Aboriginal Affairs and Northern Development Canada
Affaires autochtones et Développement du Nord Canada

Nunavut Regional Office (NRO)
P.O. Box 2200
Iqaluit, NU, X0A 0H0

August 07, 2013

Mr. Thomas Kabloona
A/Chief Administrative Officer
Nunavut Water Board
P.O. Box 119, Gjoa Haven,
NU X0B 1J0

Dear Mr. Kabloona:

RE: CAM-D Simpson Lake Remediation Project: 2012 Annual Report for Water Licence No: 1BR-SIM0813

Please find attached the 2012 annual report for the Water licence No: 1BR-SIM0813 issued for the remediation of the CAM-D Simpson Lake site.

CAM-D project was, essentially, completed in 2011. The activities completed in 2012 do not require the water licence. These activities (as we reported under "FUTURE WORK PROPOSED" in our 2011 Annual Report) include: completion of "Inuit Capacity Building Training" at the nearest communities of Gjoa Haven, Toloyoak, and Kugaaruk; completion of community consultations (public meetings) in Kugaaruk, Gjoa Haven and Toloyoak; final (post-remediation) inspection (one day visit) of CAM-D Simpson Lake site; and final demobilization from CAM-3 to south.

No field activities took place at CAM-D and hence no water was taken from the water sources (unnamed lake and freshwater lake). Wastes generated at CAM-3 during the period (about 2 weeks) of final demobilization from CAM-3 were shipped south with the site wastes. Drinking water was brought to site from the south.

Consequently this submission is very similar to the 2011 annual report but with added details of updated NWB Annual Report spreadsheet showing that no water was abstracted and no wastes were generated at CAM-D in 2012; resident engineer (RE)'s final inspection report; and the RE's final construction summary report.

We trust that this report meets your requirements. Should you have any questions or comments, please contact the undersigned or the Project Manager, Dele Morakinyo, P.Eng. at dele.morakinyo@aandc-aadnc.gc.ca, or by telephone at (819) 934-9224

Sincerely,

Natalie Plato, P.Eng.
Director, Lands & Contaminated Sites (NRO)
Tel: (867) 975-4730;
Fax: (867) 975-4736
Email: natalie.plato@aandc-aadnc.gc.ca

CC: Nunavut Impact Review Board (NIRB), Cambridge Bay, Nunavu

NWB Annual Report **Year being reported:** 2012

License No: 1BR-SIM0813 **Issued Date:** November 25, 2008
Expiry Date: November 30, 2013

Project Name: CAM-D Simpson Lake Remediation Project

Licensee: Indian and Northern Affairs Canada Contaminated Sites program

Mailing Address:
PO Box 2200
Iqaluit NU
X0A 0H0

Name of Company filing Annual Report (if different from Name of Licensee please clarify relationship between the two entities, if applicable):

General Background Information on the Project (*optional):

CAM-D was constructed as an intermediate DEW Line site in 1957 by the Department of National Defence (DND). The station was taken out of service in 1963, and in 1965 responsibility for the site was assumed by INAC. CAM-D site consisted of a module train, warehouse, garage, Inuit house, POL tanks, Quonset huts, storage pads, a radar tower and a 750 m airstrip.

Prior minimal site assessment and clean up of PCB containing equipment was carried out at the site by the Environment Canada (EC) and Department of National Defence in 1985. Several other contaminants including petroleum hydrocarbon contaminated soils, metals contaminated soils, burried and scatered surface debris, thousands of burried barrels, remains of demolished buildings were left at the site.

Between 1992 and 1995 the Department of National Defence (DND) constructed an unmanned Short Range Radar (SRR) facility approximately 1 km east of the former the CAM-D site. The scope of this work does not cover the DND's SRR boundaries.

Environmental site assessment was conducted, at the site in 2005, to evaluate the remaining contaminants at the site and to develop strategies for the clean up of the site. Based on the results of the site assessment, a Remedial Action Plan was developed for the site.

Remediation Works commenced at the site in 2010 and continued to the end of the 2011 construction season. All remedial activities at the site have now been completed. Equipment, wastes and all other items were transported overland during the 2011 winter season, stored at the AANDC's badge landing location at CAM-3, Sherperd Bay, and finally demobilized to south in September, 2012.

Licence Requirements: the licensee must provide the following information in accodance with

Part B ▼ Item 1 ▼

A summary report of water use and waste disposal activities, including, but not limited to: methods of obtaining water; sewage and greywater management; drill waste management; solid and hazardous waste management.

Water Source(s):	No water was taken from either unnamed lake and freshwater Lake, because there were no activities at CAM-D	
Water Quantity:	20/day	Quantity Allowable Domestic (cu.m)
	0.0/day max	Actual Quantity Used Domestic (cu.m)
	N/A	Quantity Allowable Drilling (cu.m)
	N/A	Total Quantity Used Drilling (cu.m)

Waste Management and/or Disposal

- [x] Solid Waste Disposal
- [x] Sewage
- [ ] Drill Waste
- [x] Greywater
- [x] Hazardous
- [ ] Other:

Additional Details:

In 2012,

No activities at CAM-D. No water was taken from the sources (unamed lake and freshwater lake).

Wastes (solid waste, sewage and grey water, hazardous) generated at CAM-3 during the final demobilization were shipped south with the site wastes. Drinking water was brought to site from the south.

A list of unauthorized discharges and a summary of follow-up actions taken.

Spill No.: none (as reported to the Spill Hot-line)
Date of Spill: none
Date of Notification to an Inspector: N/A
Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

No spills were recorded in 2012.

Spill No.: None
Date of Spill: None
Date of Notification to an Inspector: N/A
Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

None

Revisions to the Spill Contingency Plan

SCP submitted and approved - no revision required or proposed

Additional Details:

None

Revisions to the Abandonment and Restoration Plan

AR plan submitted and approved - no revision required or proposed

Additional Details:

None

Progressive Reclamation Work Undertaken

Additional Details (i.e., work completed and future works proposed)

WORK COMPLETED

All the on-site works completed under this licence are as follows:

- Mobilization of equipment, supplies and facilities, by sealift, from south to CAM-3 and from CAM-3 to CAM-D;
- Camp set up
- Repairs of site roads
- Quarrying of all required borrow materials from the approved borrow area, hauling to the location of the landfill facility (~5 Km distance) and stockpiling.
- Barrel crushing and placement in the landfill
- Restoration of Borrow Area No. 2 and the removal of river crossing.
- Demolition of existing structures (including the garage, warehouse foundation, POL pumphouse and fallen antenna). Demolition activities involved: removal of PCB amended paint (PAP) and lead based paint and containerization for shipment off-site; asbestos abatement; and the removal of inert debris (i.e. concrete, fibreglass insulation, and scrap metal) and disposal in the NHWL.
- Excavation of the nine (9) of the twelve (12) contaminated soil locations. Contaminants included petroleum hydrocarbons, heavy metals and PCBs. In total, approximately 1,800 m3 of contaminated soil was excavated, of which 580 m3 was containerized for shipment off-site and 1,220 m3 was placed in the NHWL as intermediate fill.
- Excavation of buried debris involving unearthing the buried waste, separating the debris into waste streams and sampling of the intermixed soil to determine disposal requirements. Of the four scheduled buried debris excavations, two were completed during 2010. Surficial debris collection from the thirteen previously identified site debris areas commenced in 2010 and will be completed in the year ahead.
- Barrel processing. In 2010, approximately 1,370 barrels containing residual fluids (water, fuel or otherwise) were processed (i.e. consolidated where practical, sampled, analyzed and disposed of accordingly).
- Completion of community meetings at Taloyoak, Gjoa Haven and Kugaaruk.
- Completion of the barrel processing,
- Completion of contaminated soil excavation,
- Completion of curied debris excavation,
- Completion of the removal of remaining surface debris,
- Segregation and packaging of all waste streams planned for off-site disposal
- Closure of the NHWL, intermediate and
- Cat Train of equipment, wastes and other items to CAM-3, Sherpherd Bay
- Completion of Inuit Capacity Building Training at Gjoa Haven, Toloyoak, and Kugaaruk;
- Completion of Community Consultation (Public Meetings) at Kugaaruk, Gjoa Haven and Toloyoak;
- Completion of the final inspection at CAM-D Simpson Lake;
- Completion of the final demobilization from CAM-3 to south;

ALL REMEDIATION WORKS ON THIS SITE, FOR WHICH THIS LICENCE WAS ISSUED ARE NOW COMPLETE

Results of the Monitoring Program including:

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where sources of water are utilized;

Details attached

Additional Details:

See GPS Co-ordinates below

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where wastes associated with the licence are deposited;

Details attached

Additional Details:

See GPS Co-ordinates below

Results of any additional sampling and/or analysis that was requested by an Inspector

No additional sampling requested by an Inspector or the Board

Additional Details: (date of request, analysis of results, data attached, etc)

See Appendix B (Table 1 and 2 for Sampling at Raw Water Intake - SIM-1) and Apendix C for final discharge point for sewage disposal facility (SIM-2) as per part K of the Water Licence. There were no SIM-3 and SIM-4 (See Appendix C for explanation).

Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported.

No additional sampling requested by an Inspector or the Board

Additional Details: (Attached or provided below)

Any responses or follow-up actions on inspection/compliance reports

No inspection and/or compliance report issued by INAC

Additional Details: (Dates of Report, Follow-up by the Licensee)

Any additional comments or information for the Board to consider

None

Date Submitted: August 7, 2013

Submitted/Prepared by: Natalie Plato

Contact Information:

Tel: (867) 975-4730

Fax: (867) 975-4736

email: natalie.plato@inac-ainc.gc.ca

GPS Coordinates for water sources utilized

Source Description	Latitude			Longitude		
	Deg °	Min '	Sec "	Deg °	Min '	Sec "
Raw Water Supply Intake	68	34	11.43	92	2	45.41

GPS Locations of areas of waste disposal

Location Description (type)	Latitude			Longitude		
	Deg °	Min '	Sec "	Deg °	Min '	Sec "
Non-Hazardous Waste Landfill	68	35	36.26	91	58	49.46
Waste water discharge point	68	34	14.48	92	2	46.04

APPENDIX A

EXECUTIVE SUMMARY IN ENGLISH, INUKTUTUIT AND INUINAKTUN

CAM-D, Simpson Lake, Nunavut
NWB Licence No. 1BR-SIM0813

Executive Summary of all Plans, Reports, or Studies Conducted under Water Licence No. 1BR-SIM0813

This executive summary document has been prepared to fulfill the requirements of Part B: General Conditions (subsection letter: O) of the NWB Licence No. 1BR-SIM0813.

NWB Licence No. 1BR-SIM0813 was issued on November 25, 2008 for the remediation of the abandoned CAM-D DEW Line Site at Simpson Lake, Nunavut. The contract for the remediation of the CAM-D site was awarded during the fiscal year 2009/10. Remediation activities on the site started during the fiscal year 2010/11. The main activities carried out, at CAM-D site, under this licence during the period April 1, 2010 to March 31, 2012 are summarised as follows:

In May 2010, pre-construction season community consultations (public meetings) were held at the nearest communities (Kugaaruk, Taloyoak and Gjoa Haven) to CAM-D. The meeting was well attended by members of the communities. Members of the communities were introduced to the project and the schedule planned for executing it. Jobs/business opportunities and the hiring methods were also explained to the attendees of these community meetings.

The remediation program at CAM-D DEW Line Site at Simpson Lake began on June 10, 2010 with the installation of the camp/camp facilities and the repair of the 4.5 Km road connecting the main site area to the camp. This area was used for the hauling of borrow materials to the non-hazardous landfill area.

During the summer of 2010, approximately 17,650 m^3 of borrow material was quarried from Borrow Area No. 2, of which 14,400 m^3 was borrowed and used for access road improvements, on-site non-hazardous waste landfill (NHWL) berm construction and general fill (where required). Restoration of Borrow Area No. 2 was completed and the river crossing was removed. The remaining volume of borrow material (estimated 4,000 m^3 of Type 2 and 1,700 m^3 of Type 3) were hauled and stockpiled at the upper site. These materials were used for the final capping of the NHWL and the regrading of the site in 2011.

Demolition of buildings and infrastructure – All buildings and infrastructure including the garage, warehouse foundation, POL pumphouse the fallen antenna at the site were demolished. Demolition activities involved the removal and containerization for off-site shipment of PCB amended paint (PAP) and lead based paint; asbestos abatement; and the removal and disposal of inert debris (i.e. concrete, fibreglass insulation, and scrap metal). Non-hazardous and inert demolition wastes were disposed of in NHWL while hazardous materials/wastes collected prior to demolition or during demolition were containerized and shipped off-site. Some of the containerized hazardous wastes were removed south in 2011; the remaining containers have been removed from CAM-D and stored in CAM-3 – Shepherd Bay ready for sealift to the south in August/September, 2012.

Contaminated Soils – These include PHC impacted and contaminated soils; and Tier I/Tier II (Metals, and PCB) contaminated soils. Impacted PHC soils were excavated, treated in landfarm, confirmed to meet disposal criteria and then disposed of as intermediate fill material with Tier I soils in the Non-Hazardous Waste Landfill (NHWL) or used for regrading some portions of the site, while contaminated PHC soils and Tier II soils were containerized for off-site disposal. ALL contaminated soils were excavated in 2010 and 2011. Soils destined for the NHWL were all disposed of during 2010 and 2011 seasons; some

containerized soils were shipped off site in 2011 while the remaining containerized soils (currently stored at CAM-3 Shepherd Bay) will be shipped south by sealift in August/September, 2012.

Buried Debris Areas – All buried debris excavation were completed during 2010 and 2011. Buried debris excavation involved unearthing the buried waste, separating the debris into waste streams (hazardous and non-hazardous) and sampling of the intermixed soil to determine disposal requirements. Non-hazardous materials from buried debris areas were disposed of in the NHWL while hazardous materials were containerized. Some of the containerized items were removed to south during the partial demobilization of September 2011; the remaining containers will be demobilized south in September 2012.

Surface site debris – All surface debris were collected. Non-hazardous surface debris were sent to NHWL and the hazardous debris were containerized for off-site disposal.

Barrels (surface and buried) - Approximately 10,000 barrels were collected and processed. Empty clean barrels were crushed to maximum 25% of their original size and disposed of in the NHL. The incineration burners supplied by the contractor were not effective. Consequently, all contents collected from the barrels are containerized and stored at CAM-3; and will be sent off-site for disposal by September, 2012.

The construction activities continued until October 10, 2010 when the site was closed for the 2010 season. The equipment and other materials were winterized and stored for next year. The packaged hazardous waste materials and polychlorinated biphenyl (PCB) impacted soils were moved by Cat Train in March 2011 from CAM-D to the barge staging area at CAM-3 in readiness for final demobilization to the south in 2012. PCB storage areas at both locations are registered with Environment Canada.

Construction, operation and the closure of Non-Hazardous Landfill (NHL) facility completed. All the non hazardous wastes encountered on the site were disposed of in the NHWL.

Camp Area Decommissioning: The camp infrastructure decommissioned and hauled to CAM-3, ready for sealift to the south in September, 2012. Final site inspection of the camp area is scheduled for August/September 2012, to ensure that no debris was left behind.

Remaining works to be completed under this licence are:

- Inuit Capacity Building Training (Titled: Cook Assistant Training) in three (3) Nunavut Communities – Kugaaruk, Taloyoak and Gjoa Haven in July 2012,
- Final community consultations at Kugaaruk, Taloyoak, and Gjoa Haven (September 2012)
- Final inspection of the location of the former camp, in September 2012, to ensure no debris was left behind;
- Final demobilization by sealift from CAM-3 to the south in September, 2012;

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ᐊᐅᓪᓂᔪᔨᑦ ᐅᓂᵇᑲᖏᑎ <ᖃᓇᐅᓂᓪᒧᓂᵇ, ᐅᓂᵇᑲᓂᵇ, ᐅᑲᕐᓄ ᐃᓕᓐᑎᓴᐊᑕᐅᓂᔪᵇᑐᓂᵇ ᐊᑦᒨᒍᑦ ᓄᓇᕗᒻᒥ ᐃᒪᓕᕆᔨᵇᔪᑦ ᑲᑎᒪᔨᖏᓐᓂᑦ ᓪᐃᓴᐅᖏᓐ ᓇᓴᐅᑦ 1BR-SIM0813

ᐅᓇ ᐊᐅᓪᓂᔪᔨᑦ ᐅᓂᵇᑲᖏᑎ ᑎᑎᕋᖅᔪᒪᓂᑦ ᐱᓕᕆᑦᐅᔪᒪᕗᖅ ᐱᓴᕆᒪᓪᓕᐅᑎᓂᑦ ᑕᐃᒪᵒᓇᐅᑦᓴᕆᐊᕋᖅᑐᑦ ᐃᓕᖏᓂᓂ ᐋ: ᑕᒪᐃᵒᓄᑦ ᒪᓕᵇᑕᐅᑦᓴᕆᐊᓕᓪᓕᑦ (ᐊᑦᒨᓂ ᐅᐃᔪᐊᑕ ᑎᑎᕋᖅ: ᐅ) ᑮᵇᑯᐊ ᓄᓇᕗᒻᒥ ᐃᒪᓕᕆᔨᵇᔪᑦ ᑲᑎᒪᔨᖏᓐᓂᑦ ᓪᐃᓴᐅᖏᓐ ᓇᓴᐅᑦ 1BR-SIM0813.

