



Mackenzie Valley Land and Water Board
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Staff Report

Applicant: North American Tungsten Corporation Ltd.	
Location: Cantung Mine, NT	File Number: MV2015L2-0003
Date Prepared: July 29, 2019	Date of Board Meeting: August 29, 2019
Subject: 2018 Annual Water Licence Report	

1. Purpose

The purpose of this Report is to present to the Mackenzie Valley Land and Water Board (MVLWB/the Board) with the 2018 Annual Water Licence Report (Annual Report) submitted by North American Tungsten Corporation Ltd (NATCL) for the Cantung Mine, to fulfill Part B, condition 12 of Water Licence MV2015L2-0003 (Licence).

2. Background

- September 9, 2015 – Notice received of temporary shutdown of Cantung mine, and transition to care and maintenance;
- January 28, 2016 – Issuance and Effective Date of the Licence;
- March 30, 2019 – Annual Report submitted;
- April 12, 2019 – Review commenced;
- May 8, 2019 – Reviewer Comments Received;
- May 15, 2019 – Company Responses Received;
- **August 29, 2019 – Annual Report presented to Board for notification;** and
- January 27, 2024 – Expiration of Licence.

3. Discussion

Part B, condition 12 of Licence MV2015L2-0003 requires NATCL to submit and Annual Water Licence Report by March 31. Schedule 1 outlines the requirements of each annual report submission. NATCL submitted their 2018 Annual Water Licence Report on March 30, 2019 (attached).

4. Comments

Land Use Permits

NATCL's Land Use Permit MV2014C0015, for mineral exploration on the Cantung mineral leases, recently expired on July 2nd, 2019. Requests for submission of a final plan and final inspection have been distributed.

NATCL current also holds two current Land Use Permits with the MVLWB.

- a) Land Use Permit MV2014D0012 is for road upgrading and re-alignment, and construction and operation of Dry Stack Tailings Storage Facility. The Permit was issued on March 2, 2016 for a period of five years, expiring March 1, 2020.
- b) Land Use Permit MV2019S0009 is for geotechnical borehole drilling and test pitting to assess types and quantities of borrow source materials for potential future remediation activity at the mine and assess slope stability in the Tailings Storage Facility 6 area. The Permit was issued on June 5, 2019 for a period of five years, expiring June 4, 2024.

5. Public Review

By May 8, 2019, comments and recommendations on the Annual Report were received from two reviewers: Environment and Climate Change Canada (ECCC) and Government of the Northwest Territories-Environment and Natural Resources (GNWT-ENR).

NATCL responded by May 15, 2019. The Review Summary and Attachments (attached) presents the concerns identified through this review.

Analysis of the 2018 Annual Water Licence Report

Table 1 below lists the components of the Annual Report required in the Licence and provides an analysis of the submission.

Table 1: Adequacy of the 2018 Water Licence Report

	Components of the Report as required in Schedule 1, condition 1 of the Licence	Board staff analysis of the Report in addressing the component
a)	<i>A summary of engagement activities conducted in accordance with the approved Engagement Plan, referred to in Part B, item 14 of this Licence, undertaken during the previous calendar year, including a brief description of activities planned for the forthcoming year;</i>	Adequate. Section 2.0 (of the Report). NATCL conducted engagement and site visits in 2018. The Report notes revisions to the Engagement Plan are forthcoming in 2019.
b)	<i>An updated Project plan;</i>	Adequate. Section 3.0. The mine transition into Care and maintenance in November 2015. Since then, a small team has conducted care and maintenance activities on-site. No production is occurring. There is no known plans of change in status.
c)	<i>A summary of construction and maintenance activities conducted in accordance with Part E of this Licence, undertaken during the previous calendar year;</i>	Adequate. Section 4.0. Daily operations and maintenance inspections of the Tailings Storage Facilities

