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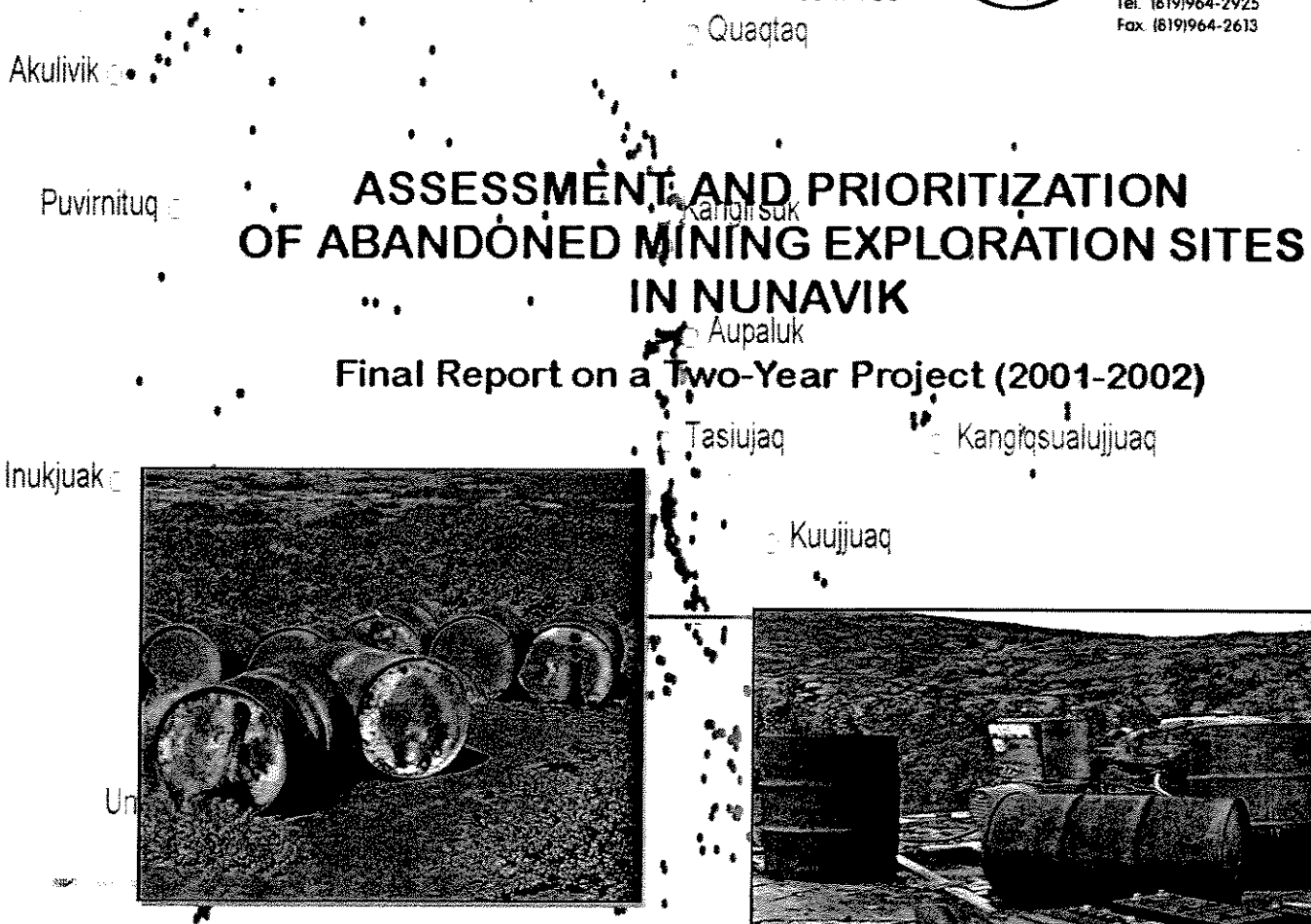
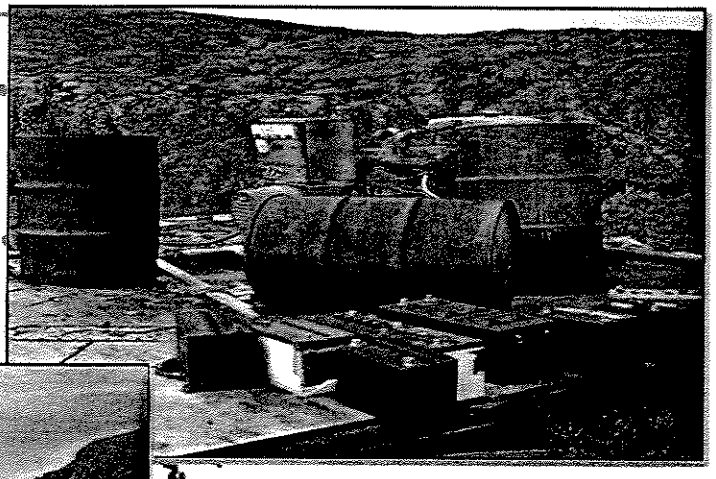
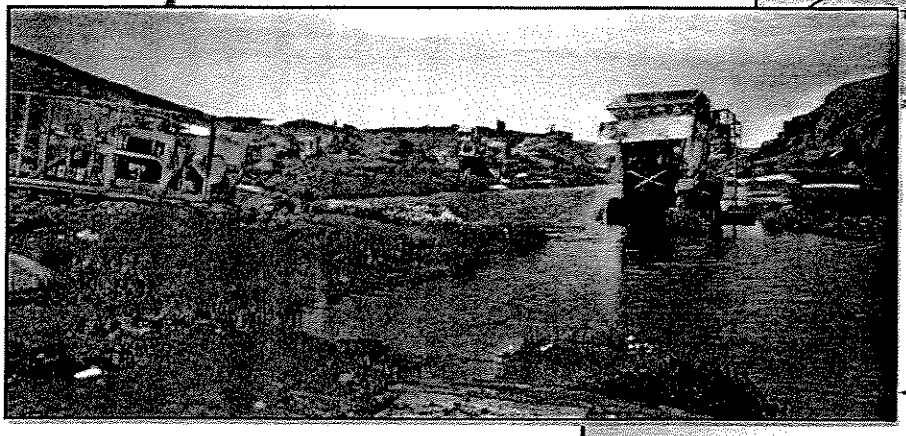


ASSESSMENT AND PRIORITIZATION OF ABANDONED MINING EXPLORATION SITES IN NUNAVIK

Final Report on a Two-Year Project (2001-2002)





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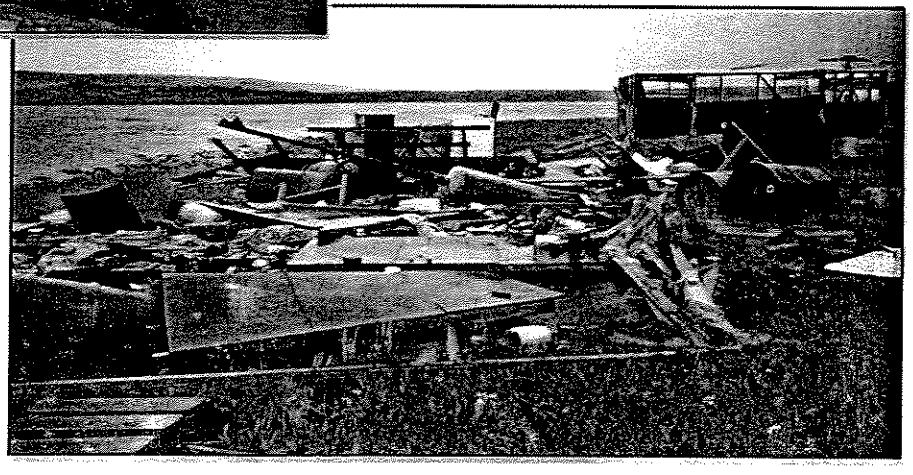

March 2003

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Department of Indian Affairs and Northern Development
Kativik Regional Government
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GÉTIC, Université Laval
Naskapi Nation of Kawawachikamach

ABSTRACT

This project addresses an important environmental issue, namely abandoned mining exploration sites and their impacts on the surrounding ecosystems. The region covered lies north of the 55th parallel in Northern Québec and is called Nunavik by the Inuit.

This project is a continuation of a joint project undertaken in 1999 by the Kativik Regional Government, the Makivik Corporation and GÉTIC, Université Laval, to identify and locate abandoned mining exploration sites in Nunavik. In 2000, the Naskapi Nation of Kawawachikamach joined the project. An overall review of existing oral and written information on all mining sites identified some 595 potential sites.

The goals of the present project are to: validate, on site, the information previously gathered and take inventory of the heavy equipment, buildings, barrels, material and products found on each site; evaluate soil and surface water contamination; and characterize and prioritize the abandoned mining sites according to their environmental impacts.

For the first phase (2001) of the project, effort was concentrated in the Ungava Trough in the surroundings of Kangiqsujuaq and Salluit, and in the northernmost part of the Labrador Trough in the surroundings of Kuujjuaq, Tasiujaq, Aupaluk and Kangirsuk. The second phase (2002) was concentrated in the southernmost part of the Labrador Trough north of Kawawachikamach, and in the Hudson Bay area namely Umiujaq and Kuujjuaraapik.

During the two phases (2001-2002), we visited or gathered information on 193 sites. These sites were classified according to their content, contamination, and the risk they pose to the environment. As a result, 90 were confirmed as abandoned exploration mining sites; of these, 18 sites were classified as "major", 27 as "intermediate" and 45 as "minor". Of the 103 remaining sites, 18 were attributed to other uses, mainly outfitting activities, and 85 sites contained no residual material. Nine of these 85 sites had contained residual material prior to removal by community projects in the mid 1990s. The classification was based on a list of criteria adapted from the *National Classification System for Contaminated Sites* including the assessment of the quantity of material and equipment present at the sites, and the soil and surface water contamination.

The major sites contain abandoned buildings, heavy equipment, barrels of hydrocarbons (some of which contain residue), contaminated soil, and sometimes, batteries and transformers.

Based on the ratio of 90 sites containing abandoned residual mining material out of the sample of 193 investigated sites, it is estimated that, of the 595 potential sites in the GÉTIC 2000 study, there are approximately 275 abandoned mining exploration sites in Nunavik. Their distribution would be almost equal between the Labrador Trough and the Ungava Trough-Hudson Bay region. Based on our survey, in addition to the 18 major, 27 intermediate and 45 minor sites inventoried, we might expect to find another 7 major, 68 intermediate and 105 minor sites.

This project validated the data collection method, which combines data obtained from interviews with key local informants and archival documentation. It showed that data provided by informants was more reliable than the Ministère des Ressources naturelles du Québec (MRNQ) documentation in regions where the territory was well known by Inuit and Naskapi communities, but had some limitations in hard to access portions of the territory, particularly in areas with complex topography, and when old mining sites are located in areas that are also used for other purposes.

A methodological approach for the assessment and prioritization of the remaining 403 non validated potential sites is proposed.

In five major sites (K-28, K-61, KAW-35, TQ-1 and WB-9), there was evidence of recent mining exploration activities. At these sites, the residue and debris from the previous mining activities have not been removed nor had remedial measures been undertaken. A comprehensive demobilization of these sites by mining companies is required in order to protect the sensitive Arctic and Sub-Arctic ecosystems.

In a remedial perspective, it is considered urgent and necessary to undertake a cleanup programme of the major sites, considering the risk they pose to the environment and public safety. The remediation of intermediate and minor sites will be on a case by case basis and will take into account the priorities of the concerned communities. This report proposes some recommendations for the remedial work. In collaboration with governments and mining associations, a programme with a funding mechanism should be set up for site remediation.

RÉSUMÉ

Ce projet touche d'importants enjeux environnementaux reliés aux sites abandonnés d'exploration minière et à leurs impacts potentiels sur les écosystèmes. La région couverte se situe au nord du 55e parallèle au Nord-du-Québec, aussi nommée Nunavik par les Inuits.

Le présent projet constitue la suite d'un projet conjoint réalisé en 1999 par l'Administration régionale Kativik, la Société Makivik et le GÉTIC, Université Laval, visant à identifier et localiser les sites abandonnés d'exploration minière au Nunavik. En 2000, la Nation Naskapi de Kawawachikamach a collaboré au projet. Une revue exhaustive de l'information disponible, orale et écrite, a permis de recenser un nombre potentiel de près de 595 sites miniers.

Les buts du présent projet sont de: valider sur le terrain l'information précédente; de dresser une liste de l'équipement lourd, des bâtiments, des barils, objets et produits trouvés sur chaque site; d'évaluer la contamination du sol et de l'eau de surface; et de caractériser et prioriser les sites miniers abandonnés en fonction de leurs impacts sur l'environnement.

La première phase du projet (2001) a concentré ses efforts dans la partie la plus septentrionale de la faille du Labrador et dans la faille de l'Ungava, à proximité de six communautés inuites: Kuujjuaq, Tasiujaq, Aupaluk, Kangirsuk, Kangiqsujuaq et Salluit. La seconde phase (2002) s'est déroulée dans la portion méridionale de la faille du Labrador au nord de Kawawachikamach, puis près de la Baie d'Hudson notamment dans les environs d'Umiujaq et de Kuujjuaraapik.

Au cours de ces deux phases (2001-2002), nous avons visité ou recueilli de l'information sur un échantillon de 193 sites. Ces derniers ont été classifiés en fonction de leur contenu, de l'étendue de la contamination et des risques qu'ils posent à l'environnement. Ainsi, 90 ont été confirmés comme étant des sites abandonnés d'exploration minière, parmi lesquels 18 ont été classifiés « majeurs », 27 « intermédiaires » et 45 « mineurs ». Parmi les 103 sites restants, 18 sites étaient utilisés à d'autres usages, principalement comme pourvoiries, et 85 étaient exempts de débris. Parmi ces derniers, 9 sites ayant déjà contenu des débris ont été nettoyés au milieu des années 1990 lors de projets effectués par les communautés. Cette classification est basée sur une liste de critères adaptés du *Système National de Classification des sites contaminés*. Elle tient compte de l'évaluation de la quantité de matériel et d'équipements présents sur les sites ainsi que de la nature et de l'étendue de la contamination des sols et de l'eau de surface.

Les sites majeurs comportent des bâtiments abandonnés, de l'équipement lourd, des barils d'hydrocarbures (dont certains contiennent des résidus) et des sols contaminés, alors que certains contiennent également des batteries et des transformateurs.

Basé sur le ratio de 90 sites abandonnés contenant des matières résiduelles attribuables aux activités minières provenant de l'échantillon de 193 sites inventoriés, on estime qu'il y aurait approximativement 275 sites abandonnés d'exploration minière au Nunavik, à partir des 595 sites potentiels de l'étude de GÉTIC en 2000. Ces sites

seraient répartis à peu près également entre la faille du Labrador et la région regroupant la faille de l'Ungava et la Baie d'Hudson. D'après notre inventaire, on estime qu'en surplus des 18 sites majeurs, 27 sites intermédiaires et 45 sites mineurs inventoriés, on peut s'attendre à l'existence d'un nombre supplémentaire d'environ 7 sites majeurs, 68 intermédiaires et 105 mineurs.

Le projet a permis de valider la méthode d'acquisition d'information combinant les données provenant de la science et du savoir traditionnel ainsi que les données issues des documents d'archives. Il a démontré que les informations provenant du savoir des informateurs étaient plus fiables que celles de la documentation du ministère des Ressources naturelles du Québec (MRNQ) dans les secteurs connus des communautés inuites et naskapie, mais qu'elles présentaient des limites dans les secteurs difficiles d'accès, présentant une topographie complexe ou lorsque se rencontrent des sites abandonnés depuis longtemps dans des territoires également utilisés à d'autres fins.

Une approche méthodologique visant à caractériser et prioriser les 403 sites miniers potentiels restants qui n'ont pas été validés est proposée.

Dans cinq des sites majeurs (K-28, K-61, KAW-35, TQ-1 et WB-9), il y avait des évidences d'activités récentes d'exploration minière. À ces sites, les résidus et débris associés aux activités précédentes n'ont pas été enlevés et aucune mesure de remédiation n'a été amorcée. Suite aux activités d'exploration, il faudrait s'assurer que les compagnies minières mettent en place des pratiques acceptables de démobilisation afin de protéger les fragiles écosystèmes arctique et subarctique.

Dans une perspective de remédiation, nous considérons qu'il est urgent et nécessaire d'entreprendre un programme de nettoyage sur les sites majeurs, étant donné le risque qu'ils représentent pour l'environnement et la sécurité publique. Les mesures de remédiation des sites intermédiaires et mineurs seront évaluées cas par cas et prendront en considération les priorités des communautés concernées. Ce rapport propose des recommandations générales pour un travail de restauration éventuel. En collaboration avec les gouvernements et les associations minières, un programme incluant un mécanisme de financement devrait être développé pour la remédiation des sites.

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1. INTRODUCTION

Abandoned mining exploration sites in the North represent a great concern across Canada. In September 2001, Federal, Provincial and Territorial Mines Ministers asked that a *National Orphaned/Abandoned Mines Advisory Committee* be created to study various issues and initiatives concerning the development and the implementation of remediation programmes across Canada.

This project is concerned with the area located north of the 55th parallel in Northern Québec, named Nunavik by the Inuit, within the Arctic and Sub-Arctic bioclimatic regions.

The impetus for the project is based on regional and community preoccupations, as expressed by the Kativik Regional Government (KRG), the Makivik Corporation (Makivik), the fourteen (14) Inuit villages and the Naskapi Nation of Kawawachikamach (NNK).

The present project integrates data by both western science and traditional knowledge, both of which are useful and effective tools. Following an inventory conducted in 1999 and 2000, the present project conducted in 2001 and 2002 assessed and prioritized a sample of abandoned mining sites, in view of planning for their remediation. Through a transfer of knowledge, skills and technology, the capacities of northern communities will be enhanced in the area of environmental management. Furthermore, site remediation will restore the environment and will protect the health of wildlife, which is part of Aboriginal subsistence food.

2. HISTORY

From the 1940's to 1980's, extensive mining exploration campaigns were carried out in Northern Québec above the 55th parallel, especially in the Labrador and Ungava Troughs. They were initiated in the Labrador Trough and oriented in a south-east–north-western direction, from Schefferville, near Labrador, to Kangirsuk, a village located on the western coast of Ungava Bay. In the 1950's, mining exploration activities were extended to the Ungava Trough, oriented east-west from Kangiqsujuaq, along Ungava Bay, to Hudson Bay. A third smaller region, located along the Hudson Bay coast between Umiujaq and Kuujjuaraapik-Whapmagoostui (formerly named Kuujjuaraapik), was also explored for its mining potential, but more for a more limited period of time.

On November 11, 1975, the signature of the *James Bay and Northern Québec Agreement* (JBNQA) (Québec, 1997), followed by the signature of the *Northeastern Quebec Agreement* (NEQA) on January 31, 1978 (Canada, 1983), provided environmental regulations regarding development projects including mining activities. Consequently, after 1976, mining companies were subject to more strict rules, obliging them to declare their activities to the Ministère des Ressources naturelles du Québec (MRNQ) and to remediate sites upon abandoning camps. Before 1976, some companies cleaned up the work and related sites when they left, while others abandoned them as is, leaving buildings, motors, core trays, drilling and heavy equipment (generators, compressors, bulldozers, etc.), petroleum tanks and barrels (some of which still contain residue), batteries, transformers, and chemical products. Some of these sites are in such a state that they could impact wildlife and, consequently, the diet of the Nunavik people.

On March 9, 1995, the *Loi sur les mines* was adopted by the Québec government. It concerns mining exploration and exploitation activities. The provisions concerning the remediation of the sites include Articles 232.1 through 232.11. The latter specifies that the Minister may decide to go beyond the norms stipulated by the preceeding articles and, therefore, "enjoin" the companies to clean up sites retroactively, with no time limit. However, as companies did not report their activities to MRNQ before 1976, it is impossible to identify those responsible for most exploration campaigns conducted in Nunavik before then (Duhaime and Comtois, 2002).

In the early 1990s, Inuit communities began to notice possible environmental contamination. In 1995, trappers reported dead foxes near the Lake Vaillant campsite. In 1997, more than 100 litres of highly toxic concentrated acid, generally used for chemical exploration, were discovered improperly stored in an area accessible to the local population 10 km south of the Katinniq mine. In 2000, abandoned dynamite was found close to Tasiujaq (Duhaime and Comtois, 2002).

In 1997, some Inuit municipalities undertook cleanup campaigns of old mining sites. Priority was given to those sites that were considered dangerous and easily accessible. Consequently, only a very small fraction of the sites known by the Inuit had been cleaned (Duhaime and Comtois, 2002). The cleanup of these sites remain an important concern for Inuit communities. In 1998, KRG tried to obtain some funding from the Québec Government to pursue the site cleanup. But both the number of sites and the

threat they pose to the environment were unknown (Duhaime and Comtois, 2002). It therefore became necessary and urgent to evaluate them.

In 1999, a pilot project, primarily funded by the EJLB Foundation and conducted jointly by KRG, Makivik, and GÉTIC (Laval University), was undertaken in a 50 km by 50 km area located 70 km west of Kangiqsujuaq in order to test three methods to inventory abandoned mining exploration sites. The three methods tested involved: 1) interviews with local key informants and archival data; 2) aerial surveys; and 3) satellite imagery. The project concluded that aerial surveys and interviews are the most reliable ways to map the sites, and that archival data help to complete the inventory. It specifies, however, that the characterization of sites requires a field survey by helicopter. In the area surveyed, 47 abandoned mining exploration sites were located on topographic maps (Duhaime and Comtois, 2000).

In 2000, a consultation within the 14 Inuit and the Naskapi communities, and of the existing MRNQ documentation revealed the possible existence of 595 abandoned mining exploration sites in Nunavik. Most of them are located in the Labrador and Ungava Troughs.

In 2001, the present two-year project was initiated. The KRG and Makivik are the project promoters and have contributed to it professionally and financially. Environment Canada, Environmental Protection Branch has participated professionally and financially in the project. Additional funding was provided through the *Northern Ecosystem Initiative* (NEI) of Environment Canada, the Ministère des Ressources naturelles du Québec, the Department of Indian Affairs and Northern Québec Canada (DIAND), and the Naskapi Nation of Kawawachikamach. GÉTIC provided data and technical support at the beginning of the study. Some Inuit, Naskapi and Cree informants participated in the field surveys.

In 2001, another one-year project was initiated through the NEI, but it is not included in this report. Its goal was to test the use of IKONOS Satellite imagery for the inventory of abandoned mining exploration sites in a portion of the 1999 Pilot Project area (Duhaime and Comtois, 2000). The promoters were KRG and Makivik. The project was funded by NEI, KRG, Makivik, and the *Département des sciences géomatiques*, Laval University. Hydro-Québec provided the IKONOS image (Pouliot *et al.*, 2002). GÉTIC provided some data to the *Département des sciences géomatiques*, which conducted the research.

3. GOALS

The present project was undertaken in order to validate the information on potential abandoned mining exploration sites in Nunavik, which was compiled and provided by GÉTIC (Duhaime and Comtois, 2002). More specifically, through aerial surveys and a field inventory of a sub-sample of the 595 potential sites, the objectives of this project were: to obtain a more accurate estimate of the total number of abandoned mining exploration sites in Nunavik; to get a precise location of the sites with a Global Positioning System (GPS); to describe their content (material, equipment, buildings, petroleum barrels and tanks, hazardous material, and chemical products); and to evaluate the extent of soil and surface water contamination.

Through data analysis, the project aims to classify the sites surveyed according to the extent and degree of contamination, using a validated methodology. In a perspective of future site remediation, the final objective was to prioritize the sites, according to the relative importance of their potential environmental impacts. Using our definition of mining sites, sites prospected for oil are also included in this study.

During the fieldwork and the analysis phase, the project aimed to provide training to Inuit and Naskapis on site evaluation, planning and execution of sampling activities, as well as site classification and prioritization based on an approved methodology.

Inuit and Naskapi communities have voiced the desire to see these sites cleaned up. Consequently, another objective was to evaluate the need and urgency of future cleanup interventions and to propose recommendations for the realization of site remediation. This report will serve as a reference document for KRG, Makivik, and the NNK, in order to pursue funding to carry out a cleanup programme of the contaminated sites.

4. METHODOLOGY

4.1 Reports and previous consultation with local communities

The pilot project conducted in 1999 by GÉTIC in a 50 km by 50 km area located 70 km west of Kangiqsujuaq localized 47 abandoned mining exploration sites on maps (Duhaime and Comtois, 2000).

A second study, conducted in 2000-2001 by GÉTIC, Laval University, identified some 595 potential abandoned mining exploration sites in Nunavik (Duhaime and Comtois, 2002). Some 379 of these sites were identified through interviews conducted by Mr Robert Comtois with local informants of the 14 Inuit and the Naskapi communities. The number of informants who participated in the project varied from 3 to 11 in each communities. The informants provided details on each site (quantity, type, and state of material and products; size of the site, etc.) and their localization on 1:250 000 and 1:50 000 scale topographic maps produced by the Department of Energy, Mines and Resources Canada. In order to avoid influencing the informants, these maps were free of information pertaining to mining. GÉTIC also focussed interviews in such a way as to locate sites with old mining equipment and wastes still present rather than clean sites or those used for other purposes. The information on the sites was recorded on a specific inventory sheet.

The informants defined a site as:

> "*the delimitation of a given site includes all pieces of equipment between which an adult can walk in under five minutes on this terrain; that is, all pieces of equipment located under 300 metres (1000 feet) from each other. Pieces of equipment located at a greater distance are considered to be part of a separate site*" (Duhaime and Comtois, 2000; 2002).

Most informants specified that their observations were limited by the snow cover present when they visited the sites and that, consequently, the precision regarding the description and the location of the sites was limited. Some informants delimitated circular or linear areas instead of point sites. Some sites more recent than 1976, or used for non-mining activities (outfitters, Hudson Bay Post, Hydro-Québec, etc), have also been identified.

The other 216 sites were identified through archival documentation such as the mining deposit maps and catalogues of the MRNQ, which served to dress the list of potential abandoned mining sites, mainly those existing before 1976. Two mining deposit categories were retained: *Prospect* or *Gisement* (Deposit). The first (*Prospect*) refers to work involving the evaluation of some dimensional parameters without an evaluation of the tonnage. The second (*Gisement*) requires a more important sampling effort that permits an evaluation of the tonnage.

GÉTIC attributed a distinctive alpha-numeric code to each site (Duhaime and Comtois, 2002). If the source was an informant, the first part of the code begins with the alphabetic code of his village. When the source comes for the catalogue of MRNQ, the first part of the code is the letter P (*Prospect*) or G (*Gisement*), followed by the

topographic map code and a number. Codes starting with K (data from aerial survey) or I (data from informants) were given to the sites surveyed during the Pilot project (Duhaime and Comtois, 2000).

GÉTIC indicated all potential sites on topographic maps (Duhaime and Comtois, 2002). The information provided by informants was noted on inventory forms. A print out of the data related to archival information was made for each site. This information became the basis for the present site validation project.

For the 2001-2001 project, new codes were attributed to some sites that were not identified during the previous surveys. One site was named P24F, while codes starting with the letters: KAN, PD, SAL, TA, TW, UM, and WHA were given to other new sites. Table 1 resumes the list of codes attributed to the sites, according to the informants or the closest village.

Table 1 Codes attributed to the sites

LABRADOR TROUGH	
Code beginning by	**Informant's village**
KAW	Kawawachikamach
PD, VP	Kuujjuaq
TA, TQ	Tasiujaq
PJ	Aupaluk
KG, TW	Kangirsuk
QC	Quaqtaq
UNGAVA TROUGH + HUDSON BAY	
Code beginning by	**Informant's village**
I, K, KAN, WB	Kangiqsujuaq
SAL, SW	Salluit
PH	Inukjuak
UD, UM, WHA	Umiujaq
GW	Kuujjuaraapik
MRNQ ARCHIVES	
Code beginning by	**Category**
P	*Prospect*
G	*Gisement* (Deposit)

4.2 Preliminary site selection

Budget and logistical constraints imposed a limit to the number of sites that could be visited in a two-year period. Due to the impossibility of visiting all the sites and in a perspective of optimal sampling, it was decided that all the sites considered as potentially major from the description provided by informants and a representative sample of the other potentially abandoned mining sites be visited. As most mining exploration campaigns were carried out in the Labrador and Ungava Troughs, the majority of the sites that were selected for the field surveys are located in these two regions. Some sites are also located between Kuujjuaraapik and Umiujaq along Hudson Bay coast (Map 1).

More precisely, the study area was divided in two parts: 1) the northernmost part of the Labrador Trough, and the Ungava Trough; and 2) the southernmost part of the Labrador Trough, and the coast of Hudson Bay (Map 1). The first part was surveyed in 2001, and the second in 2002. Each year, sub-sampling was carried out in the same manner. First, all the sites considered as "major", according to the description provided by the informants, were selected for a field inventory. The remaining sites (from informants and MRNQ) were then selected at random. A preliminary evaluation determined that it would be possible to visit a maximum of 55 sites in a season.

In 2001, GÉTIC determined the sample to be inventoried, based on all available information on the sites (informants, MRNQ documents and the 1999 aerial survey). As a result, the sample included 15 sites considered as major, and 30 as intermediate or minor sites. An additional list of 10 randomly selected sites was also provided, to visit if time and budget permit, or to replace some potential sites that would not be found or exist. The sites of the sample were located south of Kuujjuaq and Tasiujaq, west of Aupaluk, north of Kangirsuk, west of Kangiqsujuaq and south of Salluit.

In 2002, the sample was determined from the available information on the sites by both the project co-ordinator and the contaminant expert. The sample included 35 sites considered as major, and 62 considered intermediate or minor. The sample sites were located between Kawawachikamach and Kuujjuaq-Tasiujaq, and between Umiujaq and Kuujjuaraapik.

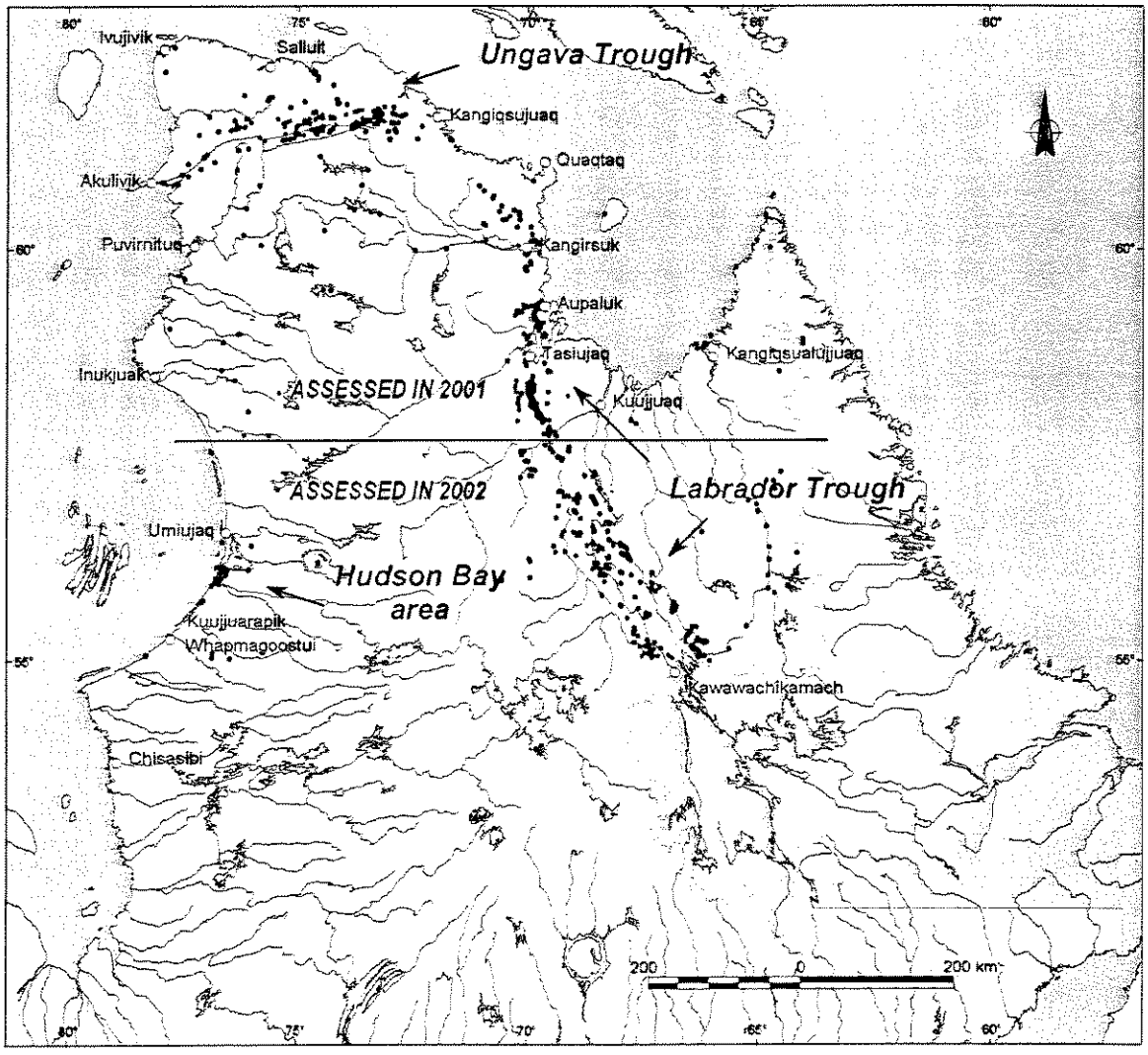
All the information required to conduct the site assessment (maps and site information) was provided to the project co-ordinator and the contaminant expert by GÉTIC. All the site coordinates are expressed in UTM in GÉTIC's report (Duhaime and Comtois, 2002) and transformed into Latitude and Longitude (Degrees, minutes) for use during the fieldwork.

4.3 Site assessment

The field team was composed of an expert in assessing material and equipment, a contaminants expert, a site assessor, a local informant (different from village to village), and the helicopter pilot.

4.3.1 *Site locating*

Before each fieldwork session, a sector to be surveyed was delineated on the maps. While in flight, both the maps and geographical coordinates were used to find the site. A local informant, participating in the field survey, helped in locating the sites. Moreover, some sites came from the information provided by the pilot. For each site validated, the exact geographical coordinates were noted using a GPS, and its description was noted.



Map 1 Location of potential abandoned mining exploration sites and division of the study region

Almost all sites , except two sites located along Hopes Advance Bay, were reached by helicopter. The others were accessed by boat and ATV (all terrain vehicle) from Aupaluk.

4.3.2 *Equipment, petroleum and chemical products*

Inventory data obtained from GÉTIC (Duhaime et Comtois, 2002) were validated in the field. To do so, a detailed inventory of the quantity and the nature of the material, equipment (buildings, machinery, tanks, barrels, hazardous material, etc.), and products (petroleum hydrocarbons, chemicals, etc.) found at each site visited was carried out. Appendix 1 presents an example of the data sheet used. All visible impacts on the environment were recorded, as well as the presence of sensitive areas (riparian zones, wetlands, etc.). To complete the above-mentioned information, a general sketch of the major sites was drawn to localize buildings, equipment, wood and metal debris, sensitive areas, and other objects that could potentially contaminate the environment. Photographs were also taken to accompany the written description. Appendix 2 presents photographs of several sites, and Appendix 9 presents the detailed description of the sites classified as major (Section 5.2).

The site inventory was made from the helicopter when its contents were easily visible and relatively small; in some cases, the informant provided additional information on the site (for example: on the content of the barrels [empty or containing residue]).

4.3.3 *Soil and surface water characterization*

During the field inventory, each site was inspected for soil contamination by petroleum hydrocarbons, heavy metals or PCBs (polychlorinated biphenyls). Particular attention was paid to contamination by petroleum hydrocarbons near and under buildings, tanks, drum piles, dumpsites, heavy equipment, equipment maintenance areas, etc. When a potentially contaminated area was observed, soil samples from the surface to the rock were taken and sent to a certified laboratory for petroleum hydrocarbons analysis (C_{10}-C_{50}). Soil sample depth varied with soil depth; it was generally 10 cm in the southernmost part of the area and 5 cm in the north. At some sites, when a contamination source was observed nearby, surface water was also sampled for petroleum hydrocarbons. The soil near and under batteries was sampled for lead (Pb) and mercury (Hg), and the soil under and near transformers was sampled for PCBs. The samples were also taken from the soil surface down to the rock for heavy metals (Pb and Hg) and PCBs.

Soil sampling and preservation of samples were carried out according to the CCME (1993) and MEF (1999) guidelines. Quality assurance and quality control analyses respected Environment Canada (1996) guidelines. A certified private laboratory, according to methodologies presented in Table 2, completed the analyses.

Table 2 Methodologies used for the analysis of the water and soil samples

Substance	Reference	Extraction method	Quantification method
Petroleum hydrocarbons (C_{10}-C_{50}) - Water	MA 410-Hyd. 1.0	Soxhlet extraction with hexane	GC/FID
Petroleum hydrocarbons (C_{10}-C_{50}) - Soil	MA 410-Hyd. 1.0	Soxhlet extraction with hexane	GC/FID
Lead - Soil	MENV 1990. Methods 90.05/210, 1.2 and 1.3	HNO_3 acid digestion	ICP
Mercury - Soil	Methods for mercury analysis in water, sediments, sludge, soils, biological liquids, air and hydrocarbons. MENV, BEST 1979	Digestion with $HCl+HNO_3+H_2SO_4$ and reduction with Sn^{2+}	AA cold vapour
PCBs - Soil	CGSB Method 164-GP-IMP 1987	Dichloromethan extraction	GC/MS

4.4 Site classification and prioritization

All information pertaining to equipment, products, waste, chemical and petroleum product containment, soil and surface water quality, as well as topographic and environmental data gathered from each site was rated according to an adapted version of the *National Classification System for Contaminated Sites* (CCME, 1992). In order to permit the ranking of the sites in regards to the importance of their degradation and soil contamination, this system was adapted to meet the evaluation needs of the Nunavik mining exploration sites. The classification of the sites was based on the criteria presented in table 3.

Since the object of this exercise was site prioritization, the non-discriminant criteria from the National Classification System were not taken into account and the scoring scale was adjusted to this particular situation.

For each site, a record form was used to tabulate the score attributed to each criterion of this list (Appendix 3). The classification and prioritization of the sites was a function of the total score they obtained, the highest scores being given to the largest and most polluted sites.

Table 3 Criteria used for the classification and prioritization of abandoned mining sites

Number of buildings; Number of hydrocarbon barrels and tanks, and scattering; Quantity and state of other chemical products; List and quantity of other equipment (heavy equipment, drilling equipment, compressors, generators, motors, etc.); Quantity of batteries and transformers; Quantity and scattering of waste; Area of contaminated soil; Containment of contaminants; Distance from the site to the nearest surface water; Distance from the site to the nearest sensitive environment; Site topography and run-off potential; Observed or measured contamination of surface water; Site accessibility; Potential for impact on drinking water supply; Adverse impact on humans or animals.

4.5 Mapping

The information on site location and classification was placed in an Excel file. The assessed sites were mapped according to their accurate location and final classification. MapInfo, a georeferenced cartographic software tool, was used for mapping. The numeric version of the maps allows for site research based on name, geographic reference or other geographic landmarks.

4.6 Training

During the fieldwork, training on planning and execution of sampling activities were provided to an Inuit environmental technician, from the KRG, by the project co-ordinator and the contaminant expert. After the completion of the fieldwork, training on site classification and prioritization based on an approved methodology was also provided to the Inuit technician.

4.7 Communication with the communities

In preparation for the fieldwork, communications with communities were made through KRG and Makivik. In each community visited, the Inuit technician, from the KRG, had the responsibility of meeting the community leaders and re-explaining the objectives of the project, the programme and its progress. Furthermore, in order to help locate the sites, the Inuit technician, with the assistance of the community leaders, was responsible for identifying one Inuit informant, from each community concerned who was familiar with the surrounding territory and mining sites, to participate in the fieldwork. Within the surroundings of Salluit further consultations with local informants

had to be conducted in order to pinpoint site locations that could not be found during the first sweep of the area. A second round of survey was then conducted after these consultations.

In the Kawawachikamach sector, the project co-ordinator, with the assistance of the Director General of the Naskapi Nation of Kawawachikamach, organized a meeting with the Naskapi informants who participated in the interviews performed by GÉTIC in 2001. They were shown the maps resulting from the consultation including all potential abandoned sites and the progress of the project was explained. They were asked to designate an informant to participate in the field survey. A Naskapi technical assistant also participated in the survey in the Kawawachikamach area.

In the Kuujjuaraapik sector, some Cree informants were consulted and one of them participated in aerial surveys in the areas of Kuujjuaraapik and Umiujaq.

5. RESULTS

The results of the present project were partly compared with the former GÉTIC's data (Duhaime and Comtois, 2002). However, we preferred to group and evaluate the 2001-2002 data in function of their geographic location and proximity to the villages instead of grouping them by the location of the informants, as presented by GÉTIC. This difference in the presentation of the results creates a significant bias, and is partly responsible for differences between our and GETIC's evaluation of the situation. Furthermore, in some cases, some individual sites identified by GÉTIC were considered in the present study as only one site, subdivided into several sectors (for example, Site PJ-1). This also caused a biais when comparing both projects.

5.1 Mining sites – Validation of available information

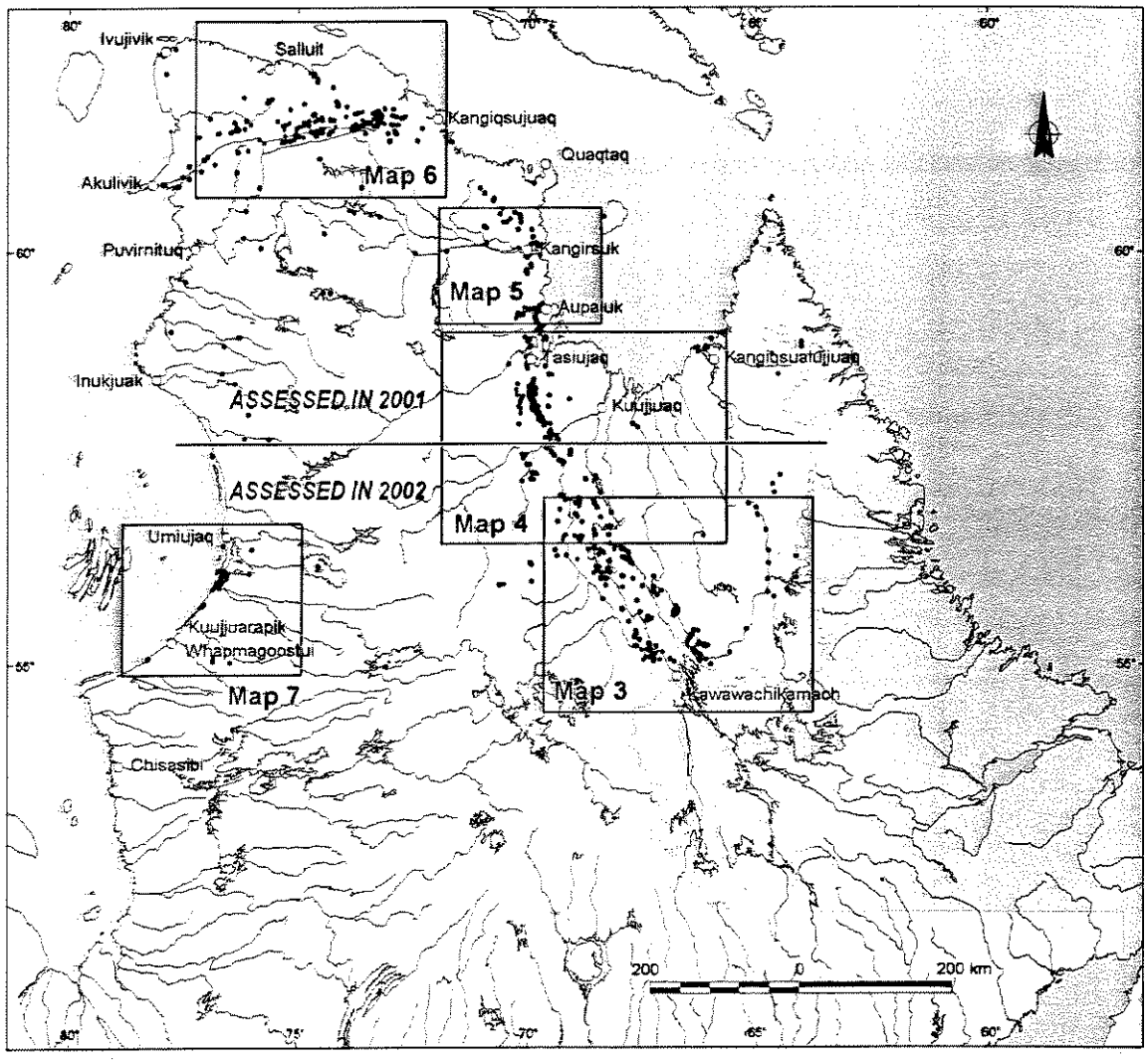
During the planning phase (Section 4.2), a total of 152 potential sites (55 in 2001, and 97 in 2002) were selected for field inventory and assessment. During the inventory, some of these sites were eliminated due to their remoteness or their low potential for containing a significant quantity of material. On the other hand, additional sites were surveyed for other reasons: upon recommendation of Inuit informants; because they were located along our flight path; or because they were seen while in flight. Finally, information was collected on a total of 193 sites (Maps 2 to 7).

In 2001, fieldwork was conducted from July 20-21 in the area of Tasiujaq, Aupaluk and Kangirsuk; from September 5-10 in the area of Kangiqsujuaq and Salluit; and from October 19-20 in the area south of Kuujjuaq and Tasiujaq. In 2002, it was conducted from September 10-12 in the south of the Labrador Trough and on September 25 in the Hudson Bay area.

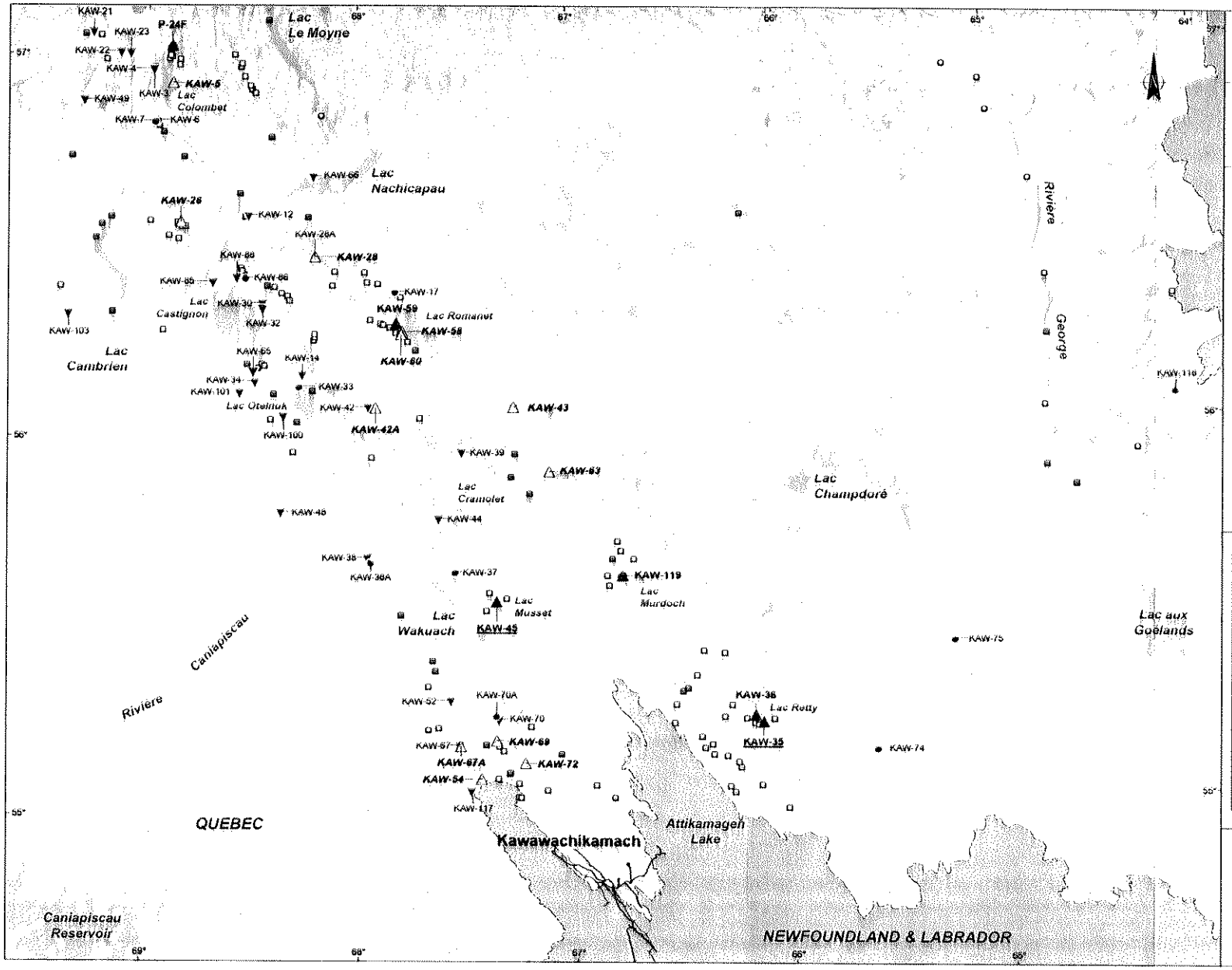
The overall survey required a total of 62.7 hours of helicopter flight over 14 days of fieldwork on the sites. These numbers do not include the travel time required from Montréal to Nunavik (project co-ordinator and contaminant expert), from one village to another, and some of the time spent on the territory while waiting for good weather.

The time that is required to conduct a complete inventory of a site depends on its size, its complexity as well as the quantity and nature of material and debris, and the extent of the soil contamination. Some very small sites with only a few items can be surveyed from the air with additional information provided by the informant, who, for example, may know whether the barrels are empty or contain residue. On other sites with many items (standing buildings and a diversity of material [barrels, mining and heavy equipment, waste, chemical products, etc.]), it was necessary to land and proceed with a ground inspection. Sites with petroleum-contaminated soil, batteries or transformers required the soil, and sometimes, surface water sampling.

In the case of very large sites, it was necessary to divide them into sectors in order to complete their inspection and inventory. For example, Site PJ-1 was divided in 9 sectors (Appendix 9); it represents four sites in the GÉTIC inventory (Duhaime et Comtois, 2000, 2002). The inventory of this site was distributed over two days, for a total of more than three hours of work.



Map 2 Map index



Assessment and Prioritization of Abandoned Mining Exploration Sites in Nunavik

Map 3

Abandoned Mining Exploration Sites near Kawawachikamach

Legend

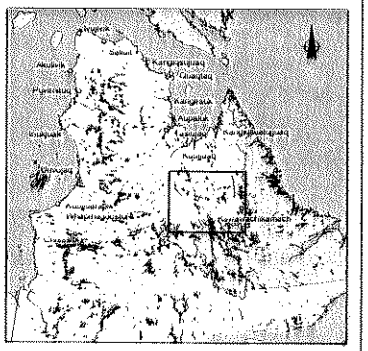
Assessed and Prioritized Sites

- KAW-1 ▲ Major
- KAW-1 ▲ Intermediate
- KAW-1 △ Minor
- KAW-1 ◆ Cleaned by a community
- KAW-1 ▼ No debris
- KAW-1 ● Other - not a mining site

Potential Sites *(Duhaime and Comtois, 2002)*

- Informants
- Archives
- Other - not a mining site

0 20 40 60 km

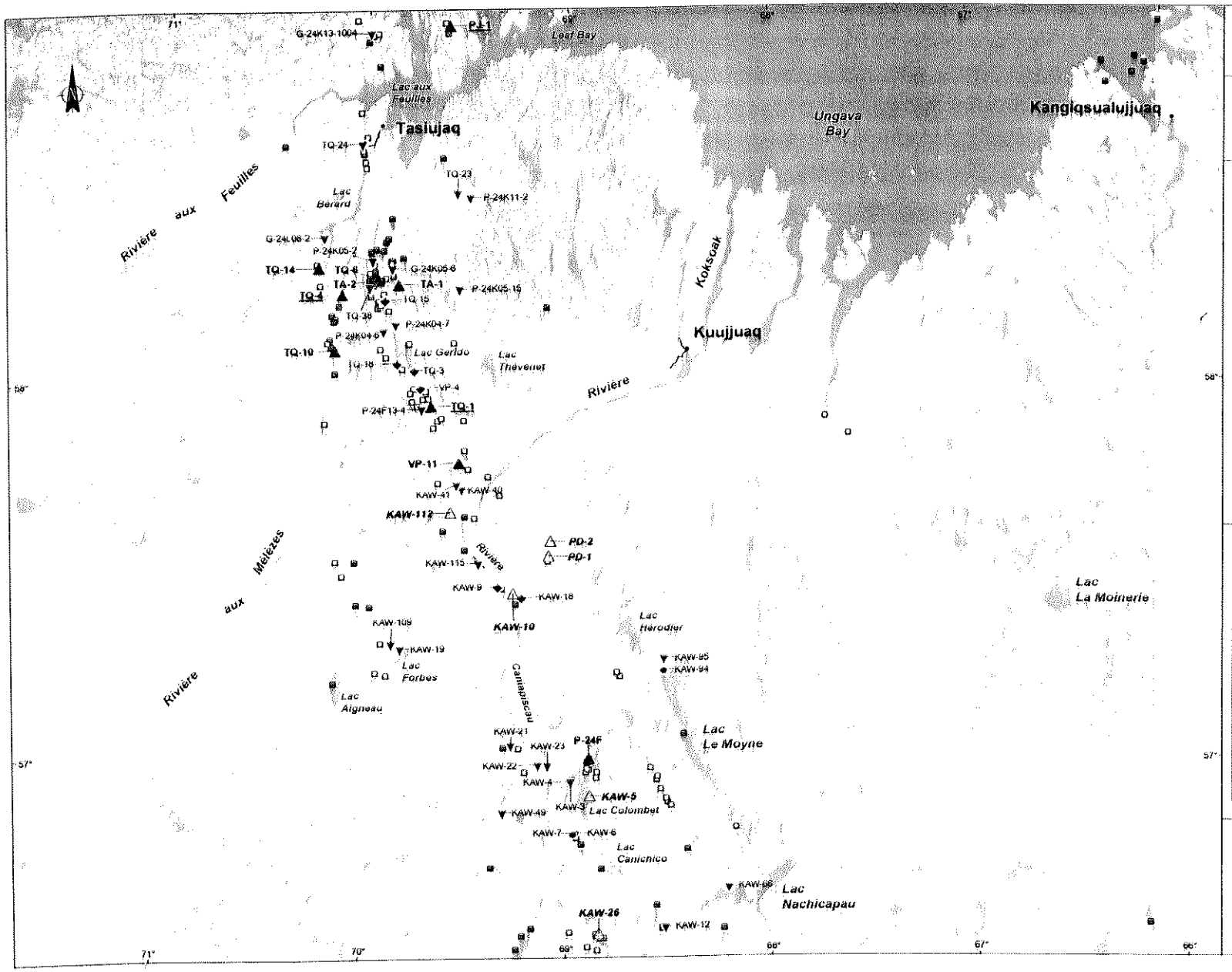


Sources

NTDB, 1 : 250 000, Permission from NRCan
Assessed and prioritized sites: Environment Canada, 2001 and 2002
Potential sites: Environment Canada, 2000
Lambert conformal conic projection, NAD83

Cartography realized by Carto-Media, 2003
Digital file: CM-61550103_kawawachikamach.mxd (2003-01-29)

January 2003



Assessment and Prioritization of Abandoned Mining Exploration Sites in Nunavik

Map 4

Abandoned Mining Exploration Sites near Kuujjuaq and Tasiujaq

Legend

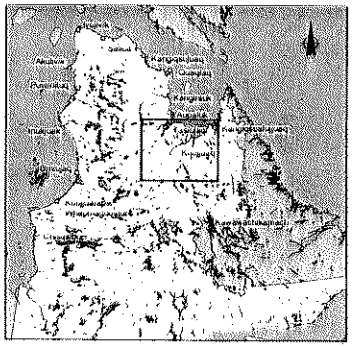
Assessed and Prioritized Sites

- KAW-1 ▲ Major
- KAW-1 ▲ Intermediate
- *KAW-1* △ Minor
- KAW-1 ◆ Cleaned by a community
- KAW-1 ▼ No debris
- KAW-1 ● Other - not a mining site

Potential Sites *(Duhaime and Comtois, 2002)*

- Informants
- Archives
- Other - not a mining site

0 20 40 60 km



Sources

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Assessed and prioritized sites: Environment Canada, 2001 and 2002
Potential sites: Environment Canada, 2000
Lambert conformal conic projection, NAD83

Cartography realized by Corbi-Media, 2003
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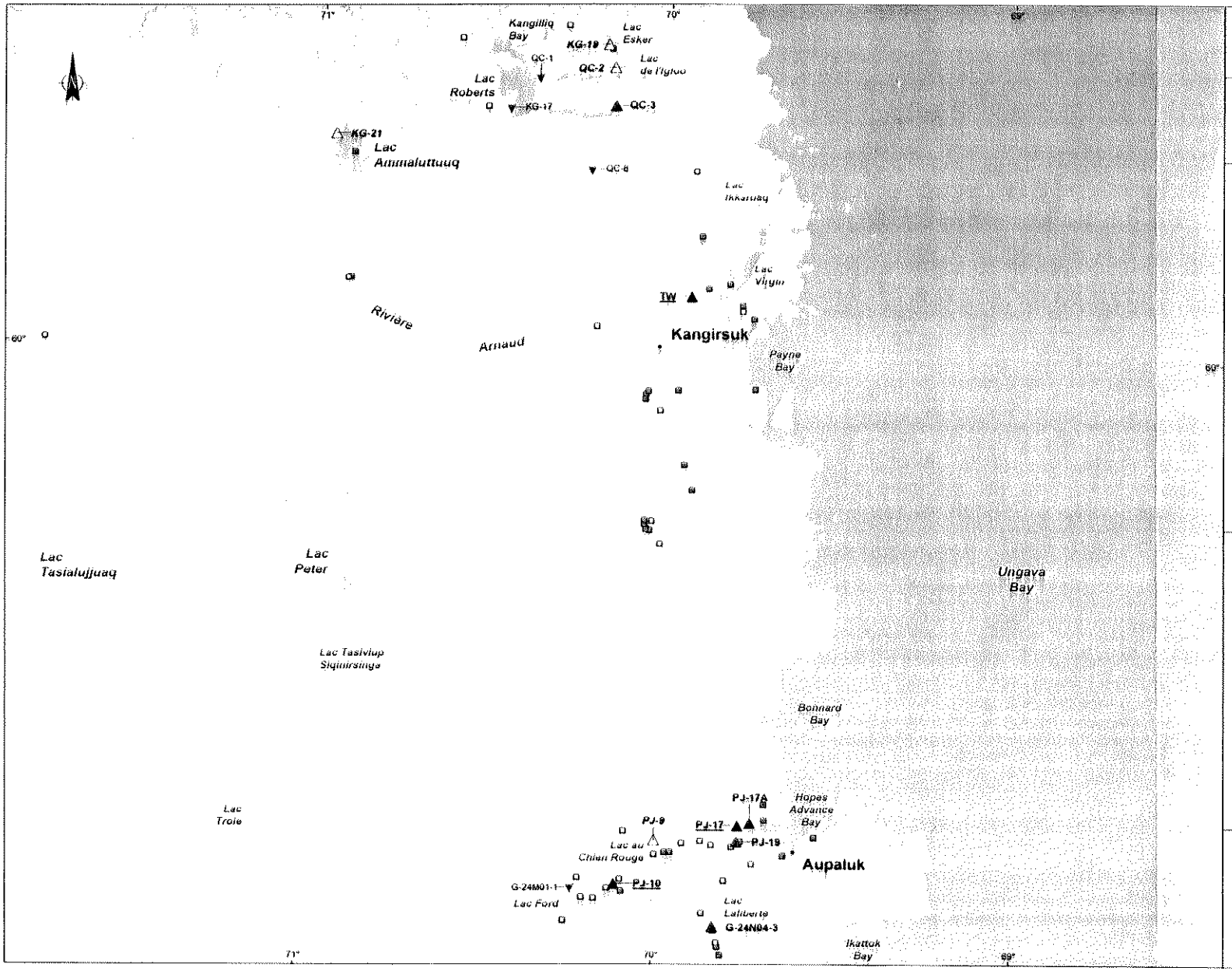
January 2003



Assessment and Prioritization of Abandoned Mining Exploration Sites in Nunavik

Map 5

Abandoned Mining Exploration Sites near Aupaluk and Kangirsuk

Legend

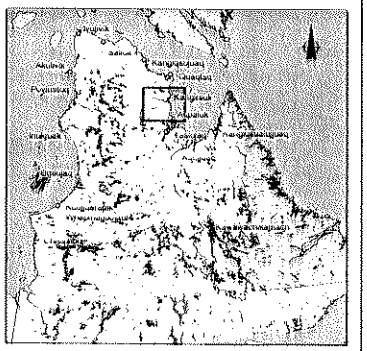
Assessed and Prioritized Sites

- KAW-1 ▲ Major
- KAW-1 ▲ Intermediate
- KAW-1 △ Minor
- KAW-1 ✱ Cleaned by a community
- KAW-1 ▼ No debris
- KAW-1 ✱ Other - not a mining site

Potential Sites *(Duhaime and Comtois, 2002)*

- Informants
- Archives
- Other - not a mining site

0 10 20 30 km



Sources

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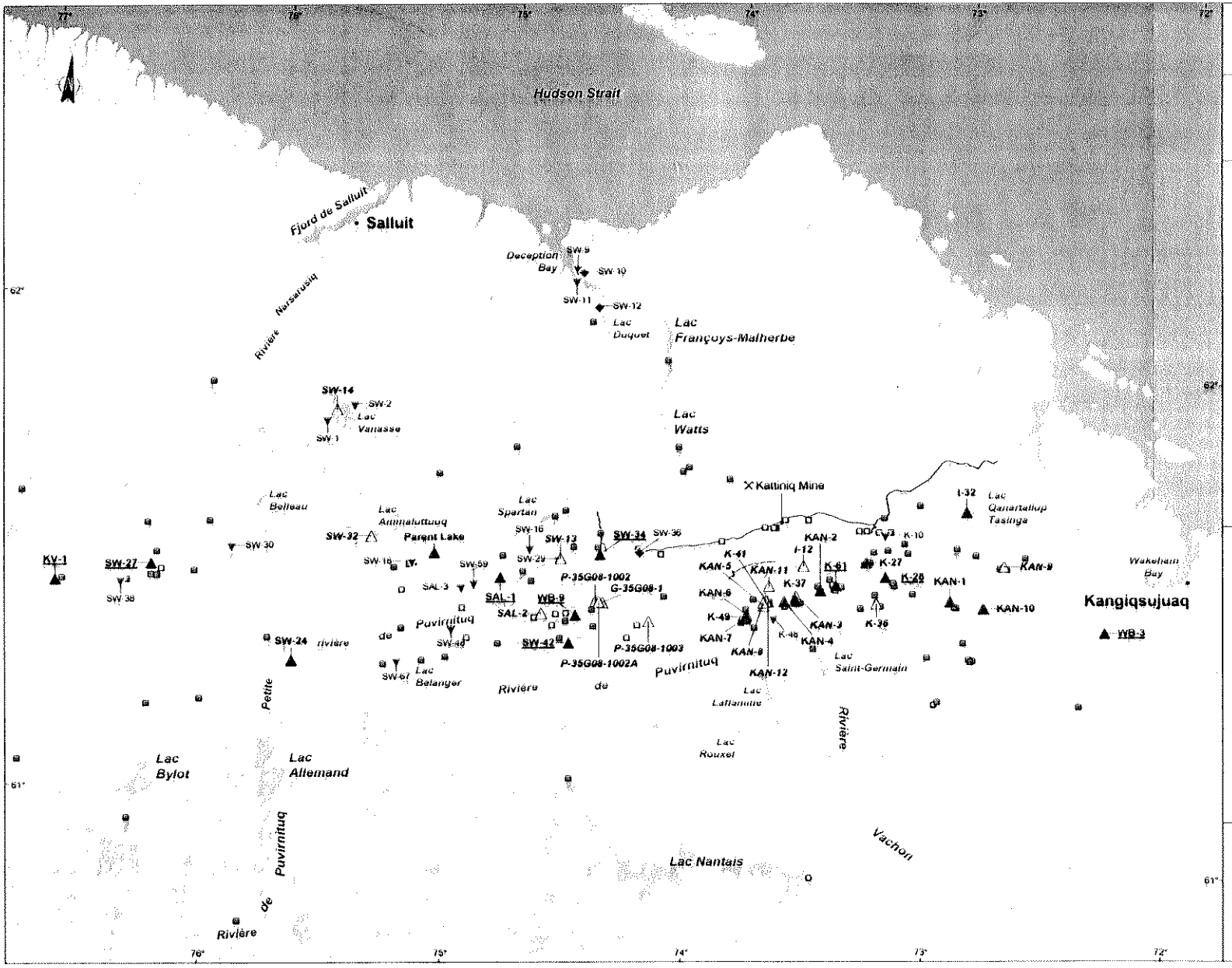
Assessed and prioritized sites: Environment Canada, 2001 and 2002
Potential sites: Environment Canada, 2000
Lambert conformal conic projection, NAD83

Cartography realized by Carto-Media, 2003
Digital file: CM 61550105_Aupaluk.mxd (2003-01-31)

January 2003



Assessment and Prioritization of Abandoned Mining Exploration Sites in Nunavik

Map 6

Abandoned Mining Exploration Sites near Kangiqsujuaq and Salluit

Legend

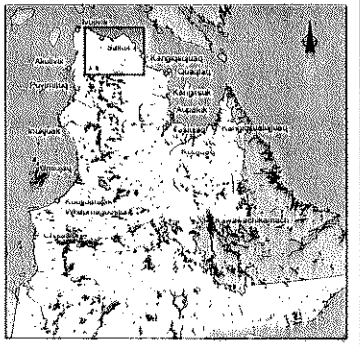
Assessed and Prioritized Sites

- KAW-1 ▲ Major
- KAW-1 ▲ Intermediate
- *KAW-1* △ Minor
- KAW-1 ◆ Cleaned by a community
- KAW-1 ▼ No debris
- KAW-1 ● Other - not a mining site

Potential Sites *(Duhaime and Comtois, 2002)*

- Informants
- Archives
- Other - not a mining site

0 15 30 45 km

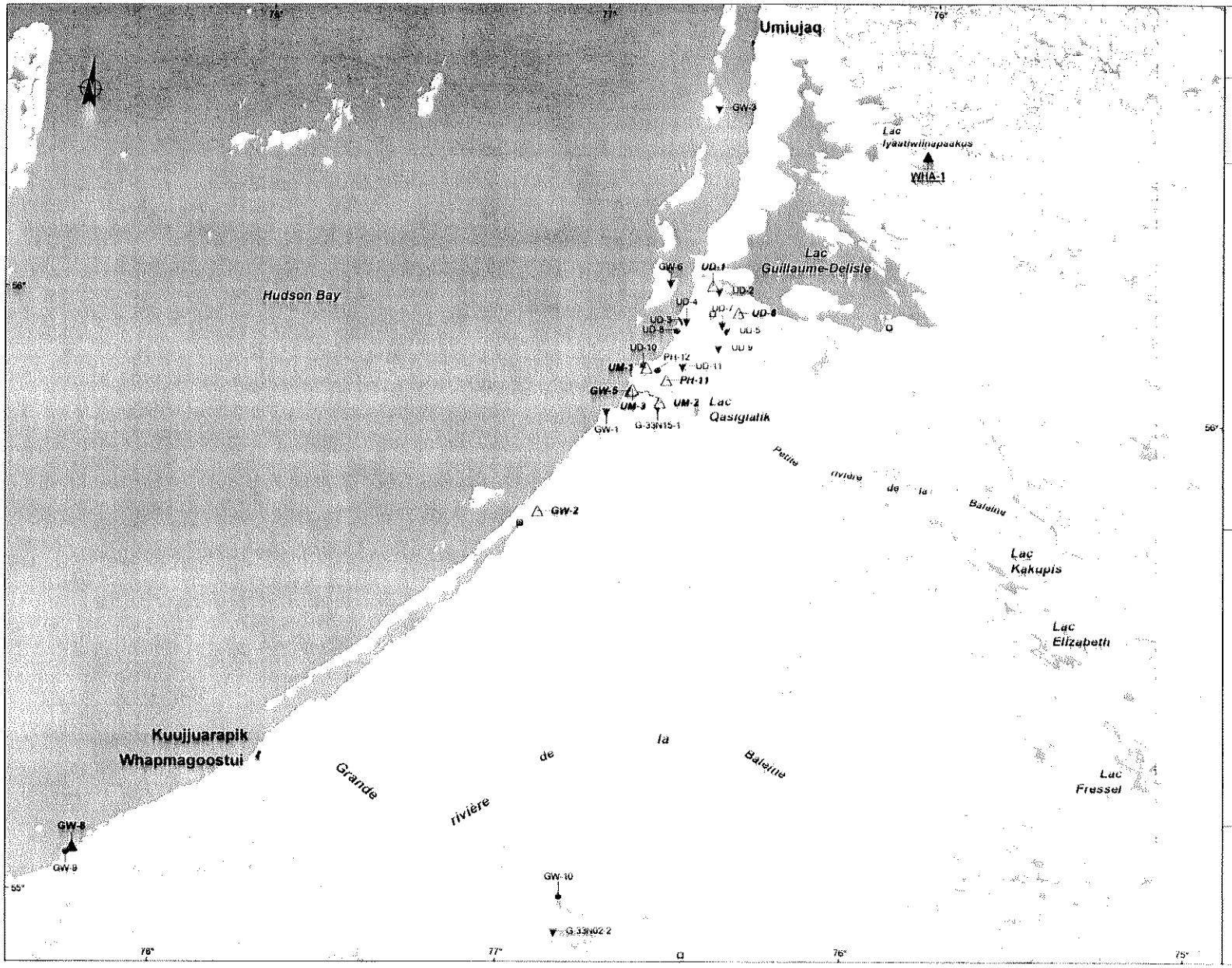


Sources

NTDB, 1 : 250 000, Permission from NRCan
Assessed and prioritized sites: Environment Canada, 2001 and 2002
Potential sites: Environment Canada, 2000
Lambert conformal conic projection, NAD83

Cartography licensed by Carto Media, 2003
Digital file: CM 01550106, Salluit.wor (2003-01-31)

January 2003



Assessment and Prioritization of Abandoned Mining Exploration Sites in Nunavik

Map 7

Abandoned Mining Exploration Sites near Umiujaq and Kuujjuarapik

Legend

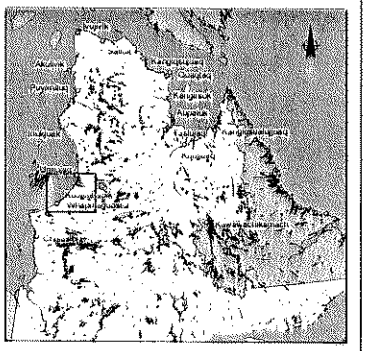
Assessed and Prioritized Sites

- KAW-1 ▲ Major
- KAW-1 ▲ Intermediate
- KAW-1 △ Minor
- KAW-1 ◆ Cleaned by a community
- KAW-1 ▼ No debris
- KAW-1 ● Other - not a mining site

Potential Sites *(Duhaime and Comtois, 2002)*

- Informants
- Archives
- Other - not a mining site

0 14 28 42 km



Sources

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Assessed and prioritized sites: Environment Canada, 2001 and 2002
Potential sites: Environment Canada, 2002
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Cartography realized by Carte Monde, 2003
Digital file: CM 01550107, Umiujaq.mxd (2003 01 31)

January 2003

Table 4 presents the results of our observations regarding the presence of previous mining activities at the sites visited. A total of 90 sites, i.e. 42 in the Labrador Trough (LT) and 48 in the Ungava Through-Hudson Bay region (UTHB), contained items related to mining activities.

Table 4 Number of sites with and without traces of previous mining activities *vs* source of information

Category	Information Source			Total number of sites
	Informants	MRNQ documents	Informants and MRNQ	
LABRADOR TROUGH (LT)				
Abandoned mining sites	36	5	1	42
No debris	39	-	10	49
Sites cleaned by communities	6	-	-	6
Other use	13	-	-	13
Total number of sites (LT)	**94**	**5**	**11**	**110**
UNGAVA TROUGH + HUDSON BAY (UTHB)				
Abandoned mining sites	43	1	4	48
No debris	24	1	2	27
Sites cleaned by communities	2	1	-	3
Other use	5	-	-	5
Total number of sites (UTHB)	**74**	**3**	**6**	**83**
Total number of sites (LT+UTHB)	**168**	**8**	**17**	**193**

A high proportion of potential site locations were actually clean areas, where no trace of mining equipment or waste was visible. Such was the case for 76 sites (49 in LT and 27 in UTHB) or 39% of the total number of sites (Table 4). Their location is provided in Appendix 4. These sites were relatively more frequent in the Labrador Trough where they represented 45% (49/110) of the total against 33% (27/83) in the UTHB.

In the Labrador Trough, most data leading to clean sites (33/49) was provided by informants from Kawawachikamach. It is important to mention that the Naskapi informants advised GÉTIC that they were not aware of the actual state of all sites, because many of them had last been seen several decades ago. This territory is more easily accessed than the northern part of Labrador and Ungava Trough and is more intensively visited and used for hunting and fishing. There are many outfitters in the territory. Based on our results and those conclusions made by GÉTIC (Duhaime and Comtois, 2002), it is likely that many abandoned sites that were recorded in past decades may have since been partially or totally cleaned or moved by mining companies or a third party. This is probably the reason for which we were unable to locate the sites.

In the UTHB region, half of the informant's data leading to clean sites (12/26) came from Salluit and about one third (7/26) from Umiujaq. The fact that information from these areas lead to clean sites may be due to the increased difficulty in accurately locating sites during visits made during the winter.

Furthermore, we were informed that many sites had been cleaned previously by Inuit communities. We observed this situation for 6 sites in the Labrador Trough (most around Gerido Lake in the Tasiujaq sector) and 3 in the Ungava Trough (in the Salluit sector) (Maps 4 and 6). The list of sites visited in 2001-2002 that had been cleaned by the community is presented in Appendix 5. According to GÉTIC (Duhaime and Comtois, 2002), cleanup campaigns of old mining sites had been conducted by the communities of Kangiqsualujjuaq, Kuujjuaq, Aupaluk, Kangirsuk, Kangiqsujuaq, Salluit, Akulivik and Inukjuak. We were informed on site that some cleanup had also been conducted by the Tasiujaq community.

Cleanup campaigns were also conducted by MRNQ on some prospecting and deposit sites. According to a former representative of MRNQ who conducted mining exploration campaigns in Nunavik a few decades ago, his team moved the empty barrels and waste to the closest municipal waste disposal sites and in southern Québec, leaving no trace of their passage when they quit (Claude Tremblay, pers. com). This practice may explain why we rarely found traces of former exploration activities on the sites identified from MRNQ archival documentation.

All sites used for other purpose than mining activities that we visited were located in the Kawawachikamach, Kuujjuaq or Hudson Bay regions (Appendix 6). Near Kawawachikamach and Kuujjuaq, we observed many active and abandoned outfitting camps, a former Hudson Bay Post and a cemetery. Near Hudson Bay we saw two old Inuit camps, a Mid-Canada Line Radar station, a plane wreck and debris thrown from a boat into the bay.

As shown in Tables 4, the assessment effort of the sites identified from MRNQ archives was greater in the Labrador Trough (16/110 or 15%) than in UTHB (9/83 or 11%). As suggested in Table 5, this bias was created by the higher exploration effort by MRNQ in the Labrador Trough, so that the total number of sites from MRNQ archives (216) was higher in this Trough (160 sites, or 74%) than in UTHB area (56 sites, or 26%).

Table 5 Estimated total number of abandoned mining sites in Nunavik

Source		Number of sites		
		Labrador Trough (LT)	Ungava Trough + Hudson Bay (UTHB)	Total (LT+UTHB)
Estimate from informants and MRNQ documents*	Informants	203	176	379
	MRNQ	160	56	216
	Total of potential mining sites	**363**	**232**	**595**
Estimate from the 2001-2002 field assessment	Informants	36	43	79
	MRNQ	5	1	6
	Informants + MRNQ	1	4	5
	Total sites classified as mining	42	48	90
	Total assessed sites	110**	83**	193**
	Mining vs assessed sites	*38%*	*58%*	*47%*
	Total of mining sites	**~139**	**~134**	**~273**

* (Duhaime and Comtois, 2002)

** From Table 4

However, on the basis of a two-year field assessment, the accuracy of the MRNQ source information was comparable to that from informants. As shown in table 5, 38% of the sites assessed in the Labrador Trough during the present project were related to mining activities compared to 58% in UTHB. Based on the present field assessment, if we transpose these percentages to the total number of potential abandoned mining sites estimated by GÉTIC (Duhaime and Comtois, 2002), there would be approximately 275 abandoned mining sites in Nunavik, divided almost equally between LT and UTHB (respectively 138 vs 135 sites).

This estimate differs considerably from GÉTIC's 595 sites, of which the two-third would be located in the Labrador Trough. This difference between both estimates could be partly explained by: the cleanup of some sites following mining campaigns (a situation not always known by informants); problems in precisely locating some sites in some areas of complex topography (which could have conducted differents informants to identify a potential site more than once); and the ancientness of the information (decades passed since the last visit). In some cases, the present study considered a large site as being only one site divided into many sectors, whereas GÉTIC identified

them as several sites (Duhaime and Comtois, 2000, 2002). Nevertheless, GÉTIC's data constituted a good initial source of information and was essential to the execution of the present assessment.

5.1.1 Distribution of the sites

In order to ease the cleanup of the assessed abandoned mining sites, they were ranked in relation to their proximity to the nearest village (Table 6; Maps 3 to 7). It is important to remember that the assessed sites represent only a portion of the sites present in the territory. The geographical coordinates of the 193 assessed sites are provided in Appendix 7. They are presented as follows: 1) in alpha-numeric order by topographic maps; 2) in alpha-numeric order by village; and 3) according to their category (major, intermediate, minor).

Table 6 Abandoned mining exploration sites presented in relation to their proximity to the nearest village (excluding clean sites)

Sector	Number of sites	Proximity to the village (from the closest to the farthest)
LABRADOR TROUGH		
Kawawachikamach	15	KAW-54, KAW-72, KAW-69, KAW-67A, KAW-36, KAW-35, KAW-45, KAW-119, KAW-63, KAW-43, KAW-42A, KAW-60, KAW-58, KAW-59, KAW-28
Kuujjuaq	7	KAW-112, PD-1, PD-2, KAW-10, KAW-5, KAW-26, P24F
Tasiujaq	9	PJ-1, TQ-6, TA-2, TQ-14, TQ-4, TQ-10, TA-1, TQ-1, VP-11
Aupaluk	6	PJ-17A, PJ-17, PJ-19, PJ-9, PJ-10, G-24N04-3
Kangirsuk	5	TW, QC-3, QC-2, KG-21, KG-19
Total	**42**	
UNGAVA TROUGH + HUDSON BAY		
Kangiqsujuaq	22	I-32, KAN-9, WB-3, KAN-10, KAN-1, K-28, K-27, K-36, K-61, KAN-11, KAN-2, I-12, KAN-3, K-37, KAN-7, KAN-4, KAN-12, K-41, KAN-8, KAN-5, KAN-6, K-49
Salluit	16	SW-14, SW-27, KV-1, SW-32, Parent Lake, SW-24, SAL-1, SW-13, SW-34, SAL-2, WB-9, SW-42, P-35G08-1002, P-35G08-1002A, G-35G08-1, P-35G08-1003
Umiujaq	8	WHA-1, UD-1, UD-6, UM-1,UM-2, UM-3, PH-11, GW-5.
Kuujjuaraapik	2	GW-8, GW-2
Total	**48**	

Most assessed mining sites are located in the "vicinity" of Kangiqsujuaq (22 sites) and Salluit (16 sites), in the Ungava Trough. Most are 100-200 km from the villages. They are not easily accessible by land; particularly from Salluit, being obstructed by hills and bodies of water. The access from Kangiqsujuaq is easier, particularly in winter, but still

difficult. The remoteness and difficulty of access may partially explain why exploration companies did not clean their campsites when they left.

Furthermore, outfitting camps being less abundant in the Ungava Trough than in the southern part of Nunavik, other activities like sport hunting and fishing are less frequent in this area. Also, fewer people are aware of the presence of these old mining sites. This helps explain why so much waste and mining debris are still in place in this area compared to the Labrador Trough and why a lower number of cleaning campaigns have reached these sites.

The southern part of the Labrador Trough also comprises many mining sites. Some 31 sites were seen within an area delimitated by the villages of Kawawachikamach (15 sites), Kuujjuaq (7 sites) and Tasiujaq (9 sites). This area includes sites PJ-1 and KAW-35, which were explored for their mining potential on an intensive basis for many years. They contain mine tailings, many buildings and dwellings, laboratories and a lot of heavy equipment and waste. Access to both sites is quite difficult, PJ-1 being separated from Tasiujak by Lac aux Feuilles and hills and KAW-35 being accessible from Kawawachikamach only in winter.

The northernmost part of the Labrador Trough and the Hudson Bay coast were less intensively explored for their mining potential. Consequently, we observed fewer traces of mining activities and mining wastes in the "vicinity" of Aupaluk-Kangirsuk, and Umiujaq-Kuujjuaraapik.

5.1.2 Recently used sites

In five of the major sites (TQ-1 and KAW-35 in the Labrador Trough, and K-28, K-61 and WB-9 in the Ungava Trough), we observed evidence of recent visits related to mining exploration activities: abandoned heavy equipment, chemical products, a lot of scattered debris, and contaminated soils.

5.2 Site classification and prioritization

Using the methodology described in Section 4.4, the mining sites were rated, classified and ranked. As a result, "major" sites obtained a score higher than 75, "intermediate" between 25 and 75, and "minor" less than 25. Amongst the 193 validated sites, 18 were assessed as major; 27 as intermediate; and 45 as minor (Tables 7 and 8). The scores are summarized in Appendix 8. The quantity of equipment and waste present on these sites and their environmental threat decreased with their decreasing score. The 103 remaining sites refer to clean sites or sites not related to mining activities.

The 18 major sites contain a lot of old machinery and equipment (up to >30 units), campsite debris (up to >500 m^3), diesel barrels (up to >1000), propane tanks and garbage (up to >100 m^3). Some also contain batteries and transformers, and a small quantity of chemical products. Most of these sites contained heavily contaminated soil (up to >125 m^3). These sites pose a risk to the environment and public safety.

In the 27 intermediate and the 45 minor sites, no trace of soil contamination was observed. They contain varying quantities of equipment and waste (higher in

intermediate than minor sites), and their environmental threat decreases with their decreasing score. As indicated in Table 4, 76 of the remaining sites were clean and showed no trace of previous mining activities, 9 had been cleaned by communities and 18 were attributed to other uses, mainly outfitting activities.

Table 7 Abandoned mining sites presented by decreasing rank (adapted from the CCME [1992] classification system)

Site Category	Number of sites	Sites by decreasing rank
LABRADOR TROUGH		
Major	8	PJ-1, PJ-17, TW, TQ-1, KAW-35, PJ-10, TQ-4, KAW-45
Intermediate	14	G-24-N4-3, VP-11, KAW-36, QC-3, TQ-14, TQ-6, P24F, KAW-119, TQ-10, PJ-17A, TA-1, TA-2, PJ-19, KAW-59
Minor	20	KAW-28, KAW-58, KAW-67A, KAW-54, PD-2, KAW-112, KAW-10, KAW-42A, KAW-5, KAW-72, PD-1, KG-19, PJ-9, KAW-63, KAW-43, KAW-60, KAW-26, QC-2, KAW-69, KG-21
UNGAVA TROUGH + HUDSON BAY		
Major	10	SW-34, WB-9, K-61, WB-3, K-28, SW-27, SW-42, KV-1, WHA-1, SAL-1
Intermediate	13	KAN-6, KAN-4, KAN-1, Parent Lake, SW-24, I-32, KAN-2, K-49, KAN-10, K-37, KAN-7, GW-8, K-27
Minor	25	SW-14, KAN-5, PH-11, GW-5, P-35-G8-1002, K-36, KAN-9, I-12, K-41, KAN-3, KAN-11, KAN-8, UM-1, SW-32, UM-3, GW-2, P-35-G8-1003, G-35-G8-1, SW-13, SAL-2 , KAN-12, P-35G08-1002A,UD-1, UM-2, UD-6

Table 8 Abandoned mining sites presented in relation to their proximity to the closest village and to their importance

Sector	Number of sites	Proximity to the village (from the closest to the farthest)
LABRADOR TROUGH		
Kawawachikamach	15	KAW-54, KAW-72, KAW-69, KAW-67A, *KAW-36*, **KAW-35**, **KAW-45**, *KAW-119*, KAW-63, KAW-43, KAW-42A, KAW-60, KAW-58, *KAW-59*, KAW-28
Kuujjuaq	7	KAW-112, PD-1, PD-2, KAW-10, KAW-5, KAW-26, *P24F*
Tasiujaq	9	**PJ-1**, *TQ-6*, *TA-2*, *TQ-14*, **TQ-4**, *TQ-10*, *TA-1*, **TQ-1**, *VP-11*
Aupaluk	6	*PJ-17A*, **PJ-17**, *PJ-19*, PJ-9, **PJ-10**, *G-24N04-3*
Kangirsuk	5	**TW**, *QC-3*, QC-2, KG-21, KG-19
Total	**42**	
UNGAVA TROUGH + HUDSON BAY		
Kangiqsujuaq	22	*I-32*, KAN-9, **WB-3**, *KAN-10*, *KAN-1*, **K-28**, *K-27*, K-36, **K-61**, KAN-11, *KAN-2*, I-12, KAN-3, *K-37*, *KAN-7*, *KAN-4*, KAN-12, K-41, KAN-8, KAN-5, *KAN-6*, *K-49*
Salluit	16	SW-14, **SW-27**, **KV-1**, SW-32, *Parent Lake*, *SW-24*, **SAL-1**, SW-13, **SW-34**, SAL-2, **WB-9**, **SW-42**, P-35G08-1002, P-35G08-1002A, G-35G08-1, P-35G08-1003
Umiujaq	8	**WHA-1**, UD-1, UD-6, UM-1,UM-2, UM-3, PH-11, GW-5
Kuujjuaraapik	2	*GW-8*, GW-2
Total	**48**	

Legend: **Major sites in bold**, *intermediate in italic and uderlined*, minor in regular letters.

For major sites, we correlated the previous information from GÉTIC (Duhaime and Comtois, 2002) with the 2001-2002 assessment classification (Table 9). Of the 26 sites preliminarily qualified as major based on the description provided by informants, the field assessment allowed us to rank them as follows: 7 major sites, 4 intermediate, 3 minor, 6 clean (no trace of previous mining activities), 2 previously cleaned by Inuit communities, and 4 as being used for other purposes than mining. We also assessed as "major" 11 other sites that had not been preliminary qualified as such from the description provided by the informants.

From this comparison, we noted that the location and evaluation of the sites around Kangiqsujuaq and Aupaluk were more accurate than for other sectors. This could be explained by better current knowledge of the area due to easier snowmobile access to the land near these two villages.

Table 9 Classification of those sites preliminarily qualified as major

Potentially major sites based on previous information	2001-2002 Classification
LABRADOR TROUGH	
Kawawachikamach	
KAW-17	Other use – not a mining site
KAW-33	Other use – not a mining site
KAW-34	Clean site – no trace of previous mining activity
KAW-35	Major site
KAW-36	Intermediate site
KAW-43	Minor site
KAW-48	Clean site – no trace of previous mining activity
KAW-118	Other use – not a mining site
Kuujjuaq	
KAW-6	Other use – not a mining site
KAW-26	Minor site
KAW-109	Clean site – no trace of previous mining activity
Tasiujaq	
PJ-1	Major site
TQ-4 (VP-2)	Major site
TQ-10	Intermediate site
VP-4 (TQ-2)	Cleaned by the community
VP-11	Intermediate site
Aupaluk	
PJ-10	Major site
PJ-17	Major site
UNGAVA TROUGH + HUDSON BAY	
Kangiqsujuaq	
K-28	Major site
Salluit	
SW-13	Minor site
SW-18	Clean site – no trace of previous mining activity
SW-24	Intermediate site
SW-27	Major site
SW-36 (G-35G09-3)	Cleaned by the community
SW-48 (P-37G07-4)	Clean site – no trace of previous mining activity
SW-59	Clean site – no trace of previous mining activity

Some areas located south of Salluit were less accessible and less known by Inuit communities. The potential for finding abandoned mining sites was rather high south of Salluit, but topographic complexity increased the difficulty of aquiring accurate location on information about the sites from the informants. We must add that informants did mention to GÉTIC (Duhaime and Comtois, 2002) that most sites were seen in the winter and that both the description and location could be imprecise. The landscape is confusing and benchmarks are rare. A relatively low number of sites were found during the aerial surveys in this area. In some instances, there was no material or debris at the locations indicated by informants. In other cases, the material or debris described were erroneously located, and found at a different location during the aerial surveys, while some site were not found.

In the southernmost part of the Labrador Trough, the increased age of the sites and their later use as outfitting camps could explain a part of the divergences between the two data sets. As discussed earlier, this territory is more easily accessed than the northern part of Labrador and Ungava Troughs and is more intensively visited and used for hunting and fishing. More people know that territory. These particularities and the results of the present field evaluation suggest that, as proposed by GÉTIC (Duhaime and Comtois, 2002), in the past, many mining sites dating from many decades, (particularly in the Kawawachikamach sector), may have in fact existed and may have been partially or totally cleaned by the mining companies or a third party, or their content may have been moved after the mining exploration campaigns.

Finally, let us recall that the informants provided site descriptions according to their own value scale and the memories that they have of an area often seen several years or decades previously, usually during the winter. Additionnally, the information given varies considerably from one individual to another. This led to a greater variability in the preliminary classification of the sites than the one obtained by the method used for this project. This method attributed a site score based on a list of objective, predefined criteria, a standard rating and a detailed description of the sites assessed during the field survey.

Based on our estimate, the total number of potential mining sites would be 275. We might expect to find another 7 major sites in addition to the 18 already inventoried. A total of 27 intermediate and 45 minor sites were inventoried in this survey and we might expect to find approximately 68 additional intermediate and 105 minor sites. Our projections stand from a quasi-random sample: 26 sites being potentially major were selected for a visit, while the others were selected at random. Of these 26 sites, only 7 were classified as major while the 11 others were found from the random sample. This method of sampling was taken into consideration to make our projections.

5.3 Site assessment

The following section presents successively the results regarding the soil and surface water contamination and the description of the material present at the sites.

5.3.1 Soil and surface water contamination

The MENV (1999) has established criteria to be followed as guidelines in view of soil

decontamination. The "A criterion" permits unrestricted use; the "B criterion" corresponds to an acceptable contamination limit for ground that would be used for residences, recreation or institutions; the "C criterion" corresponds to an acceptable contamination limit for ground that would be used for commerce and industry. Soil contaminated over the B or C criteria could represent a risk for the population depending on its projected use or a risk for the environment and wildlife depending on its location and other factors. The following results will focus on the contaminated soil over the B and C criteria. Appendix 9 presents a descriptive file of each site including the analytical results of soil contamination. Quality assurance and quality control results are presented in Appendix 10.

Soil samples were taken from 24 sites where contamination with petroleum products, batteries or transformers was suspected. Only 16 sites had soil contaminated above the MENV B criterion (Table 10): 13 were contaminated with petroleum hydrocarbons and 3 with both petroleum hydrocarbons and heavy metals (lead).

Table 10 List of sites with soil contamination above the MENV B criterion

Sector	Number of sites	Proximity to the village (from the closest to the farthest)
LABRADOR TROUGH		
Kawawachikamach	2	**KAW-35, KAW-45**
Tasiujaq	2	**PJ-1*, TQ-1**
Aupaluk	2	**PJ-17, PJ-10**
Kangirsuk	1	**TW (Twin Lake)**
Total	**7**	
UNGAVA TROUGH + HUDSON BAY		
Kangiqsujuaq	3	WB-3, **K-28, K-61**
Salluit	5	**SW-27,** KV-1, **SW-34, WB-9, SW-42**
Umiujaq	1	**WHA-1**
Total	**9**	

* Sites in **bold** contain contaminant (hydrocarbons + lead in two sites: PJ-17 and SW-34) concentrations above the MENV C criterion.

A total of 599 m^2 of contaminated soil was detected on these sites (table 11). On average, the soil contamination was 10 cm deep. The largest areas were present within 5 sites. Three of these were observed in the Labrador Trough (KAW-35, PJ-1, PJ-17) and two in the Ungava Trough (K-61, SW-34). All were heavily contaminated by petroleum hydrocarbons (Appendix 9), while two sites (PJ-17 and SW-34) were also heavily contaminated by lead (Pb) (under batteries). But the total area contaminated with lead was only 2 m^2.

Petroleum hydrocarbons are by far the main contaminants on these sites and they contaminate large areas. Soil contamination by hydrocarbons was found close to and under tanks, barrels and pails. It was also frequently observed under and along dwellings, where petroleum barrels were connected to stoves, under garages and generators buildings where equipment maintenance was done. Areas contaminated over the MENV C criterion were easily recognizable visually on site. Soil contamined by lead and, to a lesser degree, by mercury was found under old batteries. No soil contaminated with PCBs was detected under the 3 transformers that were seen during the inventory. Soil contamination by heavy metals, such as lead and mercury, and by PCBs was only detectable by laboratory analysis.

Petroleum products are a mixture of more than 50 compounds (alkanes, cycloalkanes, alkenes, alkylbenzenes, polynuclear aromatic hydrocarbons, trace metals and possible additives), some of which are known to be carcinogenic and teratogenic to wildlife and human beings. Lead is also a toxic to wildlife and humans. For these substances, environmental risks increase with contaminant concentration in soil and the size of the contaminated area.

Surface water samples were taken at 9 sites for petroleum hydrocarbons. These samples, taken in close proximity to the contaminated soils, were not contaminated by hydrocarbons. Water bodies were large in comparison to the size of the contaminated soil area, and the dilution phenomena may explain the absence or quasi-absence of petroleum hydrocarbons in surface waters.

