CAM-F (SARCPA LAKE) DEW LINE STATION CONDITION REPORT SEPTEMBER 1980 E78 .C2 C3632 EA-HQ 80-110 c. 1

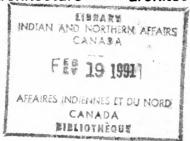


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REPORT RAPPORT

Report No. EA-HQ-80-110

CAM-F (SARCPA LAKE) DEW LINE STATION CONDITION REPORT

September 1980

by D.E. Rodger Municipal Services Divison Technical Services and Contracts Branch

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Map Sheet 47A - Hall Lake

Photographs

As-built drawing	<pre>lAP-1 "CAM-F Site Development"</pre>
As-built drawing	lAP-2 "CAM-F Building Site"
As-built drawing	l-lA "Typical Building Train"
As-built drawing	<pre>lG-l "Garage Plan and Sections"</pre>

1. Background

At the request of the Northern Social Research Division, Mr. Elliot Rodger of Technical Services and Contracts Branch, in the company of Mr. George Lerchs of the Northern Social Research Division, visited CAM-F during the period August 7-9, 1980. Access to and from the station was by Twin Otter chartered from First Air. Fuel and supplies for the station were brought in on the same flight.

2. Access

CAM-F is one of the abandoned DEW Line stations acquired by Northern Affairs Program ten years ago. It is located in the north central part of Melville Peninsula at coordinates 68°32'52" N, 83°20'30" W. Conventional access to the station is by chartered aircraft from Iqloolik approximately 120 km straight line distance to the northeast or from Hall Beach approximately 105 km straight line distance to the east. A First Air Twin Otter would be the normal charter from these points. The one way (drop off) cost from Igloolik to Sarcpa Lake would be \$1,500 which includes a positioning charge from Hall Beach. The round trip (pick-up) cost would be double. This cost could be reduced by flying directly from Hall Beach or by arranging the Igloolik flight at the end of a "sked" into Igloolik. Flight charter availability is subject to scheduled flights and other charter or medivac commitments. Depending on weather, there are usually one or two days a week flight charters could be available. Hall Beach provides the closest weather information.

Alternatively, access may be possible by canoe from Hall Lake via the Kingora River (see attached map sheet 47A - Hall Lake). Some gravel bars would be encountered en route preventing any significant sealift operation.

In the winter, access could be achieved by over-snow vehicle from Igloolik or Hall Beach.

3. Logistics

When planning a trip to CAM-F, allowance should be made in time, food and supplies for the possibility of an extended stay due to weather or aircraft delays. Visitors should bring in all their own food. The food which is at the station belongs to the York University summer school.

Depending on hunting and fishing regulations, some game food is available. Cariboo, ptarmigan, lake trout and char are plentiful in the area. Numerous local tundra plants are edible and nourishing.

Water was used untreated from the unnamed lake south-east of the building site.

The Train Building would normally be used for accommodation. Numerous tent pitching areas are available. The NANR House can also provide shelter.

Arrangements should be made for radio contact with the Eastern Arctic Scientific Resource Center or alternate. The radio antenna may be strung on poles between the Train Building and the Garage.

4. Grounds

CAM-F is located on a hill (elevation 300 m ASL) about 2 km north of the west arm of Sarcpa Lake (Photo 1). Refer to attached map sheet 47A - Hall Beach - Military Grid Reference 17 WMG 0607. The surrounding area consists of moderately mountainous terrain with numerous lakes and rivers notably Sarcpa Lake and Kingora River (Photo 2).

As-built drawing lAP-1 "CAM-F Site Development" shows the lay-out of the station. The train building, warehouse, garage and POL tanks are located on top of the hill. The NANR House is approximately 200 m south-east along the Water Road. The 400 ft. AA antenna has been felled along a north-west alignment away from its base resulting in an unsightly wreck of twisted silver and orange metal and cable (Photo 3). The 100 x 3600 ft. airstrip is on a north-west, south-east alignment about 300 m south of the building site.

As-built drawing lAP-2 "CAM-F Building Site" provides site development details of the main building site. Included on this drawing are the approximate locations one standing and two demolished Quonset-type huts. Physically the site is in very good condition. Building foundation pads and roads are of compacted gravel and are generally in tact with no significant erosion, gullying or slumping. Overall site drainage was good and culverts were all clear.