		(TSF) are conducted. Inclinometer monitoring of TSF-4 indicates no significant displacements. Pore pressures are decreasing, which is attributed to cessation of tailings deposition. No underground construction, open pit mining, or exploration activities occurred in 2018
d)	<i>A summary of Modification activities conducted in accordance with Part F of this Licence, undertaken during the previous calendar year;</i>	Adequate. Section 5.0. None conducted.
e)	<i>A summary of activities conducted in accordance with the approved Waste Management Plan referred to in Part G, item 2 of this Licence, undertaken during the previous calendar year, including a summary of updates or changes to the processes or facilities required for the management of Waste, including the following:</i> <i>i. Monthly and annual quantities in cubic meters of soil treated in the Landfarm;</i> <i>ii. Monthly and annual quantities of solid Waste disposed of in the Solid Waste Disposal Facility;</i> <i>iii. Monthly and annual quantities of hazardous Waste generated and removed from the Project site; and</i> <i>iv. A summary of weekly Waste Rock composites, geochemical analysis, including acid base accounting analysis, sampling dates, and geologic rock types.</i>	Adequate. Section 6.0 Ash from the incinerator and burn-bin that meets the applicable criteria is landfilled on-site. Used oil is burned in waste-oil specific furnaces and met the applicable criteria. Recyclables are removed from site to Watson Lake. No activities are occurring at the Landfarm. No waste rock was generated or used for construction activities in 2018. GNWT-ENR comment ID 2 requested information about the long-term plans for the contaminated material that is currently stored in the Landfarm. NATCL responded that they are including this in their Phase II Environmental Site Assessment. They are conducting ongoing groundwater monitoring around the landfarm area and results are presented in monthly SNP reports. To date, these results are below criteria, with the majority being below the analytical detection limit.
f)	<i>A summary of activities conducted in accordance with the approved Water Management and Mine-site Erosion and Sediment Protection Plan referred to in Part G, item 3 of this Licence, undertaken during the previous calendar year, including a summary of updates or changes to the process or facilities required for the management of Water or liquid Waste, including the following:</i> <i>i. Monthly and annual quantities in cubic metres of Water pumped from the Flat River;</i> <i>ii. Monthly and annual quantities in cubic metres of liquid Waste pumped from each Dry Stack Tailings Storage Facility and directed to the Wastewater Treatment Facilities or the Tailings Containment Area, identified by facility;</i> <i>iii. Monthly and annual quantities in cubic metres of the solid and liquid fractions discharged to the Tailings Containment Area;</i> <i>iv. Weekly and annual quantities in cubic metres of liquid Waste discharged from the</i>	Adequate. Section 7.0. The source water for camp use is the Flat River. No tailings or mill process water was produced in 2018. During the summer months, dust from the tailings facilities is managed using irrigation-like sprinklers and wastewater from TP5 and mine seepage station S4-42. The Wastewater Treatment Facility (WWTF) has not been in use since November 2015. Treated sewage from the Sewage Treatment Plan is discharged to TP4.