ᓄᓇᕗᒻᒥ ᐃᒪᓕᕆᔨᵇᔪᑦ ᑲᑎᒪᔨᖏᓐᓂᑦ ᑕᐃᒪᓂᖏᓐ ᓇᓴᐅᑦ 1BR-SIM0813 ᑐᵒᓂᔪᑎᑕᐅᓕᐅᓂᖅᑐᖅ ᓄᕕᐱᓇ 25, 2008 ᓄᑦᖓᔪᖅᑎᓇᑎᓕᔪᑕ ᐃᓗᓂᓴᖅᑕᐅᓂᔪᓕᔨᓂᵇ ᐃᓄᔪᖅᑭᵒᑦᓂᖅᑐᒥ ᑐᓪᓕᖅᑲᕕᐃᓂᖅᑐ ᑕᐃᑲᓂ ᐊᔪᖏᒧᒥ 2009\10. ᓄᑦᑭᔪᑎᑕᐅᓂᵒᖏᓕᓄ ᖃᓄᐃᓪᓕᐅᑦᓴᕆᐅᔨᑦ ᐃᓂᵒᖏᓂ ᐱᑎᐊᓪᐅᑦᓴᖅᑐᖅ ᐊᔪᖏᒧᒥ 2010\11. ᐱᓪᓇᓴᐅᓪᔭᐊᓪᓕᐅᑦᓴᖅᑐᑦ, ᑲᒻ ᑎ ᐃᓂᵒᖏᓐ, ᐊᑦᒨᒍᑦ ᐅᒪ ᓪᐃᓴᐅ ᑕᐃᑲᓂ ᐱᑎᐊᑦᔫᑎᵇ ᐊᐃᓇᓂ 1, 2010 ᑎᑭᑦᔭᐃᒍ ᓯᓗ 31, 2012 ᐅᑯᐊ ᓇᐃᓵᖅᓭᓪᓕᑦᔭᑎᵇ ᐅᓂᵇᑲᖅᓭᓪᓕᐅᑦ ᐅᖓᓂ:

ᑕᐃᒪᓂ ᒪᐃ 2010, ᐱᓇᓴᐅᵇᓂᓪᓇᐊᖅᑲᖅᑐᐃᓄᑦ ᓄᓇᓕᑦ ᖁᑭᖅᑕᐊᖅᑲᑎᑭᔪᑦ (ᐃᓄᑦᑕᓯᓂᵇ ᑲᑎᒪᑎᕋᑎᑲᑎᵇ) ᑕᐃᒪᵒᓇᐅᑦᓴᕆᐅᔨᑦᑐᖅ ᖃᑲᓂᔪᓂ ᓄᓇᕗᓐᓂ (ᑯᐃᓚᖅᓴᖅ, ᑕᑐᖅᔫᐊᖅᑐ, ᐊᒪᒪᓗ ᐅᖅᓭᓴᖅᑐᖅ) ᑕᑲᓂᖏᓐ ᑲᒻ ᑎ. ᑲᑎᒪᔭᖅᑐᑎᐊᑦᓴᕆᐅᔨᑦᑐᖅ ᓄᓇᕗᑦ. ᓄᓇᕗᑦ ᖃᑲᐅᔨᐊᖅᑎᑕᐅᑦᑕᓪᓕᑎᵇ ᐱᑦᓂᔫᐊᖅᑎᑦᑐᖅ ᐊᒪᒪᓗ ᐊᐅᖅᓭᓭᓪᓕᔭᒪᓐᓂᵇ ᖃᖏᑦᓭᓂᑦ ᐱᑦᓂᔫᐊᓂᓴᖅᑕᒥᓐᓂᵇ. ᐃᖅᑲᓇᐃᔭᵇᓴᐃᖅ\ᓇᓐᒥᓂᖃᖅᑐᐃᓄᑦ ᐱᔨᑦᔨᵒᓇᖅᑐᑦᔪᓗ ᐊᒪᒪᓗ ᐃᖅᑲᓇᐃᔨᑦᑕᑎᑎᑦᓴᐊᑐᑦ ᐅᑯᐊ ᓇᓪᓕᐊᓪᓇᖅᑕᐅᑎᐊᑕᐅᓂᖅᑐᑦ ᐃᑕᐅᔨᐅᑦ ᓄᓇᕗᑦ ᑲᑎᑎᑦᓴᕆᐅᔨᑦ.

ᐅᓇ ᓄᑦᑭᔪᑎᑎᓂᖅ ᐱᑦᓪᑎᑎᑦᓴᔨᑦᑕᐅᔨᖅ ᑕᐃᑲᓂ ᑲᒻ ᑐᑦᐃᔭᖅᑲᕆᐃᓂᖅ ᓂᓚᓴᵒ ᑕᓂᔫᓂ ᐱᑎᐊᑦᓴᖅᑐᖅ ᔨᵒ 10, 2010 ᑕᖅᐸᓕᖅᓂᑦᑐᑎᵇ\ᓄᓇᑦᑎᓀᖅᑕᐅᑲᒻᔪᑎᵇ ᐊᒪᒪᓗ ᓴᓇᑦᑐᐃᔪ ᐊᑦᑭᓀᖅᔪᔪ ᐊᑦᑯᑦᑦ 4.5 ᑭᑕᒃᑕ ᑕᑭᑎᑎᔨᖅ ᑲᑎᑦᑎᑦᑐᑦᑦ ᐃᓂᵒᖏᓂ ᑕᖅᐸᓕᖅᓂᑦᑐᔪᓗ ᐊᑦᑯᑦᑦ ᐃᓂᵒᖏᓂ. ᐅᓇ ᓄᓇᖅᑎ ᐊᑐᖅᑕᐅᑕᐅᓴᖅᑐᖅ ᑲᑦᑎᑎᑦᓴᕆᐅᔨᑦᑐᖅ ᐊᒪᒪᓗ ᑭᑕᖅᓇᖅᑐᑦᑐᑎᵇ ᐃᓂᵒᖏᓂ ᐊᐅᖅᓭᓭᓪᓕᔭᒪᓐᓂᵇ ᖃᖏᑦᓭᓂᑦ ᐊᐅᖅᓭᓭᓪᓕᔭᒪᓐᓂᵇ. ᐃᓂᵒᖏᓂ ᐊᐅᖅᓭᓭᓪᓕᔭᒪᓐᓂᵇ ᐊᒪᒪᓗ

ጋᕐᖏᕕᖏᑦ, ᐅᖅᓯᐊᓂᖅᑎᕕᒃ ᓇᐸᖅᓯᒪᔨᖏᑦ ᑲᑕᓯᒪᓂᒃᑐᓂᓪᓚᑐ ᐃᓕᓴᕐᓂᓪᓚᑐ. ᓯᕐᕿᑎᕆᐅᑦᓯᑎᒃ ᖁᓇᐃᓕᐅᐅᕈᑕᐅᖅᑕᖅᑐᖅᑐᕕᖅᓯᓂᑦ ᐃᓕᑎᕆᐅᑦᓯᑐᓪᓚᑐ ᐊᕐᖅᑕᐅᑦᓯᑎᒃ ᐊᒻᒪᓗ ᐅᖅᑲᑕᐅᑦᓯᑎᒃ ᐃᓂᖏᓐᓇᐅᖏᑕᖅ ᐊᐅᓚᖅᑎᑕᐅᑦᓯᑎᒃ ᐱ.ᓯ.ᐃ ᐊᒥᐊᕈᑎᑦ ᐊᒻᒪᓗ ᓴᖃᕆᕐᓂᑦ ᐊᒻᒪᓗ ᐃᑎᐅᖅᑲᒥᑦ ᐅᕙᓪᓕᐊᓂᖅ ᑭᓯᓚᕆᓂᖅ (ᑕᑯᐊ ᖁᑯᐃᑦ, ᐃᓕᓴᐅᓴᕐᐃᑦ ᓯᕐᓴᐅᖅᑕᑐᑦ ᐃᑭᐊᒥᖃᕐᓂᓪᓚᑐ ᐊᒻᒪᓗ ᓴᖃᖃᕐᐃᑦ ᑭᓯᐊᖅᓂᖅ). ᐅᓗᓕᐊᓇᖅᑐᓴᐅᖅᓯᑎᑦᑐᑦ ᐊᑦᑕᖅᓇᖅᑐᓴᐅᖅᓯᑎᑦᑐᑦ; ᐊᒻᒪᓗ ᓯᕐᕿᑎᖅᑕᐅᓂᒋᐊᖅᓂᑦ ᐊᐅᑕᒋᐃᑦ ᐃᑎᓴᐅᓂᒃ ᐅᓗᓕᐊᓇᖅᑐᓴᐅᖅᓯᑎᑦᑐᑦ ᐊᑦᑕᖅᓇᖅᑐᓴᐅᖅᓯᑎᑦᑐᑦ ᐊᐅᑕᒋᐃᑦ ᓴᐅᓴᐅᓂᒃ ᑕᐅᒋᐊᖅᓂᒃ ᐅᓗᓕᐊᓇᖅᑐᓴᐅᖅᓯᑎᑦᑐᑦ ᐃᓐᒋᑎᑎᖅᓴᐅᓂᑦᓗ ᓄᐊᑕᐅᓂᖅᑐᓂᒃ ᓯᕐᕿᑎᖅᑐᓴᐅᑕᐅᓐᖏᓂᖅᓯᓂᒃ ᐅᔾᔨᓗ ᓯᕐᕿᑎᐊᖅᑑᓂᑦᑎᓂᒃᑐᑦ ᐅᒋᐊ ᐅᖅᑕᐅᓯᑎᐊᖅᑲᑎᒃ ᐊᒻᒪᓗ ᐊᐅᓪᓚᑎᑕᐅᓂᖅᑐᓂᒃ. ᐃᓕᖏᑦ ᐅᖅᑲᑕᐅᓂᖅᑐᓂᒃ ᐅᓗᓕᐊᓇᖅᑐᓴᐅᖅᓯᑎᑦᑐᑦ ᐊᑦᑕᖅᓇᖅᑐᓴᐅᖅᓯᑎᑦᑐᑦ ᐊᑦᑕᖅᓇᖅᑐᓴᐅᖅᓯᑎᑦᑐᑦ ᐊᑦᑕᒋᐃᑦ ᖁᐅᖅᐅᓂᒃ ᑕᑯᐊ ᐅᓗᓕᐊᓇᖅᑐᓴᐅᖅᓯᑎᑦᑐᑦ ᐊᑦᑕᒋᐃᑦ ᖁᐅᖅᐅᓂᒃ ᐅᓐᓄᓗ ᐊᑐᓕᖅᑐᓂᒃ ᐃᓕᓴᐅᓂᒃ ᐊᐅᓚᖅᑎᑕᐅᓂᖅᑐᓂᒃ ᐃᓕᓴᐅᓂᒃ ᐊᐅᓚᖅᑎᑕᐅᓂᖅᑐᓂᒃ ᐊᑦᑕᒋᐃᑦ ᖁᐅᖅᐅᓂᒃ ᐅᓐᓄᓗ ᐊᑐᓕᖅᑐᓂᒃ ᐃᓕᓴᐅᓂᒃ ᐊᑦᑕᖅᓇᖅᑐᓴᐅᖅᓯᑎᑦᑐᑦ

