

Stantec Architecture Ltd.

4910 - 53 Street PO Box 1777 Yellowknife NT X1A 2P4 Tel: (867) 920-2882

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September 10, 2013 File: 144901612

Nunavut Planning Commission

PO Box 2101 Cambridge Bay, NU X0B 0C0

Attention: Brian Aglukark, Director of Regional Planning

Dear Brian:

Reference: Rankin Inlet Water Licence Amendment Application 3AM-GRA1015 Cover Letter

On behalf of the Government of Nunavut, Community and Government Services, we are pleased to submit the following Water Licence Amendment Application to determine conformity with the NPC. The GN-CGS is in the process of constructing an overland pipeline from Lower Landing Lake outlet river to replenish Nipissar Lake. This modification may require a water licence amendment to the current water licence and therefore requires a conformity determination. We provide the following documents associated with the proposed pipeline for your information.

A summary of the proposed project have been attached in both English and Inuktitut.

As the project has been awarded to a contractor and initial construction tasks already begun, we have attached drawings signed and stamped by an engineer registered to practice in Nunavut.

We trust that the attached documents meet your requirements at this time and request that the conformity determination be issued accordingly. If you require any further information or have questions, please do not hesitate to contact me.

Respectfully,

STANTEC ARCHITECTURE LTD.

Arlen Foster, E.I.T.

Civil / Environmental Engineering

Tel: (867) 920-2882 Fax: (867) 920-4319 arlen.foster@stantec.com

Attachments: GN – Authorization Letter

Summary – English & Inuktitut Amendment Application Form

Drawings & Maps

Report - Design of Pipeline System to Augment Natural Replenishment of Nipissar Lake

Rankin Inlet Climate Data



בסכ״ס לאלקקיים האלקקיים האלקקיים האלקקיים האלקקיים האלקקיים אות Nunalingni Kavamatkunillu Pivikhaqautikkut Department of Community and Government Services Ministère des Services communautaires et gouvernementaux

August 14, 2012

To Whom It May Concern:

Please be advised that Stantec has authorization from the Government of Nunavut to act on behalf of the GN to process and submit the required Rankin Inlet Water Licence Amendment Application 3AM-GRA1015.

Please contact the undersigned at the GN should you require any further information or clarification.

On behalf of the Community and Government Services,

Mr. Jason Tologanak

Regional Director, Kivalliq Region Community & Government Services

Rankin Inlet, Nunavut



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August 14, 2012 File: 144901612

Nunavut Water Board P.O. Box 119 Gjoa Haven, NU

XOB 1J

Attention: Phyllis Beaulieu, Manager of Licensing

Dear Phyllis:

Reference: Rankin Inlet Water Licence Amendment Application 3AM-GRA1015 Summary

On behalf of the Government of Nunavut, Community and Government Services, we are pleased to submit the following Water Licence Amendment Request. Stantec provided engineering services for the design of a new intake and pipeline to seasonally replenish Nipissar Lake. Currently water is withdrawn from Nipissar Lake year round and is beginning to exceed natural replenishment / recharge. Therefore, the proposed project allows for additional water to be withdrawn from the river exiting Lower Landing Lake and pumped to Nipissar Lake each summer.

The proposed project and changes are summarized as follows:

- Project area is located at the following UTM Coordinates:
 - o Intake Location 15V 543220 m E 6970253 m N
 - Outlet Location 15V 545372 m E 6967049 m N
- New prefabricated and mobile intake pump for seasonal pumping to Nipissar Lake;
- New 250mm diameter non-insulated HDPE pipeline for seasonal use;
- Source water remains to be Nipissar Lake; seasonal recharge to Nipissar Lake from Lower Landing Lake outlet river;
- Total annual water withdrawal from Nipissar does not change (850,00 m³ annually at peak);
- Seasonal withdrawal flow rate from river for Nipissar recharge is 700 LPM;
- No water is discharged back to the Lower Landing Lake or outlet river.

The proposed schedule for the project is as follows, actual schedule will be proposed by contractor:

Summer Construction Completion September 2012

Winter Construction Completion
 November 2012 – March 2013

Final Construction Completion
 June 2013

Stantec

August 14, 2012 Phyllis Beaulieu, Manager of Licensing Page 2 of 2

Reference: Rankin Inlet Water Licence Amendment Application 3AM-GRA1015

We trust that the attached documents meet your requirements at this time and request that the water licence amendment be issued accordingly. If you require any further information or have questions, please do not hesitate to contact me.

Respectfully,

STANTEC ARCHITECTURE LTD.

Arlen Foster, E.I.T.

Civil / Environmental Engineering

Tel: (867) 920-2882 Fax: (867) 920-4319 arlen.foster@stantec.com

Stantec Architecture Ltd. ነር๋°በላ⊎dና ኣዉኦ⊳/Lጚ⊎ኣሮጢትና ሮΓበና



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Tel ▷¹b⊂▷c: (867) 920-2882 Fax ♂b♂dc: (867) 920-4319

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Stantec

Γ̈́ 15, 2012

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'bሲርኦንካሪ' በበናካናትርናልግし: arlen.foster@stantec.com



Application for Water Licence Amendment

Document Date: May 2011

Application Submission Date: 08/14/2012

Month/Day/Year

P.O. BOX 119 GJOA HAVEN, NUNAVUT XOB 1J0

Tel: (867) 360-6338 FAX: (867) 360-6369 kNK5 wmoEp5 vtmpq NUNAVUT IMALIRIYIN KATIMAYIT NUNAVUT WATER BOARD OFFICE DES EAUX DU NUNAVUT

DOCUMENT MANAGEMENT

Original Document Date: April 2010

DOCUMENT AMENDMENTS

	Description	Date
(1)	Updated for public distribution as separate document from NWB Guide 7	June 2010
(2)	Updated NWB logos and reformatted table to allow rows to break across page	May 2011
(3)		
(4)		
(5)		
(6)		
(7)		
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(9)		
(10)		



P.O. Box 119

GJOA HAVEN, NU X0B 1J0

Tel: (867) 360-6338 FAX: (867) 360-6369 kNK5 wmoEp5 vtmp5 NUNAVUT WATER BOARD NUNAVUT IMALIRIYIN KATIMAYIT

OFFICE DES EAUX DU NUNAVUT

APPLICATION FOR WATER LICENCE AMENDMENT

The applicant is referred to the NWB's Guide 7: Licensee Requirements Following the Issuance of a Water Licence for more information about this application form.