	<p><i>Wastewater Treatment Facilities to Stinky Pond;</i></p> <p><i>v. Monthly and annual quantities in cubic metres of liquid Waste discharged from Stinky Pond to the Flat River;</i></p> <p><i>vi. Weekly and annual Flat River flow volume in cubic metres;</i></p> <p><i>vii. Monthly and annual quantities in cubic metres of treated Sewage discharged to the Tailings Containment Area;</i></p> <p><i>viii. Monthly and annual quantities in cubic metres of recycled Minewater;</i></p> <p><i>ix. Monthly and annual estimates and measurements of precipitation and runoff;</i></p> <p><i>x. Monthly and annual quantities of Water in cubic metres used for dust control;</i></p> <p><i>xi. A description of any erosion susceptible areas encountered and a summary of activities to prevent or mitigate erosion;</i></p> <p><i>xii. A report of the performance of erosion mitigations applied to each area;</i></p> <p><i>xiii. A summary and interpretation of monitoring results, including any Action Level exceedances;</i></p> <p><i>xiv. A description of actions taken in response to any Action Level exceedances; and</i></p> <p><i>xv. An updated Water balance if required as per the approved Plan;</i></p>	
g)	<p><i>A summary of activities conducted in accordance with the approved Flat River Erosion and Sediment Protection Plan referred to in Part G, item 4 of this Licence, undertaken during the previous calendar year, including the following:</i></p> <p><i>i. A description of any erosion susceptible areas encountered and a summary of activities to prevent or mitigate erosion; and</i></p> <p><i>ii. A report of the performance of erosion mitigations applied to each area;</i></p>	<p>Adequate. Section 8.0. Maintenance of existing erosion and sediment protection infrastructure is on-going.</p>
h)	<p><i>A summary of activities conducted in accordance with the approved Tailings Processing and Storage Facilities Management and Monitoring Plan referred to in Part G, item 14 of this Licence, undertaken during the previous calendar year, including any Action Level exceedances and a description of actions taken in response to any Action Level exceedances:</i></p> <p><i>i. Monthly, annual, and total quantities in cubic metres of solid Waste discharged to each of the Dry Stack Tailings Storage Facilities;</i></p> <p><i>ii. The total size of each of the Dry Stack Tailings Storage Facilities, including the area of the covered portion(s), the area of the open portion(s), and the minimum and maximum heights;</i></p> <p><i>iii. A summary of the moisture and density data gathered for each of the Dry Stack Tailings Storage Facilities; and</i></p> <p><i>iv. A summary and interpretation of monitoring results, including any Action Level exceedances; and</i></p>	<p>Adequate. Section 9.0. Not applicable due to care and maintenance status.</p>

	<p>v. A description of actions taken in response to Action Level exceedances;</p>	
i)	<p>A summary of activities conducted in accordance with the following approved plans, undertaken during the previous calendar year, including any Action Level exceedances and a description of actions taken in response to any Action Level exceedances for the following plans in Part G of this Licence:</p> <ul style="list-style-type: none"> i. Groundwater Pumping Contingency Plan; ii. Tailings Containment Area and Dry Stack Tailings Storage Facilities Emergency Preparedness Plan; iii. Wastewater Treatment Facilities Operations, Maintenance and Surveillance Manual; and iv. Flat River Hydrology Plan, including: <ul style="list-style-type: none"> i. Daily, weekly, and annual flow data for the Middle Bridge station; ii. The transition dates for high and low flow season Discharge from the Wastewater Treatment Facility; iii. The number of days that the Wastewater Treatment Facility discharged at a rate greater than 4,500 m³/day; iv. Dates and documentation of the ice-on and ice-off conditions; v. Summaries of flows measured in tributary streams; vi. Flow rates measured at the surface runoff stations; and vii. An updated stage-discharge rating curve for the Surveillance Network Monitoring Stations 4-45 and 4-5; 	<p>Adequate.</p> <p>Section 10.0 and 19.4 and Appendix J; Section 12.0; Section 13.0</p> <p>In 2018, two exceedances of total suspended solids (TSS) occurred in samples from a groundwater monitoring well east of TP 1 and 2 (S4-27-16). These were reported to an Inspector. The Inspector confirmed that the Groundwater Pumping Plan was not required to be implemented because:</p> <ul style="list-style-type: none"> - These results are consistent with historical TSS results dating back to 2009 and are attributed to the production of gypsum within the well. - The water is not high in any deleterious metals. - Oxidization of iron at the surface may have created a precipitate that resulted in elevated TSS (at the time of analysis). <p>Activities, including discharge, from the Wastewater Treatment Facility O and M Manual have been suspended.</p> <p>Monitoring of the flow of the Flat River and its tributaries was monitored as per the approved Hydrology Management Plan; data fell within the range of what was expected.</p>
j)	<p>A summary of actions taken in response to the various inspections conducted during the previous calendar year referred to in Part G of this Licence, including the following:</p> <ul style="list-style-type: none"> i. Geotechnical Inspection Report for the geotechnical inspection(s); ii. Dam Safety Review Report when the Dam Safety Review was conducted; and iii. Dry Stack Tailings Storage Facilities Inspection and Review Report when the Dry Stack Tailings Storage Facilities Inspection and Review was conducted; 	<p>Adequate.</p> <p>Section 11.0, 14.0, 15.0, 16.0, and 18.1.</p> <p>Tetra Tech completed the 2018 geotechnical inspection. Slopes, crests, abutments and downstream toes were inspected for distress, cracking, settling, seepage, and slumping. The Tailings Pond embankments and interceptor trenches were in good condition. NATCL plans to address the wind-blown tailings downwind of TP3 and TP4 in summer/fall 2019. ECCC comment ID 2 requested clarification about when and how this will be actioned. NATCL's response noted appropriate contingencies for field conditions and equipment. Sediment and erosion control measures will be taken, along with site inspections and photographs of the activities. Suppression of wind-borne tailings will continue to be managed using irrigation-like sprinklers and wastewater.</p>