Other than the natural aesthetics of the location, the most notable characteristic of the grounds was the amount of garbage around. Scattered sometimes in piles and sometimes randomly at various locations were numerous fuel drums, two piles of wrecked vehicles, a general dump, large quantities of assorted lumber, broken equipment and other debris, and a large quantity of equipment and other materials to the north of the Train Building as a result of a general gutting of that building. The grounds around the NANR House were also covered with garbage including refrigerator, stove, bedsprings and other material removed from inside the house. Also notable on the grounds was the wreck of a crashed aircraft south of the airstrip.

The two vehicle piles represent extravagant waste. Someone, presumably DEW Line personnel closing the station, has bulldozed the

vehicles into piles and set fire to them. Some means of storage may have been preferable as some of the vehicles appear not to have had many hours of use on them.

The pile to the south of the warehouse included (Photo 4):

- 2 bulldozers
- earth mover
- fuel truck
- dump truck
- bombardier
- trailor

The pile near the construction camp (see IAP-2 insert) included (Photo 5):

- bombardier
- dump truck
- jeep
- trailor
- misc. equipment unidentifiable

The garbage dump contained an enormous quantity of material including fuel drums, scrap steel, lumber, wrecked equipment, furniture, etc. (Photo 6). It is suspected that much of this would have been useable prior to disposal although there is very little salvageable now. The dump has been piled together but not compacted or covered. A smaller dump, also messy, is located down a slope north-east of the POL tanks.

Fuel drums are stacked or left in a number of locations. A long pile of approximately 350 drums is located north of the north end of the airstrip (Photo 7). Another large pile of approximately 700 drums is piled at the construction camp (Photo 8). Other small piles are dispersed around the area.

Two sources of gravel were noted: one along the west arm of Sarcpa Lake (Photo 9) and one at the construction camp (Photo 10). See lAP-1 "insert". The former pile contained an estimated 500 $\rm m^3$ of stone, while the latter contained an estimated 200 $\rm m^3$. Each gravel source would have limited further supplies of gravel in the ground.

5. Roads

The gravel road from the building site to the airstrip was in very good condition with one pothole over a culvert (Photo 11). The pothole would require a shovel and wheelbarrow or bucket to repair. Drainage along the road was very good and the culverts were clear. The gravel road from the building site to the construction camp was in good condition and, though somewhat bumpy, required no immediate repairs. Neither road required re-gravelling, shoulder and side

slope maintenance or ditch maintenance. Both roads were free of frost heaves and erosion. Road bases and sub-grades were satisfactory.

The road from the airstrip to the gravel source on the west arm of Sarcpa Lake was in impassable condition. Much of the lower half of the road was washed out due to water drainage down the slope along the road surface. Repairs to this road would include re-establishment of the sub-grade, base and surface. It is doubtful that the remaining gravel at the foot of the road would justify re-construction of the road. Access to Sarcpa Lake is available via the construction camp road.

6. Airstrip

While no technical investigation of the airstrip (100' x 3600') was carried out, visual inspection indicated the runway to be in very good condition (Photo 12). The Twin Otter had no difficulty landing. There was very little rutting of the gravel surface by aircraft tires indicating that the surface and sub-grade were still in very good condition. Minor erosion was occurring along the south edge of the north-east end of the runway. The extreme north-east end was somewhat wet and there was poorly drained standing water along the north side of the north-east end of the runway. Rehabilitation of the drainage ditch would be necessary to remove this water.

Runway lights and fixtures had been smashed and wires cut so the entire lighting system was unserviceable. The wind sock was missing.

7. Buildings

A condition description of each of the buildings is provided below. These are not intended to be complete architectural and engineering descriptions which are already provided in the as-built drawings available from:

Data Storage and Inventory Section Technical Data Services Division Technical Services and Contracts Branch Attn: Mrs. G. DeLamarre

8. Train Building

Reference should be made to the attached drawing 1-lA "Typical Building Train". In general, the building was in good condition (Photos 13, 14, 15). The foundation pad of compacted granular material on bedrock was still sound with no indication of settlement or erosion. A wood post to bedrock foundation structure transfers the building load to ground. The 12" x 12" Douglas fir members were in durable condition though there was pervasive paint flaking. No sign of rot was noted.

No buildings settlement was noted; the building floors were flat and the joints were flush.

Exterior walls were of heavy gauge corrugated aluminum except for the plenum walls which were of gray painted galvanized steel. No holes, cracks or leaks were apparent though there were minor dents. A plywood shelter for propane cylinders has recently been added below the kitchen. Aluminum windows and flashings were all in excellent condition with the exception of the kitchen window which was cracked but taped. Minor re-caulking is required. The windows had serviceable shutters. Original wiring extending out of the building had been cut at the outside connections.