ᑕᒪᕐᒥᒃ ᐃᓕᓴᕐᕕᒃ ᓄᐊᑕᐅᓪᓗᑎᒃ ᖃᒃᕿᑕᐅᔪᓂᒃ ᐅᖅᑕᐅᓪᓗᑎᒃ ᐊᓚᒪᓗ ᑐᖁᔭᖅᑕᐅᓪᓗᑎᒃ ᑲᒪ 3; ᐊᓚᒪᓗ ᐊᐅᓪᓕᖁᑎᑕᐅᓗᑎᒃ ᐱᑎᑕᐅᔪᓂᖅᓴᓇᔪ ᓂᑎᐱᓚᓐ, 2012.

ᐅᑯᒪᐃᕐᑐᑎᓂ ᓴᓇᔨᐅᓪᓗᑎᒃ ᑕᒪᐃᓇᓗ ᑲᔪᓂᒪᐅᓪᓗᖅᑐᖅ ᐅᑐᐱᓐ 10, 2010 ᑕᐃᒪᓗ ᐃᓂᓚᑦᓴᖅᑐᑦ ᓄᑐᐱᓐ 2010 ᐊᖏᕐᕌᔪᓂᑦ. ᐅᑯᐊ ᓴᓇᖅᑭᑎᓂ ᐊᓚᒪᓗ ᐊᓂᓕᖅᓂ ᐱᖏᓕᑎᓂ ᐅᑭᐅᒧᑦ ᐁᖏᕐᕕᐅᕙᓪᓕᐅᑦᓴᖅᑐᑦ ᐊᓚᒪᓗ ᑐᖁᔭᖅᑕᐅᓪᓗᑎᒃ ᐊᑐᐁᖏᓕᒃᑕ ᐊᖏᕐᕌᔪᑦᑕ. ᐅᖅᑲᖅᑕᐅᓂᒪᓕᒫᓂᖅᑐᑦ ᐊᒃᑕᕆᐊᓂᑦ ᐱᖏᓕᑎᓂ ᐊᓚᒪᓗ ᖃᓄᐃᑦᑐᖅᑐᑦ (ᐱᓂᐅ) ᐊᒃᑐᐃᓂᓕᒫᓂ ᒪᓂᖅᑭᒃ ᐃᓱᒫᖏᑦ ᐅᑯᐊ ᑲᑕᐅᓪᓗᖅᑐᖅᑐᑦ ᑲᑎ ᓄᓇᓂᐅᔪᓐᓇᒃ ᑕᐃᒃᑐᓂ 2011 ᑕᐃᒃᖃᓐ ᑲᑎ ᑎ ᑕᐃᑯᐊ ᐊᒥᐊᖏᒋᐊᓄᑦ ᐅᓂᓕᑕᐅᓂᐊᖏᒪᑕ ᐃᓂᓐᓇᑎᒃ 3 ᐱᑐᐃᓴᕆᓚᐊᖏᒃᓂᓂᓕᒫᓪᓗᑎᒃ ᑭᖑᓪᓕᖅᑭᒃ ᑲᑕᐅᓂᐊᖏᒪᑕ ᖃᒃᓪᓗᑕᓂ ᓄᓇᖓᓄᑦ ᑕᐃᒃᑐᓂ 2012. ᐱᓂᐸᖅᓴᐅᓕᒫᑦ ᐃᓂᓐᖃᒪ ᑕᒪᕐᒥᒃ ᐃᓂᐊᖅᑐᑦ ᐊᓚᒪᓗ ᑎᑎᕋᖅᑕᐅᓂᐊᖏᒪᓪᓗᑎᒃ ᓂᓪᓂᐊᖅᑐᖅᓯᒪᓄᑦ ᖃᐅᔨᒥᒃ ᐊᐠᑎᓪᓚᕆᐊᖅᑐᑦ.

ᐅᑯᒪᐃᕐᑐᑦ ᐱᓇᓴᐅᓂᖏᓐᓄ, ᐊᐅᓪᓚᑕᐅᓂᖏᓐᓄᓗ ᐊᓚᒪᓗ ᒪᑐᓴᐅᓂᖏᓐᓄ ᐅᓗᓚᐊᓇᖅᑐᖅᑲᐅᖏᓐᓄᑦᑐᑦ ᐊᑦᑕᕆᓇᖅᑐᖅᑲᐅᖏᓐᓄᑦᑐᑦ ᖏᓐᓂᑦ ᐊᐅᑕᐅᑯᐃᓂ ᐱᐅᓴᖅᑲᐅᐃᖏᓐᓂ ᐱᓴᓱᖅᓯᓂ ᐃᓂᓐᓇ ᐱᓴᓱᖅᑕᐅᓪᓚᐅᓂᖅᑐᖅ. ᑕᒪᕐᒥᒃ ᐅᓗᓚᐊᓇᖅᑐᖅᑲᐅᖏᓐᓄᑦᑐᑦ ᐊᐅᑕᐅᑯᐃᓂ ᐅᓂᐅᕙᓪᓕᑦ ᐃᓂᓐᓇᓵ ᐃᑎᑕᐅᓪᓗᑎᒃ ᐅᓗᓚᐊᓇᖅᑐᖅᑲᐅᖏᓐᓄᑦᑐᑦ ᐊᑦᑕᕆᓇᖅᑐᖅᑲᐅᖏᓐᓄᑦᑐᑦ ᐊᐅᑕᐅᑯᐃᓂ ᐱᐅᓴᖅᑲᐅᐃᖏᓐᓂ.

ᓄᓇᖓᓕ ᐃᓂᖓ ᓇᐸᔪᖅᑭᵒᓂᕐᑎᐊᖅᓴᓂᓂ: ᑕᖓᒻᒪᖅᓯᒪᓕᕆᕐᓂᖓᓂᓂ ᓇᐸᔪᑦ ᑲᑎᑦᑎᕐᑕᐅᓪᓗᑎᒃ ᐊᓚᒪᓗ ᐅᓂᐊᖅᑕᐅᓪᓗᑎᒃ ᐱᖓ 3 ᐅᒥᐊᔪᐊᑯᔪᓂᐊᖏᒪᑕ ᖃᒃᓪᓗᑕᓂ ᓄᓇᖓᓄ ᓯᑎᓂᐅᓚᐅᖅᑐᑦ 2012-ᒥ.

ᑭᖓᓪᓕᖅᐸᖅᓯᐅᑎᒥᒃ ᐃᓂᖓᓂᓂ ᖃᑲᐅᔨᓴᖅᑕᐅᓪᓗᓂᓂ ᑕᖓᒻᒪᖅᓯᒪᓕᖅᖓᓂᓂ ᐋᔪᓯ ᓯᑎᐊᓚᓗᓂ 2012, ᑕᐃᒪᓗ ᓯᔪᕐᑎᓯᒪᔨᕕᓂᑦ ᐃᓅᓯᓇᖅᑕᐅᓂᖅᓯᑎᑲᓗᔪᖓᓕᒃ.

