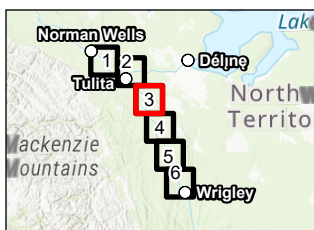
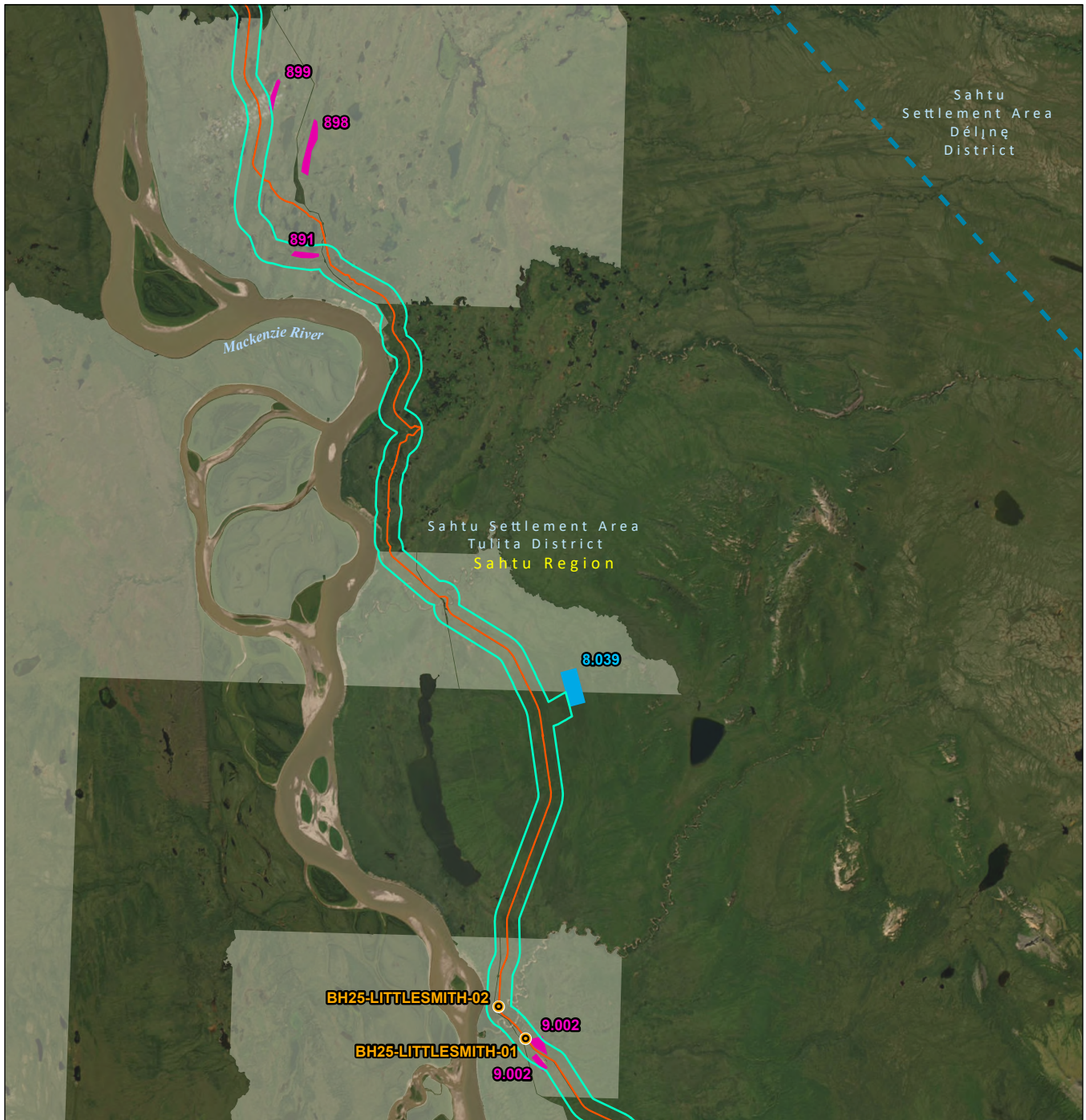
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Project Location: Wrigley to Norman Wells, NWT
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Government of the Northwest Territories
Mackenzie Valley Highway Project

Figure No.

