Nunavik Abandoned Mineral Exploration Sites Rehabilitation Project

2018-2019 Activity Report

May 2019

Kativik Regional Government
Renewable Resources, Environment, Lands and Parks Department

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ACKNOWLEDGMENTS

The Kativik Regional Government (KRG) would like to formally acknowledge all of the Nunavik communities involved in the rehabilitation of abandoned mineral exploration sites in 2018.

The community of Kuujjuaq contributed to the project again this year during the cleanup at the Jordon Lake sites and the preparation of material for transportation from their village.

The community of Salluit participated once again this year during the cleanup at sites SW-27C, SW-27D and the sites at Watts Lake. The community also assisted with the preparation of material for transportation at the Orford Mining work site in their village.

Additionally, the community of Kangrisuk contributed to the project this year during the cleanup of sites KG-1 and KG-2 and the preparation of material for transportation from their village. Community members also helped locate newly identified sites near Kangirsuk.

Finally, the community of Kangiqsualujjuaq should be thanked for their participation during the cleanup at sites GR-1 and GR-2 and for assisting in locating newly identified sites near their village.

Mining companies currently active in Nunavik, especially Orford Mining, Canadian Royalties and Glencore Canada Corporation, should furthermore be recognized for their continued support and their own cleanup initiatives on sites located on or near their claims.

The KRG would like to thank Nunavik Rotors and their pilots for the continued professionalism and expertise throughout the transportation of material and employees during fieldwork and inspections.

This year a stagière, Anne Malet, working for KRG's Renewable Resources, Environment, Lands and Parks Department participated in cleanup campaigns with the Project Coordinator. Her hard work and keen interest were appreciated.

Lastly, the KRG would like to underline the continued financial and technical support it receives from the Makivik Corporation, the Ministère de l'Énergie et des Ressources naturelles (Energy and Natural Resources, MERN) and the Fonds Restor-Action Nunavik.

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1 INTRODUCTION

In 2001 and 2002, a verification of 193 possible abandoned mineral exploration sites was performed in the region of Nunavik, of which 90 were confirmed as such: 18 were classified as requiring major cleanup work, 27 needing intermediate cleanup work and 45 would require minor cleanup work.

In order to assist in the rehabilitation of abandoned mineral exploration sites in Nunavik, dating as far back as several decades, the mining industry recognized the need for action and in 2007, created the Fonds Restor-Action Nunavik (FRAN). In October 2007, the KRG, Makivik Corporation, the MERN and the FRAN signed a formal contribution agreement that made it possible to move forward with the cleanup of the eighteen sites requiring major cleanup, using the expertise developed during previous pilot projects undertaken by the KRG in 2005 and 2006. In 2012, this agreement was extended to allow for the rehabilitation work to continue and to include the group of sites requiring intermediate cleanup.

In January 2012, a report was published that provides, in greater detail, the history of this project and summarizes the rehabilitation work undertaken on a number of abandoned mineral exploration sites in Nunavik over a seven-year period, from 2005-2011 (KRG, 2012a). This report is available for download at http://osiskogr.com/en/fonds-restor-action-nunavik-2/reports. Since then, all of the 19 sites that were classified as requiring major cleanup work, 27 needing intermediate cleanup work and 26 requiring minor cleanup work have been completed. The 20 remaining sites requiring minor cleanup were declared as insignificant and will not be rehabilitated.

In August 2018, an addendum to the original agreement was signed by the four partners allowing for work to continue until March 2022. The focus during this new timeframe will be on completing the rehabilitation of newly identified abandoned mineral exploration sites in the region, as deemed necessary by the project's Steering Committee. Consequently, a new General Response Plan (2019-2022) has been prepared to reflect the reality of this new work.

In 2018-2019, cleanup work continued in the Nunavik region and the following report describes the rehabilitation activities carried out on several sites (KG-1, KG-2, Jordon Lake-1, 3 & 4, SW-27C, SW-27D, Watts Lake, GR-1 & 2), as well as the work undertaken in the villages of Salluit, Kuujjuaq, Kangirsuk and Kanagiqsualujjuaq. The report also provides information regarding newly identified sites in the region. Appendix 1 includes maps that indicate all the abandoned mineral exploration sites in relation to nearby communities in Nunavik.

2 CONTRIBUTION AGREEMENT

In August 2018, the agreement concerning the cleanup of abandoned mineral exploration sites in Nunavik was addended by the 4 signatories allowing for rehabilitation activities to be extended until March 31, 2022. The funding provided for in this agreement has been and continues to be used to carry out the rehabilitation of sites requiring major, intermediate and minor cleanup. The project's Steering Committee will decide which of the newly identified sites will be rehabilitated on a case by case basis. The cost of the cleanup work in 2018-2019 was estimated at two hundred and fifty-five thousand, three hundred ($255,300).

As per the agreement, the KRG is responsible for the management and logistics of the cleanup work carried out on all sites covered under the contribution agreement. The KRG is also responsible for drafting a timetable and anticipated budget for each year of work and for ensuring that the concerned Inuit communities are adequately informed of the cleanup being performed.

The Makivik Corporation contributes to the project by way of in-kind contribution in the form of marine and air transportation services for materials and labour to a maximum of two hundred thousand dollars ($200,000).

In the first agreement (2007-2012), the FRAN participated through a financial and in-kind contribution of seven hundred and fifty thousand dollars ($750,000). In the renewed agreement (2012-2017), the FRAN again contributed through a maximum financial and in-kind contribution of seven hundred and fifty thousand dollars ($750,000). Although it has reached its maximum financial contribution, FRAN continues to provide technical support and is an important contributor to the extension of the project.

The MERN provides an important financial contribution, covering the entire lifespan of the project, of which the maximum is four million, one hundred thousand dollars ($4.1 M).

3 SUMMARY OF REHABILITATION ACTIVITIES (2005-2018)

Rehabilitation activities have been carried out on abandoned mineral exploration sites in Nunavik since 2005, beginning with a KRG pilot project on 2 sites classified as requiring major cleanup. All 18 sites requiring major cleanup have now been successfully rehabilitated as of 2017. This work, spanning twelve years, was undertaken in collaboration with various Inuit communities in Nunavik, the Naskapi Nation of Kawawachikamach, the Innu Nation of Matimekush Lac-John, various active mining companies in the region and other northern organizations. Table 1 provides a summary of the quantities of the waste removed from these sites from 2005-2017.

In 2011, the KRG Project Coordinator undertook inspections on a second group of sites classified as requiring intermediate cleanup. These 27 sites contain similar items found on the sites requiring major cleanup, only to a lesser extent. From 2006 to 2017 the KRG, various active mining companies and Cruise North Expeditions initiated and successfully completed the rehabilitation of all 27 of these sites. Table 2 provides a summary of the quantities of the waste removed from these sites from 2006-2017.

In 2017, the KRG Project Coordinator undertook inspections on a third group of sites classified as requiring minor cleanup. These 45 sites contain very little material when compared with the previous two groups. In 2016 and 2017, KRG completed the rehabilitation of 4 of these sites and confirmed that 16 others had been rehabilitated by another party. The remaining 26 sites are considered as insignificant and will not be rehabilitated. Table 3 provides a summary of the quantities of the waste removed from these sites. Quantities for sites that were not rehabilitated were based on the original inventory from 2001-2002. A map indicating the location and rehabilitation status of the original 90 sites can be found in Appendix 1.

Since the beginning of this project, sites not listed in the original 2001-2002 inventory have been located throughout the region. The sites are often found by community members who frequent the territory, helicopter or airplane pilots, or KRG staff while undertaking field work. The location of these newly identified sites is transferred to the MERN and to date 20 have been confirmed as abandoned mineral exploration sites. In 2018-2019, KRG undertook rehabilitation activities on 11 of these sites, at the discretion of the project's Steering Committee. Table 4 summarizes the total quantity of material found on these sites. These sites are presented in further detail in section 4. Additionally, Table 5 summarizes the total quantity of material, by type, removed from all sites to date. This does not include the large volume of debris such as residual materials, small pieces of metal, furniture, appliances, office equipment, that is sometimes removed from these sites.

Table 1 *Quantities of Waste Removed from 18 Abandoned Mineral Exploration Sites Classified as Requiring Major Cleanup Work, 2005-2017*

Sector/ Site	Buildings burned or demolished (no.)	Equipment (no.)	Propane tanks (no.)	Reservoirs (no.)	Barrels (no.)	Diesel or other fuel (L)	Motor oil (L)	Grease	Other hazardous material	Transformers (T) or batteries (B) (no.)	Pipes, core trays, wood (m^3)	Debris (m^3)
Kawawachikamach												
KAW-35	19	1 muskeg + various	0	5	1000	4000	0	0	Acid, solvents, paint, oil filters, extinguishers	15 B	500+	200+
KAW-45	5	0	0	0	12	30	0	0	Naptha	0	15+	5+
Tasiujaq												
PJ-1	3 + 5 platforms	30	80	10	403	5100	54	5 kg	Paint, antifreeze, extinguishers	2 T 20 B	150+	200+
TQ-1	0	1 snowmobile	6	0	30	500	0	0	0	1 B	20+	40+
TQ-4	2	1 drill	8	0	156	200	0	0	0	0	10+	10+
Aupaluk												
PJ-10	1 platform	0	15	1	74	1400	280	40 L	0	1 B	50+	25+
PJ-17	11	11	40	0	285	500	2000	1 pail	0	1 T; 6 B	75+	100+
Kangirsuk												
TW	2 platforms	1 pipe threader	11	0	83	1230	0	110 L 2 kg	0	0	30+	20+
Kangiqsujuaq												
K-28	1 tent	1 motor	15	2	70	2000	0	0	$CaCl_2$	0	30+	25+
K-61	12	11	18	1	3600	5000	2	900 L	Acid, paint	5 B	150+	75+
WB-3	0	0	1	0	85	675	0	0	0	0	20+	5+
Salluit												
KV-1	0	0	0	0	50	0	0	0	0	0	30+	30+
SAL-1	6	0	15	0	336	1000	27	0	0	4 B	50+	10+
SW-27	0	1 small tractor + various	0	0	115	1000	15	11 pails	0	0	100 +	50+
SW-34	1 platform	0	42	0	1500	1000	0	0	Acid, powder, oil filters	20 B	50+	70+
SW-42	1	0	0	0	45	1000	12	0	0	0	10+	10+
WB-9	11	0	10	3	82	1300	10	0	fire extinguishers, cleaners, tar	1 B	100+	100+
Umiujaq												
WHA-1	9	0	0	0	28	280	0	0	Cleaners	0	50+	5+
TOTAL	**80 (+9 platforms)**	**58 (+)**	**261**	**22**	**7 954**	**26 215**	**2 400**	**>1 275 L**	**-**	**3 T; 73 B**	**1 440+**	**980+**