Table 11 Nature of the soil contaminants and size of the contaminated areas

Sites	Nature of the contaminants	Contaminated area (m^2)
LABRADOR TROUGH (LT)		
PJ-17	Petroleum hydrocarbons + Lead	125
PJ-1	Petroleum hydrocarbons	115
KAW-35	Petroleum hydrocarbons	103
PJ-10	Petroleum hydrocarbons	20
KAW-45	Petroleum hydrocarbons	2
TQ-1	Petroleum hydrocarbons	2
TW (Twin Lake)	Petroleum hydrocarbons	2
Total LT		**369**
UNGAVA TROUGH + HUDSON BAY (UTHB)		
SW-34	Petroleum hydrocarbons + Lead	90
K-61	Petroleum hydrocarbons	75
WB-9	Petroleum hydrocarbons	25
K-28	Petroleum hydrocarbons	15
SW-42	Petroleum hydrocarbons	12
WHA-1	Petroleum hydrocarbons	6
SW-27	Petroleum hydrocarbons	2.5
WB-3	Petroleum hydrocarbons	2.5
KV-1	Petroleum hydrocarbons	2
Total UTHB		**230**
Total LT + UTHB		**599**

5.3.2 Equipment, petroleum and chemical products

The following sections (5.3.2.1 and 5.3.2.2) present a summary of the content of sites in the Labrador Trough and the Ungava Trough-Hudson Bay region, respectively. In each region, the sites are presented by sectors, and by category (major, intermediate and minor). For major sites, a short description is given for the site after each corresponding table. Appendix 9 provides the detailed description and some photographs of the material present at the major sites, and Appendix 2 presents some photographs of major, intermediate and minor sites.

5.3.2.1 Labrador Trough

This section will present the description of the sites of the Labrador Trough, within the following five sectors: Kawawachikamach, Kuujjuaq, Tasiujaq, Aupaluk, and Kangirsuk. Detailed descriptions of major sites and photographs of most sites are provided in Appendices 2 and 9.

In the Labrador Trough, most sites (38 ie. 93% of the sites with items) contained hydrocarbon barrels and many (34 ie. 83%) had scattered waste. Furthermore, 17 sites (41%) contained heavy equipment (vehicles, mining exploration machinery, tanks, etc) and 12 (29%) had at least one building or dwelling. Chemical products were present on 8 sites (20%), batteries on 3 (7%) and transformers on 2 (5%); these latter were present only on major sites. In general, the sites with dwellings also contained the greatest quantity of other equipments, waste and barrels.

5.3.2.1.1 KAWAWACHIKAMACH SECTOR

This section presents the description of the content of the major, intermediate and minor sites in the Kawawachikamach sector.

- **Major Sites**

Two sites qualified as major, KAW-35 and KAW-45, were assessed in the Kawawachikamach sector. Their description is provided below.

Site KAW-35

Dwellings (qty)	Heavy equipment (qty)	Hydrocarbons and other products (qty)	Batteries and trans-formers (qty)	Pipes/ core trays/ wood (m^3)	Waste (m^3)	Contaminated soil surface (m^2)
19	1 muskeg 1 insulated tank (in a shed) furnaces, water heaters motors (generators) 1 trailer 1 large sled	Diesel barrels: >1000 total >6 full (>1200 L) >200 with residue : ? L 6 X 4400-L diesel reservoirs: empty Plastic bottles: Hydrofluoric acid 4%; 3 empty 10 full: 5 L 3 with residue: 10 ml Pails: 5 x 20-L: full or residue of biodegradable degreasing solvent dry extinguishers	3 batteries	500+ (including buildings)	100+	103

Site KAW-35 is well known by Naskapi informants. It is located near Retty lake at about 60 km E-N-E of Kawawachikamach and Schefferville (Map 3) and it covers about 0.15 km^2. Three sectors were identified during the field inventory. The first one comprises 7 house trailers containing various equipment (furnaces, beds, toilets, motors, fire extinguishers, water heater, etc.) and 9 other buildings. An approximate 1000 barrels in total, including 6 full of diesel (1200 L) and at least 200 containing residue (perhaps at least 2000 L), are present on the site, from which about 900 barrels are located near the lake, including 5 that are full of diesel. Bottles containing Hydrofluoric acid 4% (total of ~5 L) were found in a small building. Sector 1 also contains various debris including five 4400-L tanks, a large insulated tank in a shed, 3 batteries, antennae, wires, pipes, metal and wood debris, a muskeg, a large sled, a large quantity of wood core trays, pails with biodegradable solvent, etc. The total soil contamination area is estimated at 103 m^2 (Table 11; Appendix 9). Water samples were not contaminated. Sector 2 contains mine tailings and a garage, while Sector 3 includes 2 house trailers and a 4400-L tank. **Considering the proximity to the lake of numerous barrels, the presence of bottles containing acid, and the huge quantity of buildings and debris, the cleanup of this site is a priority in a perspective of remediation for public and environment safety.**

The opening of this site occurred in September 1987, according to hard hats found with the inscription "D'ORVAL Mines Ltd, Opening Sept. 1987". Envelopes are identified with a letterhead: "Compagnie de gestion minière Louvicourt Ltée, Val d'Or". (Appendices 2 and 9).

Site KAW-45

Dwellings (qty)	Heavy equipment (qty)	Hydrocarbons and other products (qty)	Batteries and trans-formers (qty)	Pipes/ core trays/ wood (m^3)	Waste (m^3)	Contaminated soil surface (m^2)
5	-	Diesel barrels: 2 empty 3 with residue: 30 L 7 unknown content 1 X 4-L Naphta: empty	-	15+	5+	2

Site KAW-45 is located about 30 km W-N-W of Kawawachikamach and Schefferville near Musset lake (Map 3). It was divided into 2 sectors, the first one comprises 3 wood platforms, a shed, a wood cabin, an outhouse, a total of 5 barrels (2 near the shore) with 3 containing residue of diesel (~30 L), and various debris (wood, plastic hoses, carpet, styrofoam); there is an open rusted barrel in the lake (Appendices 2 and 9). The second sector include 7 barrels on the opposite shore where 2 m^2 of soil is highly contaminated by petroleum hydrocarbons (Table 11).

- **Intermediate sites**

Three sites, KAW-36, KAW-59, and KAW-199 were assessed as intermediate sites in the Kawawachikamach sector (Map 3). Their description is provided in the following table. All sites contain wood platforms, barrels and various debris.

Site N°	EMRC Map Reference	Latitude North	Longitude West	Description
KAW-36	23O/8	55° 15.02'	66° 09.46'	32 barrels, 1 wood platform, plastic core boxes ($10m^3$), drill pipes, wood debris, metal debris, dump with cans ($2m^3$), old outhouse.
KAW-59	24B/5	56° 17.80'	67° 49.00'	4 wood platforms, 3 barrels, pipes, metal debris, 1 stove, 1 tarp, 1 recent canoe.
KAW-119	23O/10	57° 37.48'	66° 45.77'	17 barrels, 2 wood platforms, 1 stove, no drilling equipment seen; 1 isolated barrel on the other side.

- **Minor sites**

The description of the ten minor sites assessed in the Kawawachikamach sector (Map 3) is provided in the following table. Most of them contain barrels and various debris.

Site N°	EMRC Map Reference	Latitude North	Longitude West	Description
KAW-28	24C/8	57° 28.27'	68° 11.97'	2 barrels, stove, small dump, 1 piece of drum, water heater, wood debris.
KAW-42A	24B/4	56° 04.54'	67° 54.89'	Old wood platform, 1 barrel, small dump.
KAW-43	24B/3	56° 04.43'	67° 15.96'	2 barrels, small barrels, aluminium core trays ($1m^3$), metal debris, cans.
KAW-54	23O/3W	55° 05.67'	67° 25.79'	17 barrels near the lake and the wetland.
KAW-58	24B/5	56° 16.45'	67° 47.21'	9 barrels near the shore, aluminium core trays ($1-2m^3$).
KAW-60	24B/5	56° 16.07'	67° 47.53'	2 barrels, 1 trench, wood debris ($1m^3$). Far from the lake.
KAW-63	23O/14	55° 54.17'	67° 06.03'	3 barrels, 3 wood platforms, wood debris ($1-2m^3$), metal debris ($2-3m^3$), 1 furnace.
KAW-67A	23O/4E	55° 10.89'	67° 31.49'	3 barrels near a trail. 1 base of a diesel tank in a stream.
KAW-69	23O/3W	55° 11.75'	67° 21.51'	Piled plywood sheets ($2m^3$).
KAW-72	23O/3E	55° 08.10'	67° 13.65'	4 barrels in the lake, old wood platform, 1 tipi.

5.3.2.1.2 KUUJJUAQ SECTOR

There were no major sites assessed in the Kuujjuaq sector. The following tables provide the description of the content of the intermediate and minor sites assessed in this sector.

- **Intermediate sites**

Only one site, P-24F, was assessed in the Kuujjuaq sector (Map 4). Its content is described in the following table.

Site N°	EMRC Map Reference	Latitude North	Longitude West	Description
P-24F	24F/2	57° 01.54'	68° 53.20'	3 wood platforms (6m^3), 44 empty barrels, one barrels with ~10 L diesel, 2 small barrels with ~20 L diesel, 6 X 1-L empty Aviation oil cans, 2 empty pails, empty cans of "Raid", 2 small propane tanks, 2 stoves, stove pipes, cans, roofing (<1m^3), bottles, beer cans, 1 double outhouse, plastic, 1 canoe, wood debris (1-2m^3), aluminium core trays (1-2m^3).

- **Minor sites**

The description of the six sites assessed in the Kuujjuaq sector (Map 4) is provided in the table below. Most sites contain barrels and various debris.

Site N°	EMRC Map Reference	Latitude North	Longitude West	Description
KAW-5	24C/15	56° 55.67'	68° 52.92'	5 barrels, 1 dwelling, dump.
KAW-10	23O/8	57° 27.76'	69° 15.49'	2 wood platforms, metal debris, core boxes (1 km south).
KAW-26	24C/10	56° 33.84'	68° 50.32'	12 or more barrels which are scattered within a large area.
KAW-112	24F/12	57° 40.68'	69° 34.16'	1 large tank, metal and wood debris, few barrels at >500m from water.
PD-1	24F/3	57° 33.79'	69° 05.10'	8 barrels, 1 wood platform.
PD-2	24F/3	57° 36.15'	69° 04.56'	20 barrels, 1 wood platform.

5.3.2.1.3 TASIUJAQ SECTOR

This section presents the description of the major and intermediate sites in the Tasiujaq sector. There were no minor sites assessed in this sector.

- **Major sites**

Three major sites, PJ-1, TQ-1, and TQ-4, were assessed in the Tasiujaq sector. Their description is provided below.

Site PJ-1

Dwellings (qty)	Heavy equipment (qty)	Hydrocarbons and other products (qty)	Batteries and trans-formers (qty)	Pipes/ core trays/ wood (m^3)	Waste (m^3)	Contaminated soil surface (m^2)
7	2 bulldozers 2 muskegs 1 truck 2 crushers 2 conveyors 1 crane 8 machines 2 alternators 1 radiator 3 trailers 6 generators 10 X 40,000-L tanks 2+ motors	Diesel barrels: ~357 empty 3 full: 2500 L 43 with residue: 2595 L Propane tanks: 80 empty ~50 tubes of grease 1 X 2 kg grease 1 X 4 L motor oil 1 X 50 L motor oil 3 X 4L paint	20 batteries 2 transformers	150+	100+	115

Well known by informants and MRNQ, site PJ-1 is the largest site encountered during the survey. Also indentified as TQ-20, P-24K/13-3 and G-24K/13-4 by GÉTIC (Duhaime and Comtois, 2002), it is located between Leaf Bay and Lac aux Feuilles almost mid-way between Aupaluk and Tasiujaq (Map 4). It was not merely an exploration site but was the hub of mining activities, and included a mining gallery and tailings at the time the mining company went bankrupt. It is a very large site, covering more than 3 km^2. During the survey, 9 sectors were identified: one for mine exploitation, another for ore segregation, living quarters, a core storage area, a chemical storage area, some dumps, etc. (Appendices 2 and 9).

The quantity of rusting stock and various debris is huge (>300 m^3). In addition to the presence of heavy equipment (bulldozers, truck, crushers, etc.), the site contains a lot of pipes, metal pieces, core trays, rubber hoses and a wide variety of waste. It also contains ten 40,000-L diesel tanks, 2 transformers, 20 batteries, grease pails, and a lot of diesel barrels containing approximately 2500 L of diesel. The soil is characterized by localized areas of heavy contamination, particularly near the mining gallery, the frame of one building (storage area), batteries and under grease pails close to Pio Lake (Appendices 2 and 9). The total contaminated area is estimated at 115 m^2 (Table 11).

Furthermore, this site is not safe. The fences surrounding 3 mine shafts leading to the mining gallery have collapsed, creating a hazard for people and snowmobiles circulating on the hill above. **The remediation of this site is a priority for public safety and from an environmental point of view.**

Site TQ-1

Dwellings (qty)	Heavy equipment (qty)	Hydrocarbons and other products (qty)	Batteries and trans-formers (qty)	Pipes/ core trays/ wood (m^3)	Waste (m^3)	Contaminated soil surface (m^2)
8	1 snowmobile	Diesel barrels: 30 empty Propane tanks: 6 empty	1 battery	20+	10+	2

Well known by informants and MRNQ, site TQ-1 is an old mining exploration campsite reused as an outfitting camp and identified as Safari Nordik – Gerido camp. Also identified as VP-3 and P-24F/13-6 by GÉTIC (Duhaime and Comtois, 2002), it is located 10 m from Gerido Lake, at approximately 75 km west of Kuujjuaq (Map 4). It contains 8 dwellings, one core tray storage, an old snowmobile, a few propane tanks, scattered diesel barrels and waste (Appendices 2 and 9). The diesel barrels connected to the stoves of the dwellings have leaked and led to heavy contamination in the soil beneath some of the barrels (total contaminated area: ~2 m^2). One barrel containing ~100 L of diesel is located less than 2 meters from the lake.

It also contains newer and non-abandoned material: batteries, fuel tanks, freezers, a stove, launches, and a trailer. The site seems to still be in use, but is definitely not well maintained since there is scattered debris and one barrel with fuel near the lake.

Site TQ-4

Dwellings (qty)	Heavy equipment (qty)	Hydrocarbons and other products (qty)	Batteries and trans-formers (qty)	Pipes/ core trays/ wood (m^3)	Waste (m^3)	Contaminated soil surface (m^2)
2 + 1 cabin	1 ice drill	Diesel barrels: 153 empty 3 with residue = 150 L Propane tanks: 8 empty 3 X 20 L gasoline - full	0	10+	10+	0

Known through informants, also identified as VP-2 by GÉTIC (Duhaime and Comtois, 2002), and located 40 m from Garigue Lake south of Tasiujaq (Map 4), site TQ-4 contains 2 log dwellings and one cabin, a medium size dump, 5 propane tanks, a cluster of 25 barrels, a pile of 98 barrels, the space for 2 diesel bladders, 1 new ice drill and 3 furnaces, and scattered debris. Some barrels contain approximately 150 L of diesel (Appendices 2 and 9). Its soil is not contaminated.

- **Intermediate sites**

Six intermediates sites were assessed in the Tasiujaq sector (Map 4), for which the description is provided in the table below.

Site N°	EMRC Map Reference	Latitude North	Longitude West	Description
TA-1	24K/5	58° 16.80'	69° 50.19'	81 barrels, wood debris, 1 propane tank, 1 wood bench in water, 1 blue tarp.
TA-2	24K/5	58° 17.48'	69° 56.34'	Core trays, 9 barrels (1 is in the water), pipes, 2 wood beams, beds, 1 furnace, 2 open barrels, pails, wood debris. (Near TQ-6).
TQ-6	24K/5	58° 17.92'	69° 57.37'	Aluminium core trays, open barrels, metal debris, wood debris, cables, ~45 x 45-gallon barrels, 2 x 10-galion barrels, metal pipes (drilling pipes), aluminium pipes, wood beams, propane tanks, wood beams, furnace, chimney, tar paper, beds, cans. No soil contamination observed. Also identified as P-24K/5-10 by GÉTIC.
TQ-10	24L/1	58° 06.36'	70° 09.10'	3 large bladders at <10m from the shore, 1 wood box containing 1 bladder, flexible hoses, motor with pump, 1 motor, 1 wood box with debris (pipes), 1 barrel with residue (1 eight diesel). Wolf tracks in the snow.
TQ-14	24L/8	58° 19.36'	70° 14.30'	11 scattered barrels, 4 propane tanks, wood debris from an old cabin. Close to the shore.
VP-11	24F/13E	57° 48.59'	69° 31.75'	Debris of 3 collapsed wood cabins, 2 groups of 5 or 6 barrels (all empty) at 5m from the lake. No apparent trace of soil contamination, but the snow cover did not permit to make a reliable evaluation.

5.3.2.1.4 AUPALUK SECTOR

This section presents the description of major, intermediate and minor sites in the Aupaluk sector.

- **Major sites**

In the sector of Aupaluk, two major sites, PJ-10 and PJ-17 were assessed. Their description is presented below.

Site PJ-10

Dwellings (qty)	Heavy equipment (qty)	Hydrocarbons and other products (qty)	Batteries and trans-formers (qty)	Pipes/ core trays/ wood (m^3)	Waste (m^3)	Contaminated soil surface (m^2)
1 base	1 tank	Diesel barrels: 39 empty 34 with residue: ~1400 L Propane tanks: 10 empty 5 with residue 2 X 20 L grease 7 X 40 L motor oil	1 battery	50+	25+	20

Known through informants, site PJ-10 is located 50 m from Ford Lake, approximately 30 km WSW of Aupaluk (Map 5). It is composed mainly of wood debris, propane tanks, and barrels containing a total of 1400 L diesel. We also found one battery, pipes, various metal pieces and wires (Appendices 2 and 9). The soil under the two piles of barrels is highly contaminated with petroleum hydrocarbons. The total contaminated area is estimated at 20 m^2 (Table 11).

Site PJ-17

Dwellings (qty)	Heavy equipment (qty)	Hydrocarbons and other products (qty)	Batteries and trans-formers (qty)	Pipes/ core trays/ wood (m^3)	Waste (m^3)	Contaminated soil surface (m^2)
2	1 truck 1 metal sled 1 runway roller 8 motors	Diesel barrels: 270 empty 15 with residue: 500 L Propane tanks 27 empty 13 with residue 1 pail full of grease	5 batteries 1 transformer	15+	30+	125

Located near Hope Advance Bay, well known by informants and accessible by boat and ATV from Aupaluk (Map 5), PJ-17 contains 2 buildings, one electricity line with a transformer, one airplane strip, some heavy equipment (1 truck, 1 runway roller, etc), 3 drum storages, 3 dumps of which one contains motor pieces and 5 batteries, and scattered waste (Appendices 2 and 9). The most important soil contamination was found inside the main building and close to it under 15 diesel barrels. Total contaminated area is about 125 m^2 (Table 11). Some barrels contain approximately 500 L diesel.

- **Intermediate sites**

Three intermediate sites were assessed in the Aupaluk sector (Map 5). Their description is provided in the table below. All of them contain several barrels and various debris.

Site N°	EMRC Map Reference	Latitude North	Longitude West	Description
G-24N04-3	24N/4	59° 11.57'	69° 49.86'	*Sector 1*: campsite for mining exploration, includes: 9 recent yellow barrels (8 are full, 1 is one third full); 1 burnt campsite; 20 burnt (1.5-m long) aluminium rods (3 x 3m^3); metal debris; 4 beds, 8 barrels (3 are recent and contain diesel; 4 are empty, the other one is very old); 9 empty barrels on the beach; 1 old campsite (nothing left, has been cleaned). No contamination. On the way to Sector 2: 2 empty barrels. (This site is close to G-24/N04-3). *Sector 2*: at ~500m near the stream. 1 empty propane tank; 6 barrels (1 is full); 1 open barrel with recent debris (pepsi cans, paper...); 1 empty reservoir for a Coleman stove; scattered metal debris (<0,1m^3). At 50m towards east: 52 barrels, 9 barrels (one is full, 2 have residue (one quart, one third); 3 empty barrels; one wood rack for canoe; 3 empty barrels; 3 empty propane tanks; 1 Coleman stove; 8 empty barrels at 5m from the water.
PJ-17A	24N/5	59° 20.54'	69° 43.81'	64 empty barrels on a rocky cap 10m from Hope's Advance Bay. No contaminated soil. (Not far from PJ-17).
PJ-19	24N/5	59° 18.91'	69° 46.06'	~60 empty barrels. No soil contamination (2 samples were taken and analyzed).

- **Minor sites**

Only one minor site, PJ-9, was assessed in the Aupaluk sector (Map 5). Its description is presented in the following table.

Site N°	EMRC Map Reference	Latitude North	Longitude West	Description
PJ-9	24N/5	59° 18.91'	69° 59.94'	12 barrels, 1 isolated barrel at ~300m, 1 vertical rod in the rock (indication of earlier drilling operation). Also named G-24N/5-1004 by GÉTIC

5.3.2.1.5 KANGIRSUK SECTOR

This section presents the description of major, intermediate and minor sites in the Kangirsuk sector.

- **Major site**

Only one major site, TW or Twin Lake, was assessed in the Kangirsuk sector (Map 5). Its description is provided below.

Site TW

Dwellings (qty)	Heavy equipment (qty)	Hydrocarbons and other products (qty)	Batteries and trans-formers (qty)	Pipes/ core trays/ wood (m^3)	Waste (m^3)	Contaminated soil surface (m^2)
2 bases	1 pipe threader	Diesel barrels: 70 empty 13 with residue: 1230 L Propane tanks: 7 empty 4 with residue 1 X 100 L grease 2 X 4 L grease 1 X 2 kg grease 20 L dry extinguisher powder	0	30+	20+	2

The Twin Lake site (TW) had not been previously identified by informants. Located on the shore of Twin Lake near Kangirsuk (Map 5), it contains the base of a building, scattered and piled barrels with approximately 1230 L of diesel and 100 L of grease, a lot of core trays and pipes, a pipe threader, various pieces of machinery, and scattered waste (Appendices 2 and 9). The most important soil contamination was found near a plywood sheet and under a grease pail. This latter patch of highly contaminated soil is located 3 m from a brook, which runs into Twin Lake. Total contaminated area is estimated at 2 m^2 (Table 11).

- **Intermediate sites**

One intermediate site assessed in the Kangirsuk sector, QC-3 (Map 5), is described in the table below.

Site N°	EMRC Map Reference	Latitude North	Longitude West	Description
QC-3	25D/8E	60° 21.55'	70° 09.33'	1 camp locked, 19 empty barrels, metal pipes, 2 empty cans of camping fuel, 2 motor oil containers. No contaminated soil. 7 scattered barrels seen from the air nearby.

- **Minor sites**

Three minor sites were assessed in the Kangirsuk sector (Map 5). Their description is provided in the table below.

Site N°	EMRC Map Reference	Latitude North	Longitude West	Description
KG-19	25D/8W	60° 26.79'	70° 10.85'	4 barrels.
KG-21	25D/7W	60° 18.63'	70° 57.45'	4 barrels.
QC-2	25D/8E	60° 24.82'	70° 09.67'	1 barrel. Also indentified G-25/D08-2 by GÉTIC.

5.3.2.2 Ungava Trough-Hudson Bay

This section will describe the sites of the Ungava Trough-Hudson Bay region, within the following four following sectors: Kangiqsujuaq, Salluit, Umiujaq, and Kuujjuaraapik. Detailed descriptions of major sites and photographs of most sites are provided in Appendices 2 and 9.

Like the Labrador Trough, most sites of the Ungava Trough-Hudson Bay region contained barrels (38 ie. 79% of the sites with items) and scattered waste (27 ie. 56%). Heavy equipment (vehicles, machinery, tanks, etc.) was as frequent (20 sites ie. 42%) but not buildings and dwellings (11 sites ie. 23%). Chemical products were present on 5 sites (10%) and batteries on 6 (13%); these last items were observed only in the Ungava Trough.

In this part of Nunavik, the majority of potential mining sites were located in the Ungava Trough. Near the Hudson Bay area, as potential mining sites were not frequent, only 10 sites with items were assessed, and characterized as follows: one major, one intermediate, and 8 minor.

5.3.2.2.1 KANGIQSUJUAQ SECTOR

This section presents the description of major, intermediate and minor sites in the Kangiqsujuaq sector.

- **Major sites**

Three major sites, K-28, K-61, and WB-3, were assessed in the Kangiqsujuaq sector. Their description is provided below.

Site K-28

Dwellings (qty)	Heavy equipment (qty)	Hydrocarbons and other products (qty)	Batteries and trans-formers (qty)	Pipes/ core trays/ wood (m^3)	Waste (m^3)	Contaminated soil surface (m^2)
1 tent	1 motor 2 X 1000-L tanks empty	Diesel barrels: 60 empty 10 with residue: 2000 L Propane tanks: 9 empty 6 with residue Bags with $CaCl_2$ (de-icing salt)	0	30+	25+	15

Known through informants, K-28 is located in the vicinity of Kangiqsujuaq and is far from water (Map 6). It is composed of a collapsed wood tent, two 1000-L tanks, one motor, a lot of scattered barrels, wood, and a large quantity of metal debris and waste (Appendices 2 and 9). The soil near the tent is heavily contaminated (5 m^2; Table 11). Another dump and a cluster of barrels are located a short distances from the main site. About 10 barrels contain an estimated 2000 L of diesel (Appendix 9).

Another part of the site comprises recent mining exploration equipment: an exploration tripod, Jet-B fuel barrels, calcium chloride ($CaCl_2$) bags (for de-icing), core trays, metal pipes, boxes of equipment, rubber hoses, etc. This material is well piled on a pallet (Appendix 2). The soil near the pallet is moderately contaminated (10 m^2).

Site K-61

Dwellings (qty)	Heavy equipment (qty)	Hydrocarbons and other products (qty)	Batteries and trans-formers (qty)	Pipes/ core trays/ wood (m^3)	Waste (m^3)	Contaminated soil surface (m^2)
12	2 muskegs 1 X 40,000-L tank 1 bath 3 water heaters 6 motors	Diesel barrels: 25 empty 10 full: 2000 L >5 with residue Propane tanks: 18 total; 16 full 44 X 20 L grease 20 X 1 L grease 2 L motor oil 1 container with acid 1 X 4L paint	5 batteries	150+	75+	75

Known through informants, site K-61, which is known as "Expo Ungava Mines" (Duhaime and Comtois, 2000), seems to have been used recently. Located in the area of Kangiqsujuaq (Map 6), more than 500 m from water, this very big site contains 12 dwellings, 2 muskegs, one 40,000-L diesel tank, at least 3 dumps, a lot of barrels - some piled, some scattered - 5 batteries and a huge quantity of wires, pipes and other waste (Appendices 2 and 9). Some pails contain grease, barrels contain approximately 2000 L of used diesel, and 16 propane tanks are full. The diesel barrels connected to the stoves of the dwellings have leaked and led to highly contaminated soil underneath. The total contaminated area is estimated at 75 m^2 (Table 11). As this campsite does not seem abandoned, and some buildings had a lock on the door (Appendix 2), we did not make a complete inventory of the interior of the dwellings but made a non-exhaustive inventory of the material scattered around the site.

Site WB-3

Dwellings (qty)	Heavy equipment (qty)	Hydrocarbons and other products (qty)	Batteries and trans-formers (qty)	Pipes/ core trays/ wood (m^3)	Waste (m^3)	Contaminated soil surface (m^2)
0	1 wood round base surrounded by aluminium	Diesel barrels: 76 empty 9 with residue: 675 L Propane tanks: 1 empty	0	20+	5+	2.5

Known through informants, site WB-3 is located 5 m from Qulusuttalik Lake, near Kangiqsujuaq (Map 6). It consists mainly of a circular base made of wood and aluminium, scattered wood debris and a cluster of barrels, some containing about

675 L of residue (Appendices 2 and 9). "CANICO (Canadian Nickel Company)" is written on many barrels. The soil at the dump is moderately contaminated (2.5 m^2; Table 11).

- **Intermediate sites**

Ten intermediates sites were assessed in the Kangiqsujuaq sector (Map 6). Their description is provided below.

Site N°	EMRC Map Reference	Latitude North	Longitude West	Description
I-32	35H/10W	61° 43.12'	72° 54.94'	Empty barrels along the shore: 7 scattered; 36 standing up; 1 propane tank; 1 garbage dump. Close to lake Qanartaliup Tasinga, on the cliff's edge.
K-27	35H/11W	61° 36.24'	73° 19.89'	Near Bombardier lake: 20 barrels. No contaminated soil observed. Upon request of the informant, 2 water samples were taken in Bombardier lake. No contamination by Petroleum hydrocarbons C_{10} to C_{50}.
K-37	35H/12E	61° 31.07'	73° 37.44'	Wood beams, water heaters, 14 barrels, wood debris, wires, metal pipes.
K-49	35H/5	61° 28.70'	73° 49.70'	One plane, approximately 45 barrels, 14 propane tanks, 1 stove, metal rods, wood debris, cans, metal debris. Debris have been piled up by the community.
KAN-1	35H/10W	61° 32.19'	72° 57.90'	1 old helicopter, 12 barrels, 1 old battery. Close to a lake (5m). Close to I-26.
KAN-2	35H/12E	61° 32.51'	73° 31.11'	2 tripods, 1 non-hydraulic drill, and debris: motor, hoses, winch, ~50 pipes, barrels, drilling sites, dump of calcium salts.
KAN-4	35H/12	61° 30.92'	73° 40.18'	A pile of ~75 barrels; 2 are apart and contain diesel.
KAN-6	35H/5	61° 28.94'	73° 49.50'	2 buildings. About 1.5m^2 of contaminated soil near the buildings. Near Vaillant lake.
KAN-7	35H/12E	61° 28.48'	73° 49.93'	A pile of ~75 barrels, 1 muskeg, 18 propane tanks, 2 oxygen tanks. Other debris (metal rods, pipes, wood...). Barrels and debris have been piled up by the community.
KAN-10	35H/10	61° 31.58'	72° 49.30'	Collapsed building, 25 barrels, 1 propane tank, tin and wood debris, core trays, barrels in a wetland. ~100m from the lake. Also named K-29 by GÉTIC. 10 crushed empty barrels at 61° 31.27' N; 72° 48.96' W.

- **Minor sites**

Nine minor sites were assessed in the Kangiqsujuaq sector (Map 6). Their description is provided below.

Site N°	EMRC Map Reference	Latitude North	Longitude West	Description
I-12	35H/12E	61° 35.32'	73 35.85'	~19 empty barrels piles at ~100m from Guindeau lake. Some barrels along the lake.
K-36	35H/11	61° 31.39'	73 16.63'	2 platforms, wood debris, 11 barrels. South of Rocbrune lake.
K-41	35H/12W	61° 30.79'	73 44.74'	13 barrels, some with residue. Also known as K-42 and P-35H/12-13 by GÉTIC.
KAN-3	35H/12E	61° 31.63'	73° 37.28'	Muskeg near a lake. (Between K-37 and K-38).
KAN-5	35H/12W	61° 30.19'	73° 45.28'	More than 61 barrels, 2 wood platforms, 2 propane tanks at 20m from a lake. (West of K-41).
KAN-8	35H/12W	61° 30.55'	73° 45.45'	30 empty barrels: 25 scattered; 5 piled.
KAN-9	35H/10E	61° 36.73'	72° 44.56'	13 barrels near Felix lake.
KAN-11	35H/12	61° 32.62'	73° 37.27'	Muskeg in a wetland near a lake.
KAN-12	35H/12	61° 30.77'	73° 44.28'	8 empty barrels.

5.3.2.2.2 SALLUIT SECTOR

This section presents the description of major, intermediate and minor sites in the Salluit sector.

- **Major sites**

Six major sites, KV-1, SAL-1, SW-27, SW-34, SW-42, and WB-9, were assessed in the Salluit sector. Their description is provided below.

Site KV-1

Dwellings (qty)	Heavy equipment (qty)	Hydrocarbons and other products (qty)	Batteries and trans-formers (qty)	Pipes/ core trays/ wood (m^3)	Waste (m^3)	Contaminated soil surface (m^2)
0	1 water heater	Diesel barrels: 28 empty 1 with residue: 50 L	0	10+	5+	2

Known through informants and located approximately 100 km S-W of Salluit (Map 6) on a lakeshore, KV-1 contains a platform for a floatplane, one water heater, scattered diesel barrels (2 with residue), and a small dump (Appendices 2 and 9) The soil under one of the barrels containing residue is moderately contaminated (2 m^2; Table 11; Appendix 9).

Site SAL-1

Dwellings (qty)	Heavy equipment (qty)	Hydrocarbons and other products (qty)	Batteries and trans-formers (qty)	Pipes/ core trays/ wood (m^3)	Waste (m^3)	Contaminated soil surface (m^2)
6	0	Diesel barrels: 336 empty Propane tanks: 15 empty 6 X 40 L Aviation oil 3 X 1 L Aviation oil	2 batteries	50+	10+	0

Not previously recorded, SAL-1 is a big site located near Nuvilik Lakes, approximately 90 km S-S-E of Salluit (Map 6). It contains 6 collapsed dwellings, 2 clusters of barrels, at least 9 propane tanks, 2 batteries, a dump, a rather large quantity of wood and scattered waste (Appendices 2 and 9). No contaminated soil was noted. All the barrels are empty but there is about 120 L of Aviation oil in pails.

Site SW-27

Dwellings (qty)	Heavy equipment (qty)	Hydrocarbons and other products (qty)	Batteries and trans-formers (qty)	Pipes/ core trays/ wood (m^3)	Waste (m^3)	Contaminated soil surface (m^2)
1 base	1 muskeg 1 tractor 1 trailer	Diesel barrels: 77 empty 6 full: 1200 L 8 with residue: 450 L Propane tanks: 1 with residue 9 grease pails: 260 L ~20 L motor oil 6 L Aviation oil	1 battery	20+	15+	2.5

Known through informants, SW-27 is located at approximately 90 km S-S-W of Salluit (Map 6) and is far from water. It contains one muskeg, one tractor, wood and metal debris, clusters of diesel barrels and grease pails - some of which are full (about 1650 L diesel and 260 L grease)- core trays, one battery and a dump (Appendices 2 and 9). The soil under some barrels and grease pails is heavily contaminated (2.5 m^2, Table 11).

Site SW-34

Dwellings (qty)	Heavy equipment (qty)	Hydrocarbons and other products (qty)	Batteries and trans-formers (qty)	Pipes/ core trays/ wood (m^3)	Waste (m^3)	Contaminated soil surface (m^2)
1 base	0	Diesel barrels: large: 1220 empty medium: 14 empty small: 260 empty small: with residue (40L) Propane tanks: 42 empty 16 grease pails: empty 1 bottle with ~250 ml acid 1 bottle with powder	14 batteries	25+	30+	90

Site SW-34, about 90 km S-W of Salluit (Map 6), had not been previously located by informants, and extends over a 500 m X 500 m area. It has no standing dwelling or heavy equipment but a huge quantity of scattered and piled barrels (some with residue) a lot of scattered propane tanks, and rusting waste. It also contains pieces of muskeg, one radio, a metal base, chemical products, a few grease pails and at least 14 batteries (Appendices 2 and 9), which have led to heavy soil contamination (90 m^2; Table 11). **Taking into account the size of the site and its location on the shore of Esker Lake, its remediation is a priority from an environmental point of view and for public safety.**

Site SW-42

Dwellings (qty)	Heavy equipment (qty)	Hydrocarbons and other products (qty)	Batteries and trans-formers (qty)	Pipes/ core trays/ wood (m^3)	Waste (m^3)	Contaminated soil surface (m^2)
1	0	Diesel barrels: 74 empty 7 with residue: 700 L 3 X 4 L grease 200 ml insect repellent	0	10+	10+	12

Known through informants, SW-42 is located along Beauparlant Lake at approximately 100 km S-S-E of Salluit (Map 6). Its principal contents are a plywood tent, a cluster of barrels and a dump of metal pails, wood and waste. Some barrels contain about 700 L of diesel (Appendices 2 and 9). The soil under the drum cluster is heavily contaminated (12 m^2; Table 11; Appendix 9).

Site WB-9

Dwellings (qty)	Heavy equipment (qty)	Hydrocarbons and other products (qty)	Batteries and trans-formers (qty)	Pipes/ core trays/ wood (m^3)	Waste (m^3)	Contaminated soil surface (m^2)
9	N/D	N/D	N/D	N/D	N/D	25

N/D: not determined because the campsite was still used

The Falconbridge campsite, located some 10 m from Kenty Lake, at approximately 100 km S-S-E of Salluit (Map 6) was used recently and is well known by informants. It contains 9 dwellings and a pile of barrels. The diesel barrels connected to the stoves of the dwellings have leaked and contaminated the soil beneath (25 m^2). As this campsite does not seem abandoned, we did not undertake an inventory of the site.

- **Intermediate sites**

The description of the two intermediate sites assessed in the Salluit sector (Map 6) is provided below.

Site N°	EMRC Map Reference	Latitude North	Longitude West	Description
Parent Lake	35G/11W	61° 33.43'	75 10.36'	6 recent barrels (Jet-B): 4 empty; 1 full; 1 half full. 5 perches.
SW-24	35G/6E	61° 18.75'	75° 44.00'	Along *Petite rivière de Puvirnituq*, about 100km long. ~233 barrels, 12 propane tanks along the river (125 barrels and 6 propane tanks were seen on the south shore; 108 and 6 propane tanks on the north shore). The geographical coordinates that are indicated are only indicative, most barrels are located in the downstream portion of the river, on the south shore.

♦ Minor sites

Eight minor sites were assessed in the Kangiqsujuaq sector (Map 6). Their description is provided below.

Site N°	EMRC Map Reference	Latitude North	Longitude West	Description
G-35G08-1	35G/8	61° 29.08'	74 26.55'	Old drilling site. Scattered barrels, 1 metal tripod. Far from water.
P-35G08-1002	35G/8	61° 29.22'	74° 28.35'	1 tank for diesel. Debris of a camp: sink, stove, metal debris, metal pipes, ~30 wood beams. At >500m from water.
P-35G08-1002A	35G/8	61° 29.18'	74° 27.55'	3 open barrels with metal rods as road markers.
P-35G08-1003	35G/8	61° 27.28'	74° 14.48'	1 open barrel with a metal rod as a road marker. Far from a water plan.
SAL-2	35G/7	61° 27.19'	74° 41.97'	4 barrels, 2 x 10-gallon pails for grease; >500m from the nearest river (*Petite rivière de Puvirnituq*).
SW-13	35G/10E	61° 34.00'	74° 38.14'	Along the north shore of Nuvilik lakes: 4 barrels on the western side and 4 barrels on the eastern side of SW-13. Nothing was seen at the coordinates of SW-13.
SW-14	35G/13	61° 49.64'	75° 38.63'	17 empty barrels, 2 barrels with residue (150 L), 1 x 114-ml container of machine oil (sewing machine), 2 batteries, cans of Raid, 3 empty propane tanks, 1 propane tank with residue, 4 fire extinguishers, 1 wood platform, wood beams, wood debris, pipes, stove pipes, 1 water heater, metal chimney, rubber hoses, wires, various drilling equipement, various camp equipment (dishes, table, beds, window, etc.). Near Vanasse lake
SW-32	35G/11W	61° 34.73'	75° 26.75'	8 scattered barrels.

5.3.2.2.3 UMIUJAQ SECTOR

This section presents the description of major and minor sites in the Umiujaq sector. No intermediate site was assessed in this sector.

- **Major sites**

Only one major site, WHA-1, was assessed in the Umiujaq sector. Its description is provided below.

Site WHA-1

Dwellings (qty)	Heavy equipment (qty)	Hydrocarbons and other products (qty)	Batteries and trans-formers (qty)	Pipes/ core trays/ wood (m^3)	Waste (m^3)	Contaminated soil surface (m^2)
9	-	Diesel barrels: 4 empty 1 full: 200 L 3 with residue: ~30 L 16 small (40-L) empty 4 small with residue: ~50 L 10 cans of deodorant cleaner (empty ?)	-	50+	5+	6

Located along the shore of an unnamed lake (Map 7), this site is about 120 m long and 25 m wide. It comprises a building and 9 wood platforms, a collapsed outhouse, five 200-L barrels (one full and 3 with diesel residue (~230 L), 19 small (40-L) barrels of which 4 contain residue (~50 L), 10 cans of deodorant cleaner, wood debris, pipes and various debris (Appendices 2 and 9). A total of 6m^2 of soil is contaminated by petroleum hydrocarbons (Table 11). Even if no evidence of mining equipment was found on the site, the Cree informants confirmed that this site was related to previous mining activities.

- **Minor sites**

The description of the seven minor sites that were assessed in the Kangiqsujuaq sector (Map 7) is provided in the table below.

Site N°	EMRC Map Reference	Latitude North	Longitude West	Description
GW-5	33N/15W	55° 57.49'	76° 47.97'	2 barrels, wood core trays, metal pipes (2-3m^3), drill holes, metal debris, wood debris (2-3m^3), flexible hoses (2-3m^3), some with metal connections.
PH-11	33N/15E	55° 58.97'	76° 41.79'	2 wood platforms, 5 barrels, 1 sink, 1 stove.
UD-1	34C/2	56° 08.80'	76° 35.40'	1 wood platform.
UD-6	34C/2	56° 06.41'	76° 30.23'	3 barrels, 1 propane tank close to the lake.
UM-1	33N/15E	55° 59.99'	76° 45.59'	6 large metal container.
UM-2	33N/15E	55° 56.67'	76° 42.50'	Wood core trays. Presence of a trail.
UM-3	33N/15E	55° 57.68'	76° 47.59'	1 barrel, 1 drill hole with 1 pipe, 1 tank, 1 wood platform, wood debris (5m^3).

5.3.2.2.4 KUUJJUARAAPIK SECTOR

No major site was assessed in the Kuujjuaraapik sector. The following tables provide the description of the content of intermediate and minor sites (Map 7).

- **Intermediate sites**

The following table presents the content of the only intermediate site assessed in the Kuujjuaraapik sector, GW-8.

Site N°	EMRC Map Reference	Latitude North	Longitude West	Description
GW-8	33M/1	55° 05.09'	78° 15.51'	25 barrels, 1 snowmobile

- **Minor sites**

The following table presents the content of the only minor site assessed in the Kuujjuaraapik sector, GW-2.

Site N°	EMRC Map Reference	Latitude North	Longitude West	Description
GW-2	33N/11E	55° 44.48'	77° 01.95'	2 wood cabins, 2 beds and 1 stove inside. Site located at 0.5 Nautical Miles from the coordinates.

5.4 Communication with the communities

KRG and Makivik have monitored the work and ensured that the Inuit and Naskapi populations were kept informed of the project's objectives, research programme and results. During the planning phase, aboriginal communities were informed of the project through local means of communications.

Before site visits began, an Inuit team member communicated with community leaders to inform them of the location of project activities, namely Aupaluk, Kangiqsujuaq, Kangirsuk, Kawawachikamach, Kuujjuaq, Kuujjuaraapik, Salluit, Tasiujaq and Umiujaq. The leaders were informed of the goals and nature of the project, the executer (organisations and people), the involvement of local members of the community and the expected schedule.

Audio-visual communications regarding the results of the study were presented by the project leaders and the Inuit site assessor to the concerned Inuit and Naskapi communities. Concerns expressed by the local community representatives were considered in the planning of remedial work.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 Number of sites

The 2001-2002 site inventory provided information on 193 sites of which 90 were validated as abandoned mining sites. As a result of their classification and prioritization, a total of 18 sites were classified as major according to their size, content and contamination, of which 8 sites are located in the Labrador Trough, and 10 in the Ungava Trough-Hudson Bay region. They contain abandoned buildings, heavy equipment, barrels of hydrocarbons (some of which contain variable quantity of residue), contaminated soil, and waste. All major sites contain some soil areas, of variable size, contaminated by petroleum hydrocarbons and, to a lesser extent, by lead where batteries were present. There was no PCB contamination where transformers were present.

Additionally, 27 sites were classified as being intermediate based on their content. They were quite evenly distributed between the Labrador Trough (14 sites) and the Ungava Trough-Hudson Bay region (13 sites). Finally, 45 sites were classified as minor (20 in the Labrador Trough, and 25 in the Ungava Trough-Hudson Bay region). These sites contain variable quantities of barrels, drilling equipment and various waste. None of these sites contain soil contamination.

Based on the information gathered during this assessment and an extrapolation from the previous potential number of abandoned mining sites in Nunavik (595), there would be approximately 275 abandoned mining sites in Nunavik. Of this total, we might expect to find approximately 7 additional major sites in addition to the 18 already classified as major. A total of 27 intermediate and 45 minor sites were inventoried in this survey and we might expect to find approximately 68 intermediate and 105 minor additional sites.

6.2 Remedial measures on the sites

Major sites pose a threat to the environment and the public since they contain a large quantity of buildings, equipment, barrels (often located close to water), various waste, and soil contamination. Consequently, it is highy recommended to put the major sites, and in particular sites KAW-35, PJ-1 and SW-34, at the top of a cleanup priority list. Intermediate and minor sites will be treated on a case by case basis, considering as a priority the sites located close to Inuit or Naskapi communities and identified as their main preoccupation.

Cleanup of the sites should include the removal and transportation of hazardous materials (chemicals, batteries, etc) to an approved disposal facility in southern Québec; the latter are only present in small volumes. As the barrels are rusting and often located near water, the recovery of petroleum products should be carried out as soon as possible.

As petroleum hydrocarbons are by far the main contaminants on these sites and as they contaminate large areas on some sites, we recommend their remediation to ensure the protection of the environment and wildlife health. Consequently, soil

bioremediation should be performed in the following sites: K-61, KAW-35, PJ-1, PJ-17, and SW-34, where contaminated areas are larger than 50 m^2. Remediation techniques may be applied directly on site. They involve the biodegradation of the petroleum compounds by indigeneous bacteria in the presence of the appropriate nutrients and water concentrations. This treatment proved successful on other sites in Nunavik. Bioremediation treatments should be performed by environmental specialists from Nunavik expert in site remediation.

The heavy equipment, material, empty barrels and waste should be managed in such a way as to clean and secure the sites against accident and environmental threat. Authorization must be requested from MENV to burn the combustible debris on site. Equipment, barrels and non-combustible debris should be crushed and, if not transported to a recycling facility, moved to an approved waste disposal site. In accordance with MENV approval, local waste disposal sites could be established where topography, soil composition and distance from water permit. In these cases, such sites will have to be constructed and managed following the MENV recommendations.

6.3 Use of local knowledge

This project validated the methodology involving the integration of interviews with local key informants with archival documentation. It showed that informant data is more reliable than MRNQ documentation in regions where the territory is well known by Inuit communities but has severe limitations in those portions of the territory where access is difficult, where topography is complex, when sites are old or when the land also used for other purposes.

6.4 Assessment of non validated sites

Within the 595 potential mining sites identified by GÉTIC, 193 were visited and assessed during the present project. Makivik and KRG should continue their efforts with communities and the companies involved in mineral exploration to complete the inventory and the assessment of the remaining sites. Our analysis of the 193 sites indicates that it is not possible to extrapolate to each non validated site the information that was gathered on the visited sites because the classification and prioritization method, adapted from the *National Classification System for Contaminated Sites* (CCME, 1992), cannot be applied to the information collected by GÉTIC (Duhaime and Comtois, 2002).

Consequently, if we want to plan for remedial measures of the non validated sites, and perhaps a large scale remediation programme, a systematic aerial survey including the remaining 403 potential exploration mining sites would be required and could be accomplished though either of the following three means:

- A systematic survey by helicopter, associated with GPS positioning. This would give a precise location and description, and permit the estimation of the quantity of pieces of equipment, chemical products, debris and contaminated soil present on each site. It would also allow their prioritization, and, if the classification methodology of the present project is used, comparison with the sites already described. This approach, the best on a remedial perspective, offers the greatest quantity of information on each site. It is also the most expensive.

- A systematic survey by plane, associated with their GPS positioning. This would allow the rather precise location of the major, intermediate and most minor sites. Associated with a fast description and photos of the sites, it would give an idea of their content. Based on a simpler classification methodology, it would allow their prioritization. However, this method could not estimate the quantity of pieces of equipment, chemical products, debris and contaminated soil present on each site, neither can it allow the comparison of these sites with those assessed during the present project. From a remedial perspective, it is less expensive but it is certainly not as accurate as the former approach for the inventory of the material and the assessment of the sites.

- A combination of the two previous proposals, i.e. a first plane survey of the whole land to locate, classify and prioritize all the sites followed by an helicopter survey of only sites potentially more hazardous to the environment. This approach would be more cost efficient than the first one and would allow the collection of precise information on relatively important sites.

Regardless of the mode of transportation choosen, it could be possible to plan the assessment of the remaining sites over more than one year.

Information should also be obtained from the communities, mining companies, and others as to location and description of other sites containing abandoned mining exploration material. This will allow for a more comprehensive database for KRG and Makivik.

6.5 Funding for remedial measures

In five major sites (K-28, K-61, KAW-35, TQ-1, and WB-9), there was evidence of recent mining exploration activities. At these sites, the residue and debris from the previous mining activities have not been removed nor had remedial measures been undertaken. Care should be taken by the companies concerned in using these sites. Comprehensive demobilization and cleanup should be undertaken following the completion of the present activities. Certain companies, at their own initiative, have begun remedial actions on some of these sites. This should be encouraged and a follow up by the Department in charge of these activities is recommended.

In collaboration with governments and mining associations, a programme with a funding mechanism should be set up for site remediation.

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APPENDIX 1

Record sheet for site assessment

ABANDONED MINING EXPLORATION SITES/SITES ABANDONNÉS D'EXPLORATION MINIÈRE

INVENTORY FORM/FICHE D'INVENTAIRE - 2002

Site N° _____ **Map/Carte N°:** _____ **Latitude** ° N **Longitude** ° W

Region/Région: _____ **Informant/Informateur** _____

Date: _____ **By/Par:** _____ **Priority/Prioritaire** ☐ **Hasard** ☐ **Other:** _____

Nb sectors/secteurs: _____ **Sector/Secteur N°:** _____ **Size/Dimension:** m X m

Distance from surface water/Distance de l'eau de surface: m **Soil/Sol:** _____ **Drainage:** _____

Buildings and dwellings/Bâtiments et habitations

Nb: Buildings/Bâtiments: _____ Dwellings: _____ State/Condition: _____

Description (material/matériaux + volume): _____

Barrels, Tanks and Bottles/Barils, réservoirs et bouteilles

Nb barrels/barils (1 barrel/baril=205 litres):

TOTAL _____ empty/vides: _____ full/pleins: _____ residue/residus: _____ piled/empilés: _____ scattered/épars: _____

Quantity/Quantité ☐ diesel: L ☐ oil/huile: L ☐ grease/graisse: L ☐ _____ : L

Distance from a sensitive area/d'un milieu sensible: m Type of area/de milieu: _____

Nb tanks/réservoirs:

TOTAL _____ empty/vides: _____ full/pleins: _____ residue/residus: _____

Quantity/Quantité ☐ diesel: L ☐ Jet-B: L ☐ _____ : L ☐ _____ : L

Distance from a sensitive area/d'un milieu sensible: m Type of area/de milieu: _____

Nb bottles or other containers/Bouteilles ou autres contenants:

TOTAL _____ empty/vides: _____ full/pleins: _____ residue/residus: _____ state/état: _____

Content + quantity/Contenu + quantité: _____ : L _____ : L _____ : L

Nb propane tanks/Bonbonnes de propane:

TOTAL _____ empty/vides: _____ full/pleins: _____ residue/residus: _____ state/état: _____

Batteries and Transformers/Batteries et transformateurs

Nb batteries/batteries: _____ Condition: _____ ***Nb transformers/transformateurs:*** _____ Condition: _____

Machinery and Equipment/Machinerie et équipement

Nb: Buldozer: _____ Tractor/tracteur: _____ Truck/Camion: _____ Muskeg: _____ _____ :

Conveyor/Convoyeur: _____ Crusher/Concasseur: _____ Generator/Génératrice: _____ _____ :

Solid Waste and Dry material/Matériaux secs

Core trays/Plateau à carottes (Nb + Volume): Wood: _____ ; _____ m^3 Al: _____ ; _____ m^3 Plastic _____ ; _____ m^3

Rods/Tuyaux (Nb + Volume): _____ ; _____ m^3 Cables/Câbles: _____ ; _____ m^3

Wood/Bois: _____ m^3 Metal/Métal: _____ m^3

Other/Autre: _____

Diagram/Schéma

APPENDIX 2

Photographs of sites assessed in 2001-2002

CONTENT OF APPENDIX 2

LABRADOR TROUGH 1

SECTOR OF KAWAWACHIKAMACH 3

Major Sites 5

KAW-35 7
KAW-45 15

Intermediate Sites 17

KAW-36 19
KAW-59 19
KAW-119 20

Minor Sites 21

KAW-42A 23
KAW-43 23
KAW-54 24
KAW-58 24
KAW-63 25
KAW-69 25
KAW-72 26

Other Sites 27

KAW-28A 29
KAW-70A 29
KAW-86 30
KAW-118 30

SECTOR OF KUUJJUAQ 31

Intermediate Sites 33

P24F 35

Minor Sites 37

KAW-5 39
KAW-10 39
PD-1 40
PD-2 40

SECTOR OF TASIUJAQ 41

Major Sites 43

PJ-1 45
TQ-1 50
TQ-4 54

SECTOR OF TASIUJAQ (continued)

Intermediate Sites **59**
TA-1 61
TQ-6 62
TQ-10 64
TQ-14 66
VP-11 67

SECTOR OF AUPALUK **69**

Major Sites **71**
PJ-10 73
PJ-17 76
Intermediate Sites **79**
G-24NP04-3 81

SECTOR OF KANGIRSUK **83**

Major Sites **85**
TW 87
Intermediate Sites **91**
QC-3 93

UNGAVA TROUGH-HUDSON BAY **95**

SECTOR OF KANGIQSUJUAQ **97**

Major Sites **99**
K-28 101
K-61 104
WB-3 110
Intermediate Sites **113**
K-27 115
K-49 115
KAN-2 116
KAN-6 117
KAN-7 117
KAN-10 118
Minor Sites **119**
K-36 121
KAN-5 122
KAN-11 122

SECTOR OF SALLUIT 123

Major Sites 125
KV-1 127
SAL-1 129
SW-27 133
SW-34 135
SW-42 139
WB-9 140

Minor Sites 143
SW-14 145

SECTOR OF UMIUJAQ 147

Major Sites 149
WHA-1 151

Minor Sites 157
GW-5 159
PH-11 161
UD-1 161
UD-6 162
UM-1 162
UM-2 163
UM-3 163

SECTOR OF KUUJJUARAAPIK 165

Intermediate Sites 167
GW-8 169

Minor Sites 171
GW-2 173

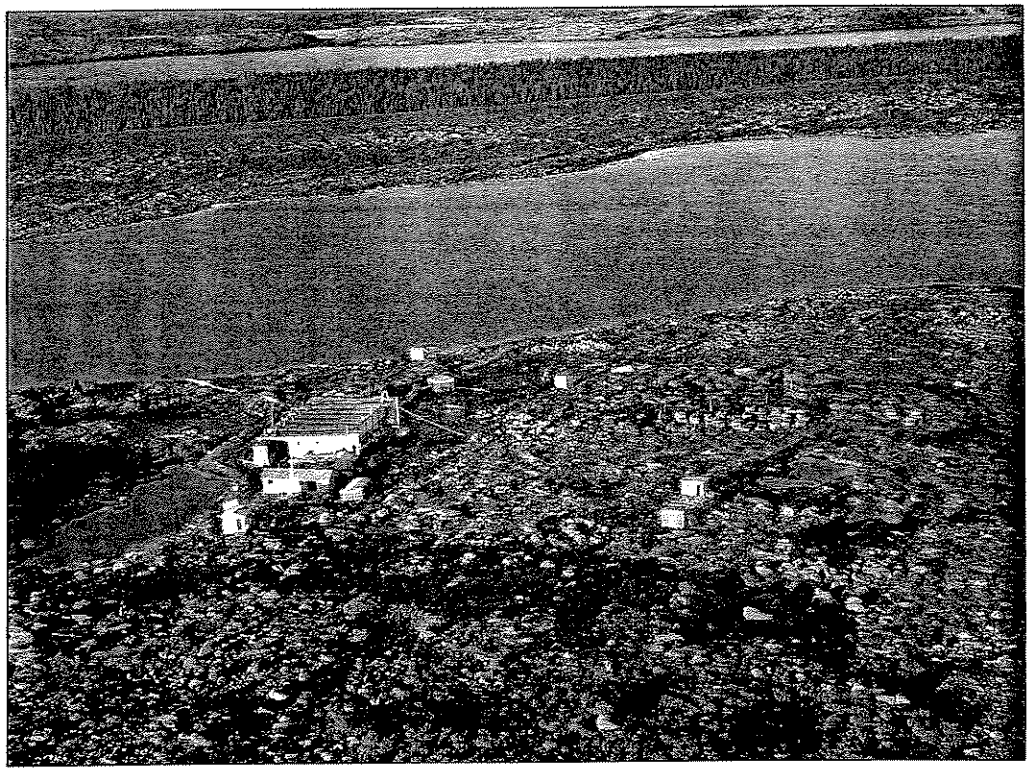
LABRADOR TROUGH

SECTOR OF
KAWAWACHIKAMACH

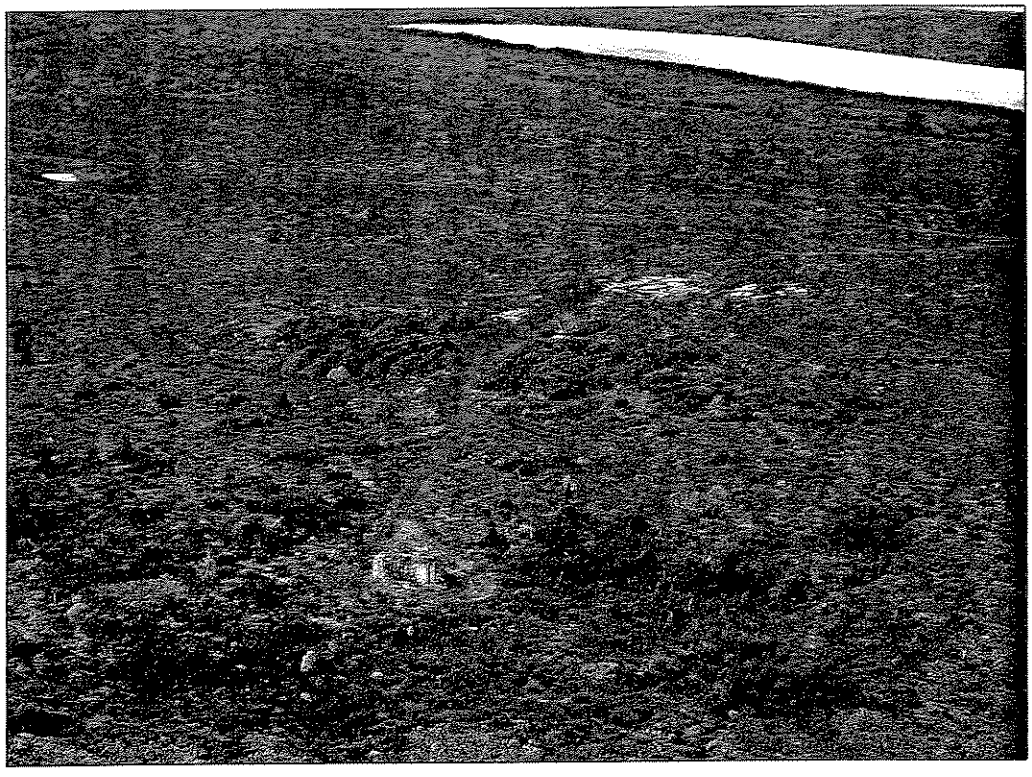
MAJOR SITES

KAW-35

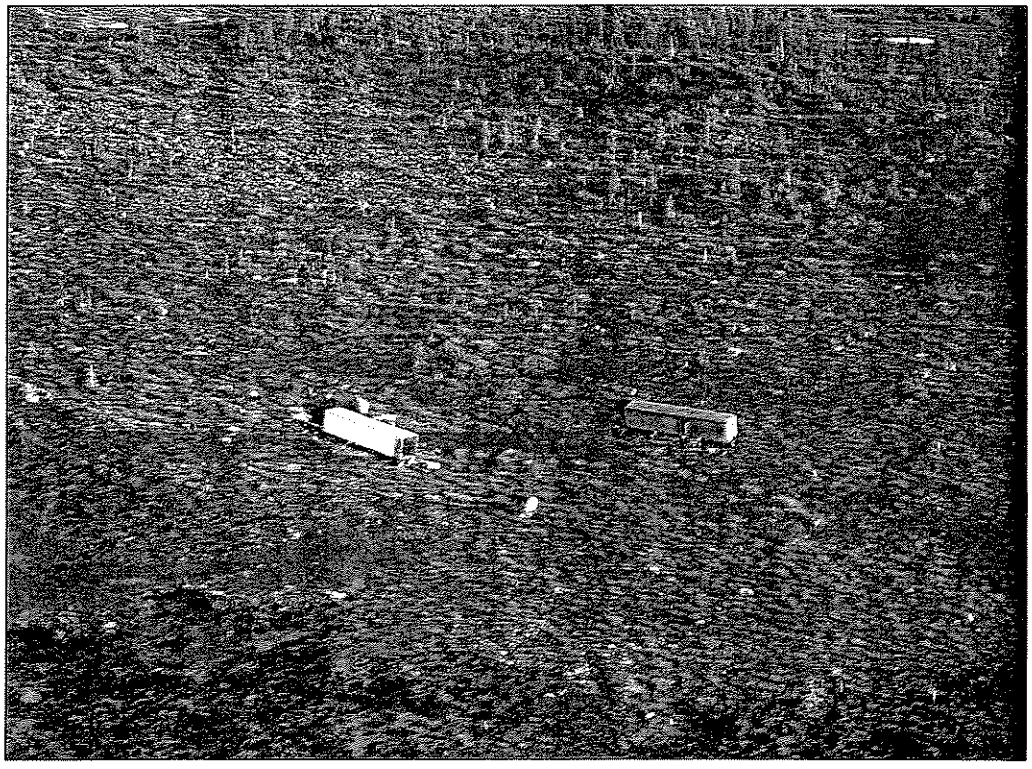
KAW-45



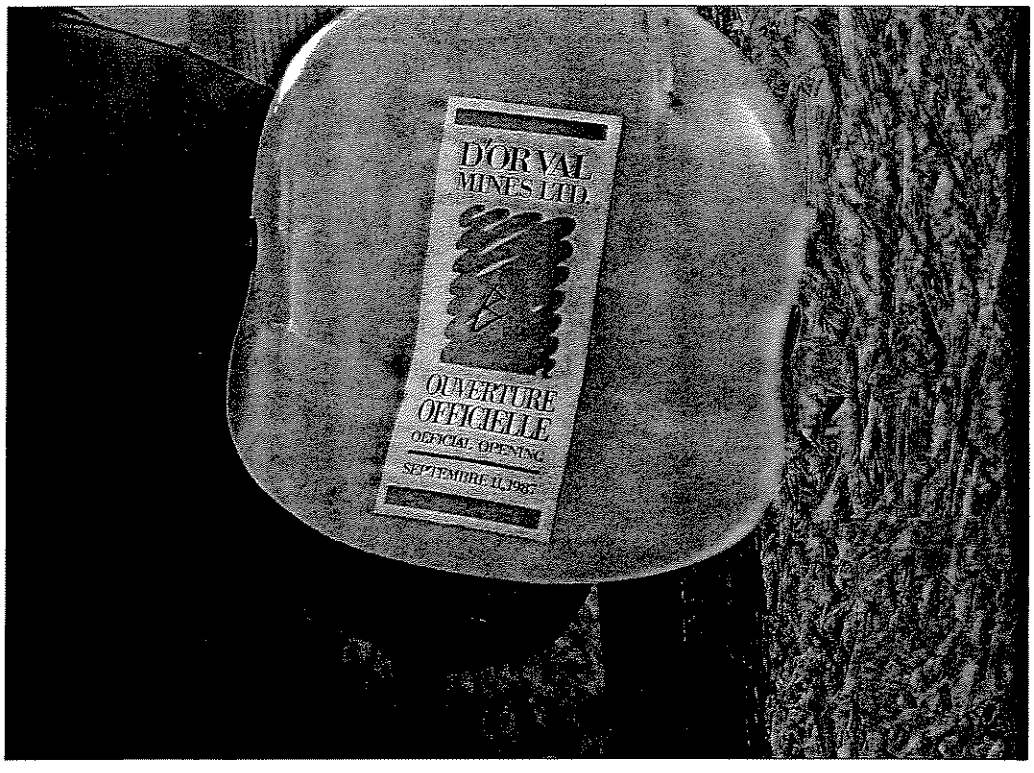
KAW-35 Sector 1: buildings, core trays, barrels and various debris (Sept. 10, 2002)



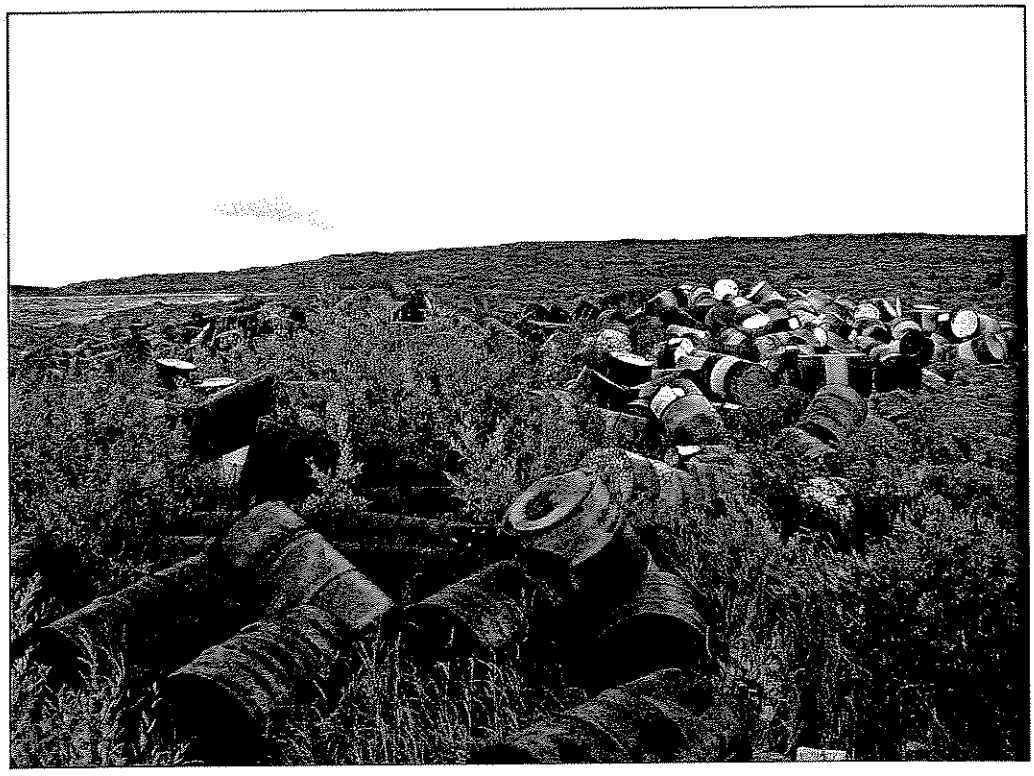
KAW-35 Sector 2: mine tailings and a garage (Sept. 10, 2002)



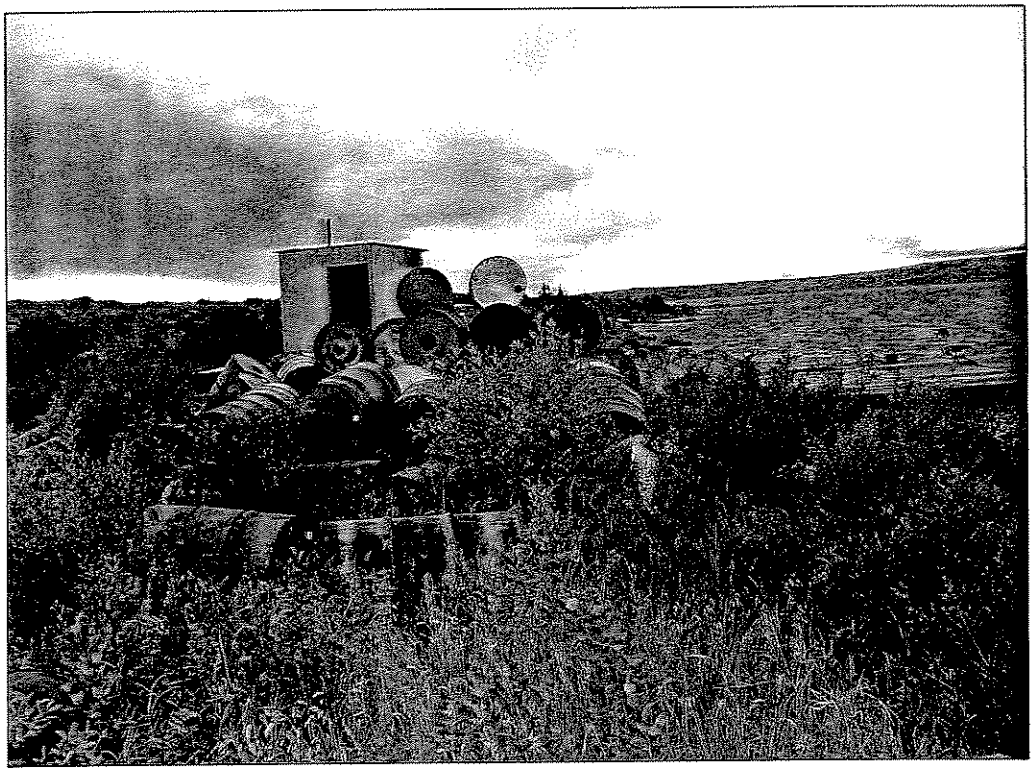
KAW-35 Sector 3: two house trailers and a 4400-L tank (Sept. 10, 2002)



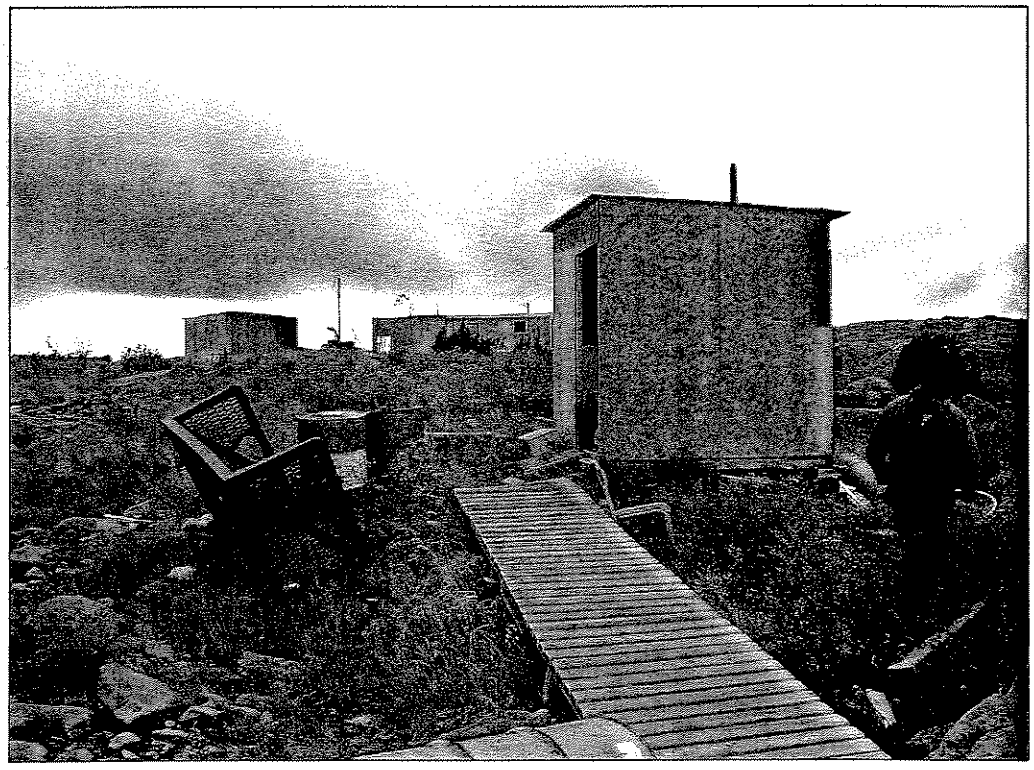
KAW-35 A hard hat with an inscription saying that the official opening of the site was on September 11, 1987 (Sept. 10, 2002)



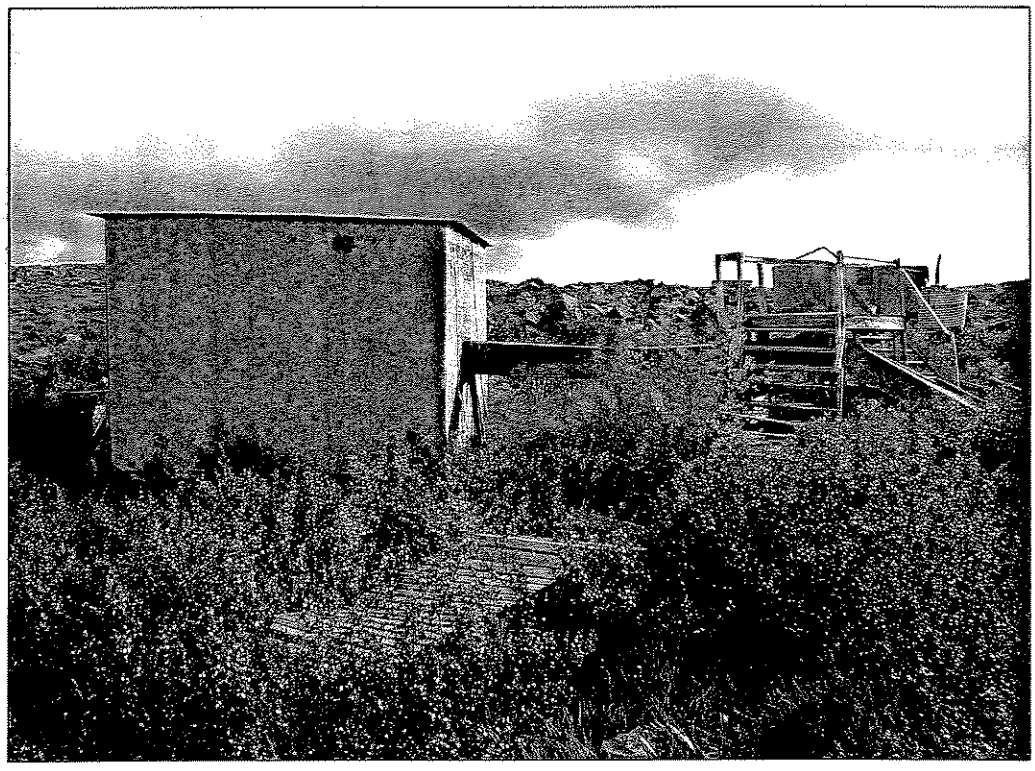
KAW-35 Barrels near the shore of Retty lake (Sept. 10, 2002)



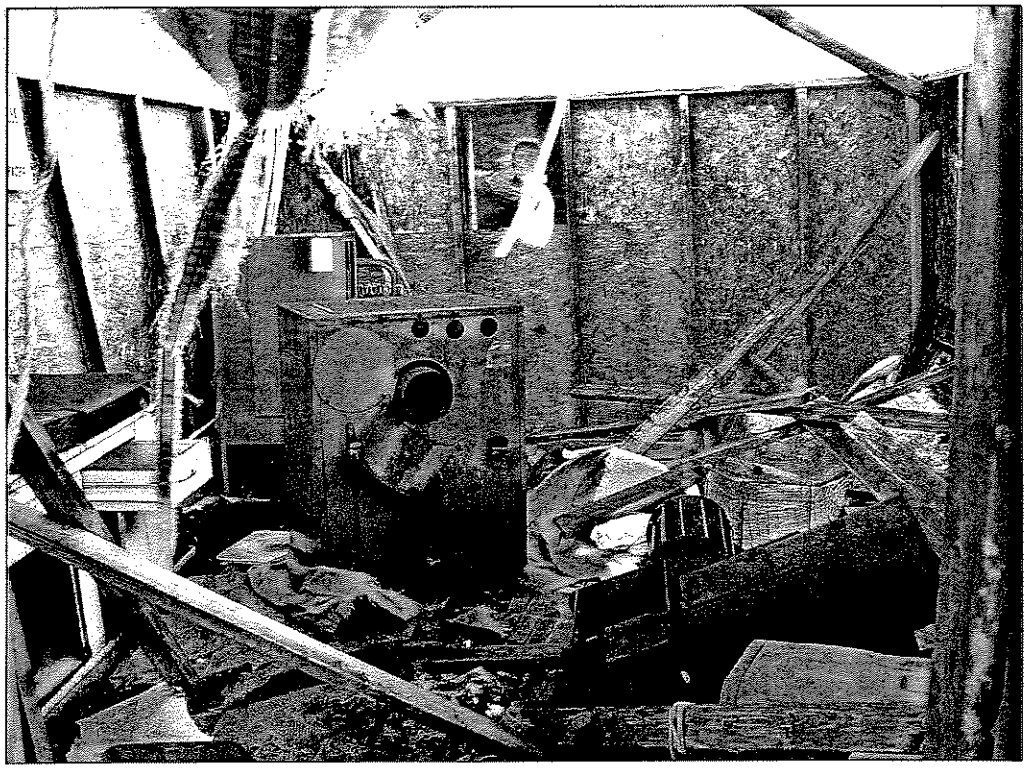
KAW-35 Barrels and a small shed near the shore of Retty lake (Sept. 10, 2002)



KAW-35 A sidewalk, barrels, various debris and buildings (Sept. 10, 2002)



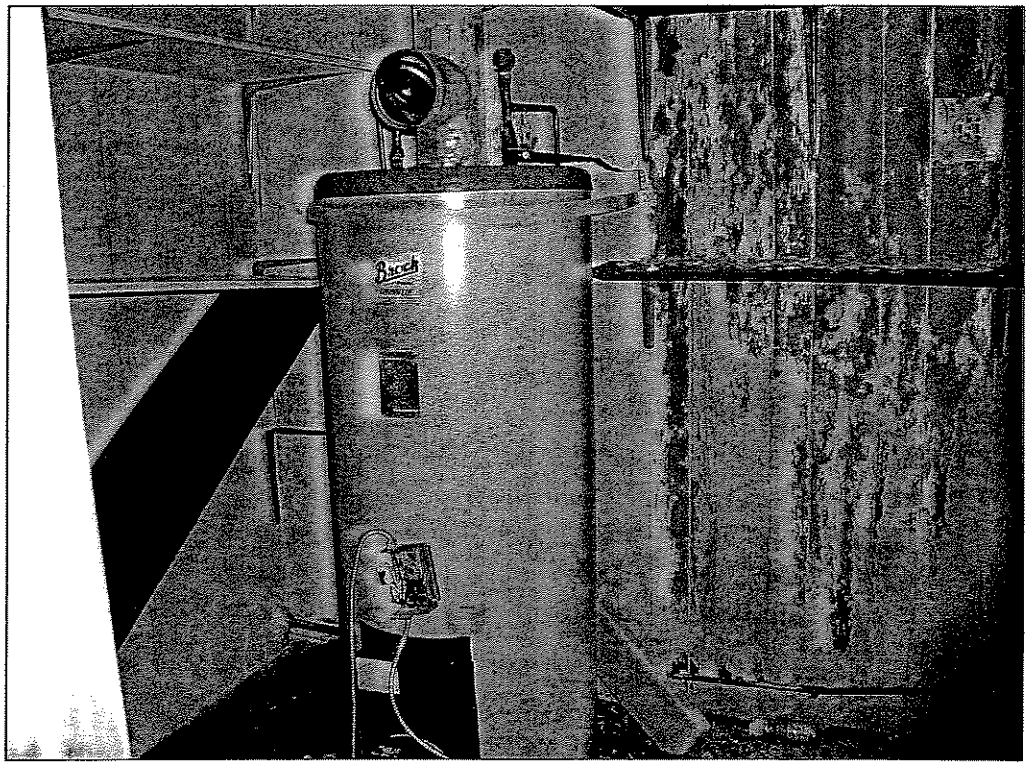
KAW-35 Shed containing an insulated tank (Sept. 10, 2002)



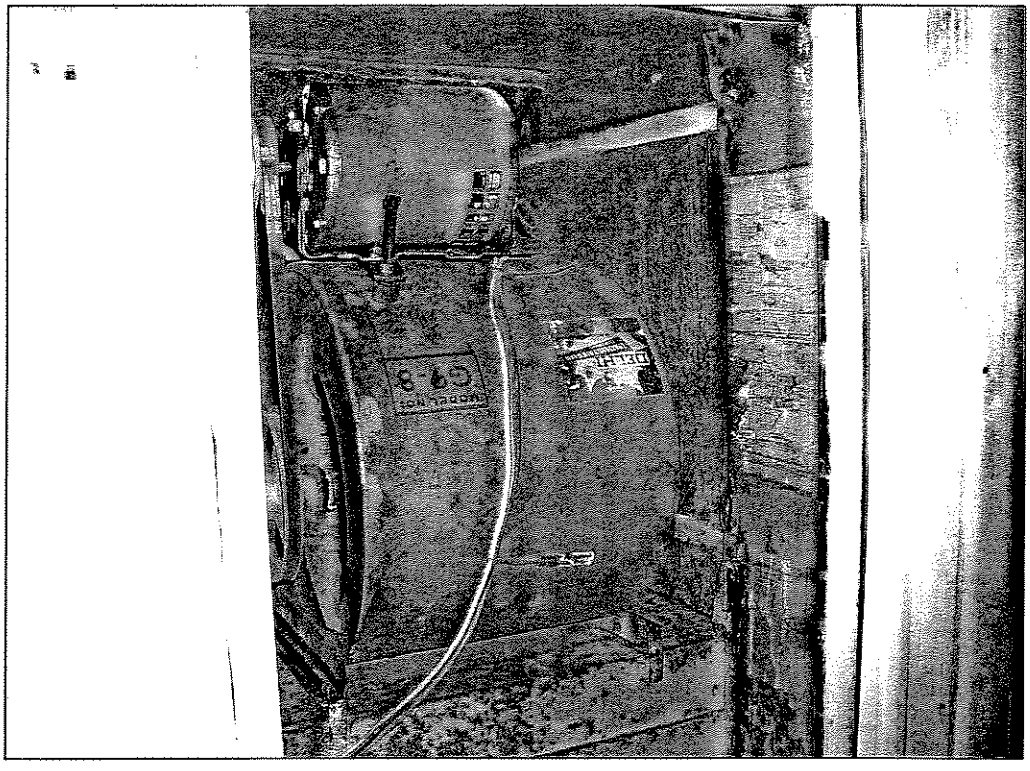
KAW-35 Furnace and other debris inside a collapsed building (Sept. 10, 2002)



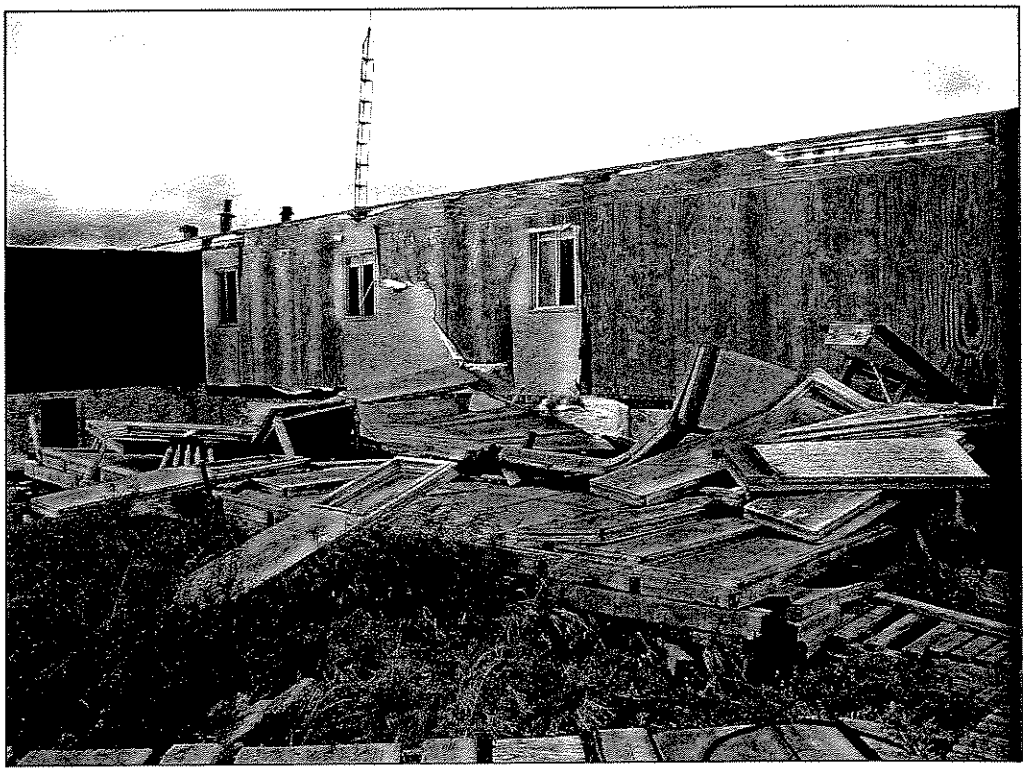
KAW-35 Furnace and other debris inside a collapsed building (Sept. 10, 2002)



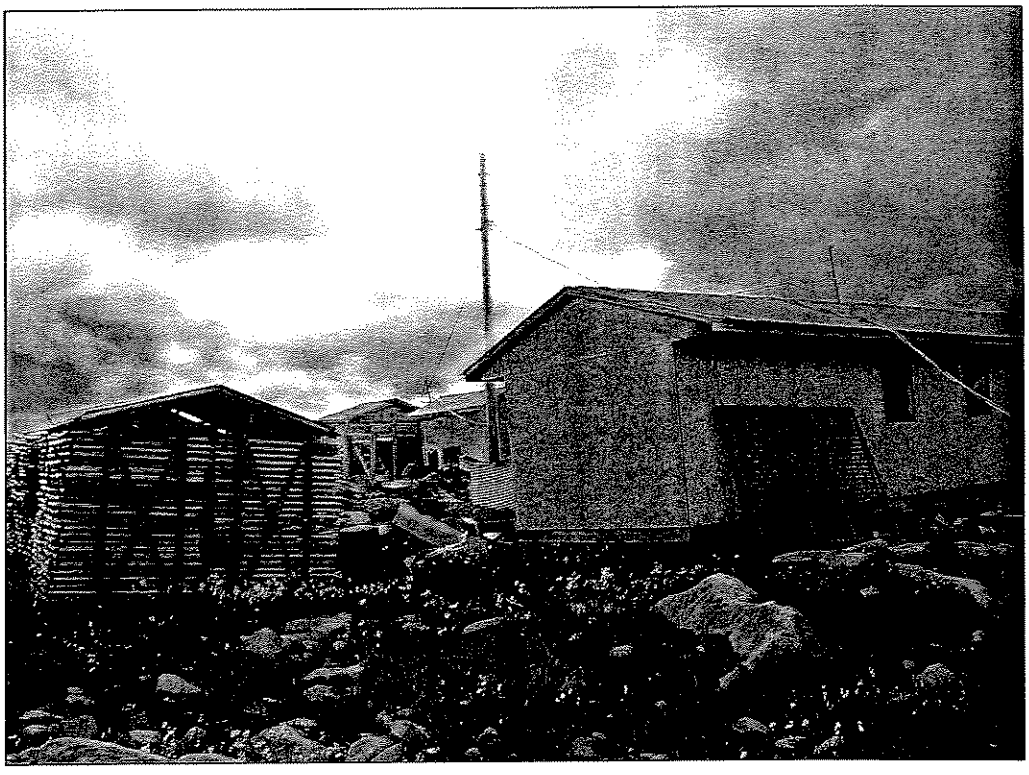
KAW-35 Water heater in a house trailer (Sept. 10, 2002)



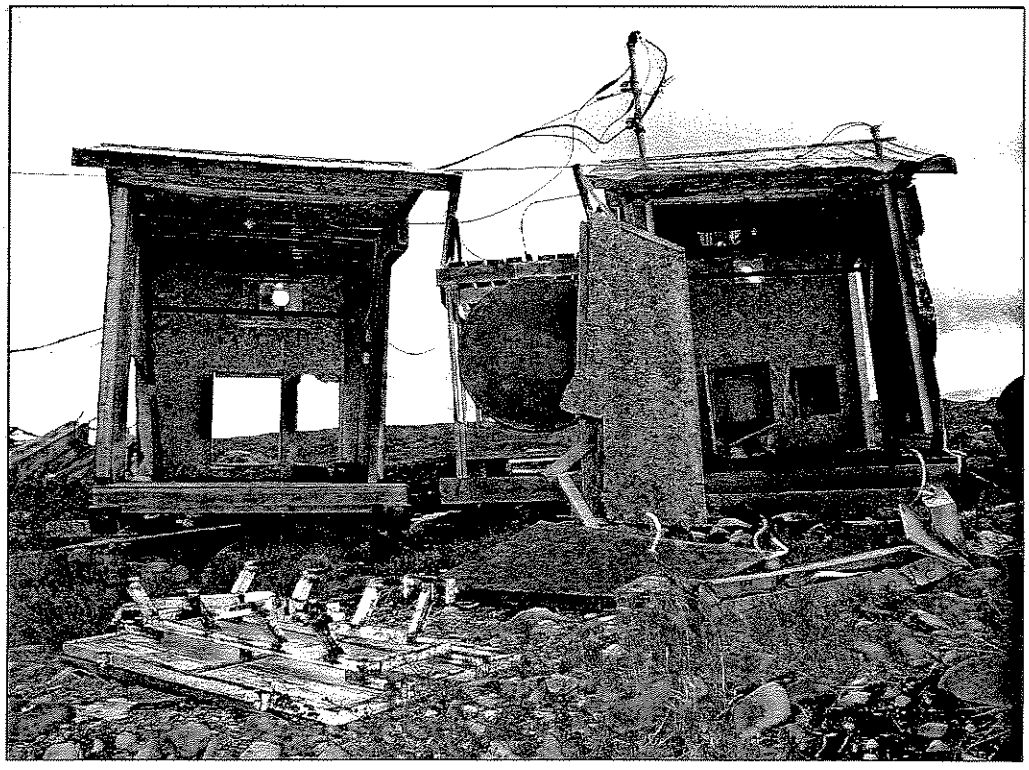
KAW-35 Motor (generator) in a house trailer (Sept. 10, 2002)



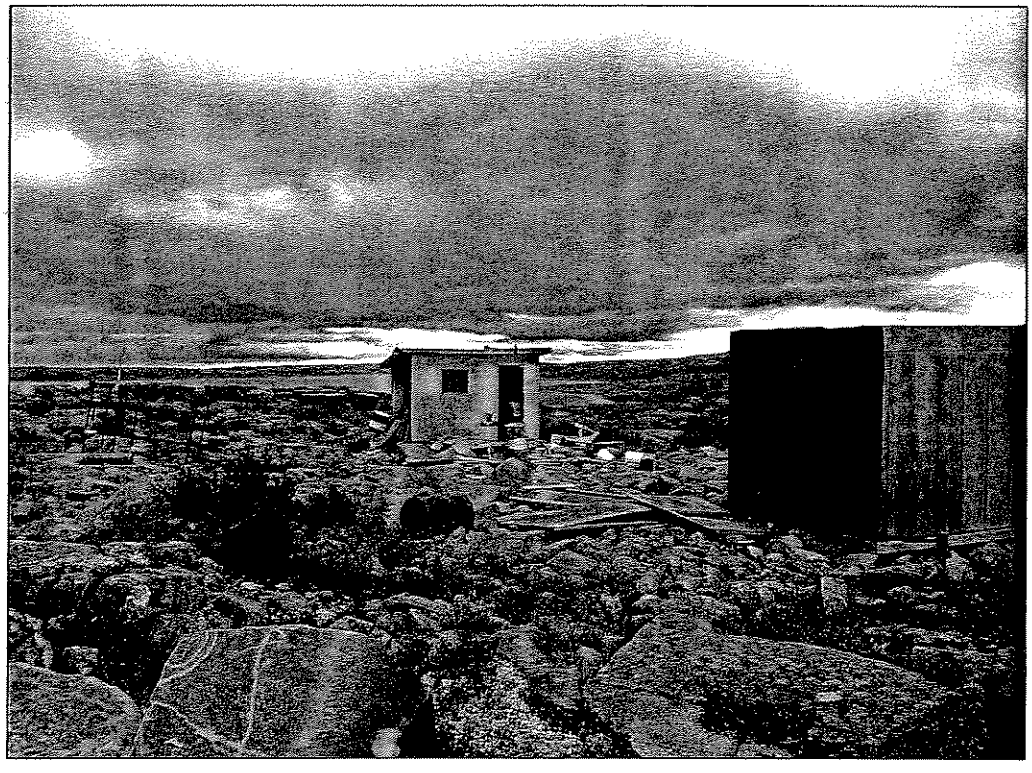
KAW-35 Lot of wood debris beside a house trailer (Sept. 10, 2002)



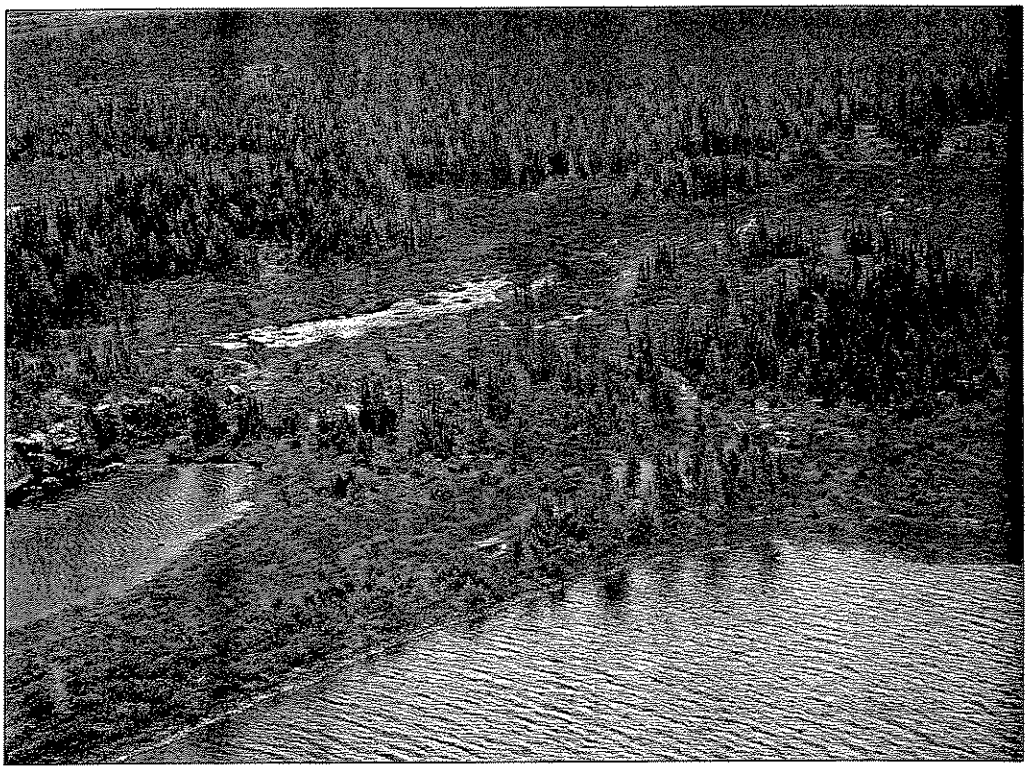
KAW-35 Core trays covered with a roof, debris and buildings (Sept. 10, 2002)