The stairs at each outside door were constructed of 8" x 12" timber frames and 2" x 4" steps and handrails. All stairs required painting as much of the original paint has weathered off. The stairs to the south side door (the main entrance) were reasonably sturdy having been reinforced. The stairs on the east side which had limited use require reinforcing. The stairs on the north side were in good condition. The stair on the west side were in place but the landing was missing which rendered the west entry inoperative.

Generally, the interior of the building was in good condition though substantial alterations from the original design had been made. Floors were all structurally sound and flat with no sign of sagging or unevenness due to excessive floor loading or foundation failure. The tile floor finish, however, has deteriorated with some rooms having some tiles loose or missing. Except for the Power and Heat Room where there was a lot of debris on the floor (Photo 16), floors were being kept clean by the York University summer school.

Interior walls were structurally sound and free of cracking, bulging or other indications that they could not support the design load. All wall sections, consisting of painted plywood sheeting, were tightly in place. There was no sign of weather penetration. Interior paint was in good condition, the York University group having painted the kitchen and hall, recently and some other rooms previously. Notable are the wildlife paintings on the kitchen walls which should be preserved (Photo 17).

Doors were all in place, a number having been re-painted by the York University group. The door to the Power and Heat Room requires painting. A number of handles on the interior doors were missing and had been replaced by rope handles. Hinges all operated well though some doors were moderately tight in closing. All exterior doors shut securely.

Ceilings were all structurally sound and of original appearance, though some had been recently painted. There was no sign of water penetration, staining or other deterioration. Plumbing systems were non-operational. The original system has been almost entirely dismantled and disposed of in pieces on the ground to the north of the Train Building. This apparently has been carried out by the York University group in order to provide more living and working space. The Water Storage and Snow Melting Room has been converted to a bedroom (Photo 18). The tanks and all other equipment have been removed except for one of the water tanks which has been cut open to use as storage. New interior walls have been added. The main room contains three triple decker bunk beds with "foamie" mattresses and one table. The smaller room contains two triple decker bunk beds.

The Tank Room has been converted into a food storage pantry. The holding tank was in place but the remainder of the equipment had been removed. New shelving has been installed. The Kitchen water system was not serviceable with some of the original equipment having been disconnected. Currently, water is brought in from the water lake and stored in a fifty gallon tank in kitchen. Washwater from the kitchen sink drains to the ground on the north side of the building. The porcelain bathroom sink and stainless steel shower stall were in place with wash water draining to a holding tank. A bucket shower system was available. The toilet had been removed. A women's honey bucket toilet was placed in the Power and Heat Room and a men's honey bucket toilet and urinal were placed in the former bathroom of the Warehouse.

Heating and ventilating systems had largely been dismantled and removed from the building. Ducting and other equipment has been dumped on the north side of the Train Building.

While electrical wiring and lighting were largely in tact, the original generating equipment was non-operational. Restricted power service was supplied to the building from a three kilowatt Onan electrical generator rated at 220/240 volts located in the Warehouse with power carried to the Train Building by an overhead power line. This generator was bought for CAM-F by Environment Canada. The original generators and other equipment in the Power and Heat Room have been rendered unserviceable (Photo 19). While some parts were damaged or missing, the remainder of the generators were in good condition and probably could be repaired. Much of the wiring in the Power and Heat Room has been cut (Photo 20).

The communications equipment in the Equipment Room has largely been removed. Part of this equipment was probably removed by DEW Line personnel while part was removed subsequently and dumped on the ground to the north of the Train Building. The equipment cabinets are in place and used to store equipment belonging to the York University summer school (Photo 21). The Equipment Room itself was in use as a science workshop by the York University students (Photo 22).

The fire protection system is not serviceable. Much of the wiring has been cut and the alarms disconnected. Fire hoses were missing.

The original use of the Train Building has been altered subtantially by the York University summer school. The group has carried out many of the alteration mentioned earlier in this description and has carried out repairs and maintenance work. The renovations are summarized below:

Water Storage and Snow Melting Room

- converted into dormitory with 15 bunk beds
- walls added
- painted

Corridor

- painted
- door handles improvised

Transient Dorm (Photo 23)

- converted to dormitory with two triple decker bunk beds
- painted

Tank Room

- used for food storage pantry
- gutted except for holding tank

Living Quarters (Photos 24 and 25)

- retained as kitchen/dining area
- kitchen area has propane stove, three burner Coleman stove,
 50 gallon water tank
- dining area has two tables with bench seats, Enterprise space heater, radio table, souvenir wall hangings from summer students, and wildlife wall art.
- painted

Equipment Room

- mostly gutted except for equipment cabinets
- room in use by students as science workshops, equipment repairs, etc.
- contains workbenches, tables and shelving built by students
- painted

Power and Heat Room

- in use as women's toilet room
- some equipment removed, much debris on the floor. Requires cleaning.