Table 2 Quantities of Waste Removed from 27 Abandoned Mineral Exploration Sites Classified as Requiring Intermediate Cleanup Work, 2006-2017

Sector/ Site	Equipment	Propane tanks (no.)	Barrels (no.)	Diesel or other fuel (L)	Other hazardous material	Batteries (no.)	Debris
Kawawachikamach							
KAW-36			40	400			Wooden platform, plastic core trays, drilling pipes, old dumpsite, wood and metal debris
KAW-119			11				2 wooden platforms
KAW-59			3	100			4 wooden platforms 1 stove, 1 tarp, 1 canoe wood and metal debris
Kuujjuaq							
Gerido Lake		4	300	8 600			1 plastic reservoir 1 boat
P-24F		30 (small)	60	200			Wood and metal debris 2 stoves and pipes small dump site aluminium core trays
Tasiujaq							
TA-1		2	9				Wood debris Small dumpsite
TA-2			18				Aluminium core trays
TQ-6		2	10				3 stoves and pipes drilling pipes wood and metal debris small dumpsite cables and wires
TQ-10			1				3 large bladder 2 motors, tools metal debris
TQ-14		5	11			3	Drill rods, hoses
VP-11			20				Wooden debris from 3 collapsed buildings
Aupaluk							
G-24O4-3		4	50				Bed frames, tent poles, dumpsite
PJ-17 A		5	64			3	
PJ-19			63				
Kangirsuk							
QC-3		0	22				Small debris, 20 drill rods
Kangiqsujuaq							
I-32		1	30	820			1 dumpsite
K-27			20				Wood, wiring, piping
K-37	1 water heater		14				
K-49	1 plane	14	45				1 stove, piping, wood, wood and metal debris
KAN-1	1 helicopter		12	820		1	Helicopter debris (metal)
KAN-2	2 tripods, 1 drill, 1 motor, 1 winch				$CaCl_2$		50 pipes
KAN-4			75				
KAN-6	INUIT CAMP						
KAN-7	muskeg	18	75				2 oxygen tanks, metal, wood
KAN-10		1	25				Metal and wood, core trays
Salluit							
Parent Lake			4	400			
SW-24		19	52	900	Pail of grease		Boat pieces
Umiujaq/Kuujjuarapik							
GW-8			35				Old snowmobile 2 Quatrex bags of debris
TOTAL	**9**	**105**	**1 022**	**11 340**	**-**	**7**	

Table 3 Quantities of Waste Removed from Abandoned Mineral Exploration Sites Classified as Requiring Minor Cleanup Work, 2016-2017

Sector/Site	Equipment	Propane tanks (no.)	Barrels (no.)	Diesel or other fuel (L)	Other hazardous material	Batteries (no.)	Debris
Kawawachikamach							
KAW-28			2				Stove, water heater, small dump
Kuujjuaq							
***PD-1**			8				
***PD-2**			24				5 bed frames, 50 core boxes, stoves & pipes
***KUJ-2**				5,000			3 Quatrex bags, 2 water reservoirs
KAW-112			5				2 Quatrex bags, 1 water reservoir
Aupaluk							
PJ-19			13				
Kangiqsujuaq							
I-12			20				
K-36			11				
K-41			13				
KAN-3	Muskeg						
KAN-5		2	61				
KAN-8			60				
KAN-11	Muskeg						
KAN-12			8				
Salluit							
P-35G08-1002A	Fuel tank						Camp debris: stove, sink, pipes, debris
P-35G08-1003			1				Metal debris
SAL-2			4		2 pails grease		
***SW-14**		4	24		Machine oil, 2 batteries, fire extinguishers		Water heater, stove, pipes, hoses, camp debris, wood debris
SW-13			8				
TOTAL	**3**	**6**	**262**	**5,000**	**-**	**0**	

*Cleaned by KRG

Table 4 Quantities of Waste Found on Newly Identified Abandoned Mineral Exploration Sites

Sector/Site	Buildings	Equipment	Propane tanks (no.)	Barrels (no.)	Diesel or other fuel (L)	Other hazardous material	Batteries (no.)	Debris
Kuujjuaq/Tasiujaq								
Gerido-1		generator		35				Scattered debris
Gerido-2	1			80				Platform, dumpsite, scattered debris
Gerido-3				80				Core trays & drill rods
Jordon Lake-1	1	Muskeg generator	7	35				Volume of scrap metal and debris
Jordon Lake-2	1	tractor generator drill		5				Drill rig, rods, debris
Jordon Lake-3				15				2 water heaters, drill rods, hoses, debris
Jordon Lake-4				26				Small boat
Kangiqsualujjuaq								
GR-1				33				
GR-2	1		15	40				2 platforms, debris
GR-3		Drill						Drill, debris
Kangirsuk								
KG-1				120				Debris, core trays
KG-2			14	70			2	Dumpsite, scattered debris
KG-3				5				
EG-1		Bulldozer tractor		375				Debris
Kangiqsujuaq								
Vincenza			5	30			2	Dumpsite, scattered debris
Salluit								
Watts Lake-1				30				
Watts Lake-2				30				
Lac Gundeau				75				
SW-27C			4	15				Wooden debris
SW-27D			12	15				Wooden debris
TOTAL	**4**	**9**	**57**	**1,074**		**-**	**4**	

Table 5 Total Estimated Quantity of Material Removed From All Sites To Date

Material	Quantity	Notes
Buildings burned or demolished	81	
Equipment:		
Muskeg/Tractor/Vehicle	9	
Snowmobile	3	
Drill	2	
Engine/Generator	21	
Heavy Equipment	20	
Aircraft	2	
Boat	5	
Propane tanks	452	
Reservoirs	25	
Barrels	9 748	
Fuel (litres)	37 755	
Motor Oil (litres)	2 450	
Grease (litres)	1 400	
Batteries	90	
Other hazardous materials		Fire extinguishers, paint, oil filters, solvents, tar, cleaners, acid, antifreeze
Transformers	3	

To date 110 sites have been established as abandoned mineral exploration sites in Nunavik. A table providing the list of all sites considered under the project and their rehabilitated status at the end of the 2018 cleanup season can be found in Appendix 2.

4 NEWLY IDENTIFIED SITES

Studies of archival documents as well as community consultations undertaken from 1999-2001 estimated a potential 595 possible abandoned mineral explorations sites in Nunavik. Based on budget and logistical constraints, only 193 of these sites were inspected and assessed in 2001 and 2002. At this point 90 sites were confirmed as abandoned mineral explorations sites. It is therefore reasonable to assume that some of the sites not inspected during the preliminary inventory are among the 20 sites newly identified throughout the region in recent years.

In order to confirm these newly identified sites were indeed mineral exploration sites and to ascertain their status, the KRG communicated each new location to the MERN. The MERN, after consulting their database, have confirmed that 10 of these sites are located on recently expired claims, 6 are located on currently active claims and 4 are not associated with any historical claims.

It is important to note that on March 9, 1995, the *Lois sur les mines* (Mining Act) was adopted by the Québec Government. Article 216 or the current act (June 2018) states that "Within 30 days after the abandonment, revocation or expiry of his right, the holder of a claim shall remove all his property from the parcel of land that was subject to his right". Furthermore, "Once the time is expired, the property and mineral substances remaining on land of the domain of the State shall, of right, form part of the domain of the State and may be removed by the Minister at the expense of the holder of the mining right". To this effect the KRG are collaborating with the MERN to inform claim proprietors of their legal obligations.

During their June 2018 meeting, the project's Steering Committee made the decision to use the funding provided for under the addended agreement to proceed with rehabilitation activities on the sites not associated with any historical claims. During this work, other sites, located on expired claims were also rehabilitated due to their proximity and priority level. Further details regarding this work can be found in section 6 of this report.

Table 6 presents the 20 newly identified abandoned mineral exploration sites in detail including their location, connection to mining claims, a brief summary of the materials found on site during initial inspections and their rehabilitation status. A map of these sites, in relation to Nunavik communities, can be found in Appendix 1.

