## **Teck**

# Public Engagement Plan Water Licence MV2006L2-0013

Pine Point Operations, NT Teck Metals Ltd.



## Public Engagement Plan Water Licence MV2006L2-0013

August 2017

#### Prepared by

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File Name: PublicEngagementPlan\_1CT008\_064\_mwl\_20170818\_FNL

## **Document Control**

Revision No	Date	Details	Author
1.0	May 2017	Initial Engagement Plan	SRK
2.0	August 2017	Final Engagement Plan	SRK

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#### 1 Introduction

Teck Metals Ltd.'s (Teck) water licence, MV2006L2-0013, authorizes discharge of treated runoff from the tailings impoundment area at the former Pine Point mine site, about 13 km from the south shore of Great Slave Lake, NT. There is no water use associated with this license, as the mine closed in 1988. The current water licence expires October 28, 2017 and Teck seeks to renew the licence to continue to treat and discharge natural precipitation that accumulates in the impoundment area during the open-water season. Prior to discharging, the water is treated with lime and settled to reduce zinc concentrations to meet discharge criteria established in the water licence.

This plan identifies the engagement activities for each of the affected parties. The engagement plans are customized for each affected party to reflect the varied interests of the stakeholder groups. The engagement plans allow for the signatures of a representative of the affected party to acknowledge that the plan has been discussed and that the approach outlined was considered satisfactory at that time. Teck will update the engagement plans occasionally to reflect feedback received from the affected parties and the Mackenzie Valley Land and Water Board (MVLWB).

#### 2 Goals

The goals of the engagement plans are to:

- To continue to develop cooperative working relationships with stakeholders operating in the immediate area;
- To communicate with affected parties the scope of the project and the renewal application;
- To hear meaningful feedback from stakeholders; and
- To consider the suggestions and interests and where possible, accommodate the concerns of stakeholders.

## 3 Potentially Affected Parties

Potentially affected parties of Teck Pine Point Operations at the tailings impoundment include Aboriginal organizations/governments, nearby communities and other commercial operations in the area. The distribution list includes communities within the Hay River and Fort Resolution areas. Stakeholders in these areas were contacted during the 2006/2007 water licence renewal as recorded on the engagement summary included as Appendix B. Previous engagement of these stakeholders included their participation in public hearings held as part of water licencing renewal activities for mining, milling and the final closure. Previous engagement activities have allowed Teck to determine that the list of potentially affected parties can be divided into two groups of stakeholders. The first group consists of the stakeholders Teck received responses and inquiries from during previous engagement activities and the second group consists of stakeholder communities who were happy to receive information on the project but choose not to reply with any concerns or inquiries. As illustrated in Section 4, Teck is proposing to provide written notification of our desire to renew the Pine Point Water License MV2006L2-0013 to the

latter group of stakeholder communities and the former group of stakeholders, who have demonstrated a higher level of interest in the project, will be engaged through written communication as well as through the use of public meetings in Fort Resolution and Hay River. The public meetings will be inclusive of all residents (First Nation, Métis and other residents) residing in the communities. The list of potentially affected parties are as follows:

- Deninu K'ue First Nations
- Fort Resolution Métis Council
- Fort Resolution Settlement Corporation
- Town of Hay River
- Hay River Métis Government Council
- K'atl'Odeeche First Nation
- West Point First Nation
- Northwest Territories Métis Nation
- NWT Treaty #8 Tribal Corporation
- Dehcho First Nation
- Salt River First Nation

In addition, stakeholders in the area also include Darnley Bay Resources, who hold mineral claims and leases in the area.

## 4 Engagement Plans

#### 4.1 Deninu K'ue First Nations Engagement Plan

Name of Proponent: <u>Teck Metals Ltd., Pine Point Operations</u>

Name of Affected Party: <u>Deninu K'ue First Nations</u>18

When will you be engaging?	What is the purpose for engaging?	Who will be engaged at each of these stages?	How will you engage?
What is the trigger for engagement? Triggers may be regulatory (e.g., renewals, amendments, assignments) and/or project-based (e.g., determining drill locations, changes in project design, updates to a particular plan, etc.)	In relation to the trigger, what will you be discussing (e.g., updates to design or plans, etc.)?	The people engaged at each stage may vary depending on what is being discussed.	Which engagement methods will be used (e.g., written notification, face-to-face meetings, community public meeting)?
Pre-submission of the Renewal Application for Water Licence	To inform the Deninu K'ue of the renewal application and the activities licenced by the MVLWB.	<ol> <li>Chief</li> <li>Chief and council,         <ul> <li>Land and</li> <li>Environment</li> <li>Committee and staff and Elders</li> </ul> </li> <li>Band members</li> </ol>	<ol> <li>Written notification.</li> <li>Face-to-face meeting with Chief and Council.</li> <li>Community public meeting.</li> </ol>
Submission of Renewal Application for Water Licence	Application will be circulated for public review and comment by the MVLWB.	Proponents identified by the MVLWB	Dissemination of information through the MVLWB process
Annually provide update on the surveillance network program, results of inspections and a summary of work carried out	To keep the Deninu K'ue informed about the activities undertaken at the site.	Chief	Email of Annual Report directly to the Deninu K'ue.

Signature of Proponent (representative):	Mlliger
Signature of Affected Party (representative): 1	19

<sup>&</sup>lt;sup>18</sup> One engagement plan must be completed for each affected party.

<sup>&</sup>lt;sup>19</sup> These signatures represent agreement on the contents of the log and record, but do not necessarily imply that the parties agree on the topics that were discussed.

### 4.2 Fort Resolution Métis Council Engagement Plan

Name of Proponent: <u>Teck Metals Ltd., Pine Point Operations</u>
Name of Affected Party: <u>Fort Resolution Métis Council</u>18

When will you be engaging?	What is the purpose for engaging?	Who will be engaged at each of these stages?	How will you engage?
What is the trigger for engagement? Triggers may be regulatory (e.g., renewals, amendments, assignments) and/or project-based (e.g., determining drill locations, changes in project design, updates to a particular plan, etc.)	In relation to the trigger, what will you be discussing (e.g., updates to design or plans, etc.)?	The people engaged at each stage may vary depending on what is being discussed.	Which engagement methods will be used? See Appendix A for best practices (e.g., written notification, face-to-face meetings, community public meeting)
Pre-submission of the Renewal Application for Water Licence	To inform the Fort Resolution Métis Council of the renewal application and the activities licenced by the MVLWB.	<ol> <li>Community President</li> <li>Community Directors</li> <li>Métis Citizens</li> </ol>	<ol> <li>Written notification.</li> <li>Community public meeting.</li> </ol>
Submission of Renewal Application for Water Licence	Application will be circulated for public review and comment by the MVLWB.	Proponents identified by the MVLWB	Dissemination of information through the MVLWB process
Annually provide update on the surveillance network program, results of inspections and a summary of work carried out	To keep the Fort Resolution Métis Council informed about the activities undertaken at the site.	President	Email of Annual Report directly to the Fort Resolution Métis Council.

Signature of Proponent (representative):	Millinger	
Signature of Affected Party (representative	e): <sup>19</sup>	
Signature of Affected Party (representative	e): <sup>19</sup>	

<sup>&</sup>lt;sup>18</sup> One engagement plan must be completed for each affected party.

<sup>&</sup>lt;sup>19</sup> These signatures represent agreement on the contents of the log and record, but do not necessarily imply that the parties agree on the topics that were discussed.

#### 4.3 Fort Resolution Settlement Corporation Engagement Plan

Name of Proponent: <u>Teck Metals Ltd., Pine Point Operations</u>

Name of Affected Party: <u>Hamlet of Fort Resolution</u><sup>18</sup>

When will you be engaging?	What is the purpose for engaging?	Who will be engaged at each of these stages?	How will you engage?
What is the trigger for engagement? Triggers may be regulatory (e.g., renewals, amendments, assignments) and/or project-based (e.g., determining drill locations, changes in project design, updates to a particular plan, etc.)	In relation to the trigger, what will you be discussing (e.g., updates to design or plans, etc.)?	The people engaged at each stage may vary depending on what is being discussed.	Which engagement methods will be used? See Appendix A for best practices (e.g., written notification, face-to-face meetings, community public meeting)
Pre-submission of the Renewal Application for Water Licence	To inform the Hamlet of Fort Resolution of the renewal application and the activities licenced by the MVLWB.	<ol> <li>Mayor</li> <li>Councillors and SAO</li> <li>General public</li> </ol>	Written notification.     Community public meeting.
Submission of Renewal Application for Water Licence	Application will be circulated for public review and comment by the MVLWB.	Proponents identified by the MVLWB	Dissemination of information through the MVLWB process

Signature of Proponent (representative):	Milliger	
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Signature of Affected Party (representative	e): <sup>19</sup>	

<sup>&</sup>lt;sup>18</sup> One engagement plan must be completed for each affected party.

<sup>&</sup>lt;sup>19</sup> These signatures represent agreement on the contents of the log and record, but do not necessarily imply that the parties agree on the topics that were discussed.

#### 4.4 Town of Hay River Engagement Plan

Name of Proponent: <u>Teck Metals Ltd., Pine Point Operations</u>

Name of Affected Party: Town of Hay River<sup>18</sup>

When will you be engaging?	What is the purpose for engaging?	Who will be engaged at each of these stages?	How will you engage?
What is the trigger for engagement? Triggers may be regulatory (e.g., renewals, amendments, assignments) and/ or project-based (e.g., determining drill locations, changes in project design, updates to a particular plan, etc.)	In relation to the trigger, what will you be discussing (e.g., updates to design or plans, etc.)?	The people engaged at each stage may vary depending on what is being discussed.	Which engagement methods will be used? See Appendix A for best practices (e.g., written notification, face-to-face meetings, community public meeting)
Pre-submission of the Renewal Application for Water Licence	To inform the Town of Hay River of the renewal application and the activities licenced by the MVLWB.	Mayor     Councillors and SAO     General public	Written notification.     Meet with Mayor and Council at locally televised Council meeting.
Submission of Renewal Application for Water Licence	Application will be circulated for public review and comment by the MVLWB.	Proponents identified by the MVLWB	Dissemination of information through the MVLWB process

Signature of Proponent (representative):	Millinger	
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Signature of Affected Party (representative	e): <sup>19</sup>	

<sup>&</sup>lt;sup>18</sup> One engagement plan must be completed for each affected party.

<sup>&</sup>lt;sup>19</sup> These signatures represent agreement on the contents of the log and record, but do not necessarily imply that the parties agree on the topics that were discussed.

### 4.5 K'atl'Odeeche First Nation Engagement Plan

Name of Proponent: <u>Teck Metals Ltd., Pine Point Operations</u>

Name of Affected Party: K'atl'Odeeche First Nation 18

When will you be engaging?	What is the purpose for engaging?	Who will be engaged at each of these stages?	How will you engage?
What is the trigger for engagement? Triggers may be regulatory (e.g., renewals, amendments, assignments) and/or project-based (e.g., determining drill locations, changes in project design, updates to a particular plan, etc.)	In relation to the trigger, what will you be discussing (e.g., updates to design or plans, etc.)?	The people engaged at each stage may vary depending on what is being discussed.	Which engagement methods will be used? See Appendix A for best practices (e.g., written notification, face-to-face meetings, community public meeting)
Pre-submission of the Renewal Application for Water Licence	To inform the K'atl'Odeeche of the renewal application and the activities licenced by the MVLWB.	Chief     Band members	Written notification.     Face to face meeting with Chief and Director of Lands and negotiations .
Submission of Renewal Application for Water Licence	Application will be circulated for public review and comment by the MVLWB.	Proponents identified by the MVLWB	Dissemination of information through the MVLWB process

Signature of Proponent (representative):	Millinger	
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Signature of Affected Party (representative	): <sup>19</sup>	

<sup>&</sup>lt;sup>18</sup> One engagement plan must be completed for each affected party.

<sup>&</sup>lt;sup>19</sup> These signatures represent agreement on the contents of the log and record, but do not necessarily imply that the parties agree on the topics that were discussed.

#### 4.6 West Point First Nation Engagement Plan

Name of Proponent: <u>Teck Metals Ltd., Pine Point Operations</u>

Name of Affected Party: West Point First Nation<sup>18</sup>

When will you be engaging?	What is the purpose for engaging?	Who will be engaged at each of these stages?	How will you engage?
What is the trigger for engagement? Triggers may be regulatory (e.g., renewals, amendments, assignments) and/or project-based (e.g., determining drill locations, changes in project design, updates to a particular plan, etc.)	In relation to the trigger, what will you be discussing (e.g., updates to design or plans, etc.)?	The people engaged at each stage may vary depending on what is being discussed.	Which engagement methods will be used? See Appendix A for best practices (e.g., written notification, face-to-face meetings, community public meeting)
Pre-submission of the Renewal Application for Water Licence	To inform the West Point of the renewal application and the activities licenced by the MVLWB.	Chief     Band members	Written notification.     Community public meeting if requested.
Submission of Renewal Application for Water Licence	Application will be circulated for public review and comment by the MVLWB.	Proponents identified by the MVLWB	Dissemination of information through the MVLWB process

Signature of Proponent (representative):	Munger	
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Signature of Affected Party (representative	e): <sup>19</sup>	

<sup>&</sup>lt;sup>18</sup> One engagement plan must be completed for each affected party.

<sup>&</sup>lt;sup>19</sup> These signatures represent agreement on the contents of the log and record, but do not necessarily imply that the parties agree on the topics that were discussed.

#### 4.7 Hay River Métis Council Engagement Plan

Name of Proponent: <u>Teck Metals Ltd., Pine Point Operations</u>

Name of Affected Party: Hay River Métis Council<sup>18</sup>

When will you be engaging?	What is the purpose for engaging?	Who will be engaged at each of these stages?	How will you engage?
What is the trigger for engagement? Triggers may be regulatory (e.g., renewals, amendments, assignments) and/or project-based (e.g., determining drill locations, changes in project design, updates to a particular plan, etc.)	In relation to the trigger, what will you be discussing (e.g., updates to design or plans, etc.)?	The people engaged at each stage may vary depending on what is being discussed.	Which engagement methods will be used? See Appendix A for best practices (e.g., written notification, face-to-face meetings, community public meeting)
Pre-submission of the Renewal Application for Water Licence	To inform the Fort Resolution Métis Council of the renewal application and the activities licenced by the MVLWB.	<ol> <li>Community President</li> <li>Métis Citizens</li> </ol>	Written notification.     Community public meeting if requested.
Submission of Renewal Application for Water Licence	Application will be circulated for public review and comment by the MVLWB.	Proponents identified by the MVLWB	Dissemination of information through the MVLWB process
Annually provide update on the surveillance network program, results of inspections and a summary of work carried out	To keep the Fort Resolution Métis Council informed about the activities undertaken at the site.	President	Email of Annual Report directly to the Fort Resolution Métis Council.

Signature of Proponent (representative):	Millinger	
Signature of Affected Party (representative	e): <sup>19</sup>	

<sup>&</sup>lt;sup>18</sup> One engagement plan must be completed for each affected party.

<sup>&</sup>lt;sup>19</sup> These signatures represent agreement on the contents of the log and record, but do not necessarily imply that the parties agree on the topics that were discussed.

### 4.8 Northwest Territories Métis Nation Engagement Plan

Name of Proponent: <u>Teck Metals Ltd., Pine Point Operations</u>
Name of Affected Party: <u>Northwest Territories Métis Nation</u><sup>18</sup>

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When will you be engaging?	What is the purpose for engaging?	Who will be engaged at each of these stages?	How will you engage?
What is the trigger for engagement? Triggers may be regulatory (e.g., renewals, amendments, assignments) and/or project-based (e.g., determining drill locations, changes in project design, updates to a particular plan, etc.)	In relation to the trigger, what will you be discussing (e.g., updates to design or plans, etc.)?	The people engaged at each stage may vary depending on what is being discussed.	Which engagement methods will be used? See Appendix A for best practices (e.g., written notification, face-to-face meetings, community public meeting)
Pre-submission of the Renewal Application for Water Licence	To inform the Northwest Territories Métis Nation of the renewal application and the activities licenced by the MVLWB. To inform the Northwest Territories Métis Nation that the Fort Resolution and Hay River Métis councils have been contacted directly.	Northwest Territories Métis Nation Land and Resources Manager	Written notification.     Public meeting in Fort Resolution.
Submission of Renewal Application for Water Licence	Application will be circulated for public review and comment by the MVLWB.	Proponents identified by the MVLWB	Dissemination of information through the MVLWB process

Signature of Proponent (representative):	Millinger	
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Signature of Affected Party (representative	e): <sup>19</sup>	

<sup>&</sup>lt;sup>18</sup> One engagement plan must be completed for each affected party.

<sup>&</sup>lt;sup>19</sup> These signatures represent agreement on the contents of the log and record, but do not necessarily imply that the parties agree on the topics that were discussed.

## 4.9 NWT Treaty #8 Tribal Corporation Engagement Plan

Name of Proponent: <u>Teck Metals Ltd., Pine Point Operations</u>
Name of Affected Party: <u>NWT Treaty #8 Tribal Corporation<sup>18</sup></u>

		How will you engage?
In relation to the trigger, what will you be discussing (e.g., updates to design or plans, etc.)?	The people engaged at each stage may vary depending on what is being discussed.	Which engagement methods will be used? See Appendix A for best practices (e.g., written notification, face-to-face meetings, community public meeting)
To inform the NWT Treaty #8 Tribal Council of the renewal application and the activities licenced by the MVLWB. To inform the NWT Treaty #8 Tribal Council that its member community, the Deninu K'ue First Nation, has be contacted directly.	Akaitcho Interim Measures Agreement Implementation Office	Written notification.
Application will be circulated for public review and comment by the MVLWB.	Proponents identified by the MVLWB	Dissemination of information through the MVLWB process
	engaging?  In relation to the trigger, what will you be discussing (e.g., updates to design or plans, etc.)?  To inform the NWT Treaty #8 Tribal Council of the renewal application and the activities licenced by the MVLWB. To inform the NWT Treaty #8 Tribal Council that its member community, the Deninu K'ue First Nation, has be contacted directly.  Application will be circulated for public review and comment by	engaging?  In relation to the trigger, what will you be discussing (e.g., updates to design or plans, etc.)?  To inform the NWT Treaty #8 Tribal Council of the renewal application and the activities licenced by the MVLWB. To inform the NWT Treaty #8 Tribal Council that its member community, the Deninu K'ue First Nation, has be contacted directly.  Application will be circulated for public review and comment by

Signature of Proponent (representative):	Millinger	
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Signature of Affected Party (representative	e): <sup>19</sup>	

<sup>&</sup>lt;sup>18</sup> One engagement plan must be completed for each affected party.

<sup>&</sup>lt;sup>19</sup> These signatures represent agreement on the contents of the log and record, but do not necessarily imply that the parties agree on the topics that were discussed.

### 4.10 Dehcho First Nations Engagement Plan

Name of Proponent: <u>Teck Metals Ltd., Pine Point Operations</u>

Name of Affected Party: Dehcho First Nations<sup>18</sup>

When will you be engaging?	What is the purpose for engaging?	Who will be engaged at each of these stages?	How will you engage?
What is the trigger for engagement? Triggers may be regulatory (e.g., renewals, amendments, assignments) and/or project-based (e.g., determining drill locations, changes in project design, updates to a particular plan, etc.)	In relation to the trigger, what will you be discussing (e.g., updates to design or plans, etc.)?	The people engaged at each stage may vary depending on what is being discussed.	Which engagement methods will be used? See Appendix A for best practices (e.g., written notification, face-to-face meetings, community public meeting)
Pre-submission of the Renewal Application for Water Licence	To inform the Dehcho First Nations of the renewal application and the activities licenced by the MVLWB. To inform the Dehcho First Nations that its member communities, the K'atl'Odeeche First Nation and the West Point First Nation, has be contacted directly.	Grand Chief	Written notification.
Submission of Renewal Application for Water Licence	Application will be circulated for public review and comment by the MVLWB.	Proponents identified by the MVLWB	Dissemination of information through the MVLWB process

Signature of Proponent (representative):	Millinger	
Signature of Affected Party (representative	): <sup>19</sup>	

<sup>&</sup>lt;sup>18</sup> One engagement plan must be completed for each affected party.

<sup>&</sup>lt;sup>19</sup> These signatures represent agreement on the contents of the log and record, but do not necessarily imply that the parties agree on the topics that were discussed.

## 5 Engagement Record

Teck's stakeholder engagement plan was initiated on May 19, 2017 and ran through to August 17, 2017. As documented above the engagement plan included 11 different groups of stakeholders and included telephone, email, written notification, face to face meetings by invitation of the stakeholders and public meetings.

Appendix A of this document contains a complete record of all engagement activities completed in support of this license renewal. These records are provided in the following sections of the appendix:

Appendix A1 – Engagement Record Summary: This summary provides a chronological record of all engagement activities completed.

Appendix A2 – Written Notification: This section contains a copy of all 11 written notifications that were emailed to the potentially affected parties.

Appendix A3 – Stakeholder Meeting Records of Discussion: This section contains meeting minutes of each of the six in person meetings held with stakeholders between July 11, 2017 and July 13, 2017. It also contains copies of sign in sheets for three of these meetings as well as a copy of the project presentation provided at each of these engagements. These records of discussion were emailed back to each of the community based stakeholder groups.