3 of 6

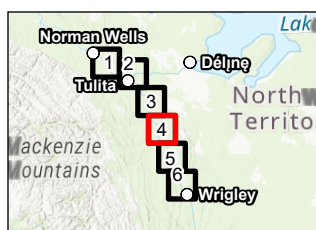
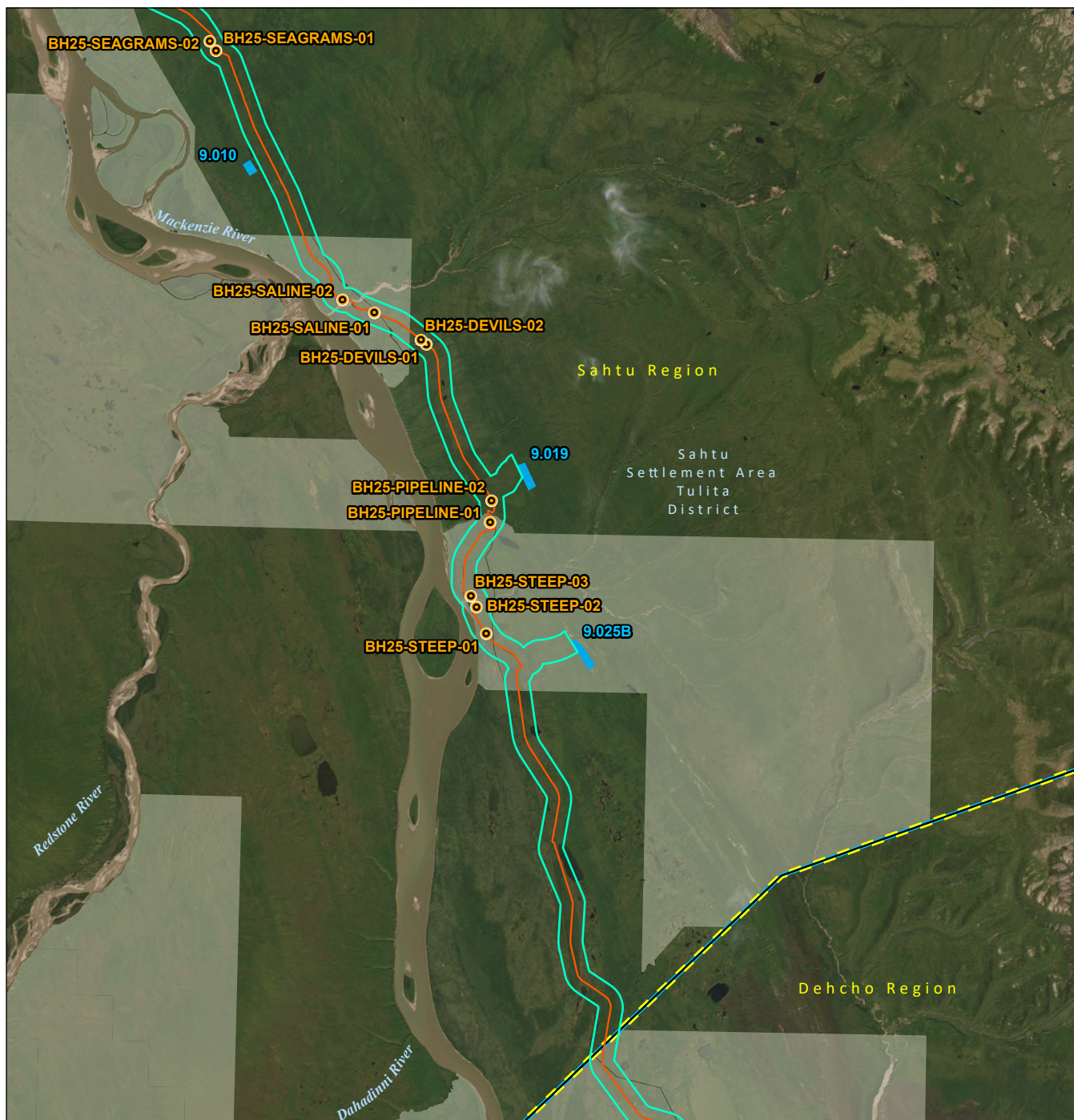
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Government of the Northwest Territories
Mackenzie Valley Highway Project

Figure No.

4 of 6

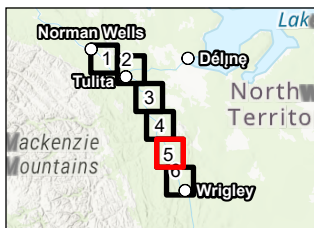
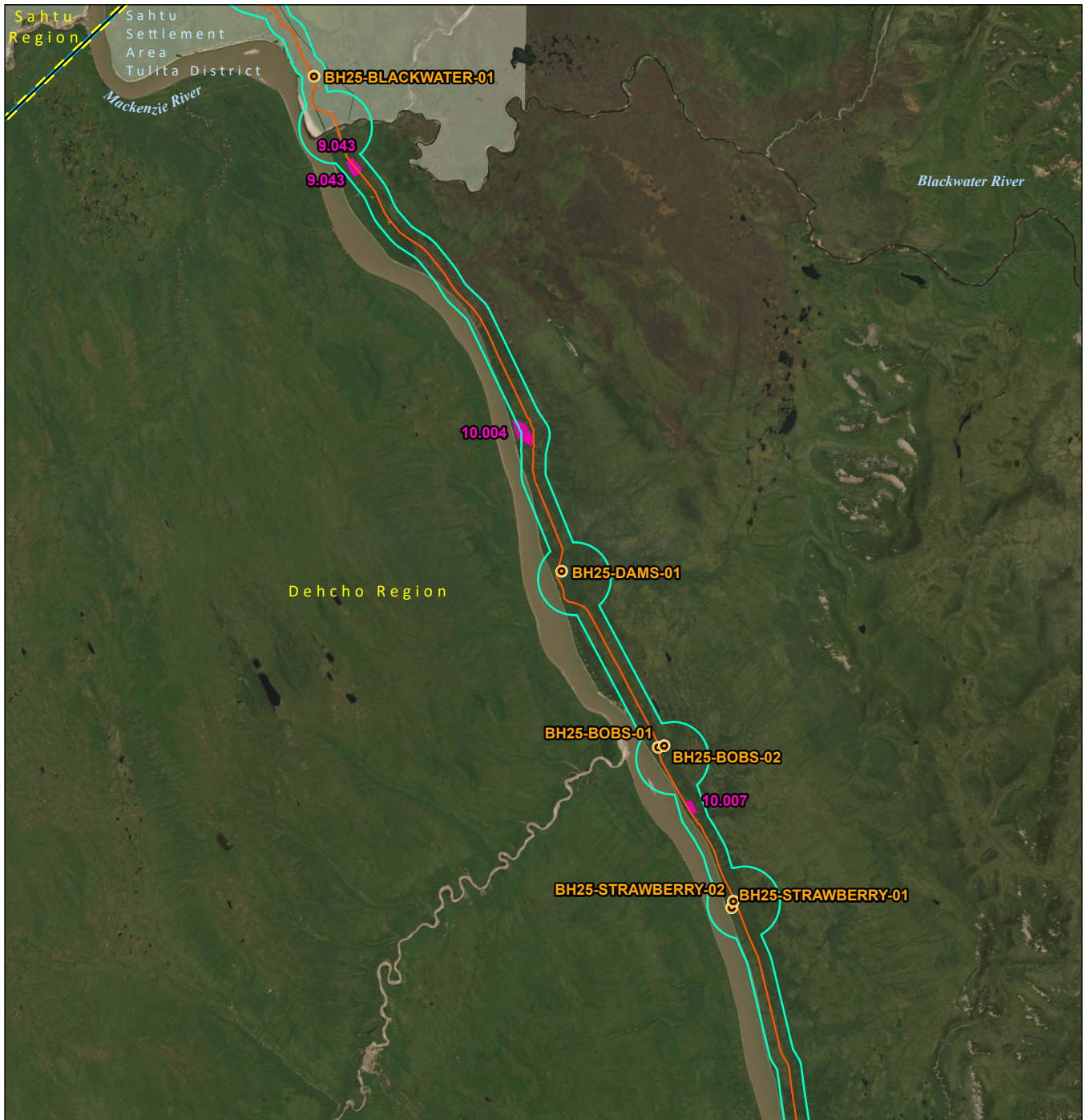
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Mackenzie Valley Highway Project