Table 6 Description of Newly Identified abandoned Mineral Exploration Sites in Nunavik

SITE	SECTOR	DECRIPTION	CLAIM OWNER	CLAIM STATUS	EXPIRATION	REHABILATATION STATUS
Gerido-1	Kuujjuaq/Tasiujaq	Sector 1: 7 drums, scattered debris & generator Sector 1: 9 drums & debris Sector 2: 16 drums & debris	Ping an Hawking China Opportunity Fund I.L.P.	Active	2019/11/06	
Gerido-2	Kuujjuaq/Tasiujaq	80 drums, dumpsite, collapsed building, platform, & debris	Ping an Hawking China Opportunity Fund I.L.P.	Active	2019/11/06	
Gerido-2	Kuujjuaq/Tasiujaq	Sector 1: 8 drums, wood & debris Sector 2: Approximately 70 drums (scattered) core trays, & drill rods Sector 3: 2 drums	Ping an Hawking China Opportunity Fund I.L.P.	Active	2019/11/06	
Jordon Lake-1	Kuujjuaq/Tasiujaq	Many core trays, 35 drums, 7 propane tanks, muskeg, modern stove, generator, building, debris	Uranor Inc.	Expired	2012/09/29	Partially Complete
Jordon Lake-2	Kuujjuaq/Tasiujaq	Compete drill rig inside shelter, many drill rods, small tractor, generator, few drums and debris	Uranor Inc.	Expired	2012/09/29	
Jordon Lake-3	Kuujjuaq/Tasiujaq	2 sectors with 15 drums, 2 water heaters, drill rods, hoses, wood, debris	Uranor Inc.	Expired	2012/09/29	Partially Complete
Jordon Lake-4	Kuujjuaq/Tasiujaq	26 drums in a group, small boat	Uranor Inc.	Expired	2012/09/29	Complete
GR-1	Kangiqsualujjauq	33 drums	No Historical Claim			Complete
GR-2	Kangiqsualujjauq	40 drums, 1 wooden structure, 2 platforms, 15 propane tanks, debris	Peter Ferderber	Expired	2012/10/20	Complete
GR-3	Kangiqsualujjauq	Drill, some debris	Diamond Discoveries Inc.	Expired	2006/12/10	
KG-1	Kangirsuk	Pile of 120 drums, core trays, old campsite with scattered debris and dumpsite	No Historical Claim			Complete
KG-2	Kangirsuk	1st pile: 37 drums & 14 propane tanks 2nd pile: 32 drums. Scattered debris and 10 drums dump site, 2 batteries	No Historical Claim			Complete
KG-3	Kangirsuk	5 drums	Oceanic Iron Ore	Active	2020/01/28	
EG-1	Kangirsuk	Sector 1: 10-20 drums Sector 2: 350 drums Sector 4: Bulldozer, tractor & debris Sector 4: 3 drums in lake	Oceanic Iron Ore	Active Active Expired None	2019/08/30	
Vincenza	Kangiqsujuaq	30 drums (scattered along shore), 2 batteries, 5 propane tanks, dump site, scattered debris	Canadian Royalties	Expired	2013/01/15	
Watts Lake-1	Salluit	20-30 drums	Peter Bambic	Expired	2006/07/28	Complete
Watts Lake-2	Salluit	20-30 drums	Peter Bambic	Expired	2006/07/28	Complete
Lac Gundeau	Salluit	75 drums	Canadian Royalties	Expired	2012/12/10	
SW-27C	Salluit	15 drums, 4 propane tanks, wooden debris	No Historical Claim			Complete
SW-27D	Salluit	15 drums, 12 propane tanks, wooden debris, boxes	Orford Mining	Active	2018/11/28	Complete

5 GENERAL RESPONSE PLAN, 2019-2022

To prolong rehabilitation activities beyond 2012, the Agreement has been addended several times. As a result, all of the 18 sites that were classified as requiring major cleanup work, 27 needing intermediate cleanup work and 19 requiring minor cleanup work have been completed. The 26 remaining sites requiring minor cleanup were declared as insignificant and will not be rehabilitated.

The Agreement was most recently addended in August 2018, which will extend the funding until March 31, 2022. The focus during this new timeframe will be on completing the rehabilitation of newly identified abandoned mineral exploration sites in the region, as deemed necessary by the project's Steering Committee. Consequently, a new 2019-2022 General Response Plan (GPR) has been prepared to reflect the reality of this new work and contains the following sections: a description of the cleanup work to be carried out before March 31, 2022; the proposed work schedule; the proposed budget for the work; a description of logistics and human resources; and details concerning the communication of results. A summary of the GRP is provided below. It is important to note that at the end of each year, the GRP is adjusted to better reflect the reality of the cleanup situation.

5.1 WORK TO BE COMPLETED UNDER THE GRP

Rehabilitation work to be completed under the GRP is broken down into the following categories: 1) field logistics, 2) the transportation and disposal of hazardous material, 3) the management of combustible non-toxic material, and 4) the management of non-combustible non-toxic material. Below is a brief summary of those categories.

5.1.1 Field Logistics

Summer is the busiest and most productive cleanup season. It allows workers easier access to the material on the sites and a greater number of daylight hours to operate. Summer fieldwork involves the cutting up and crushing of barrels, the transfer of residues to undamaged barrels, the gathering of hazardous material and waste, gathering of general debris, gathering and burning of combustible material, and facilitating, if necessary, the transportation of these materials during the winter.

Access by land, via all-terrain vehicle or boat, may be possible after considering the distance between each site and the nearest villages as well as topographical conditions. However, generally speaking, most sites are accessed by helicopter or float plane. Winter work involves the transportation of materials if the sites are within proximity to a village and accessible by snowmobile.

5.1.2 Transportation and Disposal of Hazardous Waste

All recoverable hazardous materials are packaged on site and sent to an appropriate recovery facility south of the province via marine transportation. The transfer of residues to undamaged marine containers, labeling and preparing of the material for transportation is carried out during summer fieldwork.

5.1.3 Management of Combustible Non-Toxic Material

Combustible non-toxic material is burned or left to decompose at each site. This material includes wood as well as buildings constructed from wood, aluminum and mineral wool insulation. Pursuant to Section 22 of the *Regulation Respecting the Quality of the Atmosphere*, a certificate of authorization is required to burn wood, shacks and buildings. Prior to burning any building, all hazardous materials are removed including emergency lights (lead and Ni-Cd battery cells), smoke detectors, fluorescent ballasts and fire system accumulators (Ni-Cd battery cells). Non-combustible material is removed including asphalt shingles, heating stoves, refrigerators, stove-ovens, bed frames, etc. Material remaining after burning (tin, glass wool, iron and wire) is managed with the non-combustible, non-toxic waste at the site. It is also possible that petroleum hydrocarbons at the sites will be used to ignite combustible material. In such cases, a certificate of authorization will be required pursuant to Section 23 of the *Regulation Respecting the Quality of the Atmosphere* for the open-air burning of petroleum hydrocarbons, which the KRG obtained in 2008.

5.1.4 Management of Non-Combustible Non-Toxic Material

At most of the sites, non-combustible non-toxic material represents the greatest quantity of debris (empty barrels, equipment parts, domestic appliances, core trays, wire meshing, etc.) and is the least likely to be harmful to the environment or to jeopardize the health of animals and humans. Notwithstanding, such material adversely affects the appearance of the landscape. For this reason, wherever possible all waste is removed from the sites. Batteries, oil, antifreeze and tires will be removed from equipment, transported from the sites and treated as hazardous material.

5.2 WORK SCHEDULE

Table 7 outlines the proposed work schedule for the rehabilitation at the newly identified sites between April 1, 2019 and March 31, 2022. In order to facilitate the work, cleanup activities will be carried out, when possible, on sites located in the same sector.

5.3 BUDGET PROVISIONS, 2019-2022

Table 8 indicates the projected yearly budget, as set out in the 2019-2022 GRP, for carrying out rehabilitation work on the newly identified abandoned mineral exploration sites in Nunavik. It should be noted that adjustments to the budget are made at the end of each cleanup season to better reflect the work remaining on sites and in communities.

Table 7 Tentative Work Schedule for 2019-2022 Cleanup Activities

SITE / YEAR	Summer 2019	Summer 2020	Summer 2021	Winter 2022
Gerido-1				Summary Report 2012-2022 Community Presentations
Gerido-2				
Gerido-3				
Jordon Lake-1				
Jordon Lake-2				
Jordon Lake-3				
Jordon Lake-4	*COMPLETE*			
GR-1	*COMPLETE*			
GR-2	*COMPLETE*			
GR-3				
KG-1	*COMPLETE*			
KG-2	*COMPLETE*			
KG-3				
EG-1				
***Vincenza**				
Watts Lake-1	*COMPLETE*			
Watts Lake-2	*COMPLETE*			
***Lac Gundeau**				
SW-27C	*COMPLETE*			
SW-27D	*COMPLETE*			

*Site to be cleaned by Canadian Royalties

Table 8 Estimated Yearly Budget for 2019-2022 Cleanup Activities

YEAR	2019-2020	2020-2021	2021-2022	2022	TOTAL
Coordinator salary	$45,000	$45,000	$45,000	$35,000	$170,000
Field Technician salary	$24,000	$18,000	$18,000	$0	$50,000
Worker salaries	$24,000	$18,000	$18,000	$0	$50,000
Transportation to site	$40,000	$30,000	$30,000	$0	$100,000
Transportation of waste (via south)	$25,000	$20,000	$20,000	$0	$85,000
Disposal of waste	$60,000	$40,000	$40,000	$0	$140,000
Travel Airfare	$30,000	$20,000	$20,000	$20,000	$90,000
Travel Expenses	$12,000	$8,000	$8,000	$8,000	$36,000
Material/Equipment	$12,000	$8,000	$8,000	$8,000	$36,000
Communication and translation	$3,000	$3,000	$3,000	$3,000	$12,000
KRG Administrative Costs	$6,000	$6,000	$6,000	$6,000	$24,000
SUB-TOTAL	**$281,000**	**$216,000**	**$216,000**	**$80,000**	**$793,000**
Weather Condition Provision (15%)	$42,150	$32,400	$32,400	$12,000	$118,950
TOTAL	**$323,150**	**$248,400**	**$248,400**	**$92,000**	**$911,950**

5.4 HUMAN RESOURCES

Human resources for the project fall into two categories: 1) KRG employees, which is to say the project coordinator and environmental or field technicians, and 2) local workers.