Appendix B of this document includes a record of the 2006/2007 Engagement Record Summary

## 6 References

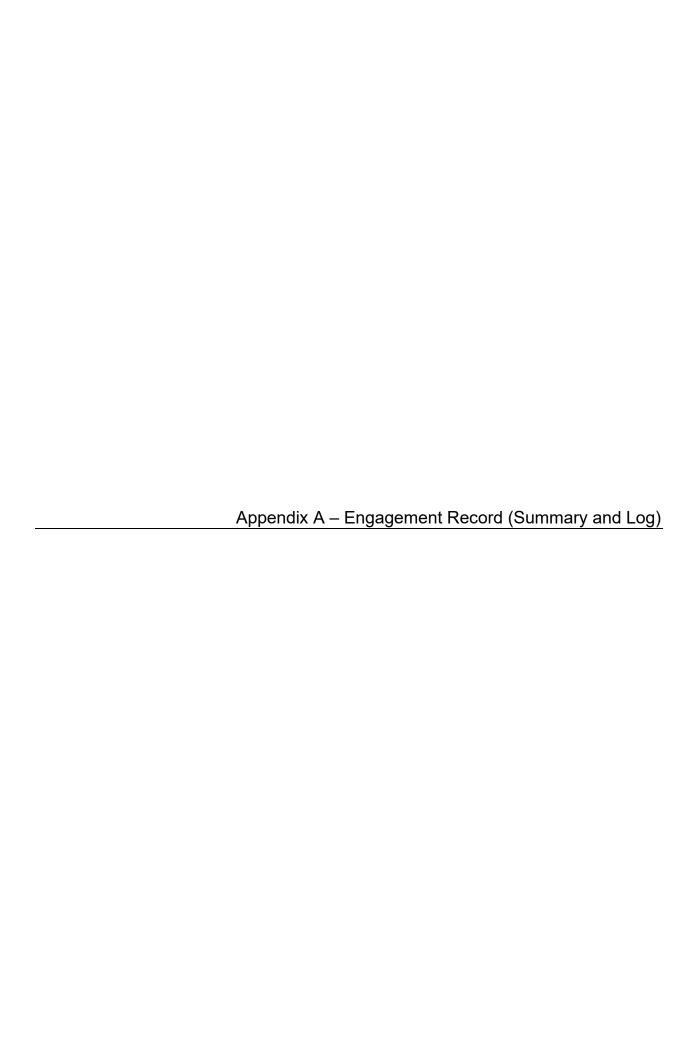
Akaitcho Interim Measures Agreement Implementation Office, NWT Treaty #8 Tribal Corporation.

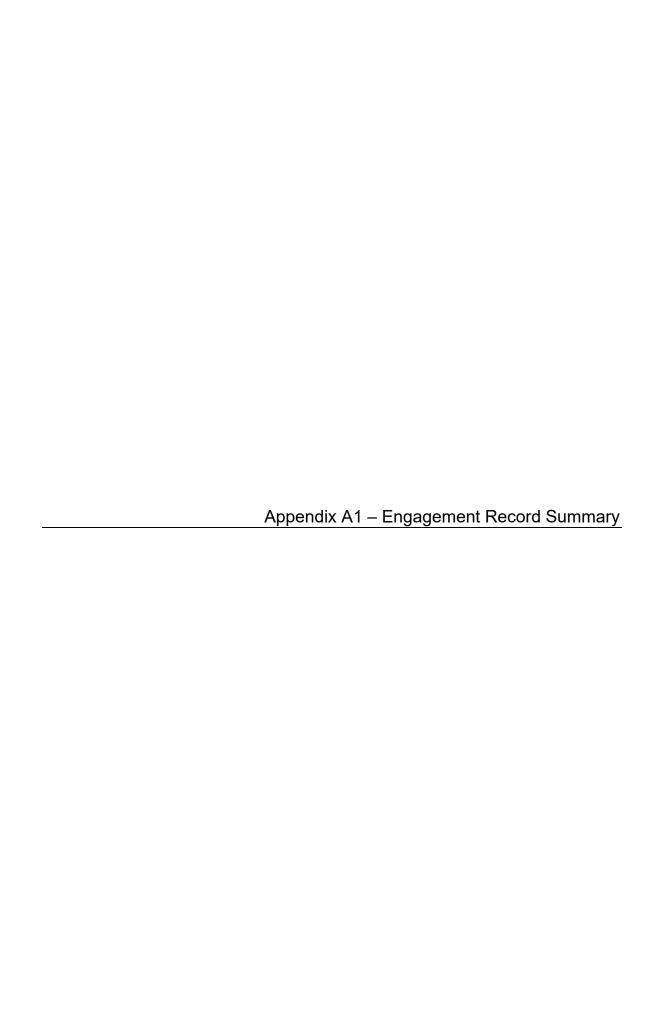
Guidelines for Mineral Exploration Companies Seeking to Engage the Akaitcho Dene
First Nations.

Mackenzie Valley Land and Water Board. 2013. Engagement and Consultation Policy.

Mackenzie Valley Land and Water Board. 2013, updated 2014. Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits.

Northwest Territories Métis Nation Engagement Policy. 2016. <a href="http://nwtmetisnation.ca/wp-content/uploads/2016/02/engagementPolicy.pdf">http://nwtmetisnation.ca/wp-content/uploads/2016/02/engagementPolicy.pdf</a>.





Appendix A1: Engagement Record Summary

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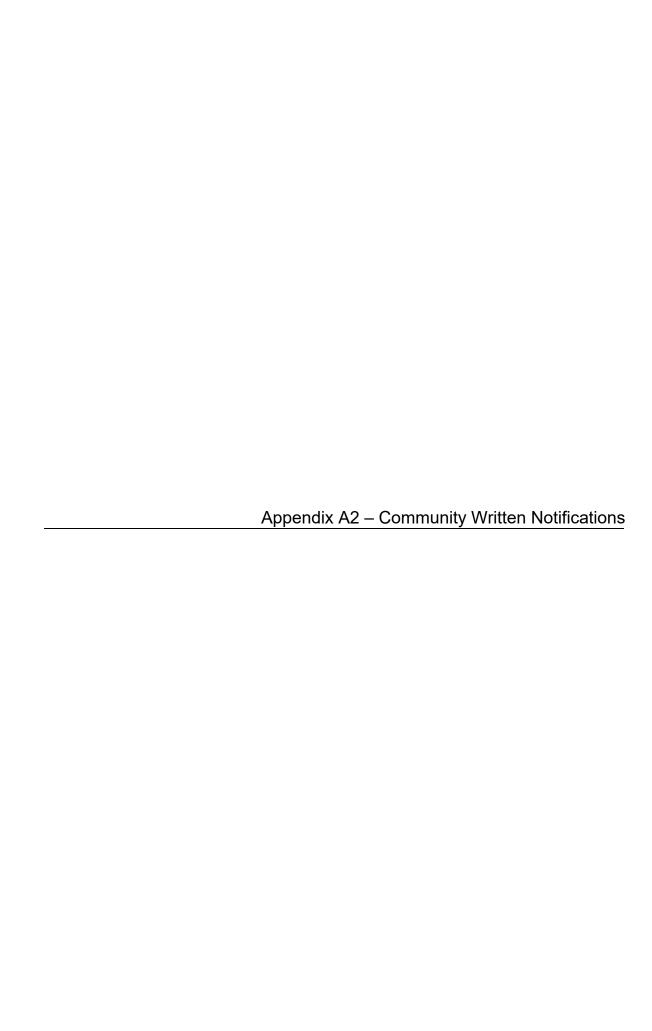
#### Teck Pine Point Water License MV2006L2-0013 Renewal - Engagement Registry

Date	Stakeholder	Form of Engagement	Contact	Comments
May 19/17	MVLWB	Telephone	867-669-0506	Didn't speak with anyone, left message for return call
May 25/17	MVLWB	Telephone	867-669-0506 ext 453	Spoke to Julian Morse. Informed him that a draft application along with engagement plan and contingency plan will be submitted for their review prior to June 2nd.
May 25/17	Dehcho First Nations	emailed written notice	herb_norwegian@dehcho.org; receptionist@dehcho.org	emailed a written notice to Chief Norwegian
May 25/17	Deninu K'ue First Nation	emailed written notice	admin_dkfn@northwestel.net; imadenegurl@hotmail.com;	emailed a written notice to Chief Louis Balsillie. Note: email addressed to imadenegurl@hotmail.com was returned as undeliverable
May 25/17	Fort Resolution Metis Council	emailed written notice	frmcpresident@northwestel.net	emailed a written notice to Arthur Beck
May 25/17	Hamlet of Fort Resolution	emailed written notice	tausia.sao@gmail.com	emailed a written notice to Mr. Garry Bailey care of Ms. Tausia Kaitu'u-Lal
May 25/17	Hay River Metis Nation	emailed written notice	hrmcpresident@northwestel.net	emailed a written notice to Trevor Beck
May 25/17	K'atl'Odeeche First Nation	emailed written notice	kfnchief@katlodeeche.com	emailed written notice to Chief Roy Fabian
May 25/17	Northwest territories Metis Nation	emailed written notice	rcc.nwtmn@northwestel.net	emailed written notice to Tim Heron
May 25/17	NWT Treaty 8 Tribal Corporation Akaitcho Screening Committee	emailed written notice	screeningofficer@eastarm.com	emailed written notice, addressed to To Whom it may concern
May 25/17	Town of Hay River	emailed written notice	sao@hayriver.com	emailed written notice to Mr. Mapes care of Ms. Judy Goucher
May 25/17	West Point First Nations	emailed written notice	wpfn@northwestel.net	emailed written notice to Chief Courtney Cayen
May 26/17	NWT Metis Nation	telephone	867-872-2722	Tim Heron contacted SRK seeking additional clarity with respect to the extent of the water license. i.e. does it overlap at all with Darmley Bay. Tim was looking for this information to better inform his membership. SRK informed Tim that a meeting will be held at Fort Resolution and Hay River with the tentative date scheduled for July 4 -July 7, 2017.
May 26/17	Katl'odeeche First Nation	emailed reply	landdirector@katlodeeche.com	Peter Redvers replied via email requesting a meeting on the KFN Reserve, looking for an overview presentation focused on the nature and extent of the tailings and the nature and scope of remediation work being completed.
June 5/17	Fort Resolution Metis Council	emailed reply	frmcenvironment@northwestel.net	Shawn Mckay replied to the engagement notification and requested additional information regarding the water license renewal, specifically he requested a copy of the existing water licences MV2006L2-0013 an land lease. The Restoration and Abandonment Plan, Annual SNP Reports and any other Management Plans associated with the WL and LUP as well as a community meeting. They are also interested in meeting with Teck's Metals Ltd. Management group.
June 7/17	Darnley Bay Resources Limited	emailed written notice	dbr@darnleybay.com	emailed written notice to Mr. Jamie Levy (president and CEO)
June 9/17	Deninu K'ue First Nation	Telephone	Rosy Bjornson 867-394-4335	Called Rosie to follow up on the written notice. Requested the opportunity to come to Fort Resolution to make a presentation on the proposed license renewal. Rosie was going to check with the chief to see if July 4th was an acceptable day to have the meeting.
June 9/17	Deninu K'ue First Nation	email	ima@DKFN.ca	Following the telephone call with Rosie (?) the written notification emailed to Chief Balsillie on May 25/17 was forwarded to Rosie's attention.
June 14/17	Deninu K'ue First Nation	Telephone	Rosy Bjornson 867-394-4335	Follow up phone call to check to see if the meeting request for July 4th was acceptable to chief and council. Rosie indicated that council met tonight and we should receive notice from her via email June 15th.
June 16/17	MVLWB	email	Kierney Leach kleach@mvlwb.com	Received comments on the draft plan from Ms. Leach at the MVLWB
June 19/17	Darnley Bay Resources Limited	email	John Key <jkey@darnleybay.com></jkey@darnleybay.com>	Darnley Bay requested dates for the proposed engagement meetings in Fort Resolution and Hay River, in order that they may also attend the meetings.
June 19/17	Salt River First Nation	email	Chief Frieda Martselos chief.srfn@northwestel.net; Allen Stanzell ceo.srfn@northwestel.net	emailed written notification letter to Salt River First Nation
June 21/17	Deninu K'ue First Nation	email	Rosie Bjornson ima@DKFN.ca	emailed confirmation that the July 11/17 will work for a meeting with Chief and concil at noon, followed by a public meeting at 2:00 for members of Deninu K'ue, Fort Resolution Metis and the Hamlet of Fort Resolution.
June 22/17	Town of Hay River	phone	Judy Goucher, 867-874-6522	called to follow up with Town representatives on the likelyhood of holding a public meeting. Left message for Judy Goucher, Senior Administrative Office to call me back.
June 22/17	Town of Hay River	phone	Judy Goucher, 867-874-6522	Judy Goucher returned my call. Confirmed that we are scheduled to present at the Hay River Town Council meeting beginning at 6:30 pm on July 11/17. This meeting is televised on the local Television network. The agenda of the meeting is advertised in advance of the meeting date.

Appendix A1: Engagement Record Summary

Page 2 of 2

Date	Stakeholder	Form of Engagement	Contact	Comments
June 23/17	Katl'odeeche First Nation	phone/email	Peter Redvers,	Telephone conversation followed up with an email. Requesting a meeting with the KFN on Weds.
June 23/17	Kali odeeche First Nation	pnone/email	Landdirector@katlodeeche.com	July 12/17 to discuss the project and the renewal process.
June 23/17	Katl'odeeche First Nation	email	Peter Redvers, Landdirector@katlodeeche.com	Peter Redvers sent an email reply tentatively setting the meeting for 1:30 pm on July 12/17.
June 27/17	Northwest territories Metis Nation	email	rcc.nwtmn@northwestel.net	Notified Tim Heron that a public meeting had been scheduled for Fort Resolution for 2:00 pm July 11/17 and that Teck was also making a presentation to Mayor and council of Hay River at 7:00 pm also on the July 11/17 and that this meeting was televised on local TV.
June 27/17	Katl'odeeche First Nation	email	Peter Redvers, Landdirector@katlodeeche.com	Sent a follow up email to Peter Redvers asking for confirmation that the tentative date and time of 1:30 pm on July 12/17 will work for a meeting with the KFN.
June 27/17	Fort Resolution Metis Council	emailed reply	frmcenvironment@northwestel.net	Sent a reply email to Shawn McKay, environment Coordinator with the Fort Resolution Metis Council. The email provided the details for the Fort Resolution public meeting on July 11/17 and the link to the MVLWB public registry, where he can access all relevant files for the Pine Point Tailings Project. Attached to the email was a copy of the water license and the 2016 annual Water license report.
June 27/17	Katl'odeeche First Nation	email	Peter Redvers, Landdirector@katlodeeche.com	Peter sent a reply email confirming our meeting with the KFN at 1:30 pm on July 12/17.
June 27/17	Darnley Bay Resources Limited	email	John Key jkey@darnleybay.com	sent a reply email to John Key advising him of our meeting schedule for the week of July 11/17.
June 27/17	MVLWB	email	Kierney Leach kleach@mvlwb.com	requested a meeting with the Land and Water board for Thursday July 13/17 at 9:30 am
June 28/17	Katl'odeeche First Nation	phone	Peter Redvers, Landdirector@katlodeeche.com	called and left a message for Peter to call me in order that we can work out the logistics for the meeting scheduled for the 12th of July
June 28/17	Hay River Metis Nation	phone	Trevor Beck 867-874-4442	Following the advise of Tim Heron (NWT Metis Nation) a follow up phone call was made to Trevor Beck to further discuss the project and let him know of the upcoming public meetings.
June 28/17	Hamlet of Fort Resolution	email	tausia.sao@gmail.com	provided written notice that a public meeting was scheduled for July 11/17 in Fort Resolution.
June 28/17	Fort Resolution Metis Council	email	frmcpresident@northwestel.net	provided written notice that a public meeting was scheduled for July 11/17 in Fort Resolution.
June 28/17	Hay River Metis Nation	phone	Trevor Beck 867-874-4442	Left message with Receptionist for Trevor to call me to discuss the upcoming meetings
July 5/17	Katl'odeeche First Nation	phone	Peter Redvers, 867.874.6701	left voice mail on his office extension. Seeking details on who may be attending the meeting.
July 10/17	Katl'odeeche First Nation	phone	Peter Redvers, 867.874.6701	left message with main receptions asking Peter to call me back to discuss the details of the meeting.
July 27/17	Katl'odeeche First Nation	email	Peter Redvers, Landdirector@katlodeeche.com	sent the Engagement Plan form requesting it be signed and returned for inclusion in the water license renewal submission
July 27/17	Fort Resolution Metis Council	email	frmcpresident@northwestel.net	sent the Engagement Plan form requesting it be signed and returned for inclusion in the water license renewal submission
July 27/17	Northwest territories Metis Nation	email	rcc.nwtmn@northwestel.net	sent the Engagement Plan form requesting it be signed and returned for inclusion in the water license renewal submission
July 27/17	Deninu K'ue First Nation	email	Rosie Bjornson ima@DKFN.ca	sent the Engagement Plan form requesting it be signed and returned for inclusion in the water license renewal submission
July 27/17	Town of Hay River	phone	Judy Goucher, 867-874-6522	sent the Engagement Plan form requesting it be signed and returned for inclusion in the water license renewal submission
July 31/17	Northwest territories Metis Nation	email	rcc.nwtmn@northwestel.net	received an email request from Tim Heron requesting a copy of the Fort Resolution public meeting notes.
August 1/17	Katl'odeeche First Nation	email	Peter Redvers, Landdirector@katlodeeche.com	Received a a signed Engagement Plan for inclusion in the water license renewal application
August 17/17	Northwest territories Metis Nation	email	rcc.nwtmn@northwestel.net	Forwarded a copy of the Fort Resolution public meeting notes to Tim Heron
August 17/17	Town of Hay River	emailed	sao@hayriver.com	Forwarded a copy of the Hay River meeting notes to Judy Goucher for distribution to the meeting participants
August 17/17	Katl'odeeche First Nation	email	Peter Redvers, Landdirector@katlodeeche.com	Forwarded a copy of the KFN meeting notes to Peter Redvers
August 17/17	Deninu K'ue First Nation	email	Rosie Bjornson ima@DKFN.ca	Forwarded a copy of the DKFN meeting notes with Chief and Council as well as those from the public meeting to Rosy Bjornson for distribution
August 17/17	Fort Resolution Metis Council	email	frmcpresident@northwestel.net	Forwarded a copy of the Fort Resolution public meeting notes to Shawn McKay
August 17/17	Fort Resolution Metis Council	email	frmcpresident@northwestel.net	Forwarded a copy of the Fort Resolution public meeting notes to Arthur Beck



Teck Metals Ltd. Legacy Properties Bag 2000 Kimberley, BC V1A 3E1 +1 250 427 8422 Tel +1 250 427 8451 Fax www.teck.com

**Teck** 

May 25, 2017

Herb Norwegian Grand Chief Dehcho First Nations PO Box 89 Fort Simpson, NT, X0E 0N0

Dear Grand Chief Norwegian:

#### Re: Pine Point Tailings Impoundment Area - Renewal of Water Licence MV2006L2-0013

The purpose of this letter is to advise you that Teck Metals Ltd. (previously known as Cominco Ltd.) has begun preparing an application for the renewal of our existing Type B Water Licence for the tailings impoundment area of the former Pine Point Mine. The current Water Licence expires at the end of October 2017. It is important to note as shown in Figure 1, that this Water License renewal is not in any way associated with the work being undertaken by other mining and exploration companies in the area, notably Darnley Bay and Avalon.

Teck Metals Ltd. holds both a land lease and a water licence that covers the tailings impoundment area as shown on Figure 1. Other surface leases held by the former mine were surrendered back to the Crown when the mine closed and reclamation activities were completed (mid to late 1990s) in accordance with the Restoration and Abandonment Plan.

The land lease covers the area where Teck Metals Ltd. conducts annual water treatment of precipitation that accumulates in the tailings impoundment. The Water Licence regulates the monitoring and discharge of water from that tailings impoundment area. Each summer, excess water from precipitation that collects in the tailings impoundment area is released after being treated to reduce zinc concentrations. The quality of the water discharged is monitored to ensure that is complies with the water quality standards set out in the Water Licence.

We are planning to submit our licence renewal application to the Mackenzie Valley Land and Water Board (the Board) shortly and expect that the Board will be distributing copies of the application to you and other interested parties for review and comment.

We understand that the Dehcho First Nations remains interested in the status of the former Pine Point Mine site and ongoing post-closure and monitoring activities that are related to the treatment of water to ensure that the environment is protected. Therefore, we have contacted your local members, the K'atl'Odeechee First Nation and West Point First Nation, to invite them to meet with us in Hay River during an inclusive community meeting.

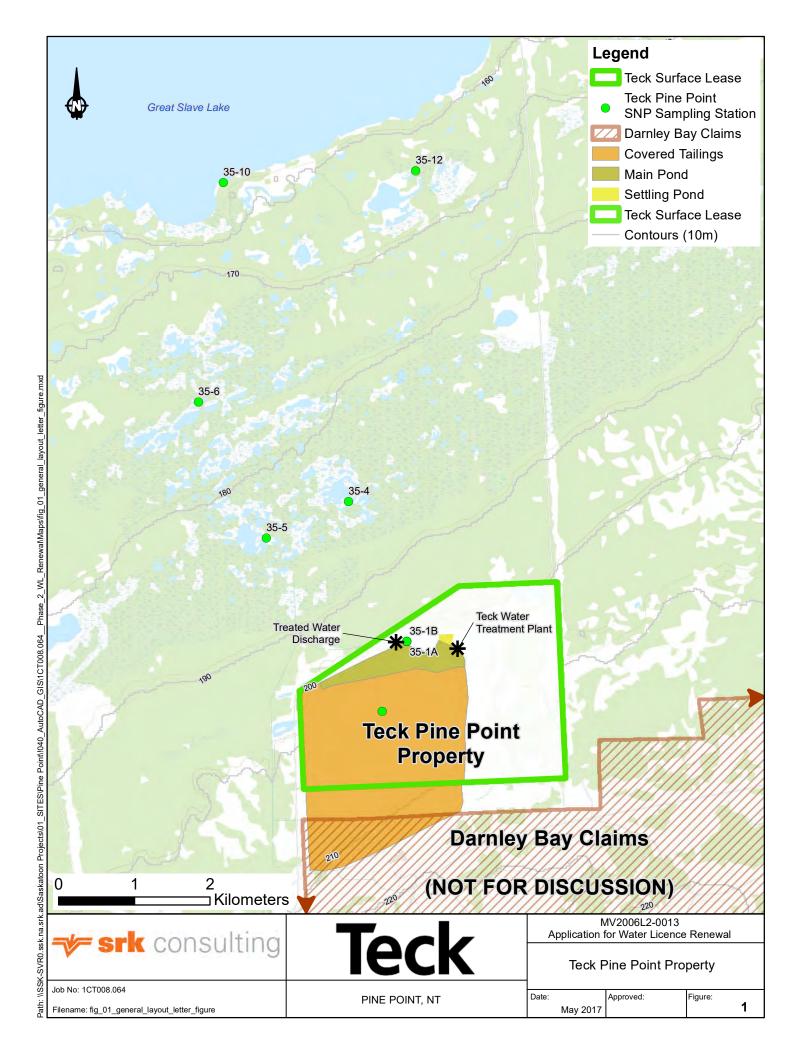
I respectfully ask that you contact Mark Liskowich with SRK Consulting who is assisting Teck with the arrangement of our community engagement. Mark can be reached at (306) 955 4799 or by email at <a href="mailto:mliskowich@srk.com">mliskowich@srk.com</a>.