ᓯᓚ ᓴᓇᔨᓚᐊᓕᓂᑦ ᐱᔨᑦᓚᓕᐊᖅᖃᖅᑐᑦ ᐊᑕᒍᔪ ᐅᒪ ᓕᐃᓴᓯ ᐅᑯᐊ:

- ᐃᓄᐃᑦ ᐃᓗᓕᑕᐹᓇᔪᓂᖅᓯᓂᒃᓂᒃ ᐱᔨᓚᐅᖅᖃᓴᑎᑕᐅᓗᑎᒃ (ᐊᑎᕐᖃᖅᖃᑐᖅ: ᓂᔪᑭᓕᐅᕐᑎᓂ ᐃᖃᔪᕐᑎᓂᕐᑕ ᐱᔨᓚᐅᖅᖃᓴᓂᖓᓕ) ᐱᖓᓱᓂ ᓄᓇᓕᓂᓂ - ᖃᐅᓴᔪᒃ, ᕕᓐᓴᔪᐊᖅᖃᖅ ᐊᓚᒪᓗ ᐅᖅᓯᓴᕐᑐᖅ ᑕᐃᒃᑐᓂ ᔪᑕᐃ 2012,

- ᑭᖓᓪᓕᖅᐸᒥᒃ ᓄᓇᓕᓂ ᖃᑎᖅᑭᐊᖅᑎᑎᒋᔭᑎᓂ ᑕᐃᒃᑐᓂ ᖃᐅᔨᒥᒃ, ᕕᓐᓴᔪᐊᖅᖃᖅ ᐊᓚᒪᓗ ᐅᖅᓯᓴᕐᑐᖅ (ᓯᑎᐊᓚ 2012)

- ᑭᖓᓪᓕᖅᐸᒥᒃ ᖃᐅᔨᓴᖅᑕᐅᓪᓗᑎᒃ ᐃᓂᖓᓂ ᐃᓂᑐᖅᖓᓪᓕᓐᓗ, ᑕᐃᒃᑐᓂ ᓯᑎᐊᓚ 2012, ᑕᐃᒪᓗ ᑕᐃᒪᓗ ᓯᔪᕐᑎᓯᒪᔨᕕᓂᑦ ᐃᓅᓯᓇᖅᑕᐅᓂᖅᓯᑎᑲᓗᔪᖓᓕᒃ;

- ᑭᖓᓪᓕᖅᐸᒥᒃ ᓄᑕᐅᓪᓗᑎᒃ ᐅᒥᐊᔪᐊᑯᔪᓂᐊᖏᒪᑕ ᐃᓂᖓᓂᓂ ᐱᖓ 3 ᖃᒃᓪᓗᑕᓂ ᓄᓇᖓᓄ ᑕᐃᒃᑐᓂ ᓯᑎᐊᓚ 2012;

CAM-D, Simpson Tahia, Nunavut
NWB Laisiata No. 1BR-SIM0813

Atugaliurtauhimayuq Titiqqait tamainnut Parnautit, Unipkaat uuminngaluniit Qauyihaqhimayut Havaangit malikhimayangit Imap Laisiata No. 1BR-SIM0813

Una atugaliurtauhimayuq titiqqat naunaiyaiyut parnaiqhimayangit iniqhiivlutik kiuvikhalgit haffuminngat Ilainnaa B: Tamainnut Qanurilingayauningit (avvautihimayangit titiraq: O) haffuminngat NWB Laisiata No. 1BR-SIM0813.

NWB Laisiata No. 1BR-SIM0813 titiraqtaaqhimayuq uvani Nuvaippa 25, 2008mi ihuaqhaiyauvluni ukuninngat ikhinnartauhimayauyuq CAM-D DEW Lait Nayurviata uvani Simpson Tahiani, Nunavut. Una havaktaugialik haffuminngat ihuaqhaiyakhaq haffuminngat CAM-D nayurviat ilitariyauhimayuq uvani havakhutik ukiungani 2009/10mi. Ihuaqhaidjutikhat hulipkainiit uvani nayurvianit aullartilihaaqhuni uvani havakhutik ukiungani 2010/11mi. Una hulidjuhiit turaartauvluni, uvani CAM-D nayurviata, laisiat malikhugu uvani ukiungani Aippu 1, 2010mit Maasi 31, 2012mut titirartauhimavlutik hamna malikhugu:

Uvani Mai 2010 mi, havaktauhimagaluaqqut atuqhimayangit nunaqatigiikhutik katimadjutiqattaqhutik (nunalingnit katimavakhutik) katimavaktut hanianit nunalingnit (Kugaaruk, Taloyoak Uqhurtuurmilu) CAM-Dmut. Katimaliraangamik amihut katimaqatauvakhutik tamaat nunalingnit. Nunaqatigiiktut ilittauriyauvlutik ukuninngat havaangit havaktakhait unalu qanuq havaffaartakhait nutqarniarumik. Havaakhat/nanminiqaqtunut hulidjutikhait unalu havaquyauyut uukturautait tutqiqhittaaqhutik tahapkuat katimaqatauyut uvani nunaqatigiiktunut katimaliraangata.

Hamna ihuaqhainirnut havaktakhait uvani CAM-D DEW Lait Nayurviani uvani Simpson Tahiani pilihaaqhuni uvani Juun 10, 2010 mi illiriyauhimavlutik ukuninngat nayurvikhait/nayurvikhanut parnaqutikhait unalu ihuaqhaiyut haffuminngat 4.5 Km apqutaan katilviuyuq uvani iluani nayurviata iluani iglurpaqarvianit. Hamna iniat aturtauhimavluni agyartuivlutik atuqhimayakhainit ihuaqutikhait unalu qayangnaittut nunaliktunit inianit.

Uvani auyami 2010 mi, qaffiuyungnaqhiyut 17,650 m^3 haffuminngat adjiliuqhimayangit ihuaqutikhait hautaaqhimayunit haffuminngat Adjiliurtauhimayut Inianit No. 2, taimaa 14,400 m^3 adjiliurtauvluni aturtauvlunilu aturtakhainit apqutikhait ihuaqutikhait, nayurhimayunut qayangnaittut hururnit nunahimaningit (NHWL) hanahimayangit tamainnut illiriyauhimayut (pigiaqarniqqat). Ihuaqhaffaarmiyangit Adjiliurtangit Inia No. 2 inirtauhimayuq unalu kuugaa ikaarniat ahivartauvlunilu. Amiakkuat imaa adjiliugaat amiakkungit (naahimayungnaqhiyaat 4,000 m^3 Aallatqiit 2 unalu 1,700 m^3 Aallatqiik 3) agyartauhimavlutik angikliktirtauvluni uvani qulaani nayurviata. Hapkuat aturtakhait aturtauvlutik kingullirpaam qavyartuiyut haffuminngat NHWL unalu mikhinnaarpaktangit nayurviata uvani 2011mi.

Ahirurtirtangit igluqpait igluliuqhimayunullu – Tamaat iglut igluliugakhainillu ilaliutauyut akhaluutiqarvik, tutquumavik tunngavia, POL pupliutiqarvik katakhimayuq alruyaqarviup uvani nayuqhimayangit ahirurtirtauvluni. Ahirurtirtangit hulipkainit ilaliutauvlunilu ahivaiyaivlutik qattaryungnut illiriyauvakhutik hapkuninngat nayurvikhaunngittut agyartuiniq haffuminngat PCB aallanngurtirtut minguutit (PAP) unalu havagaliqaktut minguutit; asbestos abatement; unalu ahivaiyaqhimayut igiyauhimavlutiklu iluani hururnikuat (haffuminngatut; naptunnarpiartut uyarak, palaastilingnit uqquuqutikhait, unalu aturtaulaittut havigalit). Qayangnaittut unalu kayumiittut ahirurtirnit

hururningit igitauvlutik haffuminngat NHWL taamna qayangnartut amiakkut/hururnillu kititiqhimavlutik ahirurtaunahuartinnagit ahirurtaulirtillutik qattaryungnungartiqhutik agyartauhimavlutik ahinut. Ilangat qattaryungnungartirtauyut qayangnartut ahivartauvlutik hivuraanut uvani 2011 mi; amiakkut qattaryuit ahivartavlutik hamanngat CAM-D tutqurtauvlutik uvani CAM-3 – Shepherd Kangiqhuani upalungaiqhimayut agyartuutinut umiakkut hivuraanut uvani Aagasi/Saptaippa, 2012 mi.

Huruqhimayut Nunait – Hapkuat ilaliutauhimayut PHC aktuqtauhimayut unalu huruqhimayut nunait; unalu Tukiliriit I/Tukiliriit II (Havigaliit, unalu PCB) huruqhimayut nunait. Aktuqtauhimayut PHC nunait hauhimayauvlutik, amiqhaivlutik uvani nunamiihivgiuqhiyunit, angiriirtauhimayut akturiangani ahivaiyaiyut maliktakhait unalu igiyauhimavlutik haffuminngat qitiani illirihimayauyut ukuninngat Tukiliriit I nunait iluani Qayangnaittut Huruqhimayut Nuna iluani (NHWL) uuminngaluniit aturtauhimayut mikhinahuartangit ilainnaat nayuqhimayangit, taamnattauq huruqhimayut PHC nunait unalu Tukiliriit II nunait qattaryungnungartauvlutik agyartariangani ahinut. TAMAAT huruqhimaningit nunait hautauhimavlutik uvani 2010 mi 2011 milu. Nunait kangiqhiyauvlutik haffuminngat NHWL igiyauhimayut uvani 2010 mi 2011 milu atuqhimayumi; ilait qattaryungnungartiqhimayut nunait agyartauhimavlutik uvani 2011 mi taimaa amiakkungit nunait (tadja tutquumayauyut uvani CAM-3 Shepherd Kangiqhuani) umiakkut agyartauniaqhutik uvni Aagasi/Saptaippamiluniit, 2012 mi.