The project coordinator works full-time on the project while the environmental technician or field supervisor works part-time during the summer season and winter season if necessary. Experience acquired in the previous work terms suggests that it is absolutely necessary to have one and in some case two technicians on site to complete the cleanup according to the schedule and to allow for more consistent logistical planning by the coordinator.

Local workers are hired to work on the project from the communities located closest to each site. This not only creates jobs, but it also contributes to increasing local know-how regarding contaminated site restoration and environmental project management. The Northern Villages are central to providing local workers for the rehabilitation work, including the payment of the workers' wages. The amounts paid to these workers are subsequently invoiced to the KRG who reimburses all related costs. This cooperation is extremely effective and permits the hiring of individuals who are recognized in their communities. This kind of experience is also highly sought-after by mineral exploration companies during the cleanup of their sites and could therefore lead to future work.

Worker safety is also an important issue for those involved in rehabilitating the abandoned mineral exploration sites in Nunavik. Most of the sites are in isolated locations that cannot easily be reached from nearby villages. In summer, workers are usually transported by helicopter or floatplane. In some cases, the transporter does not remain at the site, therefore emergency planning is important. It is essential that each work team have an emergency plan and adequate communication systems to contact help, if necessary.

5.5 COMMUNICATIONS

At the beginning of each year, a letter is sent to each of the Northern Villages asking for their participation in the project and providing information regarding the work to take place on the sites near their community. At the end of each year, an activity report is sent to each of the partners involved in the cleanup work including those providing financial or in-kind contributions.

6 DESCRIPTION OF 2018-2019 REHABILITATION WORK

This section provides a description of the 11 sites where rehabilitation activities were carried out during the 2018-2019 season as well as the work undertaken in the communities of Salluit, Kangirsuk and Kuujjuaq to prepare material for transportation by ship. The rehabilitation activities on each site is described in Section 6.1 with supporting photographs available in Appendix 3.

It should be noted that in 2018 Richard Knoxleet returned as field technician for the project assisting with supervision on site and in communities when necessary. Nancy Dea remained as project coordinator in 2018-2019.

6.1 DESCRIPTION OF REHABILITATION ACTIVITIES

Kuujjuaq/Tasiujaq Sector

Jordon Lake-1

The abandoned mineral exploration site known as Jordon Lake-1 (58° 08.485' N, 69° 10.641' W) is located approximately 65 miles northwest of Kuujjuaq. The debris at this site is located in one general area and is considered as a site requiring intermediate cleanup. It is 1 of 4 sites located in

proximity to Jordon Lake and situated on a claim that expired in 2012 previously belonging to Uranor Inc.

In July 2018, the project coordinator and 2 workers from Kuujjuaq undertook rehabilitation activities on the site. During two separate two-day campaigns, the following items were removed from the site:

- 47 drums (empty);
- 3 drums (with debris);
- 2 drums with fluid;
- 15 propane tanks;
- 3 batteries;
- 3 Wrangler bags filled with metal debris;
- Hoses;
- 15 small tires;
- 10 drill rods;
- Large metal debris: generator, winch, muskeg tracks, heater, drill tripod.

Approximately 12,000 pounds of material was transported to Kuujjuaq by helicopter and stored in a marine container that will be shipped in 2019. Additionally, non-toxic combustible material, notably the small building and wood debris were burned on site. Jordon Lake-1 is considered as partially complete due to the fact that there remains a muskeg on site. Photos of this work and remaining material, including a large volume of core samples and trays, can be found in Appendix 3.

Jordon Lake-3

The abandoned mineral exploration site known as Jordon Lake-3 (58° 07.2’ N, 70° 12.2’ W) is located approximately 65 miles northwest of Kuujjuaq. The debris at this site is located in two sectors, approximately 100 meters apart and is considered as a site requiring minor cleanup. It is 1 of 4 sites located in proximity to Jordon Lake and situated on a claim that expired in 2012 previously belonging to Uranor Inc.

In July 2018, the project coordinator and 2 workers from Kuujjuaq undertook rehabilitation activities on the site. During a one-day campaign, the following items were removed from the site:

- 16 drums (empty);
- 4 drums (filled with debris);
- 2 tires;
- Hoses;
- Metal debris: water heater, 90 drill rods, stove and stove pipes.

Approximately 8,650 pounds of material was transported to Kuujjuaq by helicopter and stored in a marine container that will be shipped in 2019. Additionally, non-toxic combustible material, notably wood debris was collected into a pile to be burned on site. Jordon Lake-3 is considered as

partially complete due to the remaining wood debris on site. Photos of this work and remaining material, can be found in Appendix 3.

Jordon Lake-4

The abandoned mineral exploration site known as Jordon Lake-4 (58° 06.8’ N, 70° 12.6’ W) is located approximately 65 miles northwest of Kuujjuaq. The debris at this site is located in one general area and is considered as a site requiring minor cleanup. It is 1 of 4 sites located in proximity to Jordon Lake and situated on a claim that expired in 2012 previously belonging to Uranor Inc.

In July 2018, the project coordinator and 2 workers from Kuujjuaq undertook rehabilitation activities on the site. During a one-day campaign, the following items were removed from the site:

- 10 drums (empty);
- 15 drums (with fluid);
- 1 small boat
- Metal debris: 2 drill rods.

Approximately 4,200 pounds of material was transported to Kuujjuaq by helicopter and stored in a marine container that will be shipped in 2019. Jordon Lake-4 is considered as complete. Photos of this work can be found in Appendix 3.

Aupaluk/Kangirsuk Sector

KG-1

The abandoned mineral exploration site known as KG-1 (59° 46.5’ N, 69° 59.6’ W) is located approximately 17 miles southwest of Kangirsuk. The debris at this site is located in one general area and is considered as a site requiring intermediate cleanup.

In June and July 2018, the project coordinator, field technician and 3 workers from Kangirsuk undertook rehabilitation activities on the site. A mobile drum crusher was transported from Kuujjuaq to Kangirsuk by helicopter for this work. Due to the volume of drums at KG-1, they were crushed on site to reduce the number of loads to be carried by helicopter. During 2 four-day campaigns, the following items were removed from the site:

- 192 drums (empty, crushed);
- 1 drum (with fluid);
- 1 small boat
- Metal debris: Aluminum core trays, 2 rill rods, rusty drums

Approximately 19,000 pounds of material was transported to Kangirsuk by helicopter and stored in a marine container that was shipped to a recovery facility in southern Québec in October 2018. KG-1 is considered as complete. Photos of this work can be found in Appendix 3.

KG-2

The abandoned mineral exploration site known as KG-2 (60° 16.6’ N, 70° 57.9’ W) is located on the shore of Ammaluttuq Lake, approximately 37 miles northwest of Kangirsuk. The debris at this site is located in 2 sectors, approximately 300 meters part, and is considered as a site requiring intermediate cleanup.

In June and July 2018, the project coordinator, field technician and 3 workers from Kangirsuk undertook rehabilitation activities on the site. The mobile drum crusher was transported from KG-1 to KG-2 by helicopter for this work. Due to the volume of drums at KG-2, they were crushed on site to reduce the number of loads to be carried by helicopter. During 2 three-day campaigns, the following items were removed from the site:

- 70 drums (empty, crushed);
- 14 propane tanks;
- 2 batteries;
- Wrangler bag with small metal debris from dumpsite.

Approximately 10,000 pounds of material was transported to Kangirsuk by helicopter and stored in a marine container that was shipped to a recovery facility in southern Québec in October 2018. The propane tanks, drums with fluids and batteries removed from sites KG-1 and KG-2 are considered as hazardous waste and cannot be shipped in a marine container. They will be properly packaged and transported by ship in 2019. Details concerning this work can be found in section 7 of the document. KG-2 is considered as complete. Photos of this work can be found in Appendix 3.

Kangiqsujuaq/Salluit Sector

Watts Lake-1

The abandoned mineral exploration site known as Watts Lake-1 (61° 49.09’ N, 74° 10.11’ W) is located on the shore of Watts Lake, approximately 54 miles southeast of Salluit. The debris at this site is located in 1 sector, and is considered as a site requiring minor cleanup.

In July 2018, the project coordinator and 4 workers from Salluit undertook rehabilitation activities on the two Watts-Lake sites. During a two-day campaign, the following items were removed from this site:

- 50 drums (empty);
- 5 drums (with fluid);
- 3 tires;
- 5 propane tanks.

This material was transported to Salluit by helicopter where it was treated Orford Mining at their storage facility in the community. The material was the transported to a recovery facility in southern Québec in October 2018 by way of in-kind contribution. Watts Lake-1 is considered as complete. Photos of this work can be found in Appendix 3.

Watts Lake-2

The abandoned mineral exploration site known as Watts Lake-2 (61° 50.55’ N, 74° 13.53’ W) is located on the shore of Watts Lake, approximately 54 miles southeast of Salluit. The debris at this site is located in 1 sector, and is considered as a site requiring minor cleanup.

In July 2018, the project coordinator and 4 workers from Salluit undertook rehabilitation activities on the two Watts Lake sites. During a two-day campaign, the following items were removed from this site:

- 10 drums (empty);
- 6 drums (with fluid).