We thank you for taking the time to consider this matter and look forward to meeting with you to discuss the Former Pine Point mine Type B Water License renewal.

Sincerely,

Michelle Unger, B.Sc., Manager, Environmental Compliance

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**Teck** 

May 25, 2017

Tim Heron Land and Resources Manager Northwest Territories Métis Nation Box 720 Fort Smith, NT X0E 0P0

Dear Mr. Heron:

#### Re: Pine Point Tailings Impoundment Area - Renewal of Water Licence MV2006L2-0013

The purpose of this letter is to advise you that Teck Metals Ltd. (previously known as Cominco Ltd.) has begun preparing an application for the renewal of our existing Type B Water Licence for the tailings impoundment area of the former Pine Point Mine. The current Water Licence expires at the end of October 2017. It is important to note as shown in Figure 1, that this Water License renewal is not in any way associated with the work being undertaken by other mining and exploration companies in the area, notably Darnley Bay and Avalon.

Teck Metals Ltd. holds both a land lease and a water licence that covers the tailings impoundment area as shown on Figure 1. Other surface leases held by the former mine were surrendered back to the Crown when the mine closed and reclamation activities were completed (mid to late 1990s) in accordance with the Restoration and Abandonment Plan.

The land lease covers the area where Teck Metals Ltd. conducts annual water treatment of precipitation that accumulates in the tailings impoundment. The Water Licence regulates the monitoring and discharge of water from that tailings impoundment area. Each summer, excess water from precipitation that collects in the tailings impoundment area is released after being treated to reduce zinc concentrations. The quality of the water discharged is monitored to ensure that is complies with the water quality standards set out in the Water Licence.

We are planning to submit our licence renewal application to the Mackenzie Valley Land and Water Board (the Board) shortly and expect that the Board will be distributing copies of the application to you and other interested parties for review and comment.

We understand that the Northwest Territories Métis Nation remains interested in the status of the former Pine Point Mine site and ongoing post-closure and monitoring activities that are related to the treatment of water to ensure that the environment is protected. Therefore, we have contacted your local members, the Northwest Territories Métis Nation to invite them to meet with us in Fort Resolution/Hay River during an inclusive community meeting.

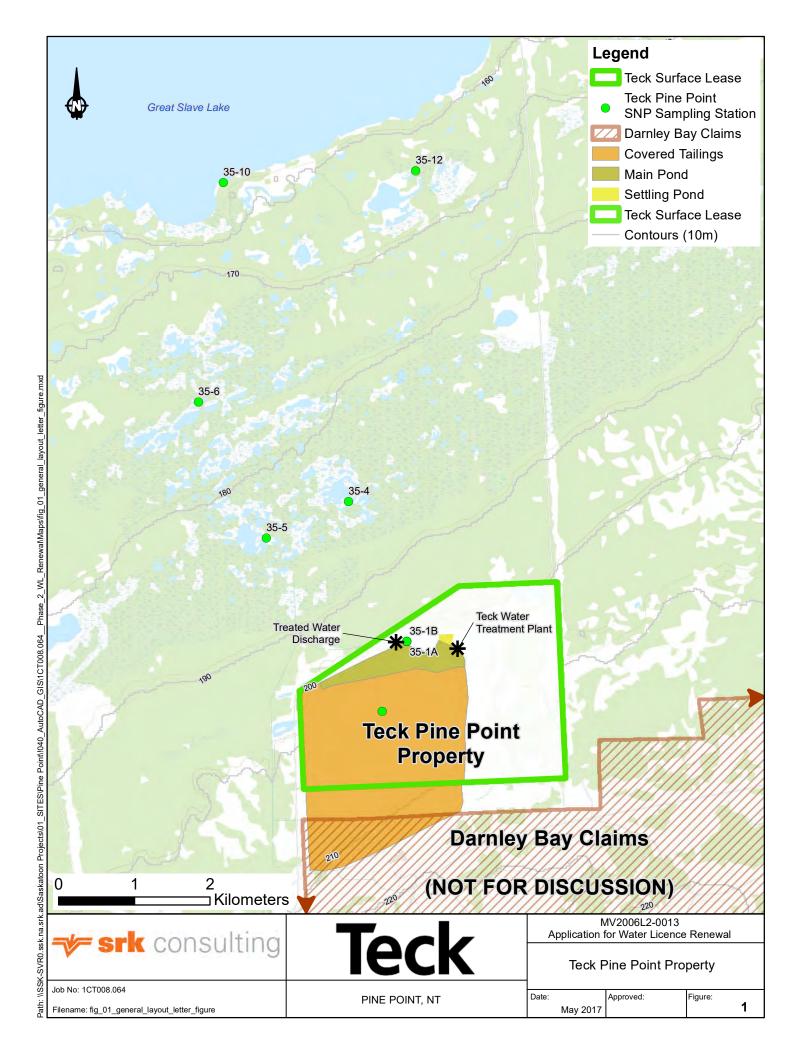
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We thank you for taking the time to consider this matter and look forward to meeting with you to discuss the Former Pine Point mine Type B Water License renewal.

Sincerely,

Michelle Unger, B.Sc., Manager, Environmental Compliance

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**Teck** 

May 25, 2017

NWT Treaty #8 Tribal Corporation Akaitcho Screening Committee Box 28 Lutselk'e, NT X0E 1A0

To Whom it may concern:

#### Re: Pine Point Tailings Impoundment Area - Renewal of Water Licence MV2006L2-0013

The purpose of this letter is to advise you that Teck Metals Ltd. (previously known as Cominco Ltd.) has begun preparing an application for the renewal of our existing Type B Water Licence for the tailings impoundment area of the former Pine Point Mine. The current Water Licence expires at the end of October 2017. It is important to note as shown in Figure 1, that this Water License renewal is not in any way associated with the work being undertaken by other mining and exploration companies in the area, notably Darnley Bay and Avalon.

Teck Metals Ltd. holds both a land lease and a water licence that covers the tailings impoundment area as shown on Figure 1. Other surface leases held by the former mine were surrendered back to the Crown when the mine closed and reclamation activities were completed (mid to late 1990s) in accordance with the Restoration and Abandonment Plan.

The land lease covers the area where Teck Metals Ltd. conducts annual water treatment of precipitation that accumulates in the tailings impoundment. The Water Licence regulates the monitoring and discharge of water from that tailings impoundment area. Each summer, excess water from precipitation that collects in the tailings impoundment area is released after being treated to reduce zinc concentrations. The quality of the water discharged is monitored to ensure that is complies with the water quality standards set out in the Water Licence.

We are planning to submit our licence renewal application to the Mackenzie Valley Land and Water Board (the Board) shortly and expect that the Board will be distributing copies of the application to you and other interested parties for review and comment.

We understand that the NWT Treaty #8 Tribal Corporation remains interested in the status of the former Pine Point Mine site and ongoing post-closure and monitoring activities that are related to the treatment of water to ensure that the environment is protected. Therefore, we have contacted your local members, the Deninu K'ue First Nation, to invite them to meet with us in Fort Resolution during an inclusive community meeting.

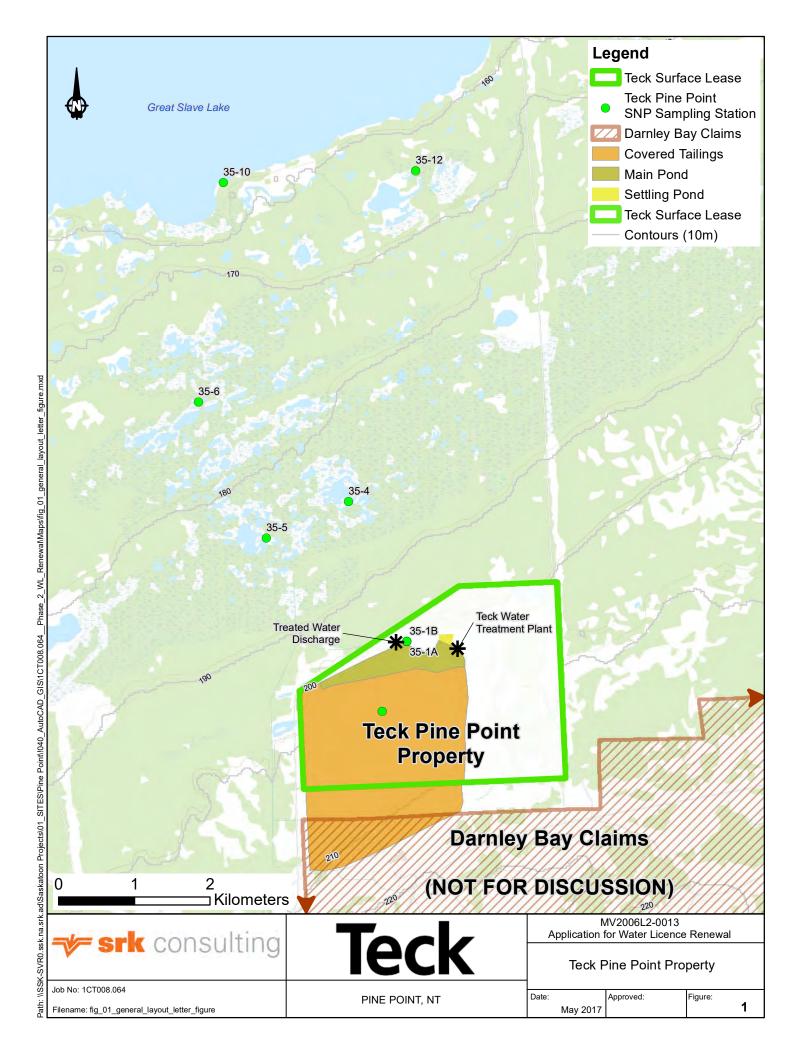
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We thank you for taking the time to consider this matter and look forward to meeting with you to discuss the Former Pine Point mine Type B Water License renewal.

Sincerely,

Michelle Unger, B.Sc., Manager, Environmental Compliance

Teck



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**Teck** 

May 25, 2017

Chief Louis Balsillie Deninu K'ue First Nations PO Box 279 Ft. Resolution, NT X0E 0M0

Dear Chief Louis Balsillie

#### Re: Pine Point Tailings Impoundment Area - Renewal of Water Licence MV2006L2-0013

The purpose of this letter is to advise you that Teck Metals Ltd. (previously known as Cominco Ltd.) has begun preparing an application for the renewal of our existing Type B Water Licence for the tailings impoundment area of the former Pine Point Mine. The current Water Licence expires at the end of October 2017. It is important to note as shown in Figure 1, that this Water License renewal is not in any way associated with the work being undertaken by other mining and exploration companies in the area, notably Darnley Bay and Avalon.

Teck Metals Ltd. holds both a land lease and a water licence that covers the tailings impoundment area as shown on Figure 1. Other surface leases held by the former mine were surrendered back to the Crown when the mine closed and reclamation activities were completed (mid to late 1990s) in accordance with the Restoration and Abandonment Plan.

The land lease covers the area where Teck Metals Ltd. conducts annual water treatment of precipitation that accumulates in the tailings impoundment. The Water Licence regulates the monitoring and discharge of water from that tailings impoundment area. Each summer, excess water from precipitation that collects in the tailings impoundment area is released after being treated to reduce zinc concentrations. The quality of the water discharged is monitored to ensure that is complies with the water quality standards set out in the Water Licence.

We are planning to submit our licence renewal application to the Mackenzie Valley Land and Water Board (the Board) shortly and expect that the Board will be distributing copies of the application to you and other interested parties for review and comment.

We understand that the Deninu K'ue First Nations remains interested in the status of the former Pine Point Mine site and ongoing post-closure and monitoring activities that are related to the treatment of water to ensure that the environment is protected. Therefore, we would like to meet with your council, staff and community members, to explain our activities and hear any questions or concerns related to our current and future water treatment activities associated with the former Pine Point mine and the Type B Water License renewal allowing us to continue these water treatment activities. It is our hope that we would be able to host a meeting in your community between July 4, 2017 and July 7, 2017. Teck is prepared to cater a meal to precede the meeting as well as contract Dene translators to translate the

meeting live, for the benefit of those members of your community who are more comfortable communicating in their first language.

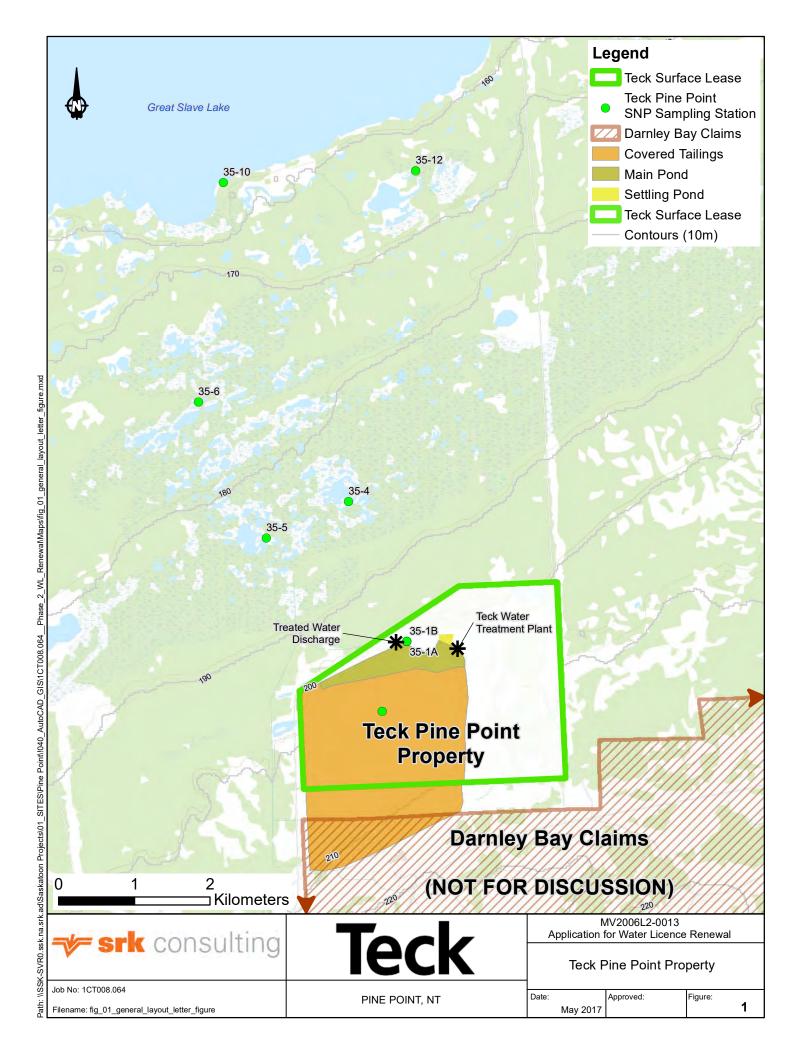
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We thank you for taking the time to consider this matter and look forward to meeting with you to discuss the Former Pine Point mine Type B Water License renewal.

Sincerely,

Michelle Unger, B.Sc., Manager, Environmental Compliance

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**Teck** 

May 25, 2017

Arthur Beck President Fort Resolution Métis Council Box 1921 Fort Resolution, NT X0E 0M0

Dear Mr. Beck:

#### Re: Pine Point Tailings Impoundment Area - Renewal of Water Licence MV2006L2-0013

The purpose of this letter is to advise you that Teck Metals Ltd. (previously known as Cominco Ltd.) has begun preparing an application for the renewal of our existing Type B Water Licence for the tailings impoundment area of the former Pine Point Mine. The current Water Licence expires at the end of October 2017. It is important to note as shown in Figure 1, that this Water License renewal is not in any way associated with the work being undertaken by other mining and exploration companies in the area, notably Darnley Bay and Avalon.

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We are planning to submit our licence renewal application to the Mackenzie Valley Land and Water Board (the Board) shortly and expect that the Board will be distributing copies of the application to you and other interested parties for review and comment.

We understand that the Fort Resolution Métis Council remains interested in the status of the former Pine Point Mine site and ongoing post-closure and monitoring activities that are related to the treatment of water to ensure that the environment is protected. Therefore, we would like to meet with your council, staff and community members, to explain our activities and hear any questions or concerns related to our current and future water treatment activities associated with the former Pine Point mine and the Type B Water License renewal allowing us to continue these water treatment activities. It is our hope that we would be able to host a meeting in your community between July 4, 2017 and July 7, 2017. Teck is prepared to cater a meal to precede the meeting as well as contract Dene translators to translate the

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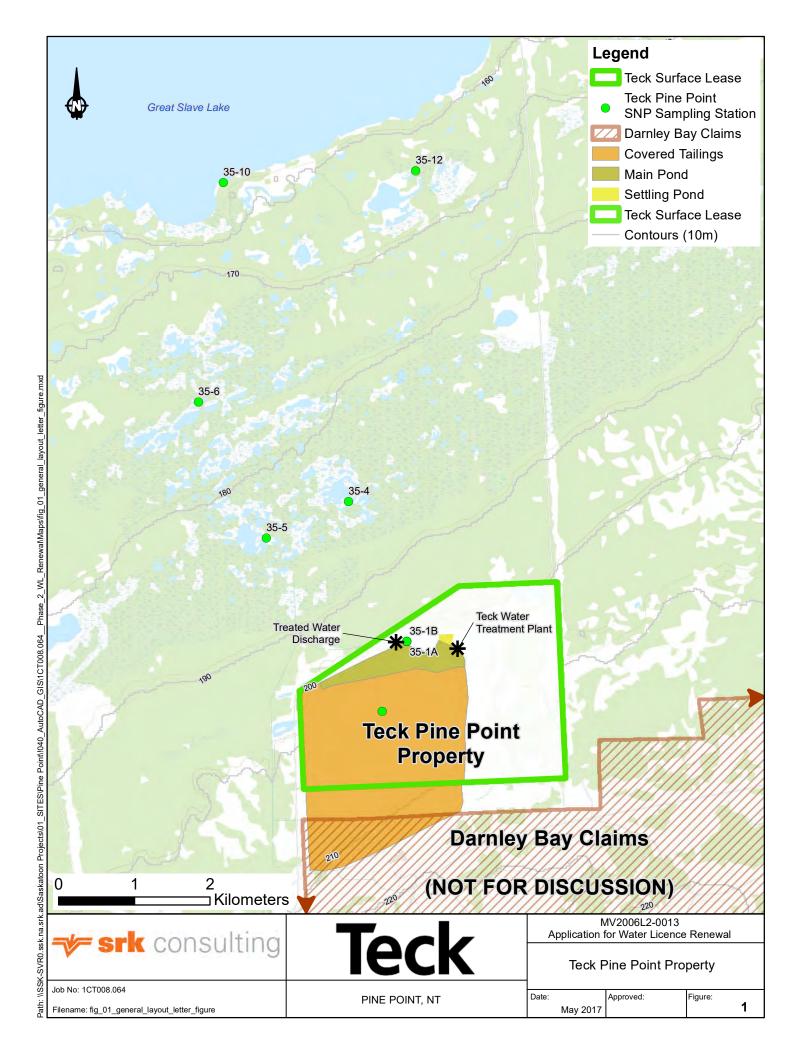
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We thank you for taking the time to consider this matter and look forward to meeting with you to discuss the Former Pine Point mine Type B Water License renewal.

Sincerely,

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Michelle Unger, B.Sc., Manager, Environmental Compliance



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Teck

May 25, 2017

Mayor Garry Bailey Hamlet of Fort Resolution, NT Fort Resolution Settlement Corporation PO Box 197 Fort Resolution, NWT X0E 0M0

Dear Mayor Bailey:

#### Re: Pine Point Tailings Impoundment Area - Renewal of Water Licence MV2006L2-0013

The purpose of this letter is to advise you that Teck Metals Ltd. (previously known as Cominco Ltd.) has begun preparing an application for the renewal of our existing Type B Water Licence for the tailings impoundment area of the former Pine Point Mine. The current Water Licence expires at the end of October 2017. It is important to note as shown in Figure 1, that this Water License renewal is not in any way associated with the work being undertaken by other mining and exploration companies in the area, notably Darnley Bay and Avalon.

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We are planning to submit our licence renewal application to the Mackenzie Valley Land and Water Board (the Board) shortly and expect that the Board will be distributing copies of the application to you and other interested parties for review and comment.