		<p>The next Dam Safety Review is planned for 2022. Long-term dam stability options are being evaluated through the Phase III Environmental Site Assessment (ESA) that was initiated in 2017. The ESA will also provide a framework for further development of the Closure and Reclamation Plan (CRP), including the development of remedial and/or closure options. Recommendations from this ESA should be included with the next CRP revision (due March 31, 2020). NATCL foresees an amendment process to develop applicable EQC for discharges occurring during care and maintenance, as the current EQCs were developed for discharge during mining operations.</p> <p>The dry stack facilities have not been constructed due to care and maintenance activities.</p>
k)	<p><i>A summary of activities conducted in accordance with the approved Spill Contingency Plan, required in Part I, item 1 of this Licence, undertaken during the previous calendar year, including the following:</i></p> <ul style="list-style-type: none"> <i>i. A list and description for all Unauthorized Discharges that occurred during the previous calendar year, including the date, NWT spill number, volume, location, summary of the circumstances and follow-up actions taken, and status (i.e. open or closed), in accordance with the reporting requirements in Part I, item 2 of this Licence;</i> <i>ii. An outline of any spill training and communications exercises carried out during the previous calendar year; and</i> <i>iii. A detailed discussion on the performance, installation, and evaluation, including the use of photographs, of the primary and secondary containment measures used in fuel storage to prevent impacts to all Waters;</i> 	<p>Adequate.</p> <p>Section 17.0.</p> <p>NATCL has several tanks they are actively using for gasoline and diesel; secondary containment methods, monitoring, and inspections are in effect. There were no unauthorized discharges reportable to the NWT Spill Report Line during 2018.</p>
l)	<p><i>A summary of activities conducted in accordance with the approved Interim Closure and Reclamation Plan referred to in Part J, item 1 of this Licence, undertaken during the previous calendar year, including the following:</i></p> <ul style="list-style-type: none"> <i>i. A progress report on any reclamation research programs undertaken during the year;</i> <i>ii. A progress report on the Flat River risk assessment;</i> <i>iii. A summary of any Progressive Reclamation work undertaken during the year, supported by applicable environmental or analytical reports;</i> <i>iv. An evaluation of the previous year's reclamation work;</i> 	<p>Section 18.0</p> <p>Closure and reclamation objectives were approved in 2015. The next revision of the Closure and Reclamation Plan is due March 21, 2020.</p> <p>Progressive reclamation activities at the site include processing of uncontaminated waster oil; monitoring of the Tailings Containment Area; collection of hazardous waste for removal from the site; removal of equipment from the underground and site, for sale; regarding and improvements to draining at the quarry; continuation of the</p>