This material was transported to Salluit by helicopter where it was treated Orford Mining at their storage facility in the community. The material was the transported to a recovery facility in southern Québec in October 2018 by way of in-kind contribution. Watts Lake-2 is considered as complete. Photos of this work can be found in Appendix 3.

SW-27C

The abandoned mineral exploration site known as SW-27C (61° 30.37’ N, 76° 02.34’ W) is located approximately 48 miles southwest of Salluit. The debris at this site is located in 1 sector, and is considered as a site requiring minor cleanup.

In July 2018, the project coordinator, KRG stagière, and 4 workers from Salluit undertook rehabilitation activities on the site. During a one-day campaign, the following items were removed from the site:

- 33 15-gallon drums (empty);
- 1 drum (with fluid);
- 4 propane tanks;
- 1 garbage bag with debris;
- 20 aluminum rods;
- 2 door frames and 1 window frame.

This material (approximately 1,450 pounds) was transported to Salluit by helicopter where it was treated by Orford Mining at their storage facility in the community. The material was then transported to a recovery facility in southern Québec by ship in October 2018 by way of in-kind contribution. A small pile of non-toxic combustible material, mostly wood, was burned on site. SW-27C is considered as complete. Photos of this work can be found in Appendix 3.

SW-27D

The abandoned mineral exploration site known as SW-27D (61° 28.97’ N, 76° 05.64’ W) is located approximately 48 miles southwest of Salluit. The debris at this site is located in 1 sector, and is considered as a site requiring minor cleanup.

In July 2018, the project coordinator, KRG stagière, and 4 workers from Salluit undertook rehabilitation activities on the site. During a one-day campaign, the following items were removed from the site:

- 12 drums (empty);
- 2 drums (with fluid);
- 4 drums with debris;
- 14 propane tanks.

This material (approximately 3,950 pounds) was transported to Salluit by helicopter where it was treated by Orford Mining at their storage facility in the community. The material was then transported to a recovery facility in southern Québec by ship in October 2018 by way of in-kind contribution. A large volume of non-toxic combustible material, mostly wood, was burned on site. SW-27D is considered as complete. Photos of this work can be found in Appendix 3.

Kangiqsualujjuaq Sector

GR-1

The abandoned mineral exploration site known as GR-1 (59° 46.651' N, 65° 26.111' W) is located approximately 76 miles northeast of Kangiqsualujjuaq. The debris at this site is located in 1 sector, and is considered as a site requiring minor cleanup.

In September 2018, the project coordinator and 4 workers from Kangiqsualujjuaq undertook rehabilitation activities at GR-1. During a one-day campaign, the following items were removed from this site:

- 30 drums (empty);
- 3 drums (with fluid).

Approximately 3,400 pounds of material was transported to an airstrip, located a Waymouth outfitting camp by helicopter where it is currently stored and will be treated in 2019. A description of this work is provided in section 7 of the document. GR-1 is considered as complete. Photos of this work can be found in Appendix 3.

GR-2

The abandoned mineral exploration site known as GR-2 (59° 21.775 N, 64° 38.551' W) is located approximately 65 miles northeast of Kangiqsualujjuaq. The debris at this site is located in 1 sector, and is considered as a site requiring intermediate cleanup. The site was located on an expired mining claim previously belonging to Peter Ferderberg.

In September 2018, the project coordinator and 4 workers from Kangiqsualujjuaq undertook rehabilitation activities at GR-1. During a three-day campaign, the following items were removed from this site:

- 40 drums (empty);
- 8 drums (with fluid);
- 17 propane tanks (+ 9 small camping size);
- 3 batteries;
- 4 Wrangler bags of debris;
- Metal debris: fridge, stove, freezer, generator, tools & kitchen supplies.

Approximately 10,650 pounds of material was transported to an airstrip, located a Waymouth outfitting camp by helicopter where it is currently stored and will be treated in 2019. A description of this work is provided in section 7 of the document. A small building, 2 wooden platforms and wood debris was burned on site. GR-2 is considered as complete. Photos of this work can be found in Appendix 3.

6.2 2018-2019 EXPENDITURES

Table 9 indicates the calculated expenditures during the fieldwork undertaken in the 2018-2019 season as well as administrative costs. Some expenses were under or over-estimated from previous cost assessments due to weather conditions and less days spent on some sites.

Table 9 2018-2019 Expenditures

INCOME	
KRG surplus	$0
MERN income	$331,491
FRAN income	$0
Other	$0
TOTAL	**$331,491**

IN-KIND CONTRIBUTION	
Orford Mining	$16,860
TOTAL	**$16,860**

EXPENDITURES*	**2018-2019**
Travel & Accommodations	$17,954
General Contracts	$285,800
Purchase of Materials	$10,000
Administrative Charges	$22,317
TOTAL:	**$331,491**

**Source: 2018 KRG Financial Statement*

7 DESCRIPTION OF 2019-2020 REHABILITATION WORK

During their November 30th, 2018 meeting, the project's steering committee, with representatives from each of the 4 partners who signed the funding agreement, discussed the potential 2019-2020 activities. It was decided that would continue on the newly identified sites as deemed necessary by the committee. Below is a description of these sites, their designated category, and the work that will be carried out in 2019-2020. Photos of these sites can be found in Appendices 3 and 4.

Kuujjuaq/Tasiujaq Sector

Kuujjuaq

Currently there are 2 marine containers in the community of Kuujjuaq that are being used to store materials removed from various sites in this sector of Nunavik. Due to logistical issues with the marine shipping company, these containers were not transported to a waste recover facility in 2018. Therefore, in 2019, KRG in collaboration with the Northern Village of Kuujjuaq will need to ensure the containers and hazardous materials stored in the same area are properly packaged and ready to be transported during the shipping season.

Jordon Lake-1

The abandoned mineral exploration site known as Jordon Lake-1 is located approximately 65 miles northwest of Kuujjuaq. It is 1 of 4 sites located in proximity to Jordon Lake and situated on a claim that expired in 2012 previously belonging to Uranor Inc.

Following rehabilitation activities that occurred in July 2018, there remains a small amount of debris from burning the non-toxic combustible material on site as well as a muskeg. In 2019, KRG will need to coordinate with the Northern Village of Kuujjuaq a two-day field work campaign. This work will involve collecting and packaging the debris as well as using a mobile welding machine and necessary equipment to cut and disassemble the muskeg so that it, and the debris, can be safely transported to Kuujjuaq by helicopter. This material will then be properly stored in a marine container already located in the community and prepared for shipment to a waste recovery facility.

Jordon Lake-2

The abandoned mineral exploration site known as Jordon Lake-2 (58° 07.3' N, 70° 12.9' W) is located approximately 65 miles northwest of Kuujjuaq. The debris at this site is located in one sector and is considered as a site requiring intermediate cleanup. It is 1 of 4 sites located in proximity to Jordon Lake and situated on a claim that expired in 2012 previously belonging to Uranor Inc.

In 2019, the KRG will need to coordinate with the Northern Village of Kuujjuaq a five-day field work campaign on this site which contains:

- A drill, inside a small wooden shelter;
- Drill rods;
- Small tractor;
- Generator;
- 10 drums;

- Debris.

The rehabilitation work will involve collecting and packaging the debris as well as using a mobile welding machine and necessary equipment to cut and disassemble the drill and tractor so that it, and the debris, can be safely transported to Kuujjuaq by helicopter. This material will then be properly stored in a marine container already located in the community and prepared for shipment to a waste recovery facility.

Jordon Lake-3

The abandoned mineral exploration site known as Jordon Lake-3 is located approximately 65 miles northwest of Kuujjuaq. It is 1 of 4 sites located in proximity to Jordon Lake and situated on a claim that expired in 2012 previously belonging to Uranor Inc.

Following rehabilitation activities that occurred in July 2018, there remains a small amount of non-toxic combustible material on site. In 2019, KRG will need to coordinate with the Northern Village of Kuujjuaq a short field work campaign that will involve burning the debris. This can be done in tandem with work planned at Jordon Lake-2 due to their proximity to each other. If this work cannot be realized in 2019 and bearing in mind the debris remaining poses no immediate risk to the environment, the site can be left as is and considered as complete.

Kangirsuk Sector

KG-1 & KG-2

The sites KG-1 and KG-2 were completed in 2018 however, materials removed from these sites are currently being stored in the community of Kangirsuk. Consequently, the KRG in collaboration with the Northern Village of Kangirsuk will need to undertake the work necessary to package and prepare for shipment the approximately 15 propane tanks and any other debris remaining in the community.

Kangiqsualujjuaq Sector

GR-1 & GR-2

The sites GR-1 and GR-2 were completed in 2018 however all the material removed from these sites are currently being stored at an airstrip located adjacent to Waymouth Outfitting Camp, approximately 46 miles from the community of Kangiqsualujjuaq. Due to this distance, it is recommended that KRG communicate with Air Inuit who can access the airstrip with a Twin Otter to remove and transport the material to Kangiqsualujjuaq. This will be more efficient and cost effective then using a helicopter.

In this case, the KRG will also need to collaborate with the Northern Village of Kangiqsualujjuaq in order to undertake the work of removing the material from Waymouth, transporting it to the community and having it packaged in a marine container and prepared for shipment to a waste management recovery facility. Considering the number of drums now stored at Waymouth (nearly 100), transporting the mobile drum crusher to the site would be recommended. A helicopter could be used for this and to carry out rehabilitation activities on nearby sites, effectively having 2 teams working in tandem.