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5 of 6

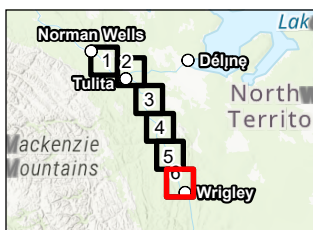
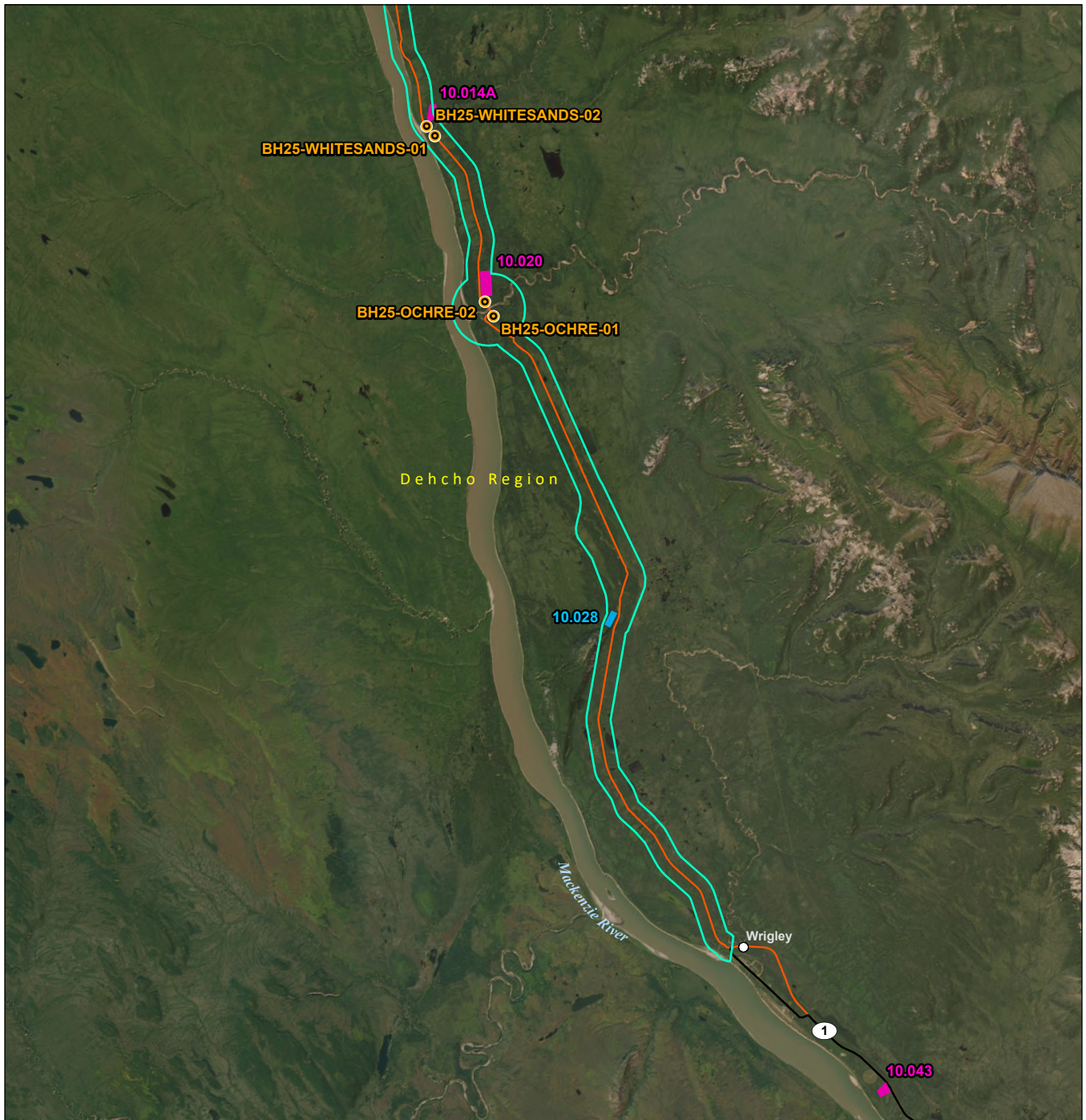
Title