We understand that the residents of Fort Resolution remain interested in the status of the former Pine Point Mine site and ongoing post-closure and monitoring activities that are related to the treatment of water to ensure that the environment is protected. Therefore, we would like to meet with your council, staff and community members, to explain our activities and hear any questions or concerns related to our current and future water treatment activities associated with the former Pine Point mine and the Type B Water License renewal allowing us to continue these water treatment activities. It is our hope that we would be able to host a meeting in your community between July 4, 2017 and July 7, 2017. Teck is prepared to cater a meal to precede the meeting as well as contract Dene translators to translate the

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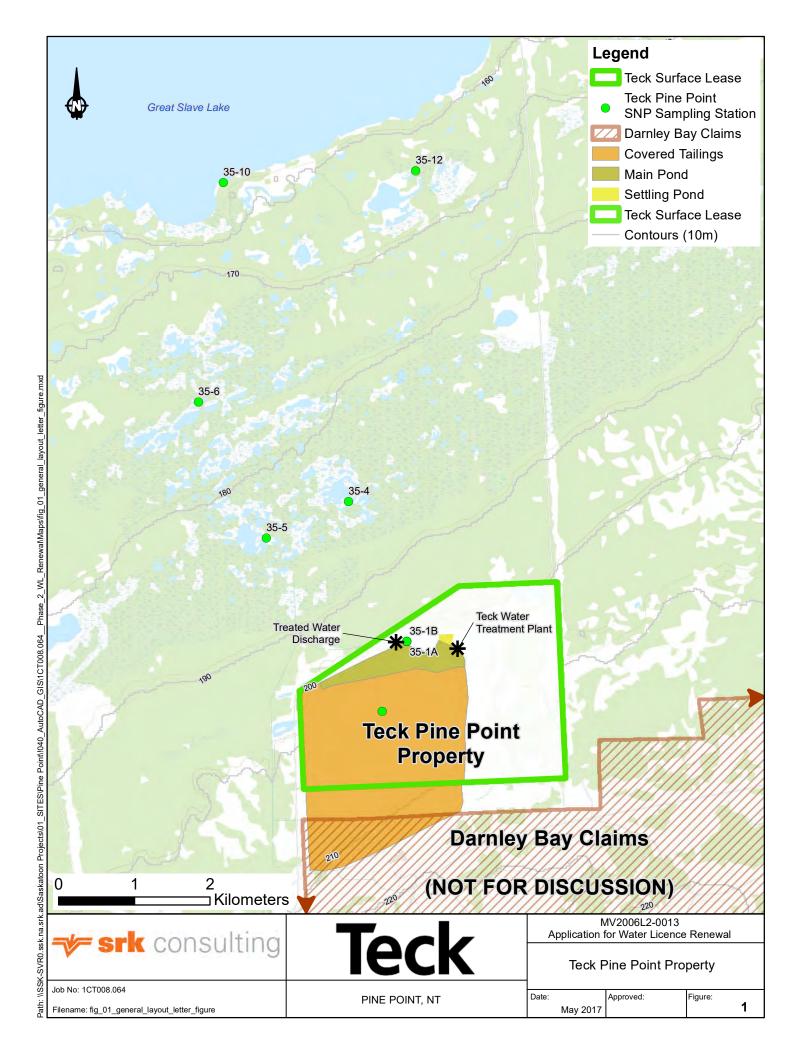
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We thank you for taking the time to consider this matter and look forward to meeting with you to discuss the Former Pine Point mine Type B Water License renewal.

Sincerely,

\_\_\_\_

Michelle Unger, B.Sc., Manager, Environmental Compliance



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**Teck** 

May 25, 2017

Chief Roy Fabian K'atl'Odeeche First Nation PO Box 3060 Hay River, NT X0E 1G4

Dear Chief Fabian:

Re: Pine Point Tailings Impoundment Area – Renewal of Water Licence MV2006L2-0013

The purpose of this letter is to advise you that Teck Metals Ltd. (previously known as Cominco Ltd.) has begun preparing an application for the renewal of our existing Type B Water Licence for the tailings impoundment area of the former Pine Point Mine. The current Water Licence expires at the end of October 2017. It is important to note as shown in Figure 1, that this Water License renewal is not in any way associated with the work being undertaken by other mining and exploration companies in the area, notably Darnley Bay and Avalon.

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We are planning to submit our licence renewal application to the Mackenzie Valley Land and Water Board (the Board) shortly and expect that the Board will be distributing copies of the application to you and other interested parties for review and comment.

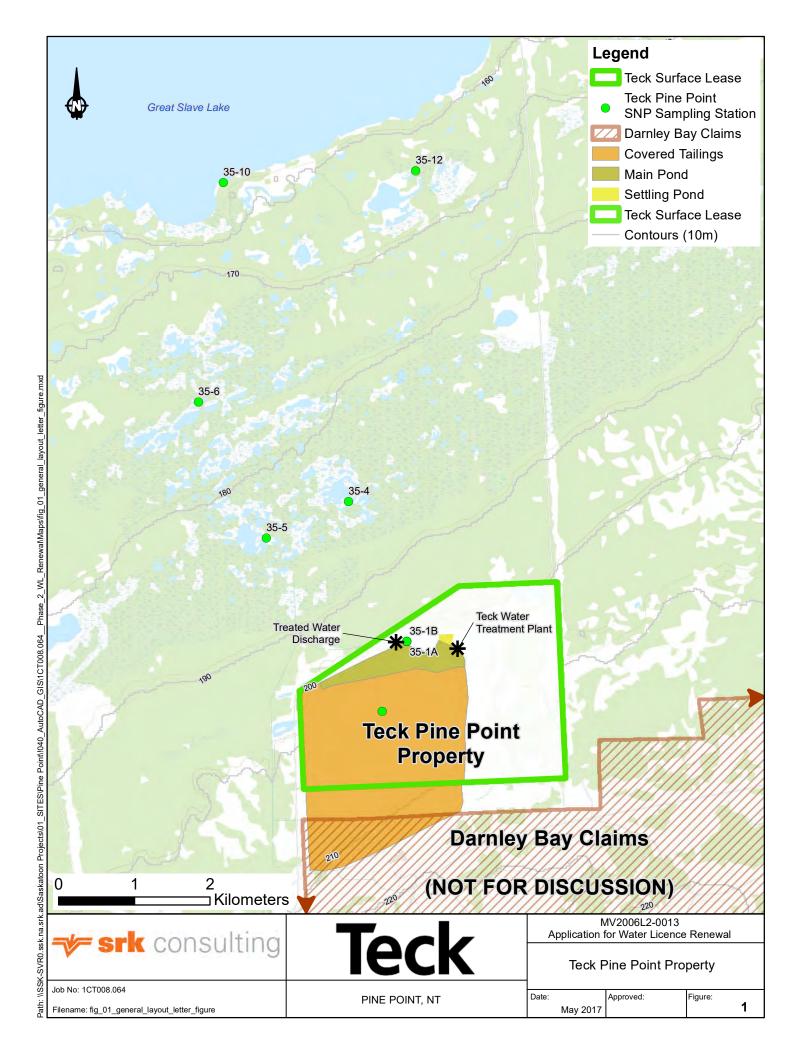
We understand that the K'atl'Odeeche First Nation remains interested in the status of the former Pine Point Mine site and ongoing post-closure and monitoring activities that are related to the treatment of water to ensure that the environment is protected. Therefore, if you have any questions or concerns related to our current water treatment activities, including those related to the renewal of the existing Water Licence, please don't hesitate to call or email us. Inclusive community meetings are planned for Hay River and Fort Resolution which your community members are welcome to attend.

I respectfully ask that you contact Mark Liskowich with SRK Consulting who is assisting Teck with the arrangement of our community engagement. Mark can be reached at (306) 955 4799 or by email at <a href="mailto:mliskowich@srk.com">mliskowich@srk.com</a>.

We thank you for taking the time to consider this matter and look forward to meeting with you to discuss the Former Pine Point mine Type B Water License renewal.

Sincerely,

Michelle Unger, B.Sc., Manager, Environmental Compliance



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**Teck** 

May 25, 2017

Mayor Bradley Mapes Town of Hay River, NT 73 Woodland Drive Hay River, NT X0E 1G1

Dear Mayor Mapes:

Re: Pine Point Tailings Impoundment Area – Renewal of Water Licence MV2006L2-0013

The purpose of this letter is to advise you that Teck Metals Ltd. (previously known as Cominco Ltd.) has begun preparing an application for the renewal of our existing Type B Water Licence for the tailings impoundment area of the former Pine Point Mine. The current Water Licence expires at the end of October 2017. It is important to note as shown in Figure 1, that this Water License renewal is not in any way associated with the work being undertaken by other mining and exploration companies in the area, notably Darnley Bay and Avalon.

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We are planning to submit our licence renewal application to the Mackenzie Valley Land and Water Board (the Board) shortly and expect that the Board will be distributing copies of the application to you and other interested parties for review and comment.

We understand that the Town of Hay River remains interested in the status of the former Pine Point Mine site and ongoing post-closure and monitoring activities that are related to the treatment of water to ensure that the environment is protected. Therefore, we would like to meet with your council, staff and community members, to explain our activities and hear any questions or concerns related to our current and future water treatment activities associated with the former Pine Point mine and the Type B Water License renewal allowing us to continue these water treatment activities. It is our hope that we would be able to host a meeting in your community between July 4, 2017 and July 7, 2017. Teck is prepared to cater a meal to precede the meeting as well as contract Dene translators to translate the meeting live, for the

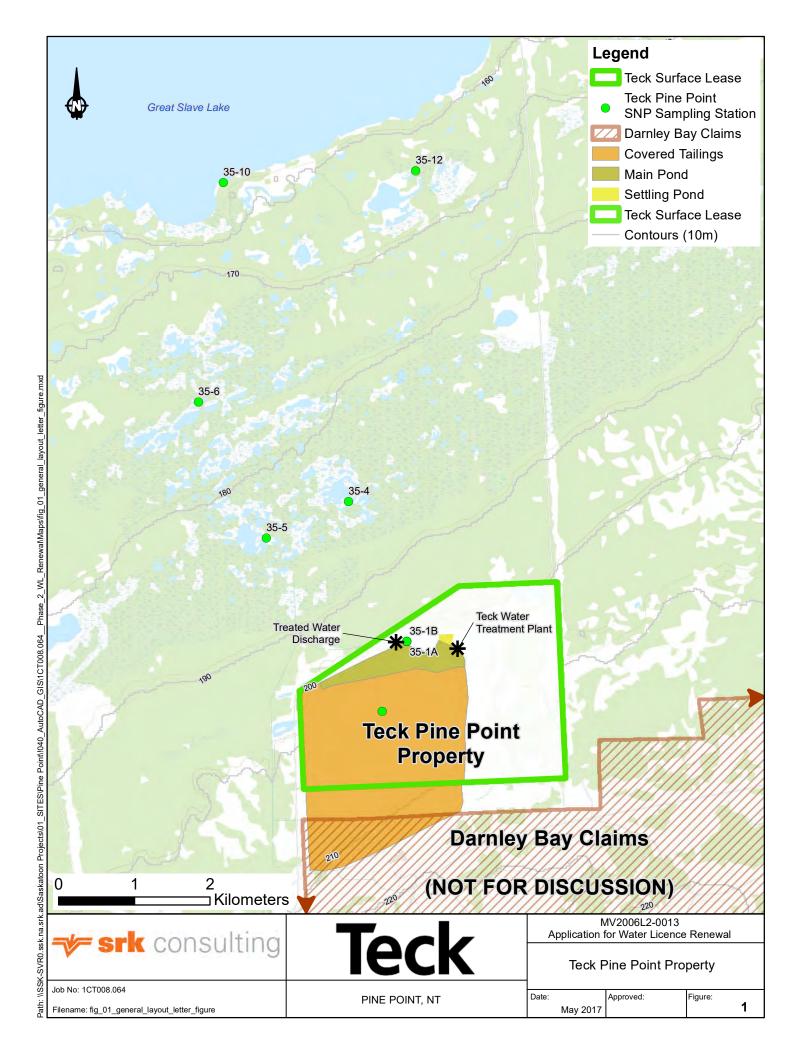
benefit of those members of your community who are more comfortable communicating in their first language.

I respectfully ask that you contact Mark Liskowich with SRK Consulting who is assisting Teck with the arrangement of our community engagement. Mark can be reached at (306) 955 4799 or by email at <a href="mailto:mliskowich@srk.com">mliskowich@srk.com</a>.

We thank you for taking the time to consider this matter and look forward to meeting with you to discuss the Former Pine Point mine Type B Water License renewal.

Sincerely,

Michelle Unger, B.Sc., Manager, Environmental Compliance



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**Teck** 

May 25, 2017

Trevor Beck
President
Hay River Métis Government Council
10 Industrial Drive
Hay River, NT X0E 0R6

Dear Mr. Beck:

## Re: Pine Point Tailings Impoundment Area - Renewal of Water Licence MV2006L2-0013

The purpose of this letter is to advise you that Teck Metals Ltd. (previously known as Cominco Ltd.) has begun preparing an application for the renewal of our existing Type B Water Licence for the tailings impoundment area of the former Pine Point Mine. The current Water Licence expires at the end of October 2017. It is important to note as shown in Figure 1, that this Water License renewal is not in any way associated with the work being undertaken by other mining and exploration companies in the area, notably Darnley Bay and Avalon.

Teck Metals Ltd. holds both a land lease and a water licence that covers the tailings impoundment area as shown on Figure 1. Other surface leases held by the former mine were surrendered back to the Crown when the mine closed and reclamation activities were completed (mid to late 1990s) in accordance with the Restoration and Abandonment Plan.

The land lease covers the area where Teck Metals Ltd. conducts annual water treatment of precipitation that accumulates in the tailings impoundment. The Water Licence regulates the monitoring and discharge of water from that tailings impoundment area. Each summer, excess water from precipitation that collects in the tailings impoundment area is released after being treated to reduce zinc concentrations. The quality of the water discharged is monitored to ensure that is complies with the water quality standards set out in the Water Licence.

We are planning to submit our licence renewal application to the Mackenzie Valley Land and Water Board (the Board) shortly and expect that the Board will be distributing copies of the application to you and other interested parties for review and comment.

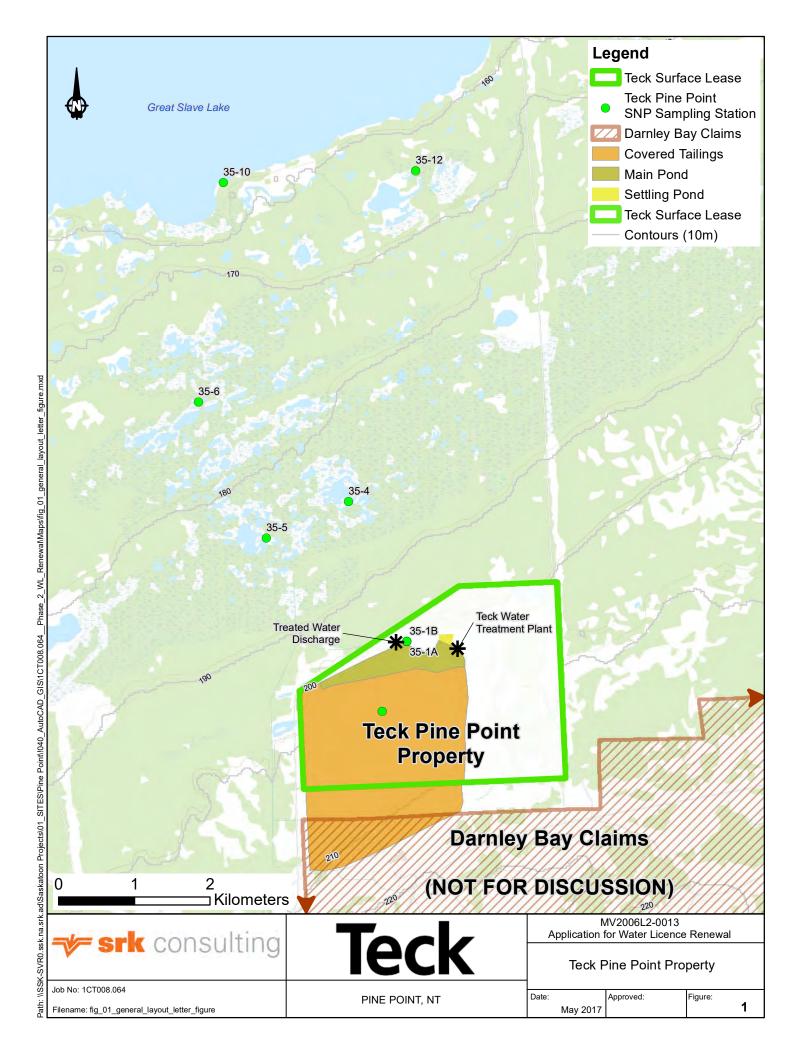
We understand that the Hay River Métis Government Council remains interested in the status of the former Pine Point Mine site and ongoing post-closure and monitoring activities that are related to the treatment of water to ensure that the environment is protected. Therefore, if you have any questions or concerns related to our current water treatment activities, including those related to the renewal of the existing Water Licence, please don't hesitate to call or email us. Inclusive community meetings are planned for Hay River and Fort Resolution which your community members are welcome to attend.

I respectfully ask that you contact Mark Liskowich with SRK Consulting who is assisting Teck with the arrangement of our community engagement. Mark can be reached at (306) 955 4799 or by email at <a href="mailto:mliskowich@srk.com">mliskowich@srk.com</a>.

We thank you for taking the time to consider this matter and look forward to meeting with you to discuss the Former Pine Point mine Type B Water License renewal.

Sincerely,

Michelle Unger, B.Sc., Manager, Environmental Compliance



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**Teck** 

May 25, 2017

Chief Courtney Cayen West Point First Nation #1-47031 Mackenzie Highway Hay River, NT X0E 0R9

Dear Chief Cayen:

### Re: Pine Point Tailings Impoundment Area - Renewal of Water Licence MV2006L2-0013

The purpose of this letter is to advise you that Teck Metals Ltd. (previously known as Cominco Ltd.) has begun preparing an application for the renewal of our existing Type B Water Licence for the tailings impoundment area of the former Pine Point Mine. The current Water Licence expires at the end of October 2017. It is important to note as shown in Figure 1, that this Water License renewal is not in any way associated with the work being undertaken by other mining and exploration companies in the area, notably Darnley Bay and Avalon.

Teck Metals Ltd. holds both a land lease and a water licence that covers the tailings impoundment area as shown on Figure 1. Other surface leases held by the former mine were surrendered back to the Crown when the mine closed and reclamation activities were completed (mid to late 1990s) in accordance with the Restoration and Abandonment Plan.

The land lease covers the area where Teck Metals Ltd. conducts annual water treatment of precipitation that accumulates in the tailings impoundment. The Water Licence regulates the monitoring and discharge of water from that tailings impoundment area. Each summer, excess water from precipitation that collects in the tailings impoundment area is released after being treated to reduce zinc concentrations. The quality of the water discharged is monitored to ensure that is complies with the water quality standards set out in the Water Licence.

We are planning to submit our licence renewal application to the Mackenzie Valley Land and Water Board (the Board) shortly and expect that the Board will be distributing copies of the application to you and other interested parties for review and comment.

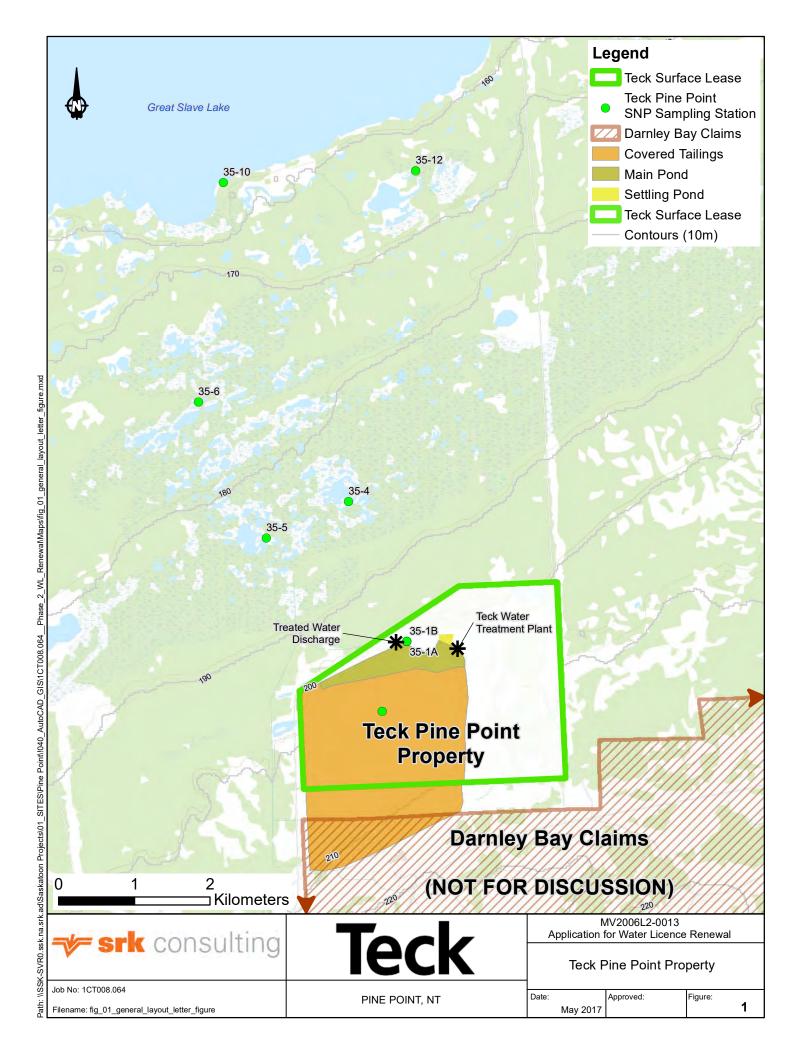
We understand that the West Point First Nation remains interested in the status of the former Pine Point Mine site and ongoing post-closure and monitoring activities that are related to the treatment of water to ensure that the environment is protected. Therefore, if you have any questions or concerns related to our current water treatment activities, including those related to the renewal of the existing Water Licence, please don't hesitate to call or email us. Inclusive community meetings are planned for Hay River and Fort Resolution which your community members are welcome to attend.