	<p>v. An outline of activities planned for the forthcoming calendar year; and</p> <p>vi. Any adjustments or transactions made in regards to the security deposit;</p>	<p>Phase III ESA and Human Health and Ecological Risk Assessment.</p> <p>GNWT-ENR Comment ID 1 requested clarification about the quality of the water in the quarry that is being passively diverted into a wooded area, away from the Flat River. NATCL is managing the water in conjunction with regular communications with an Inspector. No water quality concerns have been identified at the nearby SNP stations; any concerns would be identified in monthly SNP reports. Ongoing monitoring of the area and communication with an Inspector is planned.</p>
m)	<p>A progress report on any studies or plans, as requested by the Board during the previous calendar year and a brief description of any future studies planned by the Licensee;</p>	None requested.
n)	<p>Any other details on Water Use or Waste disposal requested by the Board by November 1st of the year being reported;</p>	None requested.
o)	<p>A summary of the calibration and status of the meters and devices referred to in Part B, item 10 of this Licence;</p>	Adequate.
p)	<p>Tabular summaries of all data and information generated during the previous calendar year under the Surveillance Network Program, and graphical summaries of parameters with EQC referred to in Part G, at the points of compliance (Surveillance Network Program stations 4-27-4, 4-27-7 TO 4-27-16 (inclusive), 4-28-1, 4-28-2, 4-34 and 4-43), in excel or an electronic and printed format acceptable to the Board. The Licensee shall provide raw data in electronic form to the Board;</p>	<p>Adequate. Section 19.0. NATCL is required to conduct the SNP and sampling to satisfy the MMER (Metal Mining Effluent Regulations); both sets of data are reported in the Annual Report.</p>
q)	<p>Discussion of any problems with data collection, analysis, or results;</p>	<p>Section 19.3. Adequate.</p>
r)	<p>A list of submissions made to the Board during the previous calendar year; and</p>	<p>Adequate. Table 11.</p>
s)	<p>A summary of actions taken to address concerns, non-conformances, or deficiencies in any reports filed by an Inspector during the previous calendar year.</p>	<p>Adequate. See (i) above.</p>

Board staff suggest NATCL responded appropriately and completely to all comments.

6. Security

Licence requirements

Part C, condition 1 and Schedule 2, condition 1 of the Licence requires NATCL to post security using a phased approach totaling \$30,950,000.00. The status of security for this Project will not be affected by the Board's consideration of the Annual Report.

Creditor Protection Proceedings Are Ongoing

The Cantung Mine has been in care and maintenance since September 9, 2015, when NATCL was placed in receivership. The mine is currently managed by Alvarez & Marsal Canada Inc., which is funded by the Department of Crown-Indigenous Relations and Northern Affairs (CIRNA), who are responsible for the lands associated with the mine site in accordance with the Northwest Territories Devolution Agreement.

The Board continues to receive updates from the Monitor for the Supreme Court of British Columbia under the *Companies' Creditors Arrangement Act* (CCAA) regarding the creditor protection proceedings for the project; these updates are posted to the public registry for Licence MV2015L2-0004. A sale and investment solicitation process has been facilitated by the Monitor; however, no bids were received for the site as of the writing of this Staff Report.

7. Conclusion

Board staff conclude that further information was provided by NATCL in their responses to reviewer comments, and that there are no outstanding issues or concerns with this Annual Report.

8. Recommendation

Board staff recommend the Board **acknowledge the 2018 Annual Water Licence Report**, as submitted to fulfill Part B, condition 12 of Water Licence MV2015L2-0003.

A draft acknowledgement letter is attached.

9. Attachments

- [2018 Annual Water Licence Report](#)
- Review Summary and Attachments
- Draft Acknowledgement Letter from the Board