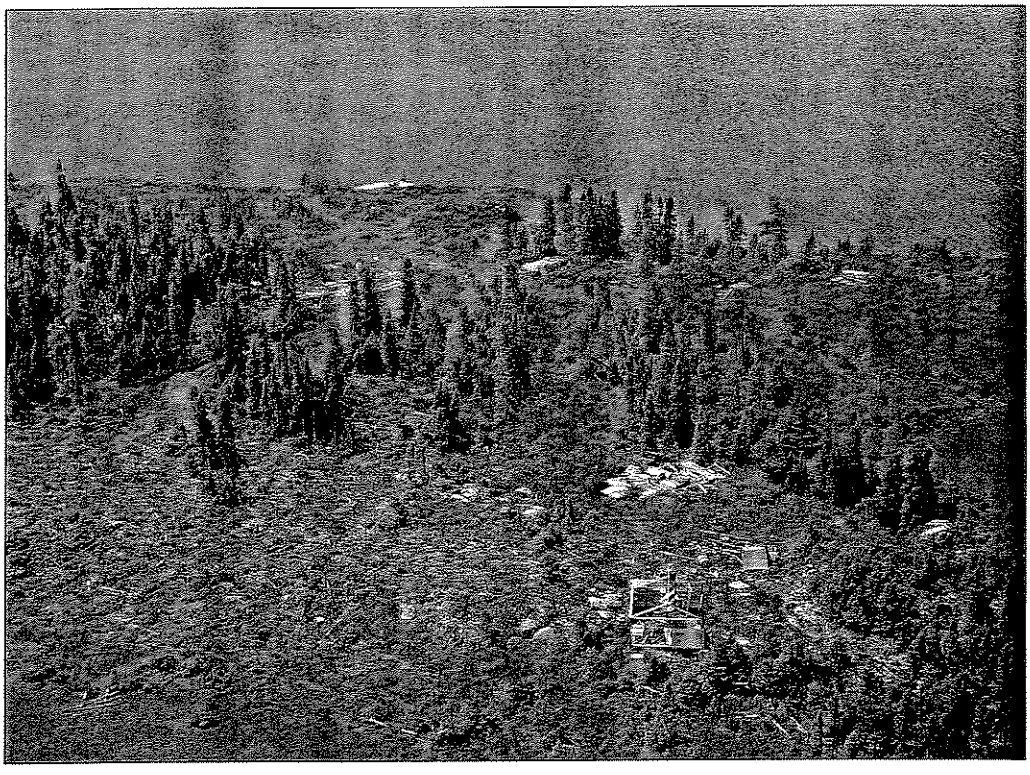
KAW-35 Generator houses, debris and batteries (Sept. 10, 2002)



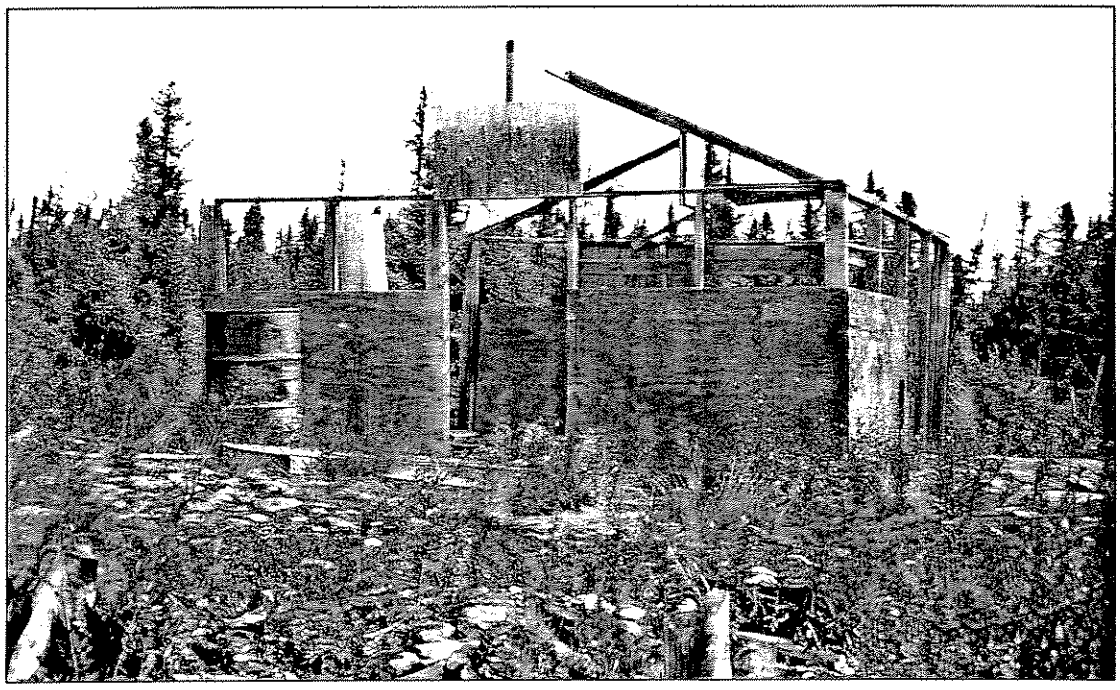
KAW-35 Debris, barrels, and two mall sheds, one contains bottles with hydrofluoric acid 4% (Sept. 10, 2002)



KAW-45 Aerial view of the site (Sept. 11, 2002)



KAW-45 Closer view of the site. Wood floors and other debris are visible (Sept. 11, 2002)



KAW-45 Closer view of a roofless dwelling (Sept. 11, 2002)



KAW-45 Core trays and wood debris (Sept. 11, 2002)

INTERMEDIATE SITES

KAW-36

KAW-59

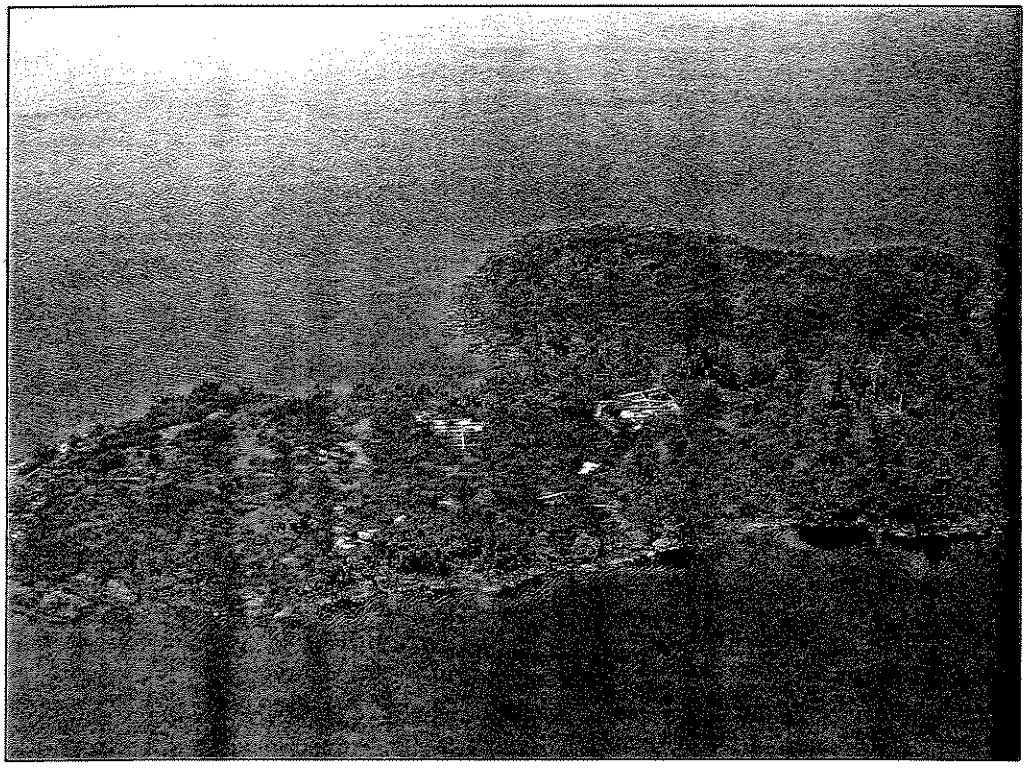
KAW-119



KAW-36 Barrels and various debris, old outhouse (Sept. 10, 2002)



KAW-59 Wood platforms, barrels, various debris, a recent canoe (Sept. 11, 2002)



KAW-119 Barrels, wood platforms, various debris (Sept. 11, 2002)

MINOR SITES

KAW-42A

KAW-43

KAW-54

KAW-58

KAW-63

KAW-69

KAW-72



KAW-42A Wood platform, a barrel, a small dump (Sept. 11, 2002)



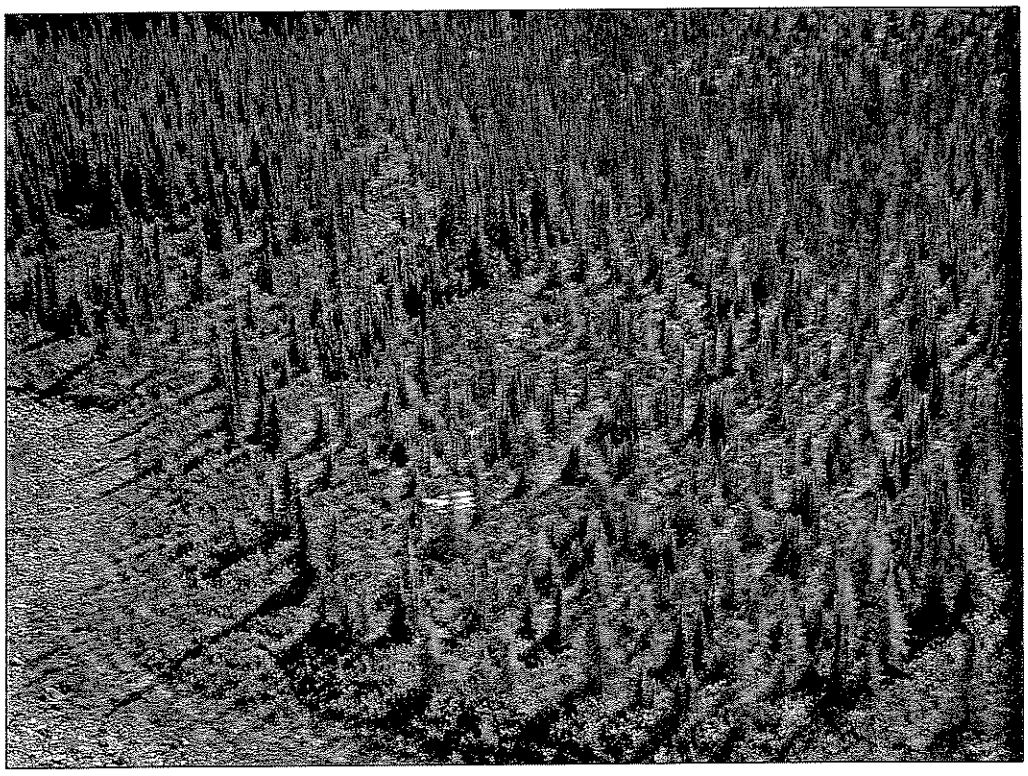
KAW-43 Barrels, core trays, debris (Sept. 11, 2002)



KAW-54 Barrels near a lake and a wetland (Sept. 11, 2002)



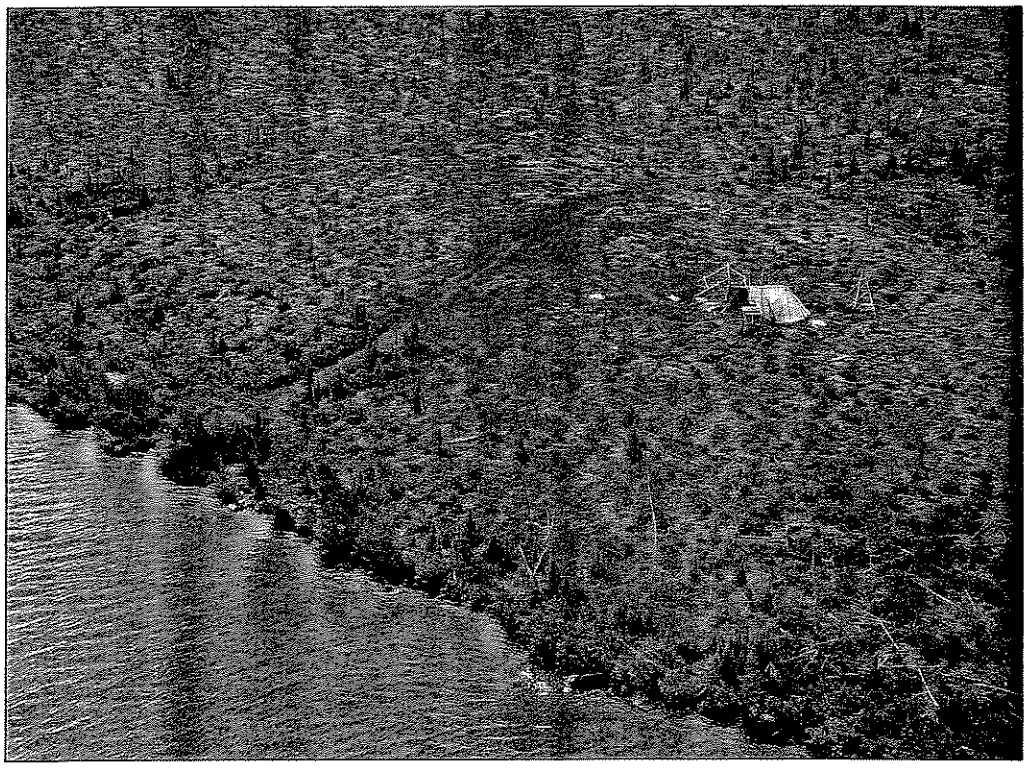
KAW-58 Barrels near the shore, core trays (Sept. 11, 2002)



KAW-63 Barrels, wood platforms, debris (Sept. 11, 2002)



KAW-69 Plywood sheets (Sept. 11, 2002)



KAW-72 Barrels in the lake, wood platform, teepee (Sept. 11, 2002)

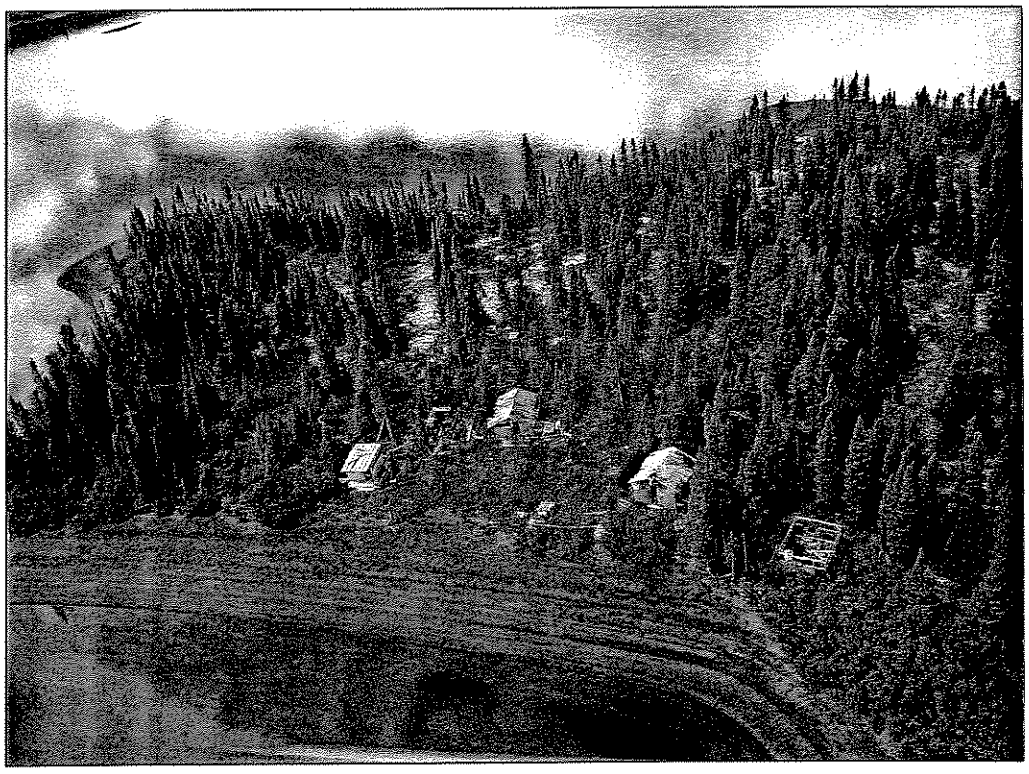
OTHER SITES

KAW-28A

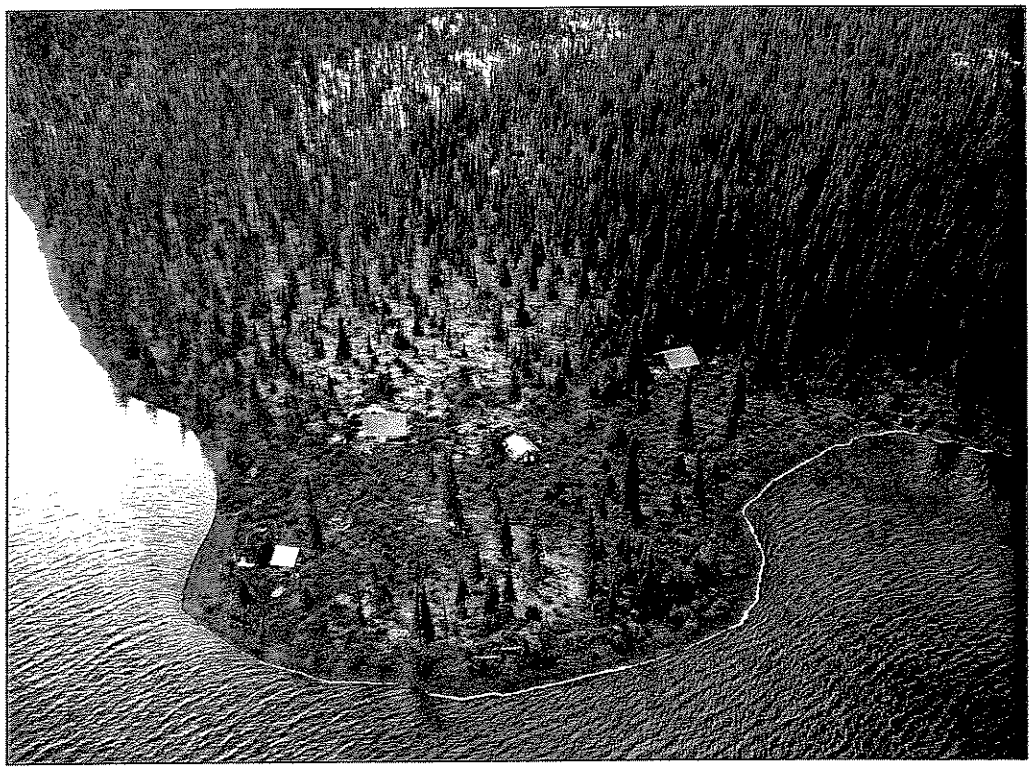
KAW-70A

KAW-86

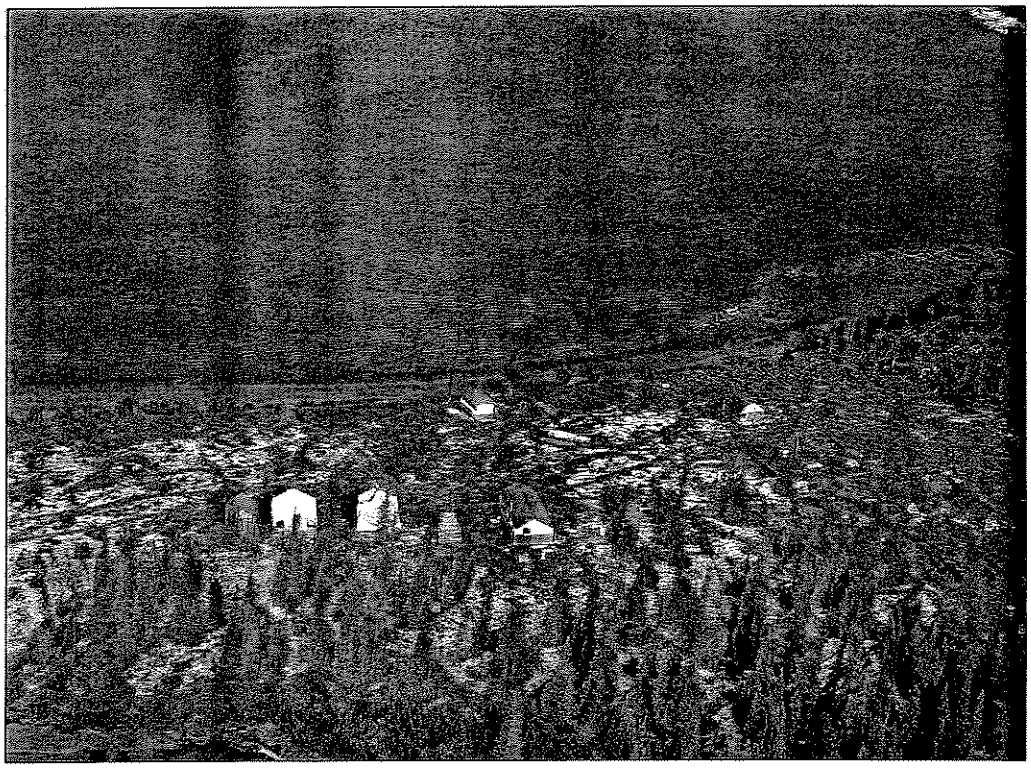
KAW-118



KAW-28A Outfitting camp on an island (Sept. 12, 2002)



KAW-70A Old outfitting camp. Few barrels containing residue (Sept. 11, 2002)



KAW-86 Outfitting camp. A dump could be related to mining activities (Sept. 12, 2002)

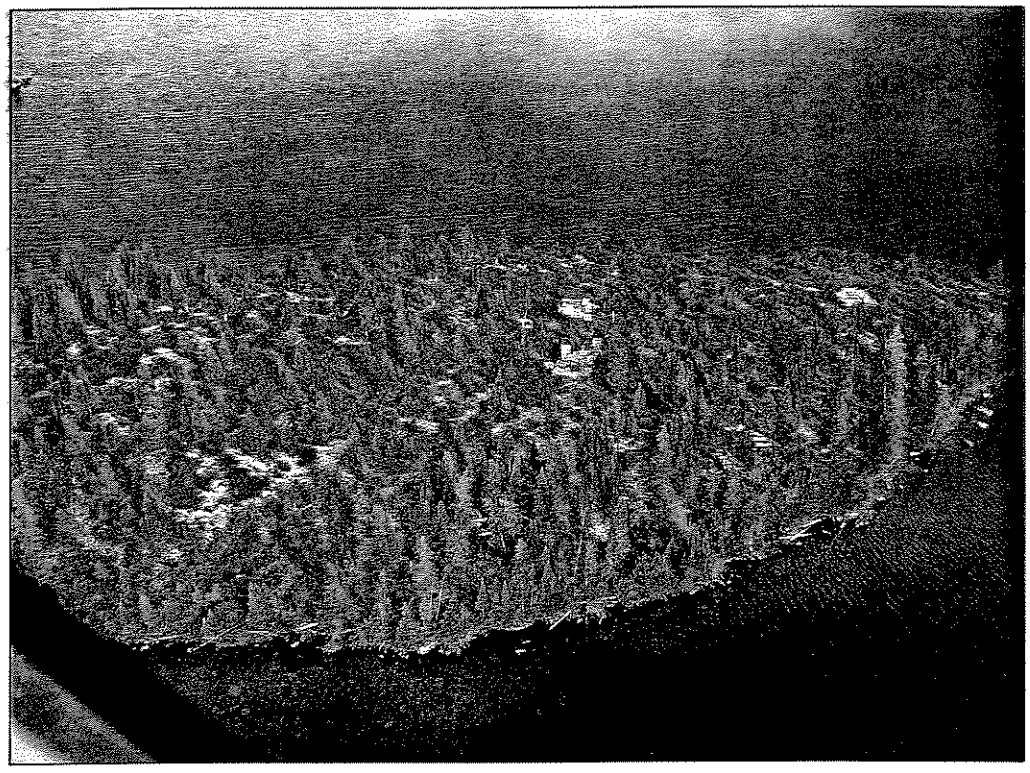


KAW-118 Outfitting camp (Sept. 10, 2002)

SECTOR OF
KUUJJUAQ

INTERMEDIATE SITES

P24F



P24F Aerial view of Site P24F (Sept. 12, 2002)



P24F Wood floor (Sept. 12, 2002)



P24F Barrels near the lake (Sept. 12, 2002)



P24F Dump with cans, barrels, a propane tank, a core tray, bottles (Sept. 12, 2002)

MINOR SITES

KAW-5

KAW-10

PD-1

PD-2



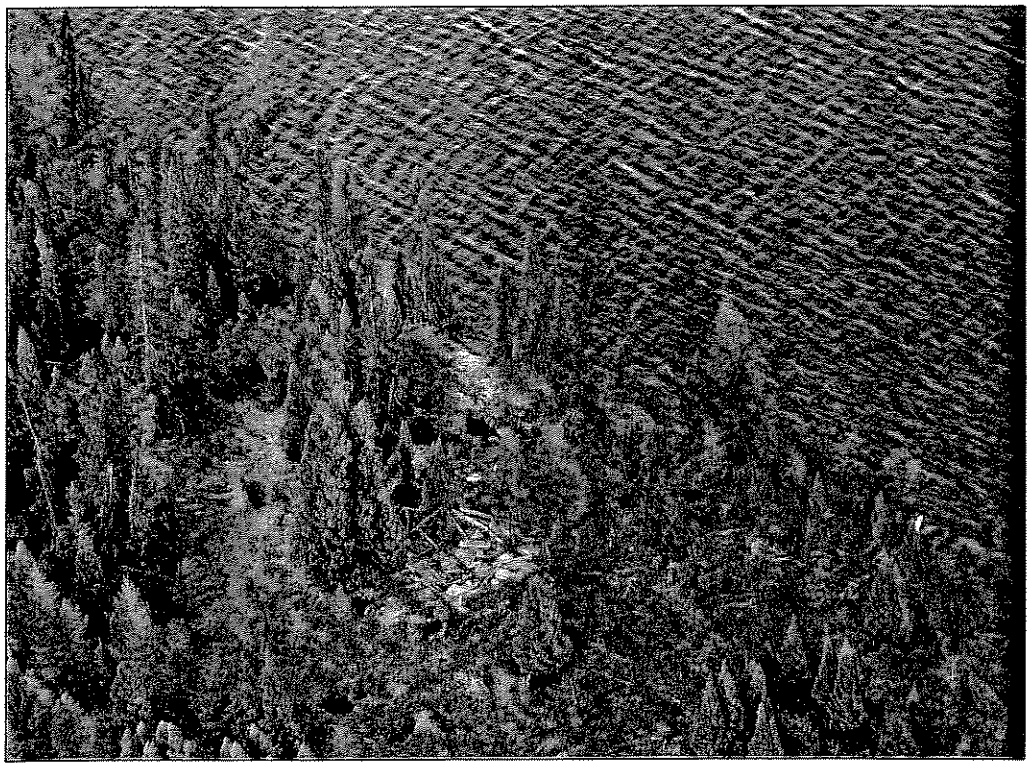
KAW-5 Barrels, a dwelling, and a dump (Sept. 12, 2002)



KAW-10 Wood platforms, metal debris, core boxes (1 km south) (Sept. 12, 2002)



PD-1 Barrels, a wood platform (Sept. 12, 2002)



PD-2 Barrels, a wood platform (Sept. 12, 2002)

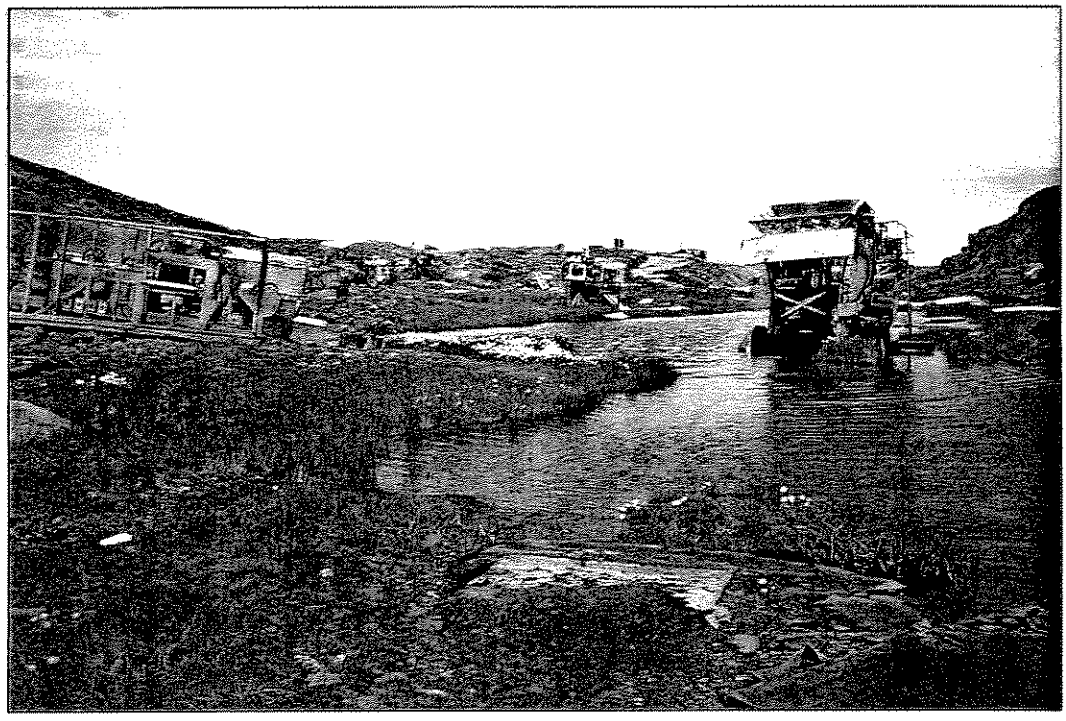
SECTOR OF
TASIUJAQ

MAJOR SITES

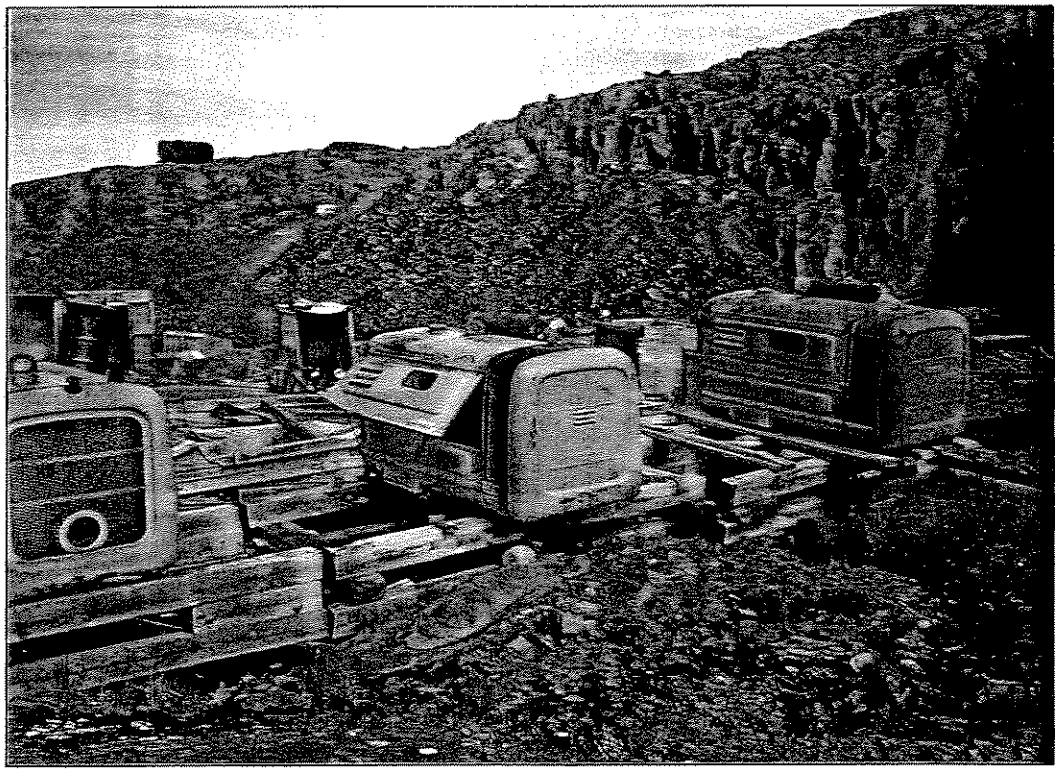
PJ-1

TQ-1

TQ-4



PJ-1 Sector 4: abandoned machinery (July 21, 2001)



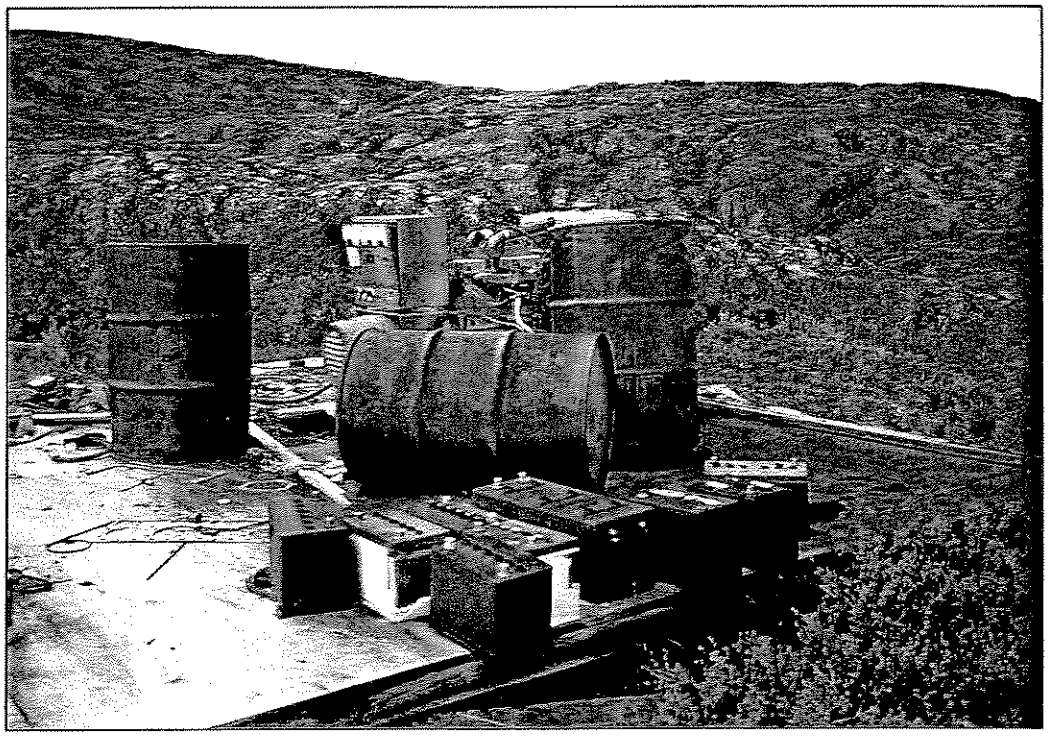
PJ-1 Sector 4: generators with batteries, various debris (July 21, 2001)



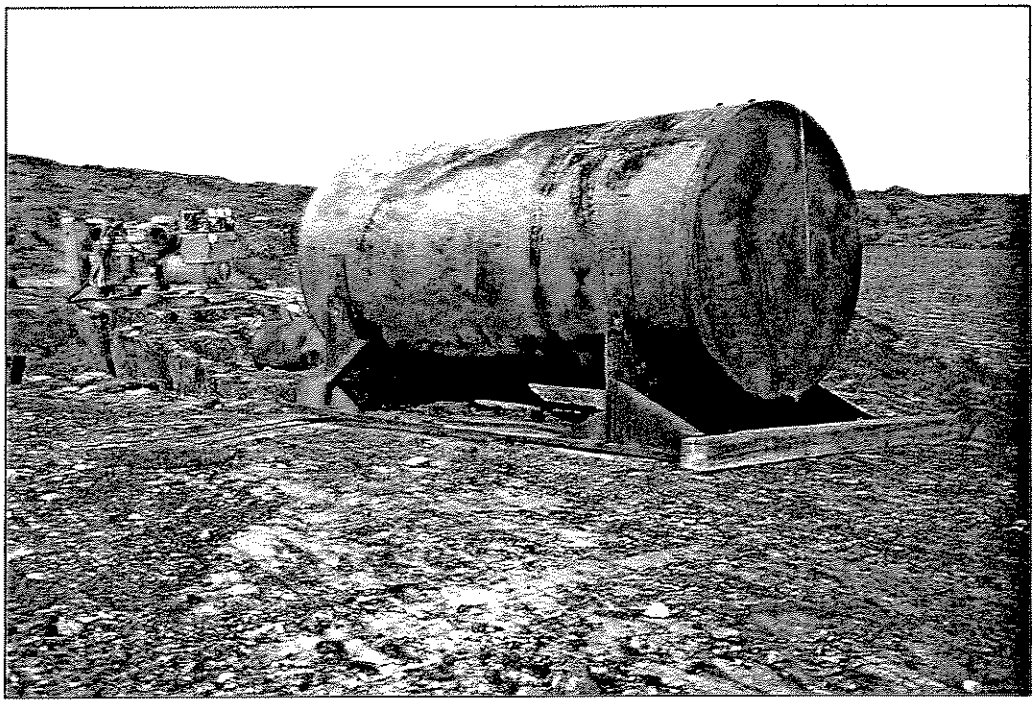
PJ-1 Sector 4: barrels, contaminated area, debris. At he left back: mine gallery (July 21, 2001)



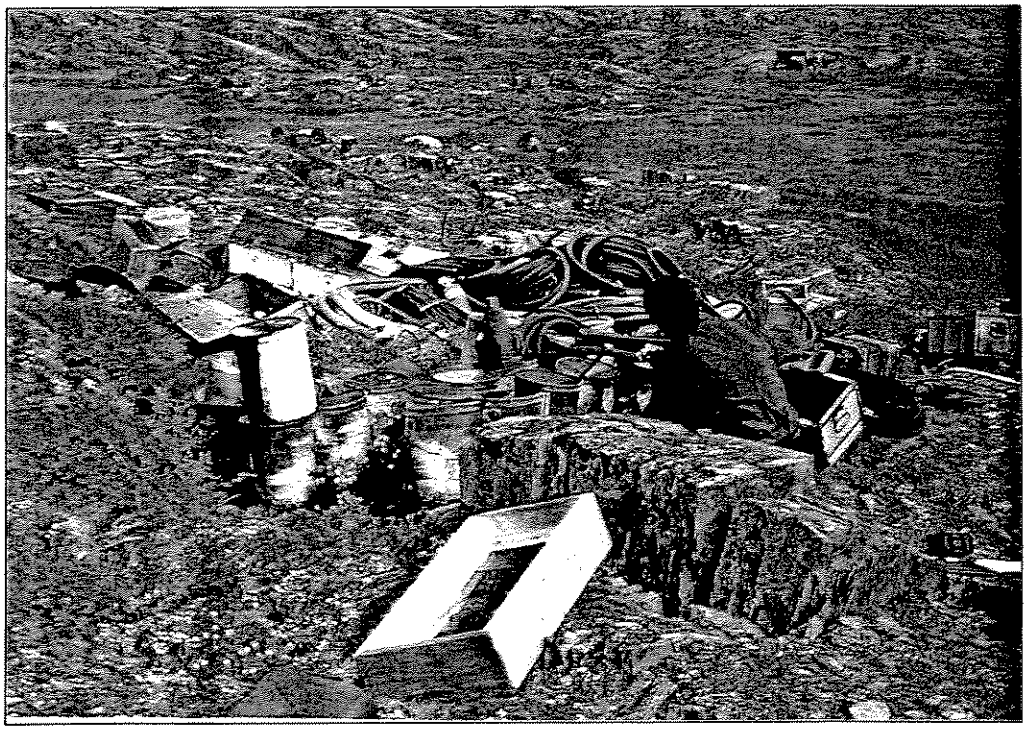
PJ-1 Sector 4: various debris, two large tanks, tires (July 21, 2001)



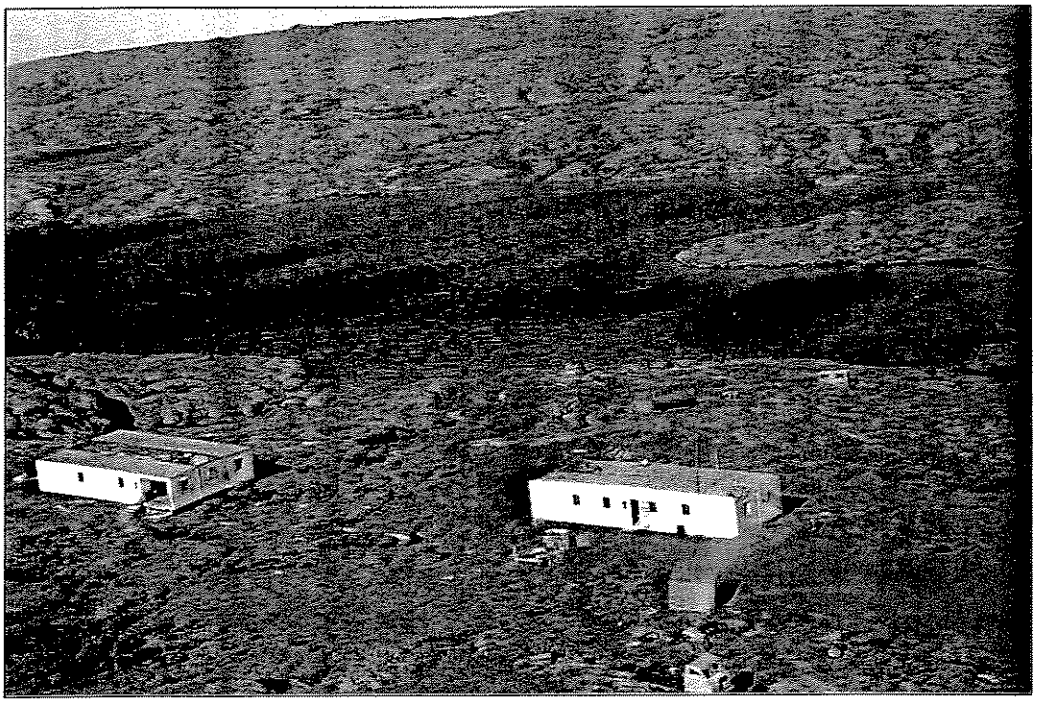
PJ-1 Sector 5: barrels, batteries and a generator on a wood platform (July 21, 2001)



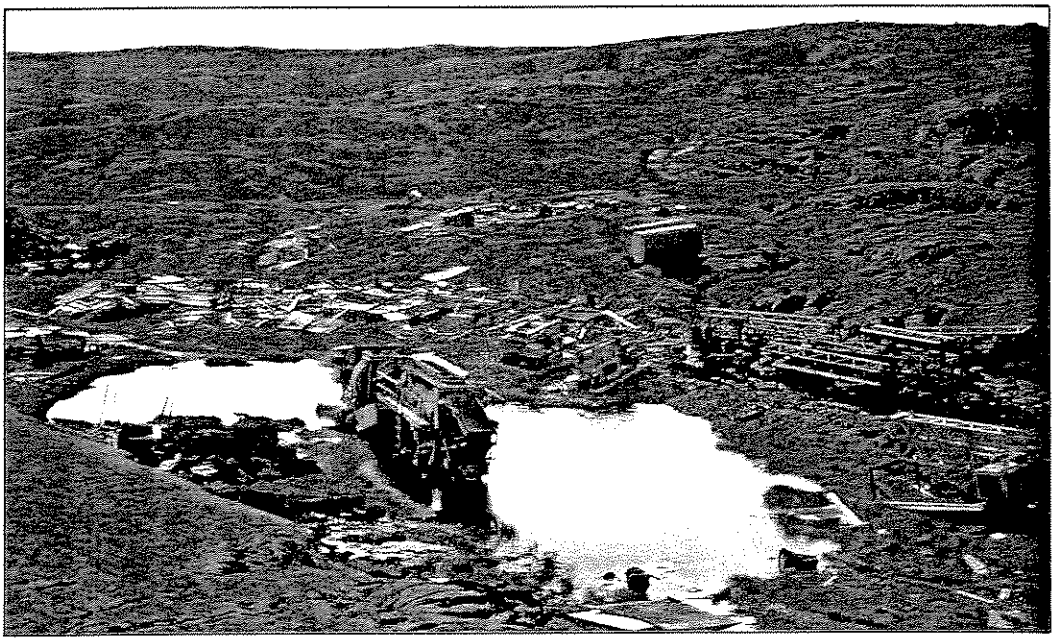
PJ-1 Sector 5: large tank, generator, barrels (July 21, 2001)



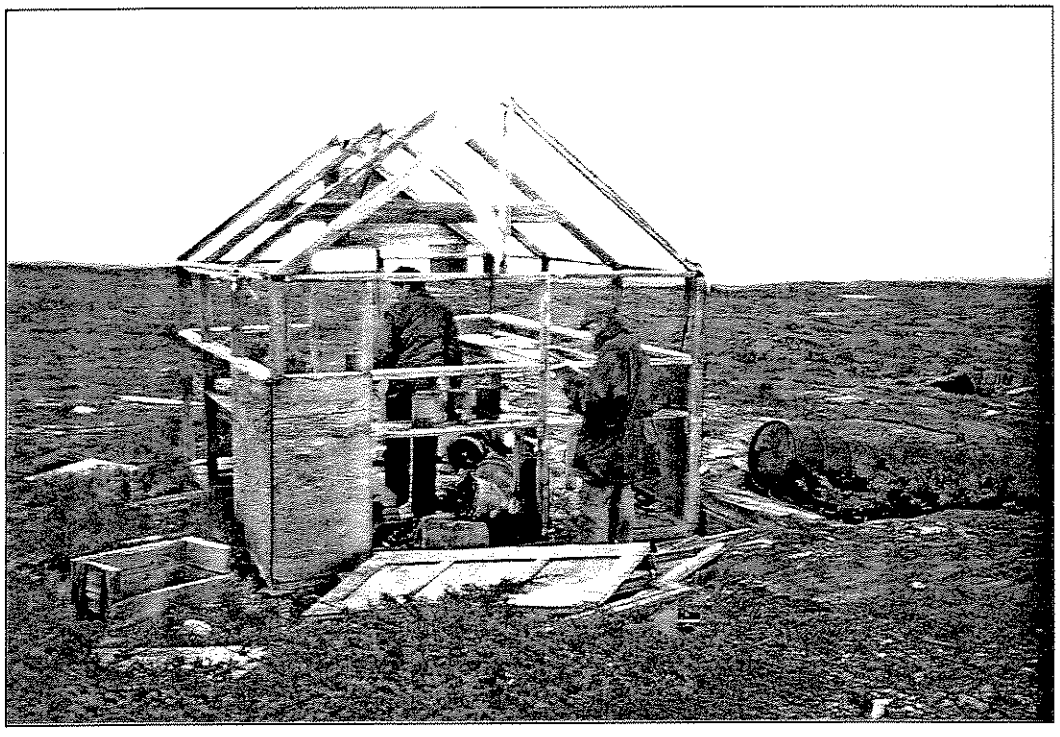
PJ-1 Sector 6: pails, flexible hoses, radiator, various debris (July 21, 2001)



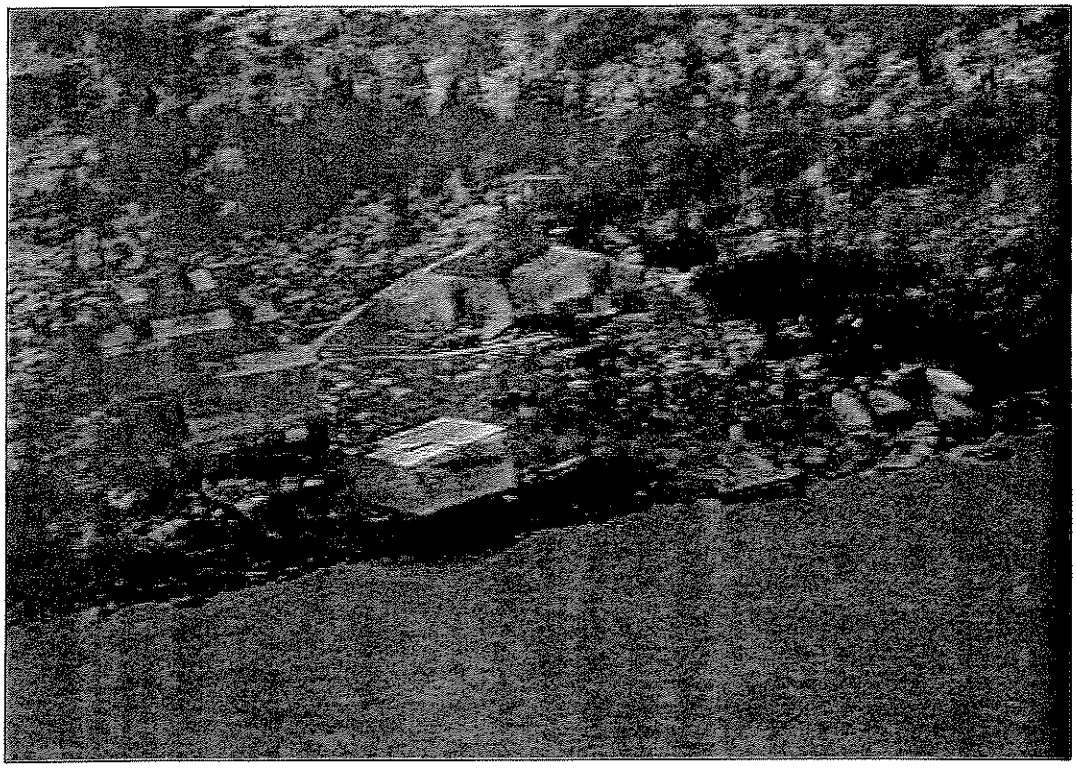
PJ-1 Sector 5: buildings, machinery, tanks, barrels, batteries, various debris (July 21, 2001)



PJ-1 Sector 4: machinery, tanks, lot of debris (July 21, 2001)



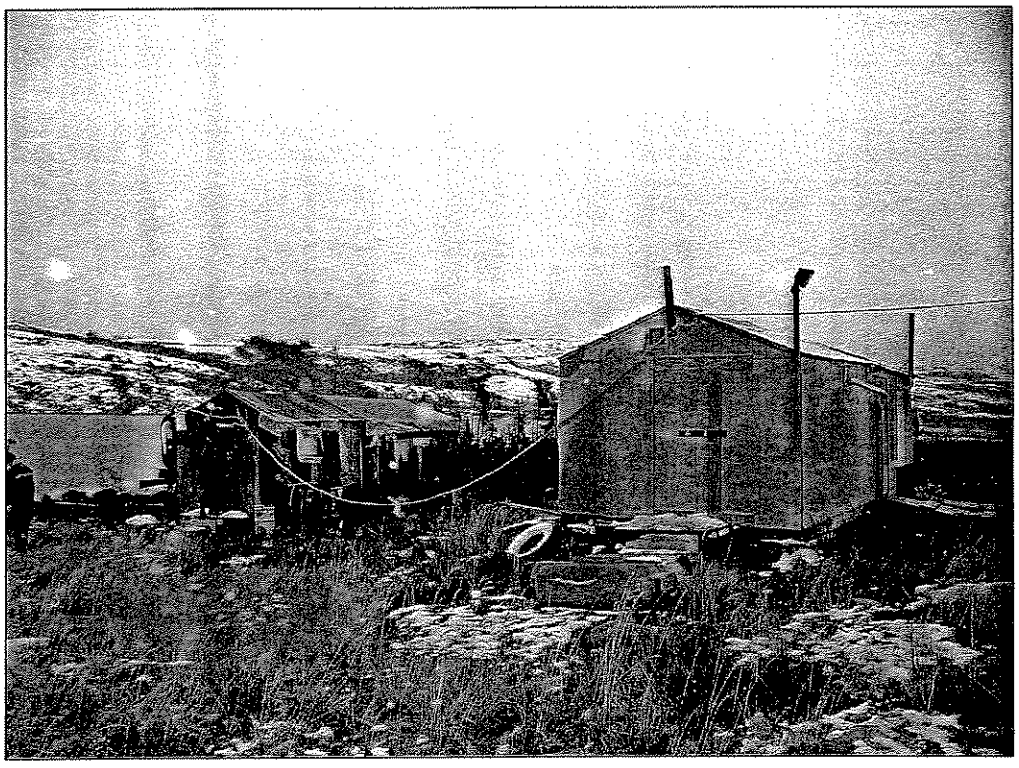
PJ-1 Sector 2: cabin wood frame, grease containers, paint, barrel, various debris (July 21, 2001)



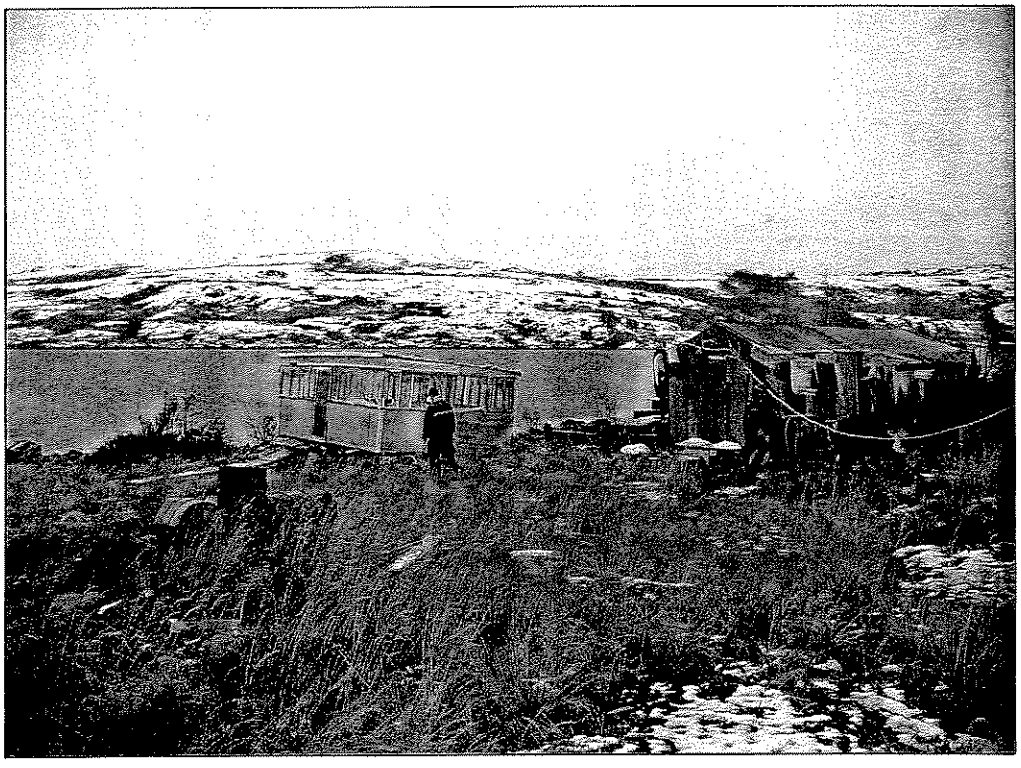
TQ-1 Aerial view of Site TQ-1 (Oct. 19, 2001)



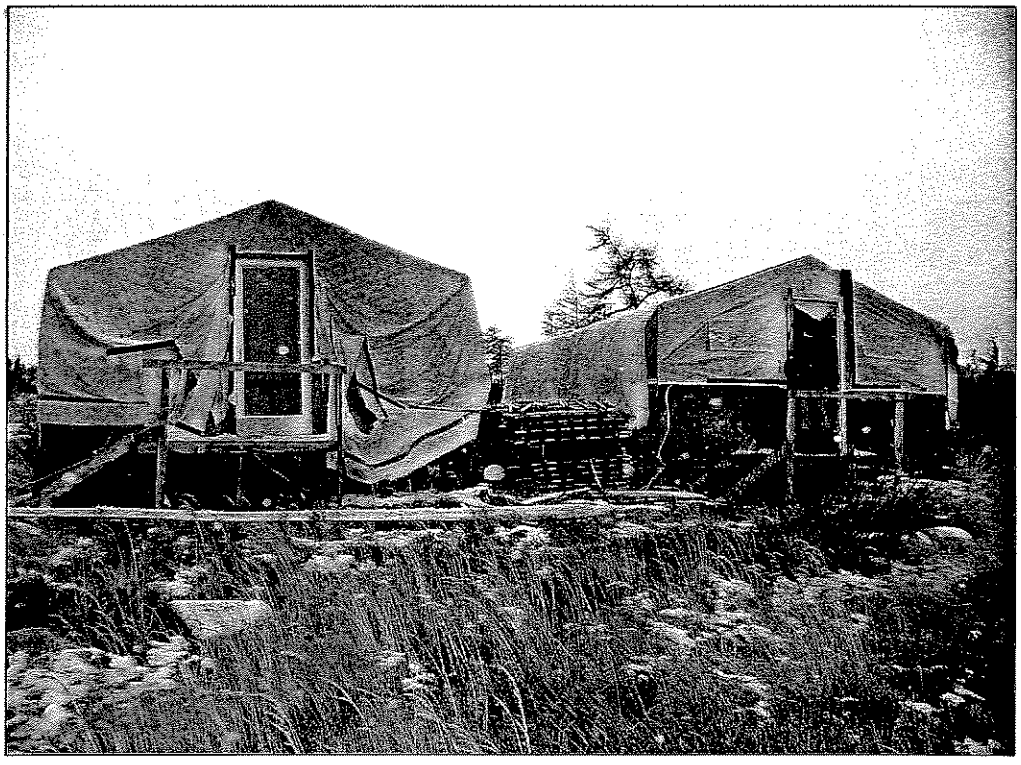
TQ-1 View of buildings (Oct. 19, 2001)



TQ-1 A camp, a shed, propane tanks, tires and various debris (Oct. 19, 2001)



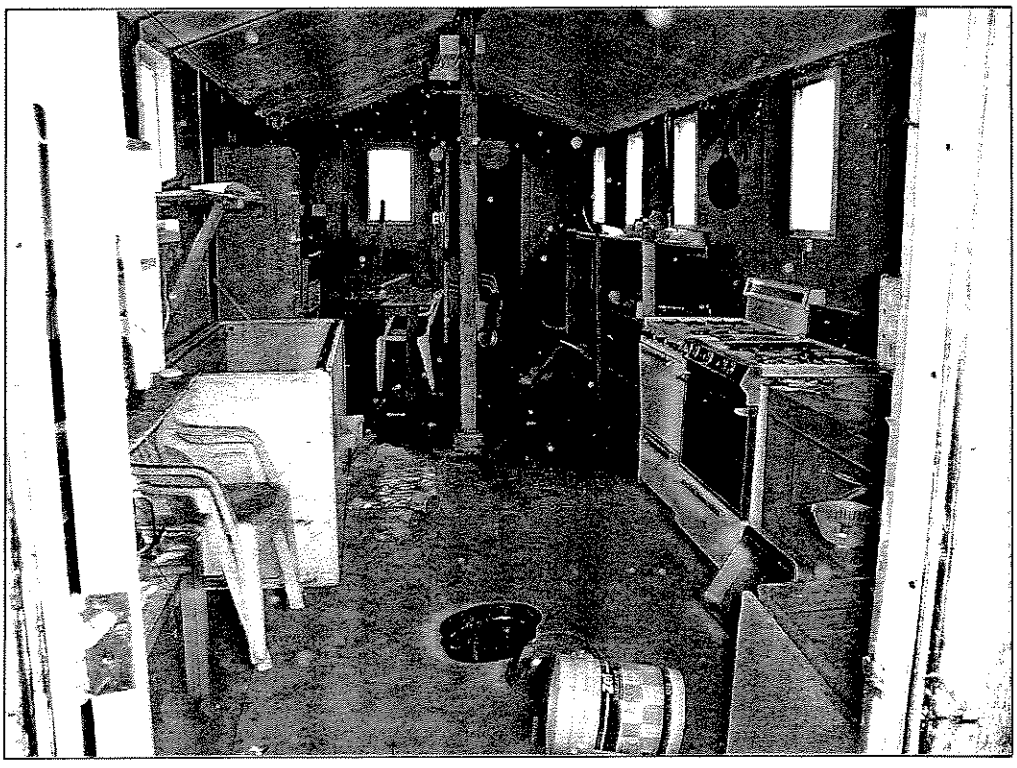
TQ-1 A shed, a shelter, barrels and various debris (Oct. 19, 2001)



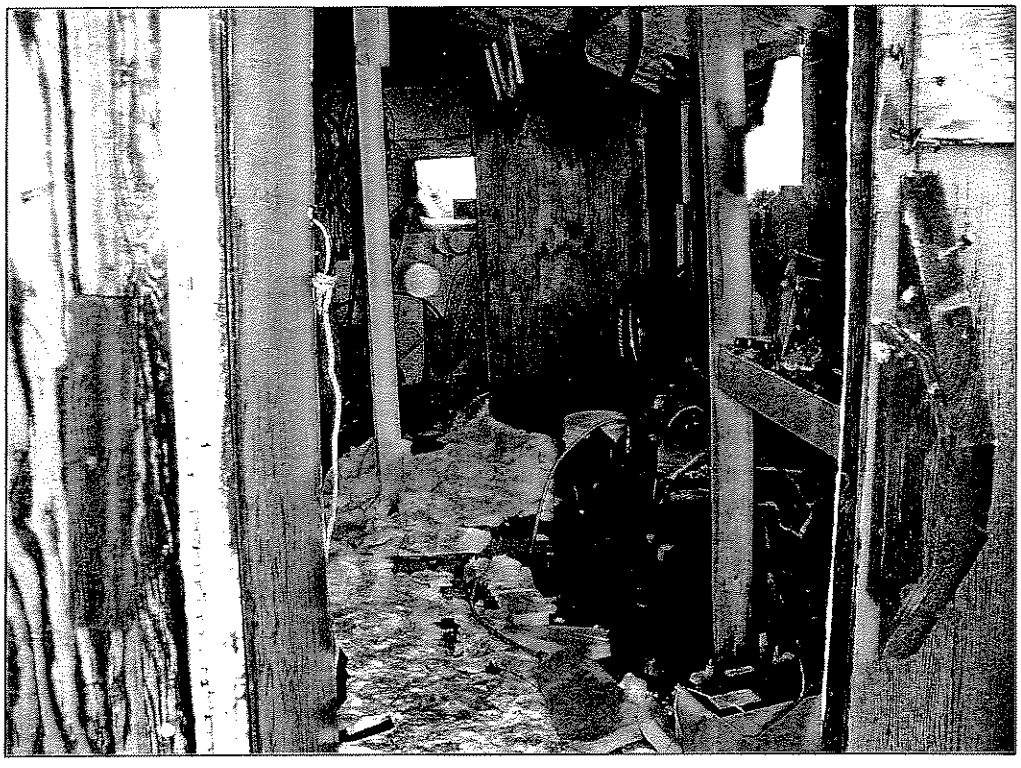
TQ-1 Two buildings, core trays, barrels, various debris (Oct. 19, 2001)



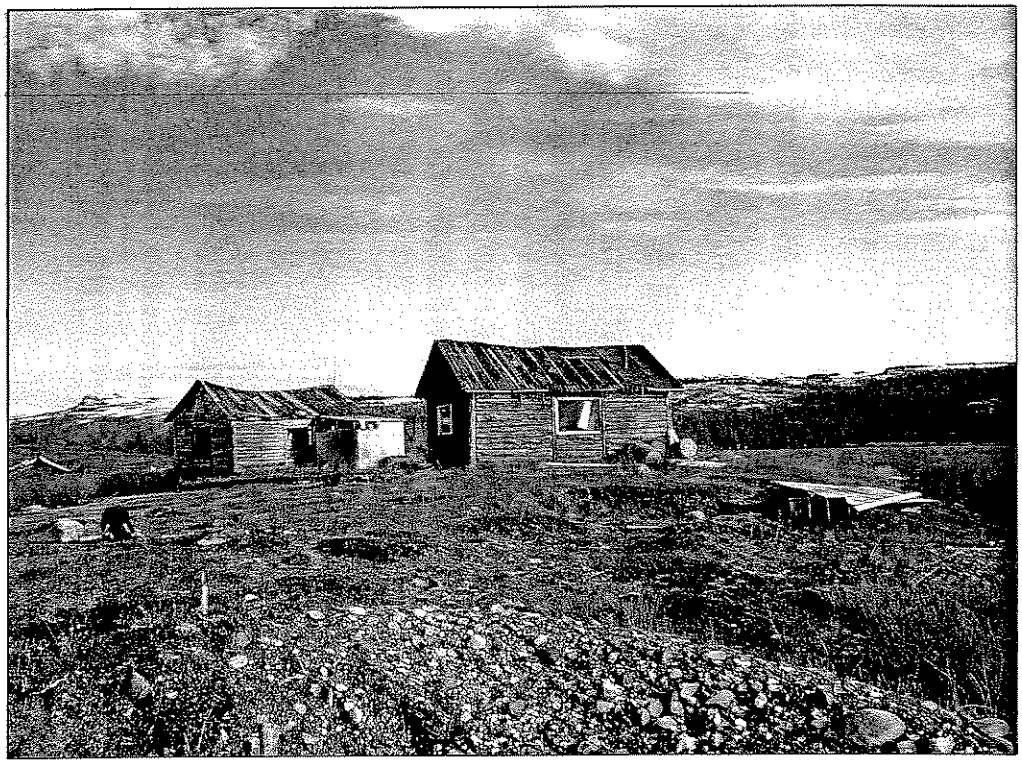
TQ-1 Core trays, outhouse (Oct. 19, 2001)



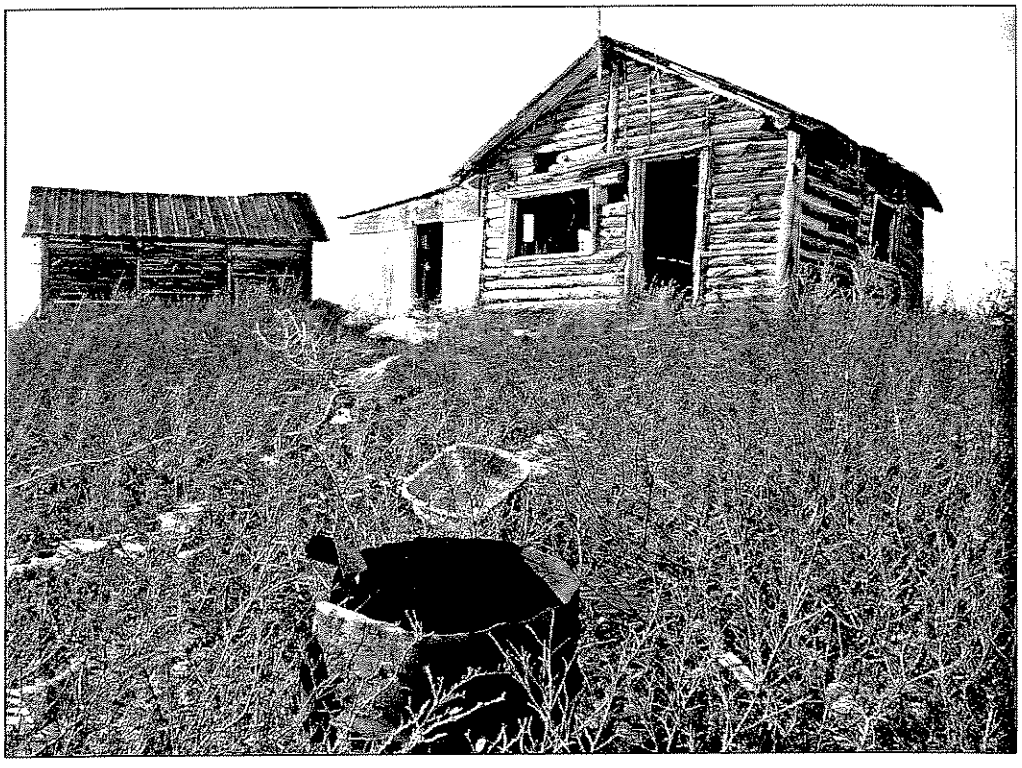
TQ-1 Inside the kitchen (Oct. 19, 2001)



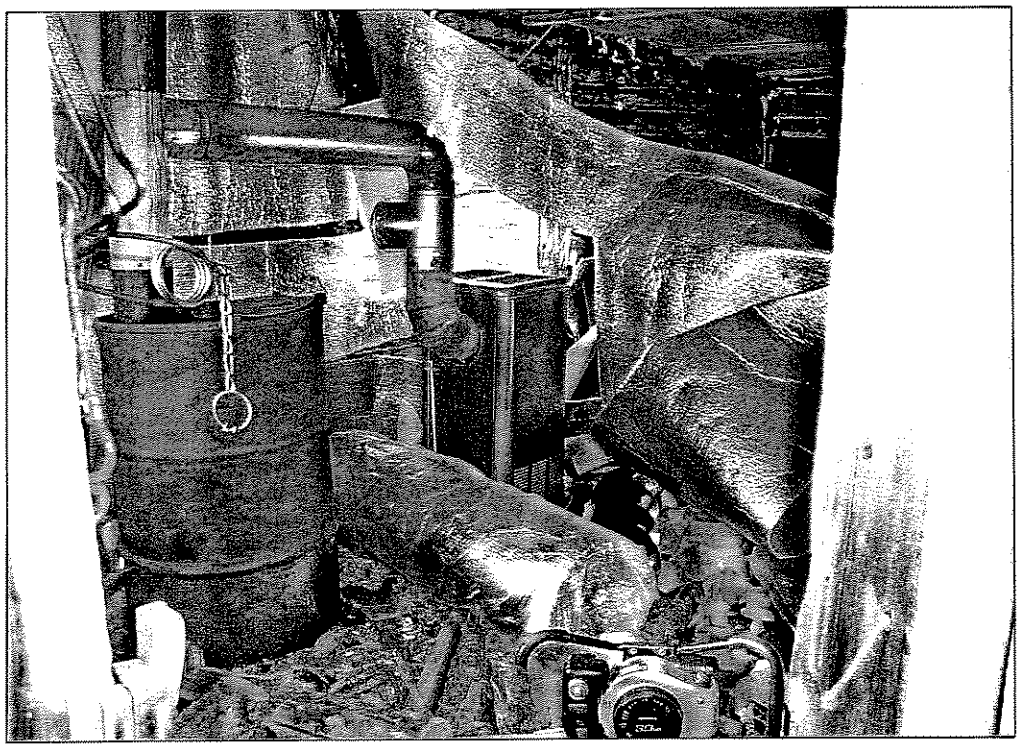
TQ-1 Debris, battery, gas containers, outboard motor in a shed (Oct. 19, 2001)



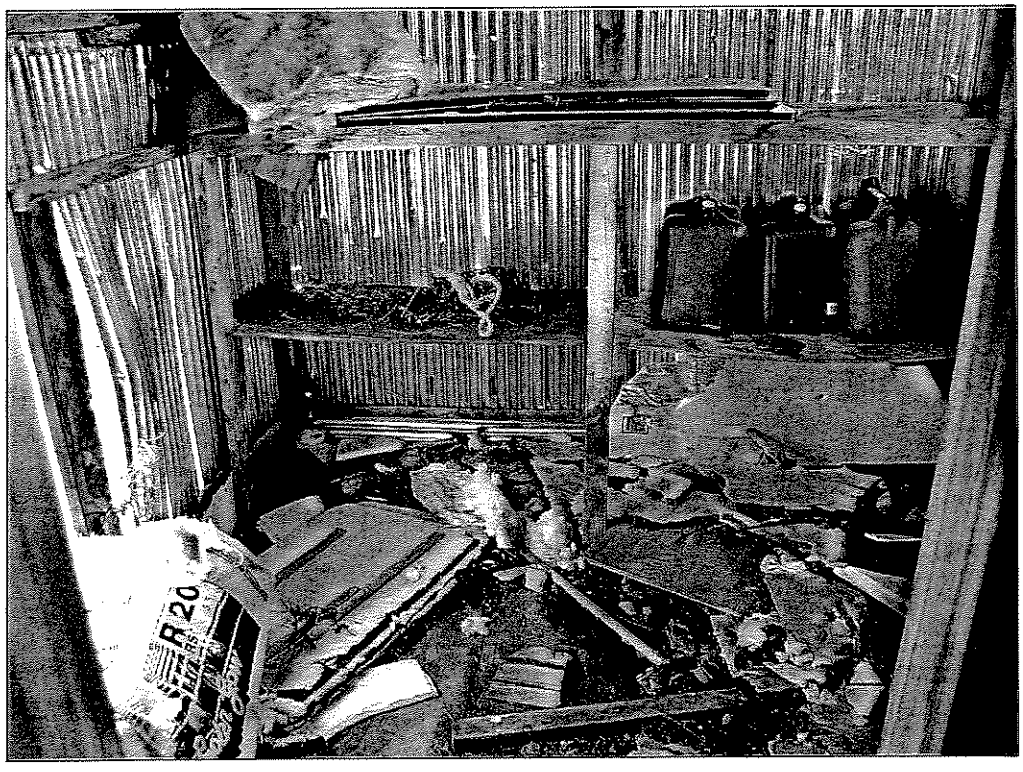
TQ-4 General view of sector 1 (Oct. 19, 2001)



TQ-4 Sector 1: Debris and cabins (Oct. 19, 2001)



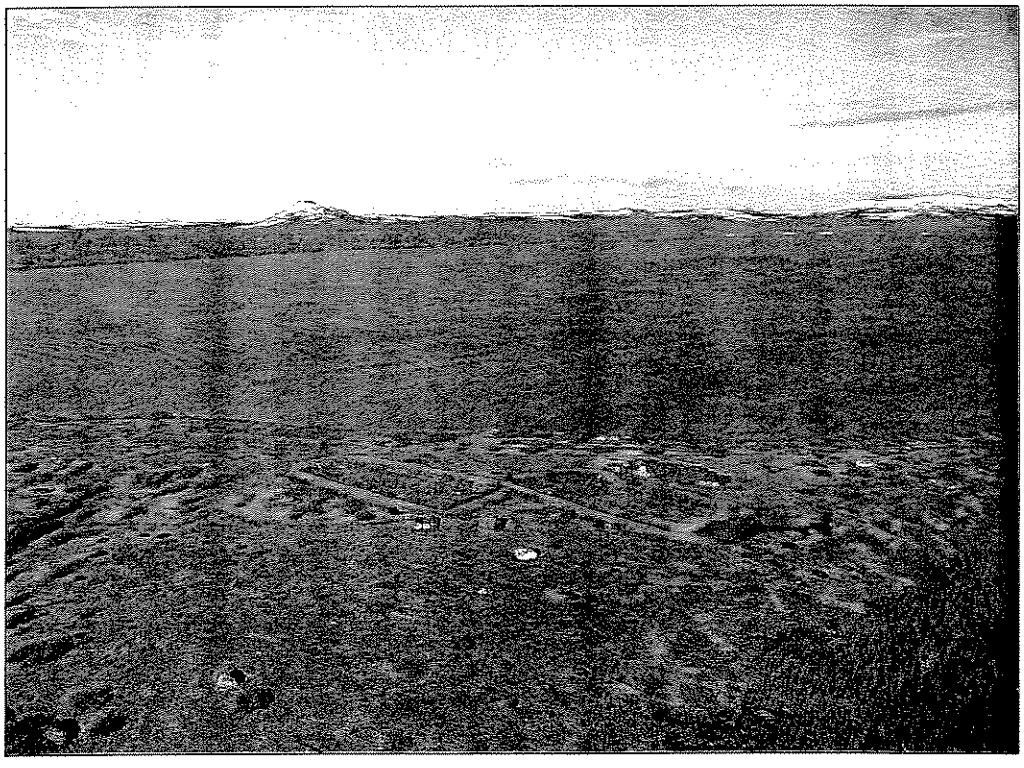
TQ-4 Inside a cabin: furnace, barrel, new ice drill, traps, insulating sheets, various debris (Oct. 19, 2001)



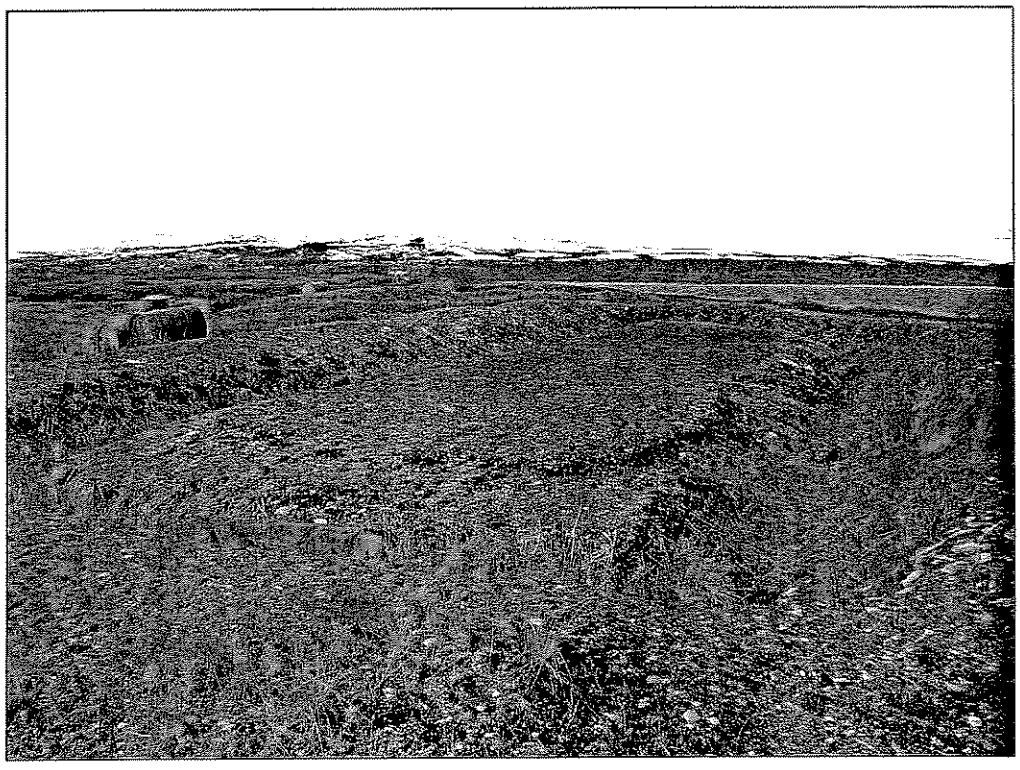
TQ-4 Inside a cabin: gas containers (full), aluminum core trays on the wall, Coleman stove, fiberglass, various debris (Oct. 19, 2001)



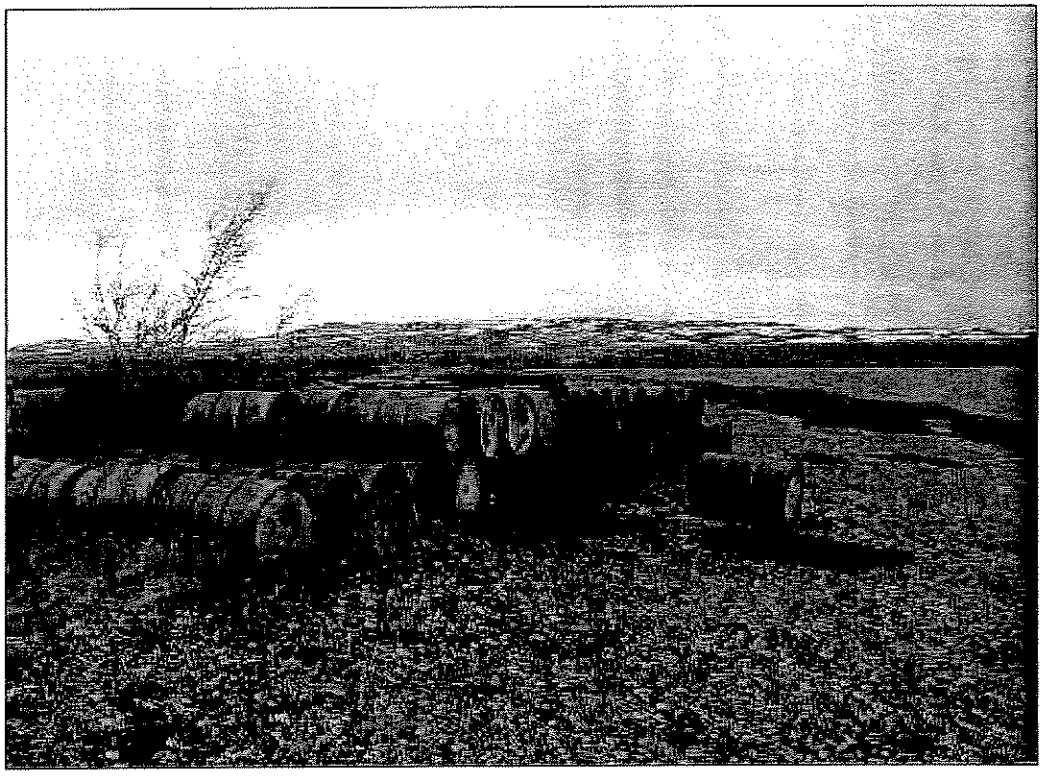
TQ-4 Sector 1: a collapsed cabin, a metal tripod, various debris (Oct. 19, 2001)



TQ-4 General view of sector 2 (Oct. 19, 2001)



TQ-4 Sector 2: ditches for previous rubber tanks, barrels, various debris (Oct. 19, 2001)



TQ-4 Sector 2: barrels (Oct. 19, 2001)

INTERMEDIATE SITES

TA-1

TQ-6

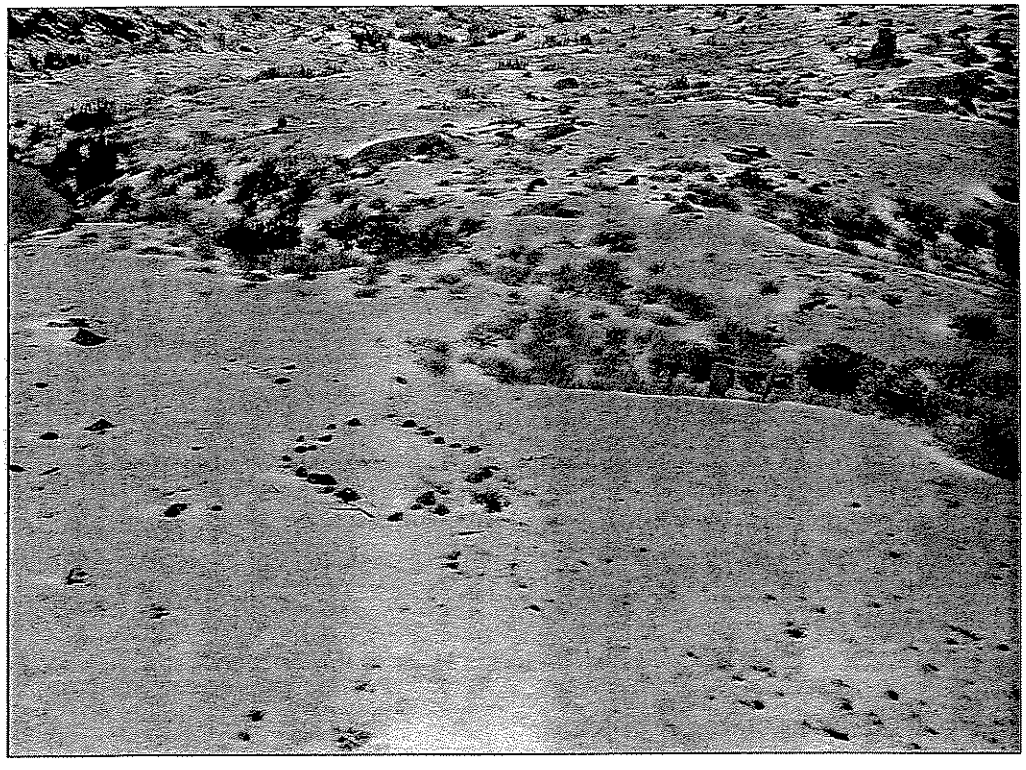
TQ-10

TQ-14

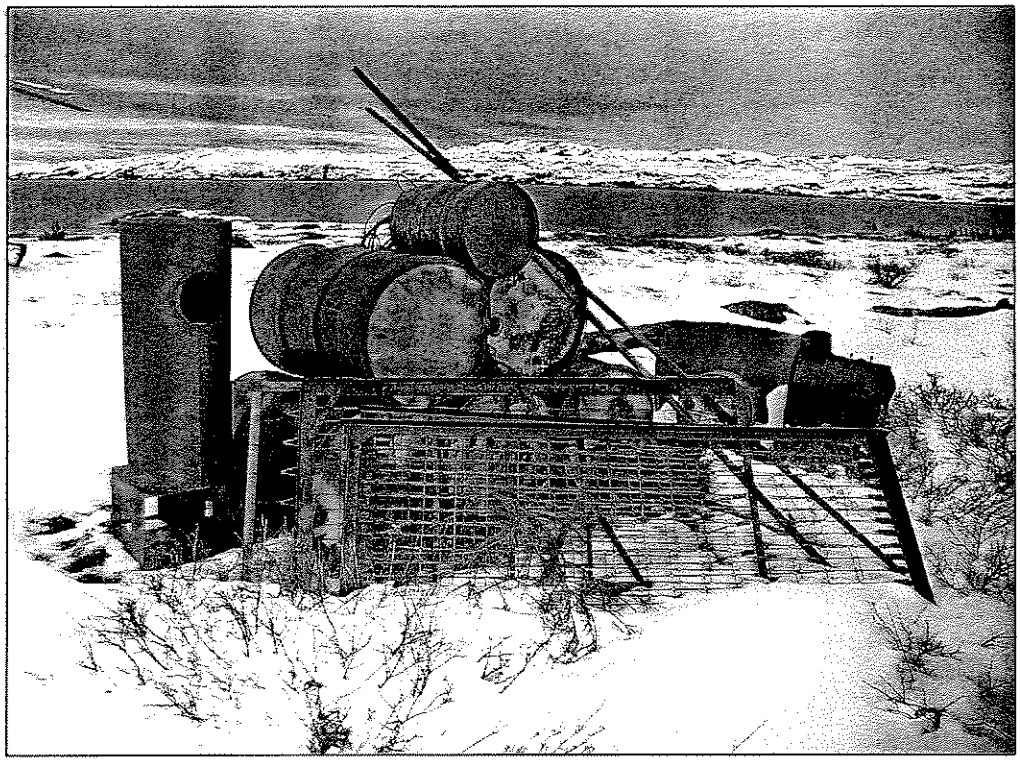
VP-11



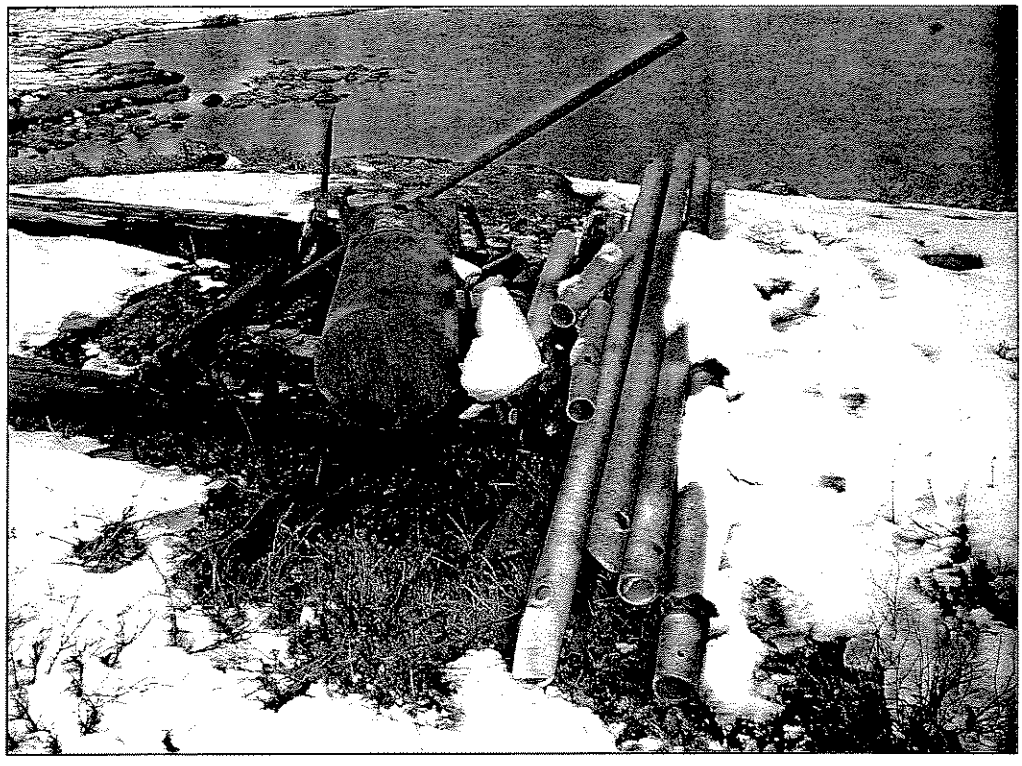
TA-1 Barrels, wood debris, 1 propane tank (Oct. 20, 2001)



TA-1 Previous camp site (Oct. 20, 2001)



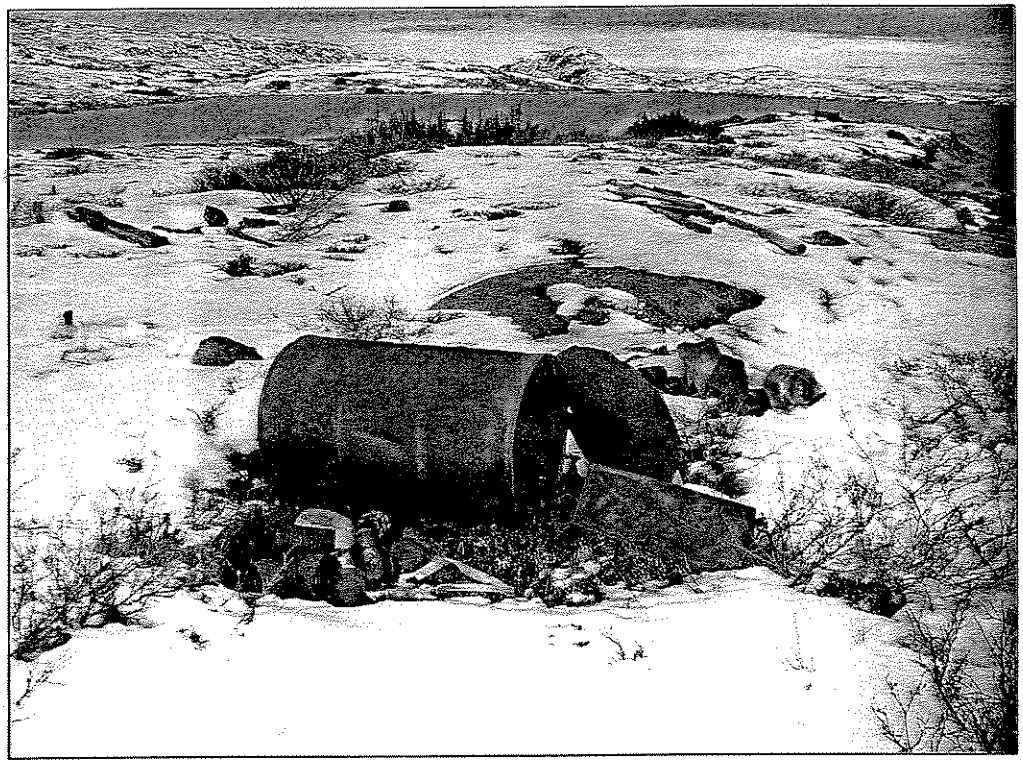
TQ-6 Barrels, stove, bed frames, pipes, various debris (Oct. 20, 2001)



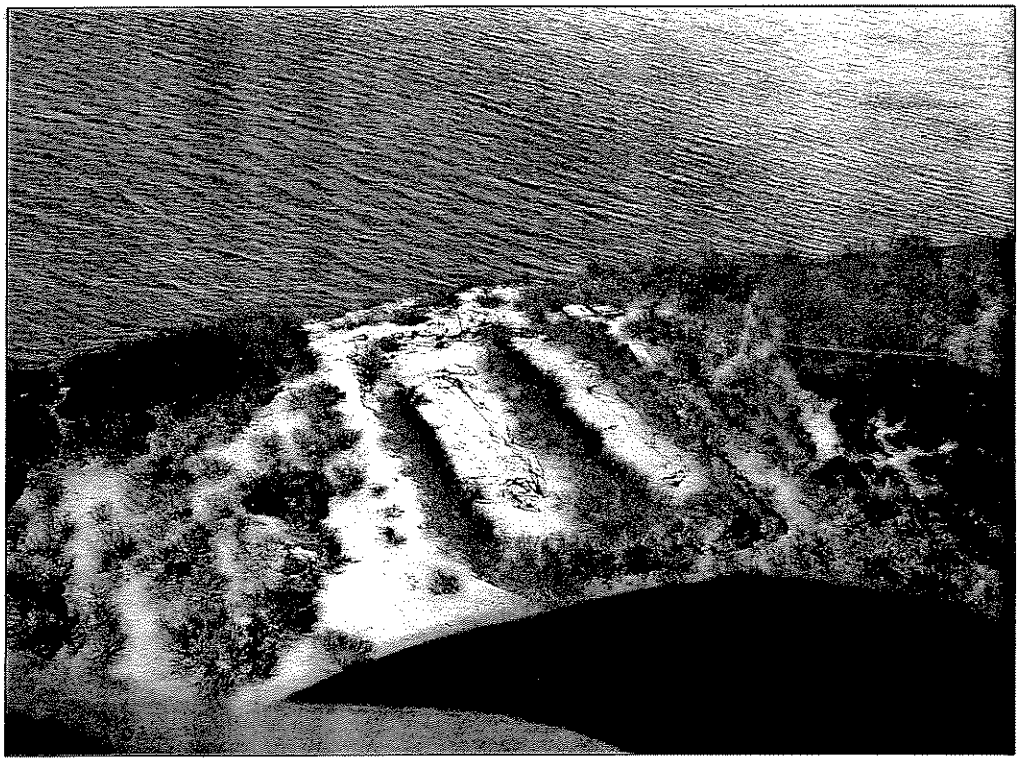
TQ-6 Wood debris, stove, pipes (Oct. 20, 2001)