GR-3

The abandoned mineral exploration site known as GR-3 (59° 21.659 N, 64° 49.672’ W) is located approximately 65 miles northeast of Kangiqsualujjauq. The debris at this site is located in 1 sector, and is considered as a site requiring intermediate cleanup. The site is located on an expired mining claim previously belonging to Peter Ferderberg.

In order to rehabilitate this site, KRG, in collaboration with the Northern Village of Kangiqsualujjuaq will need to organize a 5-day work campaign during the summer of 2019. The rehabilitation activity will involve collecting and packaging the debris as well as using a mobile welding machine and necessary equipment to cut and disassemble the drill so that it, and the debris, can be safely transported to Waymouth by helicopter. Due to the distance of Waymouth to the nearest community, it is recommended that KRG communicate with Air Inuit who can access the airstrip with a Twin Otter to remove and transport the material to Kangiqsualujjuaq.

7.1 PROJECTED BUDGET FOR 2019-2020

Table 10 indicates the projected budget for carrying out rehabilitation work on sites described in section 7, as well as the communities were materials are currently stored, during the 2019-2020 cleanup season.

Table 10 Projected Budget for 2019-2020

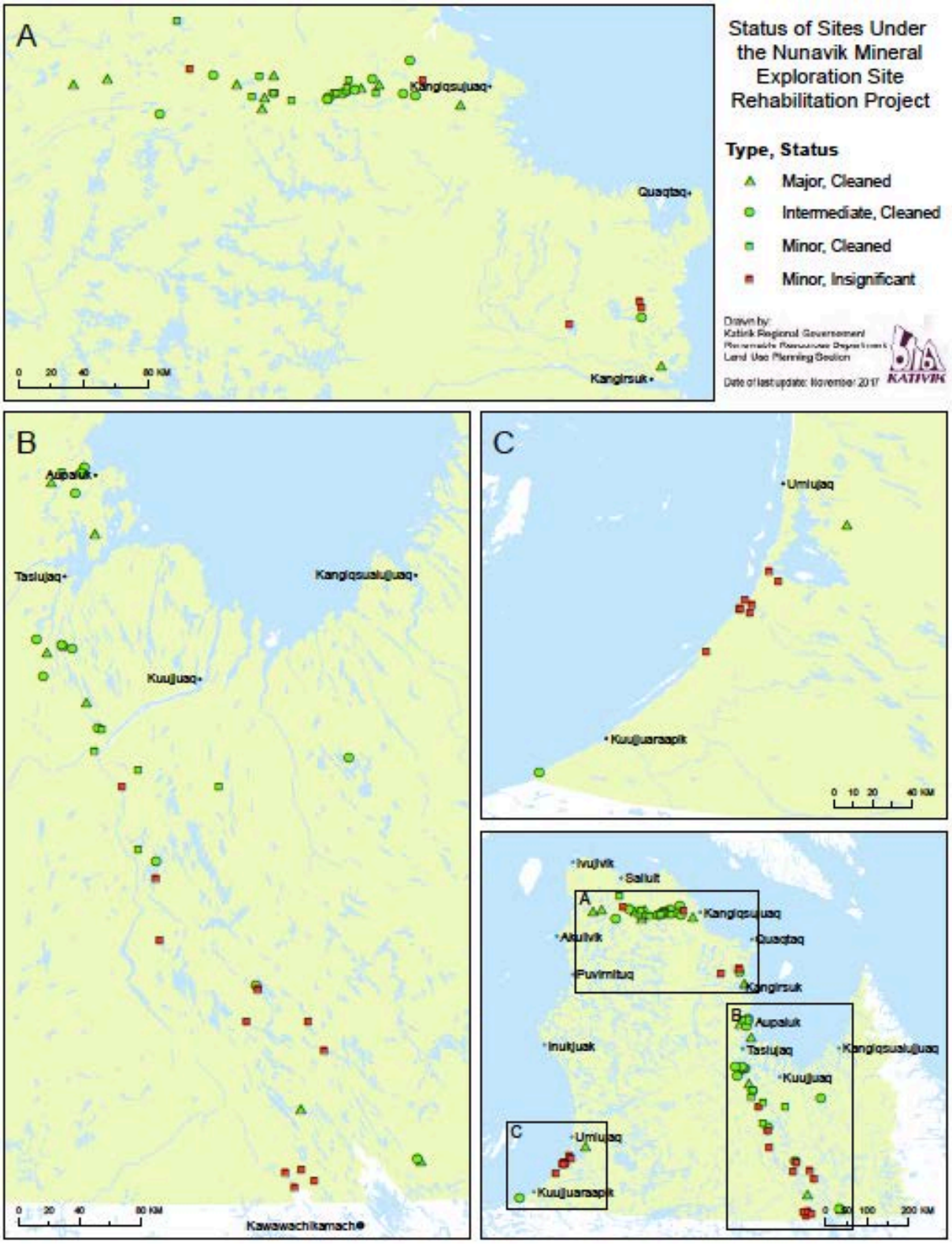
INCOME	
KRG surplus 2018	$0
MERN income	**$323,150**
FRAN income	$0
Other	$
TOTAL	**$323,150**

EXPENSES							
Site	**Jordon Lake -1**	**Jordon Lake-2**	**Jordon Lake-3**	**GR-3**	**Waymouth**	**Kangirsuk**	**TOTAL**
Coordinator Salary	$5,000	$10,000	$5,000	$10,000	$10,000	$5,000	**$45,000**
Technician Salary	$3,000	$5,000	$3,000	$5,000	$5,000	$3,000	**$24,000**
Worker Salaries	$3,000	$5,000	$3,000	$5,000	$5,000	$3,000	**$24,000**
Transportation of Waste (via south)	$5,000	$10,000	$0	$10,000	$10,000	$5,000	**$40,000**
Disposal of Waste	$5,000	$5,000	$0	$5,000	$5,000	$5,000	**$25,000**
Transportation of Material/Workers	$5,000	$15,000	$5,000	$15,000	$15,000	$5,000	**$60,000**
Travel Airfare	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	**$30,000**
Travel Expenses	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	**$12,000**
Material/Equipment	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	**$12,000**
Communication and Translation	$500	$500	$500	$500	$500	$500	**$3,000**
KRG administrative Costs	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	**$6,000**
Sub-total	**$36,500**	**$60,500**	**$26,500**	**$60,500**	**$60,500**	**$36,500**	**$281,000**
Weather Condition Provision (15%)	$5,475	$9,075	$3,975	$9,075	$9,075	$5,475	**$42,150**
TOTAL	**$41,975**	**$69,575**	**$30,475**	**$69,575**	**$69,575**	**$41,975**	**$323,150**

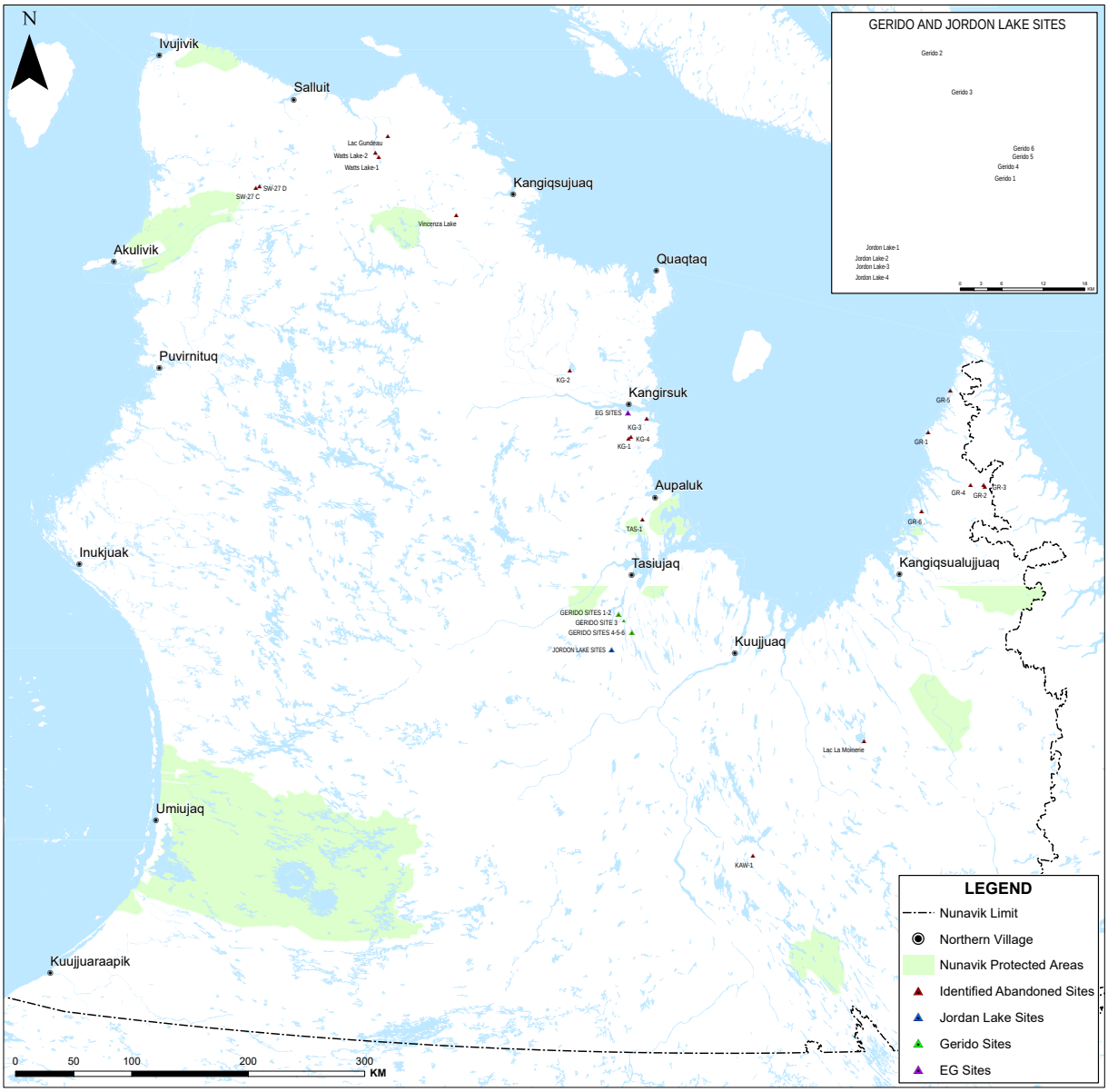
APPENDIX 1

Maps Showing the Locations and Status of Abandoned Mineral Exploration Sites in Nunavik