I respectfully ask that you contact Mark Liskowich with SRK Consulting who is assisting Teck with the arrangement of our community engagement. Mark can be reached at (306) 955 4799 or by email at <a href="mailto:mliskowich@srk.com">mliskowich@srk.com</a>.

We thank you for taking the time to consider this matter and look forward to meeting with you to discuss the Former Pine Point mine Type B Water License renewal.

Sincerely,

Michelle Unger, B.Sc., Manager, Environmental Compliance



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**Teck** 

June 19, 2017

Chief Frieda Martselos Salt River First Nation Fort Smith, NT X0E 0P0

Dear Chief Martselos:

#### Re: Pine Point Tailings Impoundment Area - Renewal of Water Licence MV2006L2-0013

The purpose of this letter is to advise you that Teck Metals Ltd. (previously known as Cominco Ltd.) has begun preparing an application for the renewal of our existing Type B Water Licence for the tailings impoundment area of the former Pine Point Mine. The current Water Licence expires at the end of October 2017. It is important to note as shown in Figure 1, that this Water License renewal is not in any way associated with the work being undertaken by other mining and exploration companies in the area, notably Darnley Bay and Avalon.

Teck Metals Ltd. holds both a land lease and a water licence that covers the tailings impoundment area as shown on Figure 1. Other surface leases held by the former mine were surrendered back to the Crown when the mine closed and reclamation activities were completed (mid to late 1990s) in accordance with the Restoration and Abandonment Plan.

The land lease covers the area where Teck Metals Ltd. conducts annual water treatment of precipitation that accumulates in the tailings impoundment. The Water Licence regulates the monitoring and discharge of water from that tailings impoundment area. Each summer, excess water from precipitation that collects in the tailings impoundment area is released after being treated to reduce zinc concentrations. The quality of the water discharged is monitored to ensure that it complies with the water quality standards set out in the Water Licence.

We are planning to submit our licence renewal application to the Mackenzie Valley Land and Water Board (the Board) shortly and expect that the Board will be distributing copies of the application to you and other interested parties for review and comment.

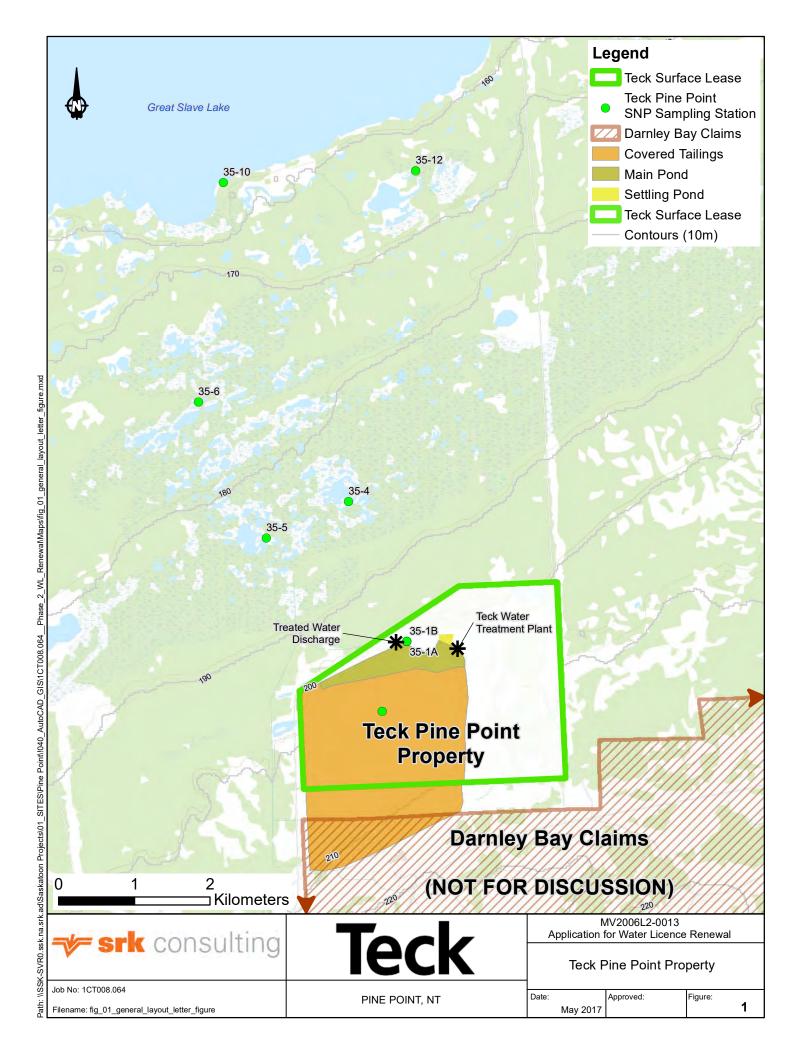
We understand that the Salt River First Nation remains interested in the status of the former Pine Point Mine site and ongoing post-closure and monitoring activities that are related to the treatment of water to ensure that the environment is protected. Therefore, if you have any questions or concerns related to our current water treatment activities, including those related to the renewal of the existing Water Licence, please don't hesitate to call or email us. Inclusive community meetings are planned for Hay River and Fort Resolution which your community members are welcome to attend.

I respectfully ask that you contact Mark Liskowich with SRK Consulting who is assisting Teck with the arrangement of our community engagement. Mark can be reached at (306) 955 - 4799 or by email at <a href="mailto:mliskowich@srk.com">mliskowich@srk.com</a>.

We thank you for taking the time to consider this matter and look forward to any comments you may have with respect to the Former Pine Point mine Type B Water License renewal.

Sincerely,

Michelle Unger, B.Sc., Manager, Environmental Compliance



+1 250 427 8422 Tel +1 250 427 8451 Fax www.teck.com

email: dbr@darnleybay.com

**Teck** 

June 7, 2017

Jamie Levy President and CEO Darnley Bay Resources Limited 400 – 365 Bay Street Toronto, Ontario M5H 2V1

Dear Mr. Levy

#### Re: Pine Point Tailings Impoundment Area - Renewal of Water Licence MV2006L2-0013

The purpose of this letter is to advise you that Teck Metals Ltd. has begun preparing an application for the renewal of our existing Type B Water Licence for the tailings impoundment area of the former Pine Point Mine. The current Water Licence expires at the end of October 2017.

Teck Metals Ltd. holds both a land lease and a water licence that covers the tailings impoundment area as shown on Figure 1. Other surface leases held by the former mine were surrendered back to the Crown when the mine closed and reclamation activities were completed (mid to late 1990s) in accordance with the Restoration and Abandonment Plan.

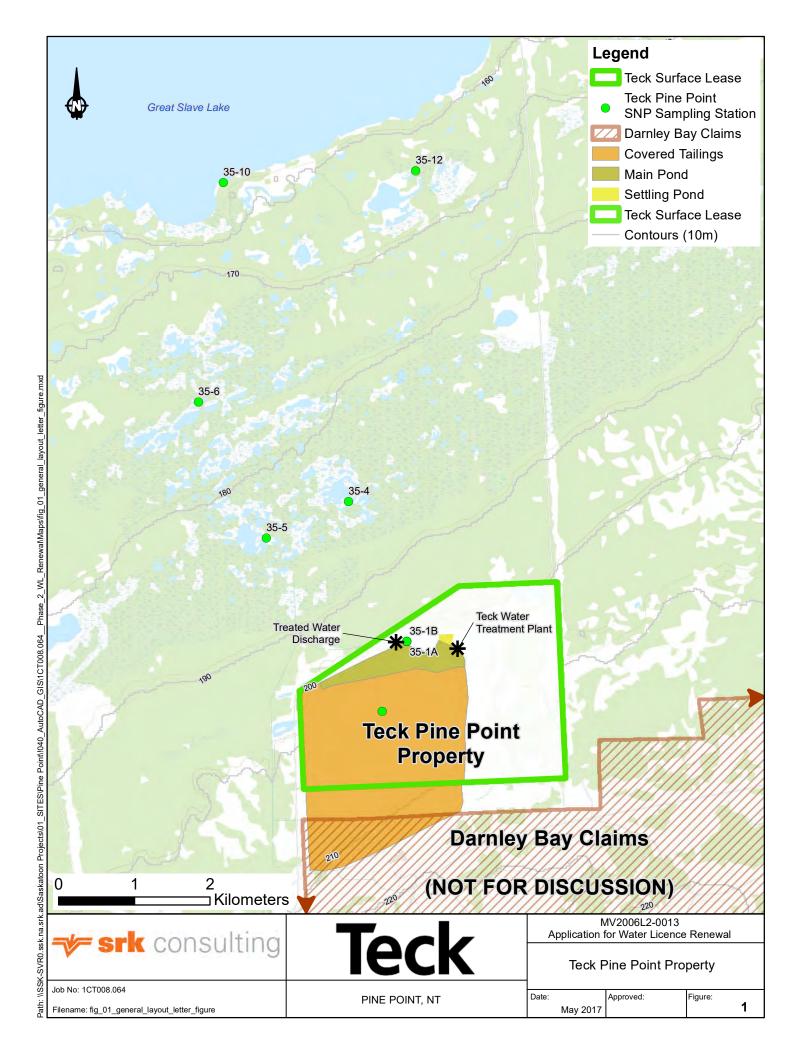
The land lease covers the area where Teck Metals Ltd. conducts annual water treatment of precipitation that accumulates in the tailings impoundment. The Water Licence regulates the monitoring and discharge of water from that tailings impoundment area. Each summer, excess water from precipitation that collects in the tailings impoundment area is released after being treated to reduce zinc concentrations. The quality of the water discharged is monitored to ensure that it complies with the water quality standards set out in the Water Licence.

We understand that Darnley Bay Resources Limited has applied for authorizations to conduct mineral exploration activities near the tailings impoundment area. As such we anticipate you may be interested in the status of the former Pine Point Mine site and ongoing post-closure and monitoring activities that are related to the treatment of water to ensure that the environment is protected. Therefore, if you have any questions or concerns related to our current water treatment activities, including those related to the renewal of the existing Water Licence, please don't hesitate to call or email us. Inclusive community meetings are planned for Hay River and Fort Resolution between July 4, 2017 and July 7, 2017 which representatives of your company are welcome to attend. These dates are in the process of being finalized with stakeholder groups located in Hay River and Fort Resolution.

I respectfully ask that you contact Mark Liskowich with SRK Consulting who is assisting Teck with the arrangement of our community engagement should you have any questions or concerns. Mark can be reached at (306) 955 4799 or by email at mliskowich@srk.com.

Sincerely,

Michelle Unger, B.Sc., Manager, Environmental Compliance





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# **Teck**

# Record of Discussion

Pine Point Water License MV2006L2-0013 Renewal Deninu K'ue First Nations Chief and Council Meeting Tuesday, July 11, 2017, 12 pm

This Record of Discussion is for the Deninu K'ue First Nations (DKFN) Chief and Council Meeting that was held on Mission Island in Fort Resolution at 12 pm on Tuesday, July 11, 2017. Michelle Unger from Teck Metals Ltd. gave an overview of the Pine Point Water License MV2006L2-0013 Renewal.

The meeting was not recorded by Teck or SRK, but notes were taken on the questions that were asked and the answers that were provided in response. The questions that were asked are documented here with minor edits for clarity and conciseness, along with a summary of the answers that were provided. Some questions required follow-up; this Record of Discussion provides additional information on these questions as needed.

A scan of the record of attendance is attached.

#### In Attendance:

Chief Louis Balsillie, DKFN Chief Patrick Sinero, DKFN Council Carol Collins, DKFN Council Stanley Louine, DKFN Council Frank Lafferty, DKFN Council Rosy Bjornson, DKFN Council Carol Ann Chaplin, DKFN Council Michelle Unger, Teck Metals Ltd. Clell Crook, Maskwa Engineering Lee Christoffersen, SRK Consulting

#### **Questions and Answers**

**Question:** Are you from Cominco?

**Answer:** Teck and Cominco merged in 2001.

Question: Why was the spillway on the tailings impoundment built?

**Answer:** The spillway was built to discharge treated water. It was updated with concrete cut-off walls and clay plugs.

Question: Why are you concerned about water going to the lake?

**Answer:** Zinc concentrations are higher than the water license limits so the water needs to be treated before it is released to the environment.

Question: Is there sulfur coming out of the mine?

**Answer:** Some of the old drill holes are spilling water that has high levels of sulfate.

Question: Why aren't the drill holes capped properly?

**Answer:** Historically, there was no requirement to seal off drill holes. The drill holes are located outside of Teck's surface lease.

Question: I am concerned about an increase of cancer in our community.

Answer: The concern was noted.

Question: How often do you sample the water?

**Answer:** The treated water is sampled daily while it is being discharged. Seven locations between the tailings impoundment and the lake are monitored every fall and every other spring.

**Question:** We would like a site tour. Darnley Bay took people from Hay River on a tour of their site before DKFN.

**Answer:** Teck can arrange a tour for DKFN if one is desired.

**Question:** I would like someone from our community to go with the people who are sampling the water, at least two times a season, to understand what is going on at the site. This person could talk to our Chief and Council and the elders.

**Answer:** Teck will consider the possibility of taking someone from DKFN out for the sampling events.

**Question**: Cominco is very controversial in our community. When we used to call them to try to get information, they would just hang up on us.

**Answer:** Teck is committed to building strong relationships with communities and looks forward to continuing to communicate with DKFN.

Question: Who monitors the lake? Who will clean up the rest of the mess?

**Answer:** Teck monitors two locations on Great Slave Lake. Teck is responsible for the tailings impoundment area and has seven surveillance monitoring locations in between the tailings impoundment and the lake. The surface leases for the rest of the site were returned to the Crown when the requirements of the Restoration and Abandonment Plan were met.

**Question:** I think the government should clean up the rest of the site. Teck is kind of the middle man in this situation, in between us and the government.

Answer: The comment was noted.

**Question:** I would like to see the water quality and dam monitoring results every year. I want the site to be cleaned up and I think it's the government's responsibility.

**Answer:** There is an annual report for the site that can be accessed online and is submitted directly to DKFN. The comment about the government cleaning up the site was noted.

**Question:** We deserve compensation because our community didn't get any benefit from the mine. We don't think that leaving all those open pits is acceptable.

Answer: The comment was noted.

Question: The Federal government is at fault here.

**Answer:** Teck is taking responsibility by holding onto the surface lease for the tailings impoundment.

**Question**: I want to see the results presented every year. It is not enough to just receive the annual report. DKFN has done some of our own sampling and another company is also taking their own samples. I want to see all the results together.

**Answer:** Teck will consider presenting their results every year to interested communities. Teck is not aware of the other sampling activities and doesn't have these data.

**Question:** Are you planning to treat water forever?

**Answer:** For now, the plan is to continue treating water. Teck is considering solutions that will require less activity on site that will be acceptable to the communities.

**Question:** Is there a camp out there?

**Answer:** The operators live in an RV for the duration of treatment. They are usually there for three to six weeks.

Question: How was the dam built? How does water drain out of it?

**Answer:** There are four earthfill perimeter dykes that were built to hold the tailings. The dykes have a clay core to prevent water from going through them. Water collects on the surface and ponds on the north end of the impoundment, where it is treated and then discharged.

**Question:** Are fish in the area monitored? I would like them to be monitored. The Government of the Northwest Territories did a fish study at some point in the past.

**Answer:** Fish are not currently monitored. The comment was noted.

Question: The benthic community should also be monitored.

Answer: The benthic community is not currently monitored. The comment was noted.

Any questions about this	s Record of Discuss	sion should be o	directed to Mark	Liskowich with	SRK
Consulting. Mark can be	e reached at (306) 9	55 4799 or by	email at <u>mliskov</u>	vich@srk.com.	

Sincerely,

Michelle Unger, B.Sc., Manager, Environmental Compliance

Mllager

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# **Teck**

# Record of Discussion

Pine Point Water License MV2006L2-0013 Renewal Fort Resolution Community Meeting Tuesday, July 11, 2017, 2:30 pm

This Record of Discussion is for the Fort Resolution Community Meeting that was held in the Fort Resolution Community Hall at 2:30 pm on Tuesday, July 11, 2017. Michelle Unger from Teck Metals Ltd. gave a presentation on the Pine Point Water License MV2006L2-0013 Renewal. The presentation is provided as an attachment to these notes.

The meeting was not recorded by Teck or SRK, but notes were taken on the questions that were asked and the answers that were provided in response. The questions that were asked are documented here with minor edits for clarity and conciseness, along with a summary of the answers that were provided. Some questions required follow-up; this Record of Discussion provides additional information on these questions as needed.

A scan of the record of attendance is attached.

#### In Attendance:

Ronald Beaulier Raymond Norn Phillip (unknown last name) Lorraine Villeneuve Dan John Llovd Norn Carol Collins, Deninu K'ue First Nations (DKFN) Council and Hamlet of Fort Resolution Rosy Bjornson, DKFN Council and DKFN Resource Management (Unknown name) Shawn McKay, Fort Resolution Métis Council (FRMC) Toni Lafferty Michael Lafferty, DKFN Member Cloyd Cardanac, DKFN Member Stanley Louine, DKFN Council Arthur Beck, FRMC Henry (unknown last name) Arthur Lafferty, DKFN Member Michelle Unger, Teck Metals Ltd. Clell Crook, Maskwa Engineering Lee Christoffersen, SRK Consulting

#### Questions and Answers

Question: Is there any overlap between Teck's surface lease and Darnley Bay's leases?

**Answer:** I don't believe so. Teck's surface lease should be outside of any of the Darnley Bay claims or mineral leases.

Question: How long will Teck manage the property?

**Answer:** Teck is planning on keeping the surface lease as long as necessary. Teck is not going to walk away from the site.

**Question:** What kind of reclamation was done when the mine closed? It seems very minimal. I see a lot of diversions on site and a lot of scrap metal.

**Answer:** The reclamation that was done was approved in the *Restoration and Abandonment Plan* from 1987. It met the standards of the day and the requirements of the plan. If the mine closed today, reclamation would have been done differently.

**Question:** On Slide 4, you state that the tailings area is within the Traditional Territory of the Deninu K'ue and K'atl'Odeeche First Nations. It is not part of KFN Traditional Territory, which is limited to 25 km around their reserve. You also need to correct the slide because it is part of Métis Traditional Territory.

**Answer:** The comment was noted.

**Question:** I have a question for Clell. I was on the site in the 1980s and 1990s. I wondered if the dykes were stable and if there have been any accidents.

**Answer:** Clell performed three site inspections per year since 2007: one in the spring, one in the summer, and one in the fall. In 2008, the exposed clay core of one of the dykes was repaired. Around 2010 or 2012, the concrete cutoff walls near the spillway were installed. Every year vegetation is cleared from along the dyke crests.

**Question**: I think the tailings area is about 25 square miles. I'm concerned about one of the dams failing and spilling tailings down into the lake.

**Answer:** During the site inspections, Clell looks at many different aspects of the entire facility to make sure the dams are safe.

**Question**: There are a lot of beavers in the area. They are huge – the biggest beavers I've ever seen. Is something in the water making them big? Is someone looking to see if they are contaminated?

**Answer:** Teck is not aware of any sampling that has been done on the beavers. The observation was noted.

**Question:** Are there any measurements taken in the bay?

**Answer:** Taking measurements in the bay (like Diavik does for Creston Bay) is a good consideration. Teck will follow up with the Engineer of Record about instrumentation.

**Question:** Lead is a metabolic poison. Lead concerns me a lot more than zinc, zinc is just an aesthetic drinking water standard. However, only zinc is discussed in your presentation. You should monitor other parameters other than zinc.

**Answer:** Teck measures all the metals in the water quality samples. Zinc is the focus of the presentation because it is the driver for water treatment.

**Question**: I am concerned about dust from the tailings. They aren't covered well, and the dust gets very bad in August. The dust settles in the lake. I think there was a study done out of Hay River.

**Answer:** The comment was noted.

**Question**: I have seen the dust from the tailings while I was in a plane. I've talked about it with Wayne Starling from INAC. I've seen it all the way up to the Mackenzie River.

Answer: The comment was noted.

**Question:** How does the lime treatment work?

**Answer:** The lime raises the pH and metals precipitate out of the water with iron hydroxides and settle on the bottom. The clean water gets discharged.

**Question**: So, the metals settle – they don't go away. They are still there. What processing chemicals show up downstream of the dam? What else shows up?

**Answer:** Lime is the only chemical that is added. We do not see anything showing up downstream of the dam.

**Question:** Why can't you monitor a bigger area of Great Slave Lake, not just the two locations (35-9 and 35-10)?

**Answer:** The best water quality monitoring locations are actually in between the tailings impoundment and Great Slave Lake.

**Question**: I think fish should be monitored to see if anything is leaking.

Answer: The comment was noted.

Question: Has Teck done any sediment sampling in the discharge areas?

**Answer:** No, Teck does not do any sediment sampling. We have to meet total suspended solids (TSS) limits in our discharge. The water that is released from the serpentine channel meets TSS and all of the other limits. TSS and zinc are both left behind in the serpentine channel.

Question: Has there ever been any exceedances of your Water License limits?

**Answer:** No, we have never exceeded our Water License limits.

Question: I read the geotechnical report. What is an erosion rill? How would it be reclaimed?

**Answer:** An erosion rill is a feature caused by erosion. It's a type of mechanical erosion caused by water as opposed to a rut you would see from an ATV. Erosion rills are reclaimed if the clay core of the dyke becomes exposed. The erosion rills are filled in.

**Question:** That's why I brought up the sediment sampling. Sediment sampling would be a good way to tell if the dam is eroding.

**Answer:** The comment was noted.

Question: Why is the Darnley Bay lease (shown on slide 5) marked "not for discussion"?

**Answer:** The focus of this presentation is the Water License for Teck's surface lease, which is not related to the Darnley Bay leases.

**Question:** I am surprised that Teck's surface lease doesn't cover the entire area of the tailings impoundment.

**Answer:** The surface lease doesn't cover the entire tailings impoundment, but it does include the area where water ponds and is treated.