Piruhimayut Hururnikkut Iniat – Tamaat piruhimayut hururnikkut hauhimayut iniqhimayauyut uvani 2010 unalu 2011 mi. Piruhimayauyut hururnikkut hauhimayut ilaliutauhimayut nunanut ahivaiyaiyut piruhimayut hururnikkut, ahivaiyaivlutik hururnit iluani hururnit qurluaqhimayunut (qayangnartut qayangnaittullu) unalu ukturtangit akuhimayangit nunat qanuq ihivgiuqhiivlutik iqqarnarumi kiudjutikhait. Qayangnaittut hururnit piruhimayut iqqakuut inianit iqqartauvlutik uvani NHWL taimaa qayangartut hururningit qattaryungnungartauvlutik. Ilanganit iluanittut qattaryungmi ahivartauhimayut hivuraani ilainnaat qaangirtauvlutik uvani Saptaippa 2011 mi; amiakkut qattaryuit qaangirtauniaqhutik hivuraani Saptaippa 2012 mi.

Qanganiittut nayurviat ahikkuit – Tamaat qanganiittut ahiqqut kititirtauvlutik. Qayangnaittut qanganiittut ahiqqut turaartitauhimayut ukuninngat NHWL nut unalu qayangnartut ahiqqut qattaryungnungartirtauvlutik ahinut iqqagiangani.

Qattaryut (qaangani unalu piruhimayut) –Qaffiuyungnaqhiyutqaak 10,000 qattait kititirtauyut ihuaqhaivlutik. Iluliqanngittut qattait halumayut hiqumittitauvlutik uuminngat 25% mikhivlutik anginiqhautainit igiyauvlutik uvani NHL mut. Una ikulahimayut ikulayut aturtitauyut havaquyauyunut ihuariyaunngittut. Taimaattauq, tamaat ilaliutauyut kititiqhimayut qattaryuinit qattaryungnungartirtauvlutik tutqurtauvlutik CAM-3 mi; unalu agyartauvlutik igitaugiangani Saptaippa, 2012 nguqtinnagu.

Tahapkuat huliyunit havakhimagaaqhutik Aktupa 10, 2010 mut taamna nayurviat umiliqhuni 2010 ukiungani havaatigut. Una ingilrutingit aahiittauq aturtakhait ukiihimavlutik tutquumayauvlutik aippaagut aturiangat. Una ilulit qayangnartuq hururnikkut unalu polychlorinated biphenyl (PCB) qayangnartut aktuumahimayauyut nunait ahivartirtauvakhutik pualriqhiutinut uvani Maasi 2011 mi hamanngat CAM-D hamunga umiaryuap agyartuiyut nayurviata uvani CAM-3 mut upalungaiyaigiangani kinguani qagyartiriangani hivuraanut 2012 mi. Una PCB tutquumaviat inia taminnit nayurviat ilitarihimayauvlutik titiraqhimayauvlutik ukuninngat Avatiliqiniq Kanatami.

Havakhimyayangit, aulattitiyunillu unalu umikhimayauyuq haffuminngat Qayangnaittunik Illiriyauyut Nunait (NHL) aturvikhait iniqhimayauvluni. Tamaat qayangnaittut iqqakuut ikaartauvluni nayurviani ahivartauvlutik uuminngat NHWL.

Nayurviata Inianit Ahivaiyainiq: Una nayurviat iglukhaliurutikhait ahivaivlutik agyartauvlutik CAM-3 mut, upalungaiqhimayauvluni umiaryuakkut akyartakhait hivuraanut Saptaippa, 2012 mi. Kingullirpaak nayurviat qauyihaivikhaat ihivgiuyakhait uvani Aagasi/Saptaippa 2012 mi, ihivgiuttiariangat taimaa hururniit ikhinnainaquyaunginnamik.

Huli havakhimmaartangit inirtakhait malikhimalugit laisiata hammauyut:

- Inuit Inikhaliuqhimayut Ilihautikhait (Tukilik: Igayunit Ikayurtut Ilihautikhait) uvani pingahut (3) Nunavut Nunaqatigiiktut – Kugaaruk, Taloyoak, Uqhurtuumilu Julai 2012 mi.

- Kinguani nunaqatigiiktut katimaqatigilugit uvani Kugaaruk, Taloyoak, Uqhurtuumilu (Saptaipa 2012mi)

- Kingullirpaami ihivgiurtauluni uvani haqpaniituq haffuminngat nayurvigaluangit, uvani Saptaipa 2012 mi, ikhinnartaunngittumik ihivgiurlutik;

- Kingullirpaam ahivartauhimayut umiak agyartuutinik haffuminngat CAM-3 hivuraanit uvani Saptaipa,2012 mi;

APPENDIX B

RESIDENT ENGINEER'S LETTER REPORT:

Information Requested in <u>Part B - General Conditions</u>, and <u>Part D – Conditions Applying to Waste Disposal</u> of Water Licence #1BR-SIM0813 including:

- **Volumes of Raw Water taken;**
- **Volumes of Sewage Generated;**
- **Sewage Effluent Quality;**
- **Waste Disposal Approaches;**
- **Monitoring Program Stations SIM-1 and SIM-2;**
- **Spill Details; and**
- **Others**

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May 30, 2012

Dele Morakinyo
Project Manager, Contaminated Sites Program (NRO)
Department of Indian and Northern Affairs
Government of Canada
25 Eddy Street, 10th floor
Gatineau, Quebec K1A 0H4

Dear Mr. Morakinyo:

Project No: 60149115

Regarding: Water Licence Reporting Requested Information
CAM-D DEW Line Site, Simpson Lake, Nunavut

The following bullets present a summary of the information requested and correspond with Part B – General Conditions, Section 1 of Water Licence #1BR-SIM0813 (incorporating modifications from Amendment No. 1).

a. The monthly and annual quantities of freshwater obtained are as follows;

2010 Construction Season	Quantity (m^3)	2011 Construction Season	Quantity (m^3)
2010, June	42	2011, June	12
2010, July	62	2011, July	62
2010, August	62	2011, August	62
2010, September	60	2011, September	46
2010, October	18	2011, October	-
2010 Annual Total =	**244**	**2011 Annual Total =**	**182**

b. The monthly and annual quantities of sewage generated as follows;

2010 Construction Season	Quantity (m^3)	2011 Construction Season	Quantity (m^3)
2010, June	42	2011, June	12
2010, July	62	2011, July	62
2010, August	62	2011, August	62
2010, September	60	2011, September	46
2010, October	18	2011, October	-
2010 Annual Total =	**244**	**2011 Annual Total =**	**182**

c. All combustible domestic waste generated as a result of camp operation was destroyed in a dedicated incinerator. Non-combustible material, such as aerosol cans, used batteries, light bulbs and hazardous waste, was collected for backhauling and/or treatment at the conclusion of the project.

d. All hazardous waste and non-combustible waste was segregated during the 2010 and 2011 construction seasons. Partial backhauling was completed in 2011; confirmation of destruction of hazardous materials has not been received by AECOM. The remainder of the material will be backhauled at the completion of the project in 2012.

e. Sewage waste at CAM-D was pumped through a water treatment "Bionest" system installed outside the north boundary of camp. Prior to complete installation of the treatment system, wastewater was directed to the two lined lagoons which were constructed adjacent to the "Bionest". Once installation was complete, the wastewater collected in the lagoons was introduced into the "Bionest" for treatment. Composite samples of the effluent were collected from the treatment system outlet once per month during periods of discharge and submitted to the laboratory for analysis in accordance with the discharge parameters in the Water Licence. Once acceptable results were received, the treated effluent was discharged to land at the approved location (SIM-2) on a continuous basis. Analytical results of the treated effluent discharged at SIM-2 are provided in **Table 1**.

   During camp winterization, at the end of the 2010 construction season, the remaining untreated wastewater was transferred to the lagoons for winter storage and reintroduced into the "Bionest" at the start of the 2011 construction season.

   At the completion of the 2011 construction season, the sediment in the lagoons was sampled, tested and packaged together with the liners for shipment off site. The area was then reshaped to match the surrounding terrain.

   The following photograph shows the CAM-D camp area. The temporary sewage lagoons and the "Bionest" treatment system are located in the northwest (top left of the photo) corner of the camp.


Lagoons and Bionest

f. The following table presents a summary of the data collected during the 2010 and 2011 construction seasons.