EXISTING LICENCE NO:3AM-GRA1015
1. LICENSEE CONTACT INFORMATION
Is the licensee the same as that referred to on the existing licence?
⊠ Yes □ No
If No, a licence assignment must be completed and approved by the NWB. An amendment will only be issued in the name of the current licensee in the absence of assignment of the licence.
If the licensee is the same, but the <u>name</u> of the licensee has changed, attach a certificate of name change.
Name:
Address:
Phone: Fax: e-mail:
2. LICENSEE REPRESENTATIVE CONTACT INFORMATION – If different from Block 1.
For purposes of this amendment only:
Name: Stantec Architecture Ltd – Arlen Foster, EIT
Address: 4910 53 Street, PO Box 1777 Yellowknife, NT X1A 2P4
Phone: (867) 920-2882 Fax: (867) 920-4319 e-mail: arlen.foster@stantec.com
(See authorization letter.)

3.	NAME OF PROJECT
Has the	e name of the project changed?
	☐ Yes ⊠ No
If Yes, i	ndicate the name of the project including the name of the location:
4.	LOCATION OF UNDERTAKING
Does	the proposed amendment change the location of the amended undertaking?
	⊠ Yes □ No
Provid	e the project extents and camp locations. Identify proposed changes.
Project	Extents
See At	tached Drawings and Maps
NW: NE: SE: SW:	Latitude: (° ' "N) Longitude: (° ' "W) Latitude: (° ' "N) Longitude: (° ' "W) Latitude: (° ' "N) Longitude: (° ' "W) Latitude: (° ' "N) Longitude: (° ' "W)
Camp l	Location(s)
No Car	тр
Latitud	le: (° ' "N) Longitude: (° ' "W)
5.	MAP
Does th	ne proposed amendment change the locations of any of the main components of the undertaking?
	⊠ Yes
Attach	a topographical map, indicating the main components of the undertaking. Identify proposed changes.
NTS M	ap Sheet No.: <u>55K16</u> Map Name: Map Scale: <u>1:250,000 & 1:50,000</u>

6. I	NATURE OF INTEREST IN THE LAND
Does th	e proposed amendment change the nature of the interest in the land?
	☐ Yes ⊠ No
If Yes, i	indicate changes.
	any of the following that are applicable to the proposed undertaking (at least one box under the e' header must be checked).
:	Sub-surface
[☐ Mineral Lease from Nunavut Tunngavik Incorporated (NTI) Date (expected date) of issuance: Date of expiry:
[☐ Mineral Lease from Indian and Northern Affairs Canada (INAC) Date (expected date) of issuance: Date of expiry:
;	Surface
[Crown Land Use Authorization from Indian and Northern Affairs Canada (INAC) Date (expected date) of issuance: Date of expiry:
	☐ Inuit Owned Land (IOL) Authorization from Kitikmeot Inuit Association (KIA) Date (expected date) of issuance: Date of expiry:
[☐ IOL Authorization from Kivalliq Inuit Association (KivIA) Date (expected date) of issuance: Date of expiry:
[☐ IOL Authorization from Qikiqtani Inuit Association (QIA) Date (expected date) of issuance: Date of expiry:
[Commissioner's Land Use Authorization Date (expected date) of issuance: Date of expiry:
	☑ Other Municipality of Rankin Inlet – it is not anticipated that a land use permit will be required; project will adhere to all Municipal bylaws
ı	Date (expected date) of issuance: Date of expiry:
Is the national	ame of the entity(s) holding authorizations the same as that considered in the existing water?
	⊠ Yes □ No
If No, a	licence assignment must be completed and approved by the NWB.
Name o	of entity(s) holding authorizations:
Governm	nent of Nunavut - CGS

7. NUNAVUT PLANNING COMMISSION (NPC) DETERMINATION
Indicate the land use planning area in which the	e existing project is located.
☐ North Baffin ☐ South Baffin ☐ Akunniq	☑ Keewatin☐ Sanikiluaq☐ West Kitikmeot
Does the proposed amendment change the land	d use planning area?
	☐ Yes ☒ No
If yes, indicate the land use planning area in wh	ich the amended undertaking is located.
☐ North Baffin☐ South Baffin☐ Akunniq	☐ Keewatin☐ Sanikiluaq☐ West Kitikmeot
Was a land use plan conformity determination r licence?	required from NPC prior to the issuance of the existing water
□Yes	☐ No ☑ Unknown
If Yes, indicate date issued and attach copy	
Does the proposed amendment change the original	ginal NPC conformity determination or the need to obtain one?
□Yes	☐ No ☑ Unknown
If Yes, indicate date issued (or expected) and a If No, provide written confirmation from NPC co	nfirming that a land use plan conformity review is not required.
8. NUNAVUT IMPACT REVIEW BOARD (NIRB) DETERMINATION
Was a screening determination required from N	IIRB prior to the issuance of the existing water licence?
□Yes	☐ No Unknown
If Yes, indicate date issued and attach copy	
Does the proposed amendment change the original one?	ginal NIRB screening determination or the need to obtain
□Yes	☐ No ☑ Unknown
If Yes, indicate date issued (or expected) and a If No, provide written confirmation from NIRB co	ttach a copy
NIWB to contact and discuss with NWB dire	ctly.