9. Garage

Refer to attached drawing 1G-1 "Garage Plan and Sections". The garage has been almost totally demolished by persons unknown (Photo 26). Only steel beams, part of the Generator Room and the concrete floor remain in tact. Much of the building material has been left on the ground while some has been used in building the Quonset-type hut. Some of the remaining garage material would be salvageable for building purposes.

10. Warehouse

The exterior of the warehouse was in very good condition with corrugated aluminum walls and roof (Photos 27 and 28). A portion of the aluminum siding at the peak on the north side had been removed and more siding was missing from the walls of the addition on the south side. The pieces removed may have been used in the construction of the Quonset-type hut. The resultant exposed plywood should be painted or covered. Otherwise the aluminum walls only had minor dents.

The gravel foundation pad was well-drained and in good condition. The 12" X 12" timber foundations under the addition were sound.

Windows and doors were in good condition. One broken window pane had been boarded up. The stairs were sound but required painting (gray). The outside fuel tanks were empty.

The interior of the warehouse was in good condition. The concrete floor was free of cracks. The outside walls and ceiling were structurally sound. The walls of the Generator and Heater Rooms at the back were largely dismantled though the frame members were still in place. Wiring was in place except in the Generator and Heater Rooms. The warehouse was currently in use as a workshop and storage area. The main contents consisted of miscellaneous lumber and plywood sheets, three steel sheets, one air pollution monitor, one Co₂ Cartridge and some steel shelving. The addition to the back of the warehouse housed the men's bathroom. Fixtures included a honey bucket and urinal toilet.

11. NANR House

The NANR House was in generally good condition (Photo 29). The gravel foundation pad was stable and well-drained. The wood post on sill foundation structure was good with no sign of rot or settlement. The aluminum walls and roof were in good condition. There was a small tear on the lower south-west corner exposing plywood and insulation, a small tear on the front wall and numerous minor dents. The exterior fuel tank was not in place. The grounds around the house were messy with fuel drums, scrap steel and furnishings removed from the house.

The interior of the house was structurally sound. The floor was solid but very dirty and some tiles were lifting. Walls had been painted sky blue by the York University group. The steel panel ceiling was in good condition with no sign of water penetration. All electrical and mechanical equipment including the diesel fuel stove had been removed as had all furnishings. This was to permit re-use of the building as a laboratory and for housing for extra students. Electrical wiring was not in tact. Windows were in tact except one was cracked. One window vent was broken. The house was not in use during the time of the visit.

12. Quonset-type Hut

A Quonset-type hut has been constructed on the main building site out of materials available from the garage (Photo 30). This appeared to be a solid, weatherproof structure in use for storage.