Table 1. Monthly Treated Effluent Analysis Results

Parameter	Maximum Average Concentration	Units	Sampled By					
			Kudlik	Kudlik	Kudlik	AECOM	Kudlik	Kudlik
		Date Sampled	7-Jul-10	1-Sep-10	4-Oct-10	4-Oct-10	5-Jul-11	29-Jul-11
BOD	120	mg/L	40	24	9	14	70	67
Total Suspended Solids	180	mg/L	19	13	9	19	57	36
Fecal Coliforms	100,000	CFU/100 mL	66	210	1,900	1,700	**18,000,000**	2,000
pH	6.0 to 9.0	pH units	7.7	7.9	7.5	7.67	7.2	7.72
Oil and Grease	no visible sheen	mg/L	<1	<1	<1	<2	<2	<2

g. Analytical results for the "Bionest" effluent sample collected by Kudlik on July 5, 2011 were received on July 18, 2011. All parameters except fecal coli forms met the effluent quality limits specified in the terms and conditions of the Water License (refer to **Table 1**). The Contractor was immediately instructed by AECOM to stop continuous discharge and redirect the effluent to the lagoons until acceptable results had been received. The Contractor believed that the UV bulb was not working. As a result, the bulb was replaced, and the effluent within the lagoons was allowed the opportunity to circulate through the repaired treatment system; the effluent was re-sampled by the Contractor on July 29, 2011. A review of the analytical results revealed all parameters met the effluent quality limits. Kudlik resumed continuous discharge of the waste effluent to the pre-approved discharge location on August 15, 2011. It should be noted that all wastewater generated between July 18 and August 15, 2011 was temporarily stored in the lagoons pending treatment and not released to the tundra.

h. Five marine containers were filled with hazardous materials (i.e. items painted with lead and/or PCB amended paint, PCB oil-containing electrical equipment, fluorescent light ballasts etc.) generated during remediation activities in 2010. In addition to the marine containers, 308 superbags (approx 1 m^3 capacity) and 48 wooden seacans (approx 2.4 m^3 capacity) were filled with contaminated soil which required shipment off-site. The marine containers, superbags and seacans were relocated to the temporary storage area at Shepherd Bay during the winter 2011 CAT train in preparation for final demobilization.

During the 2011 construction season, two marine containers were filled with hazardous materials. In addition to the marine containers, 123 superbags and 45 wooden seacans were filled with contaminated soil which required shipment off-site. In addition to the 123 superbags containing contaminated soil, three superbags were required for ashes from domestic garbage burning and/or the incineration of unpainted/untreated wood at the upper site; the inflatable pools were deflated and packaged in four superbags; six superbags contain used absorbents, two superbags were required for soil excavated from spills around the construction camp (uncharacterized); and one contains tar from barrel processing activities at the Main Dump. The marine containers, superbags and secans were relocated to the temporary storage area at Shepherd Bay during the winter 2012 CAT train in preparation for final demobilization.

i. The following paragraphs provide a summary of the remediation operations completed during the 2010 and 2011 construction seasons;

In 2010, approximately 17,650 m^3 of borrow material was quarried from Borrow Area No. 2, of which 14,400 m^3 was borrowed and used for haul road improvements, on-site non-hazardous waste landfill (NHWL) berm construction and general fill (where required). Restoration of Borrow Area No. 2 was completed in 2010. The remaining volume of borrow material (estimated 4,000 m^3 of Type 2 and 1,700 m^3 of Type 3) sufficient to meet the requirements of the specifications (final cap on the NHWL and final site regrading) was hauled and stockpiled at the upper site at the close of the 2010 construction season to facilitate site closure activities in 2011.

Construction of the NHWL was completed over the 2010 and 2011 seasons. The berms were constructed to their final grade in 2010, and once all site debris and hydrocarbon impacted/Tier I contaminated soils were disposed of in the NHWL, the landfill was capped. Construction of the NHWL was finalized by September 2011. In July 2011, groundwater monitoring wells were installed on each of the four sides of the NHWL. The monitoring wells will be accessed during future monitoring events.

With the exception of POL Tank No. 5, which was demolished and containerized in September 2011, all major structures were demolished in 2010 and either disposed of in the NHWL or containerized for shipment offsite. Demolition activities involved PCB amended paint (PAP) and lead based paint removal and containerization for shipment off-site; asbestos abatement; and the removal and disposal of inert debris (i.e. concrete, fibreglass insulation, and scrap metal) in the NHWL.

All hydrocarbon, heavy metals and PCB soil excavations were excavated to the full extent of the contamination (established based on analytical results from confirmatory soil samples). Two waste streams were generated from the excavation of impacted and contaminated soils: the Hydrocarbon Impacted soils and Tier I metals and PCB contaminated soils were suitable for disposal in the NHWL; and the Hydrocarbon Contaminated and Tier II metals and PCB contaminated soils required containerization and offsite disposal. In an effort to reduce the volume (and concentration) of Hydrocarbon Impacted soils being disposed in the NHWL, a landfarm treatment area was developed in 2011. No further soil excavation activities are required at CAM-D.

Remediation of buried debris areas included in the original contract involved removal of surface debris; excavation of debris to full extent; sorting and separation of debris into different waste streams (non-hazardous debris, hazardous debris and soil); disposal of non-hazardous waste into the NHWL and containerization of hazardous waste for offsite disposal; and stockpiling intermixed soil for sampling to determine disposal requirements.

Buried debris excavations were initiated in September 2010 and finalized in August 2011. Capping of the three buried debris lobes at the Main Dump was completed in July and August 2011. All hazardous materials and Tier II metals and PCB contaminated soil generated from the buried debris excavations are currently stored at the camp area awaiting offsite disposal.

Non-hazardous waste and Tier I soils were disposed of in the NHWL. No further buried debris excavations are required at CAM-D.

Collection of surface debris from the 14 previously identified Site Debris Areas was a work activity that extended throughout the 2010 and 2011 construction seasons. Included in the debris collection were the nearly 10,000 barrels that were located across the site. All site debris areas have been inspected and no further debris collection is required.

With all on-site construction activities complete, final inspection has been tentatively scheduled for September 2012.

j. No studies were requested by the Board that relate to waste disposal, water use or reclamation and no future studies are planned.

k. The following table presents a summary of all unauthorized discharges and the associated corrective actions taken during the 2010 and 2011 construction seasons. All quantities were below the reportable limit.

Table 2. CAM-D Spill and Unauthorized Discharge Summary

Date of Occurrence	Description of Spill/Unauthorized Discharge	Related Equipment	Product Spilt	Quantity (L)	Corrective Action Taken
July 26, 2010	Stained soil observed near CAT Challenger 855D in Main Station Temporary Storage Area.	Unknown	Hydraulic Fluid	<1 L	The impacted soil was excavated and placed into a barrel which was disposed of in the NHWL.
July 29, 2010	Hydraulic hose disconnected and sprayed the ground surface in the heavy equipment parking adjacent the garage.	Komatsu WA500 Loader	Hydraulic Fluid	1-2 L	Repaired the hose and cleaned the surface of the machine. The impacted soil was excavated into a pail and placed in the NHWL.
August 2, 2010	Broke radiator half-way on haul road; leaked slowly along road to the garage.	Contractor's Ford F350 Crew Cab Truck	Anti-Freeze (ethylene glycol)	3 L	The remaining fluids in the radiator were drained (~3 L) into a spill pan and the radiator was replaced. The impacted soil was excavated into a pail and disposed of in the NHWL.
August 24, 2010	Lubricant dripped from hinge and emulsified with ponded water at the Airstrip.	Compactor	Lubricant	<1 L	Cleaned the ground surface using absorbent pads and installed a drip collection pan underneath the parked compactor.
September 6, 2010	Stained soil observed adjacent garage at Camp Site.	Unknown	Diesel Fuel	<1 L	Impacted soil was excavated onto a polyethylene membrane. The stockpile was sampled by AECOM and then placed in the NHWL when acceptable results were received.
September 6, 2010	Stained soil observed in Borrow Area No. 2.	Unknown	Hydraulic Fluid	< 1L	Impacted soil was excavated onto a polyethylene membrane. The stockpile was sampled by AECOM and then placed in the NHWL when acceptable results were received.
September 7, 2010	Hydraulic hose was damaged and fluid sprayed on the equipment and the ground surface in Borrow Area No. 2.	Komatsu PC300 Excavator	Hydraulic Fluid	1-2 L	Repaired the hose and cleaned the surface of the machine (and the ground surface) using absorbent pads. No soil excavation was required. The used absorbents were incinerated on-site.
October 1, 2010	New diesel fuel barrel was damaged during transport from barrel cache to the main storage tank at the Camp Site. Barrel fell from the sleigh used for transport and was partially crushed. The partially crushed barrel leaked on the frozen ground. Two other barrels also fell to the ground and were damaged; however, they were not punctured and did not leak.	CAT Challenger 855D and Sleigh	Diesel Fuel	20-30 L	Contents of the damaged barrel were pumped into an empty fuel barrel. The fuel on the frozen ground was completely absorbed with bulk absorbent. The fuel soaked absorbent was placed into an open-top barrel and incinerated on-site. The contents of the other two barrels were pumped into the main storage tank.
Winter 2010/2011	The compactor was parked along the east side of the airstrip at the end of the 2010 construction season for the duration of the winter. The leak was observed once the snow had melted on June 25, 2011.	Compactor	Hydraulic Fluid	15 L	Snow and ice in the area of the spill made it difficult to access the underlying soil. As a result, the spill was cleaned over two days (i.e. June 25 and June 27, 2011). All the fluid was recovered using bulk absorbent and absorbent pads. The used absorbents were incinerated on-site.
June 27, 2011	New lubricating oil barrel was damaged while manoeuvring a marine container with the loader. The container wall and a barrel stored inside that container were punctured with the forks of the loader. Most of the spill was contained inside the	Komatsu WA500 Loader	Lubricating Oil	< 25 L	A sand dyke was constructed around the container to contain the spill. All the lubricating oil was recovered using bulk absorbent and absorbent pads. No soil excavation was required. The used absorbents were incinerated on-site.