9. DE	ESCRIPTION OF UNDERTAKING
Does the p	proposed amendment change the description of the undertaking?
	⊠ Yes
List and at	ttach plans and drawings or project proposal. Identify proposed changes.
	hed plans and drawings detailing the proposed construction and seasonal operation of a overland preplenish Nipissar Lake.
10. OI	PTIONS
•	proposed amendment change any of the alternative methods and locations that were considered ut the project?
	☐ Yes ⊠ No
	brief explanation of the alternative methods or locations that were considered to carry out the dentify proposed changes.
See attach	ned report "Design of Pipeline System to Augment Natural Replenishment of Nipissar Lake".
11. CI	LASSIFICATION OF PRIMARY UNDERTAKING
Indicate to boxes:	the primary classification of undertaking for the existing licence by checking one of the following
	Industrial Agricultural Mining and Milling (includes exploration/drilling/exploration camps) Conservation Municipal (includes camps/lodges) Recreational Power Miscellaneous (describe below):
Does the	proposed amendment change the classification of primary undertaking?
	☐ Yes ☑ No
If Yes, inc	dicate the primary undertaking of the amendment:
	on in accordance with applicable Supplemental Information Guidelines (SIG) must be updated and d with an Application for Amendment. Indicate which SIG(s) are applicable to your application.
	Hydrostatic Testing Tannery Tourist / Remote Camp Landfarm & On-Site Storage of Hydrocarbon Contaminated Soil Onshore Oil and Gas Exploration Drilling Mineral Exploration / Remote Camp Advanced Exploration Mine Development Municipal General Water Works Power

12. WATER USE
Indicate, using the boxes below, the types of water use(s) approved in the existing licence.
 ☑ To obtain water for camp/ municipal purposes ☐ To obtain water for industrial purposes ☐ To cross a watercourse ☐ To alter the flow of, or store water ☐ Other: ☐ To divert a watercourse ☐ To modify the bed or bank of a watercourse ☐ Flood control
Does the proposed amendment change the type(s) of water use(s)?
⊠ Yes □ No
If Yes, indicate using the boxes below, the proposed change(s) to the type(s) of water use(s) noting any water use(s) that are to be added, continued, or removed.
 To obtain water for camp/ municipal purposes To obtain water for industrial purposes To cross a watercourse To alter the flow of, or store water ✓ Other: Pump water from Lower Landing Lake watercourse to replenish Nipissar Lake. See drawings / plan for detailed information proposed.
13. QUANTITY OF WATER INVOLVED
Does the proposed amendment change the source of water? ☐ Yes ☐ No
Indicate the water source(s). Identify proposed changes.:
Current water source is Nipissar Lake only. The amendment is proposed to allow withdrawal of raw water from Lower Landing Lake river shown in attached drawings / plans.
(show location(s) on map)
Does the proposed amendment change the quality of the water source and/or its available capacity?
☐ Yes ⊠ No
Describe the quality of the water source(s) and the available capacity(s). Identify any changes: No changes anticipated as water is only removed in summer months from the river for a limited period of time.
Does the proposed amendment change the overall quantity of water to be used?
☐ Yes ⊠ No
Provide the overall estimated quantity to be used. Identify proposed changes: Total water use is currently licensed at 850,000 cu.m. / annum. and will remain the same. Water withdrawal at the river from Lower Landing Lake for summer replenishment of Nipissar Lake is anticipated to be 700 USGPM = 3,815 m³/day.
Does the proposed amendment change the quantity of water to be used from each source?
⊠ Yes □ No

Provide the estimated quantity(s) of water to b	e used from each source. Identify proposed changes.:
	m Nipissar Lake. However, during each summer pumping will anticipated volume to be 272,000 cu.m. / summer in the peak
Does the proposed amendment change the qu	uantity of water to be used for each purpose?
	☐ Yes ⊠ No
Provide the estimated quantities to be used for	r each purpose (camp, drilling, etc.). Identify proposed changes.:
No changes proposed; all water withdrawn is f	or municipal purposes.
Does the proposed amendment change the m	ethod(s) of extraction? ☑ Yes ☐ No
	proposed changes. : Currently only withdrawal from Nipissar Lower Landing Lake river to replenish Nipissar Lake during
Does the proposed amendment change the qu	uantity(s) of water returned to source(s)?
	☐ Yes ⊠ No
Estimated quantity(s) of water returned to sour	rce(s). Identify proposed changes.:1808_ m ³ /day
Does the proposed amendment change the qu	uality(s) of water returned to source(s)?
	☐ Yes ☑ No
Describe the quality(s) of water(s) returned to	source(s). Identify any changes. : No changes
14. WASTE	
Check the appropriate box(s) to indicate the ty	pes of waste(s) approved in the existing licence.
⊠ Sewage	☐ Waste oil
☐ Solid Waste ☐ Hazardous	☐ Greywater ☑ Sludges
☐ Bulky Items/Scrap Metal ☐ Animal Waste	Contaminated soil and/or water
Other (describe):	
Does the proposed amendment change the type	pe(s) of waste(s) to be generated or deposited?
	☐ Yes ⊠ No
	oposed change(s) to the type(s) of waste(s) to be generated or continued generation and/or disposal of waste(s).
Sewage Sewage	☐ Waste oil
Solid Waste	Greywater
☐ Hazardous ☐ Bulky Items/Scrap Metal	☐ Sludges ☐ Contaminated soil and/or water
Animal Waste Other (describe):	