Map 1 Status of 90 Original Abandoned Mineral Exploration Sites in Nunavik



Map 2 Recently Identified Abandoned Mineral Exploration Sites in Nunavik



APPENDIX 2

Status of All Abandoned Mineral Exploration Sites Requiring Major, Intermediate & Minor Cleanup Work and Newly Identified Sites in Nunavik

Site Name	Location		Status
SITES REQUIRING MAJOR CLEANUP			
KAW-45	55° 33.68’ N	67° 21.20’ W	Cleaned
KAW-35	55° 13.94' N	66° 07.27' W	Cleaned
PJ-1	58° 57.71' N	69° 35.85' W	Cleaned
TQ-1	57º 57.68' N	69 º 40.16' W	Cleaned
TQ-4	58º 15.23' N	70º 07.20’ W	Cleaned
PJ-17	59° 20.29' N	69° 45.93' W	Cleaned
PJ-10	59° 15.07' N	70° 06.52' W	Cleaned
TW	60° 05.45' N	69° 55.48' W	Cleaned
K-28	61 º 34.65' N	73 º 14.75' W	Cleaned
K-61	61 º 33.25' N	73 º 27.25' W	Cleaned
WB-3	61 º 29.41' N	72 º 18.09' W	Cleaned
KV-1	61 º 25.64' N	76 º 45.46' W	Cleaned
SAL-1	61 º 31.14' N	74 º 53.01' W	Cleaned
SW-34	61 º 34.90' N	74 º 28.12' W	Cleaned
SW-27	61 º 28.76' N	76 º 22.93' W	Cleaned
SW-42	61 º 23.92' N	74 º 34.40' W	Cleaned
WB-9	61 º 27.35' N	74 º 33.22' W	Cleaned
WHA-1	56º 24.06’ N	75º 59.40’ W	Cleaned
SITES REQURING INTERMEDIATE CLEANUP			
KAW-36	55° 15.02’	66° 09.46’	Cleaned
KAW-59	56° 17.80’	67° 49.00’	Cleaned
KAW-119	57° 37.48’	66° 45.77’	Cleaned
P-24F	57° 01.54’	68° 53.20’	Cleaned
TA-1	58° 16.80’	69° 50.19’	Cleaned
TA-2	58° 17.48’	69° 56.34’	Cleaned
TQ-6	58° 17.92’	69° 57.37’	Cleaned
TQ-10	58° 06.36’	70° 09.10’	Cleaned
TQ-14	58° 19.36’	70° 14.30’	Cleaned
VP-11	57° 48.59’	69° 31.75’	Cleaned
G-24N04-3	59° 11.57’	69° 49.86’	Cleaned
PJ-17A	59° 20.54’	69° 43.81’	Cleaned
PJ-19	59° 18.91’	69° 46.06’	Cleaned
QC-3	60° 21.55’	70° 09.33’	Cleaned
I-32	61° 43.12’	72° 54.94’	Cleaned
K-27	61° 36.24’	73° 19.89’	Cleaned
K-37	61° 31.07’	73° 37.44’	Cleaned
K-49	61° 28.70’	73° 49.70’	Cleaned
KAN-1	61° 32.19’	72° 57.90’	Cleaned
KAN-2	61° 32.51’	73° 31.11’	Cleaned
KAN-4	61° 30.92’	73° 40.18’	Cleaned
KAN-6	61° 28.94’	73° 49.50’	Cleaned
KAN-7	61° 28.48’	73° 49.93’	Cleaned
KAN-10	61° 31.58’	72° 49.30’	Cleaned
Parent Lake	61° 33.43’	75 10.36’	Cleaned
SW-24	61° 18.75’	75° 44.00’	Cleaned
GW-8	55° 05.09’	78° 15.51’	Cleaned
SITES REQUIRING MINOR CLEANUP			
KAW-28	57° 28.27’	68° 11.97’	Cleaned
KAW-42A	56° 04.54’	67° 54.89’	insignificant
KAW-43	56° 04.43’	67° 15.96’	insignificant
KAW-54	55° 05.67’	67° 25.79’	insignificant
KAW-58	56° 16.45’	67° 47.21’	insignificant
KAW-60	56° 16.07’	67° 47.53’	insignificant
KAW-63	55° 54.17’	67° 06.03’	insignificant
KAW-67A	55° 10.89’	67° 31.49’	insignificant
KAW-69	55° 11.75’	67° 21.51’	insignificant
KAW-72	55° 08.10’	67° 13.65’	insignificant
KAW-5	56° 55.67’	68° 52.92’	insignificant
KAW-10	57° 27.76’	69° 15.49’	insignificant

KAW-26	56° 33.84’	68° 50.32’	insignificant
KAW-112	57° 40.68’	69° 34.16’	Cleaned
PD-1	57° 33.79’	69° 05.10’	Cleaned
PD-2	57° 05.67’	69° 04.56’	Cleaned
KUJ-2	61°34.64.4’	72°45.22.9’	Cleaned
PJ-19	59° 18.91’	69° 59.94’	Cleaned
KG-19	60° 26.79’	70° 10.85’	insignificant
KG-21	60° 18.63’	70° 57.45’	insignificant
QC-2	60° 24.82’	70° 09.67’	insignificant
I-12	61° 35.32’	73 35.85’	Cleaned
K-36	61° 31.39’	73 16.63’	Cleaned
K-41	61° 30.79’	73 44.74’	Cleaned
KAN-3	61° 31.63’	73° 37.28’	Cleaned
KAN-5	61° 30.19’	73° 45.28’	Cleaned
KAN-8	61° 30.55’	73° 45.45’	Cleaned
KAN-9	61° 36.73’	72° 44.56’	insignificant
KAN-11	61° 32.62’	73° 37.27’	Cleaned
KAN-12	61° 30.77’	73° 44.28’	Cleaned
G-35G08-1	61° 29.08’	74 26.55’	insignificant
P-35G08-1002	61° 29.22’	74° 28.35’	Cleaned
P-35G08-1002A	61° 29.18’	74° 27.55’	Cleaned
P-35G08-1003	61° 27.28’	74° 14.48’	Cleaned
SAL-2	61° 27.19’	74° 41.97’	Cleaned
SW-13	61° 34.00’	74° 38.14’	Cleaned
SW-14	61° 49.64’	75° 38.63’	Cleaned
SW-32	61° 34.73’	75° 26.75’	Insignificant
GW-5	55° 57.49’	76° 47.97’	Insignificant
PH-11	55° 58.97’	76° 41.79’	Insignificant
UD-1	56° 08.80’	76° 35.40’	Insignificant
UD-6	56° 06.41’	76° 30.23’	Insignificant
UM-1	55° 59.99’	76° 45.59’	Insignificant
UM-2	55° 56.67’	76° 42.50’	Insignificant
UM-3	55° 57.68’	76° 47.59’	Insignificant
GW-2	55° 44.48’	77° 01.95’	insignificant
NEWLY IDENTIFIED SITES			
Gerido-1			Active
Gerido-2			Active
Gerido-3			Active
Jordon Lake-1			Partially Complete
Jordon Lake-2			Untouched
Jordon Lake-3			Partially Complete
Jordon Lake-4			Complete
GR-1			Complete
GR-2			Complete
GR-3			Untouched
KG-1			Complete
KG-2			Complete
KG-3			Active
EG-1			Active
Vincenza			Untouched
Watts Lake-1			Complete
Watts Lake-2			Complete
Lac Gundeau			Untouched
SW-27C			Complete
SW-27D			Complete