TQ-6 Open barrel, furnace, various debris (Oct. 20, 2001)



TQ-6 Open barrel, cans, various debris (Oct. 20, 2001)



TQ-10 General view of Site TQ-10 (Oct. 20, 2001)



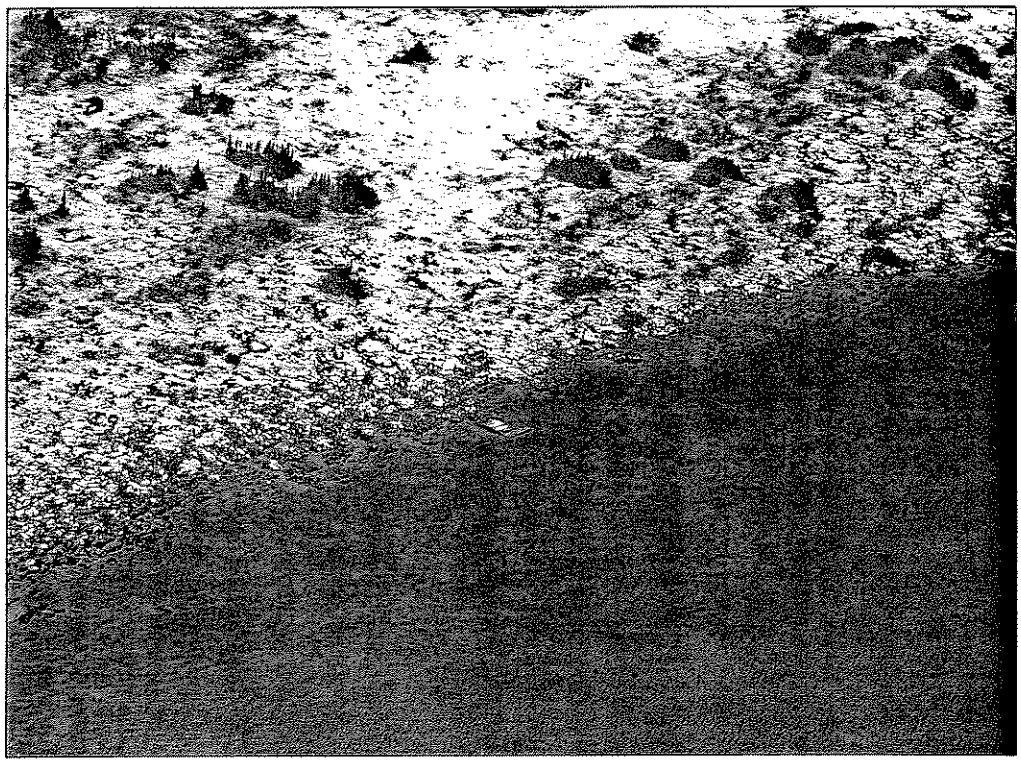
TQ-10 Wood boxes containing rubber tanks and various debris (Oct. 20, 2001)



TQ-10 A barrel containing residue of diesel (Oct. 20, 2001)



TQ-10 Flexible hoses, pipes, motor, pump, various debris (Oct. 20, 2001)



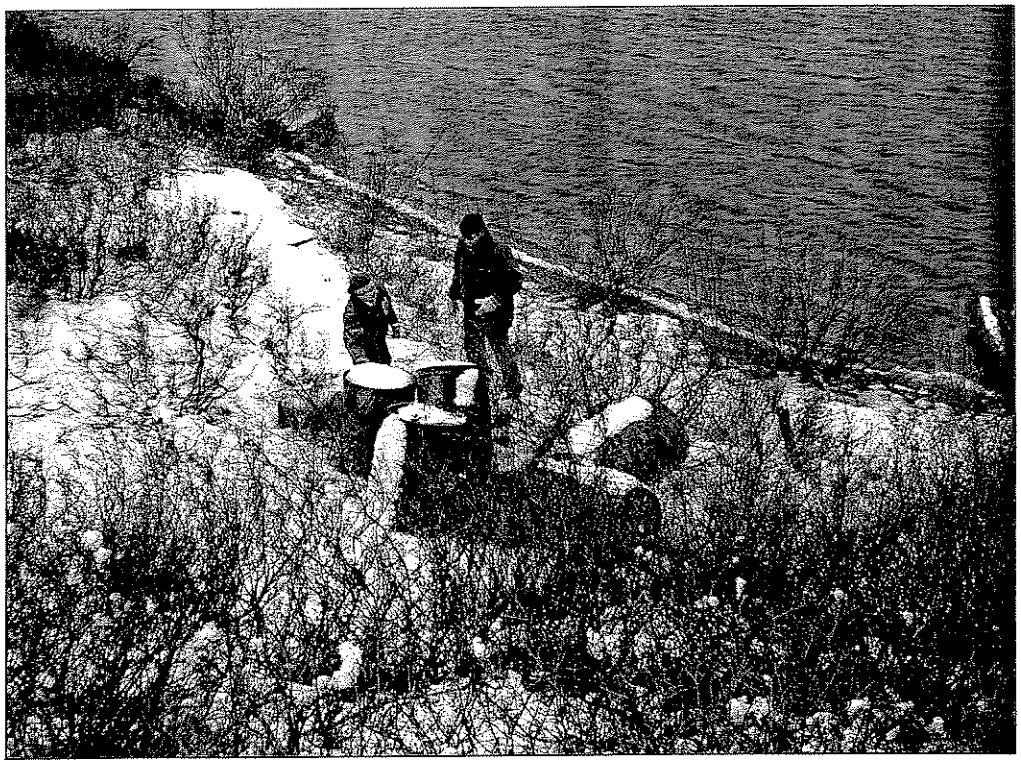
TQ-14 Plywood sheet in the lake (Oct. 19, 2001)



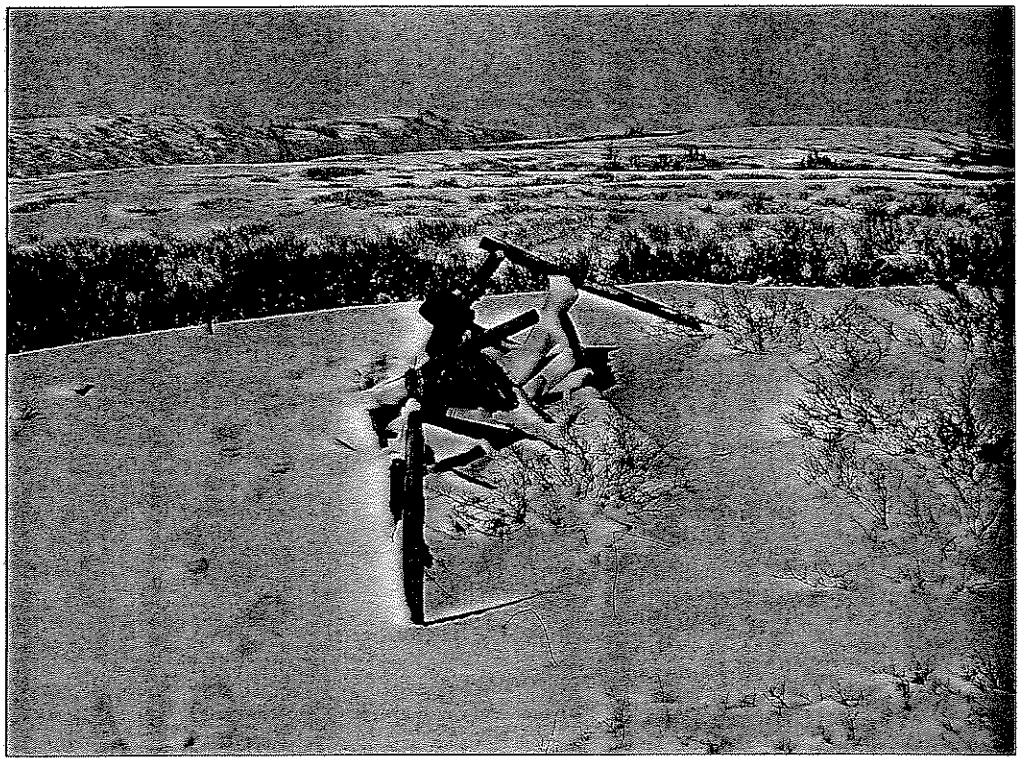
TQ-14 Barrels and propane tanks near the shore (Oct. 19, 2001)



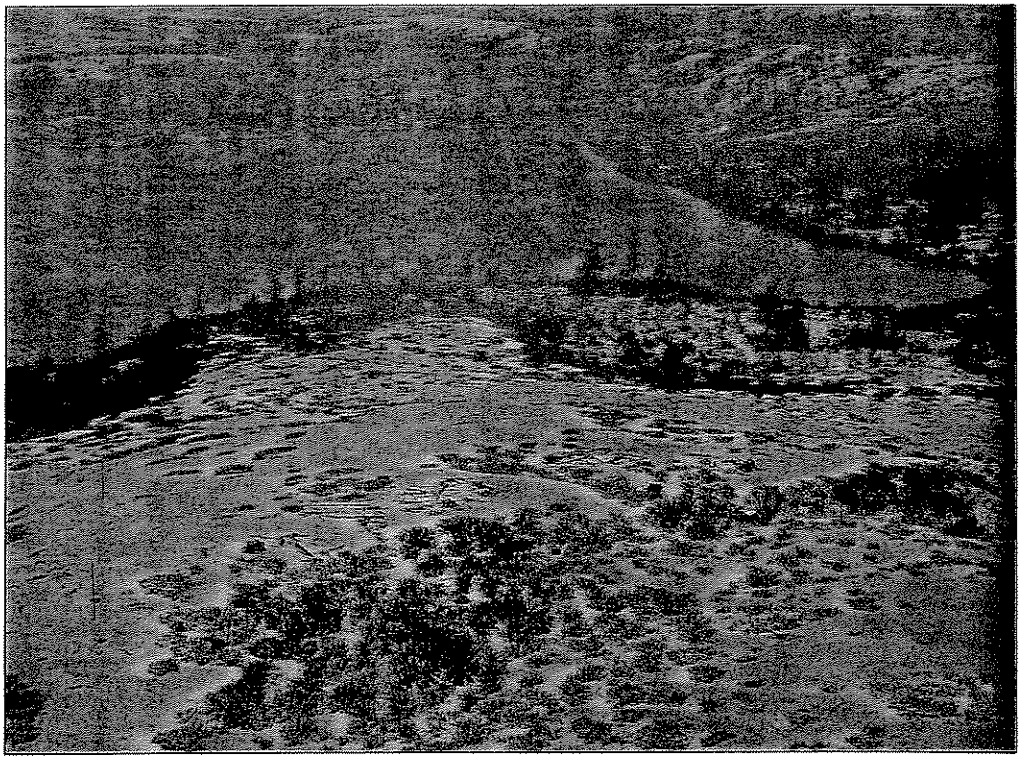
VP-11 Wood debris of collapsed cabins (Oct. 19, 2001)



VP-11 Barrels near the shore (Oct. 19, 2001)



VP-11 Wood debris (Oct. 19, 2001)



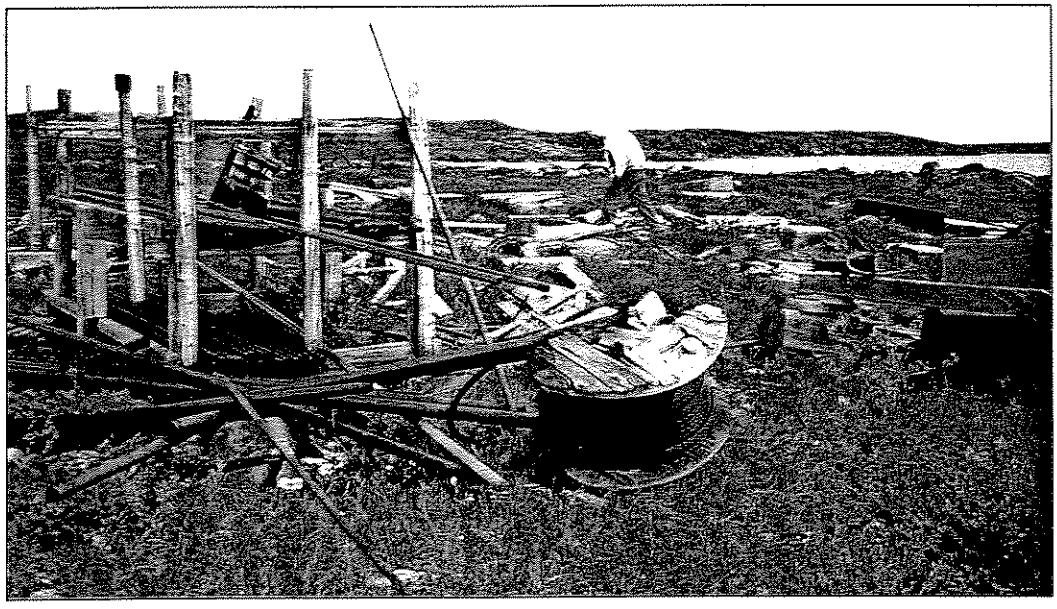
VP-11 Wood floors (Oct. 19, 2001)

SECTOR OF
AUPALUK

MAJOR SITES

PJ-10

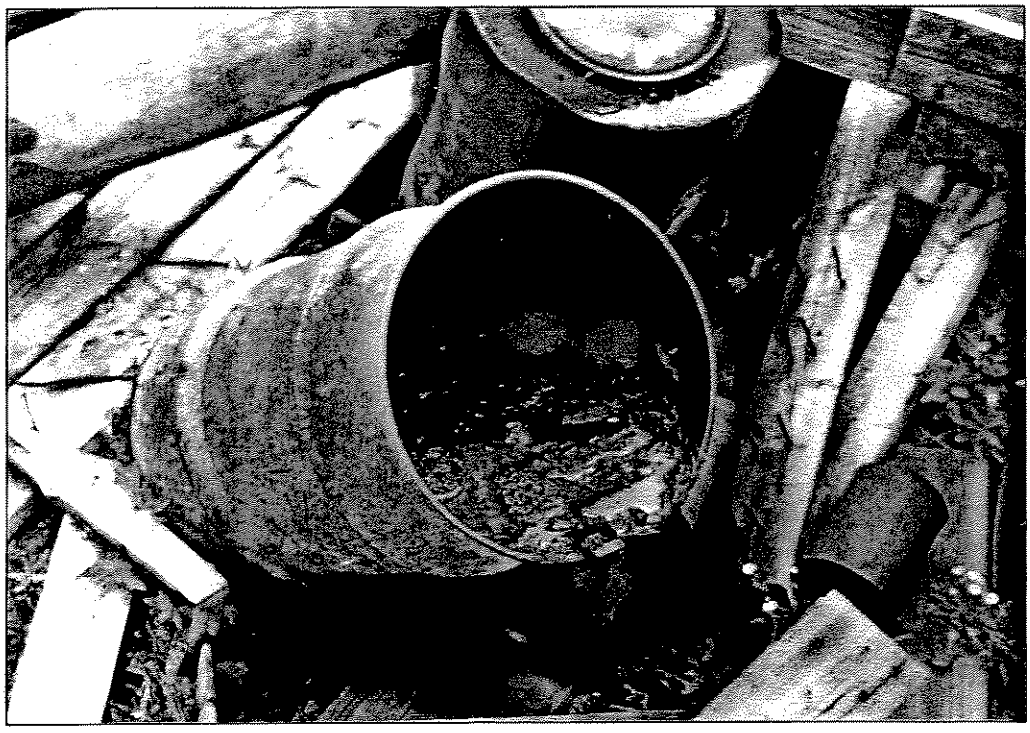
PJ-17



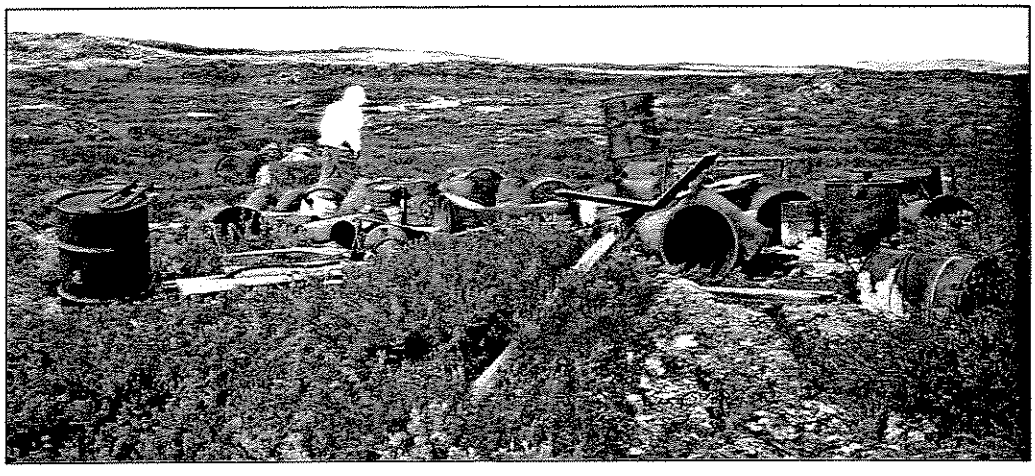
PJ-10 Sector 1: pipes, wires, wood platform, various debris (July 20, 2001)



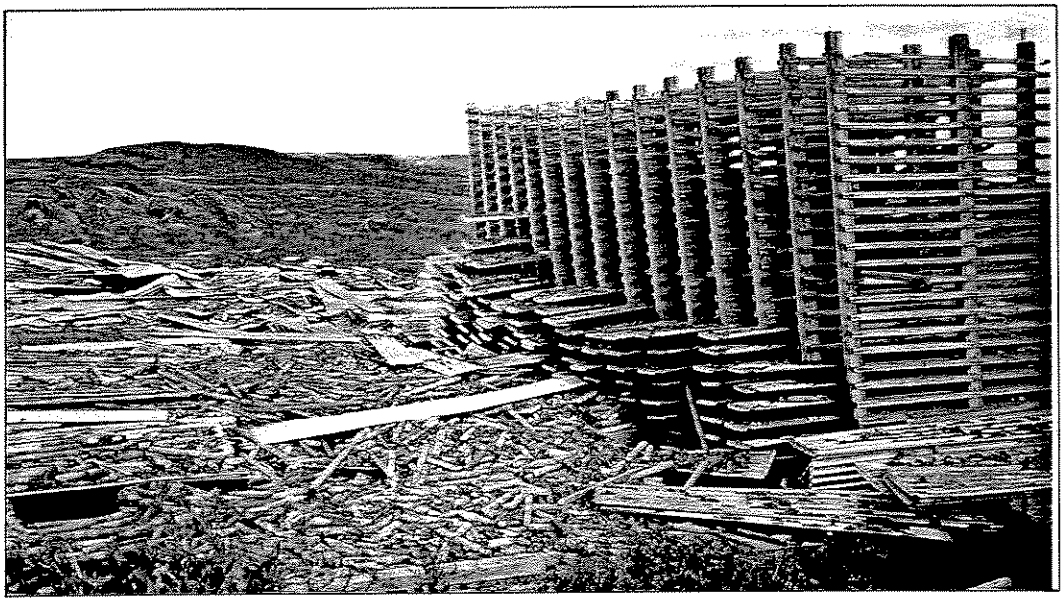
PJ-10 Sector 1: Collapsed cabin, barrels, various debris (July 20, 2001)



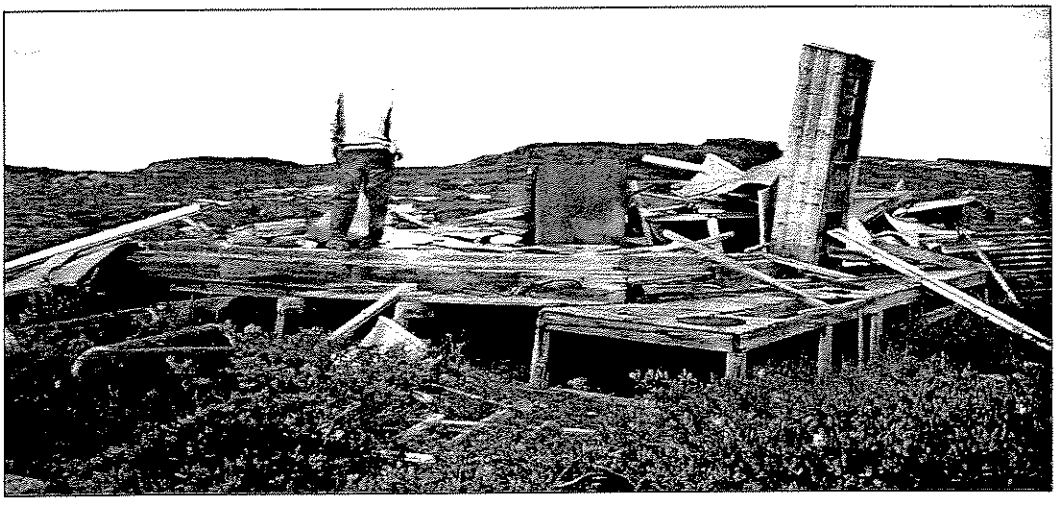
PJ-10 Sector 1: barrel with residue, debris (July 20, 2001)



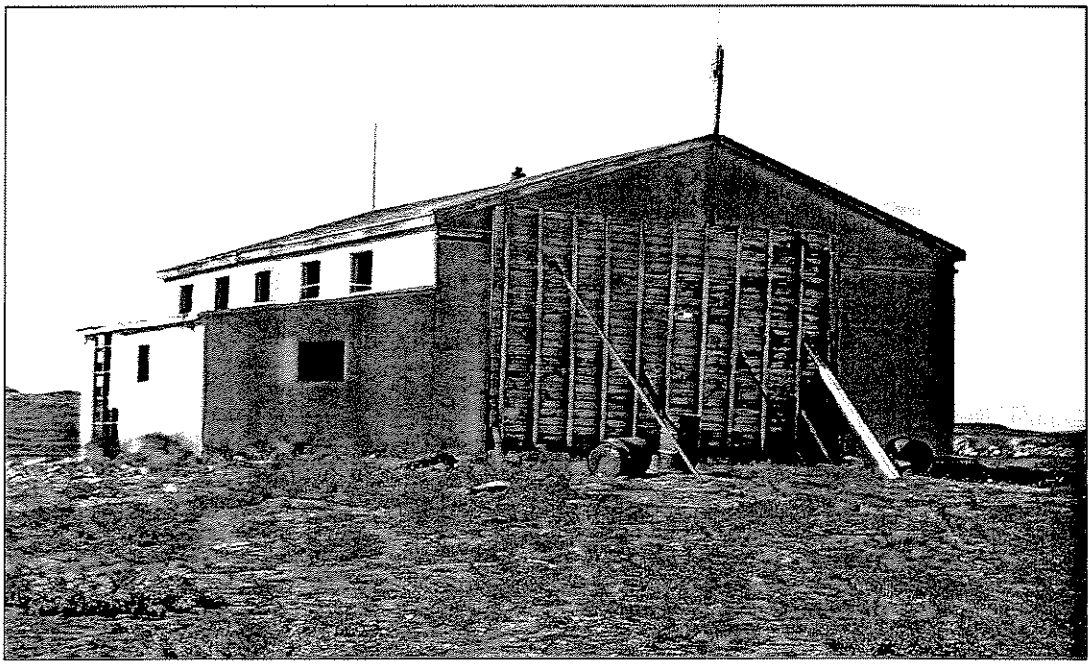
PJ-10 Sector 1: barrels, debris (July 20, 2001)



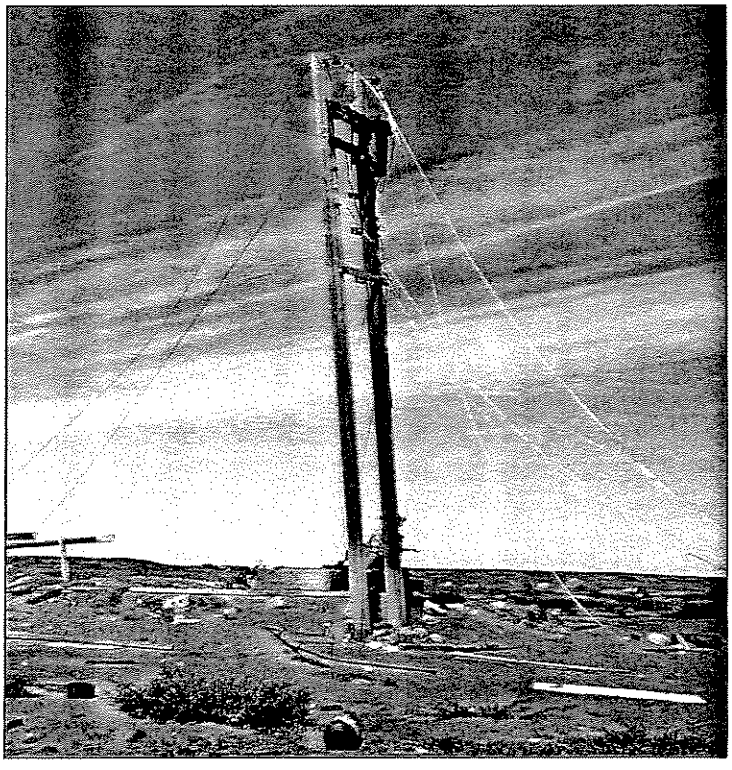
PJ-10 Sector 2: wood core trays (July 20, 2001)



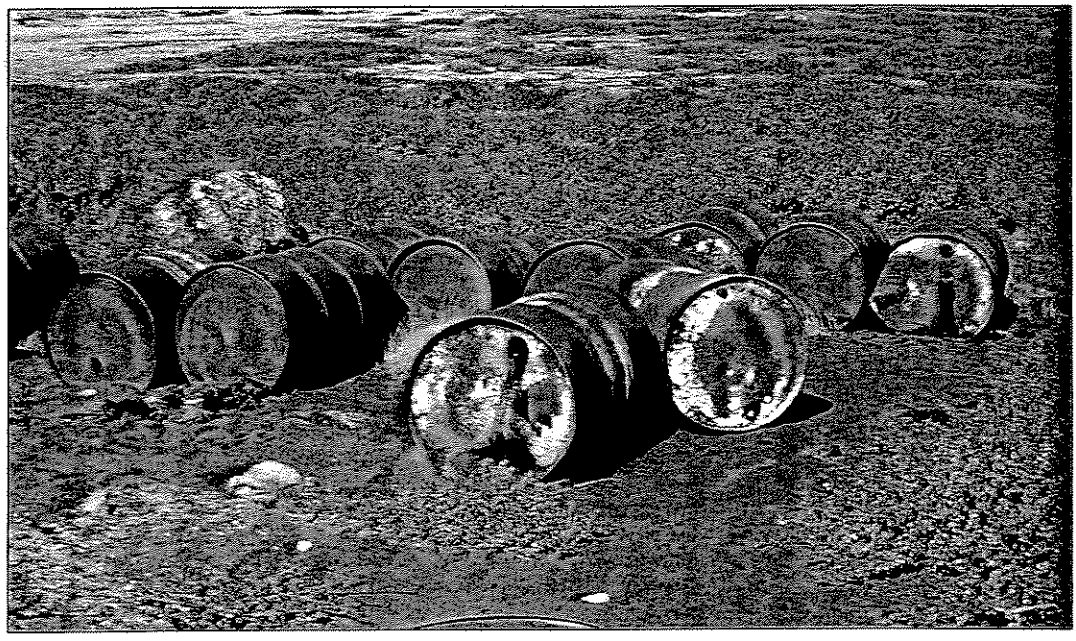
PJ-10 Sector 1: wood floor, propane tanks, metal shelves, various debris (July 20, 2001)



PJ-17 Sector 1: garage, barrels, metal debris (July 21, 2001)



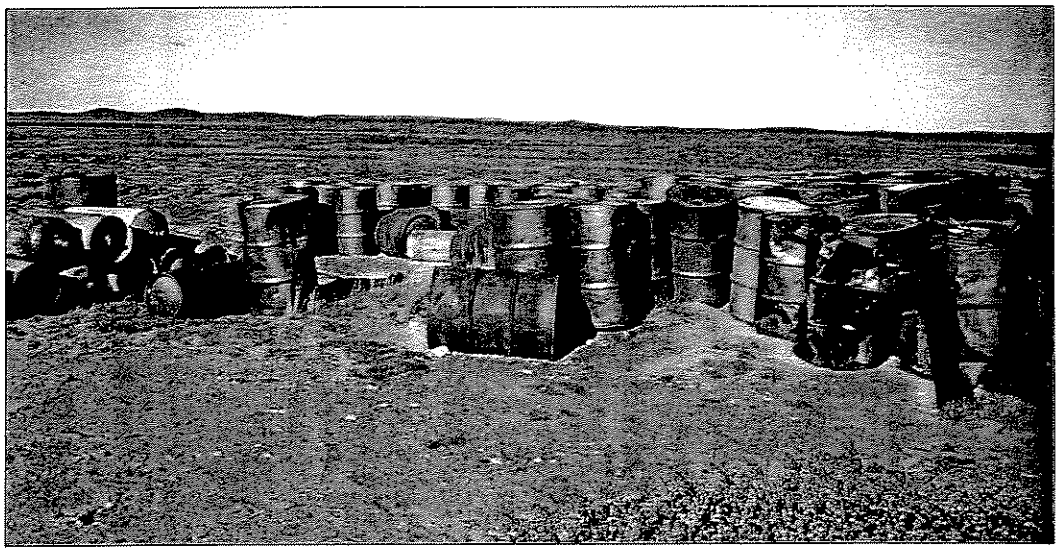
PJ-17 Sector 1: transformer, batteries, fire extinguishers, various debris (July 21, 2001)



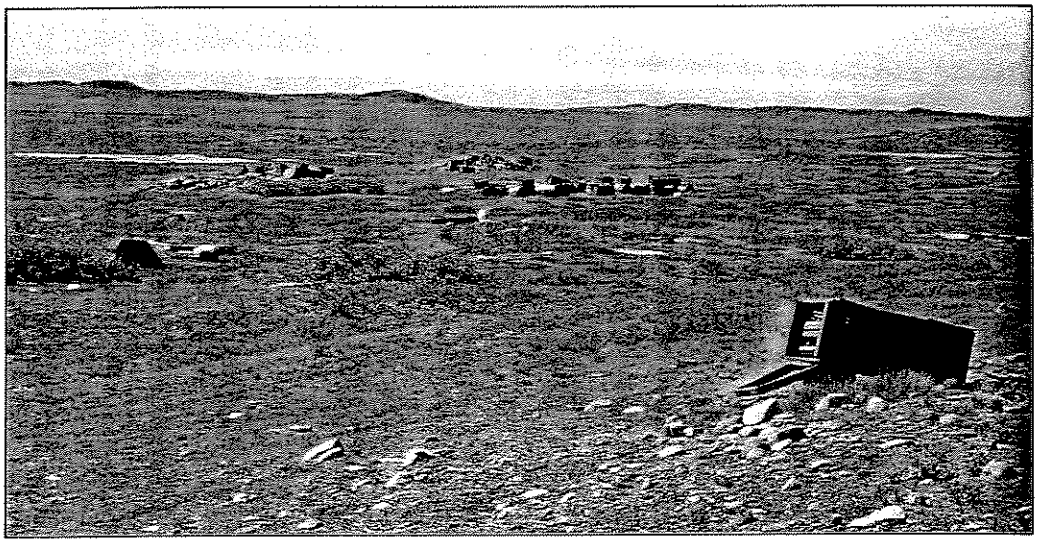
PJ-17 Sector 1: barrels with residue. Contaminated areas (July 21, 2001)



PJ-17 Sector 3: cans, motors, battery, various debris (July 21, 2001)



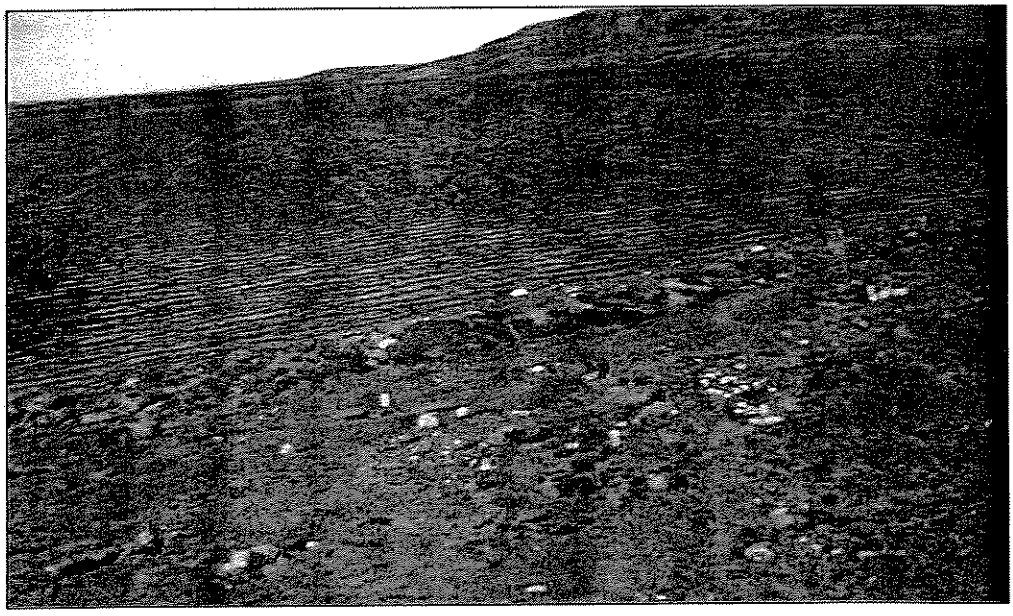
PJ-17 Sector 3: barrels, propane tanks, various debris (July 21, 2001)



PJ-17 Sector 2: barrels with rocks inside (July 21, 2001)

INTERMEDIATE SITES

G-24NP04-3

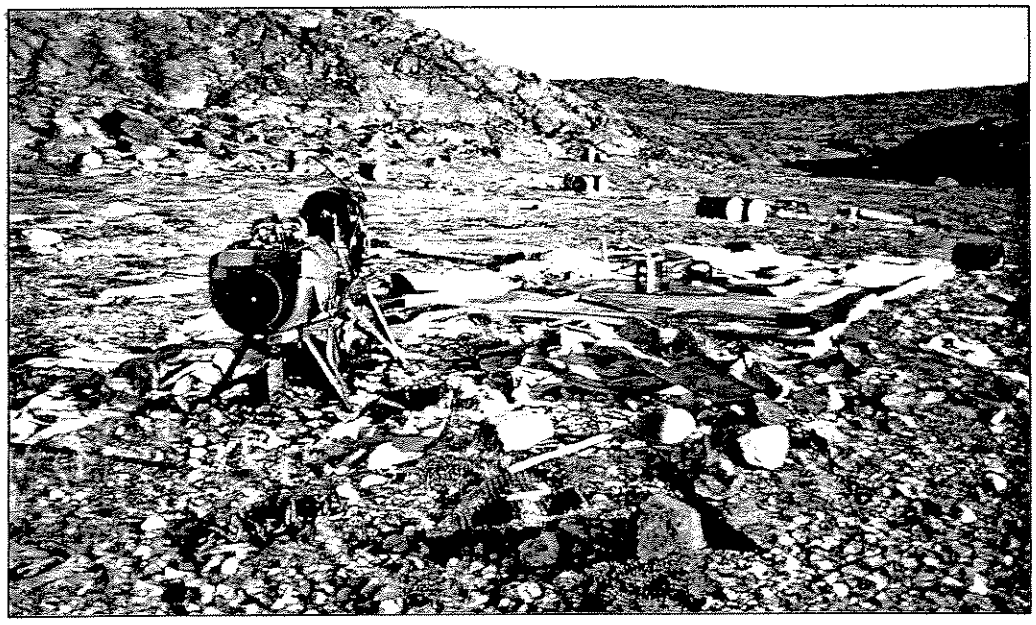


G-24-N4-3 Previous mining exploration camp site (July 22, 2001)

SECTOR OF
KANGIRSUK

MAJOR SITES

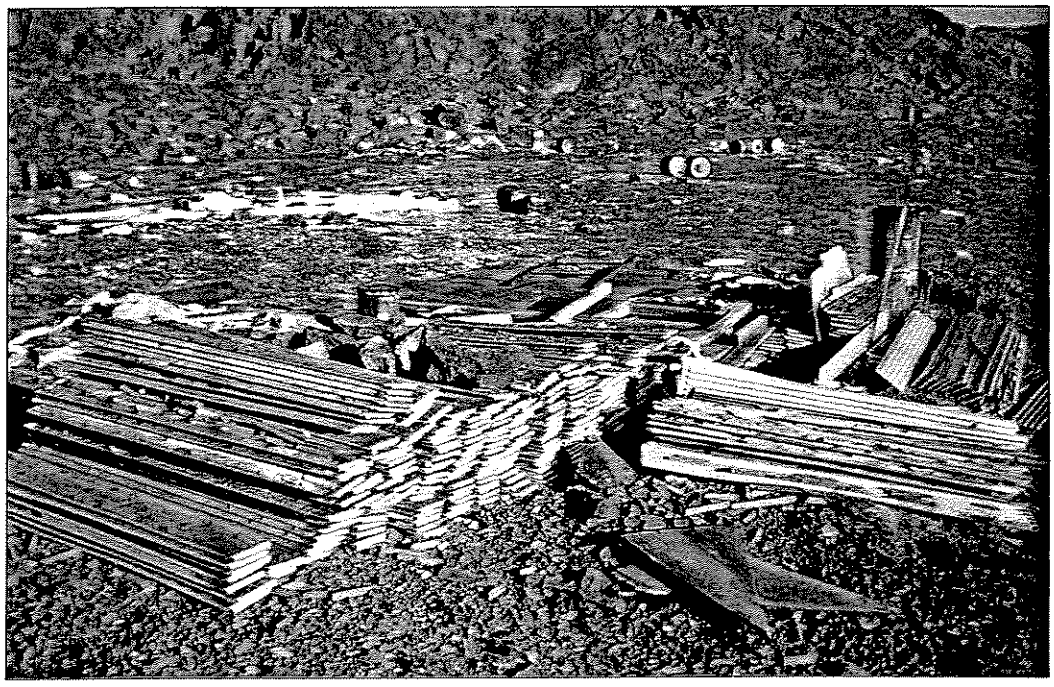
TW (Twin Lake)



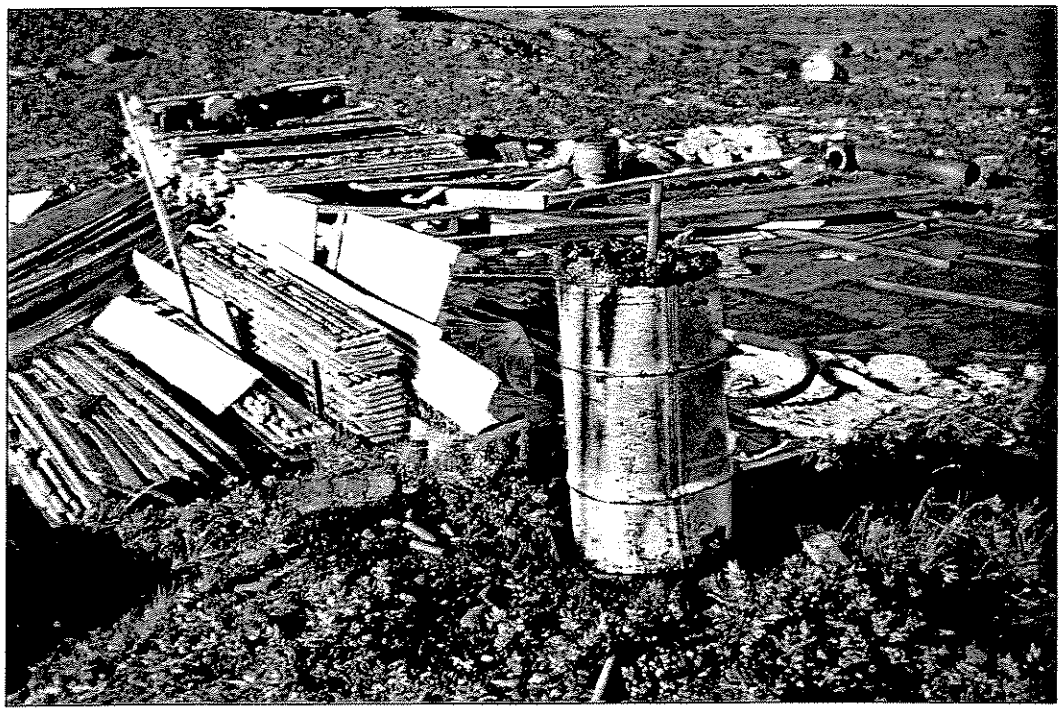
TW Pipe threader, canvas, barrels, various debris (July 22, 2001)



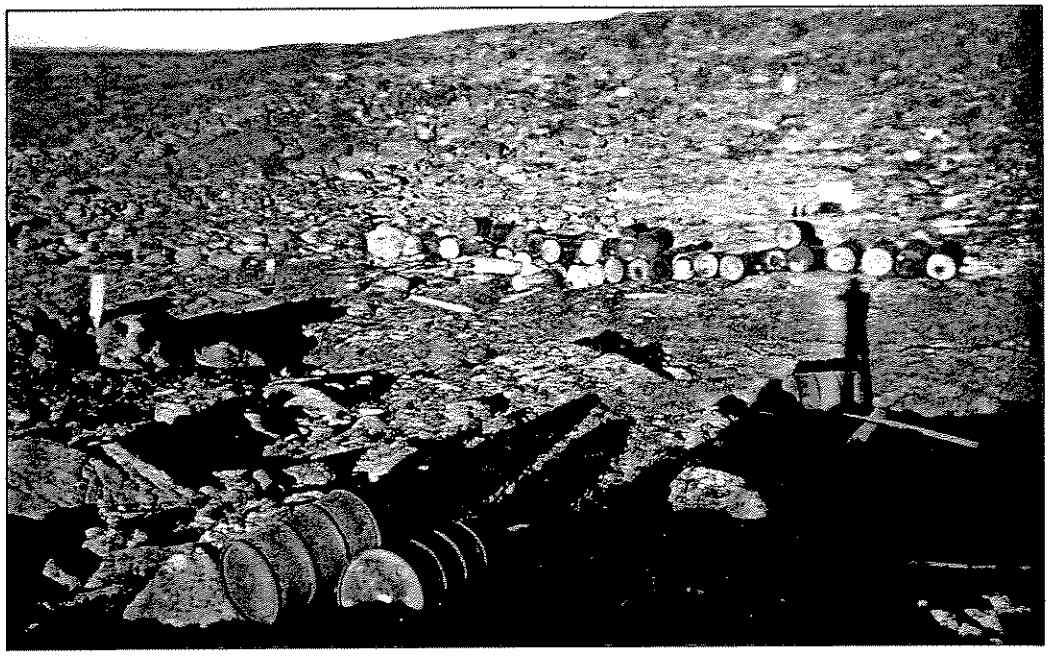
TW Contaminated wood floor, pipe threader, canvas, barrels, various debris (July 22, 2001)



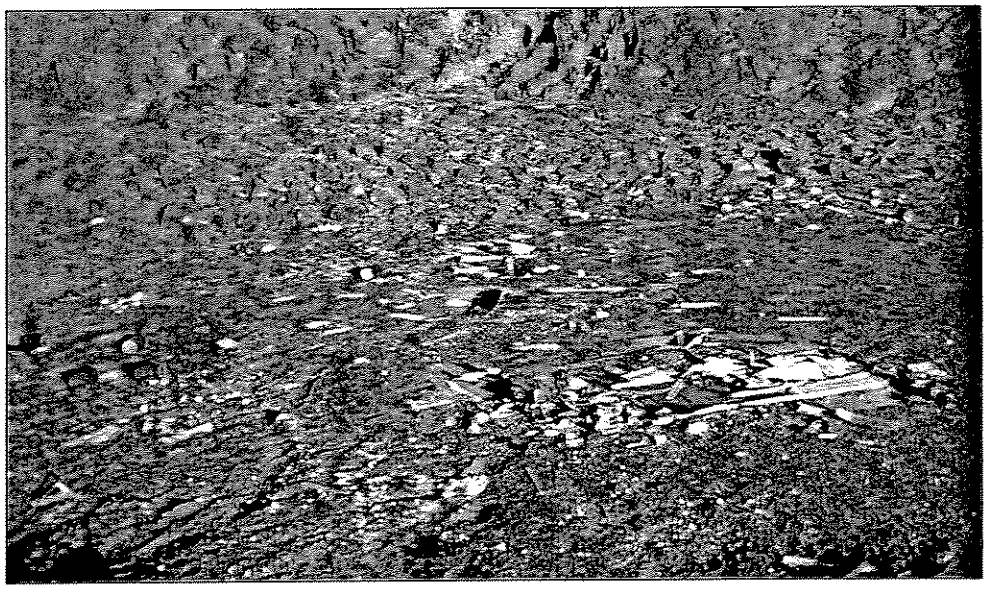
TW Core trays, wood floor, barrels, propane tanks, various debris (July 22, 2001)



TW Open barrel containing grease, core trays, wood floor, propane tanks, various debris (July 22, 2001)



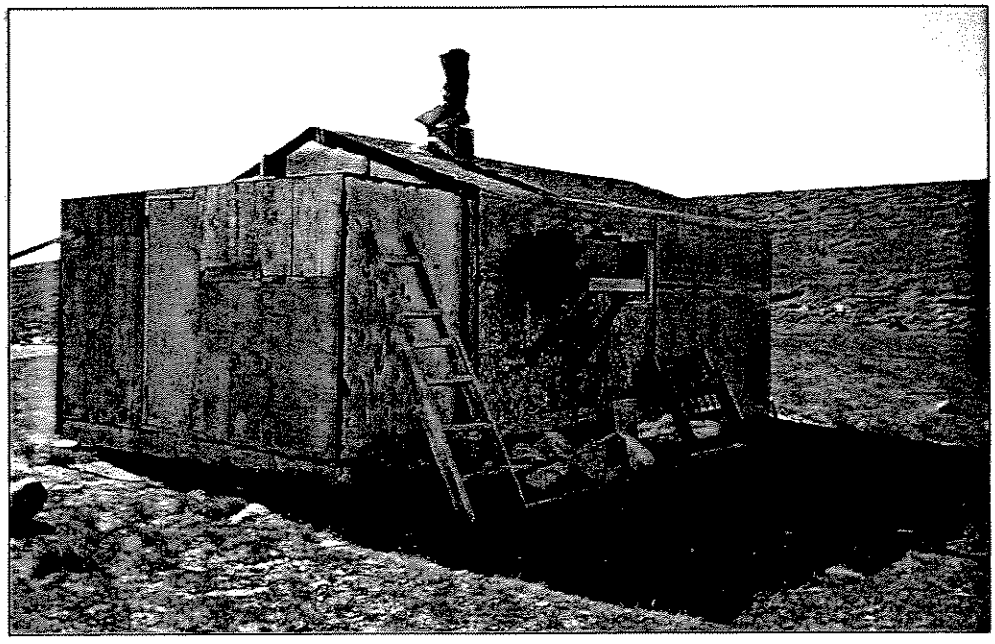
TW Barrels, debris (July 22, 2001)



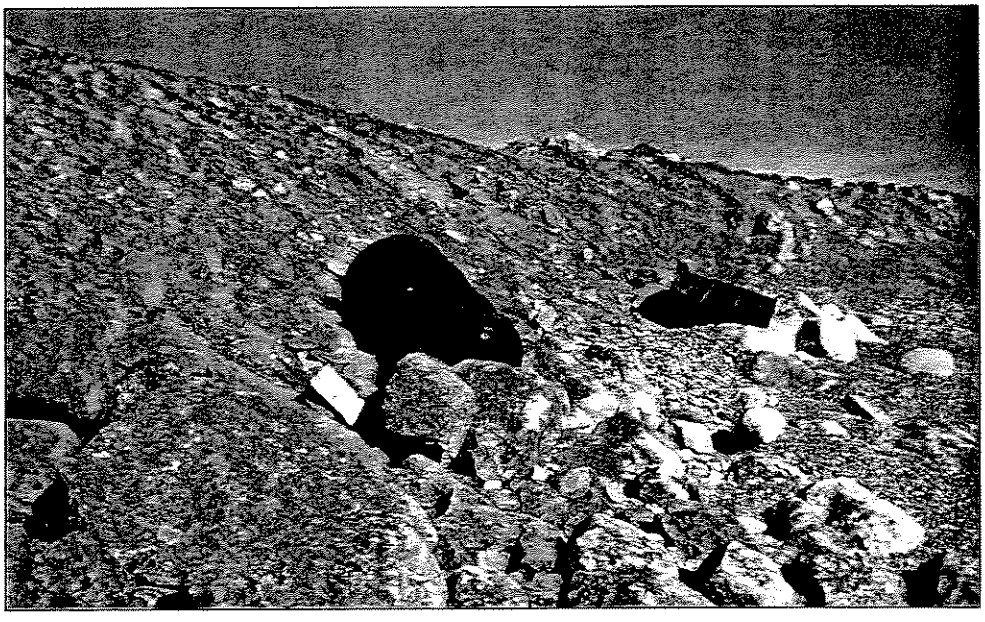
TW Partial overview of the site (July 22, 2001)

INTERMEDIATE SITES

QC-3



QC-3 Locked cabin (July 22, 2001)



QC-3 Barrels (July 22, 2001)

UNGAVA TROUGH-
HUDSON BAY

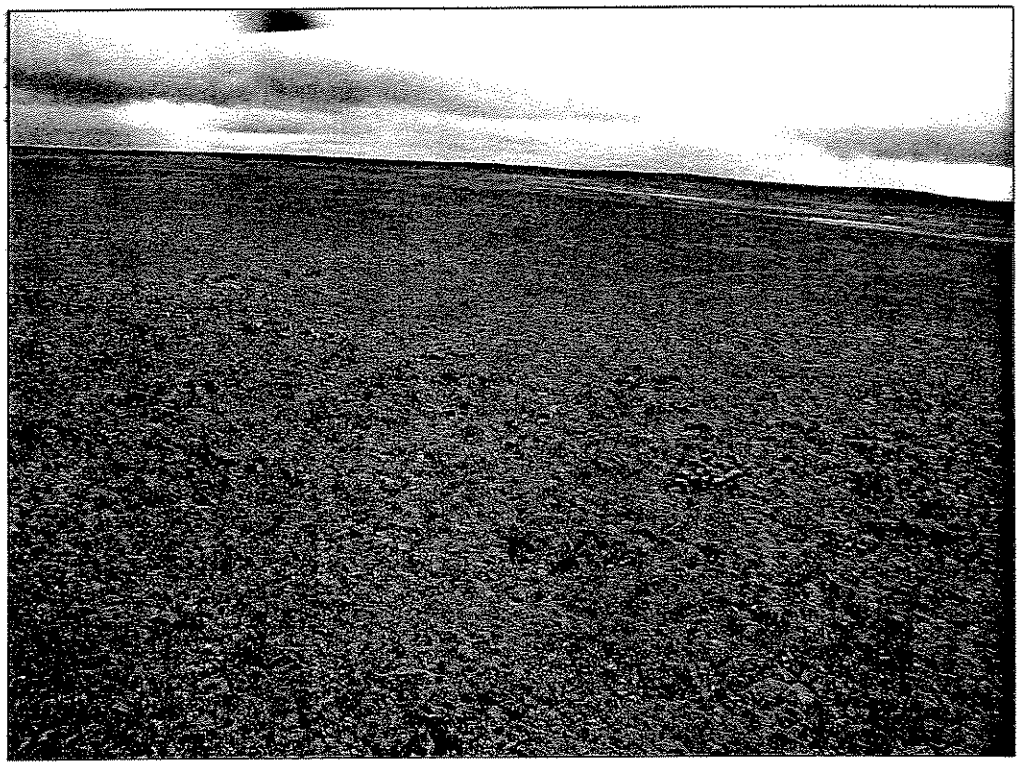
SECTOR OF
KANGIQSUJUAQ

MAJOR SITES

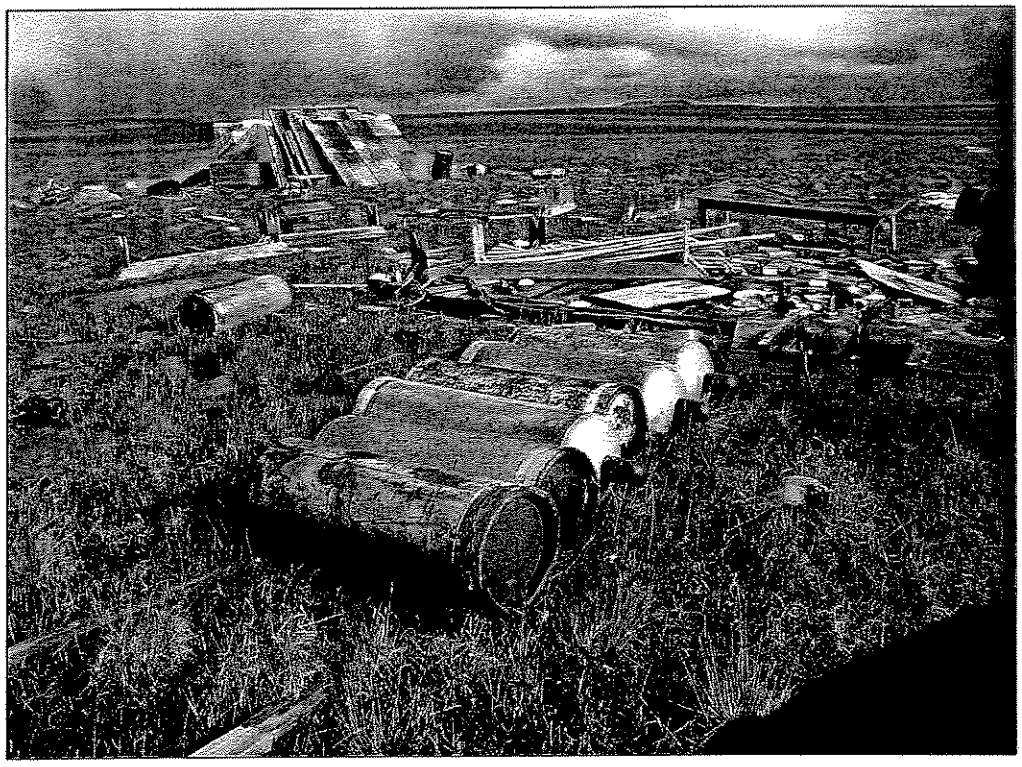
K-28

K-61

WB-3



K-28 Sector 1: barrels (Sept. 9, 2001)



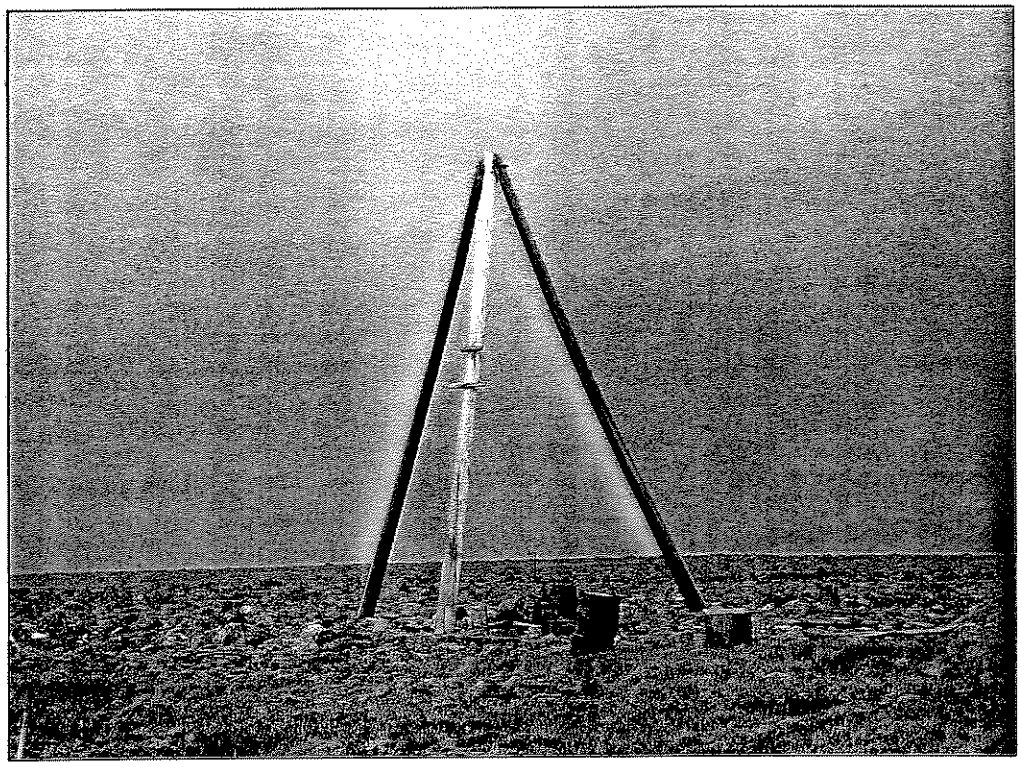
K-28 Sector 2: propane tanks, debris of cabins, barrels (Sept. 9, 2001)



K-28 Sector 2: collapsed cabin, barrels, propane tanks, pipes, various debris (Sept. 9, 2001)



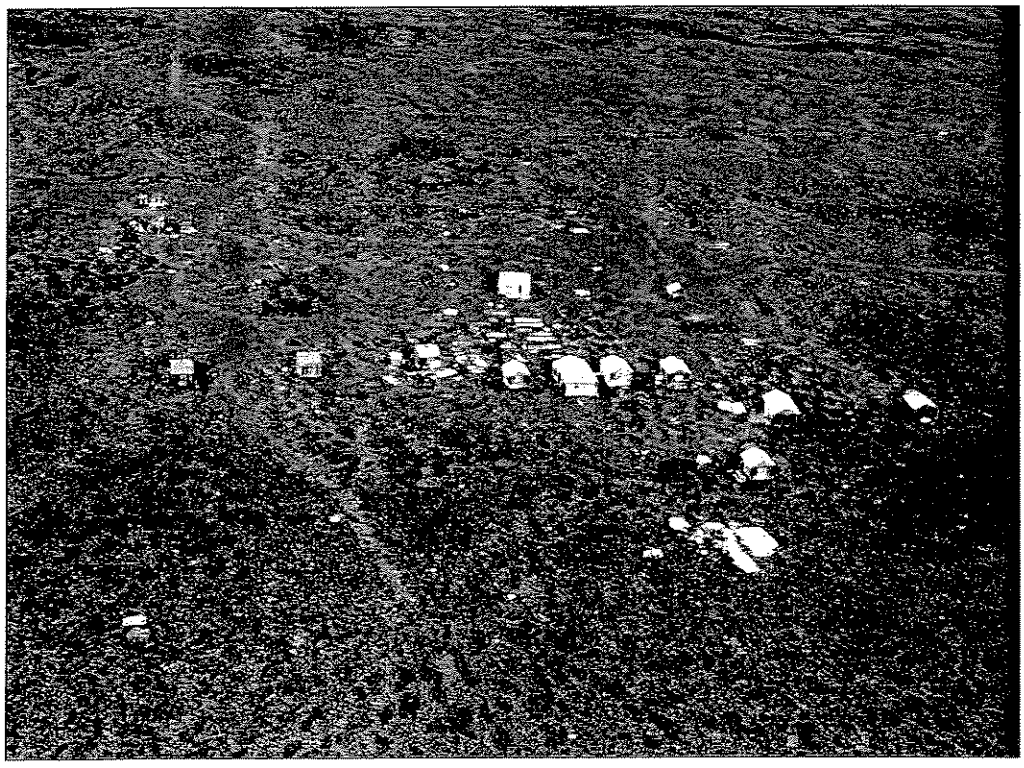
K-28 Sector 2: wood floor, various debris (Sept. 9, 2001)



K-28 Sector 3: active tripod (Sept. 9, 2001)



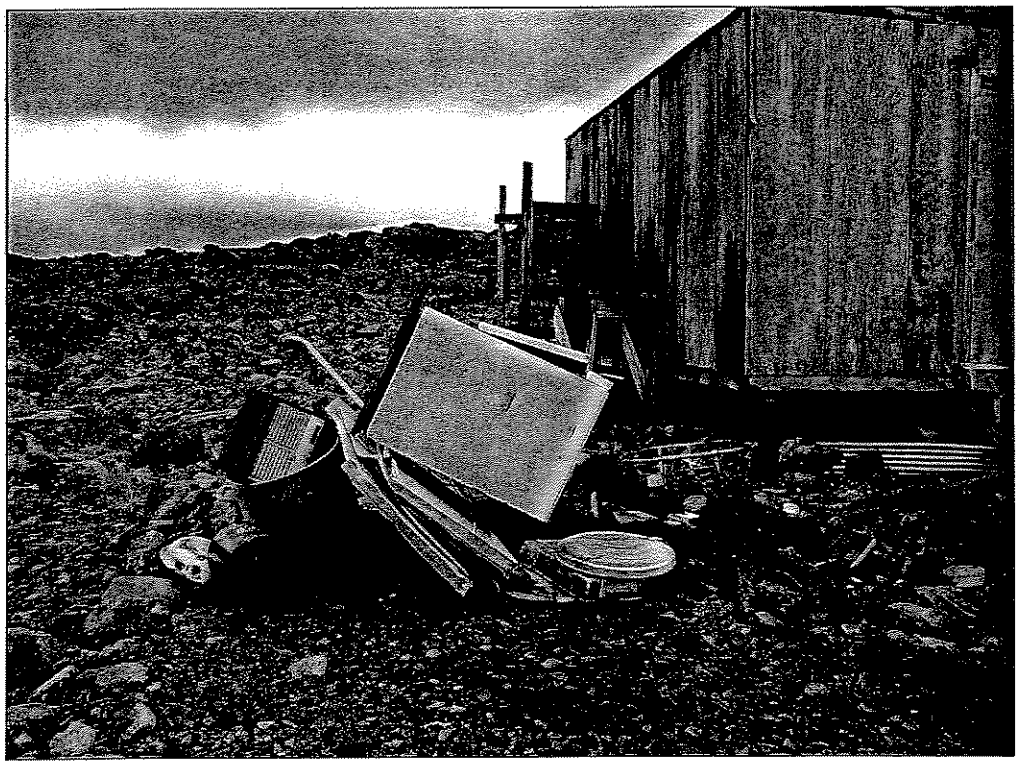
K-28 Sector 3: Recent drilling equipment, de-icing salt, barrels of Jet-B (Sept. 9, 2001)



K-61 Overview of Site K-61 (July 17, 2002; Photo: R. Fréchette, KRG)



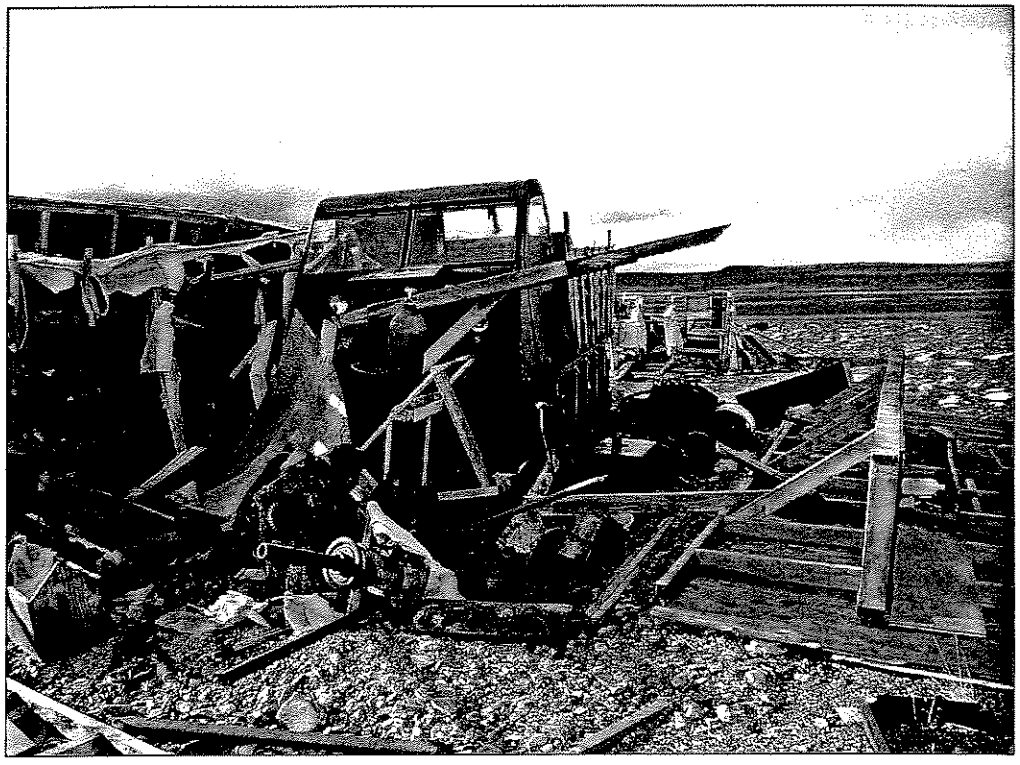
K-61 Sector 1: lot of pipes and debris. In background: cabins (Sept. 9, 2001)



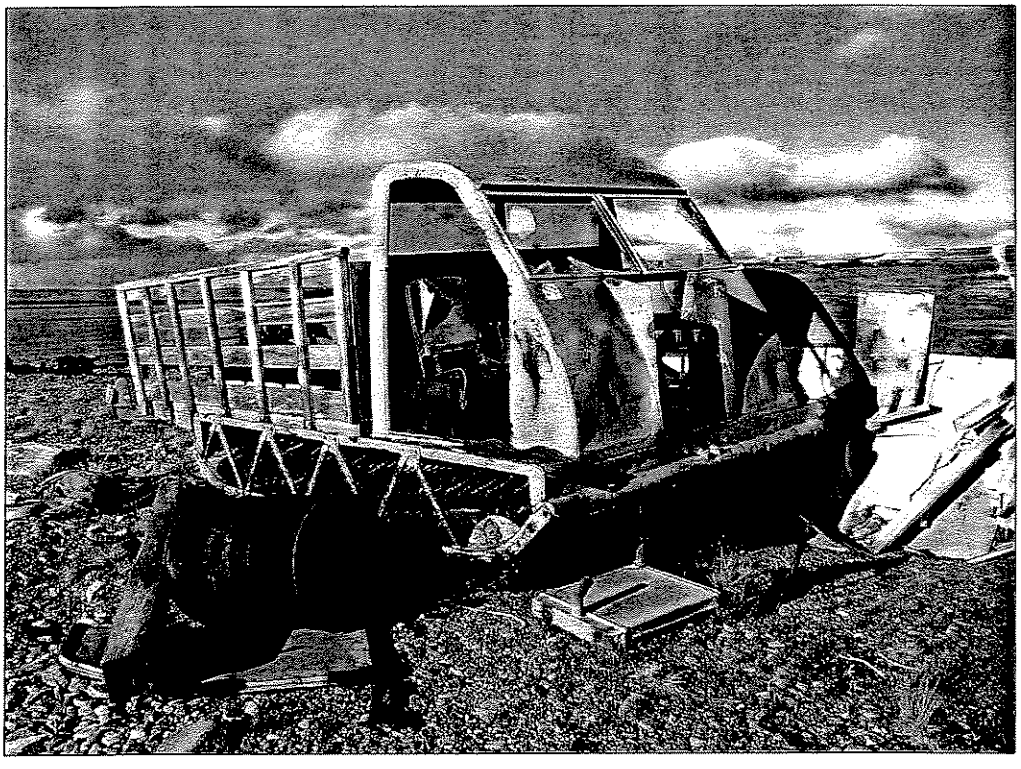
K-61 Sector 1: a stove and metal debris beside a cabin (Sept. 9, 2001)



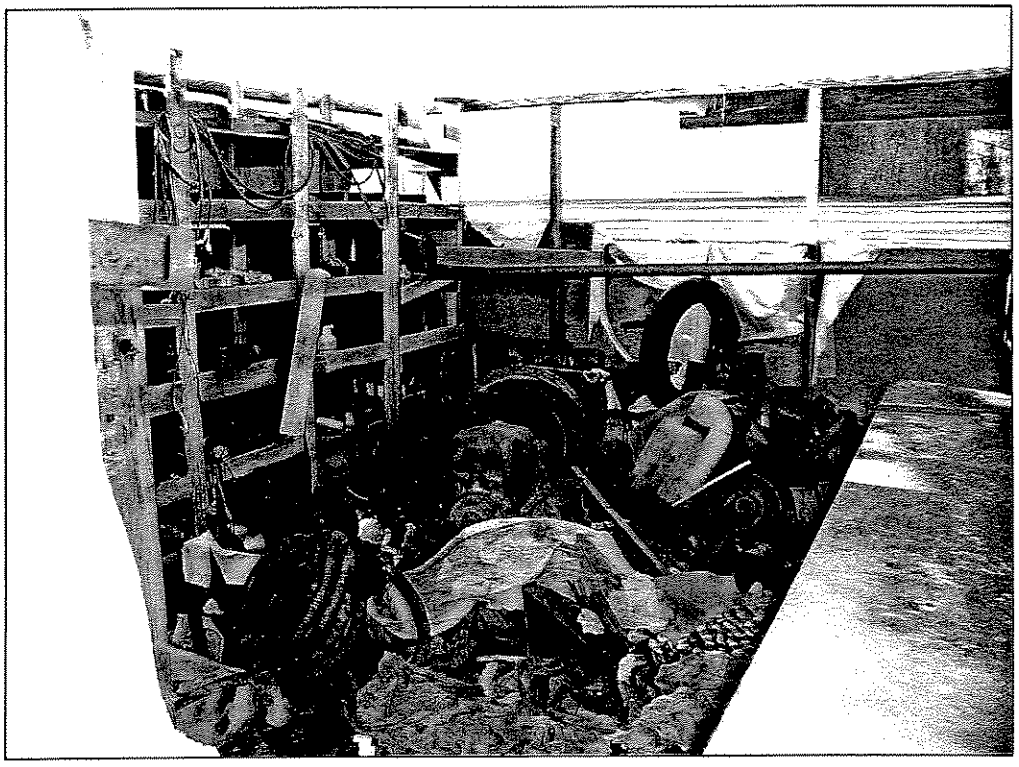
K-61 Sector 1: water hoses, pipe rack with pipes, various debris, two muskegs (Sept. 9, 2001)



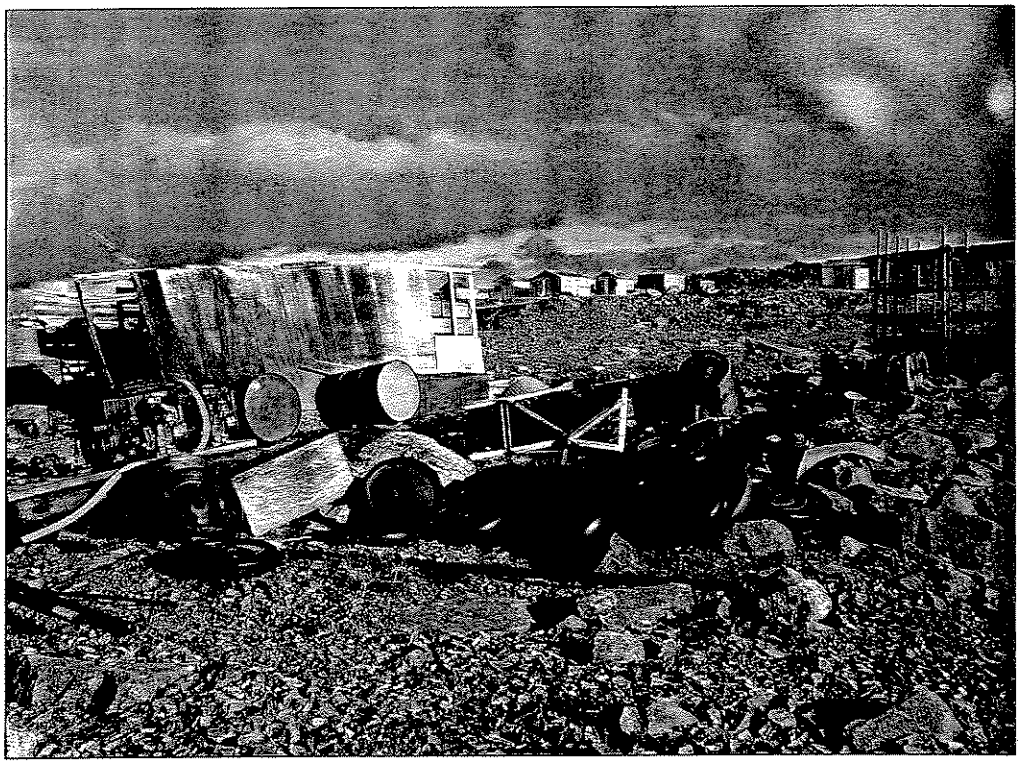
K-61 Sector 1: muskeg, collapsed building, machinery parts, welding equipement, various debris (Sept. 9, 2001)



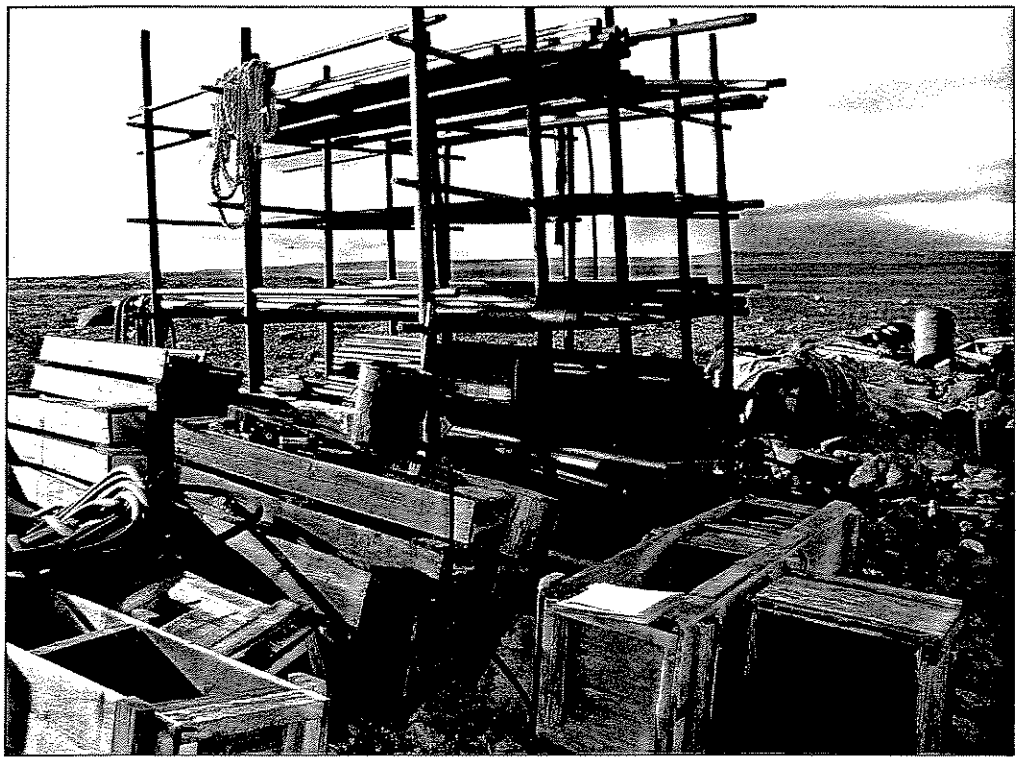
K-61 Sector 1: muskeg, a barrel, wood debris (Sept. 9, 2001)



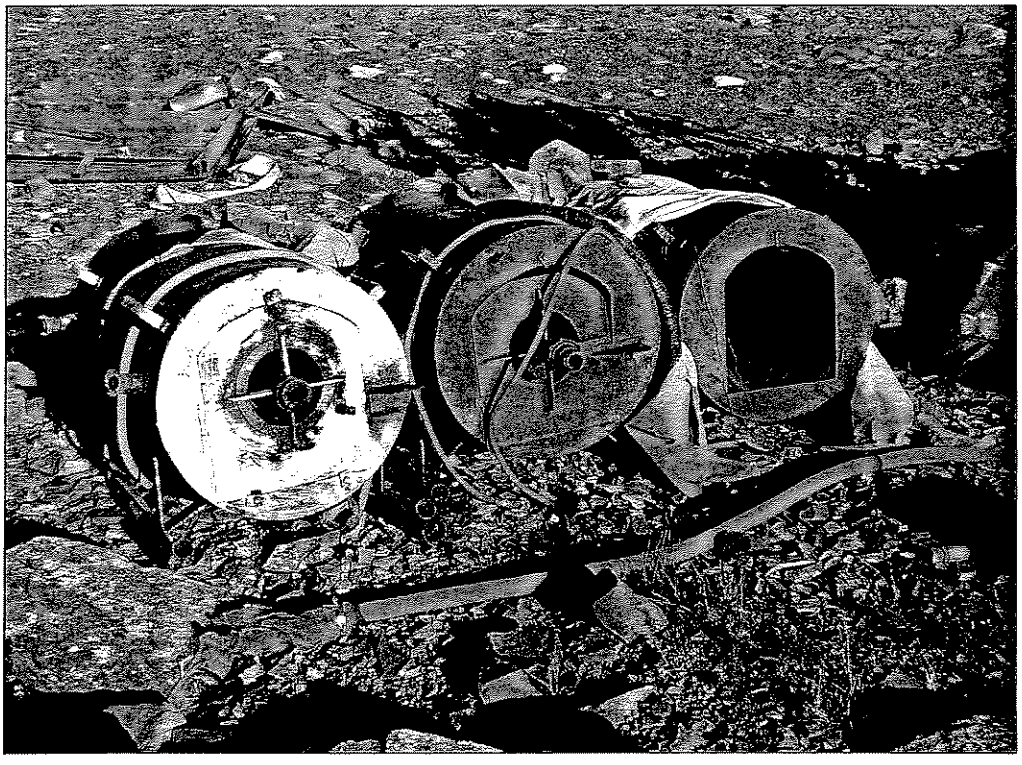
K-61 Sector 1: collapsed building with shelves, drilling equipment, machinery parts, acid in a 4-L plastic container, motors, etc. (Sept. 9, 2001)



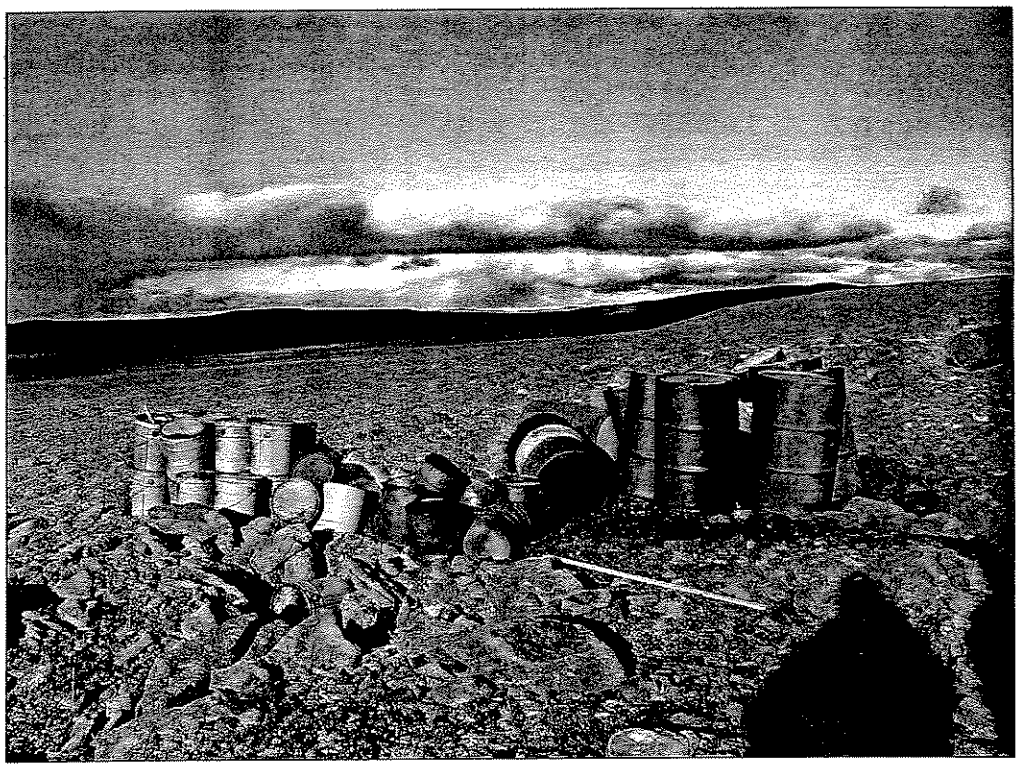
K-61 Sector 1: tires, propane tanks, motors, wires, debris (Sept. 9, 2001)



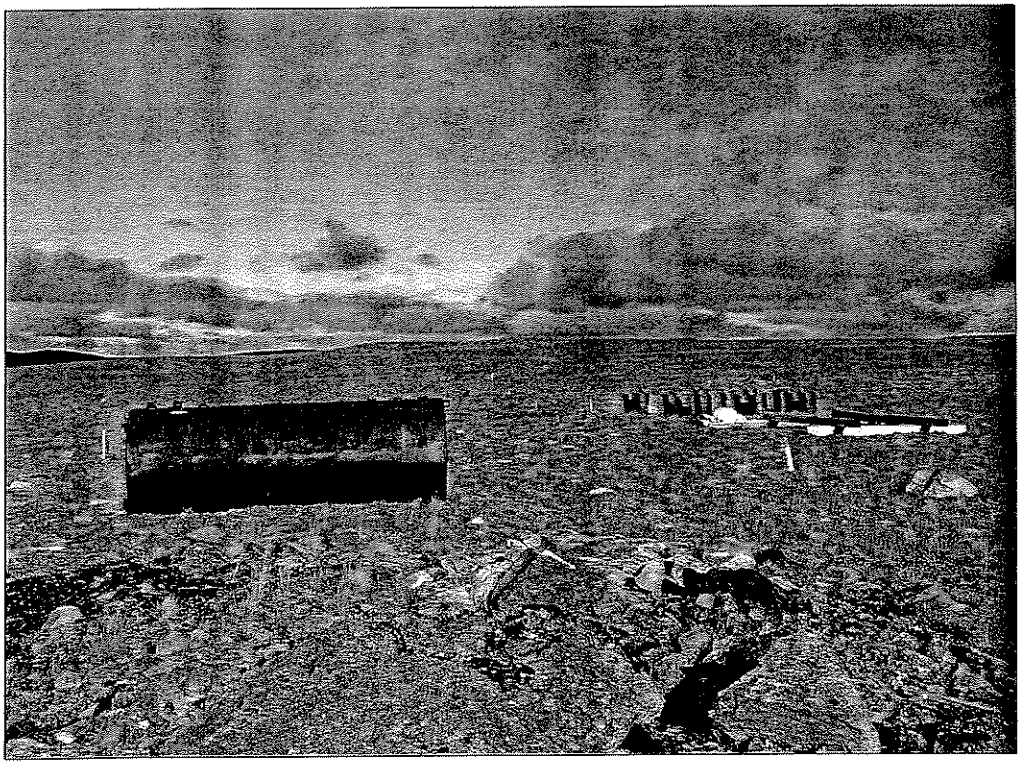
K-61 Sector 1: wood boxes, pipe rack with pipes, various debris (Sept. 9, 2001)



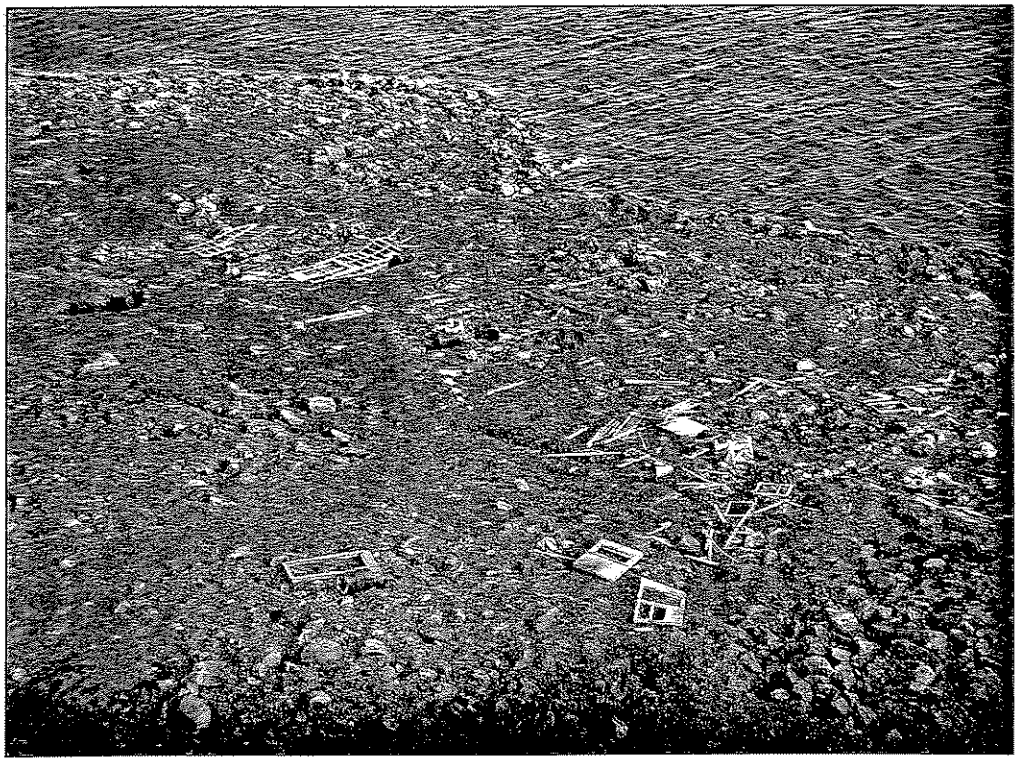
K-61 Sector 1: water heaters (Sept. 9, 2001)



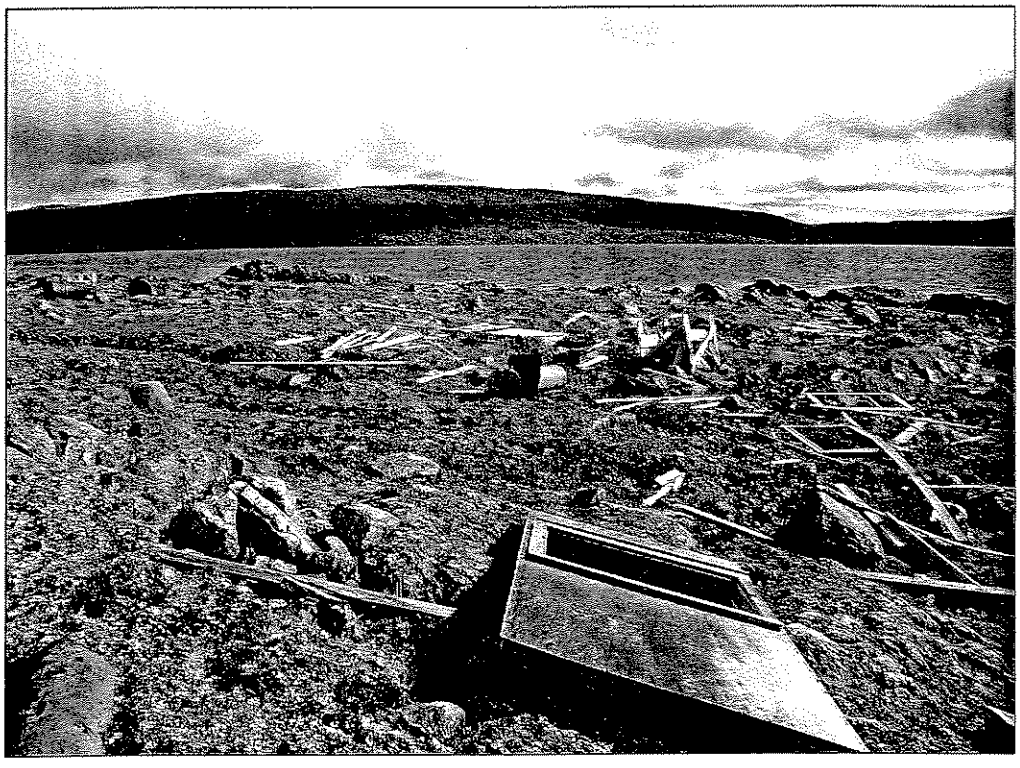
K-61 Sector 1: pails full of grease, barrels full of diesel (Sept. 9, 2001)



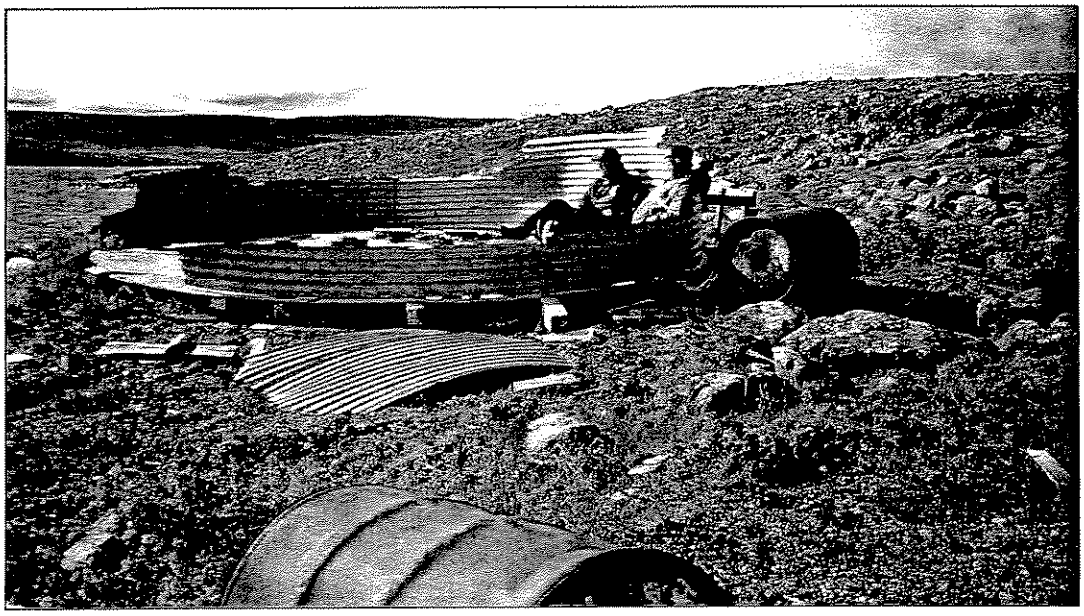
K-61 Sector 1: a large tank. Sector 2: barrels (Sept. 9, 2001)



WB-3 Partial overview of Site WB-3 (Sept. 9, 2001)



WB-3 Wood debris, propane tanks, various debris (Sept. 9, 2001)



WB-3 Wood base surrounded by a piece of tin, barrels (Sept. 9, 2001)



WB-3 Barrels close to the shore (Sept. 9, 2001)



WB-3 Barrels (Sept. 9, 2001)



WB-3 Barrels, wood debris (Sept. 9, 2001)

INTERMEDIATE SITES

K-27

K-49

KAN-2

KAN-6

KAN-7

KAN-10



K-27 Barrels (Sept. 9, 2001)



K-49 A plane, barrels, propane tanks, various debris (Sept. 9, 2001)



KAN-2 Dump (Sept. 9, 2001)



KAN-2 Tripod, non-hydraulic drill, motor, winch, pipes, barrels, de-icing salt, various debris (Sept. 9, 2001)



KAN-6 Two buildings (Sept. 9, 2001)



KAN-7 Forward: piled debris (propane tanks, oxygen tanks, metal rods, pipes, wood...). Backward: a muskeg, piled barrels (Sept. 9, 2001)



KAN-10 Barrels (Sept. 9, 2001)



KAN-10 Collapsed building, propane tank, various debris (Sept. 9, 2001)

MINOR SITES

K-36

KAN-5

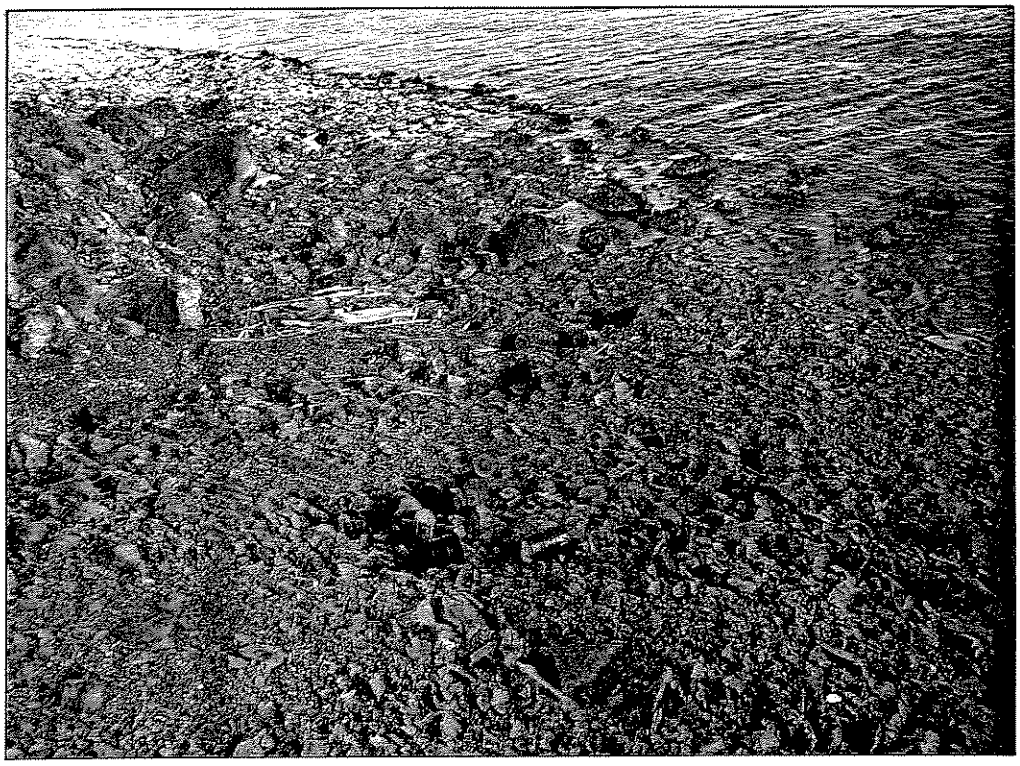
KAN-11



K-36 Barrels, wood (Sept. 9, 2001)



K-36 Wood platform (Sept. 9, 2001)



KAN-5 Barrels, wood platform, propane tanks near a lake (Sept. 9, 2001)



KAN-11 A muskeg in a wetland near a lake (July 17, 2002; Photo: R. Fréchette, KRG)