Does the proposed amendment change the composition(s) of the types of wastes involved? ☐ Yes ☑ No Does the proposed amendment change the method(s) of treatment for the types of waste involved? ☐ Yes ☑ No Does the proposed amendment change the method(s) of disposal for the types of waste involved? ☐ Yes ☑ No If Yes to any of the above, describe the proposed changes: For each type of waste indicated in Block 14, describe its composition, quantity in cubic meters/day, method of treatment and method of disposal. Not Applicable – Amendment only focuses on seasonal replenishment of Nipissar Lake from Lower Landing Lake river. Sewage and solid waste is outside the scope of this amendment.	Des the proposed amendment change the composition(s) of the types of wastes involved? Yes No	Does the proposed	l amendment change t			ed?
□ Yes 図 No Does the proposed amendment change the method(s) of treatment for the types of waste involved? □ Yes 図 No Does the proposed amendment change the method(s) of disposal for the types of waste involved? □ Yes 図 No If Yes to any of the above, describe the proposed changes: For each type of waste indicated in Block 14, describe its composition, quantity in cubic meters/day, method of treatment and method of disposal. Not Applicable – Amendment only focuses on seasonal replenishment of Nipissar Lake from Lower Landing Lake river. Sewage and solid waste is outside the scope of this amendment.	Pes INo Describes the proposed amendment change the method(s) of treatment for the types of waste involved? Pes INO Describes the proposed amendment change the method(s) of disposal for the types of waste involved? Pes INO			☐ Yes ⊠ No		
Does the proposed amendment change the method(s) of treatment for the types of waste involved? Yes No	Describes the proposed amendment change the method(s) of treatment for the types of waste involved? Yes No	Does the proposed	l amendment change t	he composition(s) of the	ne types of wastes inv	volved?
	□ Yes ☒ No Describe the proposed amendment change the method(s) of disposal for the types of waste involved? □ Yes ☒ No If yes ☒ Yes ☐ Yes ☒ No If yes ☒ No If yes ☒ No If yes ☒ No If yes ☒ Yes ☐ Yes ☒ No If yes ☒ No If yes ☒ No If yes ☒ No If yes ☒ Yes ☐ Yes			☐ Yes ⊠ No)	
Does the proposed amendment change the method(s) of disposal for the types of waste involved? Yes No Yes to any of the above, describe the proposed changes: For each type of waste indicated in Block 14, describe its composition, quantity in cubic meters/day, method of treatment and method of disposal. Not Applicable – Amendment only focuses on seasonal replenishment of Nipissar Lake from Lower Landing Lake river. Sewage and solid waste is outside the scope of this amendment.	Describes the proposed amendment change the method(s) of disposal for the types of waste involved? ☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes Involved? ☐ Yes	Does the proposed	l amendment change t	he method(s) of treatr	nent for the types of w	aste involved?
Type of Waste Yes to any of the above, describe the proposed changes: Yes to any of the above, describe the proposed changes: For each type of waste indicated in Block 14, describe its composition, quantity in cubic meters/day, method of treatment and method of disposal. Not Applicable − Amendment only focuses on seasonal replenishment of Nipissar Lake from Lower Landing Lake river. Sewage and solid waste is outside the scope of this amendment. Type of Waste Composition Quantity Treatment Disposal	Yes ⊠ No Yes to any of the above, describe the proposed changes: Yes to any of the above, describe the proposed changes: Yes ach type of waste indicated in Block 14, describe its composition, quantity in cubic meters/day, without of treatment and method of disposal. Yet Applicable – Amendment only focuses on seasonal replenishment of Nipissar Lake from Lower noting Lake river. Sewage and solid waste is outside the scope of this amendment.			☐ Yes ⊠ No		
For each type of waste indicated in Block 14, describe its composition, quantity in cubic meters/day, method of treatment and method of disposal. Not Applicable – Amendment only focuses on seasonal replenishment of Nipissar Lake from Lower Landing Lake river. Sewage and solid waste is outside the scope of this amendment.	reach type of waste indicated in Block 14, describe its composition, quantity in cubic meters/day, ethod of treatment and method of disposal. Applicable – Amendment only focuses on seasonal replenishment of Nipissar Lake from Lower nding Lake river. Sewage and solid waste is outside the scope of this amendment.	Does the proposed	I amendment change t	he method(s) of dispo	sal for the types of wa	aste involved?
For each type of waste indicated in Block 14, describe its composition, quantity in cubic meters/day, nethod of treatment and method of disposal. Not Applicable – Amendment only focuses on seasonal replenishment of Nipissar Lake from Lower Landing Lake river. Sewage and solid waste is outside the scope of this amendment. Type of Waste Composition Quantity Treatment Disposal	r each type of waste indicated in Block 14, describe its composition, quantity in cubic meters/day, ethod of treatment and method of disposal. ot Applicable – Amendment only focuses on seasonal replenishment of Nipissar Lake from Lower nding Lake river. Sewage and solid waste is outside the scope of this amendment.			☐ Yes ⊠ No	1	
Not Applicable – Amendment only focuses on seasonal replenishment of Nipissar Lake from Lower Landing Lake river. Sewage and solid waste is outside the scope of this amendment. Type of Waste Composition Quantity Treatment Disposal	ethod of treatment and method of disposal. of Applicable – Amendment only focuses on seasonal replenishment of Nipissar Lake from Lower nding Lake river. Sewage and solid waste is outside the scope of this amendment. One of Waste Composition Quantity Treatment Disposal	f Yes to any of the	above, describe the p	roposed changes:		
		_anding Lake river.	Sewage and solid wa	Quantity	De of this amendment Treatment	Disposal
		Landing Lake river.	Sewage and solid wa	Quantity	De of this amendment Treatment	Disposal
		_anding Lake river.	Sewage and solid wa	Quantity	De of this amendment Treatment	Disposal
		Landing Lake river.	Sewage and solid wa	Quantity	De of this amendment Treatment	Disposal
		Landing Lake river.	Sewage and solid wa	Quantity	De of this amendment Treatment	Disposal
		Landing Lake river.	Sewage and solid wa	Quantity	De of this amendment Treatment	Disposal
		Landing Lake river.	Sewage and solid wa	Quantity	De of this amendment Treatment	Disposal
		Landing Lake river.	Sewage and solid wa	Quantity	De of this amendment Treatment	Disposal