APPENDIX 3

Photographs of Sites on Which Rehabilitation Work was Undertaken in 2017-2018

Jordon Lake-1

Figure 1 Jordon Lake-1, during inspections, July 2017

Figure 2 Jordon Lake-1, during inspections, July 2017

Figure 3 Material collected at Jordon Lake-1 during cleanup, July 2018

Figure 4 Material collected at Jordon Lake-1 during cleanup, July 2018

Figure 5 Jordon lake-1 during rehabilitation activities, July 2018

Figure 6 Jordon Lake-1 after rehabilitation activities, July 2018

Figure 7 Core trays remaining on site Jordon Lake-1, July 2018

Figure 8 Muskeg remaining at Jordon Lake-1, July 2018

Jordon Lake-3

Figure 9 Jordon Lake-3 during inspections, July 2017

Figure 10 Jordon Lake-3 during inspections, July 2017

Figure 11 Jordon Lake-3 during rehabilitation activities, July 2018

Figure 12 Jordon Lake-3 after rehabilitation activities, July 2018

Figure 13 Wood debris remaining at Jordon Lake-3, July 2018

Figure 14 Wood debris remaining at Jordon Lake-3, July 2018

Jordon Lake-4

Figure 15 Jordon Lake-4 during inspections, July 2017

Figure 16 Jordon Lake-4 during inspections, July 2017

Figure 17 Jordon Lake-4 during rehabilitation activities, July 2018

Figure 18 Jordon Lake-4 during rehabilitation activities, July 2018

KG-1

Figure 19 KG-1 during inspections, July 2017

Figure 20 KG-1 during inspections, July 2017

Figure 21 KG-1 during rehabilitation activities, June 2018

Figure 22 KG-1 during rehabilitation activities, June 2018

Figure 23 KG-1 during rehabilitation activities, July 2018

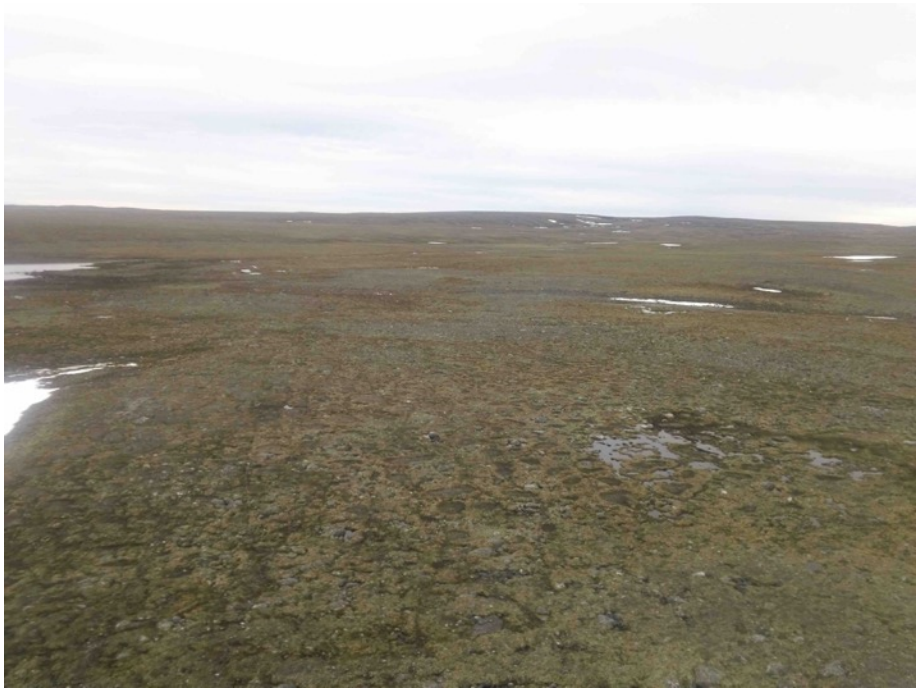


Figure 24 KG-1 after rehabilitation activities, July 2018

KG-2

Figure 25 KG-2 during inspections, July 2017

Figure 26 KG-2 during inspections, July 2017

Figure 27 KG-2 during rehabilitation activities, June 2018

Figure 28 KG-2 during rehabilitation activities, June 2018

**It should be noted that there are currently no photos of site KG-2 after the work was completed. Photos will be provided in a future activity report when an opportunity is provided to return to this sector.

Watts Lake-1

Figure 29 Watts Lake-1 during rehabilitation activities, July 2018

Figure 30 Watts Lake-1 during rehabilitation activities (with caribou), July 2018

**It should be noted that there are currently no photos of the Watts Lake-1 site after the work was completed. Photos will be provided in a future activity report when an opportunity is provided to return to this sector.

Watts Lake-2

Figure 31 Watts Lake-2 during rehabilitation activities, July 2018

**It should be noted that there are currently no photos of the Watts Lake-2 site after the work was completed. Photos will be provided in a future activity report when an opportunity is provided to return to this sector.

SW-27C

Figure 32 SW-27C during inspections, July 2017

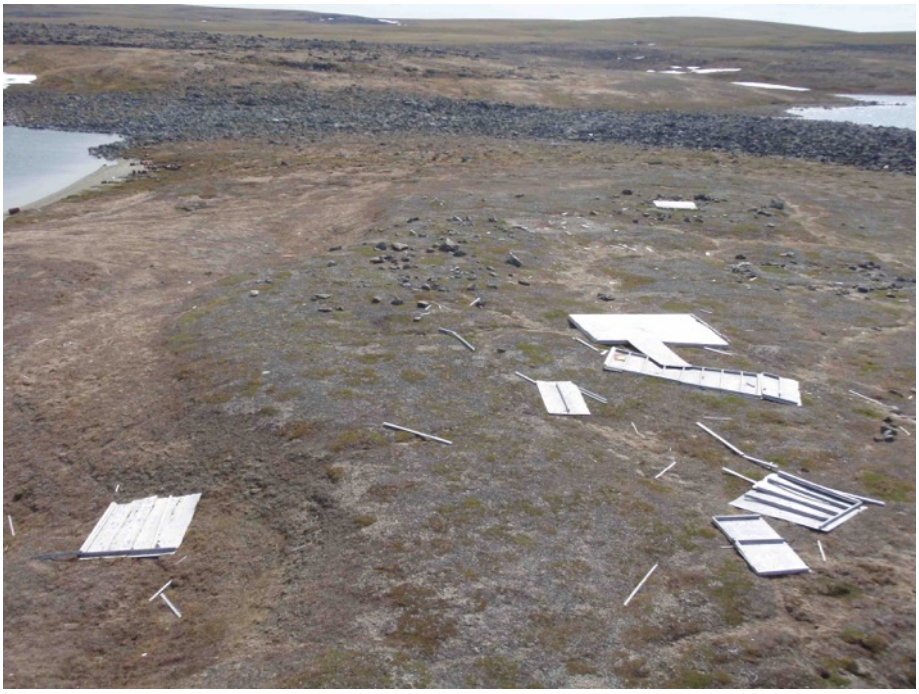


Figure 33 SW-27C during inspections, July 2017

Figure 34 SW-27C during rehabilitation activities, July 2018

Figure 35 SW-27C during rehabilitation activities, July 2018

Figure 36 SW-27C after rehabilitation activities, July 2018

Figure 37 SW-27C after rehabilitation activities, July 2018

SW-27D

Figure 38 SW-27D during inspections, July 2017

Figure 39 SW-27D during inspections, July 2017

**It should be noted that there are currently no photos of site SW-27D after the work was completed. Photos will be provided in a future activity report when an opportunity is provided to return to this sector.

GR-1

Figure 40 GR-1 before rehabilitation activities, September 2018

Figure 41 GR-1 before rehabilitation activities, September 2018

Figure 42 GR-1 during rehabilitation activities, September 2018

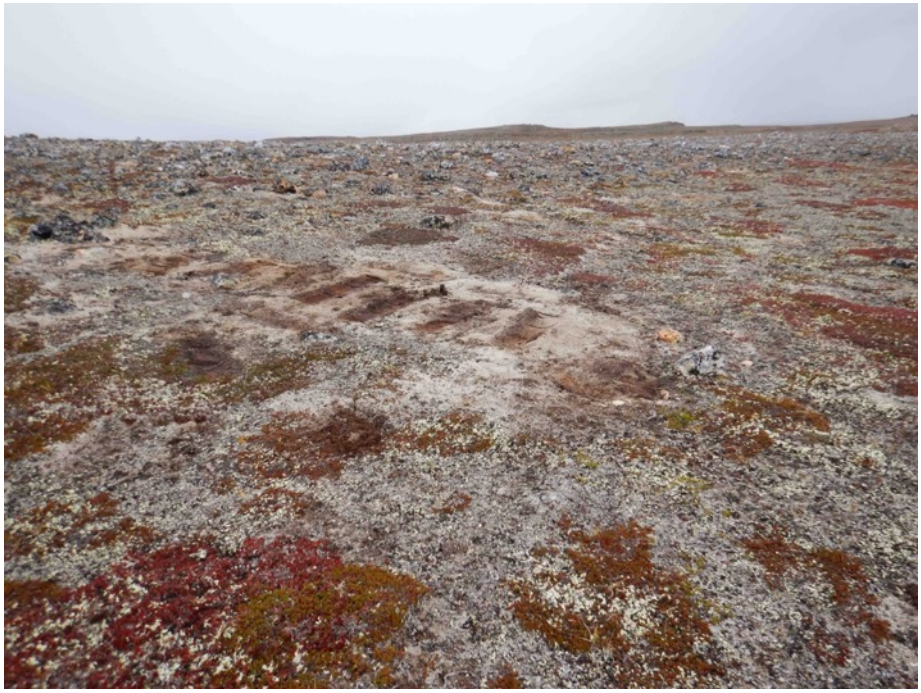


Figure 43 GR-1 after rehabilitation activities, September 2018

GR-2

Figure 44 GR-2 during identification by informant, September 2017

Figure 45 GR-2 before rehabilitation activities, September 2018

Figure 46 GR-2 during rehabilitation activities, September 2018

Figure 47 GR-2 during rehabilitation activities, September 2018

Figure 47 GR-2 during rehabilitation activities, September 2018

Figure 49 GR-2 after rehabilitation activities, September 2018

APPENDIX 4

Photographs of Sites on Which Rehabilitation Work will be Undertaken in 2019-2020

Kuujjuaq

Figure 50 Container and material remaining in Kuujjuaq

Figure 51 Container and material remaining in Kuujjuaq

Jordon Lake-2

Figure 52 Jordon Lake-2 during inspections, September 2017

Figure 53 Jordon Lake-2 during inspections, September 2017

Kangirsuk

Figure 54 Material (propane tanks only) remaining in Kangirsuk

Waymouth

Figure 55 Material remaining at Waymouth airstrip

GR-3

Figure 56 Site GR-3 during inspections, September 2018