SECTOR OF
SALLUIT

MAJOR SITES

KV-1

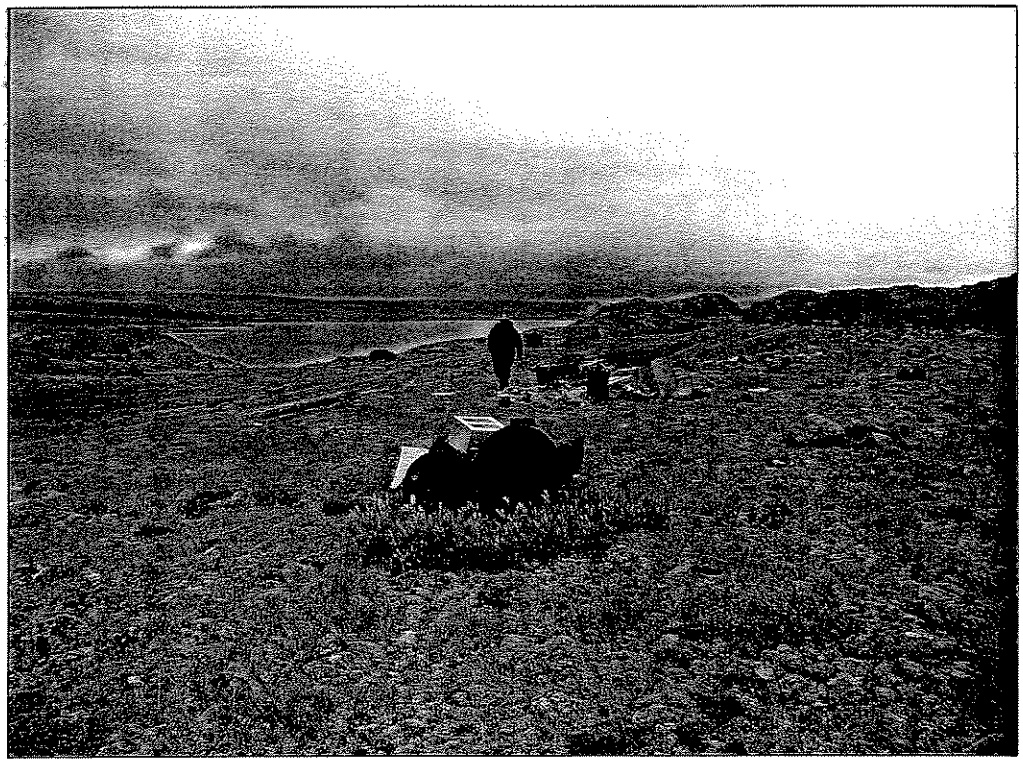
SAL-1

SW-27

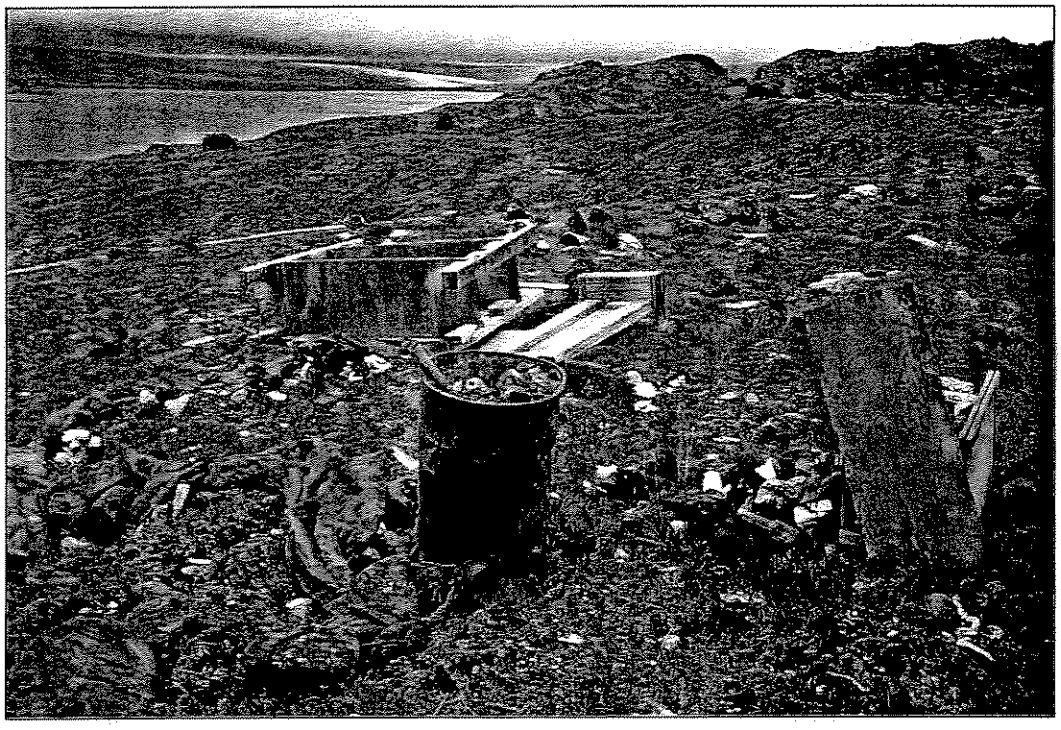
SW-34

SW-42

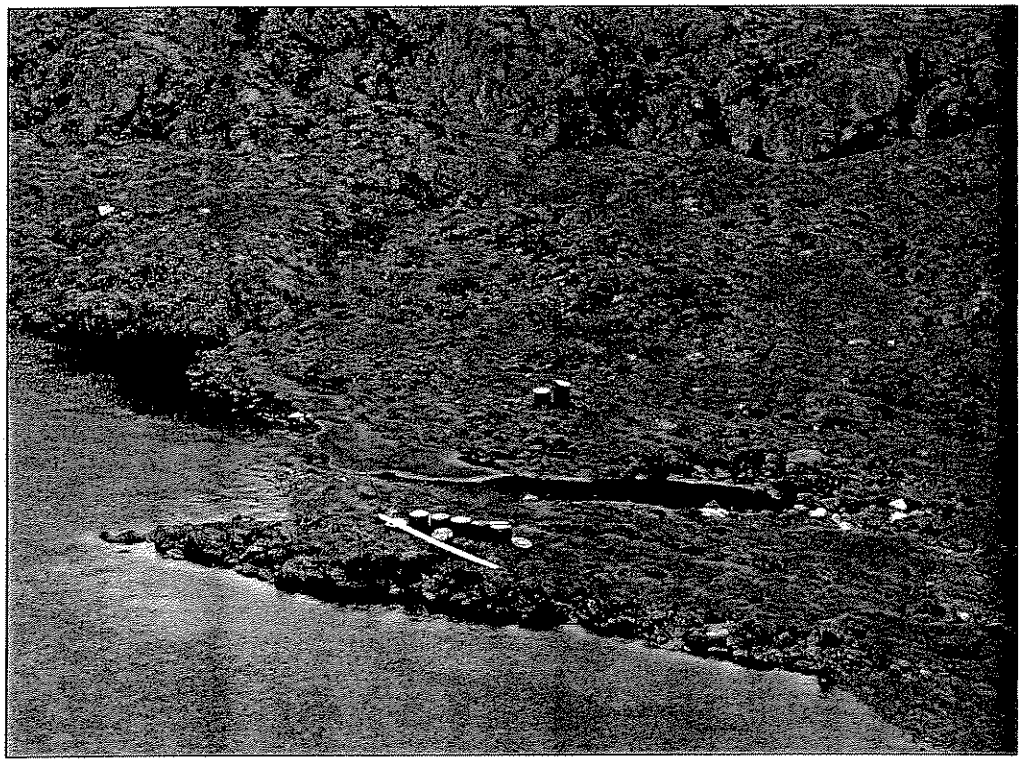
WB-9



KV-1 Sector 1: water heater, barrels, debris (Sept. 6, 2001)



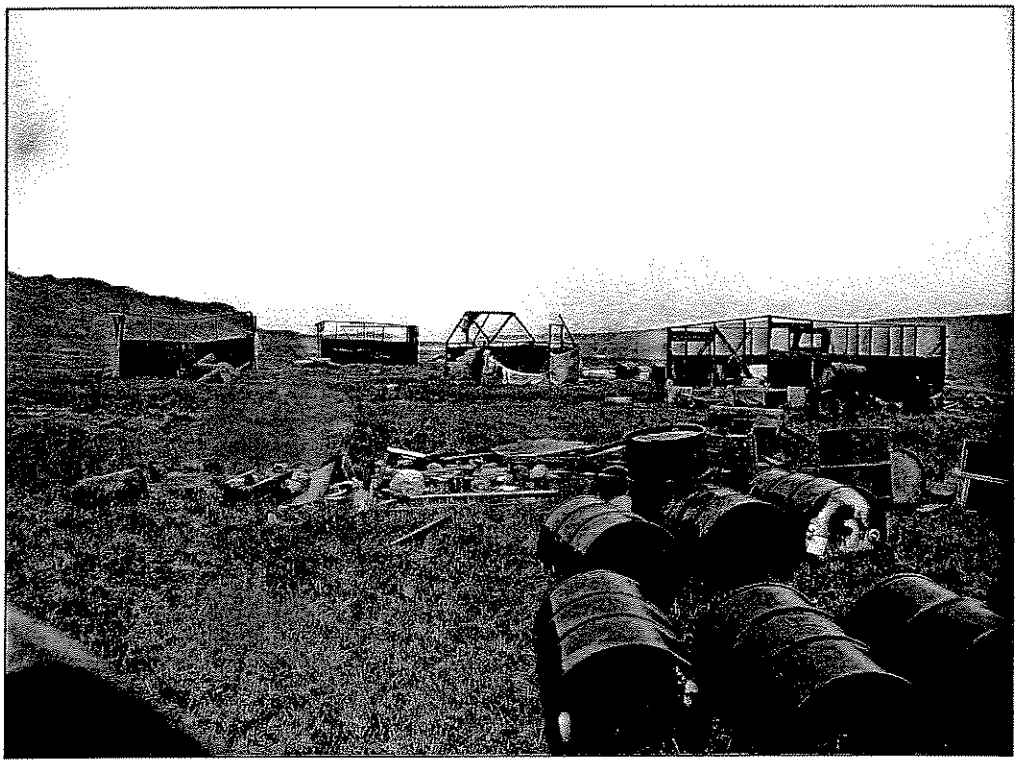
KV-1 Sector 1: open barrel with garbage, tarp, wood, various debris (Sept. 6, 2001)



KV-1 Sector 2: crushed barrels, wood (Sept. 6, 2001)



KV-1 Sector 2: barrels, various debris (Sept. 6, 2001)



SAL-1 Partial overview of Site SAL-1 (Sept. 7, 2001)



SAL-1 Collapsed buildings, propane tanks, barrels, lot of debris (Sept. 7, 2001)



SAL-1 Collapsed building, propane tanks, barrels, lot of debris (Sept. 7, 2001)



SAL-1 Debris in a building (Sept. 7, 2001)



SAL-1 Collapsed building, propane tanks, barrels, lot of debris (Sept. 7, 2001)



SAL-1 Barrels (Sept. 7, 2001)



SAL-1 Cans of Aviation oil (Sept. 7, 2001)



SAL-1 In a building: pails containing Aviation oil, cans, various debris (Sept. 7, 2001)



SW-27 Sector 1: wood debris, barrels, Aviation oil, propane tanks, battery, various debris (Sept. 6, 2001)



SW-27 Sector 2: Barrels, a muskeg, a trailer, pails with grease or oil, various debris (Sept. 6, 2001)



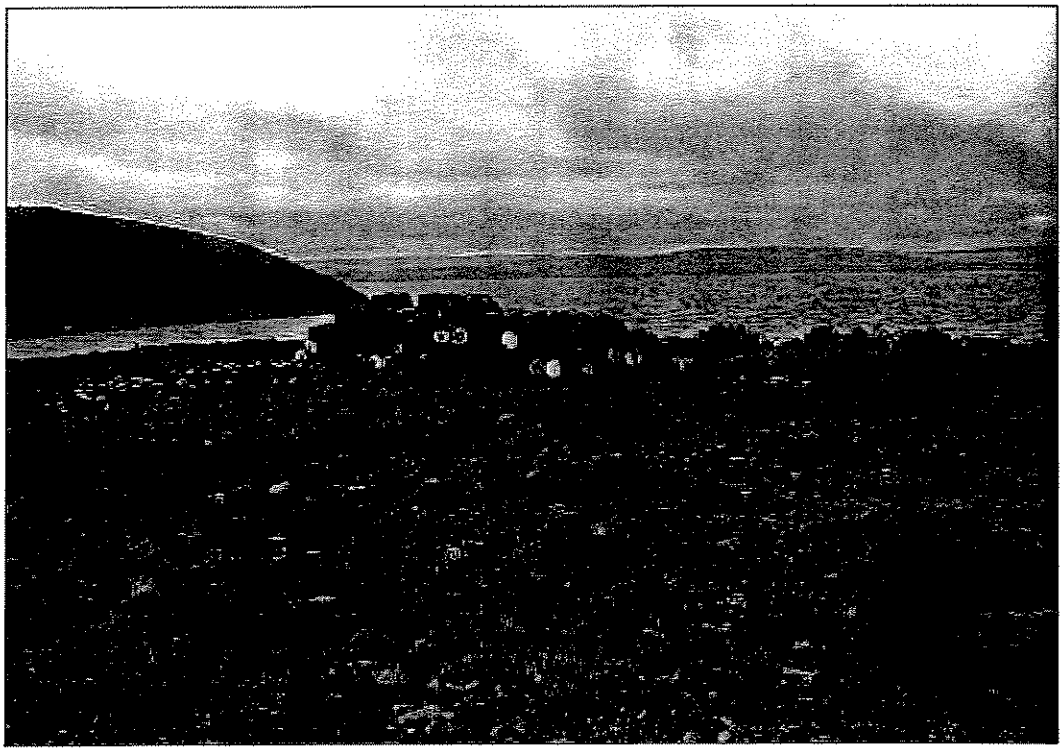
SW-27 Sector 2: open pail containing grease (Sept. 6, 2001)



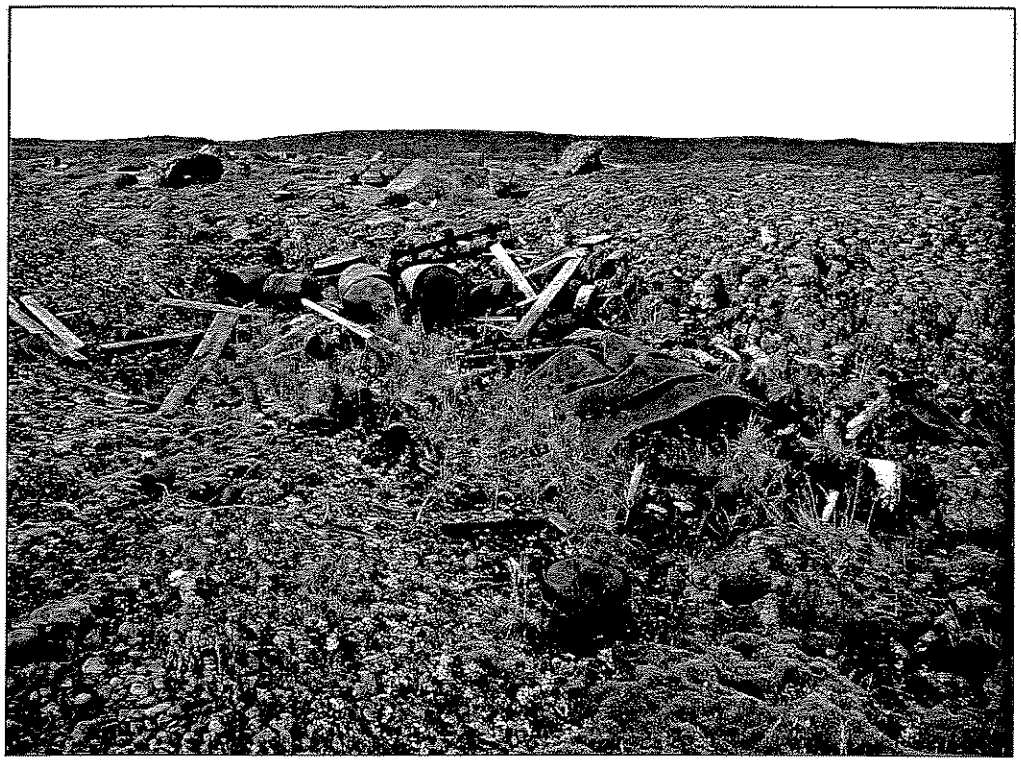
SW-27 Sector 3: barrels, various debris (Sept. 6, 2001)



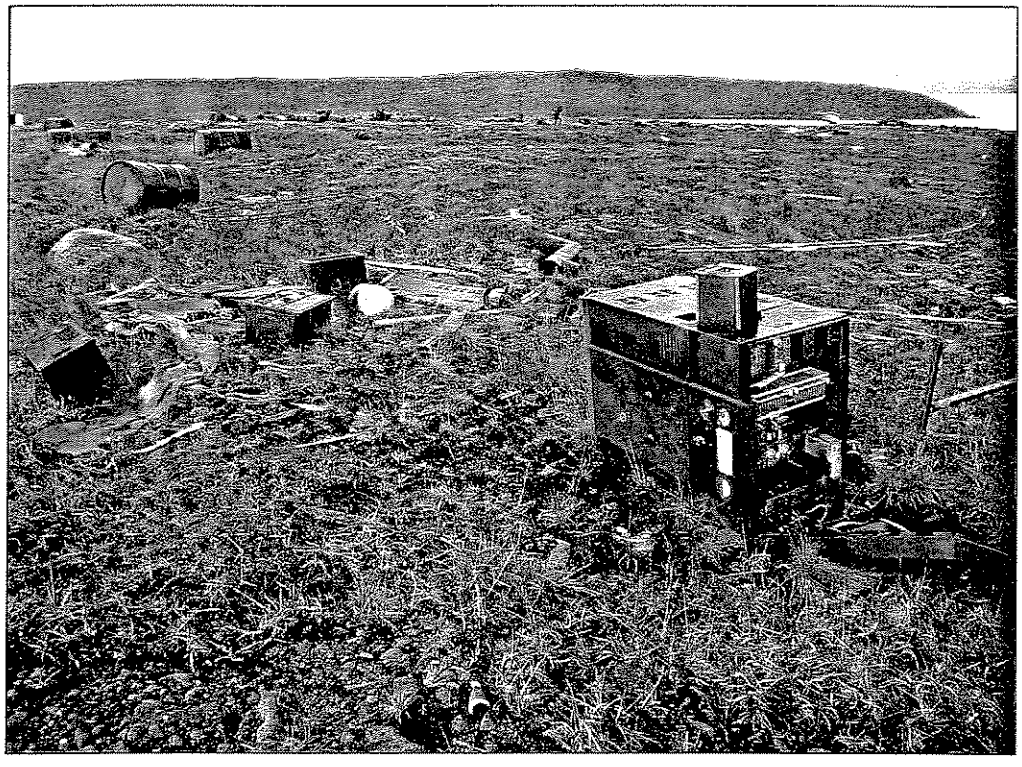
SW-27 Sector 4: barrels, pails with grease, various debris (Sept. 6, 2001)



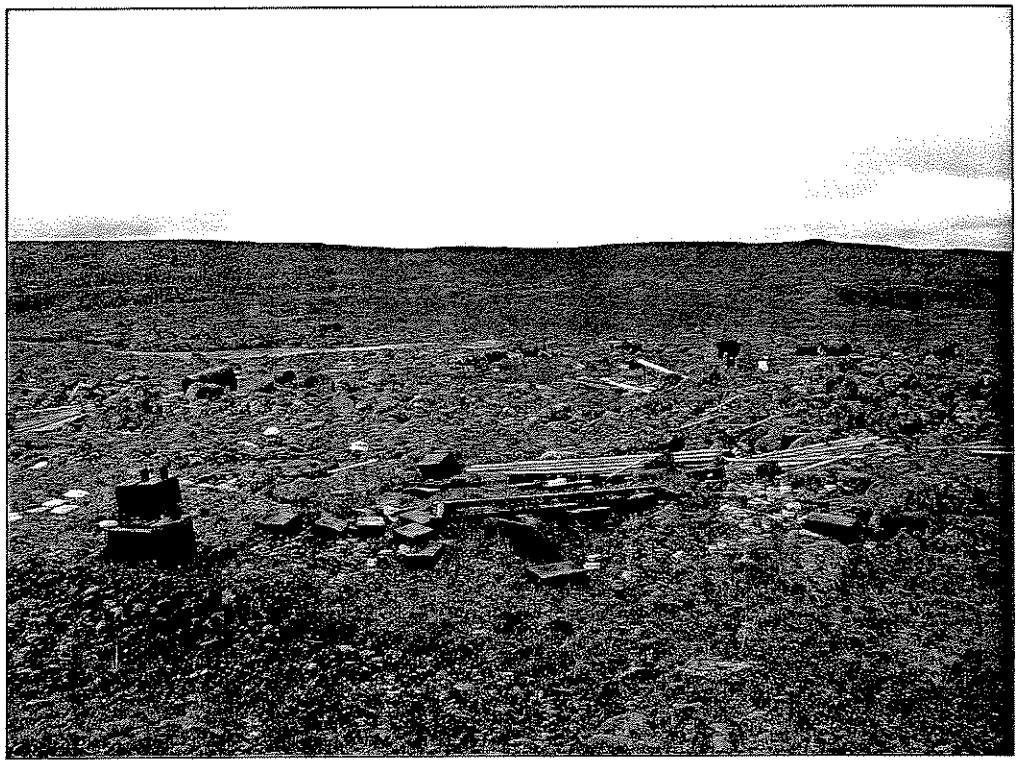
SW-34 Barrels near the lake (Sept. 10, 2001)



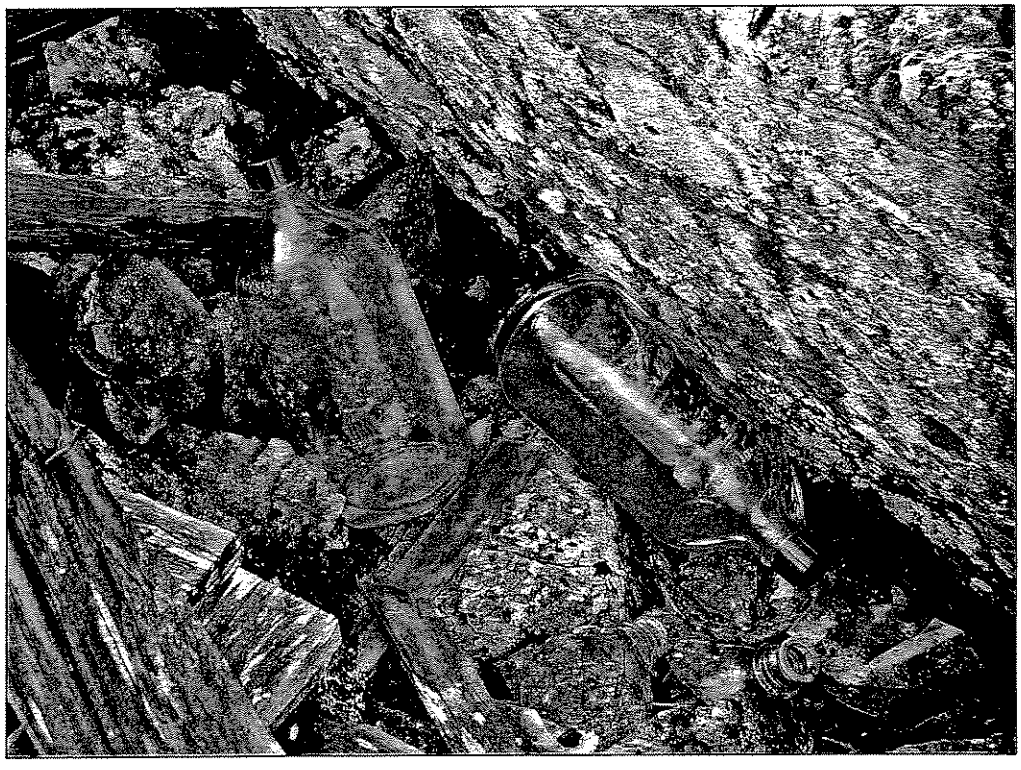
SW-34 Various debris including electronic parts and batteries (Sept. 10, 2001)



SW-34 Radio equipment, barrels, various debris (Sept. 10, 2001)



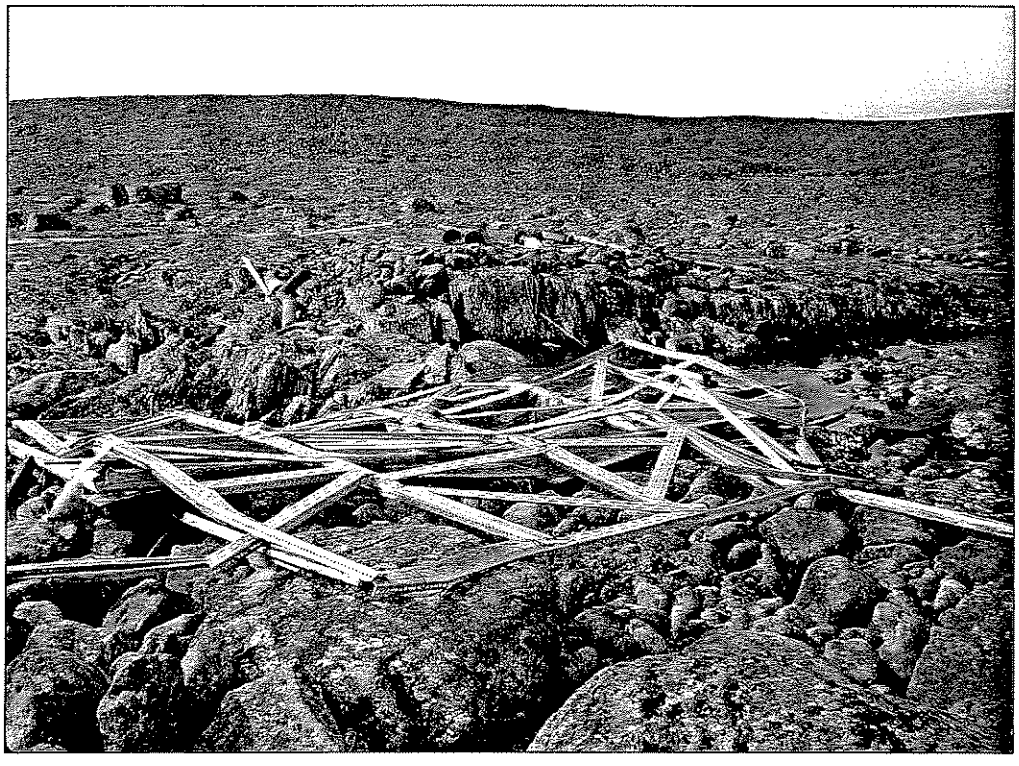
SW-34 Various debris (Sept. 10, 2001)



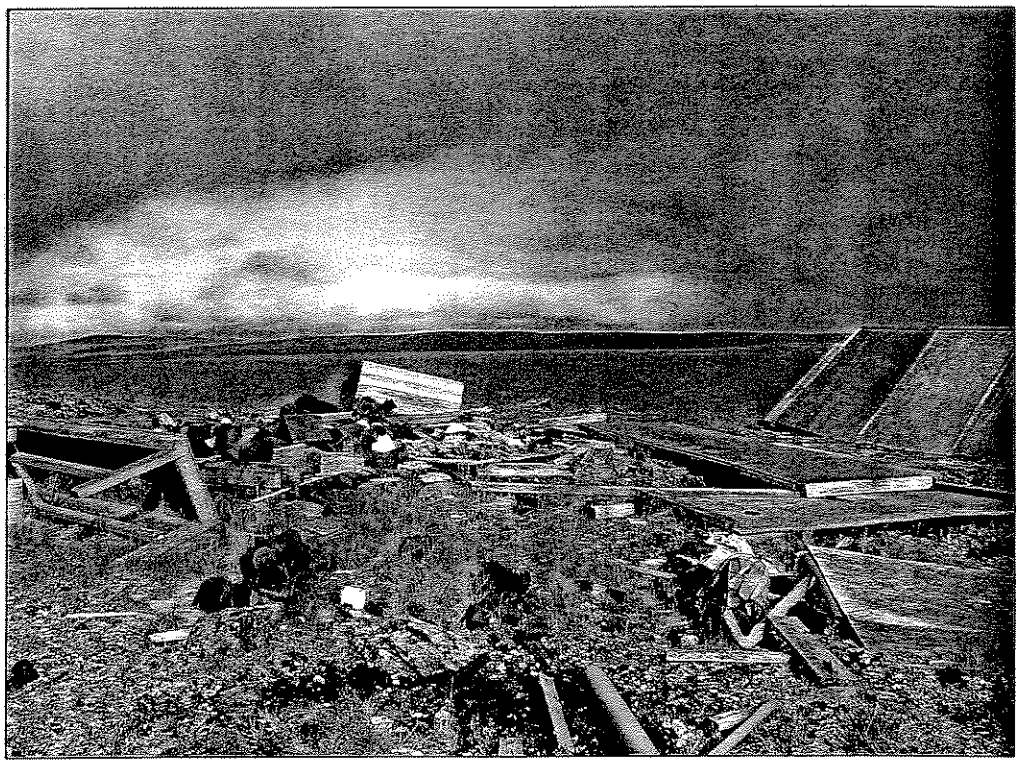
SW-34 Glass bottles; one contains some chemical product (Sept. 10, 2001)



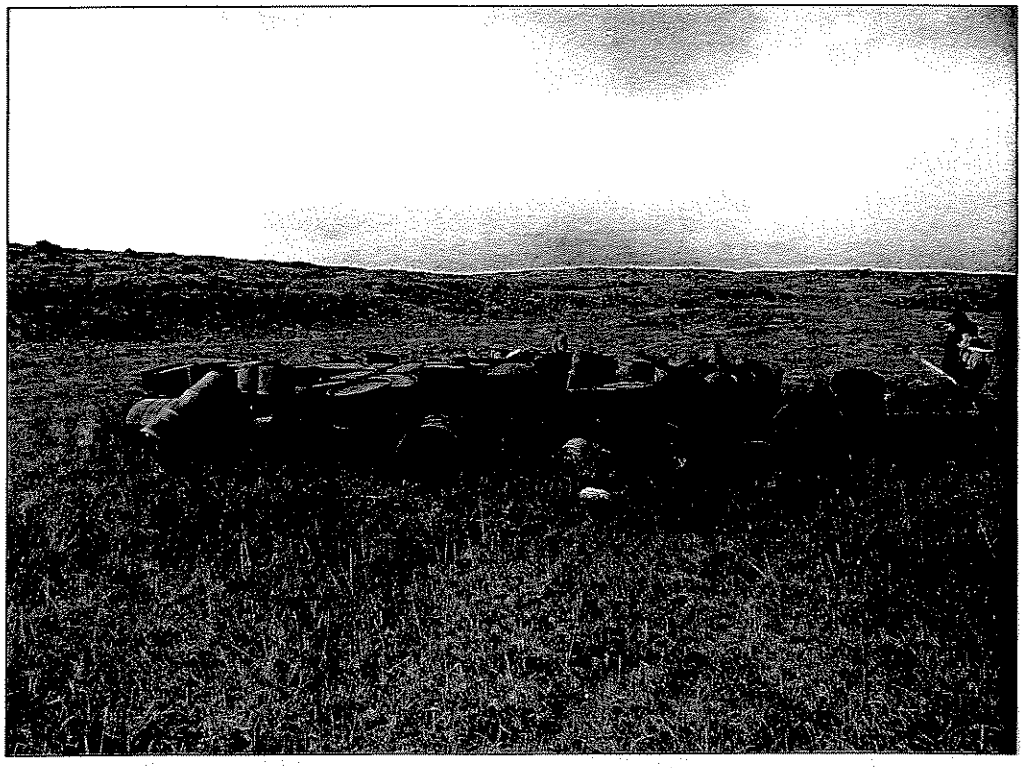
SW-34 Broken battery (Sept. 10, 2001)



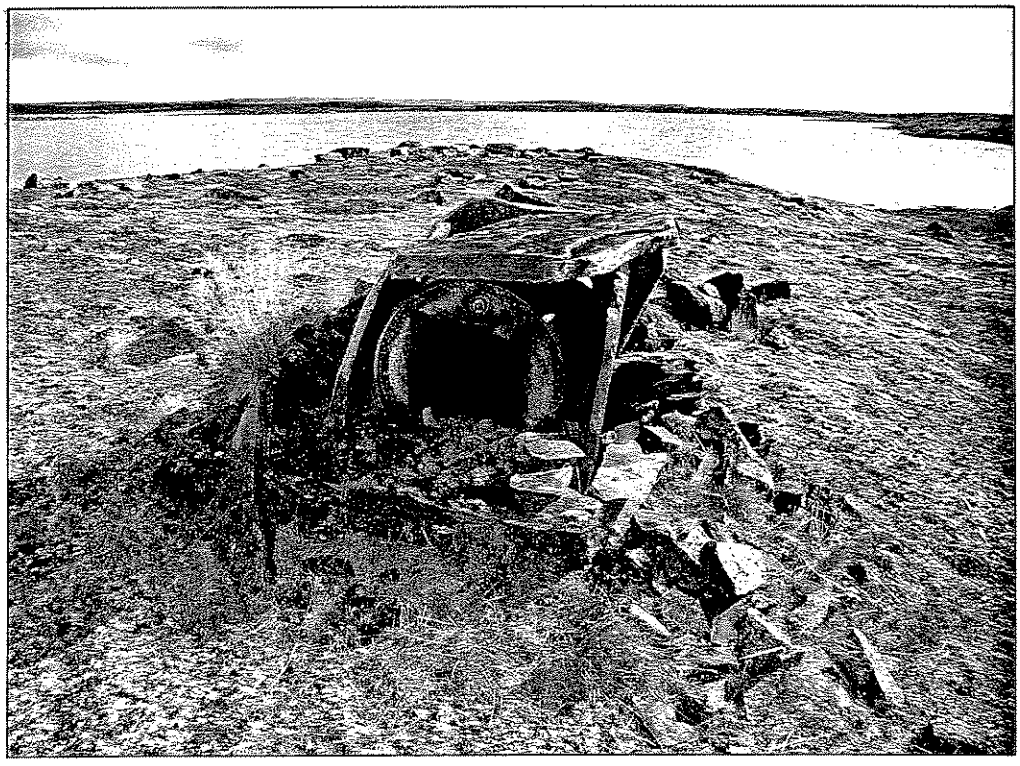
SW-34 Aluminum frame, plywood sheets, propane tanks, barrels, various debris (Sept. 10, 2001)



SW-42 Plywood sheets, pails, pipes, various debris (Sept. 10, 2001)



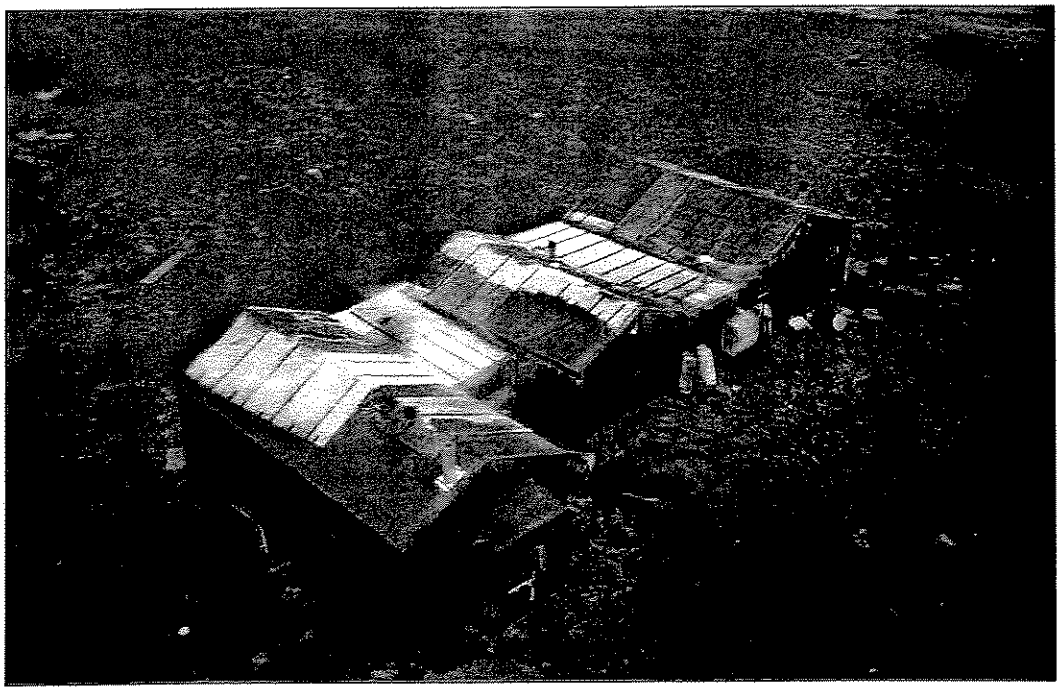
SW-42 Barrels (Sept. 10, 2001)



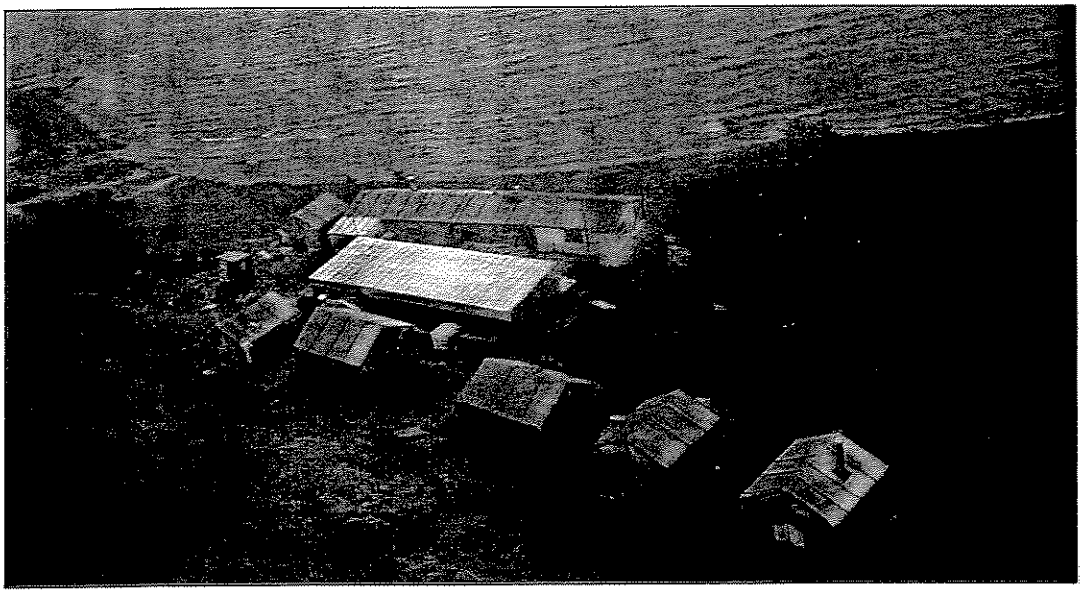
SW-42 Home made stove (Sept. 10, 2001)



WB-9 Partial overview of Site WB-9 (Sept. 7, 2001)



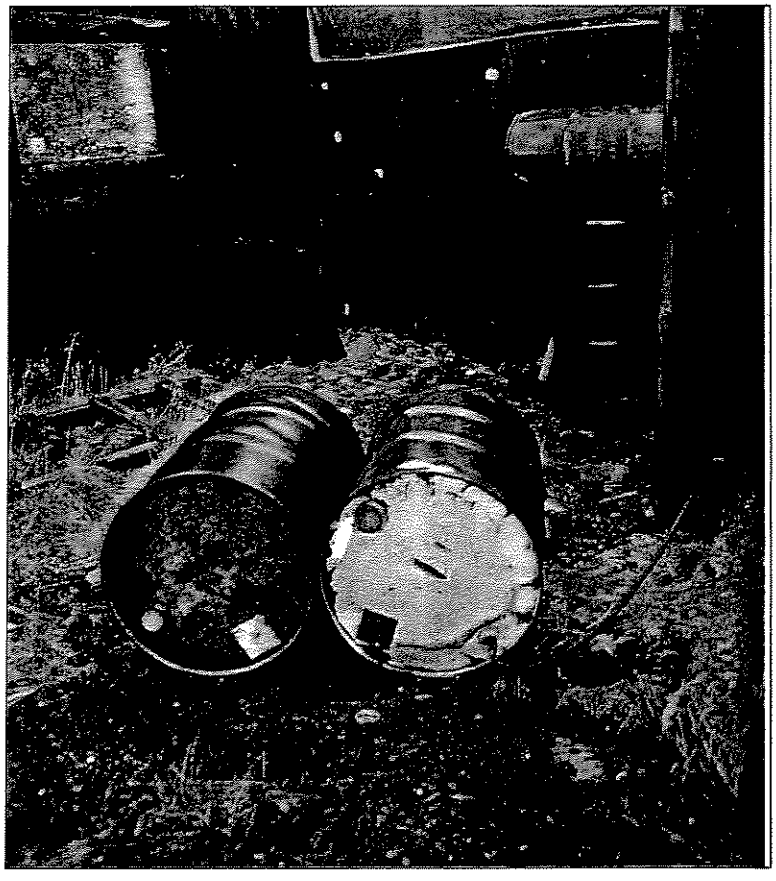
WB-9 Building, barrels, propane tanks, fuel tanks (Sept. 7, 2001)



WB-9 Partial overview of Site WB-9 (Sept. 7, 2001)



WB-9 Propane tanks, barrels, fuel tank beside a building (Sept. 7, 2001)



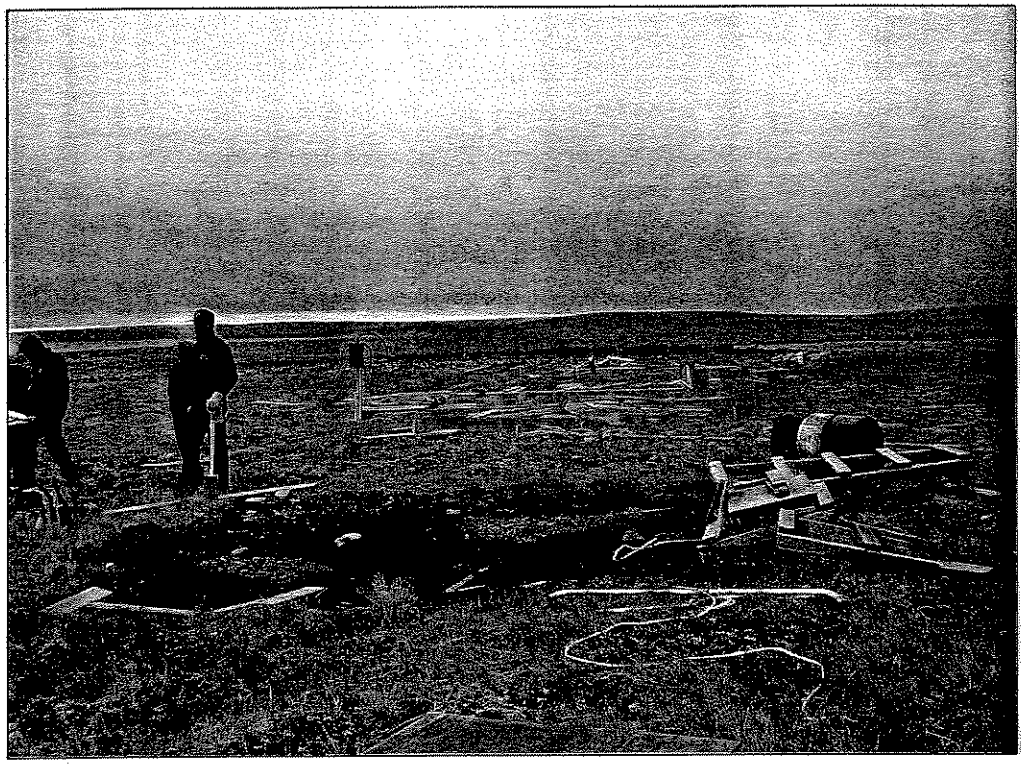
WB-9 Barrels and contaminated areas (Sept. 7, 2001)

MINOR SITES

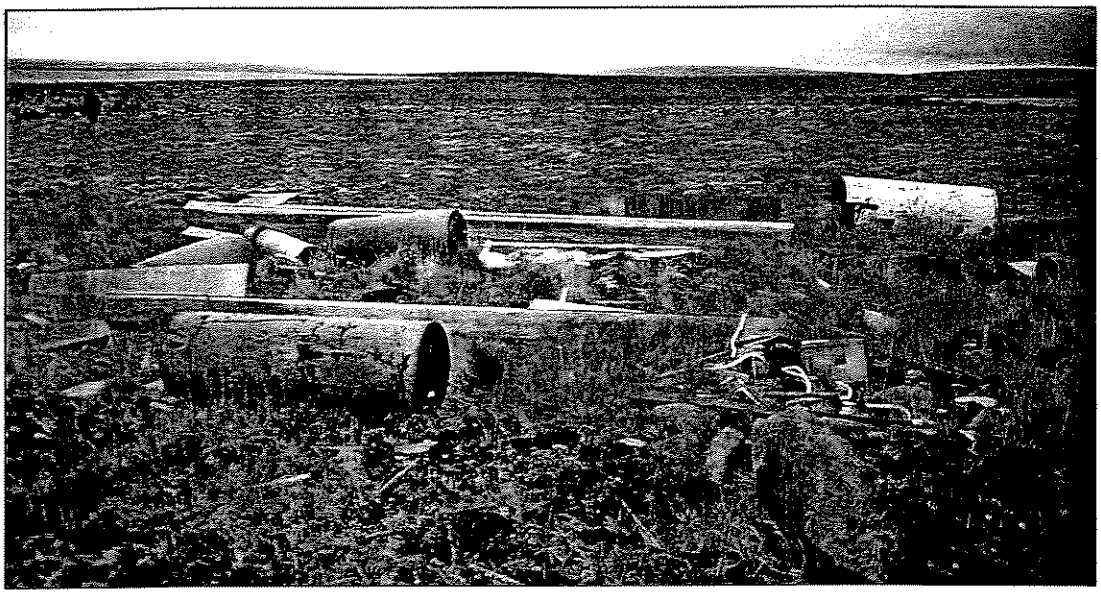
SW-14



SW-14 General overview of Site SW-14 (Sept. 6, 2001)



SW-14 Wood debris, barrels, various debris (Sept. 6, 2001)

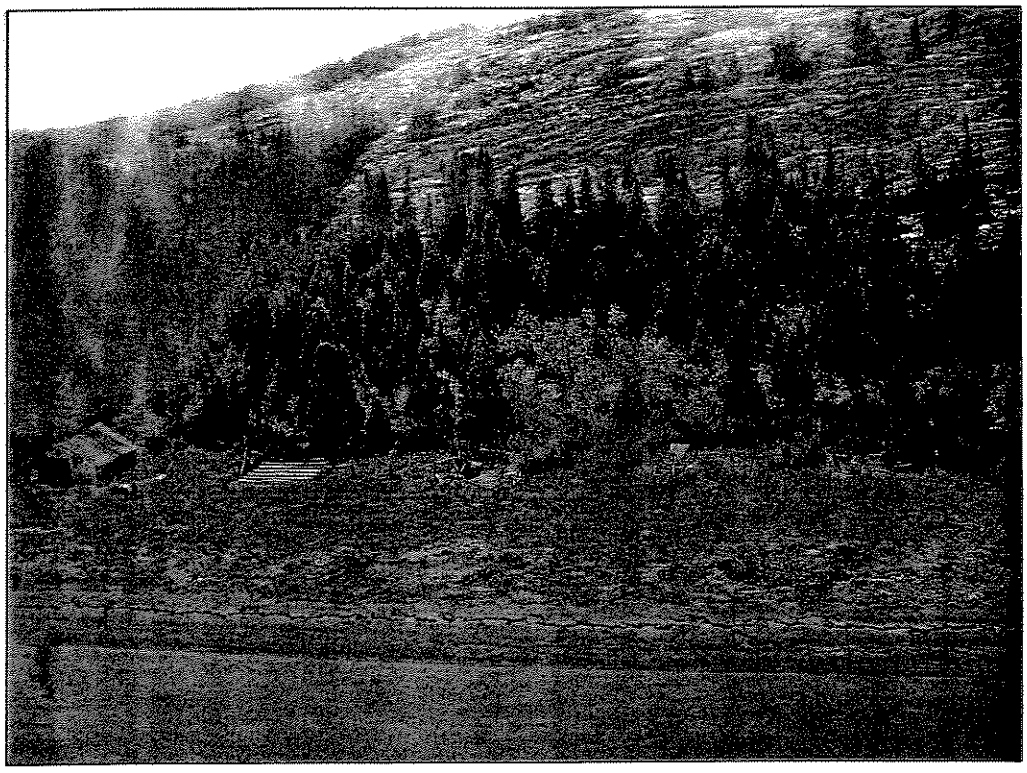


SW-14 Propane tanks, batteries, various debris (Sept. 6, 2001)

SECTOR OF
UMIUJAQ

MAJOR SITES

WHA-1



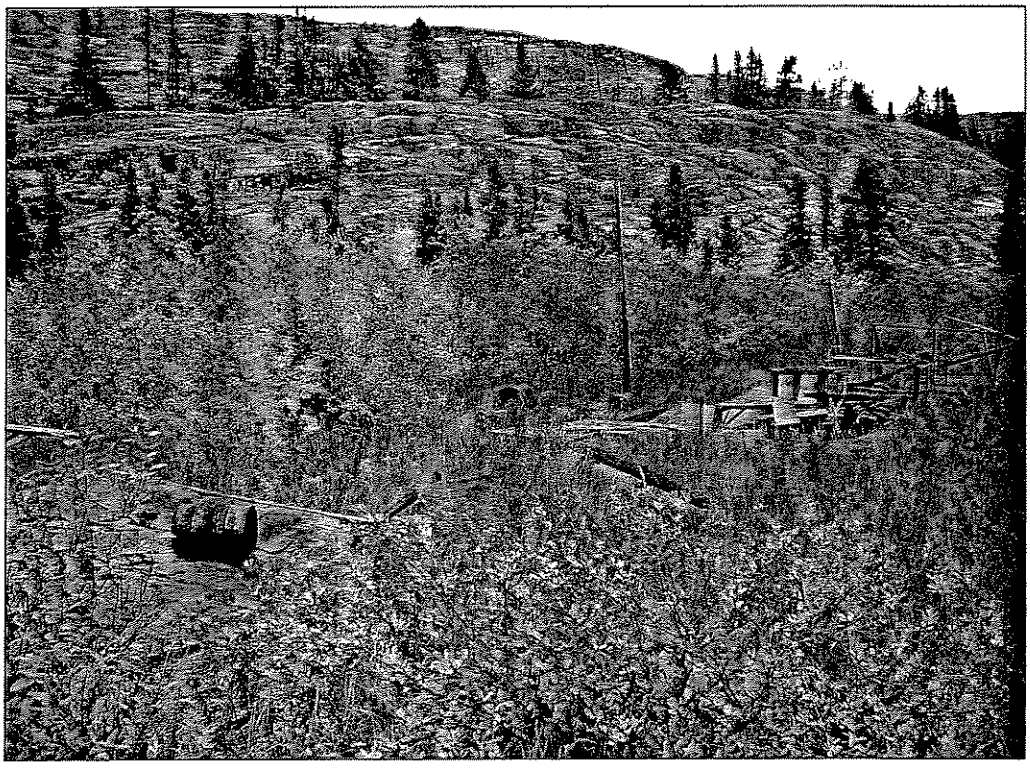
WHA-1 Partial view of Site WHA-1 (Sept. 25, 2002)



WHA-1 Partial view of Site WHA-1 (Sept. 25, 2002)



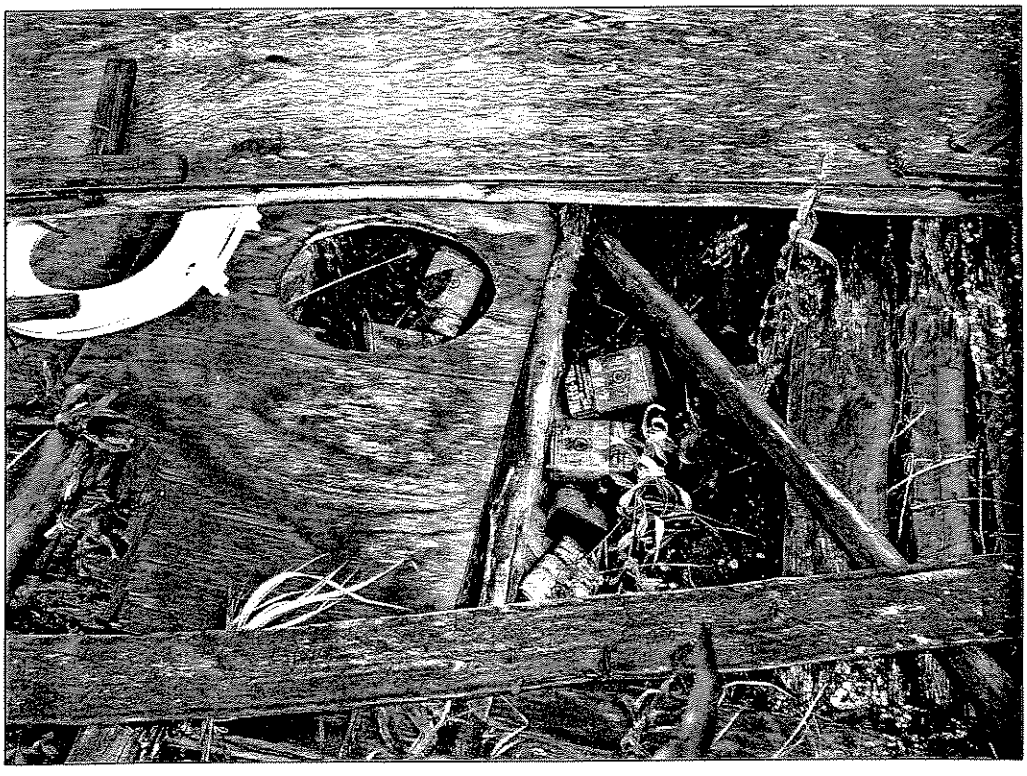
WHA-1 Wood floors, barrels (Sept. 25, 2002)



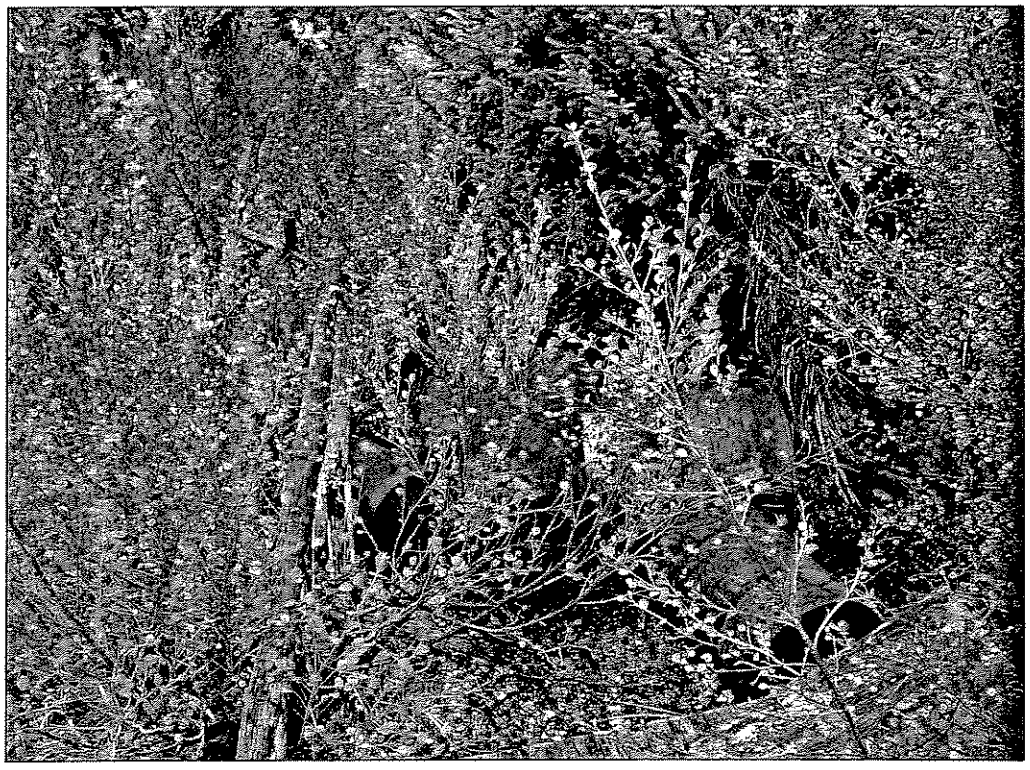
WHA-1 Wood floors, barrels (Sept. 25, 2002)



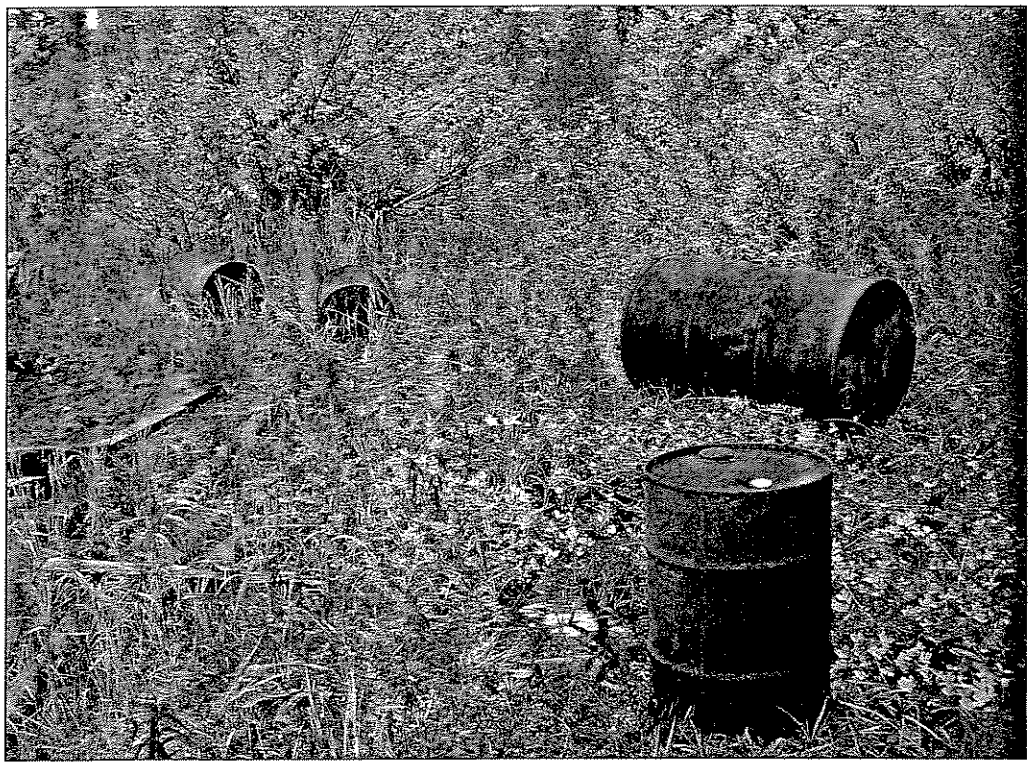
WHA-1 Barrels, plastic boxes (Sept. 25, 2002)



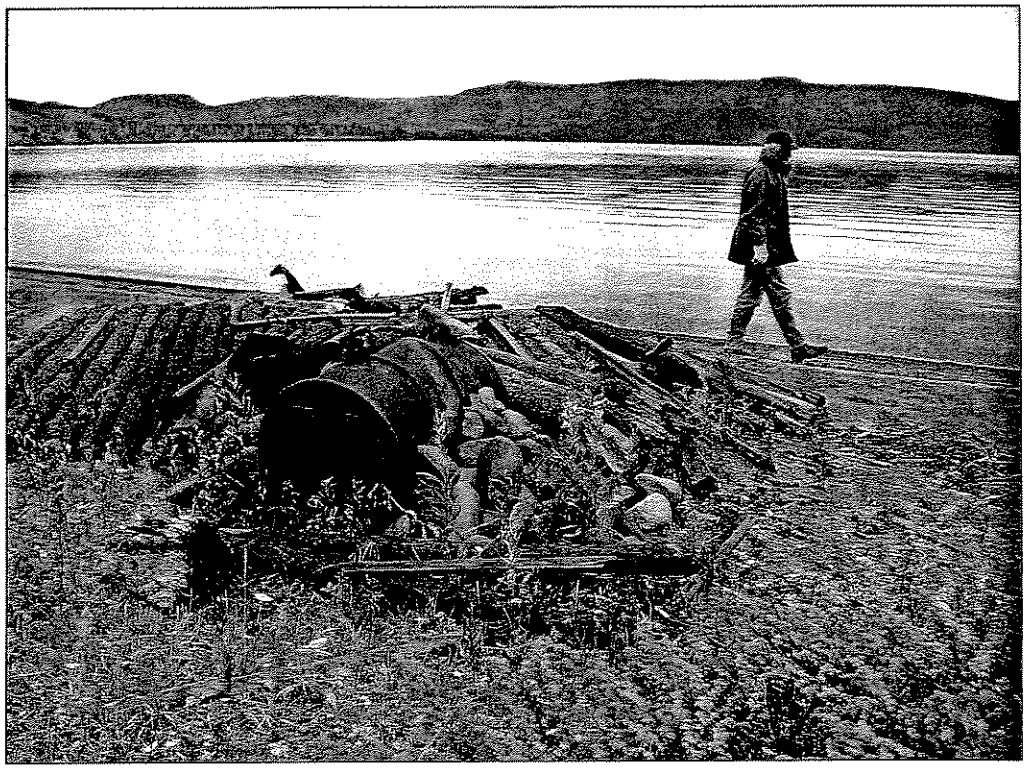
WHA-1 Collapsed outhouse, cans of deodorant cleaner (Sept. 25, 2002)



WHA-1 Barrels behind a wood floor; one barrel is full of diesel (Sept. 25, 2002)



WHA-1 Barrels (Sept. 25, 2002)



WHA-1 Barrel, burnt wood along the shore (Sept. 25, 2002)



WHA-1 Inside the cabin; the floor is contaminated by hydrocarbons (Sept. 25, 2002)

MINOR SITES

GW-5

PH-11

UD-1

UD-6

UM-1

UM-2

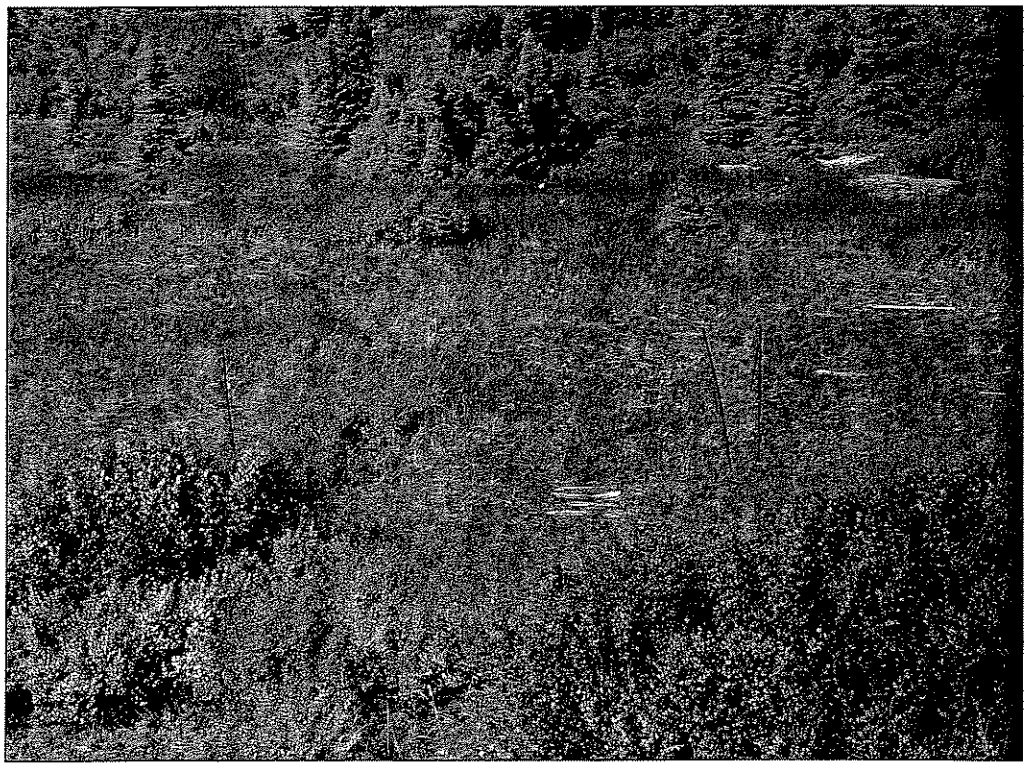
UM-3



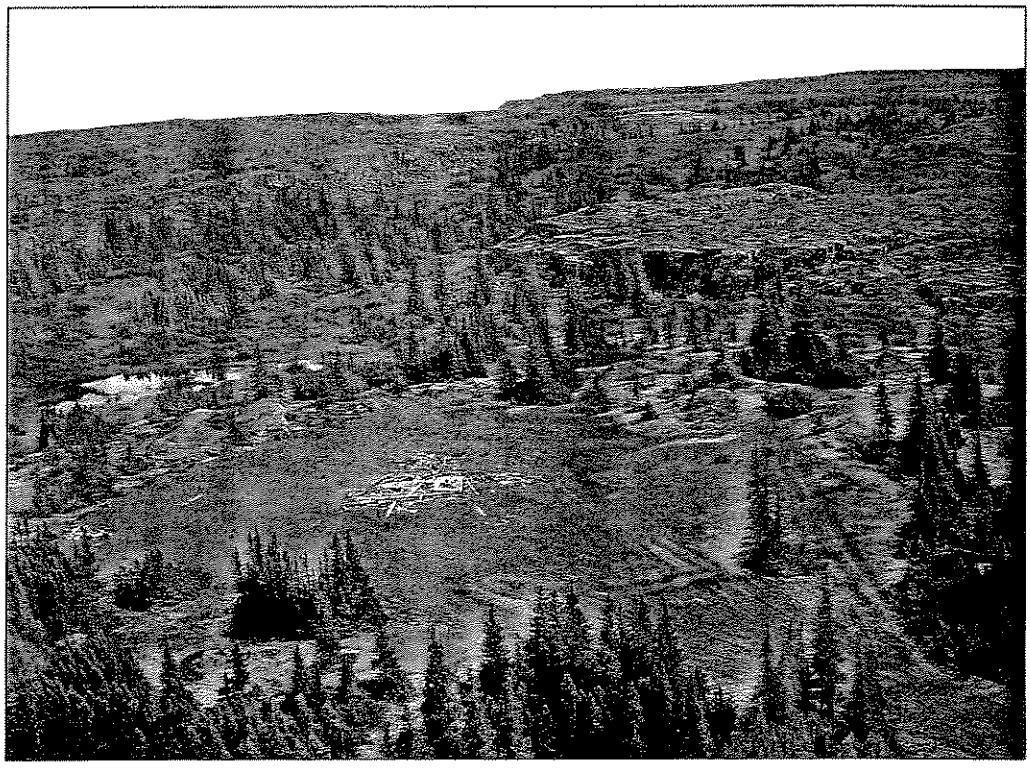
GW-5 Wood debris, hoses, pipes, barrels, wood core trays (Sept. 25, 2002)



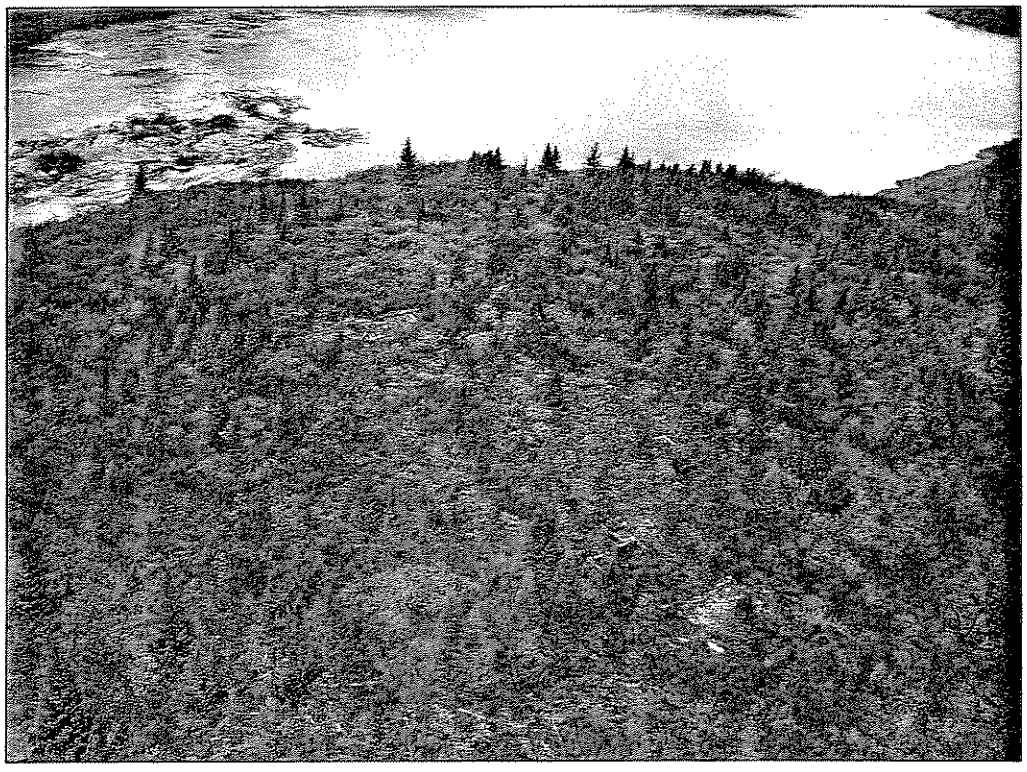
GW-5 Flexible hoses, pipes (Sept. 25, 2002)



GW-5 Drill holes with pipes, wood core trays (Sept. 25, 2002)



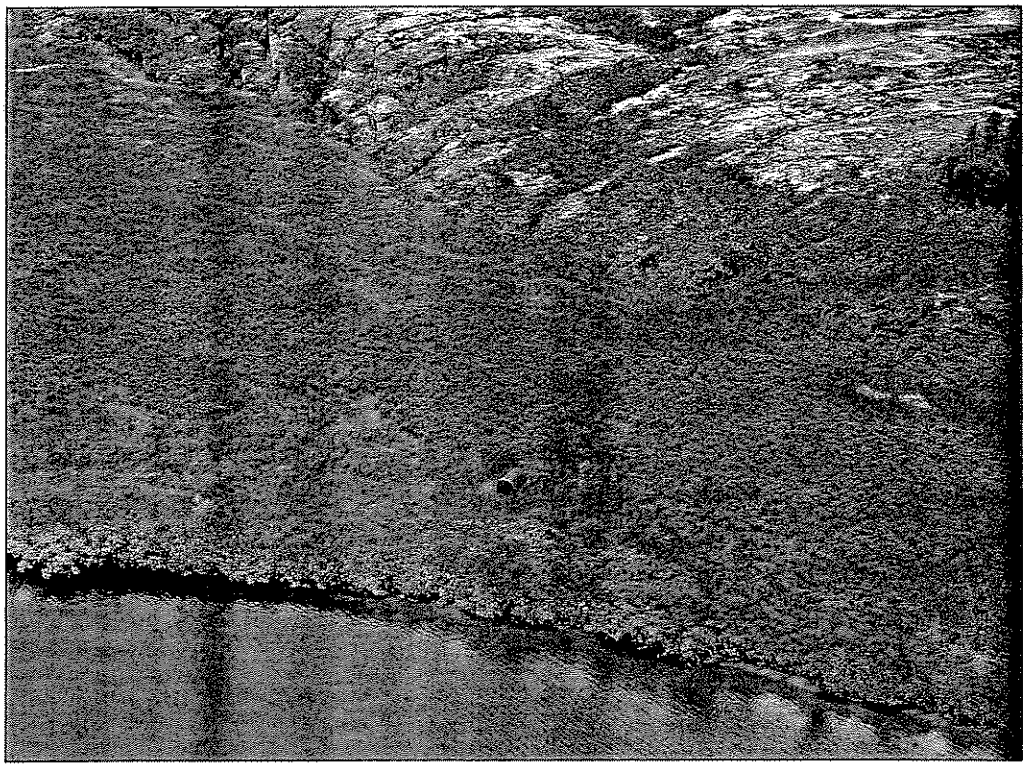
GW-5 Wood debris (Sept. 25, 2002)



PH-11 Wood platforms, barrels, a sink, a stove (Sept. 25, 2002)



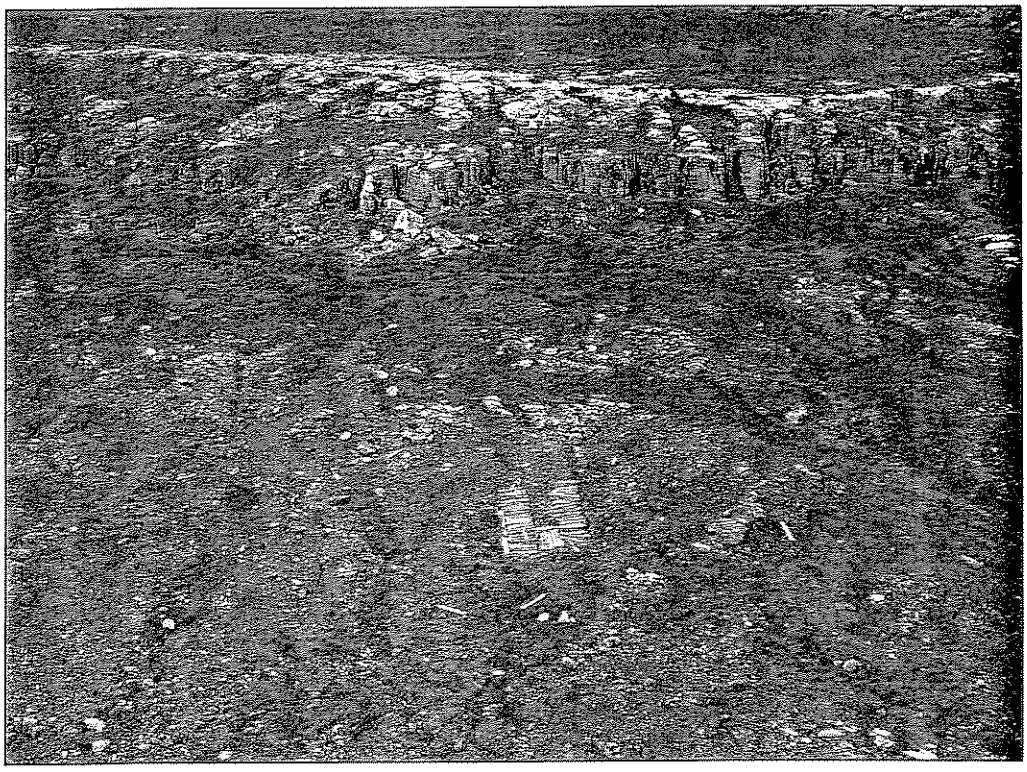
UD-1 Wood platform (Sept. 25, 2002)



UD-6 Barrels, a propane tank (Sept. 25, 2002)



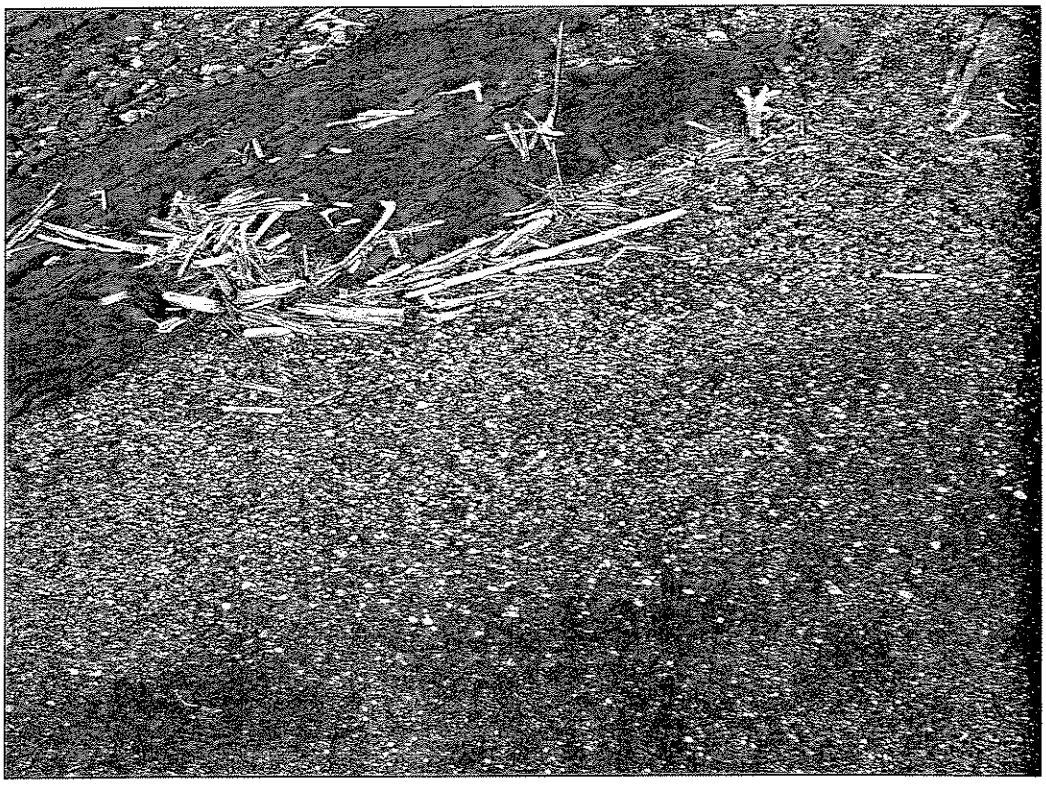
UM-1 Large metal containers (Sept. 25, 2002)



UM-2 Wood core trays (Sept. 25, 2002)



UM-3 Drill hole with a pipe (some water comes out the hole) (Sept. 25, 2002)



UM-3 Wood debris, a tank (Sept. 25, 2002)

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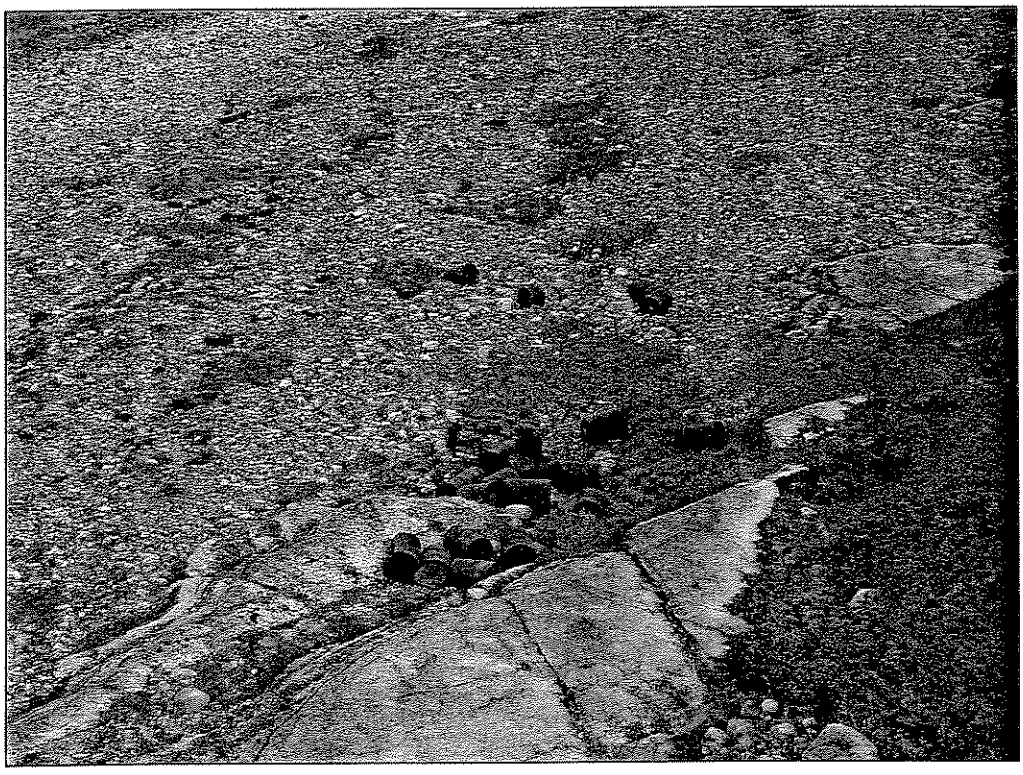
INTERMEDIATE SITES

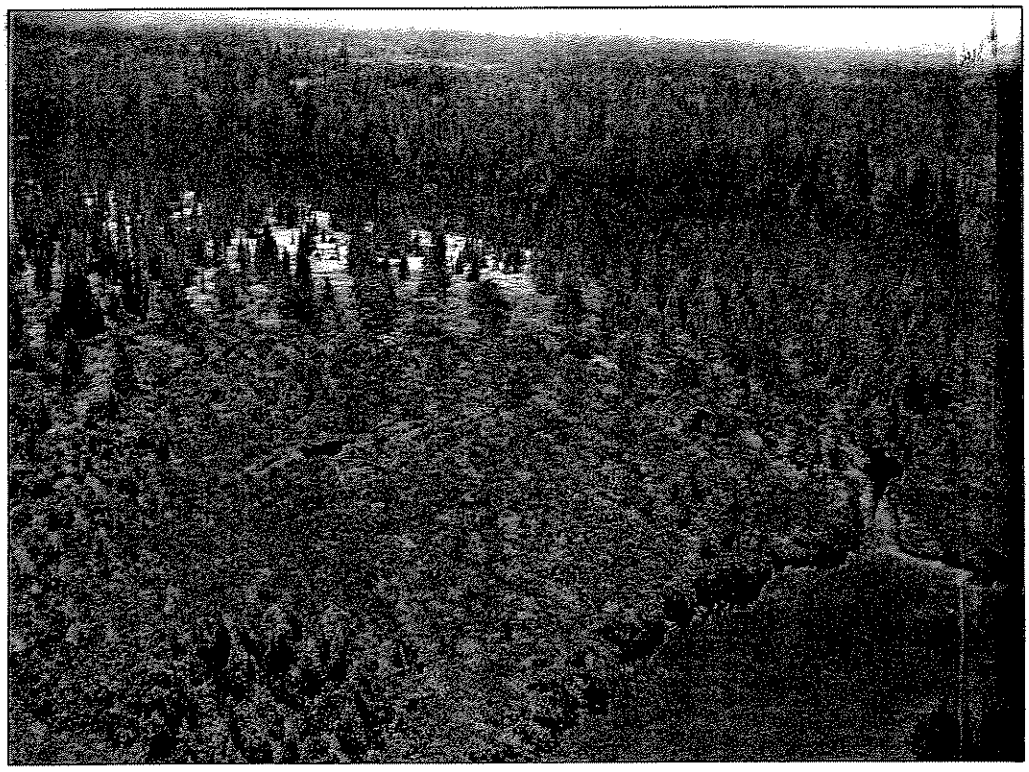
GW-8



GW-8 Barrels near Hudson bay (Sept. 25, 2002)

MINOR SITES

GW-2



GW-2 Two cabins (Sept. 25, 2002)

APPENDIX 3

Site scoring data

SITE SCORING CRITERIA

Site name						
Criteria	**Concern score**					**Site Score**
Quantity of buildings	8 buildings or more	5 to 8 buildings	3 to 5 buildings	1 to 3 buildings	0	
Scoring guideline	14	11	8	5	0	
Quantity of hydrocarbon drums and tanks	100 or more	20 to 100	10 to 20	1 to 10	0	
Scoring guideline	14	11	8	5	0	
Quantity and state of other chemical products	High concern chemical products – high quantity	High concern chemical products – small quantity	Medium concern chemical products	Low concern chemical products	No chemical product	
Scoring guideline	14	11	8	5	0	
Quantity of other equipment	10 equipments or more	5 to 10 equipments	3 to 5 equipments	1 to 3 equipments	0 equipment	
Scoring guideline	14	11	8	5	0	
Quantity of batteries and transformers	10 or more batteries; 2 or more transformers	5 to 10 batteries; 0 to 2 transformers	3 to 5 batteries; 0 to 2 transformers	1 to 3 batteries; 0 to 2 transformers	No battery or transformer	
Scoring guideline	14	11	8	5	0	
Quantity and scattering of waste	10 m^3 or more of scattered waste	5 to 10 m^3 of scattered waste	3 to 5 m^3 of scattered waste	1 to 3 m^3 or more of scattered waste	No waste	
Scoring guideline	14	11	8	5	0	
Contaminants Potential Risk	High concern contaminants – high conc.	High concern contaminants– low conc.	Medium concern contaminants – high conc.	Medium concern contaminants– low conc	Low concern contaminant	
Scoring guideline	14	11	8	5	3	
Physic state of contaminants	Liquid/gas		Sludge		Solid	
Scoring guideline	9		7		3	
Contaminated soil surface	> 100 m^2	20 to 100 m^2	5 to 20 m^2	0.1 to 5 m^2	Soil not contaminated	
Scoring guideline	14	11	8	5	0	
Observed or measured contamination of surface water	Known or strongly suspected to exceed CWDG by >2x		Known or strongly suspected to be between 1-2x CWDG		Meets CWDG	
Scoring guideline	11		6		0	
Surface containment	No containment		Partial containment		Full containment	
Scoring guideline	5		3		1	

Distance to surface water	0 to 20 m.		20 to 500 m.	> 500 m.	
Scoring guideline	10		5	0	
Contaminants vs topography	Contaminants above ground level and slope steep	Contaminants at or below ground level and slope steep	Contaminants above ground level and slope flat	Contaminants at or below ground level & slope flat	
Scoring guideline	3	2	1	0	
Site accessibility	Lim. or no barrier to prevent site access.		Mod. acces or intervening barriers	Control access or remote location	
Scoring guideline	5		3	0	
Adverse impact on human/animals	Known adverse effect on humans or animals		Strongly suspected adverse effects on humans or animals		
Scoring guideline	18		15		
Sensitive environment	Known adverse impact on sensitive environment		Evidence of stress on aquatic species or vegetation on site	Strongly suspect adv. impact on sensitive environment	
Scoring guideline	16		14	12	
Distance to nearest sensitive environment	0 to < 20 m.	20 to < 50 m	50 to < 200 m	> 200 m	
Scoring guideline	10	6	2	0	
Total score					

APPENDIX 4

Sites with no mining debris

SITES WITH NO MINING DEBRIS- LABRADOR TROUGH

Site N°	EMRC Map Reference	Latitude North	Longitude West	Date MM-DD-YY	Description
G-24K05-6	24K/5	58° 19.36'	69° 52.14'	10-20-01	No debris observed at the coordinates.
G-24K13-1004	24K/13	58° 56.48'	69° 59.71'	07-22-01	No debris observed at the coordinates.
G-24L8-2	24L/8	58° 24.22'	70° 12.77'	10-20-01	No debris observed at the coordinates.
G-24M01-1	24M/1	59° 14.68'	70° 13.87'	07-20-01	No debris observed at the coordinates.
KAW-3	24C/15	56° 58.11'	68° 58.46'	09-12-02	No debris observed at the coordinates.
KAW-4	24C/15	56° 57.85'	68° 58.52'	09-12-02	No debris observed at the coordinates.
KAW-12	24C/10	56° 34.86'	68° 30.94'	09-12-02	No debris observed at the coordinates.
KAW-14	24C/1	56° 09.93'	68° 15.56'	09-11-02	No debris observed at the coordinates.
KAW-19	24F/5	57° 19.01'	69° 48.52'	09-12-02	No debris observed at the coordinates.
KAW-21	24F/3W	57° 03.65'	69° 16.00'	09-12-02	No debris observed at the coordinates.
KAW-22	24F/3E	57° 00.54'	69° 08.02'	09-12-02	No debris observed at the coordinates.
KAW-23	24F/3E	57° 00.44'	69° 05.24'	09-12-02	No debris observed at the coordinates.
KAW-30	24C/8	56° 21.07'	68° 26.89'	09-12-02	No debris observed at the coordinates.
KAW-32	24C/8	56° 20.21'	68° 26.86'	09-12-02	No debris observed at the coordinates.
KAW-34	24C/1	56° 08.79'	68° 28.98'	09-11-02	No debris observed at the coordinates.
KAW-38	23O/12	55° 40.93'	67° 57.26'	09-11-02	No debris observed at the coordinates.
KAW-39	23O/13	55° 57.48'	67° 30.74'	09-11-02	No debris observed at the coordinates.
KAW-40	24F/12	57° 44.47'	69° 30.84'	10-19-01	No debris observed at the coordinates, snow cover.
KAW-41	24F/13E	57° 45.17'	69° 32.41'	10-19-01	No debris observed at the coordinates, snow cover.
KAW-42	24B/4	56° 04.78'	67° 57.00'	09-11-02	No debris observed at the coordinates.
KAW-44	23O/13	55° 46.99'	67° 37.27'	09-11-02	No debris observed at the coordinates.
KAW-48	23N/16	55° 48.26'	68° 21.52'	09-11-02	No debris observed at the coordinates.
KAW-49	24C/14	56° 52.93'	69° 18.31'	09-12-02	No debris observed at the coordinates.
KAW-52	23O/5	55° 18.26'	67° 34.13'	09-11-02	Few wood debris (<1m^3).
KAW-65	24C/1	56° 10.40'	68° 29.46'	09-11-02	No debris observed at the coordinates.
KAW-66	24C/9	56° 40.99'	68° 12.50'	09-12-02	No debris observed at the coordinates.
KAW-67	23O/4E	55° 11.12'	67° 31.75'	09-11-02	No debris observed at the coordinates.
KAW-70	23O/6	55° 15.11'	67° 20.86'	09-11-02	No debris observed at the coordinates.
KAW-85	24C/7	56° 24.41'	68° 40.99'	09-12-02	No debris observed at the coordinates.
KAW-88	24C/7	56° 25.14'	68° 34.28'	09-12-02	No debris observed at the coordinates.
KAW-95	24F/7	57° 17.58'	68° 31.13'	09-12-02	No debris observed at the coordinates.
KAW-100	24C/1	56° 03.38'	68° 20.89'	09-11-02	No debris observed at the coordinates.

Site N°	EMRC Map Reference	Latitude North	Longitude West	Date MM-DD-YY	Description
KAW-101	24C/2	56° 07.13'	68° 33.27'	09-12-02	No debris observed at the coordinates.
KAW-103	24C/6	56° 19.42'	69° 21.95'	09-12-02	No debris observed at the coordinates.
KAW-109	24F/5	57° 19.72'	69° 51.22'	09-12-02	No debris observed at the coordinates.
KAW-115	24F/11	57° 32.54'	69° 25.71'	10-19-01	No debris observed at the coordinates, snow cover..
KAW-117	23O/3W	55° 03.84'	67° 28.64'	09-11-02	No debris observed at the coordinates.
KG-17	25D/8W	60° 21.20'	70° 27.50'	07-22-01	No debris observed at the coordinates.
P-24F13-4	24F/13	57° 57.20'	69° 42.96'	10-19-01	No debris observed at the coordinates, snow cover.
P-24K4-6	24K/4	58° 09.50'	69° 54.60'	10-20-01	No debris observed at the coordinates.
P-24K4-7	24K/4	58° 10.58'	69° 51.01'	10-20-01	No debris observed at the coordinates.
P-24K5-2	25K/5	58° 20.55'	59° 58.16'	10-20-01	No debris observed at the coordinates.
P-24K5-15	24K/5	58° 16.15'	69° 32.01'	10-19-01	No debris observed at the coordinates, snow cover.. One plywood sheet in the water (58°15.98' N; 69°31.28' W)
P-24K11-2	24K/11	58° 30.66'	69° 28.99'	10-20-01	No debris observed at the coordinates, snow cover.
QC-1	25D/8W	60° 23.84'	70° 22.62'	07-22-01	Many Inuit camps.
QC-8	25D/8	60° 16.10'	70° 13.21'	07-22-01	No debris observed at the coordinates.
TQ-23	24K/12	58° 31.34'	69° 32.86'	10-20-01	No debris observed at the coordinates.
TQ-24	24L/9E	58° 38.98'	70° 01.82'	10-20-01	No debris observed at the coordinates.
TQ-38	24K/5E	58° 16.33'	69° 58.88'	10-19-01	No debris observed at the coordinates.

SITES WITH NO MINING DEBRIS- UNGAVA TROUGH-HUDSON BAY

Site N°	EMRC Map Reference	Latitude North	Longitude West	Date MM-DD-YY	Description
K-10	35H/11W	61° 39.70'	73° 15.44'	09-10-01	No debris observed at the coordinates. Soil sample (1) and water samples (2) taken in Raglan lake at a short distance from Robertson mine. No contamination by Petroleum Hydrocarbons C_{10} to C_{50}.
K-48	35H/5E	61° 28.81'	73° 42.65'	09-09-01	No debris observed at the coordinates. ~10 barrels on east shore of Vaillant lake. According to the informant: not related to mining activity, but used as a fuel reserve.
SAL-3	35G/10W	61° 29.55'	75° 02.65'	09-10-01	No debris observed at the coordinates. Was located on a map by an informant on Sept. 7. (West of SW-59).
SW-1	35G/13	61° 48.29'	75° 40.81'	09-06-01	No debris observed at the coordinates.
SW-2	35G/13	61° 50.50'	75° 34.18'	09-06-01	No debris observed at the coordinates.
SW-9	35J/2	62° 09.28'	74° 39.94'	09-10-01	No debris observed at the coordinates.
SW-11	35J/2	62° 07.74'	74° 39.95'	09-10-01	No debris observed at the coordinates.
SW-16	35G/10W	61° 34.95'	74° 46.21'	09-07-01	No debris observed at the coordinates.
SW-18	35G/11W	61° 32.15'	75° 15.80'	09-06-01	No debris observed at the coordinates.
SW-29	35G/10E	61° 33.94'	74° 38.54'	09-10-01	No debris observed at the coordinates.
SW-30	35F/9	61° 31.96'	76° 01.83'	09-06-01	No debris observed at the coordinates.
SW-38	35F/8W	61° 26.35'	76° 28.87'	09-06-01	No debris observed at the coordinates.
SW-48	35G/6E	61° 24.41'	75° 04.38'	09-10-01	No debris observed at the coordinates. (P-35G07-4).
SW-59	35G/10W	61° 30.15'	74° 59.58'	09-07-01	No debris observed at the coordinates.
SW-67	35G/6W	61° 19.91'	75° 17.43'	09-10-01	No debris observed at the coordinates.
G-33N02-2	33N/2	55° 02.78'	76° 50.46'	09-25-02	No debris observed at the coordinates.
G-33N15-1	33N/15	55° 56.20'	76° 42.77'	09-25-02	No debris observed at the coordinates.
GW-1	33N/15W	55° 55.23'	76° 51.80'	09-25-02	No debris observed at the coordinates.
GW-3	34C/7	56° 26.59'	76° 38.05'	09-25-02	No debris observed at the coordinates.
GW-6	34C/2	56° 08.68'	76° 43.04'	09-25-02	No debris observed at the coordinates.
UD-2	34C/2	56° 08.40'	76° 34.17'	09-25-02	No debris observed at the coordinates.
UD-3	34C/2	56° 05.10'	76° 40.28'	09-25-02	No debris observed at the coordinates.
UD-4	34C/2	56° 05.07'	76° 39.40'	09-25-02	No debris observed at the coordinates.
UD-5	34C/2	56° 04.57'	76° 32.12'	09-25-02	No debris observed at the coordinates.
UD-7	34C/2	56° 05.10'	76° 32.93'	09-25-02	No debris observed at the coordinates.
UD-9	34C/2	56° 02.77'	76° 33.14'	09-25-02	No debris observed at the coordinates.
UD-11	34C/2	56° 00.15'	76° 40.00'	09-25-02	No debris observed at the coordinates.