16. OTHER AUTHORIZATIONS
Does the proposed amendment change the need for other authorizations in addition to the sub-surface and surface land use authorizations provided in Block 6?
☐ Yes ☐ No ☒ Unknown
If Yes, indicate any additional authorizations required, which authorizations are no longer required, and which authorizations continue to be required.
For each provide the following:
Authorization: TBD - May require Hamlet Land Use agreement - CGS in discussions with Hamlet
Administering Agency:
Project Activity:
Date (expected date) of issuance: Date of expiry:
17. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES
Does the proposed amendment change the predicted environmental impacts of the undertaking or the mitigation measures?
☐ Yes ⊠ No
Describe direct, indirect, and cumulative impacts related to water and waste. Identify any changes.
No significant changes to water use; see attached report for additional information & completed study.
18. WATER RIGHTS OF EXISTING AND OTHER WATER USERS
Was compensation paid and/or an agreement(s) for compensation been entered into with any existing or other users of water during consideration of the existing licence?
☐ Yes ☒ No
If Yes, provide the names, addresses and the nature of water use by those persons or properties.
Does the proposed amendment adversely affect any known persons or property including those that hold licences for water use in precedence to the application, domestic users, in-stream users, authorized waste depositors, owners of property, occupiers of property, and/or holders of outfitting concessions, registered trapline holders, and holders of other rights of a similar nature?
☐ Yes ⊠ No
If Yes, provide the names, addresses and the nature of water use of those persons or properties.
Advise the Board if compensation has been paid and/or an agreement(s) for compensation has been reached with any existing or other water users with respect to the proposed amendment.

19.	INUIT WATER RIGHTS
	compensation paid/ or an agreement(s) for compensation been entered into with any Designated Inuit inization (DIO) during consideration of the existing licence?
If Ye	☐ Yes ⊠ No s, which DIO(s)
	the proposed amendment substantially affect the quality, quantity or flow of waters flowing through Owned Land (IOL)?
	☐ Yes ⊠ No
	s, advise the Board if negotiations have commenced or an agreement to pay compensation for any or damage has been reached with one or more DIO(s) with respect to the proposed amendment.
20.	CONSULTATION - Provide a summary of any consultation meetings including when the meetings were held, where and with whom. Include a list of concerns expressed and measures to address concerns.
Consu	ultation limited to discussions with CGS and Hamlet Representatives to determine pipeline route.
21.	SECURITY INFORMATION
No Ap	pplicable
Does	s the proposed amendment change the financial security assessment?
	☐ Yes ☐ No
Does	the proposed amendment change the estimate of the total financial security for final reclamation?
	☐ Yes ☐ No
liabiling Estiment third to the	de an estimate of the total financial security for final reclamation equal to the total outstanding reclamation ty for land and water combined sufficient to cover the highest liability over the life of the undertaking. Nates of reclamation costs must be based on the cost of having the necessary reclamation work done by a party contractor if the operator defaults. The estimate must also include contingency factors appropriate a particular work to be undertaken. Identify any changes in the financial security assessment resulting the proposed amendment.
princi	re applicable, the financial security assessment should be prepared in a manner consistent with the ipals respecting mine site reclamation and implementation found in the <i>Mine Site Reclamation Policy for evut</i> , Indian and Northern Affairs Canada, 2002.

22. FINANCIAL INFORMATION
Not Applicable
Is the statement of financial security the same as that considered in the existing water licence?
☐ Yes ☐ No
Provide an updated statement of financial security.
If the applicant is a business entity please answer the questions below:
Is the list of the officers of the company the same as those considered in the existing water licence?
☐ Yes ☐ No
Provide a list of the officers of the company.
Is the Certificate of Incorporation or evidence of registration of the company name the same?
☐ Yes ☐ No
Attach a copy of the Certificate of Incorporation or evidence of registration of the company name.
23. STUDIES UNDERTAKEN TO DATE
List and attach updated studies, reports, research etc.
Design of Pipeline System to Augment Natural Replenishment of Nipissar Lake, FSC Architects & Engineers, December 15, 2010.
Provide a compliance assessment and status report including a response to any inspector's reports. The licensee must contact the NWB for licence specific direction in completing the assessment and report.
If in non-compliance, a licence may not be issued until compliance is achieved. If in non-compliance, attach plans/reports for consideration. Application will not be processed if significant issues of non-compliance exist.

24.	PROPOSEI	TIME SCH	EDULE					
	the proposed opment?	l amendmen	t change the ti	me sched	ule considered in t	he existing lic	ence for any phase of	
				⊠ Yes	□No			
					ble phase of devel	opment (cons	struction, operation,	
	Operation	tart Date:	,	r)			June 2012 (month/year)	
	-	the start and completion dates for each applicable phase of development (construction, operation, and post closure). Identify proposed changes. Construction Proposed Completion Date: June 2012 (month/year) (month/year)						
		tart Date:			Proposed Complet	tion Date:		
			NA (month/yea	F	Proposed Completi	ion Date:	NA (month/year)	
For eac	ch applicable	phase of dev	`	,	h season(s) activiti	es occur.		
	Construction ⊠ Winter	<u>1</u>	_		_			
	Operation Winter	Spring	⊠ Summer	☐ Fall	All season			
	Closure ☐ Winter	Spring	Summer	☐ Fall	☐ All season ⊠	Not Applicab	ole	
			Summer	☐ Fall	☐ All season ⊠	Not Applicab	ole	

25.	PROPOSED TERM OF LICENCE
On wh	nat date does the existing licence expire?May 31, 2015
Is the	Licensee applying for a combined renewal and amendment of the existing licence?
	☐ Yes ⊠ No
If Yes,	, indicate the proposed term of the renewal (maximum of 25 years):
Reque	ested date of renewal issuance: Requested Expiry Date: (month/year) (month/year)
licence a licence a use plan accorda	quested date of renewal issuance must be <u>at least</u> three (3) months from the date of application for a type B water and <u>at least</u> one (1) year from the date of application for a type A water licence, to allow for processing of the water application. These timeframes are approximate and do not account for the time to complete any pre-licensing land nning or development impact requirements, time for the applicant to prepare and submit a water licence application in nnce with any project specific guidelines issued by the NWB, or the time for the applicant to respond to requests for al information. See the NWB's <i>Guide 5: Processing Water Licence Applications</i> for more information)
26.	ANNUAL REPORTING
Will the	proposed amendment change the content of annual reports or the annual report template?
	☐ Yes ⊠ No
If Yes, preport.	provide details regarding the content of annual reports and a proposed outline or template of the annual