Respectfully submitted,



Jen Potten
Regulatory Coordinator

Review Comment Table

Board:	MVLWB
Review Item:	North American Tungsten Corporation - 2018 Annual Water Licence Report (MV2015L2-0003)
File(s):	MV2015L2-0003
Proponent:	North American Tungsten
Document(s):	MV2015L2-0003 - NATCL - 2018 Annual Water Licence Report (14.86MB)
Item For Review Distributed On:	Apr 12 at 15:13 Distribution List
Reviewer Comments Due By:	May 8, 2019
Proponent Responses Due By:	May 15, 2019
Item Description:	<p>North American Tungsten Corporation Ltd. (NATCL) submitted their 2018 Annual Water Licence Report on March 30, 2019. This Report is required by Water Licence MV2015L2-0003, Part B, condition 12 and Schedule 1, Item 1. REVIEWERS PLEASE NOTE - in order to view the attached appendices, the document must be downloaded and opened with Adobe Acrobat.</p> <p>Although formal approval of this Report is not required under the Licence, the Board must be satisfied that the Licensee has met the requirements of the Licence. Therefore, reviewers are invited to submit comments and recommendations using the Online Review System (ORS) by the review comment deadline specified below. If reviewers seek clarification on the submission, they are encouraged to correspond directly with the proponent prior to submitting comments and recommendations.</p> <p>All documents that have been uploaded to this review are also available on our public Registry. If you have any questions or comments about the ORS or this review, please contact Board staff identified below.</p>
General Reviewer Information:	This ORS item has also been distributed by fax to the following organization: Fort Simpson Métis Local #52 Marie Lafferty President (867)695-2040;
Contact Information:	David Finch 867 766 7467 Julian Morse 867-766-7453

Comment Summary

Environment and Climate Change Canada: Richard Bingley				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	General File	Comment (doc) ECCC Coverletter Recommendation		Noted.
2	North American Tungsten Corporation Ltd. 2018 Annual Report - Water License MV2015L2-0003 - Cantung Mine. March 2019.	Comment The Proponent states that "wind-blown tailings on the downwind side of TP3 and the crest and downwind side of TP4 should either be excavated and placed in either TP3 or TP4, or covered/armoured so they no longer blow around" (Page 16). It is unclear which of these two actions the Proponent will take to address the wind-blown tailings on the downwind side of TP3 and when this will be completed. ECCC notes that there is potential for tailings, or the water run off from tailings, to enter Stinky Pond or Flat River. Recommendation ECCC recommends that the Proponent clarify which of the two actions will be taken to address the wind-blown tailings and when this remediation will be completed.	May 15: NATCL intends to take actions to address wind-blown tailings in these areas during the summer/fall season of 2019. The principal approach will be to consolidate and remove these tailings, for deposition within TP3 and/or TP4 as ground conditions permit. Should some areas be beyond the capability of on-site equipment or safe access not be possible, tailings may be covered in place. During all tailings management activities, sediment and erosion control measures will be put in place, including but not limited to downstream silt fencing and regular inspections. All activities/inspections will be documented with descriptions and photographs. NATCL continues to suppress the further aerial mobility of tailings as described in the 2018 Annual Water License Report.	Acceptable response. NATCL has planned for contingency based on field conditions.
GNWT - ENR: Central Email GNWT				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
3	General File	Comment (doc) ENR Letter with Comments and Recommendations Recommendation		Noted.