APPENDIX 5

Sites that have been cleaned by communities

SITES THAT HAVE BEEN CLEANED- LABRADOR TROUGH

Site N°	EMRC Map Reference	Latitude North	Longitude West	Date MM-DD-YY	Description
KAW 9	24F/6	57° 28.82	69° 19.91'	09-12-02	No debris. According to Peter Duncan: previous Noranda mining site (~1980).
KAW 18	24F/6	57° 27.13	69° 12.90'	09-12-02	Drill holes. No debris. Peter Duncan mentioned that he had never seen a camp near that site.
TQ-3	24K/4	58° 03.35'	69° 45.24'	10-20-01	The site has been cleaned. It is located near Gerido lake. (VP-5).
TQ-15	24K/4	58° 14.35'	69° 54.16'	10-20-01	The site has been cleaned.
TQ-18	24K/4	58° 04.41'	69° 50.35'	10-20-01	The site has been cleaned. It is located near Gerido lake.
VP-4	24K/4	58° 00.60'	69° 43.37'	10-19-01	The site has been cleaned. It is located near Gerido lake. (TQ-2).

SITES THAT HAVE BEEN CLEANED- UNGAVA TROUGH-HUDSON BAY

Site N°	EMRC Map Reference	Latitude North	Longitude West	Date MM-DD-YY	Description
SW-10	35J/2	62° 09.00'	74° 38.24'	09-10-01	According to the informant, the site has been cleaned. No debris was seen.
SW-12	35J/2	62° 04.92'	74° 33.58'	09-10-01	According to the informant, the site has been cleaned. No debris was seen.
SW-36	35G/9W	61° 35.56'	74° 18.00'	09-07-01	The site has been cleaned. The building is still there and used. It is located near Cross lake. (G-35G09-3).

APPENDIX 6

Sites not related to mining activities

SITES NOT RELATED TO MINING ACTIVITIES – LABRADOR TROUGH

Site N°	EMRC Map Reference	Latitude North	Longitude West	Date MM-DD-YY	Description
KAW-6	24C/15	56° 49.84'	68° 57.23'	09-12-02	Old Fort Mackenzie, 1 house: Hudson Bay Post. According to Peter Duncan, the sites has been cleaned by Hydro-Québec. 2 barrels and some scrap, a dump is covered by trees. 30 barrels.
KAW-7	24C/15	56° 49.60'	68° 57.94'	09-12-02	Cemetery.
KAW-17	24B/5	56° 22.75'	67° 49.32'	09-11-02	Outfitting camp.
KAW-28A	24C/8	56° 28.35'	68° 12.11'	09-12-02	Outfitting camp on an island.
KAW-33	24C/1	56° 08.02'	68° 16.49'	09-11-02	Outfitting camp.
KAW-37	23O/12	55° 38.52'	67° 32.73'	09-11-02	Active outfitting camp. There was some construction on-going.
KAW-38A	23O/12	55° 40.13'	67° 56.27'	09-11-02	Active outfitting camp.
KAW-70A	23O/6	55° 15.77'	67° 21.59'	09-11-02	Old outfitting camp. According to Pete Guanish, the site is used in winter by some Naskapis. There are few barrels containing residue
KAW-74	23P/4	55° 09.18'	65° 35.92'	09-10-02	Active outfitting camp.
KAW-75	23P/6	55° 26.03'	65° 13.46'	09-10-02	Active outfitting camp.
KAW-86	24C/7	56° 25.01'	68° 31.76'	09-12-02	Outfitting camp. There is a dump that could be related to mining activities (1 stove in it).
KAW-94	24F/7	57° 15.72'	68° 31.28'	09-12-02	Inuit outfitting camp.
KAW-118	24A/1	56° 03.60'	64° 08.54'	09-10-02	Naskapi outfitting camp.

SITES NOT RELATED TO MINING ACTIVITIES – UNGAVA TROUGH-HUDSON BAY

Site N°	EMRC Map Reference	Latitude North	Longitude West	Date MM-DD-YY	Description
GW-10	33N/2W	55° 06.39'	76° 50.19'	09-25-02	Site 339A of the Mid-Canada Line.
GW-9	33M/1	55° 04.59'	78° 16.46'	09-25-02	Metal debris thrown from a boat in Hudson Bay.
PH-12	34C/2	55° 59.99'	76° 43.58'	09-25-02	Crashed plane on a cliff.
UD-8	34C/2	56° 04.07'	76° 40.91'	09-25-02	Inuit camp. 6 barrels near the shore.
UD-10	34C/2	56° 00.57'	76° 77.00'	09-25-02	Inuit camp. 1 stove and garbage.

APPENDIX 7

Coordinates of the sites assessed in 2001-2002

1- SITES SORTED BY TOPOGRAPHIC MAPS

Identification	EMRC map Reference	Category	Longitude		Latitude	
			Degrés	Minutes-décimales	Degrés	Minutes-décimales
	23N16					
KAW-48	23N16	N	-68	21,522	55	48,264
	23O01					
KAW-35	23O01E	M	-66	07,27	55	13,94
	23O03					
KAW-54	23O03W	S	-67	25,79	55	05,67
KAW-69	23O03W	S	-67	21.51	55	11.75
KAW-72	23O03E	S	-67	13.65	55	08.10
KAW-117	23O03W	N	-67	28.644	55	03.84
	23O04					
KAW-67	23O04E	N	-67	31.752	55	11.118
KAW-67A	23O04E	S	-67	31.49	55	10.89
	23O05					
KAW-52	23O05	N	-67	34.134	55	18.264
	23O06					
KAW-70	23O06	N	-67	20.862	55	15.108
KAW-70A	23O06	O	-67	21.59	55	15.77
	23O08					
KAW-36	23O08	I	-66	09.46	55	15.02
	23O10					
KAW-119	23O10	I	-66	45.77	55	37.48
	23O11					
KAW-45	23O11	M	-67	21.20	55	33.68
	23O12					
KAW-37	23O12	O	-67	32.73	55	38.52
KAW-38	23O12	N	-67	57.258	55	40.926
KAW-38A	23O12	O	-67	56.266	55	40.126
	23O13					
KAW-39	23O13	N	-67	30.738	55	57.48
KAW-44	23O13	N	-67	37.272	55	46.986
	23O14					
KAW-63	23O14	S	-67	06.03	55	54.17
	23P04					
KAW-74	23P04	O	-65	35.92	55	09.18
	23P06					
KAW-75	23P06	O	-65	13.46	55	26.03
	24A01					
KAW-118	24A01	O	-64	08.54	56	03.60
	24B03					
KAW-43	24B03	S	-67	15.96	56	04.43
	24B04					
KAW-42	24B04	N	-67	57.00	56	04.782
KAW-42A	24B04	S	-67	54.89	56	04.54

Identification	EMRC map Reference	Category	Longitude		Latitude	
			Degrés	Minutes-décimales	Degrés	Minutes-décimales
	24B05					
KAW-17	24B05	O	-67	49.32	56	22.75
KAW-58	24B05	S	-67	47.21	56	16.45
KAW-59	24B05	I	-67	49.00	56	17.80
KAW-60	24B05	S	-67	47.53	56	16.07
	24C01					
KAW-14	24C01	N	-68	15.558	56	09.93
KAW-33	24C01	O	-68	16.49	56	08.02
KAW-34	24C01	N	-68	28.98	56	08.79
KAW-65	24C01	N	-68	29.46	56	10.404
KAW-100	24C01	N	-68	20.886	56	03.384
	24C02					
KAW-101	24C02	N	-68	33.27	56	07.134
	24C06					
KAW-103	24C06	N	-69	21.95	56	19.416
	24C07					
KAW-85	24C07	N	-68	40.992	56	24.408
KAW-86	24C07	O	-68	31.76	56	25.01
KAW-88	24C07	N	-68	34.278	56	25.14
	24C08					
KAW-28	24C08	S	-68	11.97	56	28.27
KAW-28A	24C08	O	-68	12.11	56	28.35
KAW-30	24C08	N	-68	26.892	56	21.072
KAW-32	24C08	N	-68	26.856	56	20.208
	24C09					
KAW-66	24C09	N	-68	12.498	56	40.992
	24C10					
KAW-12	24C10	N	-68	30.942	56	34.86
KAW-26	24C10	S	-68	50.32	56	33.84
	24C14					
KAW-49	24C14	N	-69	18.312	56	52.926
	24C15					
KAW-3	24C15	N	-68	58.458	56	58.11
KAW-4	24C15	N	-68	58.518	56	57.852
KAW-5	24C15	S	-68	52.92	56	55.67
KAW-6	24C15	O	-68	57.23	56	49.84
KAW-7	24C15	O	-68	57.936	56	49.602
	24F02					
P-24F	24F02	I	-68	53.20	57	01.54
	24F03					
KAW-21	24F03W	N	-69	15.996	57	03.654
KAW-22	24F03E	N	-69	08.022	57	00.54
KAW-23	24F03E	N	-69	05.238	57	00.438
PD-1	24F12	S	-69	05.10	57	33.79
PD-2	24F12	S	-69	04.56	57	36.15
	24F05					
KAW-19	24F05	N	-69	48.516	57	19.014
KAW-109	24F05	N	-69	51.222	57	19.722

Identification	EMRC map Reference	Category	Longitude		Latitude	
			Degrés	Minutes-décimales	Degrés	Minutes-décimales
	24F06					
KAW-9	24F06	C	-69	19.914	57	28.818
KAW-10	24F06	S	-69	15.49	57	27.76
KAW-18	24F06	C	-69	12.90	57	27.126
	24F07					
KAW-94	24F07	O	-68	31.278	57	15.72
KAW-95	24F07	N	-68	31.128	57	17.58
	24F11					
KAW-115	24F11	N	-69	25.71	57	32.544
	24F12					
KAW-40	24F12	N	-69	30.84	57	44.466
KAW-112	24F12	S	-69	34.158	57	40.68
	24F13					
KAW-41	24F13E	N	-69	32.412	57	45.168
P-24F13-4	24F13	N	-69	42.96	57	57.204
TQ-1 (=VP-3)	24F13E	M	-69	40.16	57	57.68
VP-11	24F13E	I	-69	31.75	57	48.59
	24K04					
P-24K04-6	24K04	N	-69	54.6	58	9.498
P-24K04-7	24K04	N	-69	51.006	58	10.578
VP-4 (=TQ-2)	24K04	C	-69	43.37	58	00.60
TQ-3 (=VP-5)	24K04	C	-69	45.24	58	3.348
TQ-15	24K04	C	-69	54.16	58	14.35
TQ-18	24K04	C	-69	50.35	58	04.41
	24K05					
G-24K05-6	24K05	N	-69	52.14	58	19.356
P-24K05-2	24K05	N	-69	58.164	58	20.55
P-24K05-15	24K05	N	-69	32.01	58	16.152
TA-1	24K05	I	-69	50.19	58	16.80
TA-2	24K05	I	-69	56.34	58	17.48
TQ-6 (=P-24K05-10)	24K05W	I	-69	57.37	58	17.92
TQ-38	24K05E	N	-69	58.88	58	16.33
	24K11					
P-24K11-2	24K11	N	-69	28.986	58	30.66
	24K12					
TQ-23	24K12	N	-69	32.86	58	31.34
	24K13					
G-24K13-1004	24K13	N	-69	59.714	58	56.477
PJ-1 (=TQ-20, P-24-K13-3, G-24K13-4)	24K13	M	-69	35.736	58	57.74
	24L01					
TQ-10	24L01	I	-70	09.10	58	06.36
	24L08					
G-24L08-2	24L08	N	-70	12.768	58	24.222
TQ-4 (=VP-2)	24L08	M	-70	07.20	58	15.23
TQ-14	24L08	I	-70	14.30	58	19.36
	24L09					
TQ-24	24L09E	N	-70	1.82	58	38.98

Identification	EMRC map Reference	Category	Longitude		Latitude	
			Degrés	Minutes-décimales	Degrés	Minutes-décimales
	24M01					
PJ-10	24M01	M	-70	06.52	59	15.07
G-24M01-1	24M01	N	-70	13.866	59	14.677
	24N04					
G-24N04-3	24N04	I	-69	49.86	59	11.57
	24N05					
PJ-9 (=G-24N05-1004)	24N05	S	-69	59.94	59	18.91
PJ-17	24N05	M	-69	45.93	59	20.286
PJ-17A	24N05	I	-69	43.812	59	20.535
PJ-19	24N05	I	-69	46.06	59	18.911
	25C05					
TW	25C05W	M	-69	55.476	60	05.452
	25D07					
KG-21	25D07W	S	-70	57.45	60	18.63
	25D08					
KG-19	25D08W	S	-70	10.85	60	26.79
QC-1	25D08W	N	-70	22.62	60	23.838
QC-2 (=G-25D08-2)	25D08E	S	-70	9.67	60	24.82
QC-3	25D08E	I	-70	09.33	60	21.55
QC-8	25D08	N	-70	13.206	60	16.104
	33M01					
GW-8	33M01	I	-78	15.51	55	05.09
GW-9	33M01	O	-78	16.46	55	04.59
	33N02					
G-33N02-2	33N02	N	-76	50.46	55	02.784
GW-10	33N02W	O	-76	50.19	55	06.39
	33N11					
GW-2	33N11E	S	-77	01.95	55	44.484
	33N15					
G-33N15-1	33N15	N	-76	42.774	55	56.196
GW-1	33N15W	N	-76	51.804	55	55.23
GW-5	33N15W	S	-76	47.97	55	57.49
PH-11	33N15E	S	-76	41.79	55	58.97
UM-1	33N15E	S	-76	45.59	55	59.99
UM-2	33N15E	S	-76	42.50	55	56.67
UM-3	33N15E	S	-76	47.59	55	57.68
	34B05					
WHA-1	34B05	M	-75	59.30	56	24.08
	34C02					
GW-6	34C02	N	-76	43.038	56	08.676
PH-12	34C02	O	-76	43.578	55	59.988
UD-1	34C02	S	-76	35.40	56	08.80
UD-2	34C02	N	-76	34.17	56	08.40
UD-3	34C02	N	-76	40.278	56	05.10
UD-4	34C02	N	-76	39.396	56	05.07
UD-5	34C02	N	-76	32.118	56	04.572
UD-6	34C02	S	-76	30.23	56	06.41
UD-7	34C02	N	-76	32.928	56	05.10
UD-8	34C02	O	-76	40.908	56	04.068

Identification	EMRC map Reference	Category	Longitude		Latitude	
			Degrés	Minutes-décimales	Degrés	Minutes-décimales
	34C02					
UD-9	34C02	N	-76	33.144	56	02.766
UD-10	34C02	O	-76	77.00	56	00.566
UD-11	34C02	N	-76	40.00	56	0.15
	34C07					
GW-3	34C07	N	-76	38.046	56	26.592
	35F07					
KV-1	35F07W	M	-76	45.46	61	25.64
	35F08					
SW-27	35F08W	M	-76	21.68	61	28.84
SW-38	35F08W	N	-76	28.874	61	26.35
	35F09					
SW-30	35F09	N	-76	1.832	61	31.963
	35G06					
SW-24	35G06E	I	-75	44.00	61	18.75
SW-48	35G06E	N	-75	04.382	61	24.407
SW-67	35G06W	N	-75	17.43	61	19.908
	35G07					
WB-9	35G07E	M	-74	33.22	61	27.35
SAL-2	35G07	S	-74	41.97	61	27.19
SW-42	35G07E	M	-74	34.396	61	23.924
	35G08					
G-35G08-1	35G08	S	-74	26.55	61	29.08
P-35G08-1002	35G08	S	-74	28.35	61	29.22
P-35G08-1002A	35G08	S	-74	27.55	61	29.18
P-35G08-1003	35G08	S	-74	14.48	61	27.28
	35G09					
SW-34	35G09W	M	-74	28.114	61	34.900
SW-36	35G09W	C	-74	18.00	61	35.56
	35G10					
SAL-1	35G10W	M	-74	53.013	61	31.135
SAL-3	35G10W	N	-75	02.65	61	29.55
SW-13	35G10E	S	-74	38.14	61	34.00
SW-16	35G10W	N	-74	46.213	61	34.953
SW-29	35G10E	N	-74	38.538	61	33.942
SW-59	35G10W	N	-74	59.583	61	30.145
	35G11					
Parent Lake	35G11W	I	-75	10.36	61	33.43
SW-18	35G11W	N	-75	15.798	61	32.149
SW-32	35G11W	S	-75	26.75	61	34.73
	35G13					
SW-1	35G13	N	-75	40.806	61	48.294
SW-2	35G13	N	-75	34.180	61	50.50
SW-14	35G13	S	-75	38.63	61	49.64
	35H05					
K-48	35H05E	N	-73	42.651	61	28.813
K-49	35H05	I	-73	49.70	61	28.70
KAN-6	35H05	I	-73	49.50	61	28.94

Identification	EMRC map Reference	Category	Longitude		Latitude	
			Degrés	Minutes-décimales	Degrés	Minutes-décimales
	35H08					
WB-3	35H08W	M	-72	18.09	61	29.412
	35H10					
I-32	35H10W	I	-72	54.94	61	43.117
KAN-1	35H10W	I	-72	57.90	61	32.19
KAN-9	35H10E	S	-72	44.555	61	36.73
KAN-10 (=K-29, P-35H10-2)	35H10	I	-72	49.30	61	31.58
	35H11					
K-10	35H11W	N	-73	15.44	61	39.70
K-27	35H11W	I	-73	19.89	61	36.24
K-28	35H11E	M	-73	14.75	61	34.65
K-36	35H11	S	-73	16.63	61	31.39
K-61	35H11W	M	-73	27.256	61	33.269
	35H12					
I-12	35H12E	S	-73	35.85	61	35.32
K-37	35H12E	I	-73	37.436	61	31.074
K-41	35H12	S	-73	44.74	61	30.79
KAN-2	35H12E	I	-73	31.11	61	32.51
KAN-3	35H12E	S	-73	37.28	61	31.63
KAN-4	35H12	I	-73	40.18	61	30.92
KAN-5	35H12W	S	-73	45.28	61	30.19
KAN-7	35H12E	I	-73	49.95	61	28.48
KAN-8	35H12W	S	-73	45.447	61	30.554
KAN-11	35H12	S	-73	37.27	61	32.62
KAN-12	35H12	S	-73	44.28	61	30.77
	35J02					
SW-9	35J02	N	-74	39.942	62	9.276
SW-10	35J02	C	-74	38.242	62	8.998
SW-11	35J02	N	-74	39.954	62	7.74
SW-12	35J02	C	-74	33.581	62	4.924

[1] M: major; I: intermediate; S: minor;
N: no mining debris; C: cleaned by communities; O: other use than mining

2a- SITES SORTED BY VILLAGES – LABRADOR TROUGH

Identification	EMRC map Reference	Category	Longitude		Latitude	
			Degrees	Minutes-decimales	Degrees	Minutes-decimales
KAWAWACHIKAMACH						
KAW 14	24C01	N	-68	15.56	56	09.93
KAW 17	24B05	O	-67	49.32	56	22.75
KAW 28	24C08	S	-68	11.97	56	28.27
KAW 28A	24C08	O	-68	12.11	56	28.35
KAW 30	24C08	N	-68	26.89	56	21.07
KAW 32	24C08	N	-68	26.86	56	20.21
KAW 33	24C01	O	-68	16.49	56	08.02
KAW 34	24C01	N	-68	28.98	56	08.79
KAW 35	23O01E	M	-66	07.27	55	13.94
KAW 36	23O08	I	-66	09.46	55	15.02
KAW 37	23O12	O	-67	32.73	55	38.52
KAW 38	23O12	N	-67	57.26	55	40.93
KAW 38A	23O12	O	-67	56.27	55	40.13
KAW 39	23O13	N	-67	30.74	55	57.48
KAW 42	24B04	N	-67	57.00	56	04.78
KAW 42A	24B04	S	-67	54.89	56	04.54
KAW 43	24B03	S	-67	15.96	56	04.43
KAW 44	23O13	N	-67	37.27	55	46.99
KAW 45	23O11	M	-67	21.20	55	33.68
KAW 48	23N16	N	-68	21.52	55	48.26
KAW 52	23O05	N	-67	34.13	55	18.26
KAW 54	23O03W	S	-67	25.79	55	05.67
KAW 58	24B05	S	-67	47.21	56	16.45
KAW 59	24B05	I	-67	49.00	56	17.80
KAW 60	24B05	S	-67	47.53	56	16.07
KAW 63	23O14	S	-67	06.03	55	54.17
KAW 65	24C01	N	-68	29.46	56	10.40
KAW 66	24C09	N	-68	12.50	56	40.99
KAW 67	23O04E	N	-67	31.75	55	11.12
KAW 67A	23O04E	S	-67	31.49	55	10.89
KAW 69	23O03W	S	-67	21.51	55	11.75
KAW 70	23O06	N	-67	20.86	55	15.11
KAW 70A	23O06	O	-67	21.59	55	15.77
KAW 72	23O03E	S	-67	13.65	55	08.10
KAW 74	23P04	O	-65	35.92	55	09.18
KAW 75	23P06	O	-65	13.46	55	26.03
KAW 85	24C07	N	-68	40.99	56	24.41
KAW 86	24C07	O	-68	31.76	56	25.01
KAW 88	24C07	N	-68	34.28	56	25.14
KAW 100	24C01	N	-68	20.89	56	03.38
KAW 101	24C02	N	-68	33.27	56	07.13
KAW 103	24C06	N	-69	21.95	56	19.42
KAW 117	23O03W	N	-67	28.64	55	03.84
KAW 118	24A01	O	-64	08.54	56	03.60
KAW 119	23O10	I	-66	45.77	55	37.48

Identification	EMRC map Reference	Category	Longitude		Latitude	
			Degrees	Minutes-decimales	Degrees	Minutes-decimales
KUUJJUAQ						
KAW 3	24C15	N	-68	58.46	56	58.11
KAW 4	24C15	N	-68	58.52	56	57.85
KAW 5	24C15	S	-68	52.92	56	55.67
KAW 6	24C15	O	-68	57.23	56	49.84
KAW 7	24C15	O	-68	57.94	56	49.60
KAW 9	24F06	C	-69	19.91	57	28.82
KAW 10	24F06	S	-69	15.49	57	27.76
KAW 12	24C10	N	-68	30.94	56	34.86
KAW 18	24F06	C	-69	12.90	57	27.13
KAW 19	24F05	N	-69	48.52	57	19.01
KAW 21	24F03W	N	-69	16.00	57	03.65
KAW 22	24F03E	N	-69	08.02	57	00.54
KAW 23	24F03E	N	-69	05.24	57	00.44
KAW 26	24C10	S	-68	50.32	56	33.84
KAW-40	24F12	N	-69	30.84	57	44.47
KAW 49	24C14	N	-69	18.31	56	52.93
KAW 94	24F07	O	-68	31.28	57	15.72
KAW 95	24F07	N	-68	31.13	57	17.58
KAW 109	24F05	N	-69	51.22	57	19.72
KAW-112	24F12	S	-69	34.16	57	40.68
KAW-115	24F11	N	-69	25.71	57	32.54
P24F	24F02	I	-68	53.20	57	01.54
PD-1	24F03	S	-69	05.10	57	33.79
PD-2	24F03	S	-69	04.56	57	36.15
TASIUJAQ						
G-24K05-6	24K05	N	-69	52.14	58	19.36
G-24K13-1004	24K13	N	-69	59.714	58	56.477
G-24L08-2	24L08	N	-70	12.77	58	24.22
KAW-41	24F13E	N	-69	32.41	57	45.17
P-24F13-4	24F13	N	-69	42.96	57	57.20
P-24K04-6	24K04	N	-69	54.60	58	9.50
P-24K04-7	24K04	N	-69	51.01	58	10.58
P-24K05-15	24K05	N	-69	32.01	58	16.15
P-24K11-2	24K11	N	-69	28.99	58	30.66
P-24K05-2	24K05	N	-69	58.16	58	20.55
PJ-1 (=TQ-20, P-24K13-3, G-24K13-4)	24K13	M	69	35.73	58	57.74
TA-1	24K05	I	-69	50.19	58	16.80
TA-2	24K05	I	-69	56.34	58	17.48
TQ-1 (=P-24F13-6, VP-3)	24F13	M	-69	40.16	57	57.68
TQ-3(=VP-5)	24K04	C	-69	45.24	58	3.35

Identification	EMRC map Reference	Category	Longitude		Latitude	
			Degrees	Minutes-decimales	Degrees	Minutes-decimales
TASIUJAQ						
TQ-4 (=VP-2)	24L08	M	-70	07.20	58	15.23
TQ-6 (=P24K05-10)	24K05	I	-69	57.37	58	17.92
TQ-10	24L01	I	-70	09.10	58	06.36
TQ-14	24L08	I	-70	14.30	58	19.36
TQ-15	24K04	C	-69	54.16	58	14.35
TQ-18	24K04	C	-69	50.35	58	4.41
TQ-23	24K12	N	-69	32.86	58	31.34
TQ-24	24L09E	N	-70	01.82	58	38.98
TQ-38	24K05E	N	-69	58.88	58	16.33
VP-4(=TQ-2)	24K04	C	-69	43.37	58	0.60
VP-11	24F13 E	I	-69	31.75	57	48.59
AUPALUK						
G-24N04-3	24N04	I	-69	49.86	59	11.57
G-24M01-1	24M01	N	-70	13.866	59	14.677
PJ-9 (=G-24N05-1004)	24N05	S	-69	59.94	59	18.91
PJ-10	24M01	M	-70	06.52	59	15.07
PJ-17	24N05	M	-69	45.93	59	20.29
PJ-17A	24N05	I	-69	43.812	59	20.535
PJ-19	24N05	I	-69	46.06	59	18.911
KANGIRSUK						
KG-17	25D08W	N	-70	27.504	60	21.198
KG-19	25D08W	S	-70	10.85	60	26.79
KG-21	25D07W	S	-70	57.45	60	18.63
QC-1	25D08W	N	-70	22.62	60	23.838
QC-2 (=G-25D08-2)	25D08E	S	-70	09.67	60	24.82
QC-3	25D08E	I	-70	09.33	60	21.55
QC-8	25D08	N	-70	13.206	60	16.104
TW	25C05W	M	-69	55.476	60	05.452

[1] M: major; I: intermediate; S: minor;
N: no mining debris; C: cleaned by communities; O: other use than mining

2b- SITES SORTED BY VILLAGES – UNGAVA TROUGH + HUDSON BAY

Identification	EMRC map reference	Category	Longitude		Latitude	
			degrés	minutes-décimales	degrés	minutes-décimales
KANGIQSUJUAQ						
I-12	35H12E	S	-73	35.85	61	35.32
I-32	35H10W	I	-72	54.94	61	43.117
K-10	35H11W	N	-73	15.44	61	39.70
K-27	35H11W	I	-73	19.89	61	36.24
K-28	35H11E	M	-73	14.75	61	34.65
K-36	35H11	S	-73	16.63	61	31.39
K-37	35H12E	I	-73	37.436	61	31.074
K-41(=K-42, P-35H12-13)	35H12W	S	-73	44.74	61	30.79
K-48	35H05E	N	-73	42.651	61	28.813
K-49	35H05	I	-73	49.70	61	28.70
K-61	35H11W	M	-73	27.256	61	33.269
KAN-1	35H10W	I	-72	57.90	61	32.19
KAN-2	35H12E	I	-73	31.11	61	32.51
KAN-3	35H12E	S	-73	37.28	61	31.63
KAN-4	35H12	I	-73	40.18	61	30.92
KAN-5	35H12W	S	-73	45.28	61	30.19
KAN-6	35H05	I	-73	49.50	61	28.94
KAN-7	35H12E	I	-73	49.93	61	28.48
KAN-8	35H12W	S	-73	45.447	61	30.554
KAN-9	35H10E	S	-72	44.555	61	36.73
KAN-10 (K-29)	35H10	I	-72	49.30	61	31.58
KAN-11	35H12	S	-73	37.27	61	32.62
KAN-12	35H12	S	-73	44.28	61	30.77
WB-3	35H08W	M	-72	18.09	61	29.412
SALLUIT						
G-35G08-1	35G08	S	-74	26.55	61	29.08
KV-1	35F07W	M	-76	45.46	61	25.64
P-35G08-1002	35G08	S	-74	28.35	61	29.22
P-35G08-1002A	35G08	S	-74	27.55	61	29.18
P-35G08-1003	35G08	S	-74	14.48	61	27.28
Parent Lake	35G11W	I	-75	10.36	61	33.43
SAL-1	35G10W	M	-74	53.013	61	31.135
SAL-2	35G07	S	-74	41.97	61	27.19
SAL-3	35G10W	N	-75	02.65	61	29.55
SW-1	35G13	N	-75	40.806	61	48.294
SW-2	35G13	N	-75	34.180	61	50.50
SW-9	35J02	N	-74	39.942	62	9.276
SW-10	35J02	C	-74	38.242	62	8.998
SW-11	35J02	N	-74	39.954	62	7.74
SW-12	35J02	C	-74	33.581	62	4.924
SW-13	35G10E	S	-74	38.14	61	34.00

Identification	EMRC map reference	Category	Longitude		Latitude	
			degrés	minutes-décimales	degrés	minutes-décimales
SALLUIT						
SW-14	35G13	S	-75	38.63	61	49.64
SW-16	35G10W	N	-74	46.213	61	34.953
SW-18	35G11W	N	-75	15.798	61	32.149
SW-24	35G06E	I	-75	44.00	61	18.75
SW-27	35F08W	M	-76	21.68	61	28.84
SW-29	35G10E	N	-74	38.538	61	33.942
SW-30	35F09	N	-76	01.832	61	31.963
SW-32	35G11W	S	-75	26.75	61	34.73
SW-34	35G09W	M	-74	28.114	61	34.900
SW-36 (=G-35G09-3)	35G09W	C	-74	18.00	61	35.56
SW-38	35F08W	N	-76	28.874	61	26.35
SW-42	35G07E	M	-74	34.396	61	23.924
SW-48 (=P-35G07-4)	35G06E	N	-75	04.382	61	24.407
SW-59	35G10W	N	-74	59.583	61	30.145
SW-67	35G06W	N	-75	17.43	61	19.908
WB-9	35G07E	M	-74	33.22	61	27.35
UMIUJAQ						
G-33N15-1	33N15	N	-76	42.77	55	56.20
GW-1	33N15W	N	-76	51.80	55	55.23
GW-3	34C07	N	-76	38.05	56	26.59
GW-5	33N15W	S	-76	47.97	55	57.49
GW-6	34C02	N	-76	43.04	56	08.68
PH-11	33N15E	S	-76	41.79	55	58.97
PH-12	34C02	O	-76	43.58	55	59.99
UD-1	34C02	S	-76	35.40	56	08.80
UD-2	34C02	N	-76	34.17	56	08.40
UD-3	34C02	N	-76	40.28	56	05.10
UD-4	34C02	N	-76	39.40	56	05.07
UD-5	34C02	N	-76	32.12	56	04.57
UD-6	34C02	S	-76	30.23	56	06.41
UD-7	34C02	N	-76	32.93	56	05.10
UD-8	34C02	O	-76	40.91	56	04.07
UD-9	34C02	N	-76	33.14	56	02.77
UD-10	34C02	O	-76	77.00	56	00.566
UD-11	34C02	N	-76	40.00	56	00.15
UM-1	33N15E	S	-76	45.59	55	59.99
UM-2	33N15E	S	-76	42.50	55	56.67
UM-3	33N15E	S	-76	47.59	55	57.68
WHA-1	34B05	M	-75	59.30	56	24.08
KUUJJUARAAPIK						
G-33N02-2	33N02	N	-76	50.46	55	02.78
GW-2	33N11E	S	-77	01.95	55	44.48
GW-8	33M01	I	-78	15.51	55	05.09
GW-9	33M01	O	-78	16.46	55	04.59
GW-10	33N02W	O	-76	50.19	55	06.39

[1] M: major; I: intermediate; S: minor;
N: no mining debris; C: cleaned by communities; O: other use than mining

3a- SITES SORTED BY DECREASING ENVIRONMENTAL SCORES – LABRADOR TROUGH

Identification	EMRC map Reference	Category	Longitude		Latitude	
			Degrees	Minutes-decimales	Degrees	Minutes-decimales
MAJOR SITES						
PJ-1 (=TQ-20, P-24K13-3, G-24K13-4)	24k13	M	69	35.73	58	57.74
PJ-17	24N05	M	-69	45.93	59	20.29
TW	25C05W	M	-69	55.476	60	05.452
TQ-1 (=VP-3, P-24F13-6)	24F13	M	-69	40.16	57	57.68
KAW 35	23O01E	M	-66	07.27	55	13.94
PJ-10	24M01	M	-70	06.52	59	15.07
TQ-4 (=VP-2)	24L08	M	-70	07.20	58	15.23
KAW 45	23O11	M	-67	21.20	55	33.68
INTERMEDIATE SITES						
G-24N04-3	24N04	I	-69	49.86	59	11.57
VP-11	24F13 E	I	-69	31.75	57	48.59
KAW 36	23O08	I	-66	09.46	55	15.02
QC-3	25D08E	I	-70	09.33	60	21.55
TQ-14	24L08	I	-70	14.30	58	19.36
TQ-6 (=P24K05-10)	24K05	I	-69	57.37	58	17.92
P24F	24F02	I	-68	53.20	57	01.54
KAW 119	23O10	I	-66	45.77	55	37.48
TQ-10	24L01	I	-70	09.10	58	06.36
PJ-17A	24N05	I	-69	43.812	59	20.535
TA-1	24K5	I	-69	50.19	58	16.80
TA-2	24K5	I	-69	56.34	58	17.48
PJ-19	24N05	I	-69	46.06	59	18.911
KAW 59	24B05	I	-67	49.00	56	17.80
MINOR SITES						
KAW 28	24C08	S	-68	11.97	56	28.27
KAW 58	24B05	S	-67	47.21	56	16.45
KAW 67A	23O04E	S	-67	31.49	55	10.89
KAW 54	23O03W	S	-67	25.79	55	05.67
PD-2	24F03	S	-69	04.56	57	36.15
KAW-112	24F12	S	-69	34.16	57	40.68
KAW 10	23O08	S	-69	15.49	57	27.76
KAW 42A	24B04	S	-67	54.89	56	04.54
KAW 5	24C15	S	-68	52.92	56	55.67
KAW 72	23O03E	S	-67	13.65	55	08.10
PD-1	24F03	S	-69	05.10	57	33.79
KG-19	25D08W	S	-70	10.85	60	26.79
PJ-9 (=G-24N05-1004)	24N05	S	-69	59.94	59	18.91
KAW 63	23O14	S	-67	06.03	55	54.17
KAW 43	24B03	S	-67	15.96	56	04.43
KAW 60	24B05	S	-67	47.53	56	16.07

Identification	EMRC map Reference	Category	Longitude		Latitude	
			Degrees	Minutes-decimales	Degrees	Minutes-decimales
MINOR SITES						
KAW 26	24C10	S	-68	50.32	56	33.84
QC-2 (=G-25D08-2)	25D08E	S	-70	09.67	60	24.82
KAW 69	23O03W	S	-67	21.51	55	11.75
KG-21	25D07W	S	-70	57.45	60	18.63
SITES WITH NO MINING DEBRIS						
G-24K05-6	24K05	N	-69	52.14	58	19.36
G-24K13-1004	24K13	N	-69	59.714	58	56.477
G-24L08-2	24L08	N	-70	12.77	58	24.22
G-24M01-1	24M01	N	-70	13.866	59	14.677
KAW 3	24C15	N	-68	58.46	56	58.11
KAW 4	24C15	N	-68	58.52	56	57.85
KAW 12	24C10	N	-68	30.94	56	34.86
KAW 14	24C01	N	-68	15.56	56	09.93
KAW 19	24F05	N	-69	48.52	57	19.01
KAW 21	24F03W	N	-69	16.00	57	03.65
KAW 22	24F03E	N	-69	08.02	57	00.54
KAW 23	24F03E	N	-69	05.24	57	00.44
KAW 30	24C08	N	-68	26.89	56	21.07
KAW 32	24C08	N	-68	26.86	56	20.21
KAW 34	24C01	N	-68	28.98	56	08.79
KAW 38	23O12	N	-67	57.26	55	40.93
KAW 39	23O13	N	-67	30.74	55	57.48
KAW-40	24F12	N	-69	30.84	57	44.47
KAW-41	24F13E	N	-69	32.41	57	45.17
KAW 42	24B04	N	-67	57.00	56	04.78
KAW 44	23O13	N	-67	37.27	55	46.99
KAW 48	23N16	N	-68	21.52	55	48.26
KAW 49	24C14	N	-69	18.31	56	52.93
KAW 52	23O05	N	-67	34.13	55	18.26
KAW 65	24C01	N	-68	29.46	56	10.40
KAW 66	24C09	N	-68	12.50	56	40.99
KAW 67	23O04E	N	-67	31.75	55	11.12
KAW 70	23O06	N	-67	20.86	55	15.11
KAW 85	24C07	N	-68	40.99	56	24.41
KAW 88	24C07	N	-68	34.28	56	25.14
KAW 95	24F07	N	-68	31.13	57	17.58
KAW 100	24C01	N	-68	20.89	56	03.38
KAW 101	24C02	N	-68	33.27	56	07.13
KAW 103	24C06	N	-69	21.95	56	19.42
KAW 109	24F05	N	-69	51.22	57	19.72
KAW-115	24F11	N	-69	25.71	57	32.54
KAW 117	23O03W	N	-67	28.64	55	03.84
KG-17	25D08W	N	-70	27.504	60	21.198
P-24F13-4	24F13	N	-69	42.96	57	57.20
P-24K04-6	24K04	N	-69	54.60	58	9.50
P-24K04-7	24K04	N	-69	51.01	58	10.58
P-24K05-15	24K05	N	-69	32.01	58	16.15

Identification	EMRC map Reference	Category	Longitude		Latitude	
			Degrees	Minutes-decimales	Degrees	Minutes-decimales
SITES WITH NO MINING DEBRIS						
P-24K11-2	24K11	N	-69	28.99	58	30.66
P-24K05-2	24K05	N	-69	58.16	58	20.55
QC-1	25D08W	N	-70	22.62	60	23.838
QC-8	25D08	N	-70	13.206	60	16.104
TQ-23	24K12	N	-69	32.86	58	31.34
TQ-24	24L09E	N	-70	01.82	58	38.98
TQ-38	24K05E	N	-69	58.88	58	16.33
SITES THAT WERE CLEANED BY COMMUNITIES						
KAW 9	24F06	C	-69	19.91	57	28.82
KAW 18	24F06	C	-69	12.90	57	27.13
TQ-3 (=VP-5)	24K04	C	-69	45.24	58	3.35
TQ-15	24K04	C	-69	54.16	58	14.35
TQ-18	24K04	C	-69	50.35	58	4.41
VP-4(=TQ-2)	24K04	C	-69	43.37	58	0.60
SITES OTHER THAN MINING						
KAW 6	24C15	O	-68	57.23	56	49.84
KAW 7	24C15	O	-68	57.94	56	49.60
KAW 17	24B05	O	-67	49.32	56	22.75
KAW 28A	24C08	O	-68	12.11	56	28.35
KAW 33	24C01	O	-68	16.49	56	08.02
KAW 37	23O12	O	-67	32.73	55	38.52
KAW 38A	23O12	O	-67	56.27	55	40.13
KAW 70A	23O06	O	-67	21.59	55	15.77
KAW 74	23P04	O	-65	35.92	55	09.18
KAW 75	23P06	O	-65	13.46	55	26.03
KAW 86	24C07	O	-68	31.76	56	25.01
KAW 94	24F07	O	-68	31.28	57	15.72
KAW 118	24A01	O	-64	08.54	56	03.60

[1] M: major; I: intermediate; S: minor;
N: no mining debris; C: cleaned by communities; O: other use than mining

3b- SITES SORTED BY DECREASING ENVIRONMENTAL SCORES – UNGAVA TROUGH + HUDSON BAY

Identification	EMRC map reference	Category[1]	Longitude		Latitude	
			degrés	minutes-décimales	degrés	minutes-décimales
MINOR SITES						
SW-34	35G09W	M	-74	28.114	61	34.900
WB-9	35G07E	M	-74	33.22	61	27.35
K-61	35H11W	M	-73	27.256	61	33.269
WB-3	35H08W	M	-72	18.09	61	29.412
K-28	35H11E	M	-73	14.75	61	34.65
SW-27	35F08W	M	-76	21.68	61	28.84
SW-42	35G07E	M	-74	34.396	61	23.924
KV-1	35F07W	M	-76	45.46	61	25.64
WHA-1	34B05	M	-75	59.30	56	24.08
SAL-1	35G10W	M	-74	53.013	61	31.135
INTERMEDIATE SITES						
KAN-6	35H05	I	-73	49.50	61	28.94
KAN-4	35H12	I	-73	40.18	61	30.92
KAN-1	35H10W	I	-72	57.90	61	32.19
Parent Lake	35G11W	I	-75	10.36	61	33.43
SW-24	35G06E	I	-75	44.00	61	18.75
I-32	35H10W	I	-72	54.94	61	43.117
KAN-2	35H12E	I	-73	31.11	61	32.51
K-49	35H05	I	-73	49.70	61	28.70
KAN-10 (K-29)	35H10	I	-72	49.30	61	31.58
K-37	35H12E	I	-73	37.436	61	31.074
KAN-7	35H12E	I	-73	49.93	61	28.48
GW-8	33M01	I	-78	15.51	55	05.09
K-27	35H11W	I	-73	19.89	61	36.24
SW-14	35G13	S	-75	38.63	61	49.64
KAN-5	35H12W	S	-73	45.28	61	30.19
PH-11	33N15E	S	-76	41.79	55	58.97
GW-5	33N15W	S	-76	47.97	55	57.49
P-35G08-1002	35G08	S	-74	28.35	61	29.22
K-36	35H11	S	-73	16.63	61	31.39
KAN-9	35H10E	S	-72	44.555	61	36.73
I-12	35H12E	S	-73	35.85	61	35.32
K-41 (=K-42, P-35H12-13)	35H12W	S	-73	44.74	61	30.79
KAN-3	35H12E	S	-73	37.28	61	31.63
KAN-11	35H12	S	-73	37.27	61	32.62
KAN-8	35H12W	S	-73	45.447	61	30.554
UM-1	33N15E	S	-76	45.59	55	59.99
SW-32	35G11W	S	-75	26.75	61	34.73
UM-3	33N15E	S	-76	47.59	55	57.68
GW-2	33N11E	S	-77	01.95	55	44.48
P-35G08-1003	35G08	S	-74	14.48	61	27.28

Identification	EMRC map reference	Category[1]	Longitude		Latitude	
			degrés	minutes-décimales	degrés	minutes-décimales
MINOR SITES						
G-35G08-1	35G08	S	-74	26.55	61	29.08
SW-13	35G10E	S	-74	38.14	61	34.00
SAL-2	35G07	S	-74	41.97	61	27.19
KAN-12	35H12	S	-73	44.28	61	30.77
P-35G08-1002A	35G08	S	-74	27.55	61	29.18
UD-1	34C02	S	-76	35.40	56	08.80
UM-2	33N15E	S	-76	42.50	55	56.67
UD-6	34C02	S	-76	30.23	56	06.41
SITES WITH NO MINING DEBRIS						
G-33N15-1	33N15	N	-76	42.77	55	56.20
G-33N02-2	33N02	N	-76	50.46	55	02.78
GW-1	33N15W	N	-76	51.80	55	55.23
GW-3	34C07	N	-76	38.05	56	26.59
GW-6	34C02	N	-76	43.04	56	08.68
K-10	35H11W	N	-73	15.44	61	39.70
K-48	35H05E	N	-73	42.651	61	28.813
SAL-3	35G10W	N	-75	02.65	61	29.55
SW-1	35G13	N	-75	40.806	61	48.294
SW-2	35G13	N	-75	34.180	61	50.50
SW-9	35J02	N	-74	39.942	62	9.276
SW-11	35J02	N	-74	39.954	62	7.74
SW-16	35G10W	N	-74	46.213	61	34.953
SW-18	35G11W	N	-75	15.798	61	32.149
SW-29	35G10E	N	-74	38.538	61	33.942
SW-30	35F09	N	-76	01.832	61	31.963
SW-38	35F08W	N	-76	28.874	61	26.35
SW-48 (=P-35G07-4)	35G06E	N	-75	04.382	61	24.407
SW-59	35G10W	N	-74	59.583	61	30.145
SW-67	35G06W	N	-75	17.43	61	19.908
UD-2	34C02	N	-76	34.17	56	08.40
UD-3	34C02	N	-76	40.28	56	05.10
UD-4	34C02	N	-76	39.40	56	05.07
UD-5	34C02	N	-76	32.12	56	04.57
UD-7	34C02	N	-76	32.93	56	05.10
UD-9	34C02	N	-76	33.14	56	02.77
UD-11	34C02	N	-76	40.00	56	00.15
SITES THAT WERE CLEANED BY COMMUNITIES						
SW-10	35J02	C	-74	38.242	62	8.998
SW-12	35J02	C	-74	33.581	62	4.924
SW-36 (=G-35G09-3)	35G09W	C	-74	18.00	61	35.56
SITES OTHER THAN MINING						
GW-9	33M01	O	-78	16.46	55	04.59
GW-10	33N02W	O	-76	50.19	55	06.39
PH-12	34C02	O	-76	43.58	55	59.99
UD-8	34C02	O	-76	40.91	56	04.07
UD-10	34C02	O	-76	77.00	56	00.566

[1] M: major; I: intermediate; S: minor;
N: no mining debris; C: cleaned by communities; O: other use than mining

APPENDIX 8

Individual score obtained by the sites

LABRADOR TROUGH

SITE SCORES

Site name	PJ-1	PJ-17	TW	TQ-1	KAW 35	PJ-10	TQ-4	KAW 45	G24-N4-3	VP-11
Quantity of buildings and state	8	8	8	14	14	8	5	5	0	0
Quantity of hydrocarbon drums and tanks	14	14	11	8	14	14	14	8	8	8
Quantity and state of other chemical products	8	14	14	5	14	0	11	5	0	0
Quantity of other equipment	14	8	8	8	11	5	14	5	5	0
Quantity of batteries and transformers	14	11	0	0	8	0	0	0	0	0
Quantity and scattering of waste	14	14	14	14	14	14	14	14	8	14
Contaminants Potential Risk	14	14	14	14	5	14	11	5	14	0
Physic state of cont.	9	7	7	9	7	7	0	7	9	0
Contaminated soil surface	14	14	5	5	11	11	0	5	0	0
Obs. or measured contamination of surface water	0	0	0	0	0	0	0	0	0	0
Surface containment	5	5	5	5	5	5	0	5	1	0
Dist to surf water	10	0	10	10	5	5	10	5	5	10
Contaminants vs topography	3	3	3	2	2	3	0	2	3	0
Site accessibility	0	5	3	3	0	3	0	0	0	0
Adverse impact on human/animals	15	15	15	15	0	15	0	0	0	0
Sensitive environment	12	12	12	12	12	12	0	12	0	0
Dist to nearest sensitive environment	10	0	10	10	6	6	10	6	6	10
Total score	164	144	139	134	128	122	89	84	59	42

LABRADOR TROUGH

SITE SCORES

Site name	KAW 36	QC-3	TQ-14	TQ-6	P24F	KAW 119	TQ-10	PJ-17A	TA-1	TA-2
Quantity of buildings and state	5	5	0	0	0	5	0	0	0	0
Quantity of hydrocarbon drums and tanks	11	8	8	5	11	8	0	11	11	5
Quantity and state of other chemical products	0	0	0	0	0	0	0	0	11	0
Quantity of other equipment	5	0	0	5	5	5	8	0	0	8
Quantity of batteries and transformers	0	0	0	0	0	0	0	0	0	0
Quantity and scattering of waste	11	5	11	14	11	8	5	0	8	14
Contaminants Potential Risk	0	0	0	0	0	0	0	0	0	0
Physic state of cont.	0	0	0	0	0	0	0	0	0	0
Contaminated soil surface	0	0	0	0	0	0	0	0	0	0
Obs. or measured contamination of surface water	0	0	0	0	0	0	0	0	0	0
Surface containment	0	0	0	0	0	0	0	0	0	0
Dist to surf water	10	10	10	5	10	10	10	10	0	0
Contaminants vs topography	0	0	0	0	0	0	0	0	0	0
Site accessibility	0	3	0	3	0	0	3	5	0	0
Adverse impact on human/animals	0	0	0	0	0	0	0	0	0	0
Sensitive environment	0	0	0	0	0	0	0	0	0	0
Dist to nearest sensitive environment	0	10	10	6	0	0	10	10	0	0
Total score	42	41	39	38	37	36	36	36	30	27

LABRADOR TROUGH

SITE SCORES

Site name	PJ-19	KAW 59	KAW 28	KAW 58	KAW 67A	KAW 54	PD 2	KAW-112	KAW 10	KAW 42 A
Quantity of buildings and state	0	5	0	0	0	0	0	0	0	0
Quantity of hydrocarbon drums and tanks	11	5	5	5	5	8	8	0	0	5
Quantity and state of other chemical products	0	0	0	0	0	0	0	0	0	0
Quantity of other equipment	0	0	0	0	5	0	0	5	0	0
Quantity of batteries and transformers	0	0	0	0	0	0	0	0	0	0
Quantity and scattering of waste	0	5	5	5	8	0	5	11	11	5
Contaminants Potential Risk	0	0	0	0	0	0	0	0	0	0
Physic state of cont.	0	0	0	0	0	0	0	0	0	0
Contaminated soil surface	0	0	0	0	0	0	0	0	0	0
Obs. or measured contamination of surface water	0	0	0	0	0	0	0	0	0	0
Surface containment	0	0	0	0	0	0	0	0	0	0
Dist to surf water	5	10	10	10	10	10	5	0	5	5
Contaminants vs topography	0	0	0	0	0	0	0	0	0	0
Site accessibility	3	0	0	0	0	0	0	0	0	0
Adverse impact on human/animals	0	0	0	0	0	0	0	0	0	0
Sensitive environment	0	0	0	0	0	0	0	0	0	0
Dist to nearest sensitive environment	6	0	0	0	0	0	0	0	0	0
Total score	25	25	20	20	20	18	18	16	16	15

LABRADOR TROUGH

SITE SCORES

Site name	KAW 5	KAW 72	PD 1	KG-19	PJ-9	KAW 63	KAW 43	KAW 60	KAW 26	QC-2
Quantity of buildings and state	0	0	0	0	0	0	0	0	0	0
Quantity of hydrocarbon drums and tanks	5	5	5	5	8	5	5	5	8	5
Quantity and state of other chemical products	0	0	0	0	0	0	0	0	0	0
Quantity of other equipment	0	0	0	0	0	0	0	0	0	0
Quantity of batteries and transformers	0	0	0	0	0	0	0	0	0	0
Quantity and scattering of waste	5	5	5	0	0	8	5	5	0	0
Contaminants Potential Risk	0	0	0	0	0	0	0	0	0	0
Physic state of cont.	0	0	0	0	0	0	0	0	0	0
Contaminated soil surface	0	0	0	0	0	0	0	0	0	0
Obs. or measured contamination of surface water	0	0	0	0	0	0	0	0	0	0
Surface containment	0	0	0	0	0	0	0	0	0	0
Dist to surf water	5	5	5	5	5	0	0	0	0	0
Contaminants vs topography	0	0	0	0	0	0	0	0	0	0
Site accessibility	0	0	0	3	0	0	0	0	0	3
Adverse impact on human/animals	0	0	0	0	0	0	0	0	0	0
Sensitive environment	0	0	0	0	0	0	0	0	0	0
Dist to nearest sensitive environment	0	0	0	0	0	0	0	0	0	0
Total score	15	15	15	13	13	13	10	10	8	8

LABRADOR TROUGH

SITE SCORES

Site name	KAW 69	KG-21
Quantity of buildings and state	0	0
Quantity of hydrocarbon drums and tanks	0	5
Quantity and state of other chemical products	0	0
Quantity of other equipment	0	0
Quantity of batteries and transformers	0	0
Quantity and scattering of waste	8	0
Contaminants Potential Risk	0	0
Physic state of cont.	0	0
Contaminated soil surface	0	0
Obs. or measured contamination of surface water	0	0
Surface containment	0	0
Dist to surf water	0	0
Contaminants vs topography	0	0
Site accessibility	0	0
Adverse impact on human/animals	0	0
Sensitive environment	0	0
Dist to nearest sensitive environment	0	0
Total score	8	5

UNGAVA TROUGH + HUDSON BAY

SITE SCORES

Site name	SW-34	WB-9	K-61	WB-3	K-28	SW-27	SW-42	KV-1	WHA 1	SAL 1
Quantity of buildings	5	14	14	5	5	5	5	0	11	11
Quantity of hydrocarbon drums and tanks	14	11	11	11	14	11	11	11	8	14
Quantity and state of other chemical products	11	5	5	0	5	0	0	0	0	5
Quantity of other equipment	11	8	14	5	8	8	5	5	5	5
Quantity of batteries and transformers	14	0	8	0	0	5	0	0	0	5
Quantity and scattering of waste	14	11	14	14	14	14	14	8	11	14
Contaminants potential risk	14	14	14	14	14	14	14	14	11	3
Physic state of contaminants	7	9	7	7	7	7	7	7	7	3
Contaminated soil surface	11	11	11	5	8	5	8	5	5	0
Observed or measured contamination of surface water	0	0	0	0	0	0	0	0	0	0
Surface containment	5	5	5	5	5	5	5	5	3	0
Distance to surface water	10	10	0	10	0	0	5	5	10	10
Contaminants vs topography	2	3	1	2	2	2	2	2	1	1
Site accessibility	0	0	0	3	0	0	0	0	0	0
Adverse impact on human/animals	15	15	15	15	15	15	15	15	0	0
Sensitive environment	12	12	12	12	12	15	12	12	0	0
Distance to nearest sensitive environment	10	10	0	10	0	0	2	6	10	10
Total score	155	138	131	118	109	106	105	95	82	81

UNGAVA TROUGH + HUDSON BAY

SITE SCORES

Site name	KAN-6	KAN-4	KAN-1	Parent Lake	SW-24	I-32	KAN-2	K-49	KAN-10	K-37
Quantity of buildings	5	0	0	0	0	0	0	0	0	0
Quantity of hydrocarbon drums and tanks	5	8	8	5	14	11	11	11	11	8
Quantity and state of other chemical products	0	0	0	0	0	0	0	0	0	0
Quantity of other equipment	0	0	5	0	0	0	5	5	0	5
Quantity of batteries and transformers	0	0	5	0	0	0	0	0	0	0
Quantity and scattering of waste	0	0	0	0	0	0	14	14	11	8
Contaminants potential risk	14	14	0	14	0	0	0	0	0	0
Physic state of contaminants	7	9	0	9	0	0	0	0	0	0
Contaminated soil surface	5	0	0	0	0	0	0	0	0	0
Observed or measured contamination of surface water	0	0	0	0	0	0	0	0	0	0
Surface containment	5	1	0	1	0	0	0	0	0	0
Distance to surface water	5	5	10	5	10	10	0	0	5	5
Contaminants vs topography	2	0	0	0	0	0	0	0	0	0
Site accessibility	3	3	0	3	0	3	3	3	3	3
Adverse impact on human/animals	0	0	0	0	0	0	0	0	0	0
Sensitive environment	0	0	0	0	0	0	0	0	0	0
Distance to nearest sensitive environment	0	2	10	0	10	10	0	0	2	0
Total score	51	42	38	37	34	34	33	33	32	29

UNGAVA TROUGH + HUDSON BAY

SITE SCORES

Site name	KAN-7	GW 8	K-27	SW-14	KAN-5	PH 11	GW 5	P35-G8-1002	K-36	KAN-9
Quantity of buildings	0	0	0	0	0	0	0	0	0	0
Quantity of hydrocarbon drums and tanks	14	11	5	5	11	5	5	0	5	8
Quantity and state of other chemical products	0	0	0	0	0	0	0	0	0	0
Quantity of other equipment	5	5	0	5	0	0	0	5	0	0
Quantity of batteries and transformers	0	0	0	5	0	0	0	0	0	0
Quantity and scattering of waste	8	0	0	0	8	11	14	14	11	0
Contaminants potential risk	0	0	0	0	0	0	0	0	0	0
Physic state of contaminants	0	0		0	0	0	0	0	0	0
Contaminated soil surface	0	0	0	0	0	0	0	0	0	0
Observed or measured contamination of surface water	0	0	0	0	0	0	0	0	0	0
Surface containment	0	0	0	0	0	0	0	0	0	0
Distance to surface water	0	10	10	5	0	5	0	0	0	5
Contaminants vs topography	0	0	0	0	0	0	0	0	0	0
Site accessibility	0	0	0	0	3	0	0	0	3	3
Adverse impact on human/animals	0	0	0	0	0	0	0	0	0	0
Sensitive environment	0	0	0	0	0	0	0	0	0	0
Distance to nearest sensitive environment	0	0	10	2	0	0	0	0	0	2
Total score	27	26	25	22	22	21	19	19	19	18

UNGAVA TROUGH + HUDSON BAY

SITE SCORES

Site name	I-12	K-41	KAN-3	KAN-11	KAN-8	UM 1	SW-32	UM	GW 2	UD 1
Quantity of buildings	0	0	0	0	0	0	0	0	5	0
Quantity of hydrocarbon drums and tanks	8	8	0	0	11	0	5	0	0	0
Quantity and state of other chemical products	0	0	0	0	0	0	0	0	0	0
Quantity of other equipment	0	0	5	5	0	0	0	0	0	0
Quantity of batteries and transformers	0	0	0	0	0	0	0	0	0	0
Quantity and scattering of waste	0	0	0	0	0	14	0	5	5	8
Contaminants potential risk	0	0	0	0	0	0	0	0	0	0
Physic state of contaminants	0	0	0	0	0	0	0	0	0	0
Contaminated soil surface	0	0	0	0	0	0	0	0	0	0
Observed or measured contamination of surface water	0	0	0	0	0	0	0	0	0	0
Surface containment	0	0	0	0	0	0	0	0	0	0
Distance to surface water	5	5	5	0	0	0	5	5	0	0
Contaminants vs topography	0	0	0	0	0	0	0	0	0	0
Site accessibility	3	3	3	0	3	0	3	0	0	0
Adverse impact on human/animals	0	0	0	0	0	0	0	0	0	0
Sensitive environment	0	0	0	0	0	0	0	0	0	0
Distance to nearest sensitive environment	2	0	2	10	0	0	0	0	0	0
Total score	18	16	15	15	14	14	13	10	10	8

UNGAVA TROUGH + HUDSON BAY

SITE SCORES

Site name	UM 2	P-35-G8-1003	G35-G8-1	SW-13	SAL-2	KAN-12	P-35G08-1002A	UD 6
Quantity of buildings	0	0	0	0	0	0	0	0
Quantity of hydrocarbon drums and tanks	0	0	0	5	5	5	5	5
Quantity and state of other chemical products	0	0	0	0	0	0	0	0
Quantity of other equipment	0	0	0	0	0	0	0	0
Quantity of batteries and transformers	0	0	0	0	0	0	0	0
Quantity and scattering of waste	8	5	5	0	0	0	0	0
Contaminants potential risk	0	0	0	0	0	0	0	0
Physic state of contaminants	0	0	0	0	0	0	0	0
Contaminated soil surface	0	0	0	0	0	0	0	0
Observed or measured contamination of surface water	0	0	0	0	0	0	0	0
Surface containment	0	0	0	0	0	0	0	0
Distance to surface water	0	0	0	0	0	0	0	0
Contaminants vs topography	0	0	0	0	0	0	0	0
Site accessibility	0	0	0	0	0	0	0	0
Adverse impact on human/animals	0	0	0	0	0	0	0	0
Sensitive environment	0	0	0	0	0	0	0	0
Distance to nearest sensitive environment	0	0	0	0	0	0	0	0
Total score	8	5	5	5	5	5	5	5

APPENDIX 9

Detailed description of the abandoned mining sites

CONTENT OF APPENDIX 9

MAJOR SITES

LABRADOR TROUGH

Sector of Kawawachikamach

KAW-35
KAW-45

Sector of Tasiujaq

PJ-1
TQ-1
TQ-4

Sector of Aupaluk

PJ-10
PJ-17

Sector of Kangirsuk

TW

UNGAVA TROUGH-HUDSON BAY

Sector of Kangiqsujuaq

K-28
K-61
WB-3

Sector of Salluit

KV-1
SAL-1
SW-27
SW-34
SW-42
WB-9

Sector of Umiujaq

WHA-1

INTERMEDIATE SITES

LABRADOR TROUGH

UNGAVA TROUGH-HUDSON BAY

MINOR SITES

LABRADOR TROUGH

UNGAVA TROUGH-HUDSON BAY

MAJOR SITES

LABRADOR TROUGH

SECTOR OF KAWAWACHIKAMACH

KAW-35

KAW-45

ABANDONED MINING EXPLORATION SITES/SITES ABANDONNÉS D'EXPLORATION MINIÈRE

INVENTORY FORM/FICHE D'INVENTAIRE - 2002

Site N° KAW-35 **Map/Carte N°:** 23 O/1 East **Latitude** 55 ° 13.94' N **Longitude** 66 ° 07.27' W

Region/Région: Kawawachikamach **Informant/Informateur** Tommy Einish; Pete Guanish on board

Date: 10 Sept. 2002 **By/Par:** JB, LO, PG, LE **Priority/Prioritaire** [X] **Hasard** [ ] **Other:**

Nb sectors/secteurs: 3 **Sector/Secteur N°:** 1 **Size/Dimension:** 500 m X 300 m

Distance from surface water/Distance de l'eau de surface: < 1 m **Soil/Sol:** Roc; roc **Drainage:** Bad to good

Buildings and dwellings/Bâtiments et habitations

Nb: Buildings/Bâtiments: 8 Dwellings: 8 State/Condition: Some stable, some unstable

Description (material/matériaux + volume): Wood: ~300m^3/Bois: ~300m^3; lot of various equipment (volume below)

Barrels, Tanks and Bottles/Barils, réservoirs et bouteilles

Nb barrels/barils (1 barrel/baril=205 litres):

TOTAL: 1000 empty/vides: ? full/pleins: > 6 residue/residus: >200 piled/empilés: scattered/épars: X

Quantity/Quantité [X] diesel: >1200 L [ ] oil/huile: L [ ] grease/graisse: L [ ] : L

Distance from a sensitive area/d'un milieu sensible: < 1 m Type of area/de milieu: Lake Retty/Lac Retty

Nb tanks/réservoirs:

TOTAL: 5 empty/vides: 5 full/pleins: 0 residue/residus: 0 [Same as for the Mid-Canada Line: 4400 L]

Quantity/Quantité [X] diesel: L [ ] Jet-B: L [ ] : L [ ] : L

Distance from a sensitive area/d'un milieu sensible: > 200 m Type of area/de milieu: Lake Retty/Lac Retty

Nb bottles or other containers/Bouteilles ou autres contenants:

TOTAL: 13 empty/vides: 3 full/pleins: 10 residue/residus: 3 state/état: Good (plastic)/Bon (plastique)

Content + quantity/Contenu + quantité: Hydrofluoric acid 4%/acide fluorhydrique : 5 L Solvant dégraissant biodégradable : 5x20 L

Nb propane tanks/Bonbonnes de propane:

TOTAL: 0 empty/vides: full/pleins: residue/residus: state/état:

Batteries and Transformers/Batteries et transformateurs

Nb batteries/batteries: 3 Condition: Good ***Nb transformers/transformateurs:*** 0 Condition:

Machinery and Equipment/Machinerie et équipement

Nb: Buldozer: 0 Tractor/tracteur: 0 Truck/Camion: 0 Muskeg: 1 :

Conveyor/Convoyeur: 0 Crusher/Concasseur: 0 Generator/Génératrice: 3+ (motors?) :

Solid Waste and Dry material/Matériaux secs

Core trays/Plateau à carottes (Nb + Volume): Wood: ? ; 100 m^3 Al: ; m^3 Plastic ; m^3

Rods/Tuyaux (Nb + Volume): ; 5 m^3 Cables/Câbles: ; 3 m^3

Wood/Bois: 10-20 m^3 Metal/Métal: 50-100 m^3

Other/Autre:

Hard hats found on the site indicated/des casques durs indiquent : "*D'ORVAL Mines Ltd, Opening Sept., 1987*".

Letterhead indicates/Des en-têtes de lettres indiquent: "*Compagnie de Gestion Minière Louvicourt Ltée, Case Postale 1270, Val d'Or (Québec) J9P 4P8*" Caribou pellets/Crottin de caribou.

Sector 2: *55° 13.70' N; 66° 07.42' W*: Tailings and one garage/Résidus miniers et un garage. Photo 11. *See/Voir verso*

Sector 3: *55° 13.65' N; 66° 08.76' W*: Tailer and one tank/Roulotte et un réservoir. Photo 10. *See/Voir verso*

We saw pipes near the Outfitter camp that is close by/On a vu des tuyaux près de la pourvoirie située près du site.

Photo 34



Photo 12



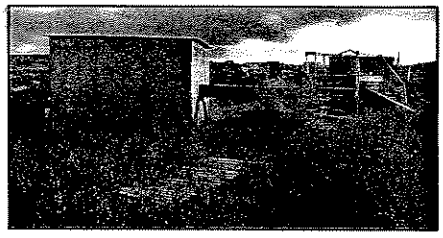
800 barrels at 1m of the lake

Photo 13



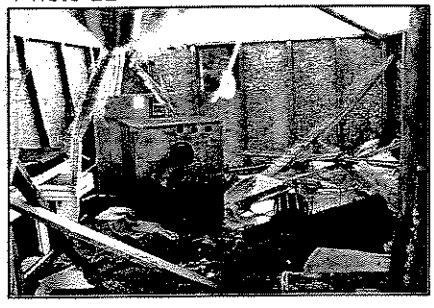
>100 barrels at 1m of the lake
[5 full of diesel (1000 L)],
1 shed, various debris:
metal, styrofoam, wood,
pipes, sleeping bag.
1 wharf, wires in the lake, Al rods.

Photo 17



1 shed containing a large
insulated tank.
Sryrofoam, fiberglass,
sidewalk, stairs, wood ($3m^3$)

Photo 22



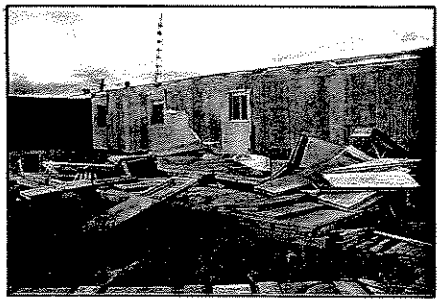
1 Shed without roof.
Metal debris ($5m^3$),
wood debris ($3m^3$),
2 furnaces, 1 shelf, 1 trash can,
1 stove pipe, 1 large container,
canvas, styrofoam.

Photo 24



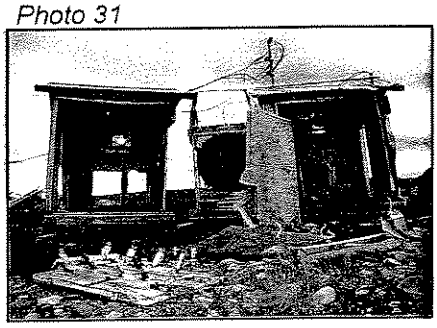
Partial view of the inside of a house trailer. It usually contains:
1 water heater, 1 motors (generator?),
1 freezer, 1 fire extinguisher,
1 counter, bed, furnaces, toilets,
fiberglass, debris, paper, canvas

Photo 28



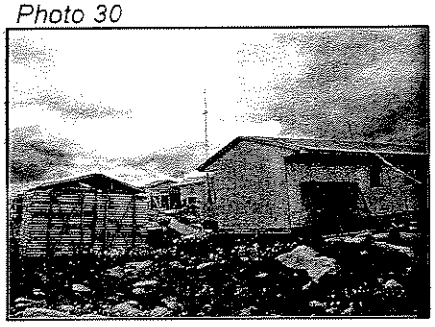
Vew beside a house trailer.
Wood debris ($10m^3$).
Nearby: 3 barrels with residue

Photo 31



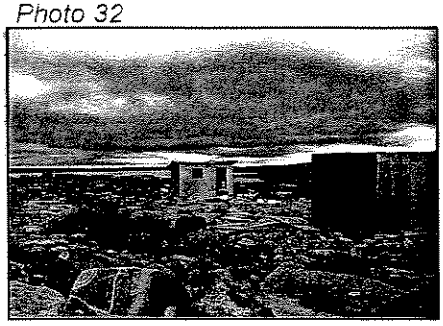
Generator houses.
1 motor, 1 tractor with tracks,
flexible hoses, 3 oil filters,
1 full barrel, 1 barrel with residue,
3 empty barrels,
1 furnace

Photo 30



Core trays (20m^3), metal pipes,
wires, wood debris, scrap
Nearby: metal rack, pipes,
wood debris, 3 barrels

Photo 32



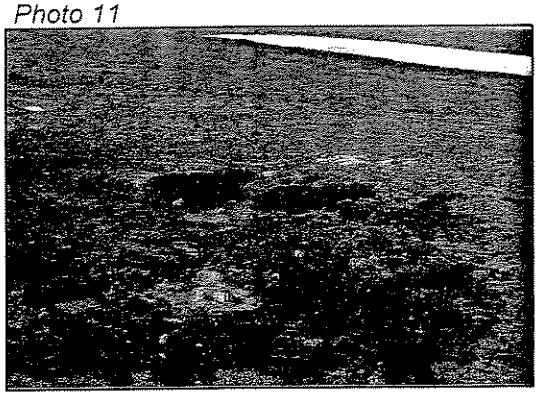
2 small sheds; one contains
3 bottles with
hydrofluoric acid 4% (1.5 L),
empty bottles, test tubes.

Canvas, scrap, flexible hoses,
1 battery, 1 fire extinguisher,
oil filters, metal debris

About 200 barrels scattered on the site and many debris

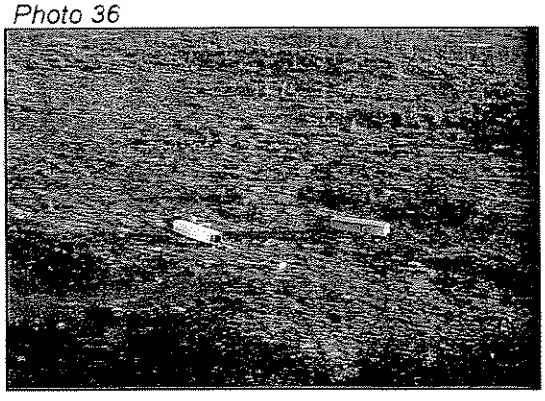
Also: 5 empty 4400-Litre tanks (with inscription "Knob Lake),
1 big sled, dumpsite,
pails containing biodegradable degreaser without phosphate,
2 batteries (one is close to a small cabin), wires, poles, plastic, 1trailer

Photo 11



Sector 2
Tailings and a garage

Photo 36



Sector 3
House trailers and a tank

Caribou tracks on the site

KAW 35

Coord.: 55° 13.94' N 66° 07.27' W.

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Conta-minated area (m^2)
Soil					
KAW 35-1	Soil under a battery	0-3	Hg Pb	0.10 140	-
KAW 35-3	Soil under a lot of barrels	0-3	C_{10}-C_{50}	**3700**	30
KAW 35-4	Soil under a battery	0-3	Hg Pb	0.34 120	-
KAW 35-5	Soil under 2 barrels	0-3	C_{10}-C_{50}	**120 000**	25
KAW 35-6	Soil under the generator shed	0-3	C_{10}-C_{50}	**24 000**	48
KAW 35-7	Soil under a 4400 L. tank	0-3	C_{10}-C_{50}	390	-
Total area					**103**
Water					
KAW 35-2A	Surface water of Retty Lake	N/A	C_{10}-C_{50}	< 100	-
KAW 35-2B	Surface water of Retty Lake	N/A	C_{10}-C_{50}	< 100	-

MENV criteria :

Soil C_{10}-C_{50} (mg/kg)	Surface water C_{10}-C_{50} (µg/L)	Soil Hg (mg/kg)	Soil Pb (mg/kg)	Soil PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	**3500**	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

ABANDONED MINING EXPLORATION SITES/SITES ABANDONNÉS D'EXPLORATION MINIÈRE

INVENTORY FORM/FICHE D'INVENTAIRE - 2002

Site N° KAW-45 **Map/Carte N°:** 23 O/11 **Latitude** 55 ° 33.68 N **Longitude** 67 ° 21.20 W

Region/Région: Kawawachikamach **Informant/Informateur** Philip Einish Jr. (Pete Guanish on board)

Date: 11 Sept. 2002 **By/Par:** JB, LO **Priority/Prioritaire** ☐ **Hasard** ☒ **Other:**

Nb sectors/secteurs: 2 **Sector/Secteur N°:** 1 **Size/Dimension:** m X m

Distance from surface water/Distance de l'eau de surface: m **Soil/Sol:** **Drainage:**

Buildings and dwellings/Bâtiments et habitations

Nb: Buildings/Bâtiments: 1 Dwellings: 4 State/Condition: 3 bases + 1 shed + 1 wood cabin

Description (material/matériaux + volume): Wood/Bois; 10m^3 Plywood base near shore/Base contreplaqué près rive: 2m^3

Barrels, Tanks and Bottles/Barils, réservoirs et bouteilles

Nb barrels/barils (1 barrel/baril=205 litres):

TOTAL: 12 empty/vides: ? full/pleins: residue/residus: 3 piled/empilés: scattered/épars: X

Quantity/Quantité ☒ diesel: 30 L ☐ oil/huile: L ☐ grease/graisse: L ☐ : L

Distance from a sensitive area/d'un milieu sensible: <5 m Type of area/de milieu: Lake

Nb tanks/réservoirs:

TOTAL: 0 empty/vides: full/pleins: residue/residus:

Quantity/Quantité ☐ diesel: L ☐ Jet-B: L ☐ : L ☐ : L

Distance from a sensitive area/d'un milieu sensible: m Type of area/de milieu:

Nb bottles or other containers/Bouteilles ou autres contenants:

TOTAL: 1 empty/vides: 1 full/pleins: residue/residus: state/état: Good/Bon

Content + quantity/Contenu + quantité: Naphta : 0 L : L : L

Nb propane tanks/Bonbonnes de propane:

TOTAL: 0 empty/vides: full/pleins: residue/residus: state/état:

Batteries and Transformers/Batteries et transformateurs

Nb batteries/batteries: 0 Condition: ***Nb transformers/transformateurs:*** 0 Condition:

Machinery and Equipment/Machinerie et équipement

Nb: Buldozer: 0 Tractor/tracteur: 0 Truck/Camion: 0 Muskeg: 0 :

Conveyor/Convoyeur: 0 Crusher/Concasseur: 0 Generator/Génératrice: 0 :

Solid Waste and Dry material/Matériaux secs

Core trays/Plateau à carottes (Nb + Volume): Wood: ; 10-15 m^3 Al: ; m^3 Plastic: ; <1 m^3

Rods/Tuyaux (Nb + Volume): ; m^3 Cables/Câbles: ; m^3 Canvas: ; <1 m^3

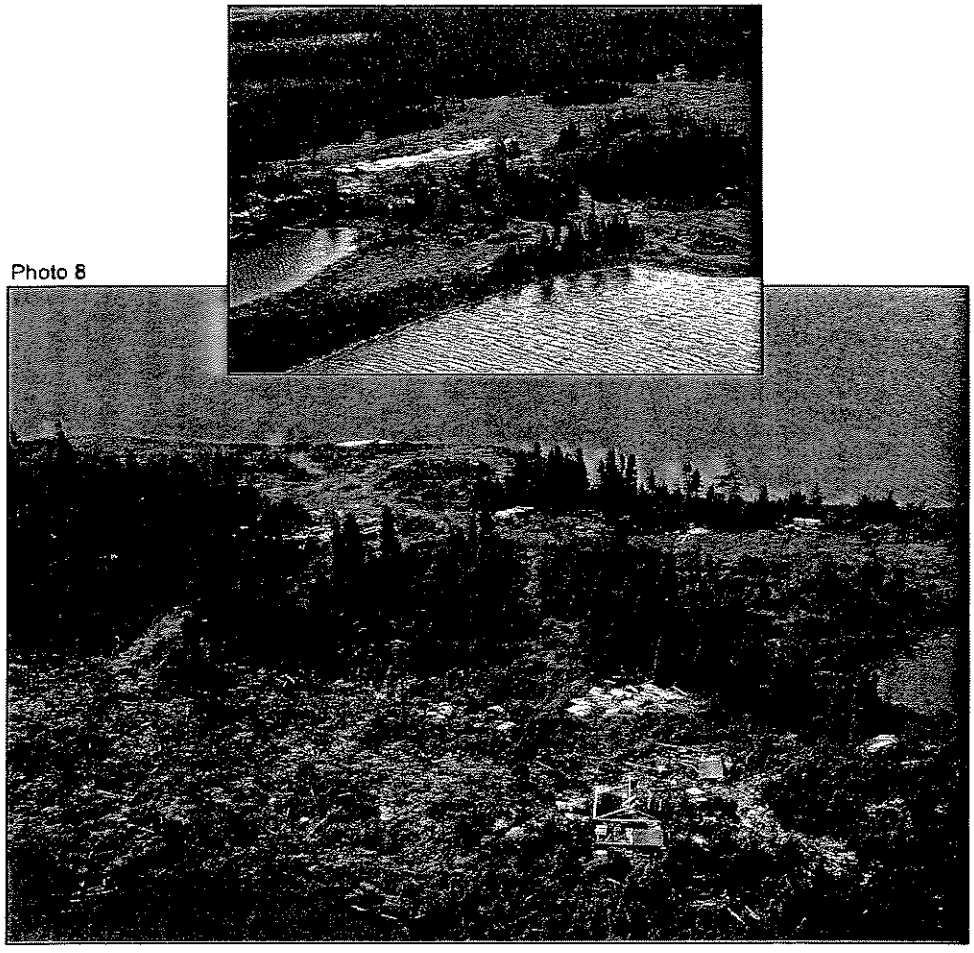
Wood/Bois: 1 m^3 Metal/Métal: <1 m^3

Other/Autre: Plastic hoses/boyaux de plastique: <1m^3; carpet/tapis: <1m^3; styrofoam: <1m^3; 1 outhouse/toilette; wood debris along the shore/bois le long de la rive; 1 rusted open barrel in the lake/un baril ouvert rouillé dans le lac. Caribou tracks and Goose shit/Pistes de caribou et crottin d'Outarde. *No contaminated areas.*

Sector 2: *55° 38.49' N; 67° 21.27' W;* end of Musset lake. 7 barrels (blue + yellow and red) on other shore at the end/ Extrémité du lac Musset. 7 barils (bleus + rouge et jaune) sur l'autre rive, sur la pointe. See verso/Voir verso

Photo 7

Photo 8



Site KAW-45 (11 September, 2002)

KAW 45

Sector 2: End of lake Musset. Coord.: 55° 38.49' N 67° 21.27' W.

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Conta-minated area (m^2)
Soil					
KAW 45	Soil under 6 barrels	0-5	C_{10}-C_{50}	**20 000**	2
Total area					**2**

MENV criteria :

Soil C_{10}-C_{50} (mg/kg)	Surface water C_{10}-C_{50} (µ g/L)	Soil Hg (mg/kg)	Soil Pb (mg/kg)	Soil PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	**3500**	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

SECTOR OF TASIUJAQ

PJ-1

TQ-1

TQ-4

ABANDONED MINING EXPLORATION SITES/SITES ABANDONNÉS D'EXPLORATION MINIÈRE

INVENTORY FORM/FICHE D'INVENTAIRE - 2001

Site N° PJ-1 **Map/Carte N°:** 24 K/13 **Latitude** 58 ° 57.71' N **Longitude** 69 ° 35.85' W

Region/Région: Aupaluk/Tasiujaq **Informant/Informateur** John Appahatak

Date: 21 July 2001 **By/Par:** JB, LO, ST **Priority/Prioritaire** [X] **Hasard** [ ] **Other:**

Nb sectors/secteurs: 9 **Sector/Secteur N°:** 1-3 **Size/Dimension:** m X m

Distance from surface water/Distance de l'eau de surface: m **Soil/Sol:** **Drainage:**

Buildings and dwellings/Bâtiments et habitations

Nb: Buildings/Bâtiments: Dwellings: State/Condition: 2 platforms (one with its structure)

Description (material/matériaux + volume): wood (volume included below)

Barrels, Tanks and Bottles/Barils, réservoirs et bouteilles

Nb barrels/barils (1 barrel/baril=205 litres):

TOTAL: 47 empty/vides: 31 full/pleins: 1 residue/residus: 15 piled/empilés: scattered/épars: X

Quantity/Quantité [X] diesel: 600 L [ ] oil/huile: L [ ] grease/graisse: L [ ] : L

Distance from a sensitive area/d'un milieu sensible: m Type of area/de milieu:

Nb tanks/réservoirs:

TOTAL: 0 empty/vides: full/pleins: residue/residus:

Quantity/Quantité [ ] diesel: L [ ] Jet-B: L [ ] : L [ ] : L

Distance from a sensitive area/d'un milieu sensible: m Type of area/de milieu:

Nb bottles or other containers/Bouteilles ou autres contenants:

TOTAL: 5 empty/vides: full/pleins: 5 residue/residus: state/état:

Content + quantity/Contenu + quantité: Paint/Peinture: 12 L Grease/Graisse: 2 kg : L

Nb propane tanks/Bonbonnes de propane:

TOTAL: 0 empty/vides: full/pleins: residue/residus: state/état:

Batteries and Transformers/Batteries et transformateurs

Nb batteries/batteries: 0 Condition: ***Nb transformers/transformateurs:*** 0 Condition:

Machinery and Equipment/Machinerie et équipement

Nb: Buldozer: Tractor/tracteur: Truck/Camion: Muskeg: High voltage regulator: 1

Conveyor/Convoyeur: Crusher/Concasseur: Generator/Génératrice: :

Solid Waste and Dry material/Matériaux secs

Core trays/Plateau à carottes (Nb + Volume): Wood: ; m^3 Al: ; m^3 Plastic ; <1-2 m^3

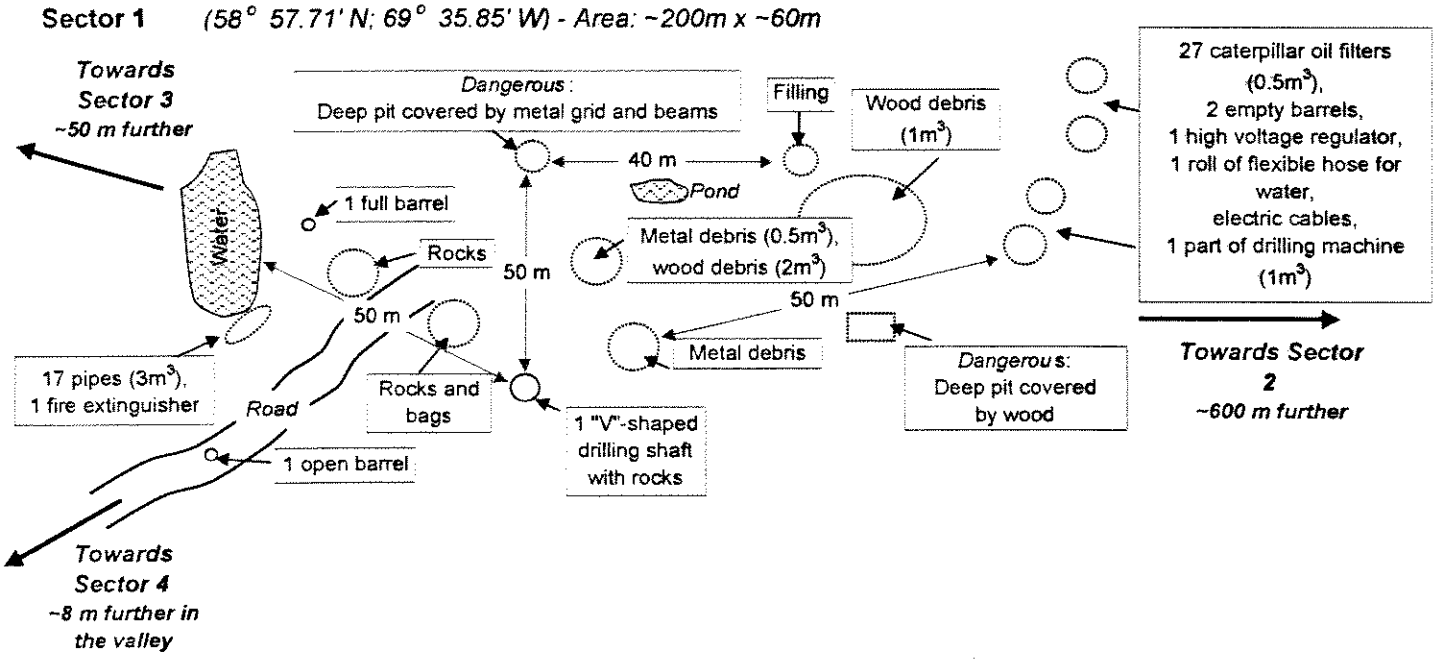
Rods/Tuyaux (Nb + Volume): ~140; 6 m^3 Cables/Câbles: ; ? m^3

Wood/Bois: 15-20 m^3 Metal/Métal: 15-20 m^3

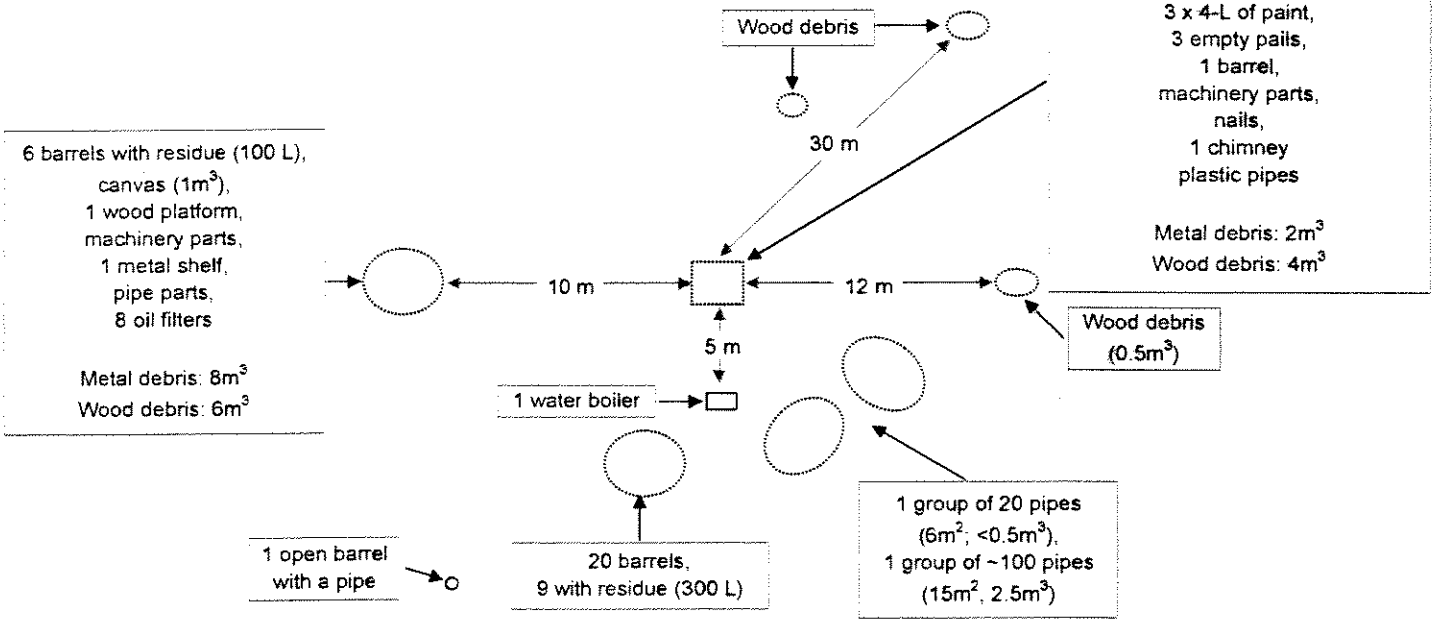
Other/Autre:

1 ventilator, 1 metal tub, 1 water boiler, machinery parts, 1 V-shaped drilling shaft, 27 oil filters for caterpillars (see page 2)/1 ventilateur, 1 cuve en métal, 1 chaudière à eau, pièces de machinerie, un équipement de forage en V, 27 filtres à huile, pour chenillette (voir page 2).

Sector 1 *(58° 57.71' N; 69° 35.85' W) - Area: ~200m x ~60m*



Sector 2 *(58° 57.74' N; 69° 35.73' W) - Area: ~50m x ~40m*



Sector 3 *(58° 57.95' N; 69° 35.71' W) - Area: ~20m x ~10m*

1 platform of a cabin (5m x 5m),
1 ventilator, 1 chimney, 1 metal tub, small rods, nails,
plastic core trays, 15 empty barrels,

Metal debris: 3m³
Wood debris: 3m³

ABANDONED MINING EXPLORATION SITES/SITES ABANDONNÉS D'EXPLORATION MINIÈRE

INVENTORY FORM/FICHE D'INVENTAIRE - 2001

Site N° PJ-1 **Map/Carte N°:** 24 K/13 **Latitude** 58 ° 58.02' N **Longitude** 69 ° 35.86' W

Region/Région: Aupaluk/Tasiujaq **Informant/Informateur** John Appahatak

Date: 21 July 2001 **By/Par:** JB, LO, ST **Priority/Prioritaire** [X] **Hasard** [ ] **Other:**

Nb sectors/secteurs: 9 **Sector/Secteur N°:** 4 **Size/Dimension:** ~600 m X ~60 m

Distance from surface water/Distance de l'eau de surface: m **Soil/Sol:** **Drainage:**

Buildings and dwellings/Bâtiments et habitations

Nb: Buildings/Bâtiments: Dwellings: State/Condition: 1 wood base

Description (material/matériaux + volume):

Barrels, Tanks and Bottles/Barils, réservoirs et bouteilles

Nb barrels/barils (1 barrel/baril=205 litres):

TOTAL: 92 empty/vides: full/pleins: residue/residus: piled/empilés: scattered/épars: X

Quantity/Quantité [ ] diesel: L [ ] oil/huile: L [ ] grease/graisse: L [ ] : L

Distance from a sensitive area/d'un milieu sensible: m Type of area/de milieu:

Nb tanks/réservoirs:

TOTAL: 5 empty/vides: full/pleins: residue/residus: (Size: 10 000 L; 5m^3 each)

Quantity/Quantité [ ] diesel: L [ ] Jet-B: L [ ] : L [ ] : L

Distance from a sensitive area/d'un milieu sensible: m Type of area/de milieu:

Nb bottles or other containers/Bouteilles ou autres contenants:

TOTAL: ~51 empty/vides: full/pleins: ~51 residue/residus: state/état:

Content + quantity/Contenu + quantité: Oil/huile : 4 L Grease/graisse: ~50 tubes : L

Nb propane tanks/Bonbonnes de propane: *Note: propane or liquid carbonic or liquid air or oxygene*

TOTAL: >20 empty/vides: X full/pleins: residue/residus: state/état:

Batteries and Transformers/Batteries et transformateurs

Nb batteries/batteries: 8 Condition: ***Nb transformers/transformateurs:*** 0 Condition:

Machinery and Equipment/Machinerie et équipement

Nb: Buldozer: 2 Tractor/tracteur: Truck/Camion: 1 Muskeg: Trailer : 3

Conveyor/Convoyeur: 2 Crusher/Concasseur: 1 Generator/Génératrice: 3 Machinery : 8

Solid Waste and Dry material/Matériaux secs

Crane/Grue : 1

Core trays/Plateau à carottes (Nb + Volume): Wood: ; m^3 Al: ; m^3 Plastic ; m^3

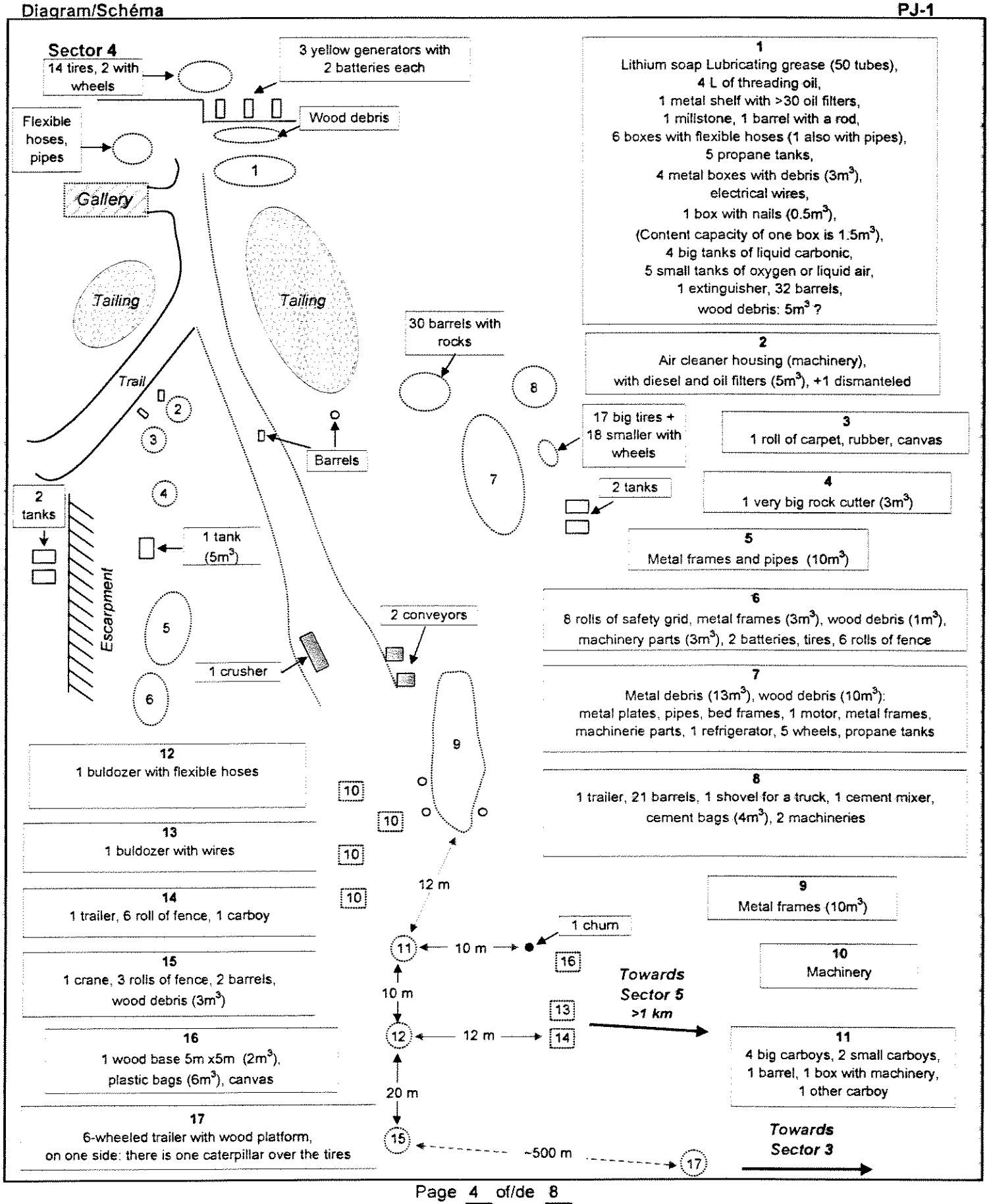
Rods/Tuyaux (Nb + Volume): ; 10-25 m^3 Cables/Câbles: ; 1-5 m^3

Wood/Bois: 20-30 m^3 Metal/Métal: 30-100 m^3 Other/Autre: 20-50 m^3

Other/Autre:

Rolls of fence (17), 1 cement mixer, plastic bags (6m^3), 1 refrigerator, 1 alternator, wheels and tires (>40), machinery parts (>3m^3), flexible hoses, extinguishers/rouleaux à clôture (17), 1 mélangeur à ciment, sacs de plastique (6m^3), 1 réfrigérateur, 1 alternateur, roues et pneus (>40), pièces de machinerie (>3m^3), boyaux flexibles, extincteurs.