27.	CHECKLIST				
The fol	lowing must be included	with the application	for Amendmer	nt for the water licensing pro	cess to begin.
	Completed Application	for Water Licence	Amendment for	m.	
	⊠ Yes	□No	If no, date exp	pected	
	Information addressing	Supplement Inform	nation Guidelin	e (SIG), where applicable (s	ee Block 11)
	⊠ Yes	□No			
	Compliance Assessme	nt / Status Report ((see Block 23).		
	Yes	⊠ No	If no, date exp	pectedUnknown	
	Indication of Renewal F	Requirement (see E	Block 26)		
	Yes expiration.	⊠ No	If no, date exp	pected: Renewal required pr	ior to May 2015
	English Summary of Ar	mendment Applicat	ion.		
	⊠ Yes	□No	If no, date exp	pected	
	Inuktitut and/or Inuinna	qtun Summary of A	Amendment App	olication.	
	⊠ Yes	□No	If no, date exp	pected	
	Application fee of \$30.0	00 CDN (Payee Re	ceiver General	for Canada).	
	Yes	⊠ No	If no, date exp	pected: Not Applicable.	
		y the NWB based	upon the amou	r General for Canada). The int of water authorized for use.	
	☐ Yes	⊠ No	If no, date exp	ected: Not Applicable	
28.	SIGNATURE Arlen Foster	Civil / Envi	ro EIT	and Tools	August 14
	Nama (Drint)	T:410 /D:-	:m4\	Cianatura	August 14, 2012
	Name (Print)	Title (Pr	int)	Signature	Date



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Climate Data (CDCD)

Historical Radar

Contacts

Frequently Asked

Notices:

A new set of <u>IDF curves</u> was produced on February 09, 2012 and posted on March 09, 2012. Please read the Whats_New_EC_IDF.pdf file for a list of all of the changes.

OTTAWA MACDONALD-CARTIER INT'L A, HAMILTON A, DEER LAKE A, GANDER INT'L A, ST.JOHN'S A, SASKATOON DIEFENBAKER INT'L A, LONDON INT'L A, SAULT STE. MARIE A, EDMONTON INT'L A, YARMOUTH A, THUNDER BAY A, CHURCHILL A and SMITHERS A weather reporting stations have switched over to new NAV CANADA sensors and reporting tools. Due to some unanticipated data processing issues related to the new data flow, the display of daily data from these stations is not available on our website at present. However, hourly data is now being displayed for the new stations: OTTAWA INT'L, HAMILTON, DEER LAKE, GANDER INT'L, ST. JOHN'S INT'L, SASKATOON DIEFENBAKER INT'L, LONDON, SAULT STE MARIE, EDMONTON, YARMOUTH, THUNDER BAY, CHURCHILL and SMITHERS. For more information, please click here and expand the message. Thank you for your patience while we work to fix these current issues.

The <u>Notice Inventory</u> contains a record of all past and current Notices.

Proactive Disclosure

Questions

Canadian Climate Normals 1971-2000

Links

Water Data

Weather Winners ⁺ The minimum number of years used to calculate these Normals is indicated by a <u>code</u> for each element. A "+" beside an extreme date indicates that this date is the first occurrence of the extreme value. Values and dates in bold indicate all-time extremes for the location.

NOTE!! Data used in the calculation of these Normals may be subject to further quality assurance checks. This may result in minor changes to some values presented here.

RANKIN INLET A

NUNAVUT

<u>Latitude</u>: 62°49'00.000" N <u>**Longitude**</u>: 92°07'00.000" W

<u>Climate ID</u>: 2303401 <u>WMO ID</u>: 71083

Elevation: 32.30 m

TC ID: YRT

Normals from

to

January-June January-December+Year July-December

Tomporatura	Jan	Eob	Mor	Anr	May	Jun	hal	Διια	Son	Oct	Nov	Dec	Voor	Code
Temperature:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	NOV	Dec	Year	Code
Daily Average (°C)	-31.9	-30.1	-25.2	-16.3	-5.9	4.2	10.4	9.5	3.4	-5.3	-17.8	-26.7	-11	D
Standard Deviation	2.8	3.2	2.8	2.6	2.1	1.9	1.7	1.1	1.5	1.9	3.3	3.5	1.3	D
Daily Maximum (° C)	-28.3	-26.2	-20.9	-11.7	-2.4	7.9	14.9	13	5.8	-2.4	-13.9	-22.9	-7.3	D
Daily Minimum (°C)	-35.5	-33.9	-29.5	-20.8	-9.2	0.4	5.9	5.9	0.9	-8.2	-21.6	-30.4	-14.7	D
Extreme Maximum (° C)	23.4	-4.4	1.3	3.4	14.1	26.1	28.9	30.5	20.6	9.3	0.9	-2.4		
Date (yyyy/ dd)	1997/05	1998/18	1999/26	1984/17	1984/29	1993/29	1996/31	1991/10	1996/18	1988/08	1983/04	1999/01		
Extreme Minimum (°C)	-46.1	-49.8	-43.4	-35.7	-23.8	-9.4	-1.9	-1.4	-9	-27.4	-36.5	-43.6		
Date (yyyy/ dd)	1982/07	1990/15	1984/11	1984/06	1991/02	1992/02	1992/04	1986/31	1989/30	1986/31	1982/24	1996/30		
Precipitation:														
Rainfall (mm)	0	0.1	0	1	7.4	25	39.5	57.3	39.2	11.9	0.1	0	181.5	D
Snowfall (cm)	6.7	9.3	12.9	13.6	11.5	4.9	0	0.3	4.6	23.1	20.9	11.9	119.7	D
Precipitation (mm)	6.6	8.9	12.6	14.3	18.4	29.8	39.5	57.6	43.8	34.6	19.8	11.3	297.1	D