Question: I've seen contaminated water coming out of drillholes – it looks like it is sulphur.

**Answer:** Teck agrees that leaving the drillholes uncapped is not a good long-term solution. How to deal with these drillholes is a decision that will be made later, not for the Water License renewal.

**Question:** Will you include background information in the Water License renewal application about monitoring station 35-6, which you want to drop from the monitoring program?

**Answer:** Yes, we'll include the information we have on station 35-6 in the application.

Question: How are the dams on site classified?

**Answer:** The south and east dykes are classified as "low consequence" and the north and west dykes are classified as "significant consequence." The north and west dykes are higher and there is more material behind them.

**Question:** Why is there no geotechnical instrumentation in the dykes?

**Answer:** The dykes were built before instrumentation became common practice and it wasn't required by the regulations at the time.

**Question:** Do you have good records of the construction of the dykes and the foundations they're built on?

**Answer:** Yes, Teck does.

Question: I am frustrated with the vague answers I've been getting for the dyke questions.

**Answer:** There was an apology for the vagueness of the answers and a detailed description of the dam inspection process. Clell does inspections three times a year, and during one of these visits, the engineer of record from Golder Associates accompanies him for the annual dam safety inspection. There is an annual report written for this inspection. Every 10 years, there is a formal Dam Safety Review done by an independent, third party reviewer that is more detailed. The next Dam Safety Review is scheduled for 2020. The geotechnical work on site complies with the Canadian Dam Association guidelines.

**Question:** There are lots of other areas around the old mine that are contaminated. Why isn't Cominco taking care of them?

**Answer:** Teck only has one surface lease, which covers most of the tailings impoundment area and the water treatment facility. All the other surface leases were returned to the Crown after reclamation.

Question: Are you only sampling surface water? Are you doing any groundwater sampling?

**Answer:** Only surface water is sampled.

**Question:** I want Teck to be involved in the healing process for our community. I want Teck to collaborate with us on discussing the impact of Pine Point on the people, land, water, and air.

**Answer:** Teck is committed to building strong relationships with communities and would like to be part of that process.

**Question**: I'm worried that our concerns aren't being heard. I want a record of our questions and concerns, I don't think we are being taken seriously.

Answer: Teck will send the Record of Discussion for the meeting to DKFN and FRMC.

**Question:** Is there going to be another meeting with the Water License Board? I think someone representing the Métis should be invited from the Fort Resolution community.

**Answer:** At this point Teck has not planned an additional meeting for Fort Resolution.

**Question**: What is the difference between the Water License limits and CCME guidelines? Do you have site-specific guidelines?

**Answer:** The Water License limits are what the water has to meet. The CCME guidelines are for freshwater aquatic life and are lower than the Water License limits. They are used for comparison. There are no site-specific guidelines other than the Water License limits.

**Question:** Why are the Water License limits higher than CCME? You don't have EQC? Is the concentration information that you included in the presentation going to be included in the Water License application?

**Answer:** Yes, concentrations will be included in the application. There are no effluent quality criteria (EQC) other than the Water License limits.

**Question:** Why did you only present information on zinc? All the parameters are important. We need to understand everything that is on the site. Some things are concerning, like the erosion rills on the north dyke. What other parameters are elevated?

**Answer:** Teck monitors all the metals, not just zinc. The presentation focused on zinc because it's the parameter that drives whether the water needs to be treated. Also, the treatment process reduces concentrations of the other metals, not just zinc, and after treatment all the metals meet Water License limits. Nothing else is elevated after treatment.

**Question**: There was no acknowledgment or interpretation of Traditional Knowledge for the area. TK should be included. There are other things that need to be discussed: where the discharged water goes, a dust mitigation plan because the dust blows onto Crown land, and more information on other contaminants of potential concern.

**Answer:** The comment was noted.

Any questions about this Record of Discussion should be directed to Mark Liskowich with S	RK
Consulting. Mark can be reached at (306) 955 4799 or by email at <a href="mailto:mliskowich@srk.com">mliskowich@srk.com</a> .	

Sincerely,

Michelle Unger, B.Sc., Manager, Environmental Compliance

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**Teck** 

# Record of Discussion

Pine Point Water License MV2006L2-0013 Renewal Government of the Northwest Territories (GNWT) Environment and Natural Resources (ENR) Meeting Thursday, July 13, 2017, 10:30 am

This Record of Discussion is for the Government of the Northwest Territories (GNWT) Environment and Natural Resources (ENR) Meeting that was held in the GNWT ENR Office at 10:30 am on Thursday, July 13, 2017. Michelle Unger from Teck Metals Ltd. gave a presentation on the Pine Point Water License MV2006L2-0013 Renewal. The presentation is provided as an attachment to these notes.

The meeting was not recorded by Teck or SRK, but notes were taken on the questions that were asked and the answers that were provided in response. The questions that were asked are documented here with minor edits for clarity and conciseness, along with a summary of the answers that were provided. Some questions required follow-up; this Record of Discussion provides additional information on these questions as needed.

#### In Attendance:

Nathan Richea, ENR
David Jessiman, ENR
Paul Green, ENR
Michelle Unger, Teck Metals Ltd.
Mark Liskowich, SRK Consulting
Lee Christoffersen, SRK Consulting

## **Questions and Answers**

**Question**: Teck should expect a lot of public interest in the project and a lot of questions and scrutiny. The Lands department from GNWT will also be involved. Also, Darnley Bay is considering a name change to Pine Point Mine Ltd.

Answer: The comment was noted.

Question: When will the final application be submitted?

**Answer:** The final application will be submitted as soon as possible, the intent is to submit it within a few weeks time.

Question: Has the sludge from the water treatment plant ever been removed, and where is it stored?

**Answer:** Yes, sludge from the water treatment plant has been removed. It is placed in the tailings impoundment.

Question: Are any of the surveillance monitoring program locations groundwater wells?

Answer: No, they are all surface water locations.

Question: Is the facility lined?

Answer: No, but the dams have a clay core.

Question: What is the particle size distribution?

Answer: The particle size distribution is like that of normal tailings and is dominated by sand and silt.

**Question:** Has progressive reclamation been done? Is there a cover?

**Answer:** There is a till cover on most of the impoundment as part of the approved closure plan. The area against the north dyke where water ponds is not covered. The cover was not intentionally reseeded, but there has been some natural revegetation.

Question: What are the specifics of the cover?

**Answer:** It was placed to minimize dust and wind erosion of the tailings.

Question: Was the intention to flush the tailings?

**Answer:** No. There is some infiltration through the cover. Most of the ponded water that is treated is runoff, but some is likely seepage.

**Question:** Have you done any forecasts for concentrations in the future to see how long water will have to be managed?

Answer: No, Teck has not evaluated this.

**Question:** Is there a plan to permanently close the site?

**Answer:** Teck is evaluating different options internally to reduce their presence on site. However, as long as there is a dam and ponded water, it will have to be managed, and the current management approach is working well.

Question: What is the proportion of runoff vs. pore water in the ponded water?

**Answer:** The ponded water is mostly runoff.

Question: GNWT is interested in avoiding perpetual care and moving towards permanent closure. Conversations in the future should include options for declassifying the dams and installing a water-shedding cover. GNWT needs realistic costs to manage liabilities – there is an even playing field and juniors are treated the same as the majors. The security bond will probably have to be increased from the current value of \$100,000. Teck should use the RECLAIM tool to estimate it, but only fill out the relevant tabs. The security bond doesn't depend on the term of the Water License – it's a total liability basis.

**Answer:** The comment was noted. Teck is planning on using RECLAIM and submitting the results of that exercise in its renewal application.

Question: Teck needs to confirm how much of the tailings impoundment is covered.

Answer: Teck will include this value in the Water License application.

**Question:** Has Teck met with GNWT Lands about the surface leases that were returned? ENR can

provide contacts if required.

**Answer:** No, Teck has not met with GNWT Lands.

Any questions about this Record of Discussion should be directed to Mark Liskowich with SRK Consulting. Mark can be reached at (306) 955 4799 or by email at <a href="mailto:mliskowich@srk.com">mliskowich@srk.com</a>.

Sincerely,

Michelle Unger, B.Sc., Manager, Environmental Compliance

+1 250 427 8422 Tel +1 250 427 8451 Fax www.teck.com

### **Teck**

### Record of Discussion

Pine Point Water License MV2006L2-0013 Renewal Hay River Mayor and Town Council Meeting Tuesday, July 11, 2017, 7:30 pm

This Record of Discussion is for the Hay River Mayor and Town Council Meeting that was held in the Town Council building at 7:30 pm on Tuesday, July 11, 2017. Michelle Unger from Teck Metals Ltd. gave a presentation on the Pine Point Water License MV2006L2-0013 Renewal. A copy of the presentation is attached to these notes.

It is Teck's understanding that the Hay River Town Council meetings are recorded on closed circuit television and later broadcasted on the local community television channel. The meeting was not recorded by Teck or SRK, but notes were taken on the questions that were asked and the answers that were provided in response. The questions that were asked are documented here with minor edits for clarity and conciseness, along with a summary of the answers that were provided. Some questions required follow-up; this Record of Discussion provides additional information on these questions as needed.

A scan of the record of attendance is attached.

### In Attendance:

Stacey Barnes, Town of Hay River
Judy Goucher, Town of Hay River
Brad Mapes, Mayor of Hay River
Jason Coakwell, Town of Hay River
Donna Lee Jungkind, Town of Hay River
Kandis Jameson, Town of Hay River
Steve Anderson, Town of Hay River
Vince McKay, Town of Hay River
Michelle Unger, Teck Metals Ltd.
Clell Crook, Maskwa Engineering
Mark Liskowich, SRK Consulting
Lee Christoffersen, SRK Consulting

### Questions and Answers

**Question:** What are the impacts of too much zinc on people? Would untreated water impact fish and then harm people?

**Answer:** The drinking water quality standard for zinc is 5 mg/L, compared to the 1 mg/L Water License limit. It is an aesthetic standard because zinc makes the water taste bad. *Supplemental information:* Zinc is an essential element needed by the body in small amounts. It is found in most common foods and can be purchased as a dietary supplement. According to the Agency for Toxic Substances and disease

Registry the levels of zinc required to produce adverse health effects are much higher than the recommended dietary allowance of 11 mg/day for men and 8 mg/day for women. Doses of 10 to 15 times higher than these recommended daily doses can cause stomach cramps and vomiting (ATSDR, 2005). The levels of zinc in the water discharged is approximately 0.2 mg/L which is well below the license limit of 1 mg/L as well as the drinking water quality limit of 5 mg/L. The zinc concentrations measured at Great Slave lake are even lower with an average of about 0.02 mg/L which is lower than the CCME guidelines for the protection of fresh water aquatics life (fish) of 0.03 mg/L.

**Question:** Will Darnley Bay need to discharge tailings and can they use the existing tailings impoundment?

**Answer:** The preliminary plans that are publicly available indicate that Darnley Bay is not planning on building another tailings impoundment and will find other methods to store the tailings, such as using them to backfill pits. Teck is not planning on allowing Darnley Bay or others to use the tailings impoundment.

**Question**: The Mayor, Brad Mapes, indicated that he feels positively towards Cominco and offered to write letters of support if they were needed for the application.

**Answer:** Teck thanked the Major for the offer but did not think that letters of support would be needed for the Water License renewal application.

Question: Cominco was 65% of the sponsorship for the last Arctic Winter Games held in Hay River.

Answer: The comment was noted.

**Question:** Can copies of the presentation be sent to the Town Council?

**Answer:** Yes, copies of the presentation can be distributed.

Any questions about this Record of Discussion should be directed to Mark Liskowich with SRK Consulting. Mark can be reached at (306) 955 4799 or by email at <a href="mailto:mliskowich@srk.com">mliskowich@srk.com</a>.

Sincerely,

Michelle Unger, B.Sc., Manager, Environmental Compliance



**Zinc** CAS#: 7440-66-6

Division of Toxicology August 2005

This Public Health Statement is the summary chapter from the Toxicological Profile for Zinc. It is one in a series of Public Health Statements about hazardous substances and their health effects. A shorter version, the ToxFAQs<sup>TM</sup>, is also available. This information is important because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present. For more information, call the ATSDR Information Center at 1-888-422-8737.

This public health statement tells you about zinc and the effects of exposure to it. Zinc is an essential element needed by your body and is commonly found in nutritional supplements. However, taking too much zinc into the body can affect your health.

The Environmental Protection Agency (EPA) identifies the most serious hazardous waste sites in the nation. These sites are then placed on the National Priorities List (NPL) and are targeted for long-term federal clean-up activities. Zinc has been found in at least 985 of the 1,662 current or former NPL sites. Although the total number of NPL sites evaluated for zinc is not known, the possibility exists that the number of sites at which zinc is found may increase in the future as more sites are evaluated. This information is important because these sites may be sources of exposure and exposure to zinc may harm you.

When a substance is released either from a large area, such as an industrial plant, or from a container, such as a drum or bottle, it enters the environment. Such a release does not always lead to exposure. You can be exposed to a substance only when you

come in contact with it. You may be exposed by breathing, eating, or drinking the substance, or by skin contact.

If you are exposed to zinc, many factors will determine whether you will be harmed. These factors include the dose (how much), the duration (how long), and how you come in contact with it. You must also consider any other chemicals you are exposed to and your age, sex, diet, family traits, lifestyle, and state of health.

### 1.1 WHAT IS ZINC?

Zinc is one of the most common elements in the Earth's crust. Zinc is found in the air, soil, and water and is present in all foods. In its pure elemental (or metallic) form, zinc is a bluish-white, shiny metal. Powdered zinc is explosive and may burst into flames if stored in damp places. Metallic zinc has many uses in industry. A common use for zinc is to coat steel and iron as well as other metals to prevent rust and corrosion; this process is called galvanization. Metallic zinc is also mixed with other metals to form alloys such as brass and bronze. A zinc and copper alloy is used to make pennies in the United States. Metallic zinc is also used to make dry cell batteries.

Zinc can also combine with other elements, such as chlorine, oxygen, and sulfur, to form zinc compounds. Zinc compounds that may be found at hazardous waste sites are zinc chloride, zinc oxide, zinc sulfate, and zinc sulfide. Most zinc ore found naturally in the environment is in the form of zinc sulfide. Zinc compounds are widely used in industry. Zinc sulfide and zinc oxide are used to

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make white paints, ceramics, and other products. Zinc oxide is also used in producing rubber. Zinc compounds, such as zinc acetate, zinc chloride, and zinc sulfate, are used in preserving wood and in manufacturing and dyeing fabrics. Zinc chloride is also the major ingredient in smoke from smoke bombs. Zinc compounds are used by the drug industry as ingredients in some common products, such as vitamin supplements, sun blocks, diaper rash ointments, deodorants, athlete's foot preparations, acne and poison ivy preparations, and antidandruff shampoos.

increases. Fish can collect zinc in their bodies from the water they swim in and from the food they eat. Most of the zinc in soil is bound to the soil and does not dissolve in water. However, depending on the type of soil, some zinc may reach groundwater, and contamination of groundwater has occurred from hazardous waste sites. Zinc may be taken up by animals eating soil or drinking water containing zinc. Zinc is also a trace mineral nutrient and as such, small amounts of zinc are needed in all animals.

zinc in water may increase as the acidity of water

## 1.2 WHAT HAPPENS TO ZINC WHEN IT ENTERS THE ENVIRONMENT?

Zinc enters the air, water, and soil as a result of both natural processes and human activities. Most zinc enters the environment as the result of mining, purifying of zinc, lead, and cadmium ores, steel production, coal burning, and burning of wastes. These activities can increase zinc levels in the atmosphere. Waste streams from zinc and other metal manufacturing and zinc chemical industries. domestic waste water, and run-off from soil containing zinc can discharge zinc into waterways. The level of zinc in soil increases mainly from disposal of zinc wastes from metal manufacturing industries and coal ash from electric utilities. Sludge and fertilizer also contribute to increased levels of zinc in the soil. In air, zinc is present mostly as fine dust particles. This dust eventually settles over land and water. Rain and snow aid in removing zinc from air. Most of the zinc in lakes or rivers settles on the bottom. However, a small amount may remain either dissolved in water or as fine suspended particles. The level of dissolved

### 1.3 HOW MIGHT I BE EXPOSED TO ZINC?

Zinc is an essential element needed by your body in small amounts. We are exposed to zinc compounds in food. The average daily zinc intake through the diet in this country ranges from 5.2 to 16.2 milligrams (milligram=0.001 gram). Food may contain levels of zinc ranging from approximately 2 parts of zinc per million (2 ppm) parts of foods (e.g., leafy vegetables) to 29 ppm (meats, fish, poultry). Zinc is also present in most drinking water. Drinking water or other beverages may contain high levels of zinc if they are stored in metal containers or flow through pipes that have been coated with zinc to resist rust. If you take more than the recommended daily amount of supplements containing zinc, you may have higher levels of zinc exposure.

In general, levels of zinc in air are relatively low and fairly constant. Average levels of zinc in the air throughout the United States are less than 1 microgram of zinc per cubic meter ( $\mu g/m^3$ ) of air, but range from 0.1 to 1.7  $\mu g/m^3$  in areas near cities.

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Air near industrial areas may have higher levels of zinc. The average zinc concentration for a 1-year period was  $5 \,\mu g/m^3$  in one area near an industrial source.

In addition to background exposure that all of us experience, about 150,000 people also have a source of occupational exposure to zinc that might elevate their total exposure significantly above the average background exposure. Jobs where people are exposed to zinc include zinc mining, smelting, and welding; manufacture of brass, bronze, or other zinc-containing alloys; manufacture of galvanized metals; and manufacture of machine parts, rubber, paint, linoleum, oilcloths, batteries, some kinds of glass and ceramics, and dyes. People at construction jobs, automobile mechanics, and painters are also exposed to zinc.

# 1.4 HOW CAN ZINC ENTER AND LEAVE MY BODY?

Zinc can enter the body through the digestive tract when you eat food or drink water containing it. Zinc can also enter through your lungs if you inhale zinc dust or fumes from zinc-smelting or zinc-welding operations on your job. The amount of zinc that passes directly through the skin is relatively small. The most likely route of exposure near NPL waste sites is through drinking water containing a high amount of zinc. Zinc is stored throughout the body. Zinc increases in blood and bone most rapidly after exposure. Zinc may stay in the bone for many days after exposure. Normally, zinc leaves the body in urine and feces.

### 1.5 HOW CAN ZINC AFFECT MY HEALTH?

Scientists use many tests to protect the public from harmful effects of toxic chemicals and to find ways for treating persons who have been harmed.

One way to learn whether a chemical will harm people is to determine how the body absorbs, uses, and releases the chemical. For some chemicals, animal testing may be necessary. Animal testing may also help identify health effects such as cancer or birth defects. Without laboratory animals, scientists would lose a basic method for getting information needed to make wise decisions that protect public health. Scientists have the responsibility to treat research animals with care and compassion. Scientists must comply with strict animal care guidelines because laws today protect the welfare of research animals.

Inhaling large amounts of zinc (as zinc dust or fumes from smelting or welding) can cause a specific short-term disease called metal fume fever, which is generally reversible once exposure to zinc ceases. However, very little is known about the long-term effects of breathing zinc dust or fumes.

Taking too much zinc into the body through food, water, or dietary supplements can also affect health. The levels of zinc that produce adverse health effects are much higher than the Recommended Dietary Allowances (RDAs) for zinc of 11 mg/day for men and 8 mg/day for women. If large doses of zinc (10–15 times higher than the RDA) are taken by mouth even for a short time, stomach cramps, nausea, and vomiting may occur. Ingesting high levels of zinc for several months may cause anemia,

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damage the pancreas, and decrease levels of highdensity lipoprotein (HDL) cholesterol.

Eating food containing very large amounts of zinc (1,000 times higher than the RDA) for several months caused many health effects in rats, mice, and ferrets, including anemia and injury to the pancreas and kidney. Rats that ate very large amounts of zinc became infertile. Rats that ate very large amounts of zinc after becoming pregnant had smaller babies. Putting low levels of certain zinc compounds, such as zinc acetate and zinc chloride, on the skin of rabbits, guinea pigs, and mice caused skin irritation. Skin irritation from exposure to these chemicals would probably occur in humans. EPA has determined that because of lack of information, zinc is not classifiable as to its human carcinogenicity.

Consuming too little zinc is at least as important a health problem as consuming too much zinc. Without enough zinc in the diet, people may experience loss of appetite, decreased sense of taste and smell, decreased immune function, slow wound healing, and skin sores. Too little zinc in the diet may also cause poorly developed sex organs and retarded growth in young men. If a pregnant woman does not get enough zinc, her babies may have birth defects.

### 1.6 HOW CAN ZINC AFFECT CHILDREN?

This section discusses potential health effects in humans from exposures during the period from conception to maturity at 18 years of age. Zinc is essential for proper growth and development of young children. Mothers who did not eat enough zinc during pregnancy had a higher frequency of birth defects and gave birth to smaller children (lower birth weight) than mothers whose zinc levels were sufficient. Very young children who did not receive enough zinc in the diet were smaller, both in length and in body weight, than children who ate enough zinc. Some foods, such as soy-based formulas, contain high levels of phytate, which can result in a decreased absorption of zinc in the diet. Too much of these foods may result in effects similar to those that occur when children receive too little zinc in the diet.

Little is known about whether children who eat too much zinc will react differently from adults who have ingested large amounts of zinc. A child who accidentally drank a large amount of a caustic zinc solution was found to have damage to his mouth and stomach, and later to his pancreas, but similar effects have been seen in adults who accidentally drank the same solution.

# 1.7 HOW CAN FAMILIES REDUCE THE RISK OF EXPOSURE TO ZINC

If your doctor finds that you have been exposed to substantial amounts of zinc, ask whether your children might also have been exposed. Your doctor might need to ask your state health department to investigate.