**Mackenzie Valley Highway Geotechnical
Investigations Study Areas**

Notes

1. Coordinate System: NAD 1983 UTM10
2. Data Sources: GNWT (Government of the Northwest Territories) Centre for Geomatics. n.d. Inventory of Landscape Change Map Viewer, GNWT. Centre for Geomatics. n.d. Open Data, MVLWB. n.d. Public Registry, Sahtu Land and Water Board. n.d. Public Registry, Environment and Natural Resources GNWT, Government of Canada, Stantec, Wilson and Haas 2012, and Caslys Consulting Ltd.
3. Background: World Topographic Map: Northwest Territories, Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, NRCan, Parks Canada
World Imagery: Earthstar Geographics
World Hillshade: Esri, USGS. Imagery date: 2021

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.



- Proposed Borehole Location (2025 Drilling Program)
- Prospective / Potential Borrow Source (2025 Test Pitting Program)
- Prospective / Potential Quarry Source
- ▬ MVH Alignment Routing Corridor
- Community
- Northwest Territories Highway
- Winter Road
- ▬ District Boundary
- ▬ Region Boundary
- Sahtu Land
- ▬ Settlement Area Boundary

0 2.5 5 Kilometres
(At original document size of 8.5x11)
1:250,000



Kalo-Stantec



Project Location

Wrigley to Norman Wells, NWT

Prepared by DS on 10/31/2024

TR by JD on 10/31/2024

Client/Project

123514866_009

Government of the Northwest Territories
Mackenzie Valley Highway Project

Figure No.

6 of 6

Title

**Mackenzie Valley Highway Geotechnical
Investigations Study Areas**

Notes

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2. Data Sources: GNWT (Government of the Northwest Territories) Centre for Geomatics. n.d. Inventory of Landscape Change Map Viewer, GNWT. Centre for Geomatics. n.d. Open Data, MVLWB. n.d. Public Registry, Sahtu Land and Water Board. n.d. Public Registry, Environment and Natural Resources GNWT, Government of Canada, Stantec, Wilson and Haas 2012, and Caslys Consulting Ltd.

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NRCAN, Parks Canada
World Imagery: Earthstar Geographics

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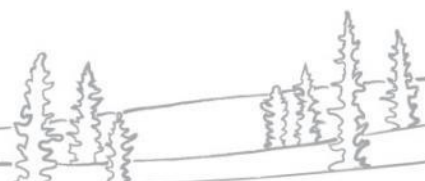
Appendix B Geotechnical Investigations Presentation



Mackenzie Valley Highway Geotechnical Studies

Pre-application Engagement

November 2025



Government of
Northwest Territories

Presentation Outline

- Purpose and Scope
- Methods
- 2025 Proposed Activities
- Environmental Impacts
- Local Involvement
- Next Steps



Geotechnical Studies - Purpose

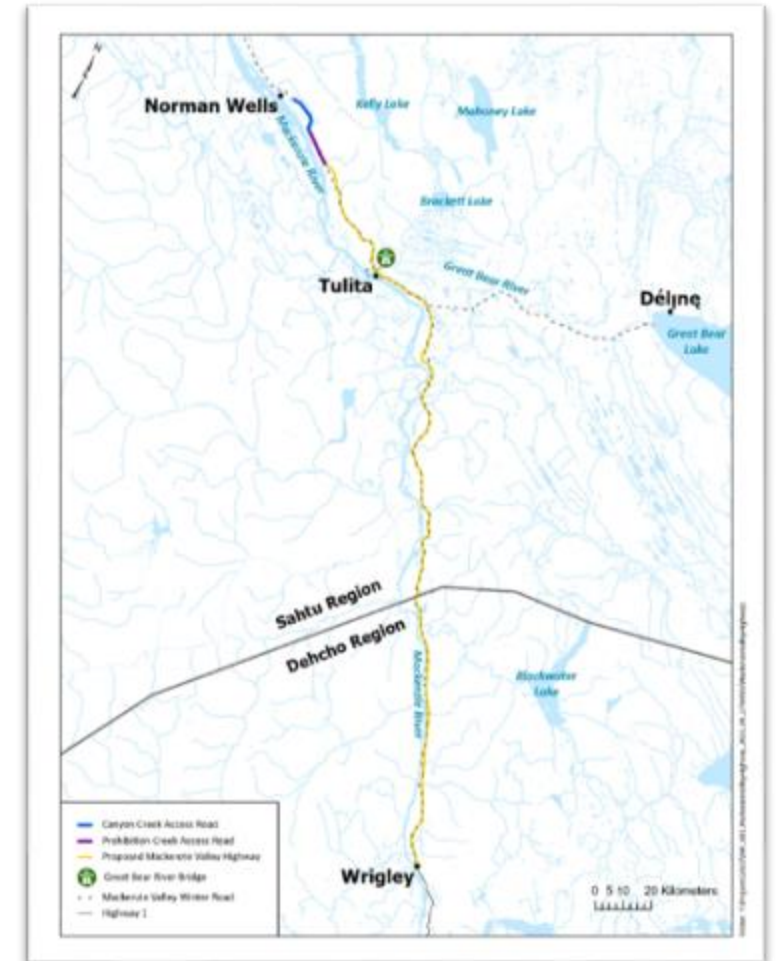
The GNWT has proposed the Mackenzie Valley Highway Project

- From Wrigley to Tulita, to Norman Wells
- Project is in environmental assessment
- Early level of design

The GNWT needs to advance detailed design

- Highway alignment and embankment design
- Engineering of watercourse crossings
- Borrow and quarry material quality and quantity