1	Topic 1: Quarry Area Re-Grading	<p>Comment Section 4.7 notes that the quarry area has been re-graded to allow passive diversion of water in the quarry area away from the Flat River and into a nearby wooded area to eliminate the need for use of a motorized pump. The historic water quality in this area is unclear (e.g. ARD/ML issues) but should be clarified to ensure that no additional water management is required in addition to passive diversion.</p> <p>Recommendation 1.) ENR requests that NATCL provide a summary of any water quality results related to the quarry area to ensure that no additional water management or treatment may be required.</p>	<p>May 15: The quarry previously served as a source of aggregate for site operations (i.e. not a mineralized bedrock deposit), before quarry closure in 2016.</p> <p>Water management activities in and downstream of the quarry area first commenced using an active management approach (i.e. using a mechanical pump). Transition to a passive management approach (i.e. a diversion berm and ditch) was conducted on the advice of the Inspector to reduce the potential for quarry surface water with high suspended solids to reach the Flat River, as was observed in 2016.</p> <p>No other specific water quality concerns were raised, and efforts focused on the reduction of sediment loads.</p> <p>The Inspector was consulted on the recommended approach and the re-grading efforts were complete in late summer summer 2018 (due to equipment and capacity limitations in 2017).</p> <p>The approach reduces the ponded area; diverts freshet water from the quarry to a wooded area to allow for sediment settlement; and includes the installation of silt fences along the flow path to further reduce sediment loads. Although the surface water that collects in the quarry during freshet is not sampled for water quality, there are several sites along the Flat River that are sampled regularly as part of the</p>	<p>Appropriate response.</p> <p>NATCL is managing the water in conjunction with regular communications with an Inspector. No water quality concerns have been identified at the nearby SNP stations; any concerns would be identified in monthly SNP reports. Ongoing monitoring of the area and communication with an Inspector is planned.</p>
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			<p>Surveillance Network Program under the Water Licence.</p> <p>Site S4-29 is approximately 2km upstream of the quarry and the mine site, while S4-40 is approximately 500m downstream of the quarry.</p> <p>No water quality concerns have been noted at these sites.</p> <p>This data is shared with all stakeholders in regular SNP reports.</p> <p>Being the first season following the completion of work activities, NATCL will continue to monitor the performance of these measures in 2019.</p> <p>Routine inspections of the flow path and discharge area will be conducted to identify any observations of erosion or increased sediment.</p> <p>Should increased sediment loads be observed at the Flat River, consultation with the Inspector will be conducted and focused sampling as necessary/directed.</p>	
2	Topic 2: Landfarm	<p>Comment In Section 6.4.1, NATCL notes that 600 m3 of contaminated material was placed within the landfarm cells which were covered prior to winter 2015-16. It is also noted that these covers remain in place and that no activities for this material is planned during the Care and Maintenance phase. Further, NATCL notes that they requested that the requirement for a Biopile</p>	<p>May 15: NATCL is currently in the process of conducting site assessments to identify any localized hydrocarbon impacts from historic operations and to determine potential remedial options to manage these materials.</p> <p>The hydrocarbon impacted soils within the landfarm cells will be managed per the selected remedial approach, which will be identified as the assessment</p>	<p>Satisfactory response. Groundwater monitoring around the landfarm area is ongoing and results are presented in monthly SNP reports; to date, these results are below criteria, with the majority being below the analytical detection limit.</p>

		<p>Management Plan be suspended. The long-term plan for this material is not clear. NATCL should provide additional information on whether there is a plan to recommence landfarming at some point in the future to remediate this soil.</p> <p>Additionally, NATCL should provide information on the estimated timeline that the material will remain under cover and if any additional mitigation measures or monitoring is occurring in the vicinity of the cells to ensure there is no impact to the surrounding environment.</p> <p>Recommendation 1) ENR recommends that NATCL provide the following information: Details on any long-term plan for the contaminated soil located within the cells; An estimate on the amount of time that the contaminated soil will remain covered on site in the current location; and A summary of any additional mitigation measures and/or monitoring that is occurring near the cells to ensure that the material is not impacting the nearby environment (e.g. that contaminants are not migrating from the contaminated soil).</p>	<p>progresses in the coming year and pending consultation, design and review. Groundwater wells continue to be monitored at the toe of TP 3, on which these cells are placed; All monitoring well data since 2015 (when materials were placed) was conservatively evaluated using the EPH; benzene, ethylbenzene and toluene Environmental Quality Guidelines for down-gradient of the former fuel berm; and EQC provided for SNP station 4-34 (Waste Water Treatment Plant).</p> <p>All results are either below detection (376 data points) or are more than an order of magnitude below criteria (4 data points, all less than twice detection limits), indicating there is no evidence to suggest migration to the receiving environment outside of TP 3.</p> <p>This data is shared with all stakeholders in regular SNP reports.</p>	
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Environmental Protection Operations Directorate
Prairie & Northern Region
933 Mivvik Street, 3rd Floor
P.O. Box 1870
Iqaluit, NU X0A 0H0

ECCC File: 5100 000 017/010
MVLWB File: MV2015L2-0003

May 7, 2019

Via online submission

David Finch
Regulatory Specialist
Mackenzie Valley Land and Water Board
7th Floor, 4922 48th Street
P.O. Box 2130
Yellowknife, NT X1A 2P6

Dear David Finch:

RE: MV2015L2-0003– North American Tungsten Corporation Ltd. – 2018 Annual Water Licence Report

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Mackenzie Valley Land and Water Board (MVLWB) regarding the above-mentioned annual water licence report and is submitting a comment via the online review system. ECCC's specialist advice is provided based on our mandate, in the context of the *Canadian Environmental Protection Act* and the pollution prevention provisions of the *Fisheries Act*.