Average Snow Depth (cm)	27	30	36	38	20	1	0	0	0	3	14	23	16	D
Median Snow Depth (cm)	27	30	36	38	20	0	0	0	0	3	14	23	16	D
Snow Depth at Month-end (cm)	28	34	38	33	5	0	0	0	0	8	20	25	16	С
Extreme Daily Rainfall (mm)	0	1	0	6.8	30.8	45.8	41.4	41.2	45	24.1	0.6	0.2		
Date (yyyy/ dd)	1981/15	1998/17	1981/19	2000/24	1998/15	1999/23	1990/28	1984/14	1991/15	1982/29	1988/24	1991/30		
Extreme Daily Snowfall (cm)	6.4	17.4	12.2	14	13.6	21.5	2.4	2.6	10.4	18.2	23.6	8.6		
Date (yyyy/ dd)	1992/03	1996/23	1991/24	1994/13	2001/07	1990/06	2001/03	1985/28	1982/11	1997/13	1985/06	1999/01		
Extreme Daily Precipitation (mm)	6.4	17.4	11.6	14	31.2	45.8	41.4	41.2	45	33	23.2	8.6		
Date (yyyy/ dd)	1992/03	1996/23	1991/24	1994/13	1999/06	1999/23	1990/28	1984/14	1991/15	1997/13	1985/06	1999/01		
Extreme Snow Depth (cm)	50	64	73	86	68	20	1	0	4	22	57	59		
Date (yyyy/ dd)	1991/17	1996/28	1996/22	1991/22	1993/02	1987/02	2001/03	1981/01	1985/25	1985/31	1985/30	1985/11		
Days with Max	<u>imum Tem</u>	perature:												
<= 0 °C	31	28.3	30.9	29	19.9	1.4	0	0	1.6	20.1	29.8	31	222.8	D
> 0 °C	0.05	0	0.06	1	11.2	28.6	31	31	28.4	11	0.25	0	142.5	D
> 10 °C	0.05	0	0	0	0.10		25.8	22.2	4	0	0	0	62.1	D
> 20 °C	0.05	0	0	0	0	0.65	5.4	2.2	0.10	0	0	0	8.3	D
> 30 °C	0	0		-	0		0	0.05	0	0			0.05	D
> 35 °C	0	0	0	0	0	0	0	0	0	0	0	0	0	D
Days with Mini														
> 0 °C	0	0			0.50		30.5	30.7		2.6			100.1	D
<= 2 °C	31	28.3		30	31	21.8	2.3	1.5	18.2	30.4	30		286.4	D
<= 0 °C	31	28.3		30	30.5	13.1	0.47	0.26		28.4			265.1	D
< -2 °C	31	28.3		29.8	27.1	4.7	0	0		25.5			243.4	D
< -10 °C	31	28.3		27.1	12.7		0	0		10.9			198.1	D
< -20 °C	30.5	27.2		17.2			0	0	0	1.3			152	D
< - 30 °C	26.1	21.6	17.4	3	0	0	0	0	0	0	3.8	19.6	91.4	D
Days with Rain >= 0.2 mm	0	0.05	0	0.70	2.4	6.2	10.2	13.2	10.2	3.8	0.25	0.05	46.9	D
•														

>= 5 mm	0	0	0	0.05	0.40	1.4	2	3.3	2.6	0.85	0	0	10.4	D
>= 10 mm	0	0	0	0	0.15	0.50	1.1	1.6	1.3	0.30	0	0	4.9	D
>= 25 mm	0	0	0	0	0.05	0.15	0.35	0.40	0.10	0	0	0	1.1	D
Days With Sno	wfall:													
>= 0.2 cm	6.9	7.2	9.1	8	7.1	1.9	0.05	0.20	3.9	12.1	12	9.5	77.8	D
>= 5 cm	0.16	0.20	0.50	0.60	0.65	0.25	0	0	0.20	1.1	0.85	0.40	4.9	D
>= 10 cm	0	0.10	0.10	0.15	0.10	0.20	0	0	0.05	0.20	0.15	0	1.1	D
>= 25 cm	0	0	0	0	0	0	0	0	0	0	0	0	0	D
Days with Pred	ipitation:													
>= 0.2 mm	6.8	7.1	9	8.4	8.8	7.4	10.2	13.2	12.8	14.3	11.9	9.5	119.1	D
>= 5 mm	0.16	0.20	0.50	0.70	1.1	1.6	2	3.3	2.8	2	0.80	0.40	15.3	D
>= 10 mm	0	0.10	0.10	0.15	0.20	0.65	1.1	1.6	1.4	0.50	0.10	0	5.8	D
>= 25 mm	0	0	0	0	0.10	0.15	0.35	0.40	0.10	0.10	0	0	1.2	D
Days with Snow	w Depth:													
>= 1 cm	31	28.3	31	30	29.8	7.8	0	0	0.45	18.1	30	31	237.3	D
>= 5 cm	31	28.3	31	29.8	24.7	1.9	0	0	0	8.2	27.9	31	213.7	D
>= 10 cm	29.4	28.1	31	29.2	21.7	0.60	0	0	0	3.7	19.5	29.5	192.6	D
>= 20 cm	23.7	22.8	28.7	26	14.3	0.10	0	0	0	0.05	4.8	16.1	136.4	D
Wind:														
Speed (km/h)	23.9	23.9	23.4	22.4	22.1	19.8	19.2	21.1	24.2	26.5	25.3	24	23	D
Most Frequent Direction	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	D
Maximum Hourly Speed (km/h)	102	93	93	93	102	74	74	93	83	93	93	100		
Date (yyyy/ dd)	1999/06	2000/05	1986/06	1999/25	2002/21	1999/23	1990/29	1984/03	1992/26	1997/14	1982/25	1985/27		
Direction of Maximum Hourly Speed	NW	NW	NW	NW	NW	E	NW	NW	E	W	NW	NW	NW	
Maximum Gust Speed (km/h)	132	113	111	111	117	111	106	124	109	137	124	124		
Date (yyyy/ dd)	1999/06	1999/02	1986/05	1999/25	1986/29	1999/23	1990/29	1984/03	1989/20	1997/14	1985/06	1985/27		
Direction of Maximum Gust	NW	NE	NW	NW	NW	E	NW	NW	W	W	N	NW	W	
Days with Winds >= 52 km/h	5.5	5.4	4.7	2.6	2.8	1.2	1.6	2.8	3.7	5.4	5	5.2	45.6	D
Days with Winds >= 63 km/h	2.3	1.8	1.7	0.7	0.5	0.5	0.5	1.2	1.5	2	1.9	1.8	16.2	D
Degree Days:														