Detailed design requires geotechnical studies over the next 2 – 5 years



Geotechnical Studies - Scope

Drilling Boreholes

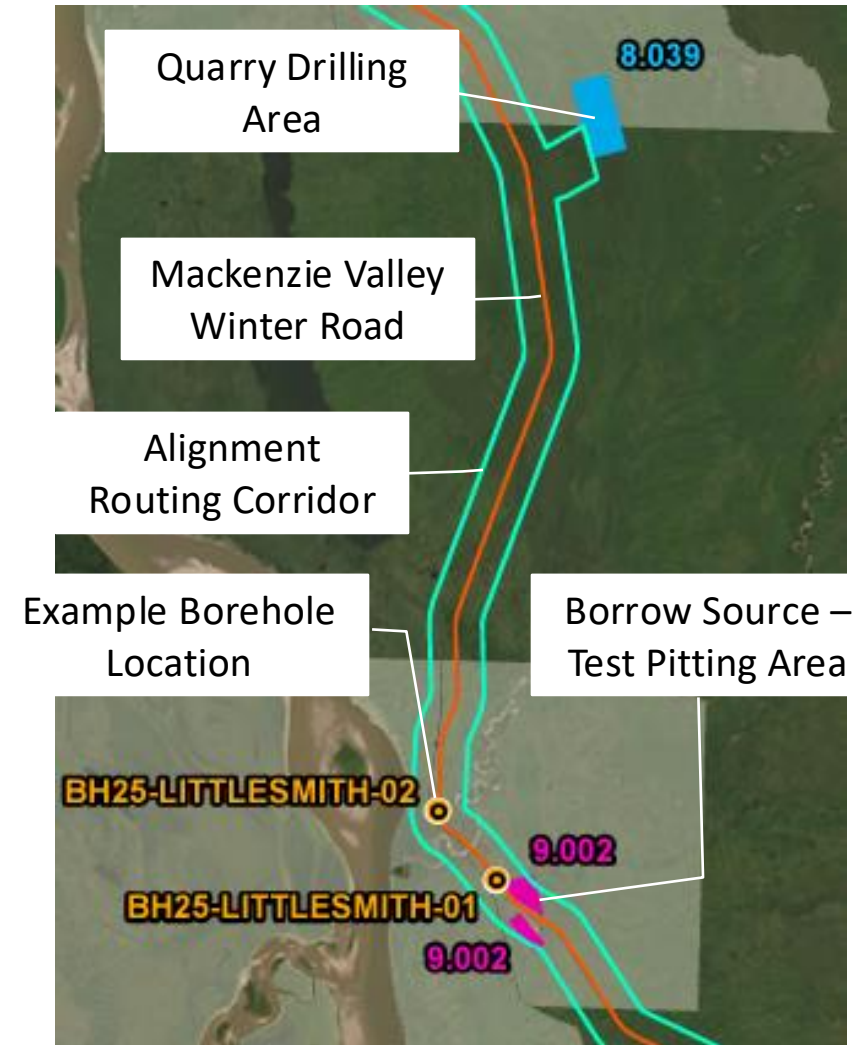
- Within the Alignment Routing Corridor and at potential quarries
- Track-mounted drill rig
- Heli-portable

Excavating Test Pits

- At potential and prospective borrow sources
- Tracked excavator in winter

Installing Thermistor Cables or Groundwater Monitoring Wells

- Where needed to support design and ongoing monitoring in future years



Methods

Drilling Boreholes

- In winter, access from Mackenzie Valley Winter Road
- Heli-portable
- Water use anticipated <20 m³ per day

Installing Thermistors or Groundwater Wells

- Within drilled boreholes
- PVC pipe and cable



Methods

Temporary Access Trails

- Follow cutlines
- 6 metres wide
- Packed / frozen snow

Excavating Test Pits

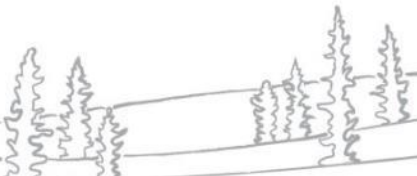
- At potential and prospective borrow sources
- Tracked excavator in winter
- Backfilled with soil

No remote camps required



2025 Winter Activities

- Boreholes near existing bridges and near KM820 pipeline crossing
 - All BH are more than 100 m from water
 - Purpose is to sample soil needed to design the approach to bridges
 - Temporary access trails
- Test pits
 - Existing and potential borrow sources in Dehcho Region
 - 3 prospective borrow sources on Sahtu Land
 - 1 existing borrow source on Sahtu Land
 - Temporary access trails
- Clearing helicopter landing pads
 - Along “Bear Rock Alignment Option” for future archaeological and geotechnical studies



Mitigating Environmental Impacts

- Project activities will not impact archeological resources – studies have been or will be completed for all targets
- Bear den surveys required prior to winter programs
- Follow existing cutlines as much as possible
- Drilling outside of migratory bird nesting season
- No remote camps required
- Waste Management Plan, Spill Contingency Plan, Wildlife Management and Monitoring Plan will be in place
- Erosion and Sedimentation Control Plan (if drilling near water)



Local Involvement / Opportunities

- K'alo-Stantec Limited and Tetra Tech Canada as geotechnical consultants
- Midnight Sun Drilling / Sahtu Midnight Sun Drilling
- Heavy equipment
- Clearing / slashing
- Environmental / wildlife monitoring, bear den surveys
- Local camp / hotel services



Next Steps

- Application for Type 'A' Land Use Permit from Mackenzie Valley Land and Water Board (November, 2024)
- Land Use Permit issued & pre-activity notification (January, 2025)
- 2025 Geotechnical Activities (January – March, 2025)
- Notification of next year's planned activities will be submitted to MVLWB 60 days prior to start.