Should you require further information, please do not hesitate to contact me at (867) 975-4981 or Richard.Bingley@Canada.ca.

Sincerely,

[original signed by]

Richard Bingley
Environmental Assessment Coordinator

Attachment(s): ECCC Comments Excel Sheet

cc: Georgina Williston, Head, Environmental Assessment North (NT and NU)



May 08, 2019

Julian Morse
Regulatory Officer
Mackenzie Valley Land and Water Board
7th Floor – 4910 50th Avenue
P.O. Box 2130
Yellowknife, NT
X1A 2P6

Dear Mr. Morse,

**Re: North American Tungsten Corporation Ltd.
Water Licence – MV2015L2-0003
2018 Annual Water Licence Report
Request for Comment**

The Department of Environment and Natural Resources (ENR), Government of the Northwest Territories has reviewed the report at reference based on its mandated responsibilities under the *Environmental Protection Act*, the *Forest Management Act*, the *Forest Protection Act*, the *Species at Risk (NWT) Act*, the *Waters Act* and the *Wildlife Act* and provides the following comments and recommendations for the consideration of the Board.

Topic 1: Quarry Area Re-Grading

Comment(s):

Section 4.7 notes that the quarry area has been re-graded to allow passive diversion of water in the quarry area away from the Flat River and into a nearby wooded area to eliminate the need for use of a motorized pump. The historic water quality in this area is unclear (e.g. ARD/ML issues) but should be clarified to ensure that no additional water management is required in addition to passive diversion.

Recommendation(s):

- 1) ENR requests that NATCL provide a summary of any water quality results related to the quarry area to ensure that no additional water management or treatment may be required.

Topic 2: Landfarm

Comment(s):

In Section 6.4.1, NATCL notes that 600 m³ of contaminated material was placed within the landfarm cells which were covered prior to winter 2015-16. It is also noted that these covers remain in place and that no activities for this material is planned during the Care and Maintenance phase. Further, NATCL notes that they requested that the requirement for a Biopile Management Plan be suspended.

The long-term plan for this material is not clear. NATCL should provide additional information on whether there is a plan to re-commence landfarming at some point in the future to remediate this soil. Additionally, NATCL should provide information on the estimated timeline that the material will remain under cover and if any additional mitigation measures or monitoring is occurring in the vicinity of the cells to ensure there is no impact to the surrounding environment.

Recommendation(s):

1) ENR recommends that NATCL provide the following information:

- Details on any long-term plan for the contaminated soil located within the cells;
- An estimate on the amount of time that the contaminated soil will remain covered on site in the current location; and
- A summary of any additional mitigation measures and/or monitoring that is occurring near the cells to ensure that the material is not impacting the nearby environment (e.g. that contaminants are not migrating from the contaminated soil).

Comments and recommendations were provided by ENR technical experts in the Water Management and Monitoring Division and the Dehcho Region and were coordinated and collated by the Environmental Assessment and Monitoring Section (EAM), Environmental Stewardship and Climate Change Division.

Should you have any questions or concerns, please do not hesitate to contact Patrick Clancy, Environmental Regulatory Analyst at (867) 767-9233 Ext: 53096 or email patrick.clancy@gov.nt.ca.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Clancy', written in a cursive style.

Patrick Clancy
Environmental Regulatory Analyst
Environmental Assessment and Monitoring Section
Environmental Stewardship and Climate Change Division
Department of Environment and Natural Resources
Government of the Northwest Territories