Children living near waste sites containing zinc are likely to be exposed to higher environmental levels of zinc through breathing, drinking contaminated drinking water, touching soil, and eating

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contaminated soil. It is unlikely that a child would ingest enough zinc from eating soil to cause harmful effects. However, parents should supervise to see that children avoid eating soil and wash their hands frequently, especially before eating. Parents should consult their family physicians about whether (and how) hand-to-mouth behaviors in their children might be discouraged.

Children and adults require a certain amount of zinc in the diet in order to remain healthy. However, overuse of some medicines or vitamin supplements containing zinc might be harmful; these medicines should always be used appropriately. If you are accidentally exposed to large amounts of zinc, consult a physician immediately.

# 1.8 IS THERE A MEDICAL TEST TO DETERMINE WHETHER I HAVE BEEN EXPOSED TO ZINC?

Medical tests can determine whether your body fluids contain high levels of zinc. Samples of blood or feces can be collected in a doctor's office and sent to a laboratory that can measure zinc levels. It is easier for most laboratories to measure zinc in blood than in feces. The presence of high levels of zinc in the feces can mean recent high zinc exposure. High levels of zinc in the blood can mean high zinc consumption and/or high exposure. High zinc levels in blood or feces reflect the level of exposure to zinc. Measuring zinc levels in urine and saliva also may provide information about zinc exposure. Tests to measure zinc in hair may provide information on long-term zinc exposure; however, no useful correlation has been found between hair zinc levels and zinc exposure and

these tests are not routinely used. Since zinc levels can be affected by dietary deficiency and cell stress, these results may not be directly related to current zinc exposure.

# 1.9 WHAT RECOMMENDATIONS HAS THE FEDERAL GOVERNMENT MADE TO PROTECT HUMAN HEALTH?

The federal government develops regulations and recommendations to protect public health.

Regulations *can* be enforced by law. The EPA, the Occupational Safety and Health Administration (OSHA), and the Food and Drug Administration (FDA) are some federal agencies that develop regulations for toxic substances. Recommendations provide valuable guidelines to protect public health, but *cannot* be enforced by law. The Agency for Toxic Substances and Disease Registry (ATSDR) and the National Institute for Occupational Safety and Health (NIOSH) are two federal organizations that develop recommendations for toxic substances.

Regulations and recommendations can be expressed as "not-to-exceed" levels, that is, levels of a toxic substance in air, water, soil, or food that do not exceed a critical value that is usually based on levels that affect animals; they are then adjusted to levels that will help protect humans. Sometimes these not-to-exceed levels differ among federal organizations because they used different exposure times (an 8-hour workday or a 24-hour day), different animal studies, or other factors.

Recommendations and regulations are also updated periodically as more information becomes available. For the most current information, check with the

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federal agency or organization that provides it. Some regulations and recommendations for zinc include the following:

The federal government has set standards and guidelines to protect individuals from the potential health effects of excessive zinc. EPA has stated that drinking water should contain no more than 5 mg of zinc per liter of water (5 mg/L or 5 ppm) because of taste. Furthermore, any release of more than 1,000 pounds (or in some cases 5,000 pounds) of zinc or its compounds into the environment (i.e., water, soil, or air) must be reported to EPA.

The National Academy of Sciences (NAS) estimates an RDA for zinc of 11 mg/day (men). Eleven mg/day is the same as 0.16 mg per kilogram (kg) of body weight per day for an average adult male (70 kg). An RDA of 8 mg/day, or 0.13 mg per kg of body weight for an average adult female (60 kg), was established for women because they usually weigh less than men. Lower zinc intake was recommended for infants (2–3 mg/day) and children (5–9 mg/day) because of their lower average body weights. The RDA provides a level of adequate nutritional status for most of the population. Extra dietary levels of zinc are recommended for women during pregnancy and lactation. An RDA of 11-12 mg/day was set for pregnant women. Women who nurse their babies need 12-13 mg/day.

To protect workers, OSHA has set an average legal limit of 1 mg/m<sup>3</sup> for zinc chloride fumes and 5 mg/m<sup>3</sup> for zinc oxide (dusts and fumes) in workplace air during an 8-hour workday, 40-hour work week. This regulation means that the workroom air should contain no more than an average of 1 mg/m<sup>3</sup> of zinc chloride over an 8-hour

working shift of a 40-hour work week. NIOSH similarly recommends that the level of zinc oxide in workplace air should not exceed an average of 1 mg/m<sup>3</sup> over a 10-hour period of a 40-hour work week.

# 1.10 WHERE CAN I GET MORE INFORMATION?

If you have any more questions or concerns, please contact your community or state health or environmental quality department, your regional Nuclear Regulatory Commission office, or contact ATSDR at the address and phone number below.

ATSDR can also tell you the location of occupational and environmental health clinics. These clinics specialize in recognizing, evaluating, and treating illnesses resulting from exposure to hazardous substances.

Toxicological profiles are also available on-line at www.atsdr.cdc.gov and on CD-ROM. You may request a copy of the ATSDR ToxProfiles CD-ROM by calling the information and technical assistance toll-free number at 1-888-42ATSDR (1-888-422-8737), by email at atsdric@cdc.gov, or by writing to:

Agency for Toxic Substances and Disease Registry
Division of Toxicology
1600 Clifton Road NE

Mailstop F-32 Atlanta, GA 30333

Fax: 1-770-488-4178

DEPARTMENT of HEALTH AND HUMAN SERVICES, Public Health Service Agency for Toxic Substances and Disease Registry

# ATSDR AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

### PUBLIC HEALTH STATEMENT

Zinc

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For-profit organizations may request a copy of final profiles from the following:

National Technical Information Service (NTIS) 5285 Port Royal Road Springfield, VA 22161

Phone: 1-800-553-6847 or 1-703-605-6000

Web site: http://www.ntis.gov/

DEPARTMENT of HEALTH AND HUMAN SERVICES, Public Health Service Agency for Toxic Substances and Disease Registry

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### **Teck**

### Record of Discussion

Pine Point Water License MV2006L2-0013 Renewal K'atl'Odeeche First Nations (KFN) Meeting with Chief and Director of Lands, Resources, and Negotiations Wednesday, July 12, 2017, 1:30 pm

This Record of Discussion is for the K'atl'Odeeche First Nations (KFN) meeting that was held in the Band Office at 1:30 pm on Wednesday, July 12, 2017. Michelle Unger from Teck Metals Ltd. gave a presentation on the Pine Point Water License MV2006L2-0013 Renewal. The presentation is provided as an attachment to these notes.

The meeting was not recorded by Teck or SRK, but notes were taken on the questions that were asked and the answers that were provided in response. The questions that were asked are documented here with minor edits for clarity and conciseness, along with a summary of the answers that were provided. Some questions required follow-up; this Record of Discussion provides additional information on these questions as needed.

### In Attendance:

Roy Fabian, KFN Chief
Peter Redvers, KFN Director of Lands, Resources, and Negotiations
Michelle Unger, Teck Metals Ltd.
Clell Crook, Maskwa Engineering
Mark Liskowich, SRK Consulting
Lee Christoffersen, SRK Consulting

### **Questions and Answers**

**Question:** I am disappointed that KFN hasn't been involved before with this project. Cominco should have met with KFN on Day 1. I'm also disappointed that there are many pits on site that are being ignored.

Answer: The comment was noted.

**Question:** Is there any groundwater that can come up into the tailings pond? How does the ponded water get there? Does the water come into contact with the tailings? Is there a liner under the tailings or on top of the tailings? Is groundwater being monitored? Is any seepage flowing out of the tailings impoundment?

**Answer:** There wouldn't be much groundwater coming up into the tailings pond from below because of the difference in permeability. The water is from rain and snow that collects on top of the tailings impoundment and then flows to the north, where it ponds. Most of the tailings impoundment is covered by a till cover placed as part of the approved closure activities, but a small portion of the tailings were left uncovered, so some of the water does come into contact with tailings. There isn't a liner underneath or on top of the tailings. Groundwater is not being monitored. There is likely some seepage coming out of the tailings impoundment, but the clay core of the dam limits it coming out of the embankment.

**Question:** Is the contact water acidic? Are the tailings potentially acid generating (PAG)? How many surface water quality monitoring locations are there? How far does the channel go after the treated water is discharged?

**Answer:** The contact water is not acidic. The tailings are not PAG. There are seven surface water monitoring locations in between the tailings impoundment and Great Slave Lake, plus the ponded water is monitored before and after treatment. The channel of treated water is about 200 m long, and then the water dissipates into the muskeg.

Question: What volume of water is treated?

**Answer:** Teck treats about 10,000 cubic meters (m³) per day. Treatment usually lasts three to six weeks and the total volume is usually about 300,000 m³ each year.

**Question:** Have the Water License limits ever been exceeded?

Answer: No, they have not.

**Question:** I am looking at the site on Google Earth. There are many open pits that are full of water. At the end of mining, the mine couldn't handle all the water, which is part of the reason why it closed. I also see the water treatment plant and the ponded water along the north dyke.

Answer: Yes, the closure plan was to let the pits fill with water.

**Question:** Has the water in the open pits been tested?

**Answer:** Teck has not taken any recent samples from the pits. The pits are located in areas of the original leases that have been returned to the Crown following the implementation of the closure plan and therefore they are no longer located on land leased by Teck. They are on Crown land.

**Question**: Most of the pits are within the Darnley Bay claim area. I'm not sure if they have leases for the surface or just mineral leases. I'm interested in testing the water in the pits but I've heard that it's hard to get into them.

Answer: Yes, there is a safety concern with accessing the open pits for sampling.

**Question**: Are there sampling locations that are reference sites for Great Slave Lake? The current flows east to west in that area so a reference location would be east of the site.

**Answer:** Perhaps station 35-10 was originally intended to be a reference site because it is somewhat east of the site. However, these Surveillance Network Program (SNP) sample locations have been monitored since 1975 and it is difficult to determine why they were originally chosen.

**Question:** DFO did a fish study and found fish with lesions, but they decided not to bring them in and test them.

**Answer:** The comment was noted. Teck is not aware of this fish study and does not have the results.

**Question:** There is a A-run monitoring program that is done with KDFN – Diane is the contact. I think it includes fish monitoring.

**Answer:** The comment was noted. Teck has been monitoring the same locations that were monitored during operations – monitoring started sometime around 1975. The original rationale for all of the monitoring locations was not recorded at the time.

Question: What is the treatment process? What other metals are removed?

**Answer:** The lime raises the pH and metals precipitate out of the water with iron hydroxides and settle on the bottom. The clean water gets discharged. Zinc and most other metals are treated with this process.

Question: What is the timeline for the Water License? Can you extend it?

**Answer:** Water Licenses can be issued for seven or 10 years. Teck is applying for a 10 year Water License.

Question: I am interested in increasing monitoring of the lake.

Answer: The concern was noted.

Question: How much lime is used?

**Answer:** Teck uses one truckload of lime per year – approximately 25 tonnes. The lime comes from Edmonton.

**Question:** KFN has some local sources for lime and has looked into the possibility of supplying lime before. We have an opportunity to co-develop a limestone quarry and the opportunity to get into concrete, as well.

Answer: The comment was noted.

**Question:** We would like to be added to the distribution list for the annual reports. **Answer:** The comment was noted and KFN will be added to the distribution list.

Question: I am interested in taking a look at the site.

**Answer:** That can be arranged.

Question: There is a band member, Henry Tambor, who has a LIDAR 3D mapping and GIS business.

Answer: The comment was noted.

Any questions about this Record of Discussion should be directed to Mark Liskowich with SRK Consulting. Mark can be reached at (306) 955 4799 or by email at <a href="mailto:mliskowich@srk.com">mliskowich@srk.com</a>.

Sincerely,

Michelle Unger, B.Sc., Manager, Environmental Compliance

Teck Metals Ltd. Legacy Properties Bag 2000 Kimberley, BC V1A 3E1 +1 250 427 8422 Tel +1 250 427 8451 Fax www.teck.com

### **Teck**

### Record of Discussion

Pine Point Water License MV2006L2-0013 Renewal Public Meeting Mackenzie Valley Land and Water Board (MVLWB) Meeting Thursday, July 13, 2017, 9:30 am

This Record of Discussion is for the Mackenzie Valley Land and Water Board (MVLWB) meeting that was held in the MVLWB Office at 9:30 am on Thursday, July 13, 2017. Michelle Unger from Teck Metals Ltd. gave an overview of the presentation on the Pine Point Water License MV2006L2-0013 Renewal that was given to stakeholders in Fort Resolution, Hay River and at the Kátł'odeeche Fırst Nation Reserve earlier in the week and summarized some of the questions and concerns from those meetings. The presentation is provided as an attachment to these notes.

The meeting was not recorded by Teck or SRK, but notes were taken on the questions that were asked and the answers that were provided in response. The questions that were asked are documented here with minor edits for clarity and conciseness, along with a summary of the answers that were provided. Some questions required follow-up; this Record of Discussion provides additional information on these questions as needed.

### In Attendance:

Julien Morse, MVLWB Kierney Leach, MVLWB Jen Potten, MVLWB Michelle Unger, Teck Metals Ltd. Mark Liskowich, SRK Consulting Lee Christoffersen, SRK Consulting

### **Questions and Answers**

**Question:** Darnley Bay has applied for a much larger permit for drilling. I wonder if there was overlap between Darnley Bay and Teck.

**Answer:** The preliminary plans that are publicly available indicate that Darnley Bay is not planning on building another tailings impoundment and will find other methods to store the tailings, such as using them to backfill pits. Teck is not planning on allowing Darnley Bay or others to use the tailings impoundment. Darnley Bay was invited to the meetings but did not attend.

**Question:** Is there a vision within Teck to close the site permanently and not keep it in care and maintenance?

**Answer:** Teck thinks it's unlikely that there is a good walkaway solution, but is considering other options that would reduce what care and maintenance is required.

Question: Is it possible to reprocess the tailings and dry stack them?

**Answer:** Teck will consider all conceptual options, but reprocessing the tailings and dry stacking them hasn't been evaluated. It's unlikely that this would be economic.

Question: Are the documents for the dams in compliance with Canadian guidelines?

Answer: Yes, they are.

**Question:** Having two operators living temporarily at the site on an RV does not trigger needing to have a camp permit.

Answer: Noted.

**Question:** What are the concentrations by the time the water gets to Great Slave Lake? Are they close to background?

**Answer:** Yes, concentrations are close to background at the monitoring stations close to Great Slave Lake.

**Question:** It makes sense to drop station 35-6, which is dry. Any suggested change to the SNP program should be supported within the application.

**Answer:** Yes, dropping the dry station from the monitoring program is proposed in the Water License renewal application and Teck will provide a justification for the requested change.

Question: The question on a lot of people's minds is if you are going to treat water forever?

**Answer:** Teck is committed to keeping the surface lease and maintaining the water treatment plant. Teck will not walk away from the site.

Other comments provided by MVLWB include:

The MVLWB staff believes it is reasonable to request a reduction in the sampling frequency from daily to weekly or bi-weekly. They suggested that this was a request the GNWT would provide comment on during their review of the final application.

The MVLWB staff suggested that Teck also meet with representatives of GNWT Water Resources Division of Environment and Natural Resources.

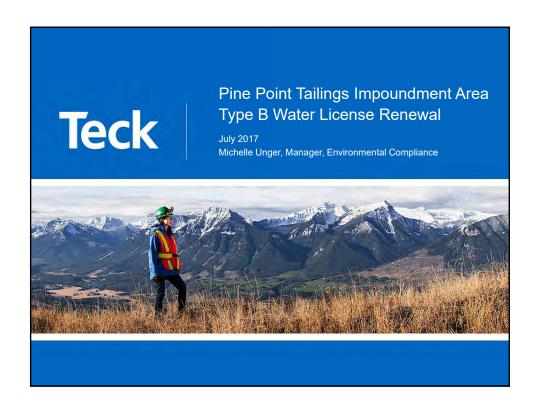
MVLWB staff also indicated that longer license terms longer than the typical 7 to 10-year period would be considered.

Any questions about this Record of Discussion should be directed to Mark Liskowich with SRK Consulting. Mark can be reached at (306) 955 4799 or by email at <a href="mailto:mliskowich@srk.com">mliskowich@srk.com</a>.

Sincerely,

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Michelle Unger, B.Sc., Manager, Environmental Compliance



# Agenda Teck Who We Are The Project History What's Been Done The Plan Moving Forward Questions

# Who We Are Teck Metals Ltd.

### **Teck**

### **Previously Cominco Ltd.**

Pine Point developed by Cominco in the 1960s

· Merged with Teck in 2001

Teck is Canada's largest diversified resource company and is committed to responsible resource development

- Operating sustainably
- Ensuring health and safety
- Building strong relationships with communities



Sampling location 35-10 on the shore of Great Slave Lake

3

# The Project Pine Point Tailings Impoundment Area





Located within the Traditional Territory of the Deninu K'ue and K'atl'Odeeche First Nations and part of the Akaitcho Treaty 8

4

### The Project

Pine Point Tailings Impoundment Area

### Teck

**Teck** 

# Teck holds a surface lease and water license for the tailings impoundment area

- Covers area where Teck treats water that collects on the tailings impoundment
- Monitoring locations outside of surface lease
- All other surface leases returned to the Crown in 1990s after reclamation

Not associated with work by other mining and exploration companies (Darnley Bay, Avalon)



Boundary of surface lease

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### History

### Operated from 1964 to 1988

- Operated under Territorial Water License since at least 1975
- 1989: the townsite was demolished and the mill decommissioned
- 1991: most reclamation work completed, with exception of tailings impoundment
- 1993: tailings cover finished to prevent dust and encourage revegetation

### **Important Documents**

- 1987: Restoration and Abandonment Plan approved
- 2006: Update to Restoration and Abandonment Plan, Tailings Impoundment Area issued
- 2007: Type B Water License issued (expires in October 2017)
- 2017: Draft Water License application submitted in May

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# Dam Safety Ongoing Activities

### **Teck**

### **Dam Safety**

- Dam safety inspections completed every year
  - Geotechnical assessment of dykes and spillways
- · Key documents
  - Emergency Preparedness and Response Plan
  - OMS Manual
- Dam Safety Review every 10 years (last one in 2010)
  - Next Dam Safety Review scheduled for 2020
  - More detailed look at structures



Northwest corner of impoundment, looking south along upstream edge of West Dyke

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# Water Monitoring and Treatment Ongoing Activities

### **Teck**

- Treatment of rain and snow that collects in the tailings impoundment
- Zinc does not meet Water License guidelines without treatment
  - Hydrated lime added to remove zinc
  - Treated water is discharged to a channel that flows 13 km through a muskeg/wetland area to Great Slave Lake
  - Treatment lasts from 3 to 6 weeks during summer

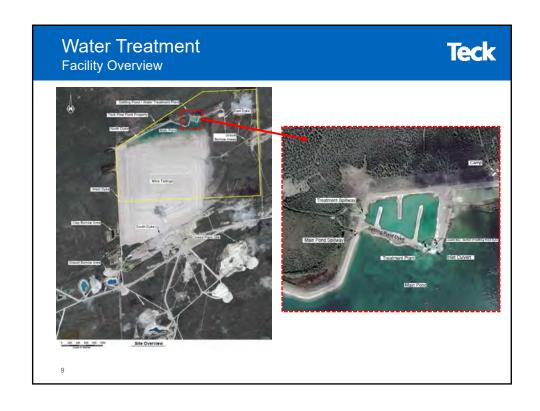


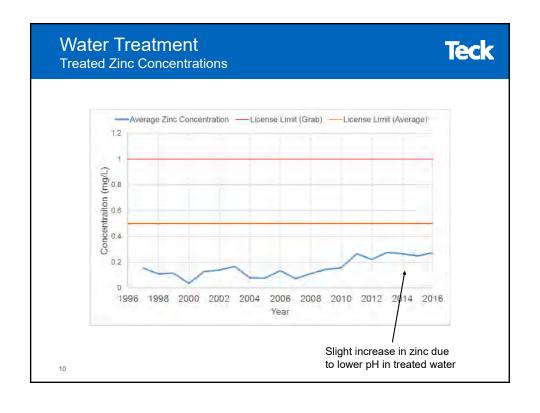
Water treatment pond with lime silo in background

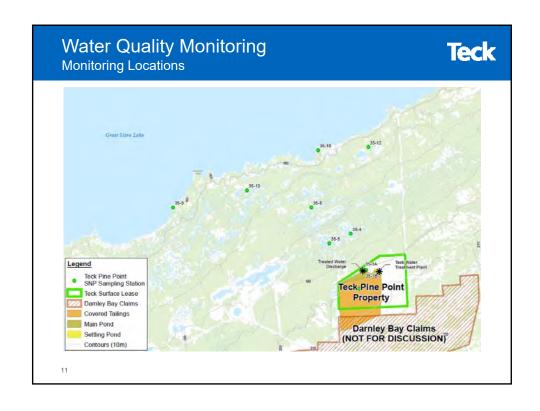


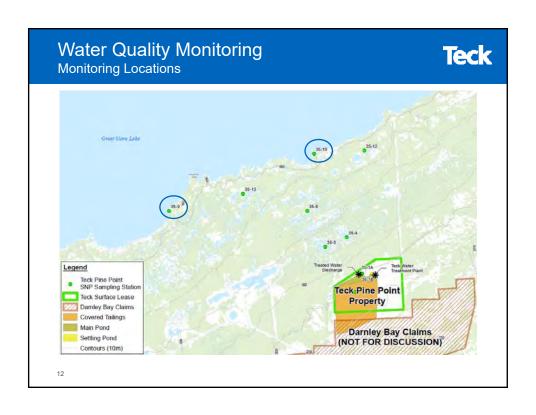
Treated water being discharged into muskeg