Above 24 °C	0	0	0	0	0	0	0	0	0	0	0	0	0	D
Above 18 °C	0	0	0	0	0	0	1.2	0.2	0	0	0	0	1.4	D
Above 15 °C	0	0	0	0	0	0.3	7.9	2.5	0	0	0	0	10.7	D
Above 10 °C	0	0	0	0	0	4.2	52.7	30.1	1.6	0	0	0	88.7	D
Above 5 °C	0	0	0	0	0.1	34.5	172.7	139	21	0.1	0	0	367.4	D
Above 0 °C	0	0	0	0	5	131.9	325.4	292	111.5	8.4	0	0	874.2	D
Below 0 °C	989.5	849.5	784	488.7	186.3	7	0	0	9.5	171.1	532.7	829.5	4847.7	D
Below 5 °C	1144.5	990.7	939	638.7	336.4	59.5	2.4	2	69	317.8	682.7	984.5	6167.1	D
Below 10 °C	1299.5	1132	1094	788.7	491.3	179.3	37.4	48.1	199.6	472.7	832.7	1139.5	7714.6	D
Below 15 °C	1454.5	1273.2	1249	938.7	646.3	325.4	147.6	175.4	348	627.7	982.7	1294.5	9462.9	D
Below 18 °C	1547.5	1358	1342	1028.7	739.3	415.1	233.9	266.1	438	720.7	1072.7	1387.5	10549.4	D
Humidex:														
Extreme Humidex	-3	-4.4	1.1	2.5	13.4	26.3	32.2	31.8	21.8	8.5	1.4	-2.5		
Date (yyyy/ dd)	2000/29	1998/18	1999/26	1995/29	1996/29	1983/28	1996/31	1991/10	1996/18	1988/08	2001/03	1999/01		
Days with Humidex >= 30	0	0	0	0	0	0	0.1	0.1	0	0	0	0	0.2	D
Days with Humidex >= 35	0	0	0	0	0	0	0	0	0	0	0	0	0	D
Days with Humidex >= 40	0	0	0	0	0	0	0	0	0	0	0	0	0	D
Wind Chill:														
Extreme Wind Chill	-66.8	-70.5	-64.4	-53.4	-35.9	-17.6	-5.6	-8.8	-18.1	-42.7	-55.3	-62.4		
Date (yyyy/ dd)	1993/28	1990/15	1984/11	1985/10	1983/06	1982/02	1984/02	1985/28	1989/29	1986/25	1989/23	1993/24		
Days with Wind Chill < - 20	31	28.3	30.2	25.7	10.1	0	0	0	0	8.8	25.9	30.7	190.6	D
Days with Wind Chill < - 30	30.7	27.2	27.4	16.9	2	0	0	0	0	1.7	18.8	27.7	152.3	D
Days with Wind Chill < - 40	27.2	23.8	20.2	5.7	0	0	0	0	0	0.3	8.6	21.2	106.8	D
Humidity :														
Average Vapour Pressure (kPa)	0	0.1	0.1	0.2	0.4	0.7	1	1	0.7	0.4	0.2	0.1	0.4	D

Average Relative Humidity - 0600LST (%)	66.4	66.7	69.3	78	88.2	86.3	85.5	90.2	90.1	87.7	77.6	70	79.7	D
Average Relative Humidity - 1500LST (%)	66	67.1	71.3	78.9	82.7	72.5	65.8	70.6	77.6	84.3	77.9	69.9	73.7	D
<u>Pressure</u> :														
Average Station Pressure (kPa)	100.8	101.1	101.4	101.5	101.3	101	100.7	100.6	100.7	100.8	100.9	100.8	101	D
Average Sea Level Pressure (kPa)	101.3	101.5	101.8	101.9	101.7	101.4	101.1	101	101.1	101.2	101.3	101.2	101.4	D
Visibility (hour	s with):													
< 1 km	91.9	90.7	75.3	32.8	29.7	23.3	27.1	22.8	20.8	32.2	55.9	80.8	583.2	D
1 to 9 km	160.6	143.6	155.4	109.4	89	44.8	32	57.8	69.9	130	156	180.3	1328.8	D
> 9 km	491.4	443.8	513.3	577.8	625.3	651.9	684.9	663.4	629.4	581.8	508.1	482.9	6854	D
Cloud Amount	(hours with	<u>1)</u> :												
0 to 2 tenths	341.8	297.1	308.6	270.2	123.9	127.2	131	107.4	74.9	113.2	228.9	308.6	2432.8	D
3 to 7 tenths	177.9	159.4	163.4	125.6	118.6	174.2	230.5	185.6	110.6	98.9	128	163.4	1836	D
8 to 10 tenths	224.4	221.5	272.1	324.2	501.5	418.6	382.5	451	534.5	531.9	363.1	272	4497.3	D

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Important Notices

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