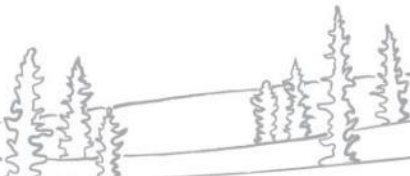


Contacts and More Information



Email: MVH@gov.nt.ca

Project Website:
www.inf.gov.nt.ca/en/MVH



Appendix C Engagement Log

Appendix C Engagement Log
December 5, 2024

Date	Affected Party	Engagement Activity	Subject
October 22, 2024	CIRNAC	Email	Requested assistance to identify affected parties for engagement
October 22, 2024	Dehcho First Nations	Phone Call	Identified parties to engage and provided contact information.
October 22, 2024	Dehcho First Nations	Email	Requesting contact information for the Environmental Coordinators. A brief overview of the Project was provided.
October 22, 2024	Dehcho First Nations	Email	Provided contact information for Chiefs and Land Manager identified.
November 1, 2024	Dehcho First Nations	Email	Emailed a notification package and an invitation to engage. Feedback was requested by November 15, 2024.
November 1, 2024	Fort Norman Metis Land Corporation	Email	Emailed a notification package and an invitation to engage. Feedback was requested by November 15, 2024.
November 1, 2024	Fort Simpson Metis Nation	Email	Emailed a notification package and an invitation to engage. Feedback was requested by November 15, 2024.
November 1, 2024	GNWT-ECC Dehcho	Email	Emailed a notification package and an invitation to engage. Feedback was requested by November 15, 2024.
November 12, 2024	GNWT-ECC Dehcho	Email	Shared recommendations on environmental and land area. .
November 1, 2024	GNWT-ECC Sahtu	Email	Emailed a notification package and an invitation to engage. Feedback was requested by November 15, 2024.
November 1, 2024	Łı́ıdlı́ Kúę First Nation	Email	Emailed a notification package and an invitation to engage. Feedback was requested by November 15, 2024.
November 12, 2024	Łı́ıdlı́ Kúę First Nation	Virtual Information Session	Discussed monitoring and participation
November 12, 2024	Łı́ıdlı́ Kúę First Nation	Virtual Information Session	Discussed notice of tendering opportunities, subsidiary joint venture and opportunities.
November 12, 2024	Łı́ıdlı́ Kúę First Nation	Virtual Information Session	Discussed lack of transparency around the process and contracting.
November 12, 2024	Łı́ıdlı́ Kúę First Nation	Virtual Information Session	Emailed copy of virtual information session presentation.
November 13, 2024	Łı́ıdlı́ Kúę First Nation	Email	Emailed copy of virtual information presentation.

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December 5, 2024

Date	Affected Party	Engagement Activity	Subject
October 22, 2024	MVLWB	Phone Call	Requesting a call back to identify affected parties for engagement.
October 22, 2024	MVLWB	Phone Call	Requesting a call back to identify affected parties for engagement.
October 22, 2024	MVLWB	Phone Call	Provided affected parties to include in engagement. =
October 22, 2024	MVLWB	Email	Emailed a brief project introduction and request to assist in identifying affected parties.
November 1, 2024	Norman Wells Land Corporation:	Email	Emailed a notification package and an invitation to engage. Feedback was requested by November 15, 2024.
November 1, 2024	Pehdzéh Kǵ First Nation	Email	Emailed a notification package and an invitation to engage. Feedback was requested by November 15, 2024.
November 12, 2024	Pehdzéh Kǵ First Nation	Virtual Information Session	Requested copy of presentation and asked if a meeting could be provided to those who could not attend.
November 13, 2024	Pehdzéh Kǵ First Nation	Email	Emailed a notification package and an invitation to engage. Feedback was requested by November 15, 2024.
November 14, 2024	Pehdzéh Kǵ First Nation	Email	Email about the need for detailed information on proposed work locations to assess impacts on their rights and suggested mitigations, emphasizing the importance of Indigenous knowledge sharing under a confidentiality agreement with GNWT. They highlighted concerns over short engagement timelines that hinder meaningful consultation and requested GNWT's availability for the week of November 25, 2024, due to current scheduling conflicts.
November 14, 2024	Pehdzéh Kǵ First Nation	Email	Requested GIS shapefiles for the proposed work.
November 14, 2024	Pehdzéh Kǵ First Nation	Email	Emailed requested GIS Project files. Share the proposed work for 2025 includes drilling and test pit excavation, with no work planned at the quarries this year.
November 14, 2024	Pehdzéh Kǵ First Nation	Email	Received GIS shapefiles.
November 27, 2024	Pehdzéh Kǵ First Nation	Email	Stated the proposed work is being reviewed. Requested an update on the status of GNWT's permit applications and bear den surveys. Expressed concern that the applications would be submitted before Pehdzéh Kǵ First Nation has an opportunity to review and respond.
November 29, 2024	Pehdzéh Kǵ First Nation	Email	Emailed update on the LUP application, confirmed bear den surveys were not completed this year. Stated bear den surveys and geotechnical work in the Dehcho Region will be