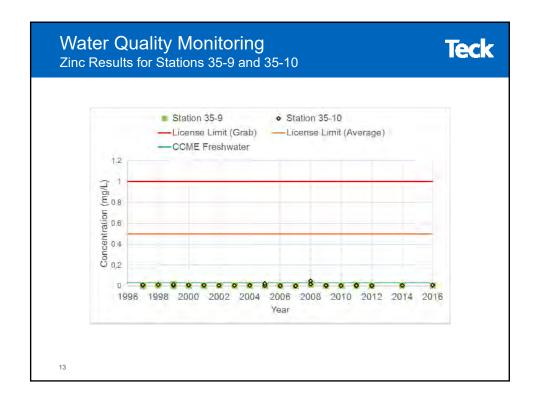
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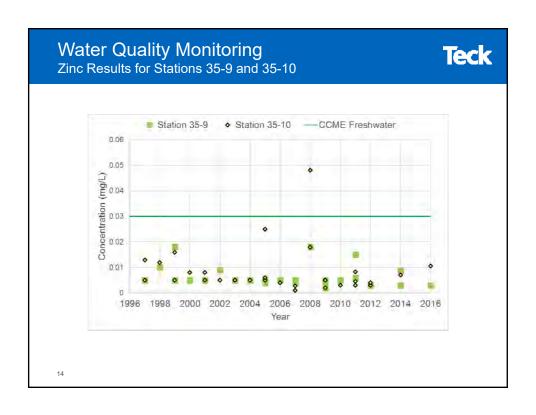


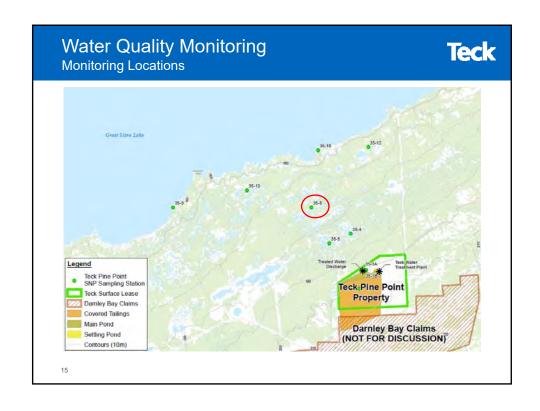


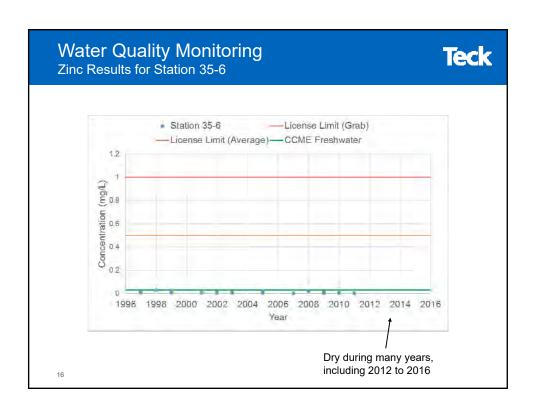


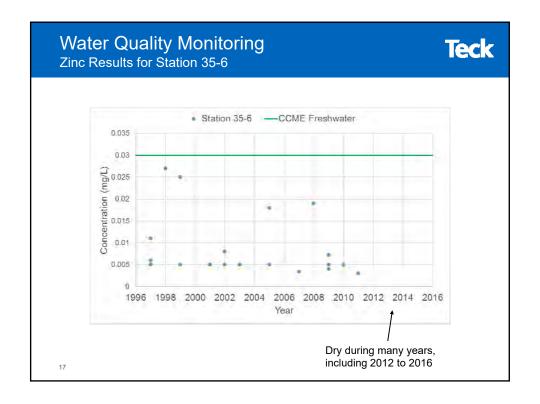












### The Plan Moving Forward

### Teck

### Draft Water License Application submitted May 30

Previous water license expires in October 2017

Teck is committed to continue to meet Water License requirements

- Water monitoring
- Annual water treatment when needed
- Annual dam safety inspections
- Implement OMS



Sampling location 35-5

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	Teck
Questions?	

	Location: Mission Island
	Chief + Comail Meeting
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Carol Collins Claral	and a
Starley Louine Starley	Lam
Frank Lafferty 2015	
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Michelle Unger Mehr	
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Date: July 11, 2017



# **Teck Metals**

### Pine Point Water License MV2006L2-0013 Renewal Public Meeting

Meeting Date: July 11, 2017

Meeting Location: Fort Resolution Community Hall

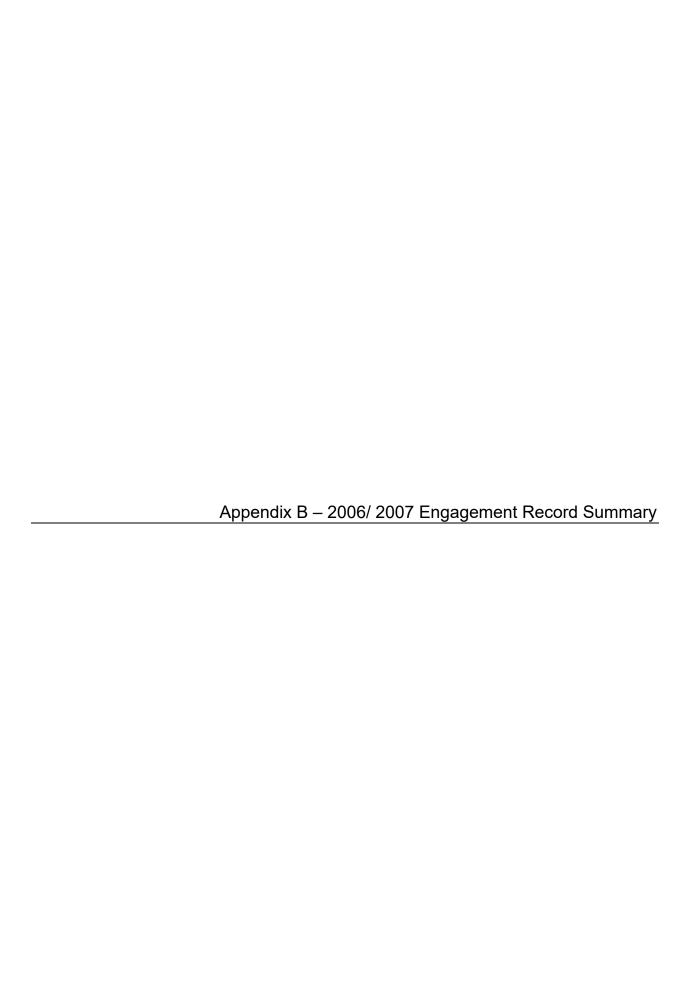
Reason for the Meeting: To inform attendees of the license renewal application and activities licensed by MVLWB.

### **Record of Attendance:**

Name	Signature	Representing	Email
RONALD BENGLEY	Fall Parlin		
Lamond Novn	L. N		
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Lorraine Villeneuve	Lyvillenerse		
DAN JOHN	DJ, Eding		
Lloyd NORN	floyd Noun		

Name	Signature	Representing	Email
Carol Collins.	aral Og/	Hamlet.	Carolc.lands egnail, com
Rosy Bronnson	Hos Boan	DEFN MARKENERS	IMA@DKFN.C
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# PINE POINT WATER LICENCE - LOG OF CONSULTATION

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Affiliation	Form of Contact	From	To	Comment
Fort Resolution			H. SHIFT SHIPE	
Metis Council				
38-0e-06	Latter Observe and	Denog a	President Loyd Cardinal	The presenting application for may listened to discuss any issues or concerns
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45.Feb.07	Drong call		Office	Actual a copy of the Copy 1810s. Tolked by the secondary and second manifesting the copy of the Actual Tolked by the secondary and secondary a
15-Feb-07	Dhone cell	Page C	President Lord Cardinal	Fance or was secretary and published with the Control of the State of
06-Mar-07	×	H Donaid	President Cardinal	The manner of the state of the
12-Mar-07	. TE	EBA Consultants	Council Office	i anno a compass, comerce somewhite coming my meter of material is sit and reference a last resonse. Salo were an emerce from the material water frames and reference and
15-Mar-07	Phone call	B Donald	President Cardinel	He has land claims regotietions all next week. He work know what other meetings are scheduled until these are done. May be arise to meet
<b>⊌</b>				mid to late April
02-Apr-07	Phone ceil	B Donald	Office	Told that Kara King is the new President and to contact her. Left my phone number and emailed her requesting a meeting.
02-Apr-07	Phone call	B Donald	Kare King	She can meet either on the 23rd or 24th, Said I would call near the end of this week to confirm a time. She haves town on the 25th.
13-Apr-07	Phone messaga	B Donald	Kara King	Got her voice mail and confirmed I would be in Hay River the week of April 23rd and would like to set a specific time to meet. Left my ohone number.
19-Apr-07	Phone message	B Donald	Kara King	Left a message on her cell that will be in Hay River the week of Apr 23rd and requested a meeting some time on Tues Apr 24th.
20-Apr-07	Phone Call	B Donaid	Office	No answer and no voice mail avaitable so couldn't leave a message.
Z3-Apr-07	Phone Call	E Donaid	Kera King	Made an appointment to met with her and 7 members of her board on Thurs at 7pm
26-Apr-07	Meeting	B Donaki	Matis Council	Met with Kara and 6 other council members in Ft. Resolution to review our application.
Dening K'ue First Nation				
19-Oct-06	Letter	E Donald	Chief Robert Savine	TC preparing application for new ticence, prenamed in discuss any issues on connems
04-Nov-06	Phone call	Rosie Bjornson	B Donaid	Called and left message to call back.
06-Dec-06	Phone call	B Donald	Rosie Bjornson	She will talk to the Chief and call back.
06-Feb-07				A new Chief Bill Norn was elected
15-Feb-07	Phone call	B Donald	Chief Nom	No anwer or voice mail at the office
15-Feb-07	Fax XB	B Donald	Chiaf Norn	Faxed that we had applied for Water Licence and wanting to meet the Week of Mar 19th.
26-FBb-07	Emailed letter	Bi# Nom	B Donald	The Chief desires a meeting with us and himself & Council & Community and to have a consultant review information. Presented a burinet for
				the costs of various adhitities/expenses
05-Mar-07	Emailed letter	B Donald	E Bjornson	Responded proposing a meeting the week of March 19th or the week following. Will nav for reasonable out of renews and
D6-Mar-07	Email	E Bjarnson	B Donaid	Chief will be out of town March 20 for rest of week. Will see if can meet on the 19th.
06-Mar-07	Email	B Donald	E Bjomson	Thanks
06-Mar-07	Email	E Bjornson	B Donald	Asks if we got a copy of their expense breakdown and a meeting with Chief and Council will cost \$10,000. If so we could meet March 19th
07-Mer-07	Email	E Bjornson	8 Donaid	Am waiting to hear if you can meet with us on the 19th.
07-Mar-07	Emailed letter	B Donald	E Bjornson	Regarding your willingness to meet March 19th, we can't agree to a \$10,000 fee but we are willing if we can adree on reasonable actual costs
07-Mar-07	Email	E Bjornson	B Donald	The DKFN are firm on the \$10,000 to meet with Chief and Council.
12-Mar-07	Mail	E8A Consultants	Band office	Mailed a complete copy of the revised water licence application
13-Mar-07	Email	Steve Ellis	B Donald	You should, however, continue all efforts to meet with the Deninu Kue First Nation on this file, as they are the primarily effected Akaircho First Nation,
:	,	j	:	SE attached a copy of the Guidelines for engaging the Akaitcho Dene First Nations
C-JEWI-91	×e×	Steve Ellis	S Donaid	As the Akaitcho IMA Implementation Coordinator he wanted to stress the importance of meeting with the DKFN
19-Mar-07	Fax / Letter	Chief Norm	B Donald	Faxed letter (original to be mailed) answering the questions posed in his letter of Fab 26th. Restarated that we would like to meet if costs reasonable.
27-Apr-07	Phone Message	E Bjomson	B Donald	Message infine to call her.
03-May-07	Phone Call	B Donald	E Bjornson	Rosie heard I had been in Ft. Resolution and was surprised we hen't contacted them. I indicated that we wanted to meet with them but would not pay a fee to do it.
Sufference Commenters				Rose requested that I call the Chief next week (he is out of the office) and discuss it with him further. I will call him Tues, May 8th.
19.04-06	1980	P Donald	Mayor Elizabath Ann McKay	TC grandistra andication for new ticentre, grand to discuss our increases
90-Dec-09	Phone call & fax	H Donald	Tangi at	to bropanny application to revisite interpreted to describe to the property of
05-Mar-07				the sent force or 100 for 100 for a negative sees it after a share it in the residual any resonance.  Have not the any resonance.

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PINE POINT WATER LICENCE - LOG OF CONSULTATION  Comment	TC preparing application for new licence, prepared to discuss any issues or concerns. He was not in so they took my contact information and agreed to have him call back. He had called back and left a message. I returned his call and he requested a presentation in January. Able is out for a first which the message. I returned his call and he requested a presentation in January. More genomes since.  No response since a request to mental medium the week of March 1914 in and requested a fax resonse. Said were are mailing the application to them. Maked a complete copy of the revised whele histories application to them. She printed to meeting the week of March 1914. I said I would other clients schedules and call back to confirm. She thinks the Chief is aveilable on Natrol 1914. I said I would other clients schedules and call back to confirm. She said there had been a death in the community so she would need to can't far a far and requesting confirmation of meeting date. I said were cancel my trevel plans. Also emailed har. Called and she said there had been a death in the community so she would need to reached my trevel plans. Also emailed har. Called and she said there had been a death in the community so she would need to cancel my trevel plans. Also emailed har. Called and she said there had been a death in the community so she would need to leave in a few hours and confirmation of our revening. She will also to Chief to confirm a time.  Chief and and she said there had been a death in the confirmation of evening.  She will also to Chief to confirm a time.  Wishoria was busy so left a message for her to call for this week as a would need to leave the confirmation of the request to meet Chief and Councils at a said and she and the chief and Councils are guided at 20 m. And the said she would are said she would are confirmation on evening.  Emailed and confirmation are chief and Council at 5 m Aorit 24th.	TC preparing application for new licence, prepared to discuss any issues or concerns  Under response.  Under the confirm they got our letter and to lat us know if they had any questions. Left contact info.  No further response.  All adied office. Data was not in so they gues me an alternate number to call.  All adied office. Data was not in so they gues me an alternate number to call.  No further relow up as they were not on the MALWB list of required groups to meet.  TC preparing application for new ficence, prepared to discuss any issues or concerns  Left my conflect information and asked for a call fact, regarding our letter of Oct 19th.  Would like to schedule a meeting in the New Yeer.  Asked Vern to call back in regard to PP. Left my phone number.  Mo further response.  Asked Vern to call back in regard to PP. Left my phone number.  Mo further response.  Faxed a request to meet sometime during the week of March 19th and reqested a fax resonae. Said were are mailing the application to them.  Mealed a complete copy of the revised water licence application and read in the New Yeer.  Mealed a complete copy of the revised water licence application and read in the new of frown but an errail suggesting feer 21 or 22nd to meet with others will be comfined to the new and to frow mean the news of April 23nd.  Meal meetings on the 21 sto call 21st or the 22nd if possible.  Was not able to confirmation and 1 bild her I was still waiting for confirmation from the only other group I was meeting on the 21 sto or the 22nd and would called the confirmation and the week of April 23nd.  Met with them at their office for a 1 1/2hrs to review our application, answer their questions, and hear their concerns.  TC preparing explication for new licence, prepared to discuss any issues or concerns  She talked with the Senior Executive Officer and called me back saying they had no commann.	MALWB notified us we should include the WPFN in consultation Phoned but got answering machine. Explained I wanted to talk about our Wafer Licence application and teft my phone number. No response to my call but understand the Chief has not been in the office. Alemnals is Affand Manager Wendy Cayen Attempted faxing offer to meet but there is no response from their far machine. 274-2486 Call can not be completed as dialed. Checked both the dehochefixanations, com web site and MALWB contact list to confirm the numbers. emailed dehochofirstnations, com web, site with the request to meet but email delivery failed. Have couriered a copy of the application to them.
PINE POIN	Chief Apec Sunrise Office Office Chief Aber Sunrise Office Chief Sunriso Bend office Bond office Brende Brende Brende Brende Bronald Brende Bronald Wictoria Victoria Victoria Victoria Victoria Victoria Office Victoria Victoria Office Victoria Office Victoria Office Victoria Office Victoria	President Dana Cross Office Receptanist President Vernon Jones Let voice message B Donald Lett voice message President Jones Council office Office Office President Jones President Jones President Jones President Jones Belinda Mandvaif Belinda Mandvaif Belinda Namdvaif Belinda N	Chief Karen Felker Chief Felker Chief Felker 874-6677
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Form of Contact	Letter Phone call Phone call Phone call Fax Mail Phone Call Fmail Phone call	Letter Mail Mail Phone call Letter Phone call Letter Phone call	Phone call Fax Phone Call
Affiliation	Hay River Kalibdeechee First Nation 1-06-06 11-06-06 15-6b-07 15-8b-07	Metis Mation  19-0ct-06  19-0ct-06  10-0cc-99  15-Mar-07  13-Mar-07  15-Mar-07  15-Mar-0	Wast Point First Nation 06-Feb-07 28-Feb-07 05-Mar-07 06-Mar-07 13-Mar-07

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PINE POINT WATER LICENCE - LOG OF CONSULTATION	
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Comment	Notified Feb 8th by MVLWB that need to include them in consultation.  Notified Feb 8th by MVLWB that need to include them in consultation.  Faxed a request to incommow so to left a manages esympt to wished to discuss our Water Licentce application and grave my phone #.  Faxed a request to meet sometime during the week or March 18th and requested a fax resonse. Said were are mailing the application to them. Mailed a complete copy of the revised water licentce application and requested a fax resonse and that Lee normally believe with this and she is so that life and and if the life week of March 18th. Also the Chief is not in as he is sick. Lieft my number and said i would also call Lee hand when the she week of the life week of April 23rd and to call back to discuss.  She indicated that she would file to come to Hay River and meet with us at the meeting with the Kathodechee FM.  Victoria will let me know Tues when we can meet and if you can afterind with them. Otherwise I will make separate arrangements with you. Am meeting the Kathodechee or 24th at 5 pm. If you can't attend that meeting we can meet a sparated arrangements with you. Shat another email requesting a reply regarding setting up a meeting.	TC preparing application for new licence, prepared to discuss any issues or concerns President Hudson was out of office so called his cell. He has't had a chance to look at it, call back next week. No response to my call.  Malled a complete copy of the revised water licence application.  TC preparing application for new licence, prapared to discuss any issues or concerns. As are as the town is concerned, there is no impact so they have no comments.	TC preparing application for new licence, prepared to discuss any issues or concerns email replaced secures and the total to us. Let a message that phone discussion saying they would like to talk to us. Let a message that they would like to talk to us. Let a message that I would call back. Let a message that I would call back. Let a ment sometime during the weak of March 19th and repeated or not plete copy of the revised water licence application. Mailed a complete copy of the revised water licence application from the ment sometime during the weak of and should contact thin they River informer that view, boxing the weak of and all these. I let a message saying I would be available to meet the weak of April 23rd if interested. Chris theron the available to meet the weak of April 23rd. He has no cell but can try his small the street and return the provide the verying it would be available to meet the April 23rd. He has no cell but can try his small the street and return the April 25 or 25 if he is interested. Asked for an email reply. Chris encouraged my meetings with the Metis in Hay River and Ft. Resolution and said he wanted thair comments before deciding on any further meetings or response.	Notified Fab 6th by MVLWB that need to include tham in consultation.  Left a message for Steve to call me. Explained we were apply for a new water licence and I would mail a copy of the application. The secretary tool me Steve is could the office this and next week. Tell a phone number for him to call back.  Mailed a latter and a copy of the explication by express post.  Faxed a request to meet sometime during the week of March 19th and requsted a fax resonse. Said were are mailing the application to them.  Mailed as complete copy of the revised were it leaven application. Sometimes are mailed to the application to them.  Mailed as complete oppy of the revised were it leaven as a faxed to some and the copy of the revised were it leaven application. Sometimes sent to copy of the Availation Guidelines for Minneral Exploration Companies Seeking to Engage the Akaitand Dene First Nations Stephen included a copy of the revised.
To	Grand Chiel Herb Norwegian Office roceptionist Grand Chiel Norwegian Band office Office Lee Thom Lee Thom	President Ken Hudson President Ken Hudson Council office Mayor Peter Marselos Roy Scott	President Robert Tordiff B Donald B Donald Cer Henon President Tordiff Meths Netion Office Office Office Chris Heron Office Chris Heron Chris Heron Chris Heron Chris Heron	Treaty office - Stephen Ellis Stave Ellis Stephen Ellis Tribal Corporation Office B Deneid S Ellis
From	B Donakl	B Donald B Donald EBA Consultants B Donald B Donald	B Donald Caedia Heron Cae Heron B Donald B Donald	B Donald B Donald B Donald B Donald EBA Consultants Stephen Ellis B Donald
Form of Contact	Phone call Fax Mail Phone Call Phone Call Phone call Email Email	Letter Phone call Mail Mail Letter Phone call	Letter Phone call & smail Phone Call Phone Call Phone Call Phone call Phone call Phone call Email Phone call Email	Progration Phone call Letter Fax Mail Email
Affiliation	Fort Simpson Dehcho First Nation 06-Feb-07 06-Mar-07 12-Mar-07 13-Mar-07 12-Apr-07 13-Apr-07 18-Apr-07	Fort Smith  Melis Council 19-04-06 05-Mar-07 12-Mar-07 Town of Fort Smith 19-04-06 06-Dec-06	NWT Matis Nation 19-Oct-06 30-Oct-06 30-Oct-06 06-Dec-06 06-Mar-07 12-Mar-07 13-Apr-07 20-Apr-07 20-Apr-07	Lutsel K'e  NWT Treaty #8 Tribal Corporation 06-Feb-07 16-Feb-07 06-Mar-07 13-Mar-07 19-Mar-07 Fax