Ptarminan droppings on the site/Crottin de lagopède sur le site.


Sector 4
14 tires, 2 with wheels
3 yellow generators with 2 batteries each
Wood debris
Flexible hoses, pipes
1
Gallery
Tailing
Tailing
Trail
30 barrels with rocks
8
17 big tires + 18 smaller with wheels
2
3
Barrels
7
2 tanks
4
2 tanks
1 tank (5m3)
5
Escarpment
2 conveyors
1 crusher
6
9
12
1 buldozer with flexible hoses
10
10
13
1 buldozer with wires
10
12 m
14
1 trailer, 6 roll of fence, 1 carboy
10
1 churn
11
10 m
16
15
1 crane, 3 rolls of fence, 2 barrels, wood debris (3m3)
Towards Sector 5 >1 km
10 m
13
16
12
12 m
14
20 m
15
~500 m
17
Towards Sector 3
1
Lithium soap Lubricating grease (50 tubes), 4 L of threading oil, 1 metal shelf with >30 oil filters, 1 millstone, 1 barrel with a rod, 6 boxes with flexible hoses (1 also with pipes), 5 propane tanks, 4 metal boxes with debris (3m3), electrical wires, 1 box with nails (0.5m3), (Content capacity of one box is 1.5m3), 4 big tanks of liquid carbonic, 5 small tanks of oxygen or liquid air, 1 extinguisher, 32 barrels, wood debris: 5m3 ?
2
Air cleaner housing (machinery), with diesel and oil filters (5m3), +1 dismanteled
3
1 roll of carpet, rubber, canvas
4
1 very big rock cutter (3m3)
5
Metal frames and pipes (10m3)
6
8 rolls of safety grid, metal frames (3m3), wood debris (1m3), machinery parts (3m3), 2 batteries, tires, 6 rolls of fence
7
Metal debris (13m3), wood debris (10m3): metal plates, pipes, bed frames, 1 motor, metal frames, machinerie parts, 1 refrigerator, 5 wheels, propane tanks
8
1 trailer, 21 barrels, 1 shovel for a truck, 1 cement mixer, cement bags (4m3), 2 machineries
9
Metal frames (10m3)
10
Machinery
11
4 big carboys, 2 small carboys, 1 barrel, 1 box with machinery, 1 other carboy
12
1 buldozer with flexible hoses
13
1 buldozer with wires
14
1 trailer, 6 roll of fence, 1 carboy
15
1 crane, 3 rolls of fence, 2 barrels, wood debris (3m3)
16
1 wood base 5m x5m (2m3), plastic bags (6m3), canvas
17
6-wheeled trailer with wood platform, on one side: there is one caterpillar over the tires

ABANDONED MINING EXPLORATION SITES/SITES ABANDONNÉS D'EXPLORATION MINIÈRE

INVENTORY FORM/FICHE D'INVENTAIRE - 2001

Site N° PJ-1 **Map/Carte N°:** 24 K/13 **Latitude** 58 ° 58.21' N **Longitude** 69 ° 35.61' W

Region/Région: Aupaluk/Tasiujaq **Informant/Informateur** John Appahatak

Date: 21 July 2001 **By/Par:** JB, LO, ST **Priority/Prioritaire** [X] **Hasard** [ ] **Other:**

Nb sectors/secteurs: 9 **Sector/Secteur N°:** 5-7 **Size/Dimension:** m X m

Distance from surface water/Distance de l'eau de surface: m **Soil/Sol:** **Drainage:**

Buildings and dwellings/Bâtiments et habitations

Nb: Buildings/Bâtiments: 3 Dwellings: State/Condition: 1 good/1 very bad; 1 bon; 1 très mauvais

Description (material/matériaux + volume): Wood and metal, volume ?/Bois et métal, volume ?

Barrels, Tanks and Bottles/Barils, réservoirs et bouteilles

Nb barrels/barils (1 barrel/baril=205 litres):

TOTAL: 65 empty/vides: full/pleins: residue/residus: piled/empilés: scattered/épars: X

Quantity/Quantité [ ] diesel: L [ ] oil/huile: L [ ] grease/graisse: L [ ] : L

Distance from a sensitive area/d'un milieu sensible: 0 m Type of area/de milieu: Lake/Lac

Nb tanks/réservoirs:

TOTAL: 5 empty/vides: full/pleins: residue/residus:

Quantity/Quantité [ ] diesel: L [ ] Jet-B: L [ ] : L [ ] : L

Distance from a sensitive area/d'un milieu sensible: 15 m Type of area/de milieu: Lake/Lac

Nb bottles or other containers/Bouteilles ou autres contenants:

TOTAL: 0 empty/vides: full/pleins: residue/residus: state/état:

Content + quantity/Contenu + quantité: : L : L : L

Nb propane tanks/Bonbonnes de propane: *(include 2 air tanks)*

TOTAL: 60 empty/vides: full/pleins: residue/residus: state/état:

Batteries and Transformers/Batteries et transformateurs

Nb batteries/batteries: 12 Condition: ***Nb transformers/transformateurs:*** 2 Condition:

Machinery and Equipment/Machinerie et équipement

Nb: Buldozer: Tractor/tracteur: Truck/Camion: Muskeg: 2 Radiator : 1

Conveyor/Convoyeur: Crusher/Concasseur: Generator/Génératrice: 3 Alternator : 1

Solid Waste and Dry material/Matériaux secs

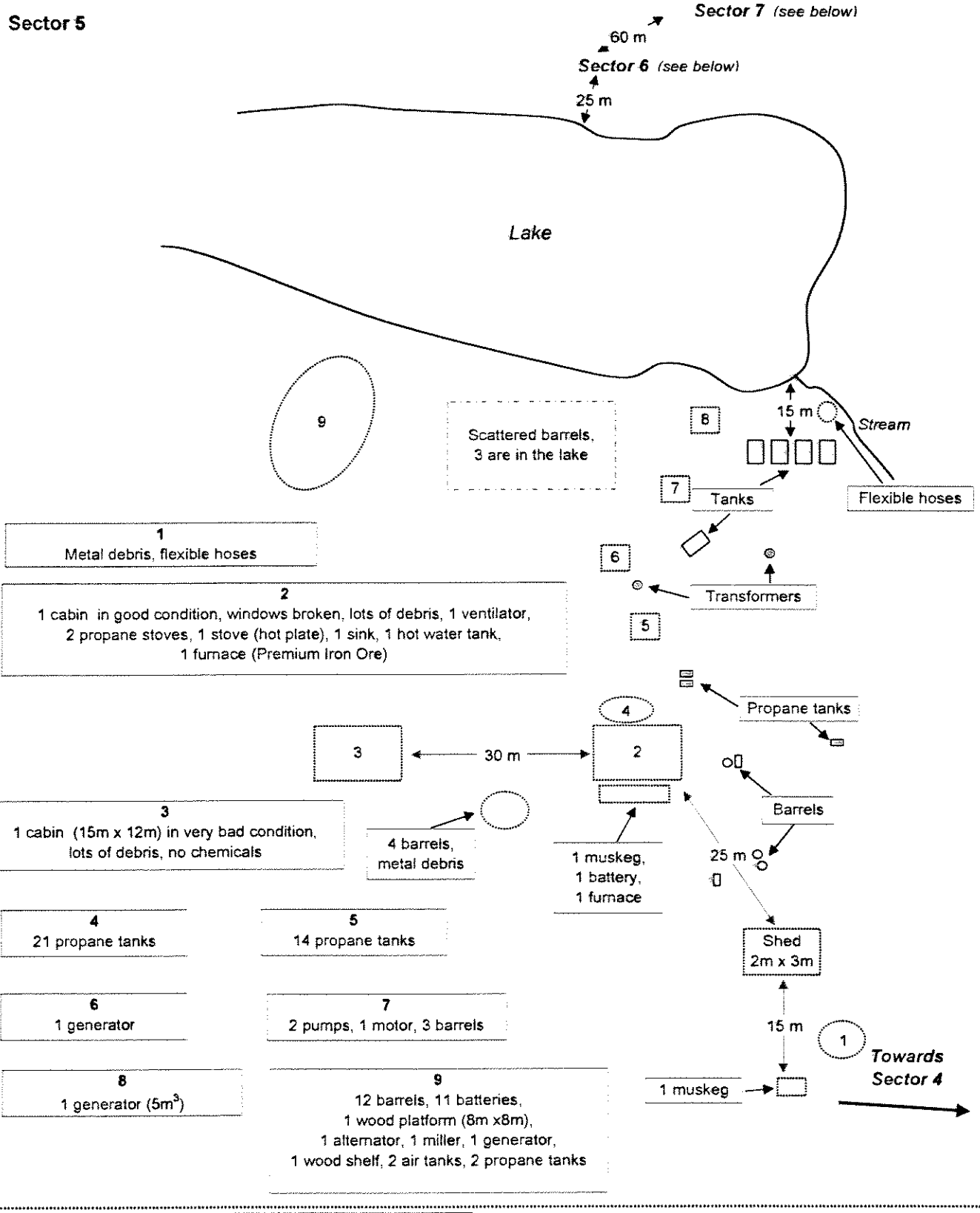
Core trays/Plateau à carottes (Nb + Volume): Wood: ; m^3 Al: ; m^3 Plastic ; m^3

Rods/Tuyaux (Nb + Volume): ; 1-3 m^3 Cables/Câbles: ; m^3

Wood/Bois: 10-30 m^3 Metal/Métal: 10-30 m^3 Other/Autre: 10-30 m^3

Other/Autre:

3 stoves, 1 sink, 2 furnaces, flexible hoses (>10m^3), etc. See page 2/ 2 poêles, 1 réchaud, 2 fournaises, boyaux flexibles (>10m^3), etc. Voir page 2.



Sector 6 *(58° 58.24' N; 69° 35.54' W)*
Flexible hoses (10m^3), pails, metal rods (2m^3), 1 radiator, see Sammy's notes (Area 60m^2)

Sector 7 *(58° 58.23' N; 69° 35.45' W)*
53 empty barrels, 18 propane tanks

ABANDONED MINING EXPLORATION SITES/SITES ABANDONNÉS D'EXPLORATION MINIÈRE

INVENTORY FORM/FICHE D'INVENTAIRE - 2001

Site N° PJ-1 **Map/Carte N°:** 24 K/13 **Latitude** 58 ° 57.56' N **Longitude** 69 ° 35.87' W

Region/Région: Aupaluk/Tasiujaq **Informant/Informateur** John Appahatak

Date: 22 July 2001 **By/Par:** JB, LO, ST **Priority/Prioritaire** [X] **Hasard** [ ] **Other:** _____

Nb sectors/secteurs: 9 **Sector/Secteur N°:** 8-9 **Size/Dimension:** m X m

Distance from surface water/Distance de l'eau de surface: m **Soil/Sol:** _____ **Drainage:** _____

Buildings and dwellings/Bâtiments et habitations

Nb: Buildings/Bâtiments: _____ Dwellings: _____ State/Condition: 2 platforms/2 plate-formes

Description (material/matériaux + volume): Wood/Bois, 2-5m^3

Barrels, Tanks and Bottles/Barils, réservoirs et bouteilles

Nb barrels/barils (1 barrel/baril=205 litres):

TOTAL: ~200 empty/vides: _____ full/pleins: 3 residue/residus: 23 piled/empilés: X scattered/épars: X

Quantity/Quantité [X] diesel: 1900 L [X] oil/huile: 50 L [ ] grease/graisse: L [ ] : L

Distance from a sensitive area/d'un milieu sensible: <10 m Type of area/de milieu: Lake/Lac

Nb tanks/réservoirs:

TOTAL: 0 empty/vides: _____ full/pleins: _____ residue/residus: _____

Quantity/Quantité [ ] diesel: L [ ] Jet-B: L [ ] : L L [ ] : L

Distance from a sensitive area/d'un milieu sensible: m Type of area/de milieu: _____

Nb bottles or other containers/Bouteilles ou autres contenants:

TOTAL: 0 empty/vides: _____ full/pleins: _____ residue/residus: _____ state/état: _____

Content + quantity/Contenu + quantité: _____ : L _____ : L _____ : L

Nb propane tanks/Bonbonnes de propane:

TOTAL: 1 empty/vides: _____ full/pleins: _____ residue/residus: _____ state/état: _____

Batteries and Transformers/Batteries et transformateurs

Nb batteries/batteries: 3 Condition: _____ ***Nb transformers/transformateurs:*** 0 Condition: _____

Machinery and Equipment/Machinerie et équipement

Nb: Buldozer: _____ Tractor/tracteur: _____ Truck/Camion: _____ Muskeg: _____ : _____

Conveyor/Convoyeur: _____ Crusher/Concasseur: _____ Generator/Génératrice: _____ : _____

Solid Waste and Dry material/Matériaux secs

Core trays/Plateau à carottes (Nb + Volume): Wood: _____ ; _____ m^3 Al: _____ ; ? m^3 Plastic: ; ? m^3

Rods/Tuyaux (Nb + Volume): _____ ; >2 m^3 Cables/Câbles: _____ ; ? m^3

Wood/Bois: 5-10 m^3 Metal/Métal: 2-10 m^3

Other/Autre:

See page 2/ Voir page 2

Sector 8 *(58° 57.56' N; 69° 35.87' W)*

8a *Small area (150 m²) on top of hill*

Plywood,
plastic core trays,
First Aid kit with peroxyde,
6 barrels, 2 with residue
1 small empty barrel,
lots of scattered wood (beams and plywood),
1 propane tank,
pipes,
wires,
oil burning stove (inside a furnace)

8b *Down the hill, near a lake*

Aluminium core trays,
scattered wood debris,
5 barrels near lake (3 empty, 1 with diesel and 1 with oil;
one of the barrels with residue is 1m from the lake),
1 shower,
1 wood cabin (size of a shower),
fire extinguisher,
3 batteries,
2 water heaters,
3 furnaces,
1 wood platform (5m x 5m),
many scattered barrels,
wires,
metal frame,
1 oil burning stove,
1 sink

~10 metal bed frames,
1 table,
canvas,
1 base frame for cabin,
1 can of insecticide (Raid),
dishesglass jars with bitumen,
3 fire extinguishers,
cans,
1 group of barrels opened like a can which are used as dump:
including metal scrap, cans and food debris;
1 base of a outhouse,
1 place for burning wood

169 barrels: 3 full, 13 with residue (total of 1845 L)
(barrels are among 3 groups)

Sector 9 *(58° 57.76' N; 69° 36.20' W)*

9 *Area located in a valley, near a lake between 2 rocky escarpments*

5 barrels near the lake,
pipes for tripod,
10 barrels: 4 with residue (total 350 L),
plastic hoses,
~50 metal pipes (2m^3),
wood debris (3m^3),
metal debris (<1m^3),
some plastic canoe holder,
metal wires,
1 oil filter

Presence of Canada goose feathers and droppings

PJ-1 (and TQ-20, G24 K13-4)

Sector 1: Coord.: 58° 57.71' N 69° 35.85' W.

Sector 2: Coord.: 58° 57.74' N 69° 35.73' W.

Sector 3: Coord.: 58° 57.95' N 69° 35.71' W.

Sector 4: Coord.: 58° 58.02' N 69° 35.86' W. Many spots of contaminated soil

Sector 5: Coord.: 58° 58.21' N 69° 35.61' W.

Sector 6: Coord.: 58° 58.24' N 69° 35.54' W.

Sector 7: Coord.: 58° 58.23' N 69° 35.45' W.

Sector 8: Coord.: 58° 57.56' N 69° 35.87' W.

Sector 9: Coord.: 58° 57.76' N 69° 36.20' W.

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Contaminated area (m^2)
Soil					
PJ 1-2	Sector 1: Soil near the shaft and the head frame.	0-5	C_{10}-C_{50}	220	-
PJ 1-3	Sector 1: Soil on the southern side of the drilling shaft.	0-5	C_{10}-C_{50}	< 100	-
PJ 1-4	Sector 2: Contaminated soil close to the building. Sample taken near a lot of wood, metal, motors, pipes and garbage. Contaminated depth: 20 cm.	0-5	C_{10}-C_{50}	1000	
PJ 1-5	Sector 2: Under PJ-1-4. Contaminmated depth: 20 cm.	5-15	C_{10}-C_{50}	100 000	15
PJ 1-6	Sector 2: Close to ≈ 22 drums.	0-5	C_{10}-C_{50}	110 000	12
PJ 1-7	Sector 1: Soil in a field crack, on the southern side of the shaft and pond.	0-5	Hg Pb C_{10}-C_{50}	120	-
PJ 1-9	Sector 4. Soil on the south shore of the pond.	0-5	C_{10}-C_{50}	200	-
PJ 1-10	Sector 4. Soil under a battery. Sample depth: cm.	0-5	Hg Pb	0,04 84	
PJ 1-11	Sector 4. Soil under a battery.	0-5	Hg Pb	0,10 6	
PJ 1-12	Sector 4. Soil and peat moss near a pond, on its south-eastern side, near wire rolls. Iridescence on the pond.	0-5	C_{10}-C_{50}	140	
PJ 1-13	Sector 4. Soil at the south-western part of sector 4 near drums, wood boxes and the gallery.	0-3	C_{10}-C_{50}	240 000	9

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Conta-minated area (m^2)
Soil					
PJ 1-14	Sector 4. Soil of the mine tailings.	0-3	C_{10}-C_{50}	< 100	-
PJ 1-15	Sector 5. Under a battery near a shed.	0-3	Hg Pb	0,14 650	1
PJ 1-16	Sector 5. Near a transformer, close to a tank.	0-3	PCBs	< 5,0	-
PJ 1-17	Sector 5. Near 9 batteries on a platform made of wood, ≈ 5 m apart of Pio Lake.	0-3	Hg Pb	4,1 580	2,5
PJ 1-19	Sector 5. Soil near the 9 batteries. Contaminated depth: 15 cm.	0-5	C_{10}-C_{50}	**310 000**	4
PJ 1-20	Sector 6. Soil under 9 lubricant pails. Contaminated depth: 15 cm.	0-5	C_{10}-C_{50}	**220 000**	9
PJ 1-21	Sector 7. Soil in a pond.	0-5	C_{10}-C_{50}	**4000**	25
PJ 1-22	Sector 8. In the dump under 2 batteries, 20 m apart from a lake, near a wood platform.	0-5	Hg Pb	< 0,02 640	2,5
PJ 1-23	Sector 9. Contaminated soil on the lakeshore near 5 drums.	0-5	C_{10}-C_{50}	750	35
Total area					**115**
Water					
PJ 1-1A	Sector 1: Surface water of the pond, close to the shore.	N/A	C_{10}-C_{50}	130	-
PJ 1-1B	Sector 1: Surface water of the pond, close to the shore. Duplicata of PJ 1-1A	N/A	C_{10}-C_{50}	110	
PJ 1-8A	Sector 4. Surface water of a creek close to the mine tailings. Iridescence at the surface of water..	N/A	C_{10}-C_{50}	140	-
PJ 1-8B	Sector 4. Duplicata of PJ 1-8A.	N/A	C_{10}-C_{50}	240	-
PJ1-18A	Sector 5. Surface water of Pio Lake, near the shore.	N/A	C_{10}-C_{50}	160	
PJ1-18B	Duplicata of PJ-1-18A.	N/A	C_{10}-C_{50}	110	

MENV criteria :

Soil C_{10}-C_{50} (mg/kg)	Surface water C_{10}-C_{50} (µ g/L)	Soil Hg (mg/kg)	Soil Pb (mg/kg)	Soil PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	**3500**	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

ABANDONED MINING EXPLORATION SITES/SITES ABANDONNÉS D'EXPLORATION MINIÈRE

INVENTORY FORM/FICHE D'INVENTAIRE - 2001

Site N° TQ-1 **Map/Carte N°:** 24 F/13 E **Latitude** 57 ° 57.68' N **Longitude** 69 ° 40.16' W

Region/Région: Kuujjuaq/Tasiujaq **Informant/Informateur** Sandy Gordon

Date: 19 Oct 2001 **By/Par:** JB, LO, ST **Priority/Prioritaire** ☐ **Hasard** ☒ **Other:**

Nb sectors/secteurs: 1 **Sector/Secteur N°:** 1 **Size/Dimension:** 40 m X 40 m

Distance from surface water/Distance de l'eau de surface: <5 m **Soil/Sol:** **Drainage:**

Buildings and dwellings/Bâtiments et habitations

Nb: Buildings/Bâtiments: 8 Dwellings: State/Condition: Quite good/Assez bonne

Description (material/matériaux + volume): Site seems still in use/Le site semble encore utilisé

Barrels, Tanks and Bottles/Barils, réservoirs et bouteilles

Nb barrels/barils (1 barrel/baril=205 litres):

TOTAL: 0 empty/vides: full/pleins: residue/residus: piled/empilés: scattered/épars:

Quantity/Quantité ☐ diesel: L ☐ oil/huile: L ☐ grease/graisse: L ☐ : L

Distance from a sensitive area/d'un milieu sensible: m Type of area/de milieu:

Nb tanks/réservoirs:

TOTAL: 25 empty/vides: full/pleins: residue/residus: >5

Quantity/Quantité ☐ diesel: L ☐ Jet-B: L ☐ fuel ? : >100 L ☐ : L

Distance from a sensitive area/d'un milieu sensible: <2 m Type of area/de milieu: Lake/Lac

Nb bottles or other containers/Bouteilles ou autres contenants:

TOTAL: 1 empty/vides: full/pleins: 1 residue/residus: state/état:

Content + quantity/Contenu + quantité: Gasoline : 20 L : L : L

Nb propane tanks/Bonbonnes de propane:

TOTAL: 6 empty/vides: full/pleins: residue/residus: state/état:

Batteries and Transformers/Batteries et transformateurs

Nb batteries/batteries: 1 Condition: good ***Nb transformers/transformateurs:*** Condition:

Machinery and Equipment/Machinerie et équipement

Nb: Buldozer: Tractor/tracteur: Truck/Camion: Muskeg: Ski-doo : 1

Conveyor/Convoyeur: Crusher/Concasseur: Generator/Génératrice: :

Solid Waste and Dry material/Matériaux secs

Core trays/Plateau à carottes (Nb + Volume): Wood: ; m^3 Al: ; m^3 Plastic ; m^3

Rods/Tuyaux (Nb + Volume): ; m^3 Cables/Câbles: ; m^3

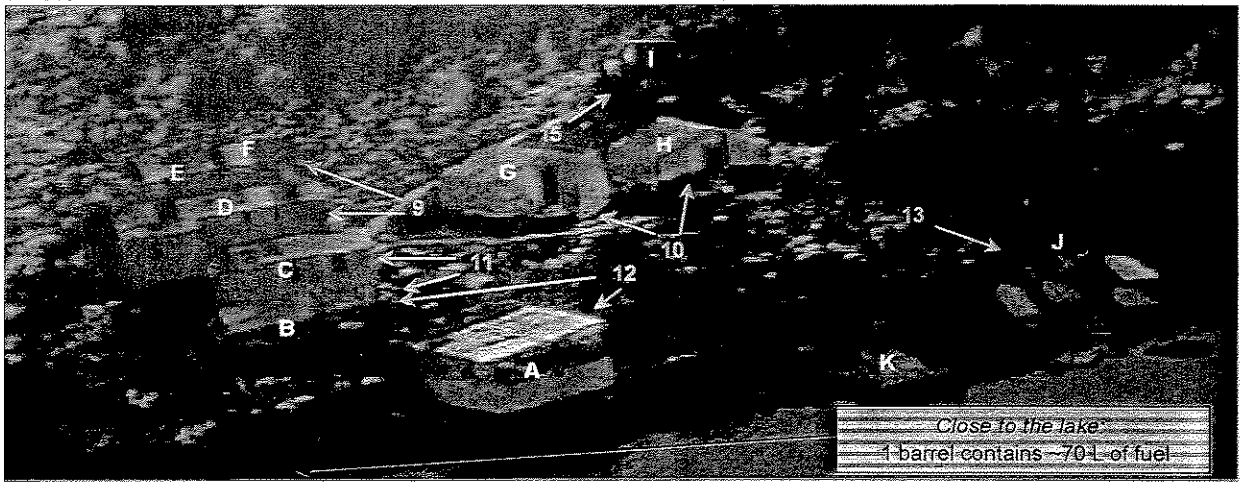
Wood/Bois: m^3 Metal/Métal: m^3

Other/Autre:

It seems that the site is an outfitting camp named "Safari Nordik - Camp Gérido"/Ce site semble être une pourvoirie nommée "Safari Nordik - Camp Gérido".

The site does not seem to be very well maintained: debris all over the place/Le site est plutôt mal entretenu: débris partout

Photo 16 General view of site TQ-1



Legend: Letters indicate the buildings (A to I) or specific areas (J and K)
Numbers refer to Photo N°, and arrows indicates the direction of the view

Photo 12 Buildings A and B



A: Looks like a shelter for having meals
Outside : 3 barrels, pipes

Photo 11 Buildings B and C



B: Shed of wood and canvas, containing: debris, 1 outboard motor, 1 battery, plastic containers, one with 20 L gas, styrofoam, 1 wood shelf

C: 1 camp containing: 1 small furnace, 1 wood bed, rubber pipes.

Outside : 2 barrels with fuel, 4 propane tanks, 1 tire

Photo 9 Buildings D, E, and F

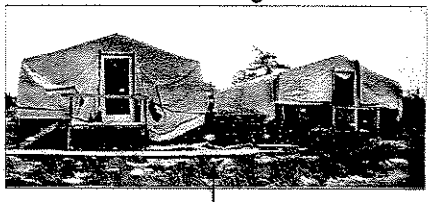


D: Kitchen containing: 2 stoves, 1 freezer, 1 counter, shelves, plastic chairs, tables, dishes.
Outside : 1 freezer, 2 propane tanks, 1 trailer, 2 barrels with fuel

E: 1 camp containing: 1 furnace, 3 wood beds, plastic chairs and table, wood shelves

F: 1 camp containing 4 metal beds, foam matresses, plastic chairs, 1 furnace, 1 fire extinguisher

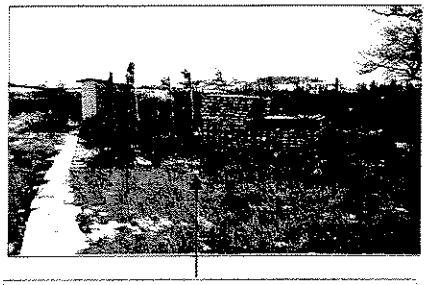
Photo 10 Buildings G and H



G and H: Buildings of wood and canvas. Each one contains 1 furnace, wood beds, plastic chairs.

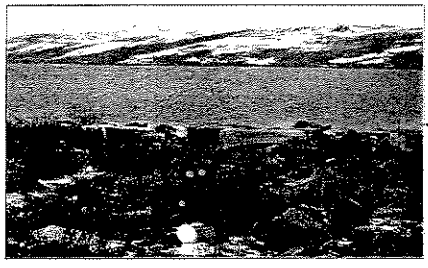
Outside :
Core trays (6m^3), 4 drums with fuel

Photo 15 Outhouse area



1 outhouse, core trays (9m^3),
1 ski-doo, ~10 barrels

Photo 13 Launch area



Area with 3 launches
1 wood dock,
5 or more barrels,
scattered debris

TQ-1 (VP-3, P 24F13-6)

Abandoned mining site transformed in an active hunting camp. Located 10 m apart from Gerido Lake.

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Conta-minated area (m^2)
Soil					
TQ 1-1	Soil under a diesel drum, close to a camp.	0-5	C_{10}-C_{50}	**24 000**	1
TQ 1-2	Soil under a diesel drum, close to a camp	0-3	C_{10}-C_{50}	460	-
TQ 1-3	Soil under a diesel drum, close to a camp.	0-3	C_{10}-C_{50}	**44 000**	1
Total area					**2**

MENV criteria :

Soil C_{10}-C_{50} (mg/kg)	Surface water C_{10}-C_{50} (µ g/L)	Soil Hg (mg/kg)	Soil Pb (mg/kg)	Soil PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	3500	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

ABANDONED MINING EXPLORATION SITES/SITES ABANDONNÉS D'EXPLORATION MINIÈRE

INVENTORY FORM/FICHE D'INVENTAIRE - 2001

Site N° TQ-4 **Map/Carte N°:** 24 L/08 **Latitude** 58 ° 15.23' N **Longitude** 70 ° 07.20' W

Region/Région: Kuujjuaq/Tasiujaq **Informant/Informateur** Sandy Berthe/Sandy Gordon

Date: 20 Oct 2001 **By/Par:** JB, LO **Priority/Prioritaire** [X] **Hasard** [ ] **Other:**

Nb sectors/secteurs: 3 **Sector/Secteur N°:** 1-3 **Size/Dimension:** S1: 100 m X 150 m

Distance from surface water/Distance de l'eau de surface: 0 m **Soil/Sol:** **Drainage:**

Buildings and dwellings/Bâtiments et habitations

Nb: Buildings/Bâtiments: 2 Dwellings: State/Condition: Quite dirty/Assez malpropre

Description (material/matériaux + volume): Wood, fiberglass, aluminium, styrofoam/Bois, laine minérale/~10 m^3

Barrels, Tanks and Bottles/Barils, réservoirs et bouteilles

Nb barrels/barils (1 barrel/baril=205 litres):

TOTAL: 153 empty/vides: 153 full/pleins: residue/residus: 3 piled/empilés: scattered/épars:

Quantity/Quantité [X] diesel: 150 L [ ] oil/huile: L [ ] grease/graisse: L [ ] : L

Distance from a sensitive area/d'un milieu sensible: 50 m Type of area/de milieu: Lake/Lac

Nb tanks/réservoirs:

TOTAL: empty/vides: full/pleins: residue/residus:

Quantity/Quantité [ ] diesel: L [ ] Jet-B: L [ ] : L [ ] : L

Distance from a sensitive area/d'un milieu sensible: m Type of area/de milieu:

Nb bottles or other containers/Bouteilles ou autres contenants:

TOTAL: 3 empty/vides: full/pleins: 3 residue/residus: state/état: Very good/Très bonne

Content + quantity/Contenu + quantité: Gasoline : 60 L : L : L

Nb propane tanks/Bonbonnes de propane:

TOTAL: 8 empty/vides: full/pleins: residue/residus: state/état:

Batteries and Transformers/Batteries et transformateurs

Nb batteries/batteries: Condition: ***Nb transformers/transformateurs:*** Condition:

Machinery and Equipment/Machinerie et équipement

Nb: Buldozer: Tractor/tracteur: Truck/Camion: Muskeg: Ski-doo : 1

Conveyor/Convoyeur: Crusher/Concasseur: Generator/Génératrice: New ice drill : 1

Solid Waste and Dry material/Matériaux secs

Core trays/Plateau à carottes (Nb + Volume): Wood: ; m^3 Al: ; m^3 Plastic ; m^3

Rods/Tuyaux (Nb + Volume): ~50 ; 1 m^3 Cables/Câbles: ; m^3

Wood/Bois: 12 m^3 Metal/Métal: m^3 Other/Autre: 5-10 m^3 (fiberglass, foam, tin, ...)

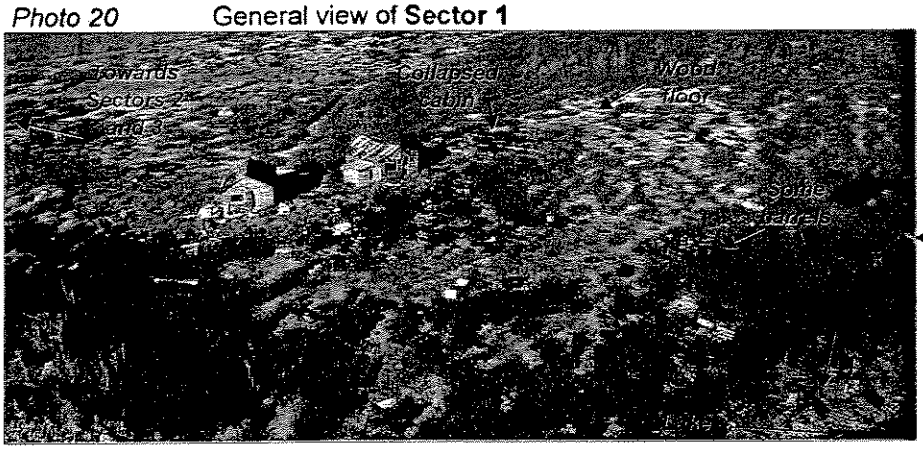
Other/Autre: 1 log cabin collapsed; 1 wood platform/1 cabane en bois rond effondrée; 1 plate-forme de bois (volume included above; volume inclus ci-haut). *Lot of debris scattered*: carpet, styrofoam, 1 plastic tank, insulating Al sheet, core trays, fiberglass, 1 furnace, plywood/*Beaucoup de débris épars*: tapis, styrofoam, 1 réservoir de plastique,isolant en Al, plateau à carottes, laine minérale, 1 fournaise, contreplaqué.

According to the informant, Mario Carreau uses that camp from Tasiujaq/Mario carreau utiliserait ce camp à partir de Tasiujaq.

Sector 2: dikes form two previous "bladders" (rubber reservoirs). ~100 barrels (3 with diesel), few cans, 1 plywood sheet.

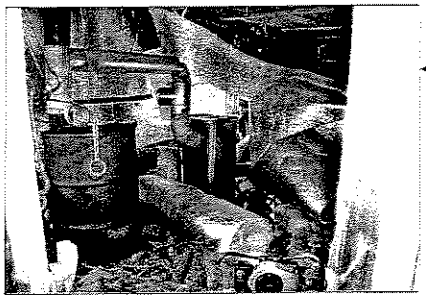
Sector 3: includes 15 barrels. Presence of caribou and goose droppings. Total area of Sectors 2 and 3 is about 50m x 100 m.

Photo 20 General view of **Sector 1**



2 cabins and 1collapsed log cabin,
1 wood floor
Scattered debris:
1 rolled carpet, Al insulating sheet, tar paper,
1 metal tripod, Al core trays,
~50 pipes, bottles, cans, styrofoam,
insulating foam, ~plywood sheets,
1 collapsing outhouse, 1 sink,
1 plastic tank, 8 propane tanks, 1 furnace,
fiberglass, furnace debris,
24 grouped barrels,
~7 or more scattered barrels,
2 barrels along the shore

Photo 25 Inside of Cabin 1



1 brand new ice drill,
1 furnace, 1 barrel, traps,
Al insulating sheets, various debris

Al cores (cover walls), fiberglass,
3 x 20-L gas containers full of gas,
traps, 1 Coleman stove, debris of
insulating foam (rust color)

Photo 28 Inside of Cabin 2

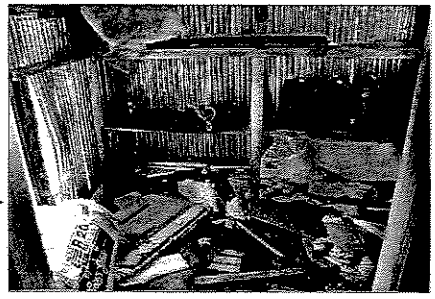


Photo 32



Aluminium insultating sheet
on the ground

Sector 2:
Ditches of 2 previous
rubber tanks ("bladders";
"circle" areas of the ditches
are about
6m x 15m and 6m x 20m),
plywood, few cans.
~100 barrels,
3 barrels contain diesel (150 L)

Total area is about 50m x 100m,
including Sector 3

Photo 22 General view of **Sector 2**



Sector 3 (not shown): 15 barrels near shore,
caribou and Canada goose droppings
Sector 3 is about 30m from Sector 2

TQ-4 (VP-2)

Sector 1: Camps 40 m apart from Garigue Lake.

Sector 2: Group of 99 diesel drums 50 m from Garigue Lake.

Sector 3: Group of 15 drums, 1 m apart of Garigue Lake.

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Contaminated area (m^2)
Soil					
TQ 4-1	Sector 1. Soil under the group of drums.	0-5	C_{10}-C_{50}	< 200	-
TQ 4-2	Sector 2. Soil under the group of piled drums.	0-5	C_{10}-C_{50}	< 100	-
TQ 4-3	Sector 2. Soil in the foundation of the bladders.	0-5	C_{10}-C_{50}	< 100	-
TQ 4-4	Sector 2. Soil in the foundation of the bladders.	0-5	C_{10}-C_{50}	< 100	
TQ 4-5	Sector 2. Soil in the foundation of the bladders.	0-5	C_{10}-C_{50}	< 100	-
TQ 4-6	Sector 3. Soil under the group of drums.	0-5	C_{10}-C_{50}	< 400	-
TQ 4-7	Sector 2. Soil under the group of piled drums.	0-5	C_{10}-C_{50}	< 200	-
Total area					**0**

MENV criteria :

Soil C_{10}-C_{50} (mg/kg)	Surface water C_{10}-C_{50} (µg/L)	Soil Hg (mg/kg)	Soil Pb (mg/kg)	Soil PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	**3500**	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

SECTOR OF AUPALUK

PJ-10

PJ-17

ABANDONED MINING EXPLORATION SITES/SITES ABANDONNÉS D'EXPLORATION MINIÈRE

INVENTORY FORM/FICHE D'INVENTAIRE - 2001

Site N° PJ-10 **Map/Carte N°:** 24 M/01 **Latitude** 59 ° 15.07' N **Longitude** 70 ° 06.52' W

Region/Région: Aupaluk **Informant/Informateur** John Appahatak

Date: 20 July 2001 **By/Par:** JB, LO, ST **Priority/Prioritaire** [X] **Hasard** [ ] **Other:**

Nb sectors/secteurs: 2 **Sector/Secteur N°:** 1-2 **Size/Dimension:** 400 m X 150 m

Distance from surface water/Distance de l'eau de surface: <5 m **Soil/Sol:** **Drainage:**

Buildings and dwellings/Bâtiments et habitations

Nb: Buildings/Bâtiments: Dwellings: State/Condition: Platforms and debris

Description (material/matériaux + volume): See description above + page 2/Voir description ci-dessous + page 2

Barrels, Tanks and Bottles/Barils, réservoirs et bouteilles

Nb barrels/barils (1 barrel/baril=205 litres):

TOTAL: 62 empty/vides: 28 full/pleins: residue/residus: 34 piled/empilés: scattered/épars: X

Quantity/Quantité [X] diesel: 1400 L [ ] oil/huile: L [ ] grease/graisse: L [ ] : L

Distance from a sensitive area/d'un milieu sensible: 10 m Type of area/de milieu: Lake/Lac

Nb tanks/réservoirs:

TOTAL: 1 empty/vides: 1 full/pleins: residue/residus:

Quantity/Quantité [ ] diesel: L [ ] Jet-B: L [ ] : L [ ] : L

Distance from a sensitive area/d'un milieu sensible: m Type of area/de milieu:

Nb bottles or other containers/Bouteilles ou autres contenants:

TOTAL: 9 empty/vides: full/pleins: 9 residue/residus: state/état:

Content + quantity/Contenu + quantité: Grease?/Graisse ?: 2 x 20 L Motor oil/Huile : 7 x 40 L

Nb propane tanks/Bonbonnes de propane:

TOTAL: 15 empty/vides: 10 full/pleins: residue/residus: 5 state/état:

Batteries and Transformers/Batteries et transformateurs

Nb batteries/batteries: 1 Condition: ***Nb transformers/transformateurs:*** 0 Condition:

Machinery and Equipment/Machinerie et équipement

Nb: Buldozer: Tractor/tracteur: Truck/Camion: Muskeg: :

Conveyor/Convoyeur: Crusher/Concasseur: Generator/Génératrice: :

Solid Waste and Dry material/Matériaux secs

Core trays/Plateau à carottes (Nb + Volume): Wood: ; m^3 Al: ; 2-5 m^3 Plastic ; m^3

Rods/Tuyaux (Nb + Volume): ~200 ; 2-3 m^3 Cables/Câbles: ; ~1 m^3

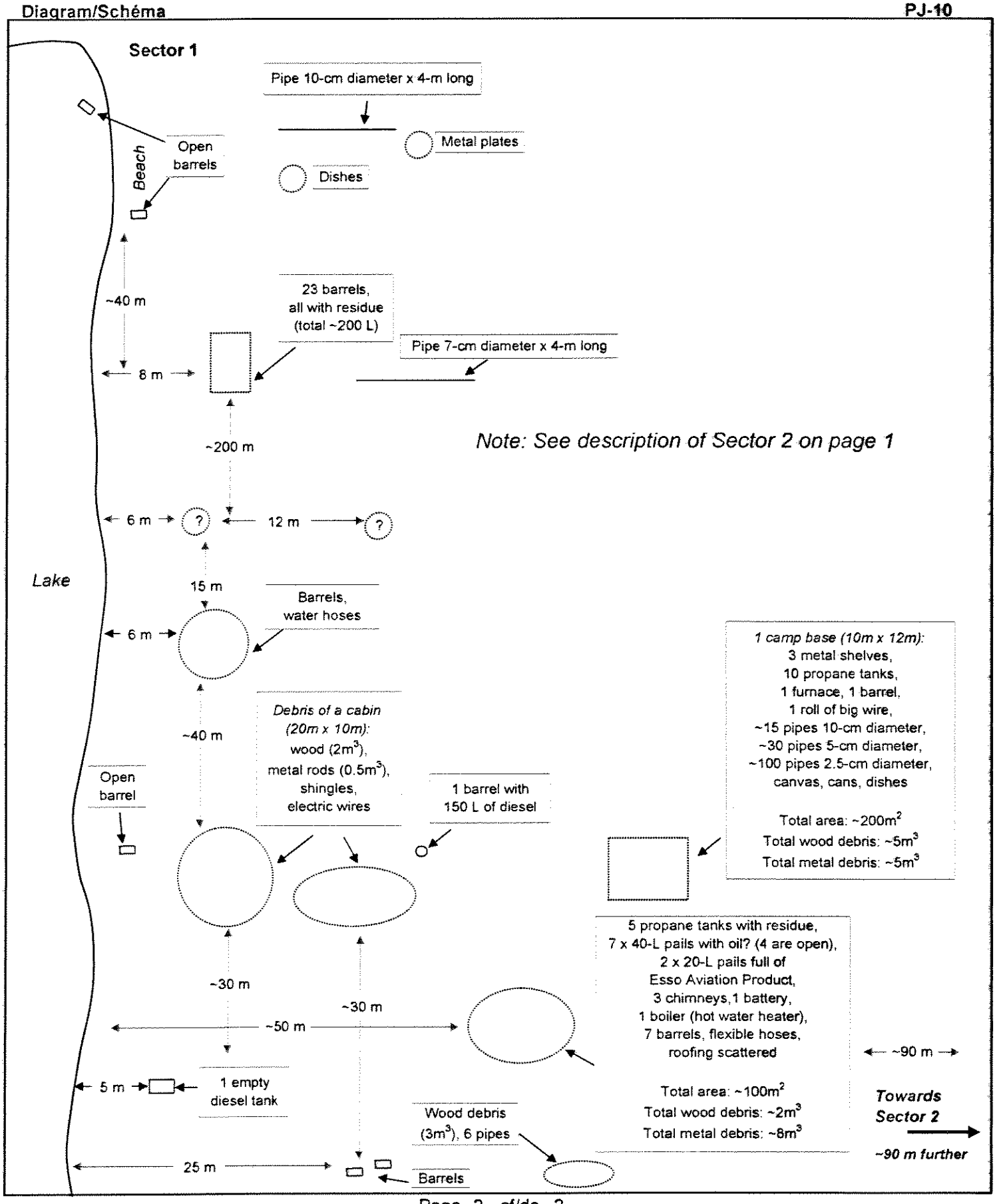
Wood/Bois: 20-50 m^3 Metal/Métal: 12-30 m^3

Other/Autre: Aforementioned estimates include Sectors 1 and 2/Les estimations ci-dessus incluent les secteurs 1 et 2

Sector 1: see description on page 2/Secteur 1: voir description à la page 2

Sector 2: 1 area of 100m^2 with wood pallets (core trays?), Al core trays (wood debris: 5m^3; metal debris: 5m^3);
1 area of 100m^2 with wood debris of a cabin (2m^3) and metal debris (3m^3): roofing, 1 furnace, windows;
1 area 4m x 5m with 10 barrels; 1 area with 15 barrels (9 full (or half full ?) of diesel, 1 with 150 L).

Note: Along the shore 1 mile West: 1 tin building.


Sector 1
Pipe 10-cm diameter x 4-m long
Metal plates
Dishes
Open barrels
Beach
~40 m
23 barrels, all with residue (total ~200 L)
Pipe 7-cm diameter x 4-m long
8 m
~200 m
Note: See description of Sector 2 on page 1
6 m
?
12 m
?
Lake
15 m
Barrels, water hoses
6 m
~40 m
Debris of a cabin (20m x 10m): wood (2m3), metal rods (0.5m3), shingles, electric wires
1 barrel with 150 L of diesel
Open barrel
1 camp base (10m x 12m): 3 metal shelves, 10 propane tanks, 1 furnace, 1 barrel, 1 roll of big wire, ~15 pipes 10-cm diameter, ~30 pipes 5-cm diameter, ~100 pipes 2.5-cm diameter, canvas, cans, dishes
Total area: ~200m2
Total wood debris: ~5m3
Total metal debris: ~5m3
~30 m
~30 m
~50 m
5 propane tanks with residue, 7 x 40-L pails with oil? (4 are open), 2 x 20-L pails full of Esso Aviation Product, 3 chimneys,1 battery, 1 boiler (hot water heater), 7 barrels, flexible hoses, roofing scattered
~90 m
5 m
1 empty diesel tank
Total area: ~100m2
Total wood debris: ~2m3
Total metal debris: ~8m3
Towards Sector 2
~90 m further
Wood debris (3m3), 6 pipes
25 m
Barrels

PJ-10

Sector 1: 50 m apart from Ford lake.

Sector 2: Lot of 15 drums 500 m. apart from the lake.

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Contaminated area (m^2)
Soil					
PJ 10-1	Sector 1. Contaminated soil in a lot of drums.	0-5	C_{10}-C_{50}	**360 000**	1
PJ 10-2	Sector 1. 3 m apart from PJ-10-1, closer to the lake.	0-5	C_{10}-C_{50}	**8000**	
PJ 10-3	Sector 2. Contaminated soil in the lot of drums. Contaminated depth: 15 cm.	0-5	C_{10}-C_{50}	**130 000**	19
PJ 10-4	Sector 2. Under PJ-10-3.	5-15	C_{10}-C_{50}.	**65 000**	
PJ 10-5	Sector 2. Contaminated soil in the lot of drums.	0-5	C_{10}-C_{50}.	**270 000**	
PJ 10-6	Under PJ-10-5.	5-15	C_{10}-C_{50}	**160 000**	
PJ 10-7	Sector 2. Contaminated soil in the lot of drums.	0-10	C_{10}-C_{50}	**440 000**	
PJ 10-8	Sector 2. Contaminated soil in the lot of drums.	0-10	C_{10}-C_{50}.	**150 000**	
Total area					**20**
Water					
PJ 10-9	Sector 2. Surface water of Lake Ford near the shore, downstream of PJ-10-1.	N/A	C_{10}-C_{50}	190	
PJ 10-10	Sector 2. Surface water of Lake Ford near the shore, east of PJ-10-9.	N/A	C_{10}-C_{50}	240	

MENV criteria :

Soil C_{10}-C_{50} (mg/kg)	Surface water C_{10}-C_{50} (µg/L)	Soil Hg (mg/kg)	Soil Pb (mg/kg)	Soil PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	**3500**	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

ABANDONED MINING EXPLORATION SITES/SITES ABANDONNÉS D'EXPLORATION MINIÈRE

INVENTORY FORM/FICHE D'INVENTAIRE - 2001

Site N° PJ-17 **Map/Carte N°:** 24 N/05 **Latitude** 59 ° 20.29' N **Longitude** 69 ° 45.93' W

Region/Région: Aupaluk **Informant/Informateur** John Appahatak

Date: 20-21 Jul 2001 **By/Par:** JB, LO, ST **Priority/Prioritaire** [X] **Hasard** [ ] **Other:**

Nb sectors/secteurs: 3 **Sector/Secteur N°:** 1-3 **Size/Dimension:** 1500 m X 100 m

Distance from surface water/Distance de l'eau de surface: 100 m **Soil/Sol:** Sand/Sable **Drainage:** Good/Bon

Buildings and dwellings/Bâtiments et habitations

Nb: Buildings/Bâtiments: 1 Dwellings: _____ State/Condition: Quite good/Assez bonne

Description (material/matériaux + volume): Not estimated, maybe >10-15m^3/Pas estimé: peut-être >10-15m^3

Barrels, Tanks and Bottles/Barils, réservoirs et bouteilles

Nb barrels/barils (1 barrel/baril=205 litres):

TOTAL: 285 empty/vides: 270 full/pleins: _____ residue/residus: >15 piled/empilés: _____ scattered/épars: X

Quantity/Quantité [X] diesel: >500 L [ ] oil/huile: _____ L [ ] grease/graisse: _____ L [ ] _____ : _____ L

Distance from a sensitive area/d'un milieu sensible: _____ m Type of area/de milieu: _____

Nb tanks/réservoirs:

TOTAL: 0 empty/vides: _____ full/pleins: _____ residue/residus: _____

Quantity/Quantité [ ] diesel: _____ [ ] Jet-B: _____ L [ ] _____ : _____ L [ ] _____ : _____ L

Distance from a sensitive area/d'un milieu sensible: ~100 m Type of area/de milieu: Lake/Lac

Nb bottles or other containers/Bouteilles ou autres contenants:

TOTAL: 1 empty/vides: _____ full/pleins: 1 residue/residus: _____ state/état: _____

Content + quantity/Contenu + quantité: Grease/Graisse: ~100 L _____ : L _____ : L

Nb propane tanks/Bonbonnes de propane:

TOTAL: 40 empty/vides: 27 full/pleins: _____ residue/residus: 13 state/état: _____

Batteries and Transformers/Batteries et transformateurs

Nb batteries/batteries: 5 Condition: 2 broken ***Nb transformers/transformateurs:*** 1 Condition: _____

Machinery and Equipment/Machinerie et équipement

Nb: Buldozer: _____ Tractor/tracteur: _____ Truck/Camion: 1 Muskeg: _____ Motors/Moteur : 9

Conveyor/Convoyeur: _____ Crusher/Concasseur: _____ Generator/Génératrice: _____ Runway roller : 1

Solid Waste and Dry material/Matériaux secs

Core trays/Plateau à carottes (Nb + Volume): Wood: _____ ; _____ m^3 Al: _____ ; _____ m^3 Plastic _____ ; _____ m^3

Rods/Tuyaux (Nb + Volume): _____ ; 1-2 m^3 Cables/Câbles: _____ ; 1-3 m^3

Wood/Bois: 10-15 m^3 Metal/Métal: 20-30 m^3 Other/Autre: ~10 m^3

Other/Autre: **Sector 1**: see page 2/**Secteur 1**: voir page 2 *The site has been partially cleaned by the village.*

Sector 2: 58 barrels for sampling (there are rocks inside), scattered barrels; at ~50m of a wetland.

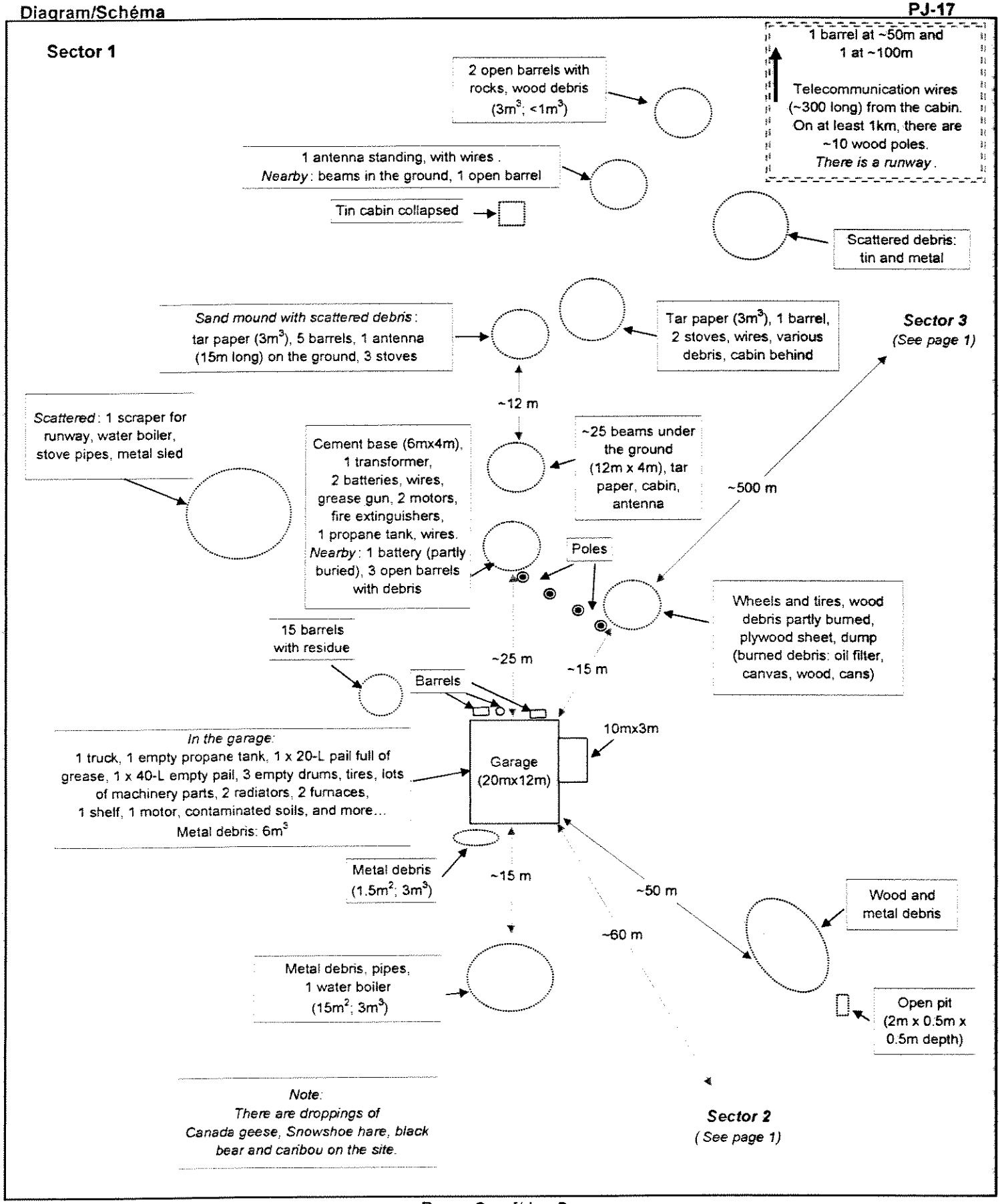
Sector 3: 1 metal sled, 1 battery, cans, dump, 5 motors, barrels, metal debris (6m^2, 4m^3);

scattered: muskeg caterpillars, 1 motor, 1 crushed container for gasoline, metal debris (2m^3).

Also, about 100m from a lake: 212 barrels with 150 L residue, 40 propane tanks: 13 with residue, some are for welding.

Note: the description might be incomplete (problems with photos taken as a reference)... *Missing data*: inside of the garage.

*[**Site PJ-17 A**: 64 empty drums on the shore of the bay (Hope Advance Bay), on rocks (59° 20.54' N; 69° 43.81' W)]*


Sector 1
2 open barrels with rocks, wood debris (3m³; <1m³)
1 barrel at ~50m and 1 at ~100m
Telecommunication wires (~300 long) from the cabin. On at least 1km, there are ~10 wood poles. There is a runway.
1 antenna standing, with wires. Nearby: beams in the ground, 1 open barrel
Tin cabin collapsed
Scattered debris: tin and metal
Sand mound with scattered debris: tar paper (3m³), 5 barrels, 1 antenna (15m long) on the ground, 3 stoves
Tar paper (3m³), 1 barrel, 2 stoves, wires, various debris, cabin behind
Sector 3
(See page 1)
~12 m
Scattered: 1 scraper for runway, water boiler, stove pipes, metal sled
Cement base (6mx4m), 1 transformer, 2 batteries, wires, grease gun, 2 motors, fire extinguishers, 1 propane tank, wires. Nearby: 1 battery (partly buried), 3 open barrels with debris
~25 beams under the ground (12m x 4m), tar paper, cabin, antenna
~500 m
Poles
Wheels and tires, wood debris partly burned, plywood sheet, dump (burned debris: oil filter, canvas, wood, cans)
15 barrels with residue
~25 m
~15 m
Barrels
10mx3m
In the garage:
1 truck, 1 empty propane tank, 1 x 20-L pail full of grease, 1 x 40-L empty pail, 3 empty drums, tires, lots of machinery parts, 2 radiators, 2 furnaces, 1 shelf, 1 motor, contaminated soils, and more...
Metal debris: 6m³
Garage (20mx12m)
Metal debris (1.5m²; 3m³)
~15 m
~50 m
~60 m
Wood and metal debris
Metal debris, pipes, 1 water boiler (15m²; 3m³)
Open pit (2m x 0.5m x 0.5m depth)
Note:
There are droppings of Canada geese, Snowshoe hare, black bear and caribou on the site.
Sector 2
(See page 1)

PJ-17

Sector 1: Coord: 59° 20.29' N 69° 45.93' W.
Sector 2: Coord: 59° 20.27' N 69° 45.95' W.
Sector 3: Coord: 59° 20.27' N 69° 45.60' W.

Number	Sample	Depth (cm)	Parame-ters	Analytical results (mg/kg)	Conta-minated area (m^2)
Soil					
PJ 17-1	Sector 1. Behind the building, ≈ 15 drums with residue. 1 km apart from Hope Advance Bay. Soil sampled on the southern side of the lot of drums. more than 30 cm deep in the sandy soil.	0-5	C_{10}-C_{50}	**26 000**	16
PJ 17-2	Soil sampled under PJ17-1.	5-15	C_{10}-C_{50}	**39 000**	
PJ 17-3	Sector 1. Soil sampled on the northern side of the lot of drums.	0-5	C_{10}-C_{50}	**74 000**	
PJ 17-4	Sector 1. Soil sampled under PJ-17-3.	5-15	C_{10}-C_{50}	**21 000**	
PJ 17-5	Sector 2. Between the building and Hope Advance Bay. ≈ 55 drums, 700 m apart from the Bay: Soil sampled near the lot of drums.	0-5	C_{10}-C_{50}	< 100	
PJ 17-6	Sector 2. Soil sampled under PJ-17-5.	5-15	C_{10}-C_{50}	< 100	
PJ 17-7	Sector 3. 500 m apart from the Bay. Soil sampled near the lot of drums.	0-5	C_{10}-C_{50}	< 100	
PJ 17-8	Soil of the building.	0-5	C_{10}-C_{50} Hg Pb	**66 000** 0,02 160	108
PJ 17-9	Soil under a battery close to the building.	0-3	Hg Pb	< 0,02 **2000**	1
PJ 17-10	Soil under the transformer close to the building.	0-5	PCBs	< 0,05	
PJ 17-11	Soil under a battery on the border of sector 3.	0-5	Hg Pb	< 0,02 180	
PJ 17-12	Sector 3. Soil under motor parts, filters and a battery.	0-5	Hg Pb	< 0,02 83	
PJ 17-13	Sector 3. Soil under motor parts, filters and a battery.	0-5	C_{10}-C_{50}	2600	
Total					**125**

MENV criteria :

Soil C_{10}-C_{50} (mg/kg)	Surface water C_{10}-C_{50} (µ g/L)	Soil Hg (mg/kg)	Soil Pb (mg/kg)	Soil PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	**3500**	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

SECTOR OF KANGIRSUK

TW

ABANDONED MINING EXPLORATION SITES/SITES ABANDONNÉS D'EXPLORATION MINIÈRE

INVENTORY FORM/FICHE D'INVENTAIRE - 2001

Site N° TW **Map/Carte N°:** 25 C/05 W **Latitude** 60 ° 05.45' N **Longitude** 69 ° 55.48' W

Region/Région: Kangirsuk **Informant/Informateur** None

Date: 22 Jul 2001 **By/Par:** JB, LO, ST **Priority/Prioritaire** ☐ **Hasard** ☐ **Other:** Addition

Nb sectors/secteurs: 1 **Sector/Secteur N°:** 1 **Size/Dimension:** 100 m X 100 m

Distance from surface water/Distance de l'eau de surface: <1 m **Soil/Sol:** _____ **Drainage:** Variable

Buildings and dwellings/Bâtiments et habitations

Nb: Buildings/Bâtiments: _____ Dwellings: _____ State/Condition: 2 wood platforms

Description (material/matériaux + volume): (10m x 4m; 5m x 3m)

Barrels, Tanks and Bottles/Barils, réservoirs et bouteilles

Nb barrels/barils (1 barrel/baril=205 litres):

TOTAL: 83 empty/vides: 70 full/pleins: _____ residue/residus: 13 piled/empilés: X scattered/épars: X

Quantity/Quantité ☒ diesel: 1230 L ☐ oil/huile: _____ L ☒ grease/graisse: 100 L ☐ _____ : _____ L

Distance from a sensitive area/d'un milieu sensible: 30 ? m Type of area/de milieu: Lake/Lac

Nb tanks/réservoirs:

TOTAL: 0 empty/vides: _____ full/pleins: _____ residue/residus: _____

Quantity/Quantité ☐ diesel: _____ L ☐ Jet-B: _____ L ☐ _____ : _____ L ☐ _____ : _____ L

Distance from a sensitive area/d'un milieu sensible: _____ m Type of area/de milieu: _____

Nb bottles or other containers/Bouteilles ou autres contenants:

TOTAL: 6 empty/vides: (2) full/pleins: 4 residue/residus: _____ state/état: (2 brown glass bottles broken)

Content + quantity/Contenu + quantité: Fire extinguisher powder: 20 L Grease/Graisse: 2 x 4 L ; 1 x 2 kg

Nb propane tanks/Bonbonnes de propane:

TOTAL: 11 empty/vides: 7 full/pleins: _____ residue/residus: 4 state/état: _____

Batteries and Transformers/Batteries et transformateurs

Nb batteries/batteries: 0 Condition: _____ ***Nb transformers/transformateurs:*** 0 Condition: _____

Machinery and Equipment/Machinerie et équipement

Nb: Buldozer: _____ Tractor/tracteur: _____ Truck/Camion: _____ Muskeg: _____ Pipe threader : 1

Conveyor/Convoyeur: _____ Crusher/Concasseur: _____ Generator/Génératrice: _____ _____ : _____

Solid Waste and Dry material/Matériaux secs

Core trays/Plateau à carottes (Nb + Volume): Wood: _____ ; 10-15 m^3 Al: _____ ; 5-10 m^3 Plastic _____ ; _____ m^3

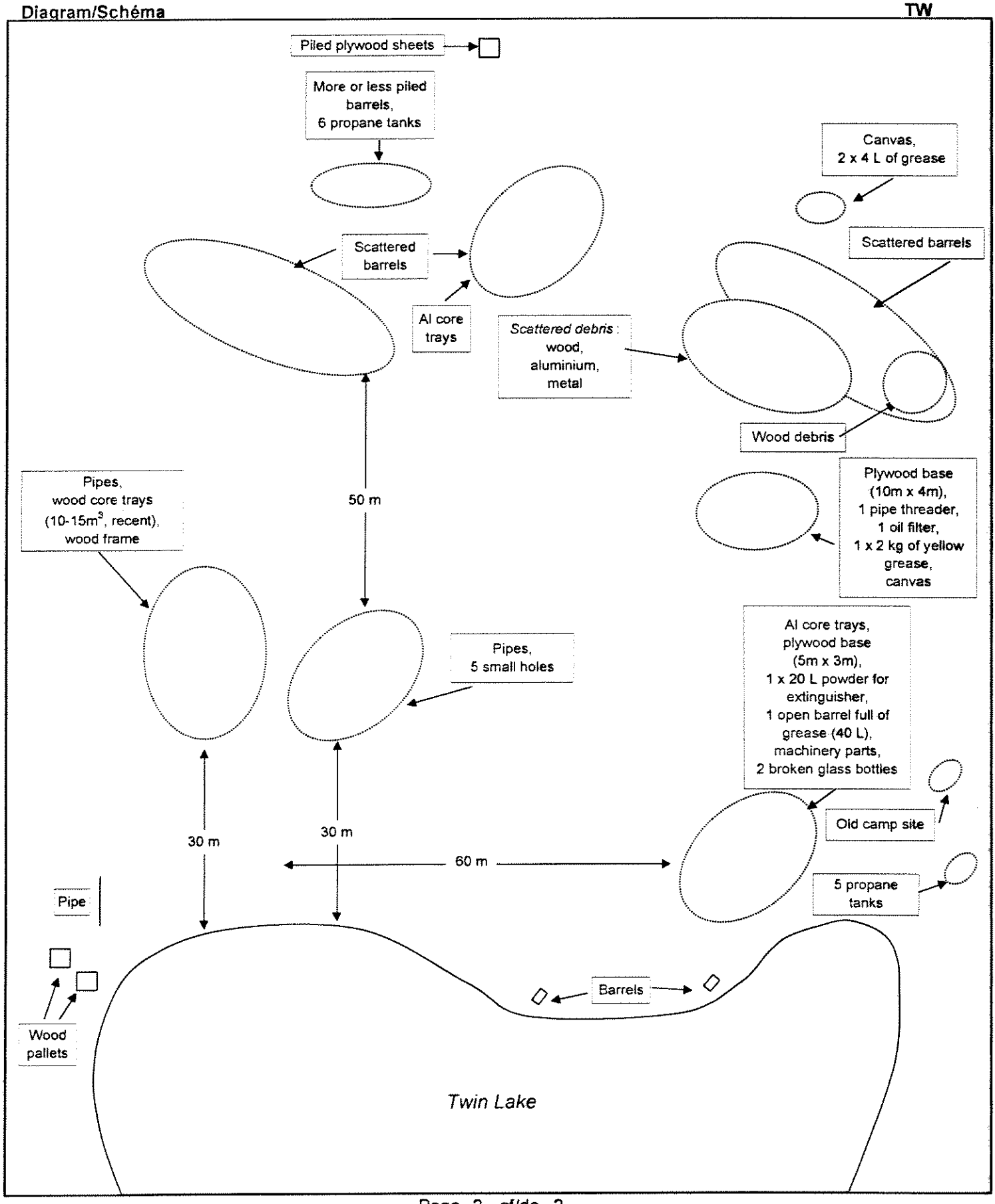
Rods/Tuyaux (Nb + Volume): >10 ; <1 m^3 Cables/Câbles: _____ ; _____ m^3

Wood/Bois: 10-15 m^3 Metal/Métal: 1-5 m^3

Other/Autre:

See page 2 for description/Voir page 2 pour description: plywood sheets, wood and Al core trays, 1 pipe threader, machinery parts, scattered barrels (some with diesel), containers with grease, container with powder for fire extinguisher, wood pallets, canvas / feulles de contreplaqué, plateaux à carottes en bois et en Al, 1 machine à fileter lestuyaux, pièces de machinerie, barils épars (quelques-uns avec diesel), contenants avec graisse, poudre chimique pour extincteur, palettes en bois, toile.

Many caribou droppings on the site/Nombreux crottins de caribous sur le site.


Piled plywood sheets
More or less piled barrels, 6 propane tanks
Canvas, 2 x 4 L of grease
Scattered barrels
Scattered barrels
Al core trays
Scattered debris : wood, aluminium, metal
Wood debris
Plywood base (10m x 4m), 1 pipe threader, 1 oil filter, 1 x 2 kg of yellow grease, canvas
Pipes, wood core trays (10-15m3, recent), wood frame
50 m
Pipes, 5 small holes
Al core trays, plywood base (5m x 3m), 1 x 20 L powder for extinguisher, 1 open barrel full of grease (40 L), machinery parts, 2 broken glass bottles
Old camp site
30 m
30 m
60 m
5 propane tanks
Pipe
Barrels
Wood pallets
Twin Lake

TW (Twin Lake)

Site located near Twin Lake.

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Contaminated area (m^2)
Soil					
TW 1-1	Soil under a plywood sheet, 15 m apart from Twin Lake.	0-5	C_{10}-C_{50}	**28 000**	1
TW 1-2	Soil contaminated with grease under a grease pail, 6 m apart of Twin Lake and 3 m apart of a brook running into Twin Lake.	0-5	C_{10}-C_{50}	**74 000**	1
Total area					**2**
Water					
TW 1-3A	Surface water of the brook which runs into Twin Lake, 3 m apart of a grease pail.	N/A	C_{10}-C_{50}	180	-
TW 1-3B	Duplicata of TW-1-3A.	N/A	C_{10}-C_{50}	120	-

MENV criteria:

Soil C_{10}-C_{50} (mg/kg)	Surface water C_{10}-C_{50} (µ g/L)	Soil Hg (mg/kg)	Soil Pb (mg/kg)	Soil PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	3500	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

UNGAVA TROUGH-
HUDSON BAY

SECTOR OF KANGIQSUJUAQ

K-28

K-61

WB-3

ABANDONED MINING EXPLORATION SITES/SITES ABANDONNÉS D'EXPLORATION MINIÈRE

INVENTORY FORM/FICHE D'INVENTAIRE - 2001

Site N° K-28 **Map/Carte N°:** 35 H/11 E **Latitude** 61 ° 34.65' N **Longitude** 73 ° 14.75' W

Region/Région: Kangiqsujuaq **Informant/Informateur** Amaamak Jaaka

Date: 9 Sept 2001 **By/Par:** JB, LO, ST **Priority/Prioritaire** [X] **Hasard** [ ] **Other:**

Nb sectors/secteurs: 3 **Sector/Secteur N°:** 2 **Size/Dimension:** m X m

Distance from surface water/Distance de l'eau de surface: m **Soil/Sol:** Organic **Drainage:** Very poor

Buildings and dwellings/Bâtiments et habitations

Nb: Buildings/Bâtiments: Dwellings: 1 State/Condition: Tent collapsing/Tente effondrée

Description (material/matériaux + volume): Wood and canvas/Bois et toile; 3m^3

Barrels, Tanks and Bottles/Barils, réservoirs et bouteilles

Nb barrels/barils *(1 barrel/baril=205 litres)* **:**

TOTAL: 60 empty/vides: 50 full/pleins: 10 residue/residus: piled/empilés: scattered/épars: X

Quantity/Quantité [X] diesel: 2000 L [ ] oil/huile: L [ ] grease/graisse: L [ ] : L

Distance from a sensitive area/d'un milieu sensible: m Type of area/de milieu:

Nb tanks/réservoirs:

TOTAL: 2 empty/vides: 2 full/pleins: residue/residus: *Note: they are quite crushed*

Quantity/Quantité [ ] diesel: [ ] Jet-B: L [ ] : L [ ] : L

Distance from a sensitive area/d'un milieu sensible: m Type of area/de milieu:

Nb bottles or other containers/Bouteilles ou autres contenants:

TOTAL: 0 empty/vides: full/pleins: residue/residus: state/état:

Content + quantity/Contenu + quantité: : L : L : L

Nb propane tanks/Bonbonnes de propane:

TOTAL: 9 empty/vides: 3 full/pleins: residue/residus: 6 state/état:

Batteries and Transformers/Batteries et transformateurs

Nb batteries/batteries: 0 Condition: ***Nb transformers/transformateurs:*** 0 Condition:

Machinery and Equipment/Machinerie et équipement

Nb: Buldozer: Tractor/tracteur: Truck/Camion: Muskeg: Motor : 1

Conveyor/Convoyeur: Crusher/Concasseur: Generator/Génératrice: :

Solid Waste and Dry material/Matériaux secs

Core trays/Plateau à carottes (Nb + Volume): Wood: 20 ; ? m^3 Al: ; m^3 Plastic ; m^3

Rods/Tuyaux (Nb + Volume): ~50 ; ? m^3 Cables/Câbles: ; m^3

Wood/Bois: 20-30 m^3 Metal/Métal: 10-20 m^3 Other/Autre: 5 m^3

Other/Autre:

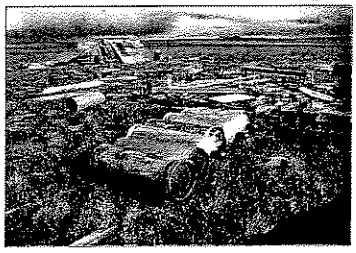
See detail at the back/Voir le détail au verso

Sector 1: *61° 34.91' W; 73° 14.15' N*. 70 drums.

Sector 3: *61° 34.48' W; 73° 15.43' N*. Active tripod. Recent equipment, $CaCl_2$ (de-icing salt), 4 drums of Jet-B.

Sector 2 (located between Sectors 1 and 2):

Photos 188-189



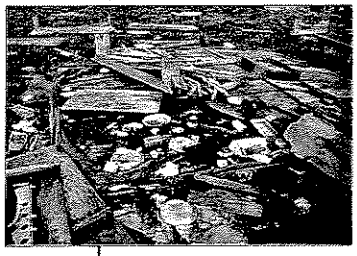


Photo 187

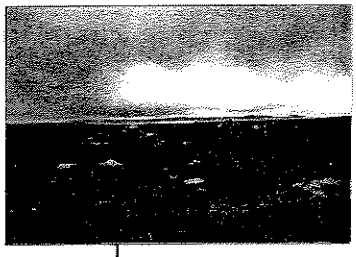


50 m

1 plywood sheet
1 metal chair
1 fire extinguisher
5 wood benches
1 metal bed frame
1 wood base (5m x 5m)
1 wood table
~50 aluminium poles for tents
2 shovels
dishes
food in glass jars
metal anchors
~20 wood core trays
1 double sink
92 scattered drums, 10 containing ~200 L diesel
8 propane tanks, 6 containing residue

1 wood base (5m x 5m) with canvas (tent)
1 motor
1 20-L metal container
1 plywood sheet
2 metal chairs
wood core trays
1 collapsed cabin with canvas
wood debris ($3m^2$)
5 matresses
Flexible hoses for water line 50-m long ($3m^3$)
1 metal bed frame
1 stove
1 stove pipe
1 propane tank

Photo 190



40 scattered drums
2 diesel tanks (each having 1000-L capacity)
4 wood beams 1.25-m long
1 metal pipe
2 tanks (quite crushed)

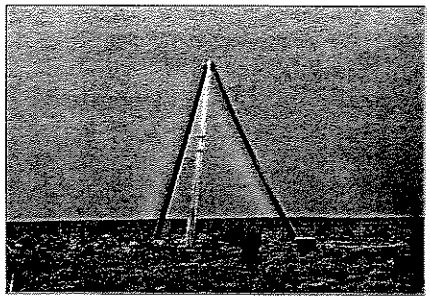
Sector 1 (Photo 186)



Sector 3 (Photos 191 and 192)

Global amount (m^3) of :
- wood debris: 20-30
- metal debris: 10-15
- other: 5





K-28

Sector 1: Coord: 61° 34.91' N 73° 14.15' W

Sector 2: Coord.: 61° 34.65' N. 73° 14.75' W.

Sector 3: Coord: 61° 34.48' N 73° 15.43' W.

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Contaminated area (m^2)
Soil					
K 28 1	Soil near a tent in sector 2.	0-3	C_{10}-C_{50}	350	-
K 28 2	Soil close to a lot of drums in sector 1.	0-3	C_{10}-C_{50}	**140 000**	5
K 28 3	Soil close to empty drums in sector 3.	0-3	C_{10}-C_{50}.	1500	-
K 28 4	Soil close to the pallet in sector 3.	0-5	C_{10}-C_{50}	3000	10
Total area					**15**

MENV criteria :

Soil C_{10}-C_{50} (mg/kg)	Surface water C_{10}-C_{50} (µ g/L)	Soil Hg (mg/kg)	Soil Pb (mg/kg)	Soil PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	**3500**	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

ABANDONED MINING EXPLORATION SITES/SITES ABANDONNÉS D'EXPLORATION MINIÈRE

INVENTORY FORM/FICHE D'INVENTAIRE - 2001

Site N° K-61 **Map/Carte N°:** 35 H/11 W **Latitude** 61 ° 33.25' N **Longitude** 73 ° 27.25' W

Region/Région: Kangiqsujuaq **Informant/Informateur**

Date: 9 Sept 2001 **By/Par:** JB, LO, ST **Priority/Prioritaire** ☐ **Hasard** ☐ **Other:** Seen/Vu

Nb sectors/secteurs: 3 **Sector/Secteur N°:** 1-3 **Size/Dimension:** 500 m X 500 m

Distance from surface water/Distance de l'eau de surface: >500 m **Soil/Sol:** gravel/gravier **Drainage:** good/bon

Buildings and dwellings/Bâtiments et habitations

Nb: Buildings/Bâtiments: 12 Dwellings: ____ State/Condition: 10: quite good/assez bon; 2: collapsed

Description (material/matériaux + volume): *(seem still in use: locks/semblent encore utilisés: cadenas); "Canadian Royalties"*

Barrels, Tanks and Bottles/Barils, réservoirs et bouteilles

***Nb barrels/barils** (1 barrel/baril=205 litres) :*

TOTAL: ~50 empty/vides: ~25 full/pleins: 10 residue/residus: 5 or + piled/empilés: X scattered/épars: X

Quantity/Quantité ☒ diesel: 2000 L ☐ oil/huile: ____ L ☒ grease/graisse: 45 x 20 L ☐ ____ : ____ L

Distance from a sensitive area/d'un milieu sensible: >500 m Type of area/de milieu: ____

Nb tanks/réservoirs:

TOTAL: 1 empty/vides: 1 full/pleins: ____ residue/residus: ____

Quantity/Quantité ☐ diesel: ____ L ☐ Jet-B: ____ L ☐ ____ : ____ L ☐ ____ : ____ L

Distance from a sensitive area/d'un milieu sensible: ____ m Type of area/de milieu: ____

Nb bottles or other containers/Bouteilles ou autres contenants:

TOTAL: 23 empty/vides: ____ full/pleins: 21 residue/residus: 2 *Note: the acid is in one collapsed building*

Content + quantity/Contenu + quantité: Acid/acide: ? L Paint/Peinture: 1 x 4 L Grease/graisse: 20 x 1 L

Nb propane tanks/Bonbonnes de propane: Oil/Huile: 2 L

TOTAL: 34 empty/vides: 18 full/pleins: 16 residue/residus: ____ state/état: ____

Batteries and Transformers/Batteries et transformateurs

Nb batteries/batteries: 5 Condition: ____ ***Nb transformers/transformateurs:*** ____ Condition: ____

Machinery and Equipment/Machinerie et équipement

Nb: Buldozer: ____ Tractor/tracteur: ____ Truck/Camion: ____ Muskeg: 2 Motor/Moteur : 6

Conveyor/Convoyeur: ____ Crusher/Concasseur: ____ Generator/Génératrice: ____ Water heater : 3

Solid Waste and Dry material/Matériaux secs

Core trays/Plateau à carottes (Nb + Volume): Wood: ____ ; ____ m^3 Al: ~70 ; ? m^3 Plastic ____ ; ____ m^3

Rods/Tuyaux (Nb + Volume): >100; 5-10 m^3 Cables/Câbles: ____ ; 2 m^3

Wood/Bois: 50-100 m^3 Metal/Métal: 50-100 m^3

Other/Autre:

Volume of debris had not been estimated since the site seems still in use. Active Site ?/Site actif ?

Note: Hazardous products located in one building had been removed by Gov. of Qc on 8 Aug. 2000/Les produits dangereux situés dans un bâtiment ont été enlevés par le gouv. du Qc le 8 août 2000: Ref: Clément Vallières, MENV Rouyn, 180 boul. Rideau, 1er étage, Rouyn J9X 1N9. Tel.: (819) 763-3333 ext. 257; clement.vallieres@menv.gouv.qc.ca

Sector 2: *61° 33.44' W; 73° 29.40' N.* Empty barrels/Barils vides

Sector 3: *61° 33.34' W; 73° 27.39' N.* Dumsite/Site de déchets

Sector 1

Photo 211

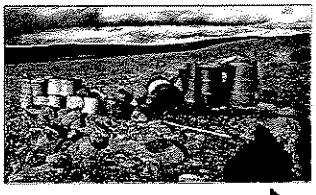


1 40,000-L tank,
15 barrels,
canvas

44 pails full of grease,
10 barrels full of used diesel (2000 L)

Collapsed building with:
shelves,
drilling equipment,
muskeg parts,
acid in a 4-L plastic container ,
2 motors, wires, tires,
20 x 1 L grease
Outside:
wood debris (1m^3), metal
shelves, grease (2 x 5gal.),
bolts (1m^3)

Photo 210



1 Yellow muskeg
2 Ski-doo top
wood beams,
wood debris,
1 barrel

~100m

Building area
(see page 3)

Photo 203

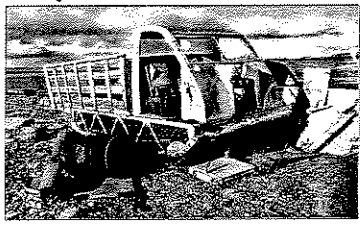
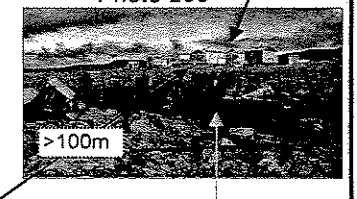


Photo 204



Photo 200



3 muskeg tracks,
1 propane tanks

Pile of debris
including many
pipes and wood

Photo 206

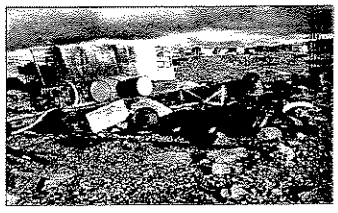


Photo 205

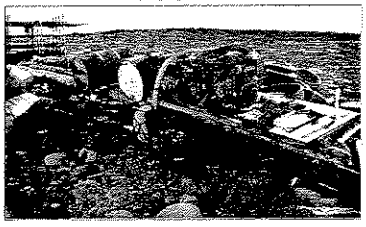
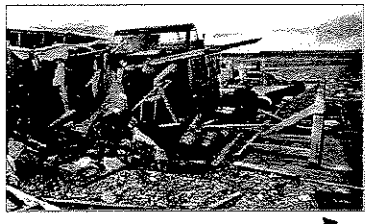


Photo 209

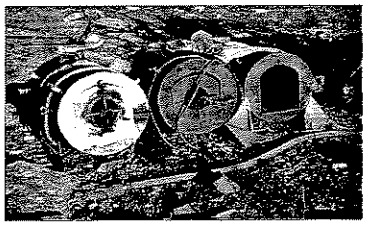


1 red muskeg,
oil (2 L),
wood bases
(2 of 10m x 3m;
1 of 5m x 3m),
welding equipment,
1 propane tank

Beside the muskeg:
1 Al bath tub,
Al cube

Tires,
1 propane tank,
4 motors,
wires, metal
debris (1m^3)

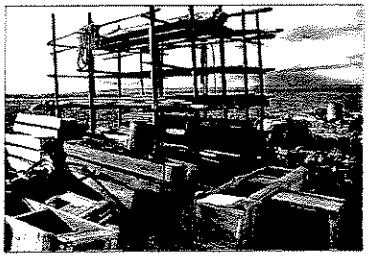
Photo 208



3 water heaters

wood beams,
3 drums,
1 pail full of grease,
metal debris

Photo 207



Wood boxes,
1 stand with >100 pipes
(2 to 10-cm diameter),
wood boxes and canvas,
water hoses,
wood debris

Material on photo 206 is behind the one that is on photo 205

Note: the inventory is not exhaustive

Building area (buildings are indicated with N° for description)

N° 2: full of core trays inside the building
N° 3: camp still in use
N° 4: door locked
N° 5: door locked

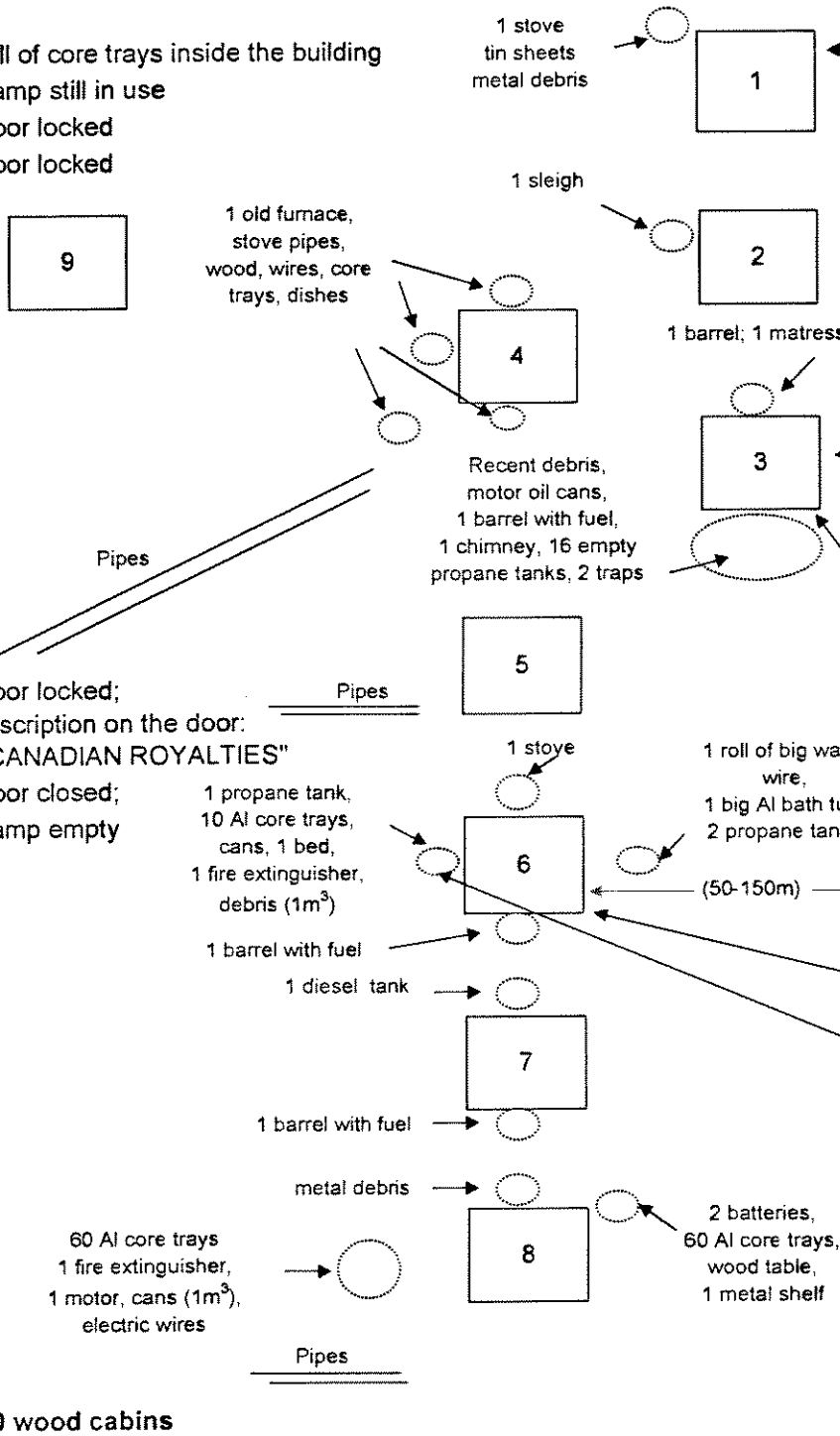
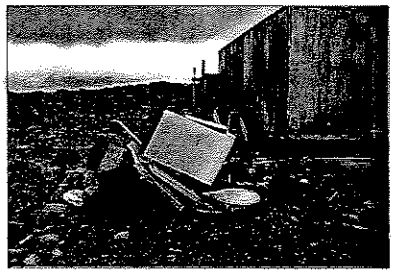


Photo 196



Photos 197 and 198





N° 6: door locked;
Inscription on the door:
"CANADIAN ROYALTIES"
N° 7: door closed;
N° 8: camp empty

Photo 199



Photo 195 (inside of camp N° 1)



Total: 10 wood cabins

N° 1: this camp contains 2 sinks, glass bottles (for chemicals), 1 furnace, 2 chimneys, wood shelves. One sign indicates that hazardous products have been removed from that camp on 8 Aug. 2002 by the MENV - Rouyn.

K-61

Many spots of contaminated soil near dwellings. Total contaminated area: ~ 75 m^2
Pile of empty drums coord.: 61° 33.44' N 73° 27.40' W
Dumpsite coord.: 61° 33.34' N 73° 27.39' W

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Contaminated area (m^2)
Soil					
KAW 61 1	Soil near a drum connected to a dwelling.	0-3	C_{10}-C_{50}	< 200	-
KAW 61 2	Soil near a drum connected to a dwelling	0-3	C_{10}-C_{50}	**51 000**	2
KAW 61 3	Soil under a battery.	0-3	Hg Pb	< 0,02 130	-
KAW 61 4	Soil under a drum near the muskeg.	0-3	C_{10}-C_{50}	**180 000**	5
KAW 61 5	Soil under a lot of 8 drums + 20 yellow pails.	0-3	C_{10}-C_{50}	**33 000**	25
Total area					**~ 75**

MENV criteria :

Soil C_{10}-C_{50} (mg/kg)	Surface water C_{10}-C_{50} (µg/L)	Soil Hg (mg/kg)	Soil Pb (mg/kg)	Soil PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	**3500**	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

ABANDONED MINING EXPLORATION SITES/SITES ABANDONNÉS D'EXPLORATION MINIÈRE

INVENTORY FORM/FICHE D'INVENTAIRE - 2001

Site N° WB-3 **Map/Carte N°:** 35 H/08 W **Latitude** 61 ° 29.41' N **Longitude** 72 ° 18.09' W

Region/Région: Kangiqsujuaq **Informant/Informateur** Amaamak Jaaka

Date: 9 Sept 2001 **By/Par:** JB, LO, ST **Priority/Prioritaire** ☐ **Hasard** ☒ **Other:**

Nb sectors/secteurs: 1 **Sector/Secteur N°:** 1 **Size/Dimension:** 50 m X 30 m

Distance from surface water/Distance de l'eau de surface: m **Soil/Sol:** Rock **Drainage:** Very good

Buildings and dwellings/Bâtiments et habitations

Nb: Buildings/Bâtiments: Dwellings: State/Condition: Damaged/Damaged

Description (material/matériaux + volume): 1 wood base surrounded by a tin sheet/1 plateforme entourée de tôle

Barrels, Tanks and Bottles/Barils, réservoirs et bouteilles

Nb barrels/barils (1 barrel/baril=205 litres):

TOTAL: 85 empty/vides: 76 full/pleins: 9 residue/residus: piled/empilés: scattered/épars: X

Quantity/Quantité ☒ diesel: 675 L ☐ oil/huile: L ☐ grease/graisse: L ☐ : L

Distance from a sensitive area/d'un milieu sensible: <10 m Type of area/de milieu: Lake/Lac

Nb tanks/réservoirs:

TOTAL: empty/vides: full/pleins: residue/residus:

Quantity/Quantité ☐ diesel: L ☐ Jet-B: L ☐ : L ☐ : L

Distance from a sensitive area/d'un milieu sensible: m Type of area/de milieu:

Nb bottles or other containers/Bouteilles ou autres contenants:

TOTAL: empty/vides: full/pleins: residue/residus: state/état:

Content + quantity/Contenu + quantité: : L : L : L

Nb propane tanks/Bonbonnes de propane:

TOTAL: 1 empty/vides: 1 full/pleins: residue/residus: state/état:

Batteries and Transformers/Batteries et transformateurs

Nb batteries/batteries: Condition: ***Nb transformers/transformateurs:*** Condition:

Machinery and Equipment/Machinerie et équipement

Nb: Buldozer: Tractor/tracteur: Truck/Camion: Muskeg: :

Conveyor/Convoyeur: Crusher/Concasseur: Generator/Génératrice: :

Solid Waste and Dry material/Matériaux secs

Core trays/Plateau à carottes (Nb + Volume): Wood: ; m^3 Al: ; m^3 Plastic ; m^3

Rods/Tuyaux (Nb + Volume): ; m^3 Cables/Câbles: ; m^3

Wood/Bois: 15-20 m^3 Metal/Métal: 5 m^3

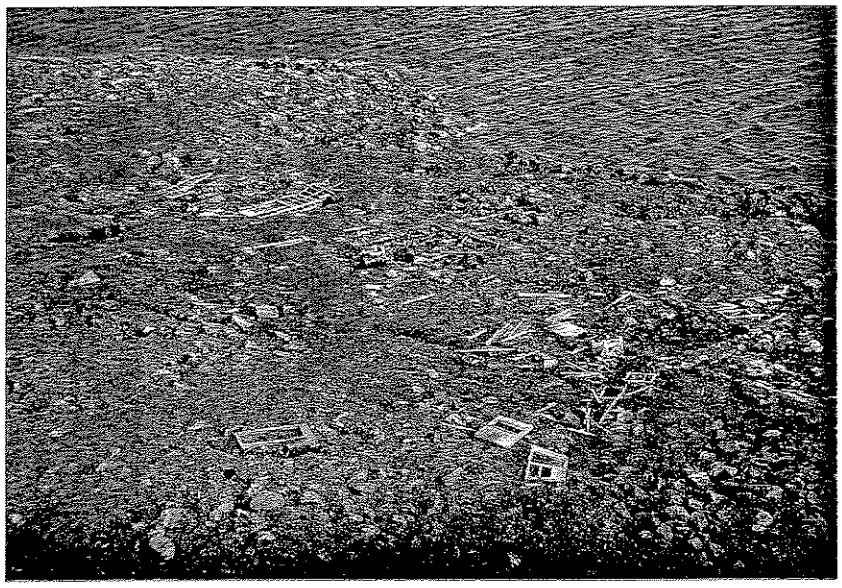
Other/Autre:

NOTE: Some metal rods are coming out from the rock (0.5-1.25 m high)/Des tiges de métal sortent du roc, elles ont une hauteur de 0,5 à 1,25 m.