Date of Occurrence	Description of Spill/Unauthorized Discharge	Related Equipment	Product Spilt	Quantity (L)	Corrective Action Taken
	container. A small volume was spilled onto the ground.				
July 7, 2011	During the excavation of Main Dump - Lobe 1 Buried Debris, a buried canister (presence unknown until the incident) of grease (similar characteristics to BR-145) was crushed by a rock truck circulating in the area.	Rock Truck	Grease	< 10 L	The grease and underlying soil were excavated by hand into plastic bags and consolidated into an open top barrel with the contents of BR-145. Used absorbents were consolidated together with used absorbent material from barrel processing activities and packaged for shipment off-site.
September 19, 2011	During the barrel consolidation activities in the northeast end of the camp, a portion of the south wall of the containment pan (erected on the work platform) fell while installing the duct work (used to warm up the barrels to be drained). Approximately 20 L of lubricating oil and fuel was spilled on the ground surface.	Containment Pan	Lubricating oil and Fuel	20 L	The wall of the containment cell was rapidly put back in place. All the spilled fluid was recovered using bulk absorbent and absorbent pads. The ground surface was brushed and all stained soil was excavated into a lined superbag for off-site shipment and disposal. Used absorbents were consolidated together with used absorbent material from barrel processing activities and packaged for shipment off-site.

l. **Contaminated Soil**

The provision for the treatment/aeration of PHC impacted soils was introduced in between the 2010 and 2011 construction seasons to minimize the requirement for disposal of all of the remaining impacted soil in the NHWL.

As a result, all material excavated during the 2011 construction season was relocated to the landfarm for ex-situ treatment by aeration to reduce the PHC concentrations to meet the current guidelines. Following the treatment of impacted soil within the landfarm treatment cell, approximately 576 m^3 of treated soil was removed from the landfarm area and used as the final lifts of intermediate fill in the NHWL (i.e. not the landfill cover). The remaining treated soils were left in place and the area was reshaped to provide positive drainage.

Main Dump

The Main Dump was identified in the Contract Documents as Site Debris Area 1 (which encompassed surface debris to a depth of 0.5 m); however, the amount of debris remaining in the soil after preliminary surface debris removal revealed that combing the area to remove visible debris at surface would not be sufficient to address the debris issue at the Main Dump.

As a result a test pitting investigation was completed, which identified four lobes of previously unidentified buried debris (i.e. Lobes 1 through 4) within the limits of the Main Dump. Typical debris found within the lobes consisted of crushed and/or partially crushed barrels, scrap metal, wood, cables and machine parts mixed together with soil. Results of the test pitting investigation coupled with supplementary information regarding soil quality, confirmed the need to re-evaluate the previously recommended remedial approach. Subsequently, recommendations were presented for each of the four lobes based on the level of environmental risk associated with each lobe. It was recommended that Lobes 2, 3 and 4 be covered in place and Lobe 1 be excavated fully, the debris sorted and disposed of appropriately, and the residual soil stockpiled and sampled in accordance with the applicable guidelines.

m. No revisions were made to the site specific Spill Contingency Plan.

n. No trenches or sumps were excavated.

o. Public consultation/participation report to be provided by AANDC.

p. The only deficiency/recommendation identified by the Land Use Inspector (2010) was the lack of secondary containment for the fuel storage. Since the fuel was stored in individual 205 L drums (<230 L) they are not regulated and no secondary containment was constructed.

q. Executive summary to be provided by AANDC.

r. No other details were requested by the Board.

I trust the information presented herein meets your expectations for the Water License annual reporting requirements. If you have any questions or concerns please contact me by email priya.handa@aecom.com or phone at 780-486-7671.

Sincerely,
AECOM Canada Ltd.

Priya Handa
Departmental Representative
CAM-D DEW Line Site
priya.handa@aecom.com

PH:ph
Encl.
cc: Matthew McElwaine (PWGSC), Greg Wright (AECOM),

APPENDIX C

MONITORING PROGRAM STATIONS (SIM-1, SIM-2, SIM-3 AND SIM-4 AS PER PART K OF THE WATER LICENCE)

Monitoring Program Station - SIM-1

Proposed Raw Water Supply Intake Sources in the Water Licence and Amendment 1 are:

1. North of the unnamed tributary to the Murchinson River near Borrow Area #2; and
2. Freshwater Lake (as backup, in case the unnamed tributary dries up)

The unnamed tributary did not dry up, so no water was taken from the Freshwater Lake.

Volumes of raw water taken from the unnamed tributary to the Murchinson River (SIM-1) which was located at the coordinates (68°34'11.43"N, 92°02'45.41"W) are given in the following table:

2010 Construction Season	**Quantity (m^3)**	**2011 Construction Season**	**Quantity (m^3)**
2010, June	42	2011, June	12
2010, July	62	2011, July	62
2010, August	62	2011, August	62
2010, September	60	2011, September	46
2010, October	18	2011, October	-
2010 Annual Total =	**244**	**2011 Annual Total =**	**182**

Monitoring Program Station - SIM-2

Final Discharge Point from Sewage Disposal Facility located at coordinates

(68°34’14.48”N, 92°02’46.04”W)

Volume of Sewage Generated and Discharged at SIM-2 are given in the following table:

2010 Construction Season	Quantity (m^3)	2011 Construction Season	Quantity (m^3)
2010, June	42	2011, June	12
2010, July	62	2011, July	62
2010, August	62	2011, August	62
2010, September	60	2011, September	46
2010, October	18	2011, October	-
2010 Annual Total =	**244**	**2011 Annual Total =**	**182**

Quality of Sewage Effluent Generated and Discharged at SIM-2 is given in the following table:

Parameter	Maximum Average Concentration	Units	Sampled By:					
			Kudlik	Kudlik	Kudlik	AECOM	Kudlik	Kudlik
		Date Sampled	7-Jul-10	1-Sep-10	4-Oct-10	4-Oct-10	5-Jul-11	29-Jul-11
BOD	120	mg/L	40	24	9	14	70	67
Total Suspended Solids	180	mg/L	19	13	9	19	57	36
Faecal Coliforms	100,000	CFU/100 mL	66	210	1,900	1,700	**18,000,000**	2,000
pH	6.0 to 9.0	pH units	7.7	7.9	7.5	7.67	7.2	7.72
Oil and Grease	no visible sheen	mg/L	<1	<1	<1	<2	<2	<2

Notes:

This table is the same as Table 1 of the Resident Engineer’s report (Appendix B). The spike in the faecal coliforms in the sample result of July 5, 2011 was due to damaged UV Bulb in the Bionest sewage treatment plant. With the high coliform count, sewage discharge was stopped, sewage were stored in the sewage lagoon while the UV bulb was being replaced. After replacing the bulb, the sewage was passed from the lagoon through the bionest again. Following the satisfactory result of July 29, 2011, the contractor resumed discharge to SIM-2. For more details, see the Appendix B (g).

Monitoring Program Station - SIM-3

Discharge Point for the Waste Handling Facility

This monitoring program station does not exist because no central waste handling facility was used on CAM-D. Wastes were collected and packaged (locally) at each waste stream location.

Monitoring Program Station - SIM-4

Discharge Point for the Non-Hazardous Waste Disposal Facility located at coordinates (68°35’36.26”N, 91°58’49.46”W)

This monitoring program station does not exist because no discharges occurred from the Non-Hazardous Waste Disposal Facility

APPENDIX D

SOME BEFORE AND AFTER REMEDIATION PHOTOS

Photograph 1. Before: View of Site Debris Area 4 (Main Barrel Cache) prior to surface debris removal.

Photograph 2. After: View of Main Barrel Cache subsequent to surface debris removal.

Photograph 3. Before: View of Site Debris Area 6 (Airstrip) prior to surface debris removal. ↑

Photograph 4. After: View of Airstrip subsequent to surface debris removal. ↑

Photograph 5. Before: Short Range Radar Camp prior to removal and demolition. ↑

Photograph 6. After: Short Range Radar Camp removed; area reshaped to match surrounding terrain. ↑

Photograph 7. Before: View of Pallet Line looking north prior to surface debris removal and contaminated soil excavation. ↑

Photograph 8. After: View of Pallet Line after the completion of debris removal and soil excavation. ↑

Photograph 9. Before: View of Portable Fuel Tanks – Impacted prior to impacted soil excavation. ↑

Photograph 10. After: Excavation complete; reshaped to match surrounding terrain. ↑

APPENDIX E

FINAL INSPECTION REPORT

(Contained in CD-R sent by mail)

APPENDIX F

FINAL CONSTRUCTION SUMMARY REPORT

(Contained in CD-R sent by mail)