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December 5, 2024

Date	Affected Party	Engagement Activity	Subject
			deferred until next fall/winter to allow for additional conversations. Inquired whether a meeting was desired to discuss concerns.
December 4, 2024	Pehdzéh Kǫ First Nation	Email	Emailed follow up on meeting to discuss concerns.
November 7, 2024	Sahtu Secretariat Incorporated	Email	Emailed a notification package and an invitation to engage. Feedback was requested by November 15, 2024.
November 13, 2024	Sahtu Secretariat Incorporated	Virtual Information Session	Recommended adding in Sahtu and Dehcho helicopters services.
November 13, 2024	Sahtu Secretariat Incorporated	Virtual Information Session	Requested copy of presentation
November 13, 2024	Sahtu Secretariat Incorporated	Email	Emailed copy of virtual information presentation.
November 1, 2024	Tulita Dene Band	Email	Emailed a notification package and an invitation to engage. Feedback was requested by November 15, 2024.
October 22, 2024	Tulita District Land Corporation	Phone Call	Requesting assistance to identify affected parties for engagement.
October 22, 2024	Tulita District Land Corporation	Email	Requesting assistance to identify affected parties for engagement.
October 22, 2024	Tulita District Land Corporation	Phone Call	Provided affected parties to engage and discussed project.
October 31, 2024	Tulita District Land Corporation	Email	Requested if a letter would be issued to the GNWT-INF to grant land access following the engagement.
November 1, 2024	Tulita District Land Corporation	Email	K'alo-Stantec emailed Tulita District Land Corporation a notification package and an invitation to engage. Feedback was requested by November 15, 2024.
November 6, 2024	Tulita District Land Corporation	Email	Emailed a notification package and an invitation to engage. Feedback was requested by November 15, 2024.
November 6, 2024	Tulita District Land Corporation	Email	Email recommended affected party to include for engagement. Requested project area maps.
November 6, 2024	Tulita District Land Corporation	Email	Emailed confirm that identified party will be invited to engage and project area maps to be provided.
November 6, 2024	Tulita District Land Corporation	Email	Email confirmed the confirmation of the maps. Confirmed attendance for November 12, 2024 virtual information session.

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November 12, 2024	Tulita District Land Corporation	Virtual Information Session	Discussed the issue of a local cabin.
November 12, 2024	Tulita District Land Corporation	Virtual Information Session	Discussed communication issues.
November 12, 2024	Tulita District Land Corporation	Virtual Information Session	Requested to be added as one of GNWT-INF's contacts for ongoing communication.
November 12, 2024	Tulita District Land Corporation	Virtual Information Session	Requested copy of presentation
November 13, 2024	Tulita District Land Corporation	Email	Emailed copy of virtual information presentation.
November 13, 2024	Tulita District Land Corporation	Email	Shared updated that the maps are in progress as requested.
November 14, 2024	Tulita District Land Corporation	Email	Emailed a KMZ file and a PDF mapbook as requested.
November 1, 2024	Tulita Land Corporation	Email	Emailed a notification package and an invitation to engage. Feedback was requested by November 15, 2024.
November 1, 2024	Tulita Land Corporation:	Email	Emailed a notification package and an invitation to engage. Feedback was requested by November 15, 2024.
November 4, 2024	Tulita Land Corporation:	Email	Resent the notification package with the correct email address.
October 22, 2024	Tulita Renewable Resource Council	Phone Call	Requesting assistance to identify affected parties for engagement.
October 22, 2024	Tulita Renewable Resource Council	Phone Call	Recommended parties to include in the upcoming engagement
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October 22, 2024	MVLWB	Phone Call	Provided affected parties to include in engagement. =
October 22, 2024	MVLWB	Email	Emailed a brief project introduction and request to assist in identifying affected parties.
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November 13, 2024	Pehdzéh Kǵ First Nation	Email	Emailed a notification package and an invitation to engage. Feedback was requested by November 15, 2024.
November 14, 2024	Pehdzéh Kǵ First Nation	Email	Email about the need for detailed information on proposed work locations to assess impacts on their rights and suggested mitigations, emphasizing the importance of Indigenous knowledge sharing under a confidentiality agreement with GNWT. They highlighted concerns over short engagement timelines that hinder meaningful consultation and requested GNWT's availability for the week of November 25, 2024, due to current scheduling conflicts.
November 14, 2024	Pehdzéh Kǵ First Nation	Email	Requested GIS shapefiles for the proposed work.
November 14, 2024	Pehdzéh Kǵ First Nation	Email	Emailed requested GIS Project files. Share the proposed work for 2025 includes drilling and test pit excavation, with no work planned at the quarries this year.
November 14, 2024	Pehdzéh Kǵ First Nation	Email	Received GIS shapefiles.
November 27, 2024	Pehdzéh Kǵ First Nation	Email	Stated the proposed work is being reviewed. Requested an update on the status of GNWT's permit applications and bear den surveys. Expressed concern that the applications would be submitted before Pehdzéh Kǵ First Nation has an opportunity to review and respond.
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December 5, 2024

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November 7, 2024	Sahtu Secretariat Incorporated	Email	Emailed a notification package and an invitation to engage. Feedback was requested by November 15, 2024.
November 13, 2024	Sahtu Secretariat Incorporated	Virtual Information Session	Recommended adding in Sahtu and Dehcho helicopters services.
November 13, 2024	Sahtu Secretariat Incorporated	Virtual Information Session	Requested copy of presentation
November 13, 2024	Sahtu Secretariat Incorporated	Email	Emailed copy of virtual information presentation.
November 1, 2024	Tulita Dene Band	Email	Emailed a notification package and an invitation to engage. Feedback was requested by November 15, 2024.
October 22, 2024	Tulita District Land Corporation	Phone Call	Requesting assistance to identify affected parties for engagement.
October 22, 2024	Tulita District Land Corporation	Email	Requesting assistance to identify affected parties for engagement.
October 22, 2024	Tulita District Land Corporation	Phone Call	Provided affected parties to engage and discussed project.
October 31, 2024	Tulita District Land Corporation	Email	Requested if a letter would be issued to the GNWT-INF to grant land access following the engagement.
November 1, 2024	Tulita District Land Corporation	Email	K'alo-Stantec emailed Tulita District Land Corporation a notification package and an invitation to engage. Feedback was requested by November 15, 2024.
November 6, 2024	Tulita District Land Corporation	Email	Emailed a notification package and an invitation to engage. Feedback was requested by November 15, 2024.
November 6, 2024	Tulita District Land Corporation	Email	Email recommended affected party to include for engagement. Requested project area maps.
November 6, 2024	Tulita District Land Corporation	Email	Emailed confirm that identified party will be invited to engage and project area maps to be provided.
November 6, 2024	Tulita District Land Corporation	Email	Email confirmed the confirmation of the maps. Confirmed attendance for November 12, 2024 virtual information session.