An inscription is written on many drums:CANICO (Canadian Nickel Co.)./Plusieurs barils portent une inscription: CANICO (Canadian Nickel Co.).

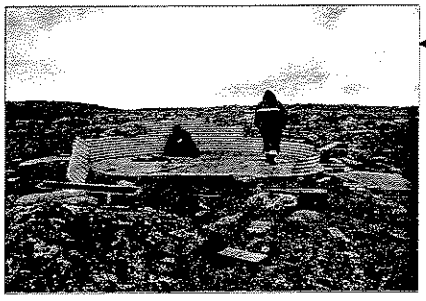
The site is accessible by ski-doo and all terrain vehicule (4-Wheels)/Le site est accible par motoneige et véhicule tout terrain (VTT).

Photo 180 Partial view of Site WB-3



The site is accessible by ski-doo and all terrain vehicle (4-Wheels)

Photo 174



Wood base (~3m diameter) surrounded by a piece of tin

Metal rod coming out of the rock. There are 3 or more rods like that on the site.

This could be hazardous for people travelling by ski-doo.

Photo 176

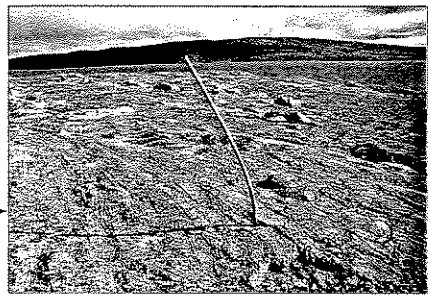


Photo 175



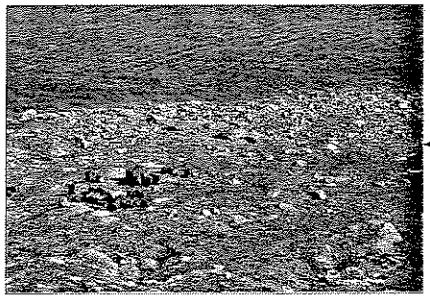
Partial view of scattered debris.

Stop-fire paper,
tin pieces,
scattered wood debris (30m x 10m),
1 propane tank,
wood debris and cans <15 from lake,
pipes (2-cm diameter),
1 chimney
1 piece of mosquito net

Photo 177 View from ground



Photo 178 Aerial view



85 barrels close to the shore:
76 are empty, 9 have diesel
(a total of ~675 L)

WB-3

5 m apart of Qulusuttalik Lake. CANICO (Canadian Nickel Co) written on many drums.

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Contaminated area (m^2)
Soil					
WB 3-1	Soil in a dump of cans and drums.	0-3	C_{10}-C_{50}	3300	2,5
WB 3-2	Soil under a drum, on the western side of the contaminated area.	0-3	C_{10}-C_{50}	280	-
WB 3-4	Soil close to the lot of drums.	0-3	C_{10}-C_{50}	140	-
Total area					**2,5**
Water					
WB 3-3	Water of Qulusuttalik Lake.	N/A	C_{10}-C_{50}.	< 100	-

MENV criteria :

Soil C_{10}-C_{50} (mg/kg)	Surface water C_{10}-C_{50} (µ g/L)	Soil Hg (mg/kg)	Soil Pb (mg/kg)	Soil PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	3500	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

SECTOR OF SALLUIT

KV-1

SAL-1

SW-27

SW-34

SW-42

WB-9

ABANDONED MINING EXPLORATION SITES/SITES ABANDONNÉS D'EXPLORATION MINIÈRE

INVENTORY FORM/FICHE D'INVENTAIRE - 2001

Site N° KV-1 **Map/Carte N°:** 35 F/07 W **Latitude** 61 ° 25.64' N **Longitude** 76 ° 45.46' W

Region/Région: Salluit **Informant/Informateur** Paulusie Padlayat

Date: 9 Sept 2001 **By/Par:** JB, LO, ST **Priority/Prioritaire** ☐ **Hasard** ☐ **Other:** Informant

Nb sectors/secteurs: 2 **Sector/Secteur N°:** 1-2 **Size/Dimension:** 2 X (5 m X 10 m)

Distance from surface water/Distance de l'eau de surface: < 5 m **Soil/Sol:** variable **Drainage:** variable

Buildings and dwellings/Bâtiments et habitations

Nb: Buildings/Bâtiments: ____ Dwellings: ____ State/Condition: ____

Description (material/matériaux + volume): ____

Barrels, Tanks and Bottles/Barils, réservoirs et bouteilles

Nb barrels/barils (1 barrel/baril=205 litres):

TOTAL: 30 empty/vides: 28 full/pleins: 0 residue/residus: 2 piled/empilés: X scattered/épars: X

Quantity/Quantité ☒ diesel: 50 L ☐ oil/huile: ____ L ☐ grease/graisse: ____ L ☐ ____ : ____ L

Distance from a sensitive area/d'un milieu sensible: > 20 m Type of area/de milieu: Lake/Lac

Nb tanks/réservoirs:

TOTAL: 0 empty/vides: ____ full/pleins: ____ residue/residus: ____

Quantity/Quantité ☐ diesel: ____ L ☐ Jet-B: ____ L ☐ ____ : ____ L ☐ ____ : ____ L

Distance from a sensitive area/d'un milieu sensible: ____ m Type of area/de milieu: ____

Nb bottles or other containers/Bouteilles ou autres contenants:

TOTAL: 0 empty/vides: ____ full/pleins: ____ residue/residus: ____ state/état: ____

Content + quantity/Contenu + quantité: ____ : ____ L ____ : ____ L ____ : ____ L

Nb propane tanks/Bonbonnes de propane:

TOTAL: 0 empty/vides: ____ full/pleins: ____ residue/residus: ____ state/état: ____

Batteries and Transformers/Batteries et transformateurs

Nb batteries/batteries: 0 Condition: ____ ***Nb transformers/transformateurs:*** 0 Condition: ____

Machinery and Equipment/Machinerie et équipement

Nb: Buldozer: ____ Tractor/tracteur: ____ Truck/Camion: ____ Muskeg: ____ : ____

Conveyor/Convoyeur: ____ Crusher/Concasseur: ____ Generator/Génératrice: ____ : ____

Solid Waste and Dry material/Matériaux secs

Core trays/Plateau à carottes (Nb + Volume): Wood: ____ ; ____ m^3 Al: ____ ; ____ m^3 Plastic ____ ; ____ m^3

Rods/Tuyaux (Nb + Volume): 2 ; <1 m^3 Cables/Câbles: ____ ; 1 m^3

Wood/Bois: 2-5 m^3 Metal/Métal: 2-5 m^3

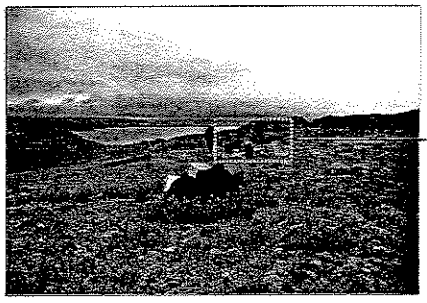
Other/Autre: ____

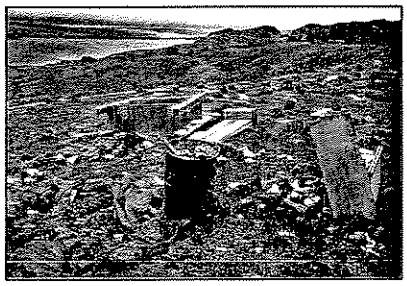
This site has been cleaned according to PA/Le site a été nettoyé selon PA

Sector 1: on a hillock (2m x 10m) see description on page 2/sur une butte, voir description à la page 2.

Sector 2: at less than 5m from the lake, see description on page 2/à moins de 5m du lac, voir description à la page 2.

Sector 1 (on a hillock) *(Photo 151)*





4 open barrels full of debris
Wood debris (3m3)
1 pail with garbage
2 barrels with residue (~100 L)
2 pipes
1 water heater
6 barrels
Garbage

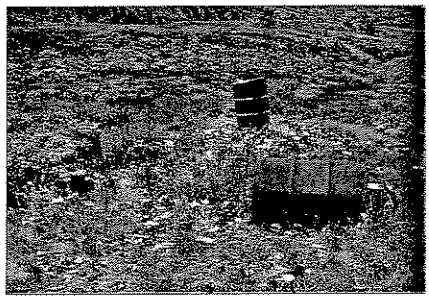
Below the hillock:
Metal cables and metal cans (~1m3)

Sector 2 (by the lake) *(Photos 153 and 152)*



15 crushed barrels
1 wood board

Further:
1 platform for float plane (wood only) near the shore
4 drums along the shore on the other side of the lake
6 barrels (empty) at ~60 m
1 dump site (including 1 empty barrel):



KV-1

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Contaminated area (m^2)
Soil					
KV 1-1	Soil under a barrel	0-3	C_{10}-C_{50}	2500	2
Total area					**2**

MENV criteria :

Soil C_{10}-C_{50} (mg/kg)	Surface water C_{10}-C_{50} (µg/L)	Soil Hg (mg/kg)	Soil Pb (mg/kg)	Soil PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	3500	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

ABANDONED MINING EXPLORATION SITES/SITES ABANDONNÉS D'EXPLORATION MINIÈRE

INVENTORY FORM/FICHE D'INVENTAIRE - 2001

Site N° SAL-1 **Map/Carte N°:** 35 G/10 W **Latitude** 61 ° 31.14' N **Longitude** 74 ° 53.01' W

Region/Région: Salluit **Informant/Informateur** Paulusie Padlayat

Date: 7 Sept 2001 **By/Par:** JB, LO, ST **Priority/Prioritaire** ☐ **Hasard** ☐ **Other:** Seen/Vu

Nb sectors/secteurs: 1 **Sector/Secteur N°:** 1 **Size/Dimension:** 50 m X m

Distance from surface water/Distance de l'eau de surface: <20 m **Soil/Sol:** Organic **Drainage:** Poor

Buildings and dwellings/Bâtiments et habitations

Nb: Buildings/Bâtiments: 6 Dwellings: ____ State/Condition: 4 partly collapsed; 2 collapsed

Description (material/matériaux + volume):

Barrels, Tanks and Bottles/Barils, réservoirs et bouteilles

Nb barrels/barils (1 barrel/baril=205 litres):

TOTAL: 336 empty/vides: 336 full/pleins: ____ residue/residus: ____ piled/empilés: X scattered/épars: X

Quantity/Quantité ☐ diesel: ____ L ☐ oil/huile: ____ L ☐ grease/graisse: ____ L ☐ ____ : ____ L

Distance from a sensitive area/d'un milieu sensible: <20 m Type of area/de milieu: Lacs Nuvilik (in a wetland)

Nb tanks/réservoirs:

TOTAL: 0 empty/vides: ____ full/pleins: ____ residue/residus: ____

Quantity/Quantité ☐ diesel: ____ L ☐ Jet-B: ____ L ☐ ____ : ____ L ☐ ____ : ____ L

Distance from a sensitive area/d'un milieu sensible: ____ m Type of area/de milieu: ____

Nb bottles or other containers/Bouteilles ou autres contenants:

TOTAL: 6 empty/vides: 3 full/pleins: 3 residue/residus: ____ state/état: 6 X 40-L pails; 3 full (closed)

Content + quantity/Contenu + quantité: Aviation oil: 3 X 1 L Aviation oil: 3 X 40 L ____ : ____ L

Nb propane tanks/Bonbonnes de propane:

TOTAL: 15 empty/vides: 15? full/pleins: ____ residue/residus: ____ state/état: ____

Batteries and Transformers/Batteries et transformateurs

Nb batteries/batteries: 2 Condition: ____ ***Nb transformers/transformateurs:*** 0 Condition: ____

Machinery and Equipment/Machinerie et équipement

Nb: Buldozer: ____ Tractor/tracteur: ____ Truck/Camion: ____ Muskeg: ____ ____ : ____

Conveyor/Convoyeur: ____ Crusher/Concasseur: ____ Generator/Génératrice: ____ ____ : ____

Solid Waste and Dry material/Matériaux secs

Core trays/Plateau à carottes (Nb + Volume): Wood: ____ ; ____ m^3 Al: ____ ; ____ m^3 Plastic ____ ; ____ m^3

Rods/Tuyaux (Nb + Volume): ____ ; ____ m^3 Cables/Câbles: ____ ; ____ m^3

Wood/Bois: 60 m^3 Metal/Métal: ~10 m^3

Other/Autre: 1 refrigerator, 2 furnaces, 1 stove, 1 wood base (4m X 4m), 1 wood table, 1 metal shelf, 2 batteries, flexible hoses, food cans, canvas, plywood, stove pipes. See some photos on page 2./
1 réfrigérateur, 2 fournaises, 1 poêle, 1 base de bois (4m x 4m), 1 table, 1 étagère de métal, 2 batteries, boyaux flexibles, cannettes de nourriture, toile, contreplaqué, tuyaux de poêle. Voir photos en page 2.

Wetland (grass): the slope is orientated towards the lake/Milieu humide: la pente est orientée vers le lac.

The drums are close to the lake/Les barils sont situés près du lac.

Photo 163 (Barrels, debris and buildings)



Photo 164 (Debris)

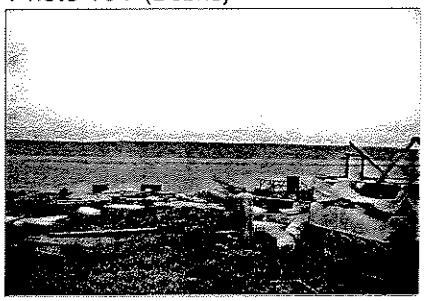


Photo 165 (3 x 1 L Aviation oil)



Photo 166 (Pails containing aviation oil, inside one building)



Photo 167 (Debris)

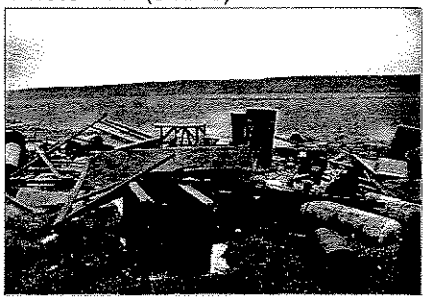


Photo 168 (Inside of a building with debris)



SAL-1

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Contaminated area (m^2)
Soil					
INC-1	Soil close to the westernmost lot of drums.	0-3	C_{10}-C_{50}	< 100	-
INC-2	Soil under a battery.	0-3	Hg Pb	0,19 140	-
INC-3	Soil under a battery.	0-3	Hg Pb	0,11 380	-
INC-4	Soil close to a lot of drums near 4 buildings.	0-3	C_{10}-C_{50}	< 500	-
Total area					**0**

MENV criteria :

Soil C_{10}-C_{50} (mg/kg)	Surface water C_{10}-C_{50} (µ g/L)	Soil Hg (mg/kg)	Soil Pb (mg/kg)	Soil PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	3500	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

ABANDONED MINING EXPLORATION SITES/SITES ABANDONNÉS D'EXPLORATION MINIÈRE

INVENTORY FORM/FICHE D'INVENTAIRE - 2001

Site N° SW-27 **Map/Carte N°:** 35 F/08 W **Latitude** 61 ° 28.76' N **Longitude** 76 ° 22.93' W

Region/Région: Salluit **Informant/Informateur** Paulusie Padlayat

Date: 6 Sept 2001 **By/Par:** JB, LO, ST **Priority/Prioritaire** [X] **Hasard** [ ] **Other:**

Nb sectors/secteurs: 4 **Sector/Secteur N°:** 1-4 **Size/Dimension:** 4 X (20 m X 20 m)

Distance from surface water/Distance de l'eau de surface: >1000 m **Soil/Sol:** Gravel **Drainage:** Good/Bon

Buildings and dwellings/Bâtiments et habitations

Nb: Buildings/Bâtiments: Dwellings: State/Condition: 1 wood base/1 plate-forme de bois

Description (material/matériaux + volume):

Barrels, Tanks and Bottles/Barils, réservoirs et bouteilles

Nb barrels/barils (1 barrel/baril=205 litres):

TOTAL: 87 empty/vides: 73 full/pleins: 6 residue/residus: 8 piled/empilés: X scattered/épars: X

Quantity/Quantité [ ] diesel: 1650 L [ ] oil/huile: L [ ] grease/graisse: L [ ] : L

Distance from a sensitive area/d'un milieu sensible: >1000 m Type of area/de milieu:

Nb tanks/réservoirs:

TOTAL: 0 empty/vides: full/pleins: residue/residus:

Quantity/Quantité [ ] diesel: L [ ] Jet-B: L [ ] : L [ ] : L

Distance from a sensitive area/d'un milieu sensible: m Type of area/de milieu:

Nb bottles or other containers/Bouteilles ou autres contenants:

TOTAL: 17 empty/vides: full/pleins: 15 residue/residus: 2 state/état: some are open or damaged

Content + quantity/Contenu + quantité: Aviation oil (6) : 6 L Grease (9): 260 L Oil/Huile (2) : 20 L

Nb propane tanks/Bonbonnes de propane:

TOTAL: 1 empty/vides: full/pleins: residue/residus: 1 state/état:

Batteries and Transformers/Batteries et transformateurs

Nb batteries/batteries: 2 Condition: ***Nb transformers/transformateurs:*** 0 Condition:

Machinery and Equipment/Machinerie et équipement

Nb: Buldozer: Tractor/tracteur: 1 Truck/Camion: Muskeg: 1 Trailer : 1

Conveyor/Convoyeur: Crusher/Concasseur: Generator/Génératrice: :

Solid Waste and Dry material/Matériaux secs

Core trays/Plateau à carottes (Nb + Volume): Wood: ; m^3 Al: ; m^3 Plastic ; m^3

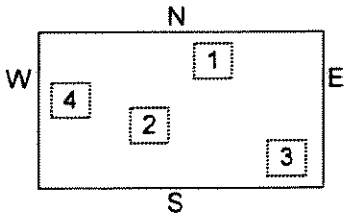
Rods/Tuyaux (Nb + Volume): ; m^3 Cables/Câbles: ; m^3

Wood/Bois: 20 m^3 Metal/Métal: 15 m^3

Other/Autre:

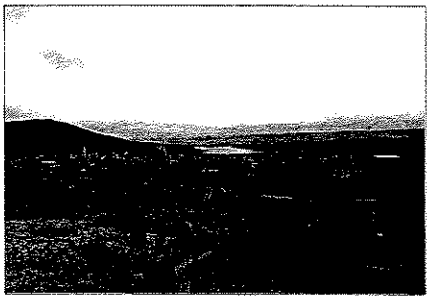
Sector 1:	*61° 28.76' W; 76° 22.93' N.*	Photos 155-156. See/Voir page 2
Sector 2:	*61° 28.84' W; 76° 21.68' N.*	Photos 157-158. See/Voir page 2
Sector 3:	*61° 28.62' W; 76° 21.22' N.*	Photo159. See/Voir page 2
Sector 4:	*61° 28.95' W; 76° 22.10' N.*	Photo 154. See/Voir page 2

Distribution of Sectors



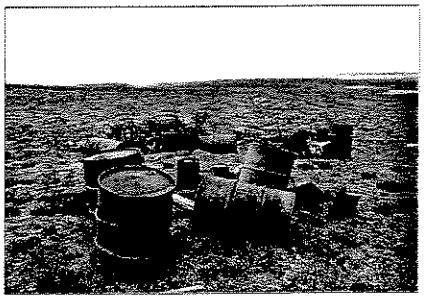
Sector 1 *Photos 155, 156*

21 empty barrels,
3 barrels with diesel (150 L)
6 X 1 L Aviation oil,
numerous fire-stop paper,
3-4 sinks,
wood debris ($3m^3$),
1 large propane tank (residue),
1 core tray,
1 battery,
1 dumpsite,
many beds





Sector 2 *Photos 157, 158*





45 empty barrels,
6 barrels full of diesel (1200 L),
1 muskeg, 1trailer,
3 wood beams (6m long),
4 wood beams (3m long),
wood core trays,
plastic core trays,
3 X 20-L pails full of grease (2 with broken caps),
4 X 40-L pails full of grease (3 are damaged),
1 X 20-L pail with oil (10 L),
few cans, canvas,
2 metal pipes, 2 plastic pipes,
1 chain,
1 tractor

Sector 3 *Photo 159*



8 empty barrels,
4 barrels with diesel (200 L),
1 barrel X 100 L diesel,
core trays,
metal debris ($30m^3$),
wood debris,
canvas, few pipes,
2 pickaxes (geologist hammers)

7 empty barrels,
2 X 20-L pails full of grease (40 L),
1 X 20-L pail with oil (10 L),
8 drilling poles (3m long),
30 drilling pipes,
flexible hoses,
1 oil stove,
wood beams

Sector 4 *Photo 154*



SW-27

Sector 1: Coord: 61° 28.76' N 76° 22.93' W.

Sector 2: Coord: 61° 28.84' N 76° 21.68' W.

Sector 3: Coord: 61° 28.62' N 76° 21.22' W.

Sector 4: Coord: 61° 28.95' N 76° 22.10' W.

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Contaminated area (m^2)
Soil					
SW 27-1	Sector 1. Soil under a battery.	0-3	Hg Pb	<0,02 30	-
SW 27-2	Sector 2. Soil under a grease pail	0-3	C_{10}-C_{50}	**160 000**	1
SW 27-3	Sector 2. Soil under a diesel drum.	0-3	C_{10}-C_{50}	**59 000**	1
SW 27-4	Sector 3. Soil under a diesel drum.	0-3	C_{10}-C_{50}	**9400**	0,5
Total area					**2,5**

MENV criteria :

Soil C_{10}-C_{50} (mg/kg)	**Surface water** C_{10}-C_{50} (µg/L)	**Soil** Hg (mg/kg)	**Soil** Pb (mg/kg)	**Soil** PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	3500	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

ABANDONED MINING EXPLORATION SITES/SITES ABANDONNÉS D'EXPLORATION MINIÈRE

INVENTORY FORM/FICHE D'INVENTAIRE - 2001

Site N° SW-34 **Map/Carte N°:** 35 G/09 W **Latitude** 61 ° 34.90' N **Longitude** 74 ° 28.12' W

Region/Région: Salluit **Informant/Informateur**

Date: 10 Sept 2001 **By/Par:** JB, LO, ST **Priority/Prioritaire** ☐ **Hasard** ☐ **Other:** Seen/Vu

Nb sectors/secteurs: 1 **Sector/Secteur N°:** 1 **Size/Dimension:** >500 m X 500 m

Distance from surface water/Distance de l'eau de surface: <5 m **Soil/Sol:** Rocky **Drainage:** Very good

Buildings and dwellings/Bâtiments et habitations

Nb: Buildings/Bâtiments: Dwellings: State/Condition:

Description (material/matériaux + volume): 1 base: Aluminium, canvas, wood; 1-2 m^3

Barrels, Tanks and Bottles/Barils, réservoirs et bouteilles

Nb barrels/barils (1 barrel/baril=205 litres): *Note: also include 60-L and 40-L barrels*

TOTAL: ~1500 empty/vides: full/pleins: 1? residue/residus: piled/empilés: X scattered/épars: X

Quantity/Quantité ☐ diesel: L ☐ oil/huile: L ☐ grease/graisse: L ☐ Gasoline : 40 L

Distance from a sensitive area/d'un milieu sensible: >50? m Type of area/de milieu: Lake/Lac

Nb tanks/réservoirs:

TOTAL: empty/vides: full/pleins: residue/residus:

Quantity/Quantité ☐ diesel: L ☐ Jet-B: L ☐ : L ☐ : L

Distance from a sensitive area/d'un milieu sensible: m Type of area/de milieu:

Nb bottles or other containers/Bouteilles ou autres contenants: *Note: ~16 pails and 2 bottles*

TOTAL: ~18 empty/vides: full/pleins: residue/residus: 2 state/état: Many broken; 2 intact

Content + quantity/Contenu + quantité: Acid ? : 250 ml Powder : Few : L

Nb propane tanks/Bonbonnes de propane:

TOTAL: 42 empty/vides: 42 full/pleins: residue/residus: state/état:

Batteries and Transformers/Batteries et transformateurs

Nb batteries/batteries: 14 Condition: ***Nb transformers/transformateurs:*** Condition:

Machinery and Equipment/Machinerie et équipement

Nb: Buldozer: Tractor/tracteur: Truck/Camion: Muskeg: :

Conveyor/Convoyeur: Crusher/Concasseur: Generator/Génératrice: :

Solid Waste and Dry material/Matériaux secs

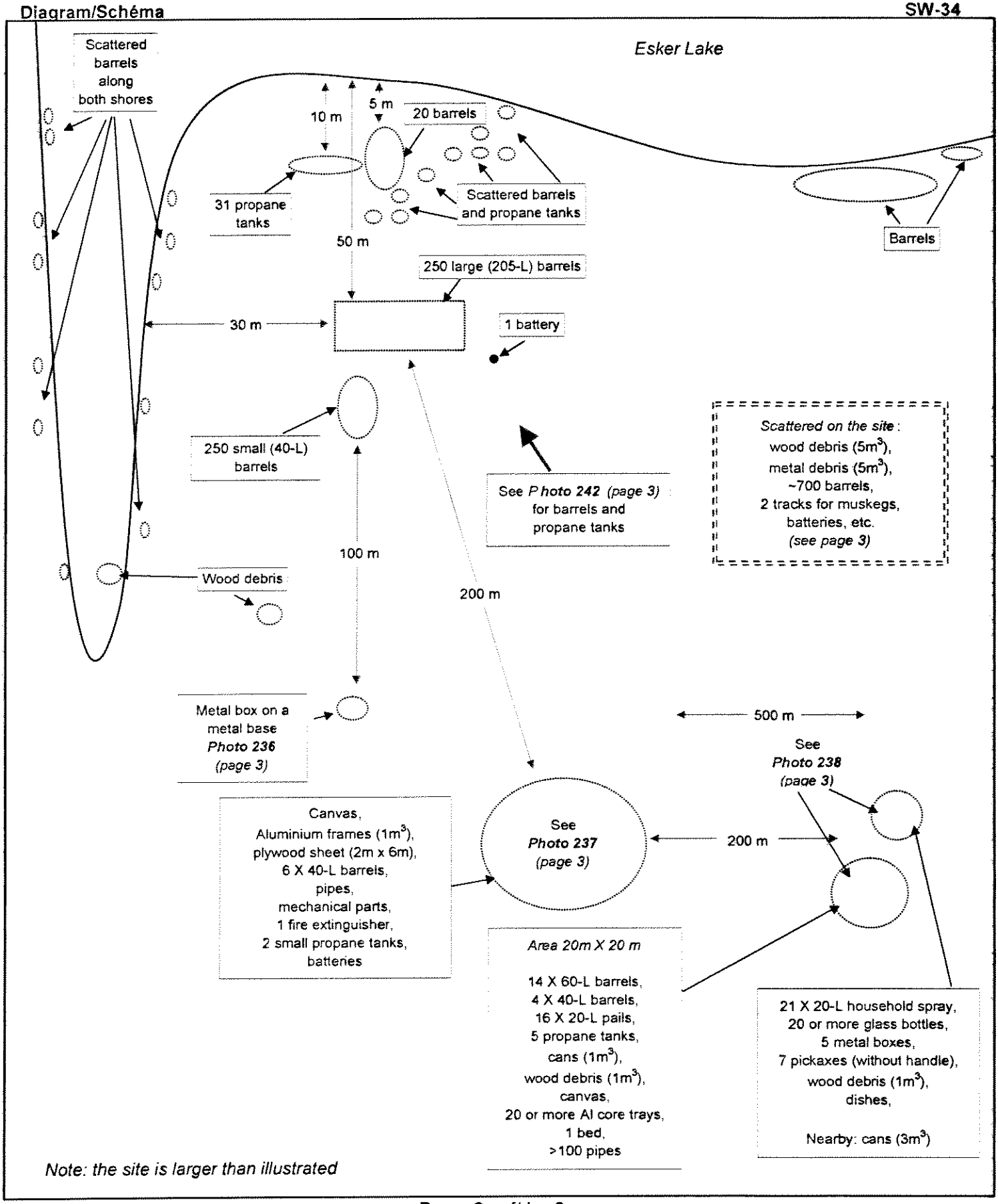
Core trays/Plateau à carottes (Nb + Volume): Wood: ; m^3 Al: >20 m^3 Plastic ; m^3

Rods/Tuyaux (Nb + Volume): >100 ; 2 m^3 Cables/Câbles: ; m^3

Wood/Bois: 10-15 m^3 Metal/Métal: 10-20 m^3

Other/Autre: See pages 2 and 3/Voir pages 2 et 3

Some barrels have an inscription: SPARTAN/Certains barils portent une inscription: SPARTAN



Note: the site is larger than illustrated

Photo 236



Photo 237

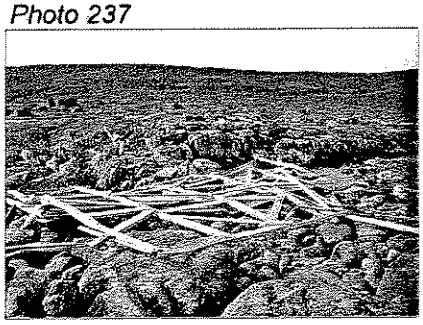


Photo 238



Photo 239



Glass bottles:
one contains about 250 ml chemical product (probably acid)

GPS:
61° 34.78' N; 74° 27.89' W

Another glass bottle contains chemicals product (powder), no photo available;
1 battery,
metal debris

GPS:
61° 34.80' N; 74° 27.88' W

Photo 240



Scattered: wood debris ($3m^3$),
metal debris ($3m^3$).
2 muskeg tracks (caterpillars),
electronic parts,
1 communication antennae,
radio equipment,
many broken glass bottes (chemicals products ?),
3 batteries,
scattered barrels

Photo 241

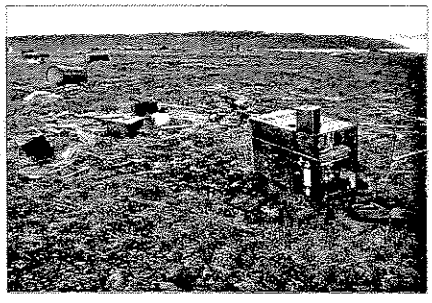


Photo 242



250 X 40-L gasoline barrels (mostly empty: 40 L residue)

250 X 205-L diesel barrels (all empty)

31 X propane tanks, 10 m from lake

20 X 205-L diesel barrels (empty), 5 m from lake, plus scattered barrels and propane tanks

SW-34

Many spots of contaminated soils most under drums. Total contaminated area: ~ 90 m^2.

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Conta-minated area (m^2)
Soil					
SW 34-1	Soil sample under an old battery	0-3	Hg Pb	0,02 **90 000**	0,5
SW 34-2	Soil sample under 2 batteries.	0-3	Hg Pb	0,03 **6100**	0,5
SW 34-3	Soil near the pile of small drums.	0-3	C_{10}-C_{50}	< 500	-
SW 34-4	Soil near the pile of diesel drums.	0-3	C_{10}-C_{50}	120	-
SW 34-5B	Duplicata of SW 34-5A	N/A	C_{10}-C_{50}	380	-
SW 34-6	Soil sample under 2 batteries.	0-3	Hg Pb	1,3 880	0,5
Total area					**~90**
Water					
SW 34-5A	Water of Esker Lake close to the pile of drums.	N/A	C_{10}-C_{50}.	< 100	-

MENV criteria :

Soil C_{10}-C_{50} (mg/kg)	Surface water C_{10}-C_{50} (µg/L)	Soil Hg (mg/kg)	Soil Pb (mg/kg)	Soil PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	**3500**	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

ABANDONED MINING EXPLORATION SITES/SITES ABANDONNÉS D'EXPLORATION MINIÈRE

INVENTORY FORM/FICHE D'INVENTAIRE - 2001

Site N° SW-42 **Map/Carte N°:** 53 G/09 W **Latitude** 61 ° 23.92' N **Longitude** 74 ° 34.40' W

Region/Région: Salluit **Informant/Informateur** Paulusie Padlayat

Date: 10 Sept 2001 **By/Par:** JB, LO, ST **Priority/Prioritaire** ☐ **Hasard** ☐ **Other:** Informant

Nb sectors/secteurs: 1 **Sector/Secteur N°:** 1 **Size/Dimension:** 150 m X 100 m

Distance from surface water/Distance de l'eau de surface: 30 m **Soil/Sol:** Shallow **Drainage:** Variable

Buildings and dwellings/Bâtiments et habitations

Nb: Buildings/Bâtiments: ____ Dwellings: ____ State/Condition: 1 wood base

Description (material/matériaux + volume):

Barrels, Tanks and Bottles/Barils, réservoirs et bouteilles

Nb barrels/barils (1 barrel/baril=205 litres):

TOTAL: 81 empty/vides: 74 full/pleins: ____ residue/residus: 7 piled/empilés: X scattered/épars: X

Quantity/Quantité ☒ diesel: 700 L ☐ oil/huile: ____ L ☐ grease/graisse: ____ L ☐ ____ : ____ L

Distance from a sensitive area/d'un milieu sensible: 80 m Type of area/de milieu: Lake/Lac

Nb tanks/réservoirs:

TOTAL: 0 empty/vides: ____ full/pleins: ____ residue/residus: ____

Quantity/Quantité ☐ diesel: ____ L ☐ Jet-B: ____ L ☐ ____ : ____ L ☐ ____ : ____ L

Distance from a sensitive area/d'un milieu sensible: ____ m Type of area/de milieu: ____

Nb bottles or other containers/Bouteilles ou autres contenants:

TOTAL: 4 empty/vides: ____ full/pleins: 3 residue/residus: 1 state/état: ____

Content + quantity/Contenu + quantité: grease (3) : 12 L insect repell.(1): 200 ml ____ : ____ L

Nb propane tanks/Bonbonnes de propane:

TOTAL: 0 empty/vides: ____ full/pleins: ____ residue/residus: ____ state/état: ____

Batteries and Transformers/Batteries et transformateurs

Nb batteries/batteries: 0 Condition: ____ ***Nb transformers/transformateurs:*** 0 Condition: ____

Machinery and Equipment/Machinerie et équipement

Nb: Buldozer: ____ Tractor/tracteur: ____ Truck/Camion: ____ Muskeg: ____ ____ : ____

Conveyor/Convoyeur: ____ Crusher/Concasseur: ____ Generator/Génératrice: ____ ____ : ____

Solid Waste and Dry material/Matériaux secs

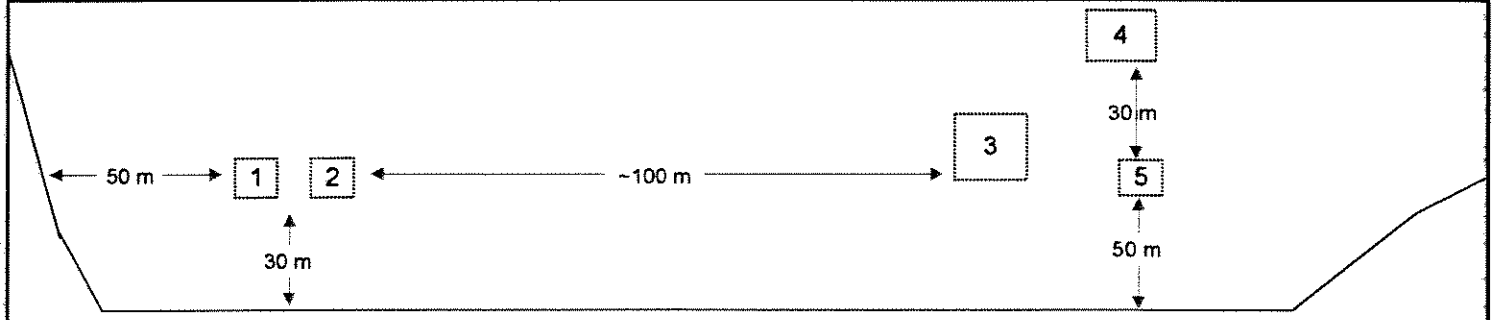
Core trays/Plateau à carottes (Nb + Volume): Wood: ____ ; ____ m^3 Al: ____ ; ____ m^3 Plastic ____ ; ____ m^3

Rods/Tuyaux (Nb + Volume): 20 ; <1 m^3 Cables/Câbles: ____ ; ____ m^3

Wood/Bois: 5-10 m^3 Metal/Métal: 2-5 m^3 Other/Autre: 1-5 m^3

Other/Autre:

NOTE: A lot of droppings of Canada goose and caribou are present on the site/ Il y a beaucoup de crottin de bernache du Canada et de caribou sur le site.



Beauparlant Lake

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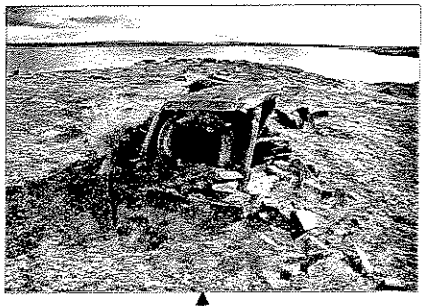
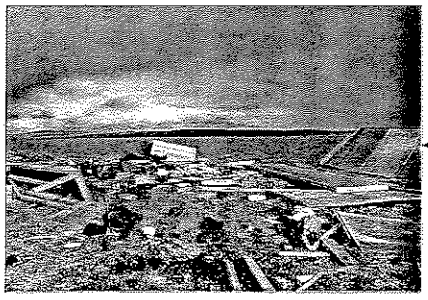
1 *Photo 233*



1 home made stove (1 barrel and stones)

2 Wood base (4m x 5m)

3 *Photo 234*



6 plywood sheets ($25m^2$),
1 insect repellent (~200 ml),
cans ($2m^3$),
3 X 4-L pails of grease (open; 12 L),
dishes, glass jars,
wood debris ($2m^3$),
1 roll of roofing,
12 Al pipes (5cm dia. X 3m long),
3 Al pipes (2cm dia. X 1.2m long),
4 Al pipes,
scattered metal debris ($<1m^3$)

4 *Photo 235*



74 empty barrels,
7 barrels with 100 L diesel each
(some are open),
1 empty metal gas container,
1 pipe with a valve

Wet area

5 Wood roof

SW-42

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Contaminated area (m^2)
Soil					
SW 42-2	Soil in the lot of 77 drums. 10 cm deep.	0-3	C_{10}-C_{50}	**260 000**	12
SW 42-3	Soil in the lot of 77 drums under SW 42-2.	3-10	C_{10}-C_{50}	**25 000**	
Total area					**12**
Water					
SW 42-1A	Surface water near the campsite.	N/A	C_{10}-C_{50}.	< 100	-
SW 42-1B	Duplicata of SW-42-1A.	N/A	C_{10}-C_{50}	< 100	-

MENV criteria :

Soil C_{10}-C_{50} (mg/kg)	Surface water C_{10}-C_{50} (µ g/L)	Soil Hg (mg/kg)	Soil Pb (mg/kg)	Soil PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	**3500**	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

ABANDONED MINING EXPLORATION SITES/SITES ABANDONNÉS D'EXPLORATION MINIÈRE

INVENTORY FORM/FICHE D'INVENTAIRE - 2001

Site N° WB-9 **Map/Carte N°:** 35 G/07 E **Latitude** 61 ° 27.35' N **Longitude** 74 ° 33.22' W

Region/Région: Kangiqsujuaq **Informant/Informateur**

Date: 7 Sept 2001 **By/Par:** JB, LO, ST **Priority/Prioritaire** ☐ **Hasard** ☐ **Other:** Seen/Vu

Nb sectors/secteurs: -- **Sector/Secteur N°:** ____ **Size/Dimension:** m X m

Distance from surface water/Distance de l'eau de surface: m **Soil/Sol:** ____ **Drainage:** ____

Buildings and dwellings/Bâtiments et habitations

Nb: Buildings/Bâtiments: 9 Dwellings: ____ State/Condition: Good/Bonne

Description (material/matériaux + volume): The inventory of the site has not been prepared/Inventaire non effectué

Barrels, Tanks and Bottles/Barils, réservoirs et bouteilles

Nb barrels/barils (1 barrel/baril=205 litres):

TOTAL: ____ empty/vides: ____ full/pleins: ____ residue/residus: ____ piled/empilés: ____ scattered/épars: ____

Quantity/Quantité ☐ diesel: ____ L ☐ oil/huile: ____ L ☐ grease/graisse: ____ L ☐ ____ : ____ L

Distance from a sensitive area/d'un milieu sensible: m Type of area/de milieu: ____

Nb tanks/réservoirs:

TOTAL: ____ empty/vides: ____ full/pleins: ____ residue/residus: ____

Quantity/Quantité ☐ diesel: ____ L ☐ Jet-B: ____ L ☐ ____ : ____ L ☐ ____ : ____ L

Distance from a sensitive area/d'un milieu sensible: m Type of area/de milieu: ____

Nb bottles or other containers/Bouteilles ou autres contenants:

TOTAL: ____ empty/vides: ____ full/pleins: ____ residue/residus: ____ state/état: ____

Content + quantity/Contenu + quantité: ____ : L ____ : L ____ : L

Nb propane tanks/Bonbonnes de propane:

TOTAL: ____ empty/vides: ____ full/pleins: ____ residue/residus: ____ state/état: ____

Batteries and Transformers/Batteries et transformateurs

Nb batteries/batteries: ____ Condition: ____ ***Nb transformers/transformateurs:*** ____ Condition: ____

Machinery and Equipment/Machinerie et équipement

Nb: Buldozer: ____ Tractor/tracteur: ____ Truck/Camion: ____ Muskeg: ____ : ____

Conveyor/Convoyeur: ____ Crusher/Concasseur: ____ Generator/Génératrice: ____ : ____

Solid Waste and Dry material/Matériaux secs

Core trays/Plateau à carottes (Nb + Volume): Wood: ____ ; ____ m^3 Al: ____ ; ____ m^3 Plastic ____ ; ____ m^3

Rods/Tuyaux (Nb + Volume): ____ ; ____ m^3 Cables/Câbles: ____ ; ____ m^3

Wood/Bois: ____ m^3 Metal/Métal: ____ m^3

Other/Autre:

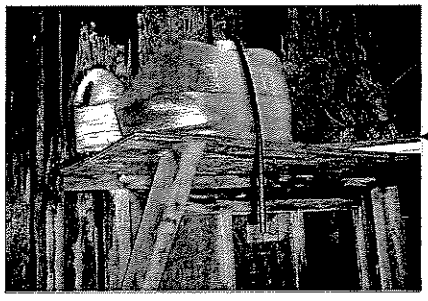
FALCONBRIDGE EXPLORATION campsite, still in use. Presence of contaminated soil/
Camp de FALCONBRIDGE EXPLORATION, encore utilisé. Présence de sol contaminé.

No inventory of the site has been made, since it is still in use/**L'inventaire du site n'a pas été effectué** puisqu'il est encore utilisé.

Photo 162 General view of the campsite



Photo 171



Acid in a plastic container, inside a building

WB-9

Falconbridge campsite which seems still in use.

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Conta-minated area (m^2)
Soil					
WB 9-1	Soil close to a yellow tank connected to the westernmost group of 3 buildings.	0-3	C_{10}-C_{50}	< 100	-
WB 9-2	Soil under 2 drums connected to the westernmost group of 3 buildings.	0-3	C_{10}-C_{50}	**7700**	25
Total area					**25**

MENV criteria :

Soil C_{10}-C_{50} (mg/kg)	Surface water C_{10}-C_{50} (µg/L)	Soil Hg (mg/kg)	Soil Pb (mg/kg)	Soil PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	**3500**	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

SECTOR OF UMIUJAQ

WHA-1

ABANDONED MINING EXPLORATION SITES/SITES ABANDONNÉS D'EXPLORATION MINIÈRE

INVENTORY FORM/FICHE D'INVENTAIRE - 2002

Site N° WHA-1 **Map/Carte N°:** 34B/5 **Latitude** 56 ° 24.08' N **Longitude** 75 ° 39.30' W

Region/Région: Whapmagoostui **Informant/Informateur** Joseph and Matthew Petagumskum

Date: 25 Sept. 2002 **By/Par:** JB, LO, MP **Priority/Prioritaire** ☐ **Hasard** ☐ **Other:** From MP

Nb sectors/secteurs: 1 **Sector/Secteur N°:** 1 **Size/Dimension:** 120 m X 25 m

Distance from surface water/Distance de l'eau de surface: 4 m **Soil/Sol:** Sand **Drainage:** Quite good

Buildings and dwellings/Bâtiments et habitations

Nb: Buildings/Bâtiments: ____ Dwellings: 10 State/Condition: 1: Bad/Mauvaise/9: floors only

Description (material/matériaux + volume): Wood/Bois; 25-40m^3

Barrels, Tanks and Bottles/Barils, réservoirs et bouteilles

Nb barrels/barils (1 barrel/baril=205 litres): ***Also****: 19 x 40-L (10-gallons) barrels; 4 having residue of diesel (~50 L)*

TOTAL: 4 empty/vides: 4 full/pleins: 1 residue/residus: 3 piled/empilés: ____ scattered/épars: X

Quantity/Quantité ☒ diesel: 230 L ☐ oil/huile: ____ L ☐ grease/graisse: ____ L ☐ ____ : ____ L

Distance from a sensitive area/d'un milieu sensible: 15 m Type of area/de milieu: Lake/Lac

Nb tanks/réservoirs:

TOTAL: 0 empty/vides: ____ full/pleins: ____ residue/residus: ____

Quantity/Quantité ☐ diesel: ____ L ☐ Jet-B: ____ L ☐ ____ : ____ L ☐ ____ : ____ L

Distance from a sensitive area/d'un milieu sensible: ____ m Type of area/de milieu: ____

Nb bottles or other containers/Bouteilles ou autres contenants: *(in the outhouse)*

TOTAL: 10 empty/vides: ? full/pleins: ____ residue/residus: ____ state/état: Rusted/Rouillé

Content + quantity/Contenu + quantité: Deodorant cleaner: ? L ____ : L ____ : L

Nb propane tanks/Bonbonnes de propane:

TOTAL: 0 empty/vides: ____ full/pleins: ____ residue/residus: ____ state/état: ____

Batteries and Transformers/Batteries et transformateurs

Nb batteries/batteries: 0 Condition: ____ ***Nb transformers/transformateurs:*** 0 Condition: ____

Machinery and Equipment/Machinerie et équipement

Nb: Buldozer: 0 Tractor/tracteur: 0 Truck/Camion: 0 Muskeg: 0 ____ :

Conveyor/Convoyeur: 0 Crusher/Concasseur: 0 Generator/Génératrice: 0 ____ :

Solid Waste and Dry material/Matériaux secs

Core trays/Plateau à carottes (Nb + Volume): Wood: ____ ; ____ m^3 Al: ____ ; ____ m^3 Plastic ____ ; ____ m^3

Rods/Tuyaux (Nb + Volume): ____ ; ____ m^3 Cables/Câbles: ____ ; ____ m^3

Wood/Bois: scattered: 6 m^3 Metal/Métal: 1-3 m^3

Other/Autre: PVC Pipe/Tuyau de PVC: 10m long; burnt wood logs/billots brûlés: 6m^3; 1 sidewalk made of wood logs/ trottoir de billots; 1 collapsed outhouse/1 toilette effondrée; cans near the outhouse/cannettes près de la toillette. In the cabin: stove pipes, 1 half barrel (stove), 1 wood bench, 1 shovel, 1 folding chair,1 bucket/ Dans la cabine: tuyaux de poêle, un demi-baril (poêle), 1 banc en bois, 1 pelle, 1 chaise pliante, 1 seau. Inscription on the cabin/Inscription dans la cabine: Harry Coonishish.

Photos 14-15



5m

60-70m

Barrel dump:
9 x 40-L barrels,
1 open barrel

Photo WHA8

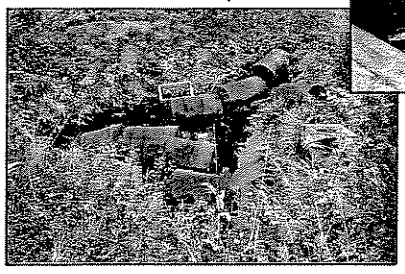
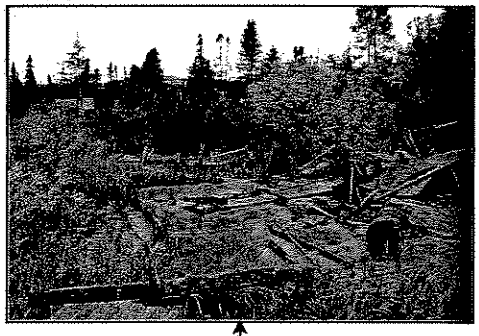




Photo WHA7

Inside of the cabin:
contaminated soil,
stove pipes,
1 stove (barrel),
1 wood bench, 1 shovel,
1 folding chair,
1 bucket

Photo 5



Wood floors,
barrels

Outhouse area:
cans, 1 x 40-L barrel,
10 containers of
deodorant cleaner,
wood debris (1-2m^3),
metal debris (1m^3)

Photo 9

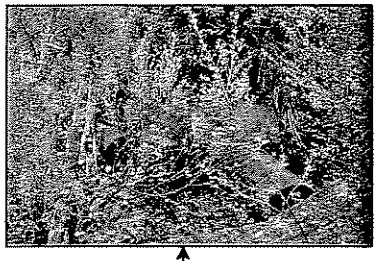


Photo 10

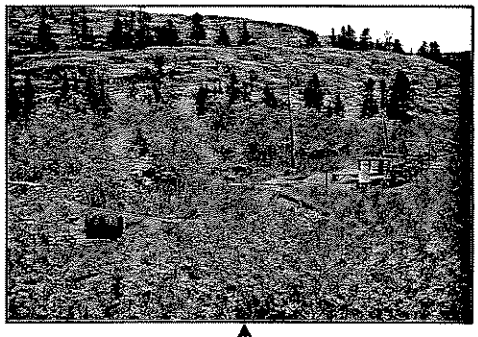
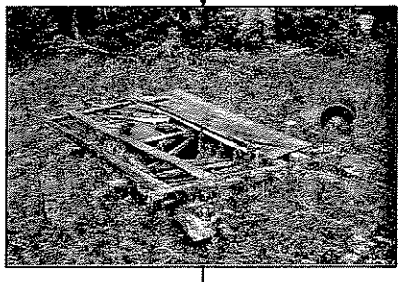


Photo 12



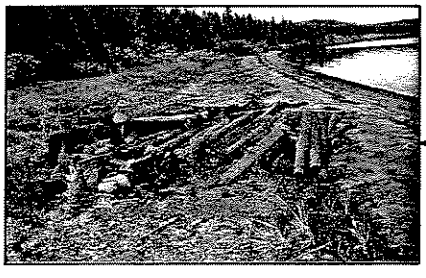
Behind the wood floor:
2 x 200-L barrel (1 full),
4 x 40-L barrels

Wood floors,
barrels

Photo 13



Photo 3



Burnt wood logs (~6m3),
1 barrel,
1 broom

WHA 1

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Conta-minated area (m^2)
Soil					
WHA1-1	Soil under a barrel close to a lot of wood	0-5	C_{10}-C_{50}	< 100	-
WHA1-2	Soil close to a group of 4 barrels	0-5	C_{10}-C_{50}	< 200	-
WHA1-3	Soil on the floor of a dirty cabin	0-3	C_{10}-C_{50}	3400	6
WHA1-4	Soil under the floor of the same dirty cabin	0-5	C_{10}-C_{50}	< 250	-
WHA1-5	Soil of the shore of a swamp near the dirty cabin	0-5	C_{10}-C_{50}	< 100	-
WHA1-6	Soil under a barrel along the same swamp than WHA1-5	0-3	C_{10}-C_{50}	< 100	-
Total area					**6**

MENV criteria :

Soil C_{10}-C_{50} (mg/kg)	Surface water C_{10}-C_{50} (µg/L)	Soil Hg (mg/kg)	Soil Pb (mg/kg)	Soil PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	**3500**	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

INTERMEDIATE SITES

INTERMEDIATE SITES – LABRADOR TROUGH

Site N°	EMRC Map Reference	Latitude North	Longitude West	Date MM-DD-YY	Description
G-24N04-3	24N/4	59° 11.57'	69° 49.86'	07-21-01	*Sector 1*: campsite for mining exploration, includes: 9 recent yellow barrels (8 are full, 1 is one third full); 1 burnt campsite; 20 burnt (1.5-m long) aluminium rods (3 x $3m^3$); metal debris; 4 beds, 8 barrels (3 are recent and contain diesel; 4 are empty, the other one is very old); 9 empty barrels on the beach; 1 old campsite (nothing left, has been cleaned). No contamination. On the way to Sector 2: 2 empty barrels. (This site is close to G-24N/4-3). *Sector 2*: at ~500m near the stream. 1 empty propane tank; 6 barrels (1 is full); 1 open barrel with recent debris (pepsi cans, paper…); 1 empty reservoir for a Coleman stove; scattered metal debris (<0,$1m^3$). At 50m towards east: 52 barrels, 9 barrels (one is full, 2 have residue (one quart, one third); 3 empty barrels; one wood rack for canoe; 3 empty barrels; 3 empty propane tanks; 1 Coleman stove; 8 empty barrels at 5m from the water.
KAW-36	23O/8	55° 15.02'	66° 09.46'	09-10-02	32 barrels, 1 wood platform, plastic core boxes ($10m^3$), drill pipes, wood debris, metal debris, dump with cans ($2m^3$), old outhouse.
KAW-59	24B/5	56° 17.80'	67° 49.00'	09-11-02	4 wood platforms, 3 barrels, pipes, metal debris, 1 stove, 1 tarp, 1 recent canoe.
KAW-119	23O/10	57° 37.48'	66° 45.77'	09-11-02	17 barrels, 2 wood platforms, 1 stove, no drilling equipment seen; 1 isolated barrel on the other side.
P-24F	24F/2	57° 01.54'	68° 53.20'	09-12-02	3 wood platforms ($6m^3$), 44 empty barrels, one barrels with ~10 L diesel, 2 small barrels with ~20 L diesel, 6 X 1-L empty Aviation oil cans, 2 empty pails, empty cans of "Raid", 2 small propane tanks, 2 stoves, stove pipes, cans, roofing (<$1m^3$), bottles, beer cans, 1 double outhouse, plastic, 1 canoe, wood debris (1-$2m^3$), aluminium core trays (1-$2m^3$).
PJ-17A	24N/5	59° 20.54'	69° 43.81'	07-21-01	64 empty barrels on a rocky cap 10m from Hope's Advance Bay. No contaminated soil. (Not far from PJ-17).
PJ-19	24N/5	59° 18.91'	69° 46.06'	07-20/21-01	~60 empty barrels. No soil contamination (2 samples were taken and analyzed).
QC-3	25D/8E	60° 21.55'	70° 09.33'	07-22-01	1 camp locked, 19 empty barrels, metal pipes, 2 empty cans of camping fuel, 2 motor oil containers, No contaminated soil. 7 scattered barrels seen from the air nearby.
TA-1	24K/5	58° 16.80'	69° 50.19'	10-20-01	81 barrels, wood debris, 1 propane tank, 1 wood bench in water, 1 blue tarp.

Site N°	EMRC Map Reference	Latitude North	Longitude West	Date MM-DD-YY	Description
TA-2	24K/5	58° 17.48'	69° 56.34'	10-20-01	Core trays, 9 barrels (1 is in the water), pipes, 2 wood beams, beds, 1 furnace, 2 open barrels, pails, wood debris. (Near TQ-6).
TQ-6	24K/5	58° 17.92'	69° 57.37'	10-20-01	Aluminium core trays, open barrels, metal debris, wood debris, cables, ~45 x 45-gallon barrels, 2 x 10-gallon barrels, metal pipes (drilling pipes), aluminium pipes, wood beams, propane tanks, wood beams, furnace, chimney, tar paper, beds, cans. No soil contamination observed. Also identified as P-24K/5-10 by GÉTIC.
TQ-10	24L/1	58° 06.36'	70° 09.10'	10-20-01	3 large bladders at <10m from the shore, 1 wood box containing 1 bladder, flexible hoses, motor with pump, 1 motor, 1 wood box with debris (pipes), 1 barrel with residue (1 eight diesel). Wolf tracks in the snow.
TQ-14	24L/8	58° 19.36'	70° 14.30'	10-20-01	11 scattered barrels, 4 propane tanks, wood debris from an old cabin. Close to the shore.
VP-11	24F/13E	57° 48.59'	69° 31.75'	10-19-01	Debris of 3 collapsed wood cabins, 2 groups of 5 or 6 barrels (all empty) at 5m from the lake. No apparent trace of soil contamination, but the snow cover did not permit to make a reliable evaluation.

P24F

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Conta-minated area (m^2)
Soil					
P24F-1	Soil under a dwelling	0-3	C_{10}-C_{50}	< 500	-
P24F-2	Soil under a pile of ~ 27 barrels close to the lake.	0-5	C_{10}-C_{50}	< 200	-
P24F-3	Soil under a lot of ~ 28 barrels + a canoe.	0-5	C_{10}-C_{50}	< 200	-
P24F-4	Soil under a lot of ~ 28 barrels + a canoe.	0-5	C_{10}-C_{50}	< 700	-
Total area					**0**

MENV criteria :

Soil C_{10}-C_{50} (mg/kg)	Surface water C_{10}-C_{50} (µ g/L)	Soil Hg (mg/kg)	Soil Pb (mg/kg)	Soil PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	**3500**	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

PJ-19

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Conta-minated area (m^2)
Soil					
PJ-19-1	Soil near the drums	0-5	C_{10}-C_{50}	< 100	-
PJ-19-2	Soil near the drums	0-5	C_{10}-C_{50}	< 100	-
Total area					**0**

MENV criteria :

Soil C_{10}-C_{50} (mg/kg)	Surface water C_{10}-C_{50} (µ g/L)	Soil Hg (mg/kg)	Soil Pb (mg/kg)	Soil PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	3500	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

TQ-10

Located 5 m from Lake Jourdan.

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Contaminated area (m^2)
Soil					
TQ 10-1	Soil under a bladder.	0-5	C_{10}-C_{50}	160	-
TQ 10-2	Soil under a bladder.	0-5	C_{10}-C_{50}	< 250	-
TQ 10-3	Soil under a bladder.	0-5	C_{10}-C_{50}	180	-
TQ 10-4	Soil under a bladder.	0-5	C_{10}-C_{50}	260	-
Total area					**0**
Water					
TQ 10-5A	Surface water of Lake Jourdan	N/A	C_{10}-C_{50}	190	-
TQ 10-5B	Surface water of Lake Jourdan.	N/A	C_{10}-C_{50}	150	-

MENV criteria :

Soil C_{10}-C_{50} (mg/kg)	Surface water C_{10}-C_{50} (µ g/L)	Soil Hg (mg/kg)	Soil Pb (mg/kg)	Soil PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	3500	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

INTERMEDIATE SITES - UNGAVA

Site N°	EMRC Map Reference	Latitude North	Longitude West	Date MM-DD-YY	Description
GW-8	33M/1	55° 05.09'	78° 15.51'	09-25-02	25 barrels, 1 snowmobile
I-32	35H/10W	61° 43.12'	72° 54.94'	09-10-01	Empty barrels along the shore: 7 scattered; 36 standing up; 1 propane tank; 1 garbage dump. Close to lake Qanartaliup Tasinga, on the cliff's edge.
K-27	35H/11W	61° 36.24'	73° 19.89'	09-09-01	Near Bombardier lake: 20 barrels. No contaminated soil observed. Upon request of the informant, 2 water samples were taken in Bombardier lake. No contamination by Petroleum hydrocarbons C_{10} to C_{50}.
K-37	35H/12E	61° 31.07'	73° 37.44'	09-09-01	Wood beams, water heaters, 14 barrels, wood debris, wires, metal pipes.
K-49	35H/5	61° 28.70'	73° 49.70'	09-09-01	One plane, approximately 45 barrels, 14 propane tanks, 1 stove, metal rods, wood debris, cans, metal debris. Debris have been piled up by the community.
KAN-1	35H/10W	61° 32.19'	72° 57.90'	09-09-01	1 old helicopter, 12 barrels, 1 old battery. Close to a lake (5m). Close to I-26.
KAN-2	35H/12E	61° 32.51'	73° 31.11'	09-09-01	2 tripods, 1 non-hydraulic drill, and debris: motor, hoses, winch, ~50 pipes, barrels, drilling sites, dump of calcium salts.
KAN-4	35H/12	61° 30.92'	73° 40.18'	09-09-01	A pile of ~75 barrels; 2 are apart and contain diesel.
KAN-6	35H/5	61° 28.94'	73° 49.50'	09-09-01	2 buildings. About 1.5m^2 of contaminated soil near the buildings. Near Vaillant lake.
KAN-7	35H/12E	61° 28.48'	73° 49.93'	09-09-01	A pile of ~75 barrels, 1 muskeg, 18 propane tanks, 2 oxygen tanks. Other debris (metal rods, pipes, wood...). Barrels and debris have been piled up by the community.
KAN-10	35H/10	61° 31.58'	72° 49.30'	09-09-01	Collapsed building, 25 barrels, 1 propane tank, tin and wood debris, core trays, barrels in a wetland. ~100m from the lake. (K-29) 10 crushed empty barrels at 61° 31.27' N; 72° 48.96' W.
Parent Lake	35G/11W	61° 33.43'	75 10.36'	09-06-01	6 recent barrels (Jet-B): 4 empty; 1 full; 1 half full. 5 perches.
SW-24	35G/6E	61° 18.75'	75° 44.00'	09-07-01	Along *Petite rivière Puvirnituq*, about 100km long. ~233 barrels, 12 propane tanks along the river (125 barrels and 6 propane tanks were seen on the south shore; 108 and 6 propane tanks were seen on the north shore). The geographical coordinates that are indicated are only local, most barrels are located in the downstream portion of the river, on the south shore.

K-27

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Conta-minated area (m^2)
Water					
K 27 1A	Surface water of Bombardier Lake, close to the shore.	N/A	C_{10}-C_{50}	< 100	-
K 27 1B	Surface water of Bombardier Lake, close to the shore. Duplicata of K 27 1A.	N/A	C_{10}-C_{50}	< 100	-
Total area					**0**

MENV criteria :

Soil C_{10}-C_{50} (mg/kg)	Surface water C_{10}-C_{50} (µg/L)	Soil Hg (mg/kg)	Soil Pb (mg/kg)	Soil PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	3500	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

MINOR SITES

MINOR SITES – LABRADOR TROUGH

Site N°	EMRC Map Reference	Latitude North	Longitude West	Date MM-DD-YY	Description
KAW-5	24C/15	56° 55.67'	68° 52.92'	09-12-02	5 barrels, 1 dwelling, dump.
KAW-10	23O/8	57° 27.76'	69° 15.49'	09-12-02	2 wood platforms, metal debris, core boxes (1 km south).
KAW-26	24C/10	56° 33.84'	68° 50.32'	09-12-02	12 or more barrels which are scattered within a large area.
KAW-28	24C/8	57° 28.27'	68° 11.97'	09-12-02	2 barrels, stove, small dump, 1 piece of drum, water heater, wood debris.
KAW-42A	24B/4	56° 04.54'	67° 54.89'	09-11-02	Old wood platform, 1 barrel, small dump.
KAW-43	24B/3	56° 04.43'	67° 15.96'	09-11-02	2 barrels, small barrels, aluminium core trays ($1m^3$), metal debris, cans.
KAW-54	23O/3W	55° 05.67'	67° 25.79'	09-11-02	17 barrels near the lake and the wetland.
KAW-58	24B/5	56° 16.45'	67° 47.21'	09-11-02	9 barrels near the shore, aluminium core trays ($1-2m^3$).
KAW-60	24B/5	56° 16.07'	67° 47.53'	09-11-02	2 barrels, 1 trench, wood debris ($1m^3$). Far from the lake.
KAW-63	23O/14	55° 54.17'	67° 06.03'	09-11-02	3 barrels, 3 wood platforms, wood debris ($1-2m^3$), metal debris ($2-3m^3$), 1 furnace.
KAW-67A	23O/4E	55° 10.89'	67° 31.49'	09-11-02	3 barrels near a trail. 1 base of a diesel tank in a stream.
KAW-69	23O/3W	55° 11.75'	67° 21.51'	09-11-02	Piled plywood sheets ($2m^3$).
KAW-72	23O/3E	55° 08.10'	67° 13.65'	09-11-02	4 barrels in the lake, old wood platform, 1 tipi.
KAW-112	24F/12	57° 40.68'	69° 34.16'	10-19-01	1 large tank, metal and wood debris, few barrels at >500m from water.
KG-19	25D/8W	60° 26.79'	70° 10.85'	07-22-01	4 barrels.
KG-21	25D/7W	60° 18.63'	70° 57.45'	07-22-01	4 barrels.
PD-1	24F/3	57° 33.79'	69° 05.10'	09-12-02	8 barrels, 1 wood platform.
PD-2	24F/3	57° 36.15'	69° 04.56'	09-12-02	20 barrels, 1 wood platform.
PJ-9	24N/5	59° 18.91'	69° 59.94'	07-20-01	12 barrels, 1 isolated barrel at ~300m, 1 vertical rod in the rock (indication of earlier drilling operation).
QC-2	25D/8E	60° 24.82'	70° 09.67'	07-22-01	1 barrel. Also identified as G-25D/8-2) by GÉTIC.

MINOR SITES – UNGAVA TROUGH-HUDSON BAY

Site N°	EMRC Map Reference	Latitude North	Longitude West	Date MM-DD-YY	Description
G-35G08-1	35G/8	61° 29.08'	74 26.55'	09-07-01	Old drilling site. Scattered barrels, 1 metal tripod. Far from water.
GW-2	33N/11E	55° 44.48'	77° 01.95'	09-25-02	2 wood cabins, 2 beds and 1 stove inside. Site located at 0.5 Nautical Miles from the coordinates.
GW-5	33N/15W	55° 57.49'	76° 47.97'	09-25-02	2 barrels, wood core trays, metal pipes (2-3m^3), drill holes, metal debris, wood debris (2-3m^3), flexible hoses (2-3m^3), some with metal connections.
I-12	35H/12E	61° 35.32'	73 35.85'	09-10-01	~19 empty barrels piles at ~100m from Guindeau lake. Some barrels along the lake.
K-36	35H/11	61° 31.39'	73 16.63'	09-09-01	2 platforms, wood debris, 11 barrels. South of Rocbrune lake.
K-41	35H/12W	61° 30.79'	73 44.74'	09-09-01	13 barrels, some with residue Also known as K-42 and P-35H/12-13 by GÉTIC.
KAN-3	35H/12E	61° 31.63'	73° 37.28'	09-09-01	Muskeg near a lake. (Between K-37 and K-38).
KAN-5	35H/12W	61° 30.19'	73° 45.28'	09-09-01	More than 61 barrels, 2 wood platforms, 2 propane tanks at 20m from a lake. (West of K-41).
KAN-8	35H/12W	61° 30.55'	73° 45.45'	09-09-01	30 empty barrels: 25 scattered; 5 piled.
KAN-9	35H/10E	61° 36.73'	72° 44.56'	09-09-01	13 barrels near Felix lake.
KAN-11	35H/12	61° 32.62'	73° 37.27'	09-09-01	Muskeg in a wetland near a lake.
KAN-12	35H/12	61° 30.77'	73° 44.28'	09-09-01	8 empty barrels.
P-35G08-1002	35G/8	61° 29.22'	74° 28.35'	09-07-01	1 tank for diesel. Debris of a camp: sink, stove, metal debris, metal pipes, ~30 wood beams. At >500m from water.
P-35G08-1002A	35G/8	61° 29.18'	74° 27.55'	09-07-01	3 open barrels with metal rods as road markers.
P-35G08-1003	35G/8	61° 27.28'	74° 14.48'	09-07-01	1 open barrel with a metal rod as a road marker. Far from a water plan.
SAL-2	35G/7	61° 27.19'	74° 41.97'	09-07-01	4 barrels, 2 x 10-gallon pails for grease; >500m from the nearest river (*Petite rivière de Puvirnituq*).
SW-13	35G/10E	61° 34.00'	74° 38.14'	09-07-01	Along the north shore of Nuvilik lakes: 4 barrels on the western side and 4 barrels on the eastern side of SW-13. Nothing was seen at the coordinates of SW13.

Site N°	EMRC Map Reference	Latitude North	Longitude West	Date MM-DD-YY	Description
SW-14	35G/13	61° 49.64'	75° 38.63'	09-06-01	17 empty barrels, 2 barrels with residue (150 L), 1 x 114-ml container of machine oil (sewing machine), 2 batteries, cans of Raid, 3 empty propane tanks, 1 propane tank with residue, 4 fire extinguishers, 1 wood platform, wood beams, wood debris, pipes, stove pipes, 1 water heater, metal chimney, rubber hoses, wires, various drilling equipement, various camp equipment (dishes, table, beds, window, etc.). Near Vanasse lake
SW-32	35G/11W	61° 34.73'	75° 26.75'	09-06-01	8 scattered barrels.
PH-11	33N/15E	55° 58.97'	76° 41.79'	09-25-02	2 wood platforms, 5 barrels, 1 sink, 1 stove.
UD-1	34C/2	56° 08.80'	76° 35.40'	09-25-02	1 wood platform.
UD-6	34C/2	56° 06.41'	76° 30.23'	09-25-02	3 barrels, 1 propane tank close to the lake.
UM-1	33N/15E	55° 59.99'	76° 45.59'	09-25-02	More than 6 large metal containers.
UM-2	33N/15E	55° 56.67'	76° 42.50'	09-25-02	Wood core trays. Presence of a trail.
UM-3	33N/15E	55° 57.68'	76° 47.59'	09-25-02	1 barrel, 1 drill hole with 1 pipe, 1 tank, 1 wood platform, wood debris ($5m^3$).

SW-14

Number	Sample	Depth (cm)	Parameters	Analytical results (mg/kg)	Conta-minated area (m^2)
Soil					
SW 14-1	Soil near drums.	0-3	C_{10}-C_{50}	< 100	-
SW 14-2	Soil under a battery.	0-3	Hg	0,02	-
			Pb	170	
SW 14-3	Soil under a battery	0-3	Hg	0,12	-
			Pb	340	
Total area					**0**

MENV criteria :

Soil C_{10}-C_{50} (mg/kg)	Surface water C_{10}-C_{50} (µ g/L)	Soil Hg (mg/kg)	Soil Pb (mg/kg)	Soil PCBs (mg/kg)
A: 300 B: 700 **C: 3500**	**3500**	A: 0.2 B: 2 **C: 10**	A: 50 B: 500 **C: 1000**	A: 0.05 B: 1 **C: 10**

APPENDIX 10

Quality assurance and quality control results

Montréal, le 7 novembre 2001

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De : Sylvie Roberge
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Objet : Fiche d'évaluation des résultats d'analyse du projet Sites miniers nordiques abandonnés (Siminord) - Phases 1 et 2

Voici la fiche d'évaluation des résultats d'analyse du projet Sites miniers nordiques abandonnés dont les analyses ont été réalisées par Bodycote - Division Envirolab.

Pour tous les paramètres, le laboratoire contractuel a rencontré les exigences exigées au devis de caractérisation. On dénote cependant cinq non-conformités dont quatre sont considérées comme non-significatives par rapport aux critères exigés. C'est le cas pour deux écarts calculés pour le matériau de référence certifié utilisé lors de l'analyse du mercure, un écart calculé pour le matériau de référence utilisé lors de l'analyse des C_{10}-C_{50} dans les eaux et la différence relative calculée entre les valeurs obtenues d'un duplicata pour les C_{10}-C_{50} dans les eaux. L'écart calculé pour le matériau de référence utilisé lors de l'analyse des C_{10}-C_{50} dans les sols (-46 %), diffère beaucoup du critère exigé mais il faut considérer qu'un seul écart sur dix ne rencontre pas les exigences du devis pour tous les échantillons analysés. Ces différences n'ont aucun impact sur la qualité des résultats.

S'il y a des questions ou des commentaires concernant la révision de ce rapport, n'hésitez pas à communiquer avec moi.

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p.j. Fiche d'évaluation
Certificats d'analyse

Fiche d'évaluation des résultats d'analyse

Mercure et plomb

Les données de contrôle de la qualité pour le mercure et le plomb sont regroupées dans les tableaux 1 à 4.

Pour tous les paramètres de contrôle, le laboratoire contractuel a respecté les critères de performance établis au devis d'analyse. On dénote cependant une non-conformité pour le matériau de référence certifié utilisé lors de l'analyse du mercure. Les écarts obtenus (-27 % et -28 %) diffèrent peu du critère exigé de ± 25 %, et les résultats sont considérés comme bons pour une matrice de sol (voir tableau 2).

Hydrocarbures pétroliers dans les sols (C_{10}-C_{50})

Les données de contrôle de la qualité pour les C_{10}-C_{50} dans les sols sont regroupées dans les tableaux 5 à 8.

Pour tous les paramètres de contrôle, le laboratoire contractuel a respecté dans la majorité des cas les critères de performance établis au devis d'analyse. On dénote une non-conformité pour le matériau de référence utilisé lors de l'analyse des C_{10}-C_{50}. L'écart obtenu (- 46 %) diffère du critère exigé de ± 30 %. Il est à noter qu'un seul résultat sur dix ne rencontre pas les exigences du devis (voir tableau 6).

Hydrocarbures pétroliers dans les eaux (C_{10}-C_{50})

Les données de contrôle de la qualité pour les C10-C50 dans les eaux sont regroupées dans les tableaux 9 à 13.

Pour tous les paramètres de contrôle, le laboratoire contractuel a respecté les critères de performance établis au devis d'analyse. On dénote cependant une non-conformité pour l'écart obtenu pour le matériau de référence utilisé lors de l'analyse des C_{10}-C_{50}. L'écart obtenu (- 33 %) diffère peu du critère exigé de ± 30 %, et les résultats sont de ce fait considérés comme bons (voir tableau 10). De plus, un duplicata terrain (voir tableau 12) ne rencontre pas le critère établi. À ce seuil de concentration, une variation de 116 % est considérée acceptable car on se situe entre la zone de détection et la zone de quantification de la méthode d'analyse.

BPC congénères

Les données de contrôle de la qualité pour les BPC congénères dans les sols sont regroupées dans les tableaux 14 et 15.

Pour tous les paramètres de contrôle, le laboratoire contractuel a respecté les critères de performance établis au devis d'analyse pour le contrôle de la contamination et les écarts obtenus pour le matériau de référence certifié.

Tableau 1
Résultats des blancs de méthode pour les métaux

	Valeur obtenue (mg/kg)	Critère (≤ LDM)	Respect
Mercure	< 0.02	≤ 0.02	oui
Mercure	< 0.02	≤ 0.02	oui
Mercure	< 0.02	≤ 0.02	oui
Plomb	< 5	≤ 5	oui
Plomb	< 5	≤ 5	oui

Tableau 2
Résultats des matériaux de référence certifiés (MRC) pour les métaux

	Valeur attendue (mg/kg)	Valeur obtenue (mg/kg)	Écart (%)	Critère (%)	Respect
Mercure	3.06	2.40	-22	± 25	oui
Mercure	3.06	2.22	-27	± 25	acceptable
Mercure	3.06	2.20	-28	± 25	acceptable
Plomb	89	97	9	± 25	oui
Plomb	183	184	0.5	± 25	oui

Tableau 3
Résultats des récupérations pour les métaux

	Récupération obtenue (%)	Critère (%)	Respect
Mercure	80	80 - 120	oui
Plomb	98	80 - 120	oui

Tableau 4
Résultats des duplicatas pour les métaux

	Valeur 1 (mg/kg)	Valeur 2 (mg/kg)	Moyenne (mg/kg)	Écart relatif (%)	Critère (%)	Respect
Mercure	< 0.02	< 0.02	< 0.02	0	± 100	oui
Mercure	0.02	0.02	0.02	0	± 100	oui
Mercure	0.03	0.04	0.04	29	± 100	oui
Plomb	180	150	165	18	± 25	oui
Plomb	30	44	37	38	± 40	oui

Tableau 5
Résultats des blancs de méthode pour les C_{10}-C_{50} dans les sols

	Valeur obtenue (mg/kg)	LDM (mg/kg)	Critère (≤ 3 LDM)	Respect
Hydrocarbures pétroliers C_{10}-C_{50}	< 100	100	≤ 300	oui
Hydrocarbures pétroliers C_{10}-C_{50}	< 100	100	≤ 300	oui
Hydrocarbures pétroliers C_{10}-C_{50}	< 100	100	≤ 300	oui
Hydrocarbures pétroliers C_{10}-C_{50}	< 100	100	≤ 300	oui
Hydrocarbures pétroliers C_{10}-C_{50}	< 100	100	≤ 300	oui

Tableau 6
Résultats des Matériaux de référence (MR) pour les C_{10}-C_{50} dans les sols

	Valeur attendue (mg/kg)	Valeur obtenue (mg/kg)	Écart (%)	Critère (%)	Respect
MR (sols)	1500	1900	27	± 30	oui
MR (sols)	1500	1400	-7	± 30	oui
MR (sols)	1500	1600	7	± 30	oui
MR (sols)	1500	1400	-7	± 30	oui
MR (sols)	1500	1500	0	± 30	oui
MR (sols)	19030	20000	5	± 30	oui
MR (sols)	19030	22000	16	± 30	oui
MR (sols)	7400	4000	- 46	± 30	non
MR (sols)	7400	6500	- 12	± 30	oui

Tableau 7
Résultats des récupérations pour les C_{10}-C_{50} dans les sols

	Identification	Récupération obtenue (%)	Critère (%)	Respect
Hydrocarbures pétroliers C_{10}-C_{50}	960 - PJ1-7	116	50 - 120	oui
Hydrocarbures pétroliers C_{10}-C_{50}	964 - PJ1-14	87	50 - 120	oui
Hydrocarbures pétroliers C_{10}-C_{50}	983 - PJ17-7	103	50 - 120	oui
Hydrocarbures pétroliers C_{10}-C_{50}	986 - PJ19-1	100	50 - 120	oui

Tableau 8
Résultats des duplicatas pour les C_{10}-C_{50} dans les sols

	Valeur 1 (mg/kg)	Valeur 2 (mg/kg)	Moyenne (mg/kg)	Écart relatif (%)	Critère (%)	Respect
966 - PJ1-20	220000	210000	215000	5	± 30	oui
970 - PJ10-2	8000	5900	6950	30	± 30	oui
982 - PJ17-6	< 100	< 100	< 100	0	± 100	oui
989 - TW-2	74000	86000	80000	15	± 30	oui
1500 - WB9-1	< 100	110	< 100	100	± 100	oui
1516 - SW34-4	< 100	120	< 100	100	± 100	oui

Tableau 9
Résultats des blancs de méthode pour les C_{10}-C_{50} dans les eaux

	Valeur obtenue (µg/L)	LDM (µg/L)	Critère (≤ 3 LDM)	Respect
Hydrocarbures pétroliers C_{10}-C_{50}	< 100	100	≤ 300	oui
Hydrocarbures pétroliers C_{10}-C_{50}	< 100	100	≤ 300	oui

Tableau 10
Résultats des Matériaux de référence (MR) pour les C_{10}-C_{50} dans les eaux

	Valeur théorique (µg/L)	Valeur obtenue (µg/L)	Écart (%)	Critère (%)	Respect
MR (eaux)	2400	1900	-21	± 30	oui
MR (eaux)	2400	1600	-33	± 30	acceptable
MR (eaux)	9400	6700	-29	± 30	oui

Tableau 11
Résultats des récupérations pour les C_{10}-C_{50} dans les eaux

	Identification	Récupération obtenue (%)	Critère (%)	Respect
Hydrocarbures pétroliers C_{10}-C_{50}	950 - PJ1-18B	77	50 - 120	oui
Hydrocarbures pétroliers C_{10}-C_{50}	954 - TW3B	79	50 - 120	oui
Hydrocarbures pétroliers C_{10}-C_{50}	1494-SW34-5B	55	50 - 120	oui

Tableau 12
Résultats des duplicatas pour les C_{10}-C_{50} dans les eaux

	Valeur 1 (mg/kg)	Valeur 2 (mg/kg)	Moyenne (mg/kg)	Écart relatif (%)	Critère (%)	Respect
945 - PJ1-1A	130	115	123	12	± 100	oui
947/948 - PJ1-8A et B	140	240	190	53	± 100	oui
949/950 - PJ1-18A et B	160	110	135	37	± 100	oui
953/954 - TW3 A et B	180	120	150	40	± 100	oui
1491-SW42-1A	< 100	< 100	< 100	0	± 100	oui
1487/1488 - K27-1 A et B	< 100	< 100	< 100	0	± 100	oui
1489/1490 - K10-1 A et B	< 100	< 100	< 100	0	± 100	oui
1493/1494 - SW34-1A et B	< 100	380	240	116	± 100	acceptable

Tableau 13
Résultats des blancs de méthode pour les BPC congénères

	Valeur obtenue (mg/kg)	LDM (mg/kg)	Critère (≤ 3 LDM)	Respect
Trichlorobiphényles	< 0.01	0.01	≤ 0.03	oui
Tétrachlorobiphényles	< 0.01	0.01	≤ 0.03	oui
Pentachlorobiphényles	< 0.01	0.01	≤ 0.03	oui
Hexachlorobiphényles	< 0.01	0.01	≤ 0.03	oui
Heptachlorobiphényles	< 0.01	0.01	≤ 0.03	oui
Octachlorobiphényles	< 0.01	0.01	≤ 0.03	oui
Nonachlorobiphényles	< 0.01	0.01	≤ 0.03	oui
Décachlorobiphényles	< 0.01	0.01	≤ 0.03	oui

Tableau 14
Résultats des Matériaux de référence (MR) pour les BPC congénères

	Valeur attendue (mg/kg)	Valeur obtenue (mg/kg)	Écart (%)	Critère (%)	Respect
Trichlorobiphényles	0.06	0.06	0	± 30	oui
Tétrachlorobiphényles	0.07	0.07	0	± 30	oui
Pentachlorobiphényles	0.10	0.09	-10	± 30	oui
Hexachlorobiphényles	0.11	0.09	-18	± 30	oui
Heptachlorobiphényles	0.06	0.07	17	± 30	oui
Octachlorobiphényles	0.02	0.02	0	± 30	oui
Nonachlorobiphényles	0.06	0.05	-17	± 30	oui
Décachlorobiphényles	0.09	0.07	-22	± 30	oui

Montréal, le 31 décembre 2001

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Objet : Fiche d'évaluation des résultats d'analyse du projet Sites miniers nordiques abandonnés (Siminord) - Phase 3

Voici la fiche d'évaluation des résultats d'analyse du projet Sites miniers nordiques abandonnés dont les analyses ont été réalisées par Bodycote - Division Envirolab.

Pour tous les paramètres, le laboratoire contractuel a rencontré les exigences exigées au devis de caractérisation. On dénote cependant cinq non-conformités dont quatre sont considérées comme non-significatives par rapport aux critères exigés. C'est le cas pour deux écarts calculés pour le matériau de référence certifié utilisé lors de l'analyse du mercure, un écart calculé pour le matériau de référence utilisé lors de l'analyse des C_{10}-C_{50} dans les eaux et la différence relative calculée entre les valeurs obtenues d'un duplicata pour les C_{10}-C_{50} dans les eaux. L'écart calculé pour le matériau de référence utilisé lors de l'analyse des C_{10}-C_{50} dans les sols (-46 %), diffère beaucoup du critère exigé mais il faut considérer qu'un seul écart sur dix ne rencontre pas les exigences du devis pour tous les échantillons analysés. Ces différences n'ont aucun impact sur la qualité des résultats.

S'il y a des questions ou des commentaires concernant la révision de ce rapport, n'hésitez pas à communiquer avec moi.

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p.j. Fiche d'évaluation
Certificats d'analyse

Fiche d'évaluation des résultats d'analyse

Mercure et plomb

Les données de contrôle de la qualité pour le mercure et le plomb sont regroupées dans les tableaux 1 à 4.

Pour tous les paramètres de contrôle, le laboratoire contractuel a respecté les critères de performance établis au devis d'analyse. On dénote cependant une non-conformité pour le matériau de référence certifié utilisé lors de l'analyse du mercure. Les écarts obtenus (-27 % et -28 %) diffèrent peu du critère exigé de ± 25 %, et les résultats sont considérés comme bons pour une matrice de sol (voir tableau 2).

Hydrocarbures pétroliers dans les sols (C_{10}-C_{50})

Les données de contrôle de la qualité pour les C_{10}-C_{50} dans les sols sont regroupées dans les tableaux 5 à 8.

Pour tous les paramètres de contrôle, le laboratoire contractuel a respecté dans la majorité des cas les critères de performance établis au devis d'analyse. On dénote une non-conformité pour le matériau de référence utilisé lors de l'analyse des C_{10}-C_{50}. L'écart obtenu (- 46 %) diffère du critère exigé de ± 30 %. Il est à noter qu'un seul résultat sur dix ne rencontre pas les exigences du devis (voir tableau 6).

Hydrocarbures pétroliers dans les eaux (C_{10}-C_{50})

Les données de contrôle de la qualité pour les C10-C50 dans les eaux sont regroupées dans les tableaux 9 à 13.

Pour tous les paramètres de contrôle, le laboratoire contractuel a respecté les critères de performance établis au devis d'analyse. On dénote cependant une non-conformité pour l'écart obtenu pour le matériau de référence utilisé lors de l'analyse des C_{10}-C_{50}. L'écart obtenu (- 33 %) diffère peu du critère exigé de ± 30 %, et les résultats sont de ce fait considérés comme bons (voir tableau 10). De plus, un duplicata terrain (voir tableau 12) ne rencontre pas le critère établi. À ce seuil de concentration, une variation de 116 % est considérée acceptable car on se situe entre la zone de détection et la zone de quantification de la méthode d'analyse.

BPC congénères

Les données de contrôle de la qualité pour les BPC congénères dans les sols sont regroupées dans les tableaux 14 et 15.

Pour tous les paramètres de contrôle, le laboratoire contractuel a respecté les critères de performance établis au devis d'analyse pour le contrôle de la contamination et les écarts obtenus pour le matériau de référence certifié.

Tableau 1
Résultats des blancs de méthode pour les métaux

	Valeur obtenue (mg/kg)	Critère (≤ LDM)	Respect
Mercure	< 0.02	≤ 0.02	oui
Mercure	< 0.02	≤ 0.02	oui
Mercure	< 0.02	≤ 0.02	oui
Plomb	< 5	≤ 5	oui
Plomb	< 5	≤ 5	oui

Tableau 2
Résultats des matériaux de référence certifiés (MRC) pour les métaux

	Valeur attendue (mg/kg)	Valeur obtenue (mg/kg)	Écart (%)	Critère (%)	Respect
Mercure	3.06	2.40	-22	± 25	oui
Mercure	3.06	2.22	-27	± 25	acceptable
Mercure	3.06	2.20	-28	± 25	acceptable
Plomb	89	97	9	± 25	oui
Plomb	183	184	0.5	± 25	oui

Tableau 3
Résultats des récupérations pour les métaux

	Récupération obtenue (%)	Critère (%)	Respect
Mercure	80	80 - 120	oui
Plomb	98	80 - 120	oui

Tableau 4
Résultats des duplicatas pour les métaux

	Valeur 1 (mg/kg)	Valeur 2 (mg/kg)	Moyenne (mg/kg)	Écart relatif (%)	Critère (%)	Respect
Mercure	< 0.02	< 0.02	< 0.02	0	± 100	oui
Mercure	0.02	0.02	0.02	0	± 100	oui
Mercure	0.03	0.04	0.04	29	± 100	oui
Plomb	180	150	165	18	± 25	oui
Plomb	30	44	37	38	± 40	oui

Tableau 5
Résultats des blancs de méthode pour les C_{10}-C_{50} dans les sols

	Valeur obtenue (mg/kg)	LDM (mg/kg)	Critère (≤ 3 LDM)	Respect
Hydrocarbures pétroliers C_{10}-C_{50}	< 100	100	≤ 300	oui
Hydrocarbures pétroliers C_{10}-C_{50}	< 100	100	≤ 300	oui
Hydrocarbures pétroliers C_{10}-C_{50}	< 100	100	≤ 300	oui
Hydrocarbures pétroliers C_{10}-C_{50}	< 100	100	≤ 300	oui
Hydrocarbures pétroliers C_{10}-C_{50}	< 100	100	≤ 300	oui

Tableau 6
Résultats des Matériaux de référence (MR) pour les C_{10}-C_{50} dans les sols

	Valeur attendue (mg/kg)	Valeur obtenue (mg/kg)	Écart (%)	Critère (%)	Respect
MR (sols)	1500	1900	27	± 30	oui
MR (sols)	1500	1400	-7	± 30	oui
MR (sols)	1500	1600	7	± 30	oui
MR (sols)	1500	1400	-7	± 30	oui
MR (sols)	1500	1500	0	± 30	oui
MR (sols)	19030	20000	5	± 30	oui
MR (sols)	19030	22000	16	± 30	oui
MR (sols)	7400	4000	- 46	± 30	non
MR (sols)	7400	6500	- 12	± 30	oui

Tableau 7
Résultats des récupérations pour les C_{10}-C_{50} dans les sols

	Identification	Récupération obtenue (%)	Critère (%)	Respect
Hydrocarbures pétroliers C_{10}-C_{50}	960 - PJ1-7	116	50 - 120	oui
Hydrocarbures pétroliers C_{10}-C_{50}	964 - PJ1-14	87	50 - 120	oui
Hydrocarbures pétroliers C_{10}-C_{50}	983 - PJ17-7	103	50 - 120	oui
Hydrocarbures pétroliers C_{10}-C_{50}	986 - PJ19-1	100	50 - 120	oui

Tableau 8
Résultats des duplicatas pour les C_{10}-C_{50} dans les sols

	Valeur 1 (mg/kg)	Valeur 2 (mg/kg)	Moyenne (mg/kg)	Écart relatif (%)	Critère (%)	Respect
966 - PJ1-20	220000	210000	215000	5	± 30	oui
970 - PJ10-2	8000	5900	6950	30	± 30	oui
982 - PJ17-6	< 100	< 100	< 100	0	± 100	oui
989 - TW-2	74000	86000	80000	15	± 30	oui
1500 - WB9-1	< 100	110	< 100	100	± 100	oui
1516 - SW34-4	< 100	120	< 100	100	± 100	oui

Tableau 9
Résultats des blancs de méthode pour les C_{10}-C_{50} dans les eaux

	Valeur obtenue (µg/L)	LDM (µg/L)	Critère (≤ 3 LDM)	Respect
Hydrocarbures pétroliers C_{10}-C_{50}	< 100	100	≤ 300	oui
Hydrocarbures pétroliers C_{10}-C_{50}	< 100	100	≤ 300	oui

Tableau 10
Résultats des Matériaux de référence (MR) pour les C_{10}-C_{50} dans les eaux

	Valeur théorique (µg/L)	Valeur obtenue (µg/L)	Écart (%)	Critère (%)	Respect
MR (eaux)	2400	1900	-21	± 30	oui
MR (eaux)	2400	1600	-33	± 30	acceptable
MR (eaux)	9400	6700	-29	± 30	oui

Tableau 11
Résultats des récupérations pour les C_{10}-C_{50} dans les eaux

	Identification	Récupération obtenue (%)	Critère (%)	Respect
Hydrocarbures pétroliers C_{10}-C_{50}	950 - PJ1-18B	77	50 - 120	oui
Hydrocarbures pétroliers C_{10}-C_{50}	954 - TW3B	79	50 - 120	oui
Hydrocarbures pétroliers C_{10}-C_{50}	1494-SW34-5B	55	50 - 120	oui

Tableau 12
Résultats des duplicatas pour les C_{10}-C_{50} dans les eaux

	Valeur 1 (mg/kg)	Valeur 2 (mg/kg)	Moyenne (mg/kg)	Écart relatif (%)	Critère (%)	Respect
945 - PJ1-1A	130	115	123	12	± 100	oui
947/948 - PJ1-8A et B	140	240	190	53	± 100	oui
949/950 - PJ1-18A et B	160	110	135	37	± 100	oui
953/954 - TW3 A et B	180	120	150	40	± 100	oui
1491-SW42-1A	< 100	< 100	< 100	0	± 100	oui
1487/1488 - K27-1 A et B	< 100	< 100	< 100	0	± 100	oui
1489/1490 - K10-1 A et B	< 100	< 100	< 100	0	± 100	oui
1493/1494 - SW34-1A et B	< 100	380	240	116	± 100	acceptable

Tableau 13
Résultats des blancs de méthode pour les BPC congénères

	Valeur obtenue (mg/kg)	LDM (mg/kg)	Critère (≤ 3 LDM)	Respect
Trichlorobiphényles	< 0.01	0.01	≤ 0.03	oui
Tétrachlorobiphényles	< 0.01	0.01	≤ 0.03	oui
Pentachlorobiphényles	< 0.01	0.01	≤ 0.03	oui
Hexachlorobiphényles	< 0.01	0.01	≤ 0.03	oui
Heptachlorobiphényles	< 0.01	0.01	≤ 0.03	oui
Octachlorobiphényles	< 0.01	0.01	≤ 0.03	oui
Nonachlorobiphényles	< 0.01	0.01	≤ 0.03	oui
Décachlorobiphényles	< 0.01	0.01	≤ 0.03	oui

Tableau 14
Résultats des Matériaux de référence (MR) pour les BPC congénères

	Valeur attendue (mg/kg)	Valeur obtenue (mg/kg)	Écart (%)	Critère (%)	Respect
Trichlorobiphényles	0.06	0.06	0	± 30	oui
Tétrachlorobiphényles	0.07	0.07	0	± 30	oui
Pentachlorobiphényles	0.10	0.09	-10	± 30	oui
Hexachlorobiphényles	0.11	0.09	-18	± 30	oui
Heptachlorobiphényles	0.06	0.07	17	± 30	oui
Octachlorobiphényles	0.02	0.02	0	± 30	oui
Nonachlorobiphényles	0.06	0.05	-17	± 30	oui
Décachlorobiphényles	0.09	0.07	-22	± 30	oui