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December 5, 2024

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November 12, 2024	Tulita District Land Corporation	Virtual Information Session	Discussed the issue of a local cabin.
November 12, 2024	Tulita District Land Corporation	Virtual Information Session	Discussed communication issues.
November 12, 2024	Tulita District Land Corporation	Virtual Information Session	Requested to be added as one of GNWT-INF's contacts for ongoing communication.
November 12, 2024	Tulita District Land Corporation	Virtual Information Session	Requested copy of presentation
November 13, 2024	Tulita District Land Corporation	Email	Emailed copy of virtual information presentation.
November 13, 2024	Tulita District Land Corporation	Email	Shared updated that the maps are in progress as requested.
November 14, 2024	Tulita District Land Corporation	Email	Emailed a KMZ file and a PDF mapbook as requested.
November 1, 2024	Tulita Land Corporation	Email	Emailed a notification package and an invitation to engage. Feedback was requested by November 15, 2024.
November 1, 2024	Tulita Land Corporation	Email	Emailed a notification package and an invitation to engage. Feedback was requested by November 15, 2024.
November 4, 2024	Tulita Land Corporation	Email	Resent the notification package with the correct email address.
October 22, 2024	Tulita Renewable Resource Council	Phone Call	Requesting assistance to identify affected parties for engagement.
October 22, 2024	Tulita Renewable Resource Council	Phone Call	Recommended parties to include in the upcoming engagement
November 1, 2024	Tulita Renewable Resource Council	Email	Emailed a notification package and an invitation to engage. Feedback was requested by November 15, 2024.

Appendix D Engagement Log Follow-up

Engagement Log Follow-up
December 5, 2024

Date	Affected Party	Engagement Activity	Subject
December 16, 2024	Dehcho First Nations	Phone Call	Dehcho First Nations confirmed the notification and invitation to engage was received. K'alo-Stantec confirmed PKFN and LKFN participated in engagement. Dehcho First Nations explained they typically only participate if their communities are unable to.
December 16, 2024	Fort Norman Metis	Phone Call	K'alo-Stantec left a message following up on the notification package and offering a meeting to discuss any questions or concerns about the proposed activities.
December 16, 2024	Fort Norman Metis	Email	K'alo-Stantec sent a follow up email to confirm receipt of notification package and offer a meeting to discuss any questions or concerns with the proposed activities.
December 17, 2024	Fort Norman Metis	Phone Call	Fort Norman Metis requested that the information be resent.
December 17, 2024	Fort Norman Metis	Email	K'alo-Stantec resent the notification package, requested feedback, and offered to meet to discuss the proposed activities.
December 16, 2024	Fort Simpson Metis Nation	Phone Call	No answer.
December 16, 2024	Fort Simpson Metis Nation	Email	K'alo-Stantec sent a follow up email to confirm receipt of notification package and offer a meeting to discuss any questions or concerns with the proposed activities.
December 17, 2024	Fort Simpson Metis Nation	Phone Call	Fort Simpson Metis Nation stated they would add MVH Geotechnical Investigations to the agenda for this evening's board meeting.
December 18, 2024	Fort Simpson Metis Nation	Phone Call	K'alo-Stantec left a message to follow up whether the board had feedback or wanted to meet on the MVH Geotechnical Investigations.
December 16, 2024	Norman Wells Land Corporation	Phone Call	K'alo-Stantec left a message following up on the notification package and offering a meeting to discuss any questions or concerns about the proposed activities.
December 16, 2024	Norman Wells Land Corporation	Email	K'alo-Stantec sent a follow up email to confirm receipt of notification package and offer a meeting to discuss any questions or concerns with the proposed activities.
December 16, 2024	Norman Wells Land Corporation	Email	Norman Wells Land Corporation responded stating they received the notification package and do not have concerns at this time.
December 16, 2024	Norman Wells Renewable Resource Council	Phone Call	K'alo-Stantec left a message following up on the notification package and offering a meeting to discuss any questions or concerns about the proposed activities.
December 16, 2024	Norman Wells Renewable Resource Council	Email	K'alo-Stantec sent a follow up email to confirm receipt of notification package and offer a meeting to discuss any questions or concerns with the proposed activities.
December 17, 2024	Norman Wells Renewable Resource Council	Phone Call	K'alo-Stantec left a message to follow up on the notification package and request feedback on the proposed activities.

Engagement Log Follow-up
December 5, 2024

Date	Affected Party	Engagement Activity	Subject
December 16, 2024	Tulita Dene Band	Phone Call	K'alo-Stantec left a message following up on the notification package and offering a meeting to discuss any questions or concerns about the proposed activities.
December 16, 2024	Tulita Dene Band	Email	K'alo-Stantec sent a follow up email to confirm receipt of notification package and offer a meeting to discuss any questions or concerns with the proposed activities.
December 17, 2024	Tulita Dene Band	Phone Call	K'alo-Stantec left a message to follow up on the notification package and request feedback on the proposed activities.