13. POL Tanks and Pump House

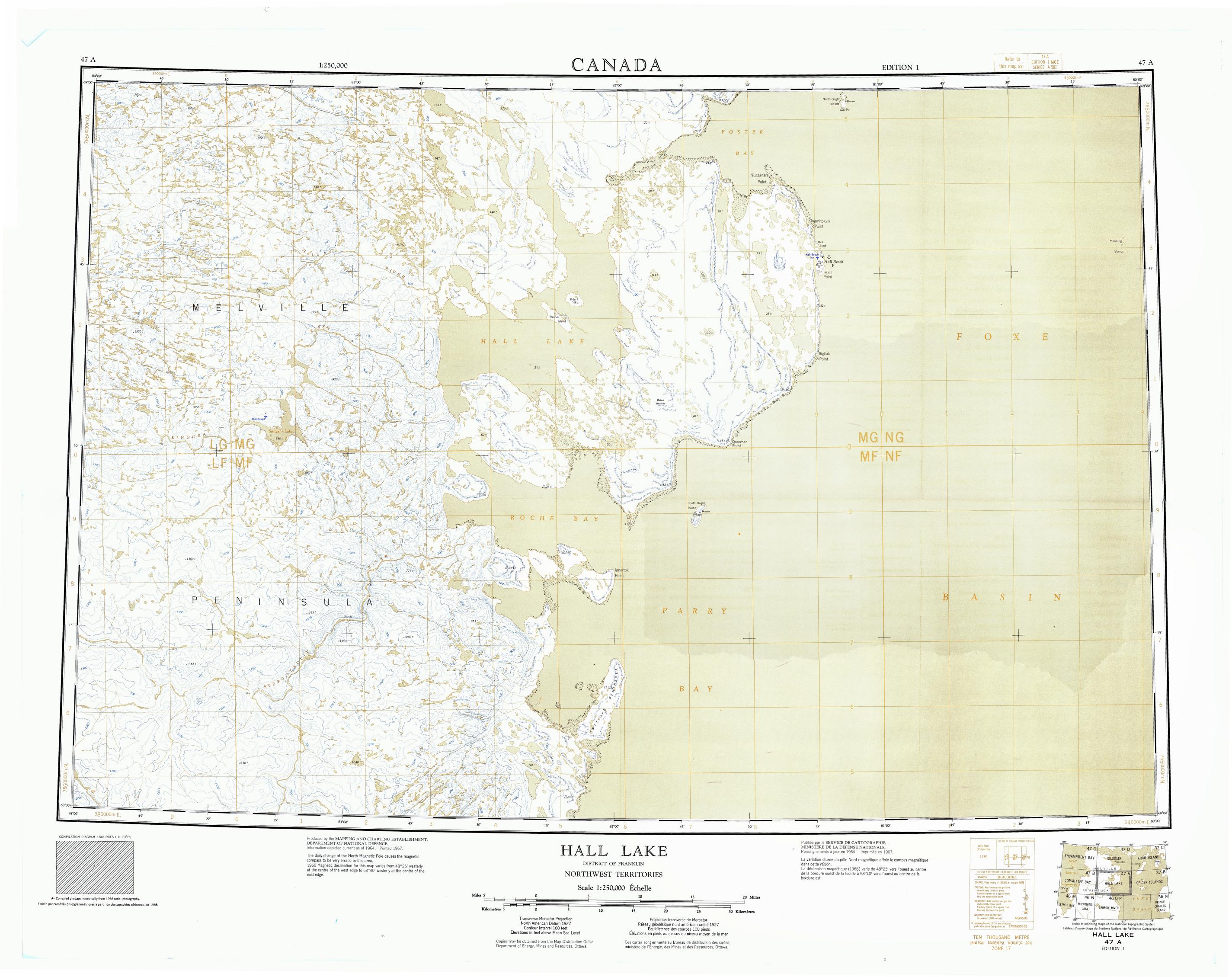
The two POL tanks and pump house on the main building site were in good condition though the access ports on both tanks have been left open allowing water to enter (Photo 31).

14. Vehicles

Two Honda ATC 90 three wheel trail vehicles were operational, one with a trailor used for hauling water and other supplies (Photo 32). These were being maintained by the York University group. The 1975 vehicle was in good condition while the 1976 vehicle was in fair condition with a torn seat and broken fiberglass body.

Also located at the station was a ten foot Mirage rubber boat with a six horsepower Chrysler outboard engine. Both were in good condition.

Apparently the two Hondas and the boat and engine were purchased by DIAND for use at CAM-F.



<u>CAM-</u>F

Photographs



Photo 1 - CAM-F Intermediate Station



Photo 2 - Sarcpa Lake



Photo 3 - 400' AA Antenna

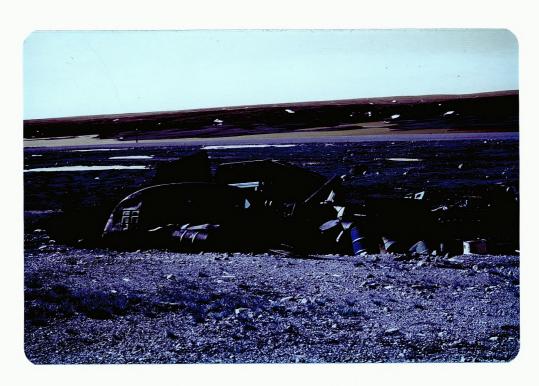


Photo 4 - Vehicle Pile near Warehouse



Photo 5 - Vehicle Pile near Construction Camp



Photo 6 - Garbage Dump



Photo 7 - Oil drums near airstrip



Photo 8 - Oil drums near Construction Camp



Photo 9 - Gravel Pit near Sarcpa Lake



Photo 10 - Gravel Pit near Construction Camp



Photo 11 - Road to airstrip



Photo 12 - Airstrip



Photo 13 - Train Building (south side)

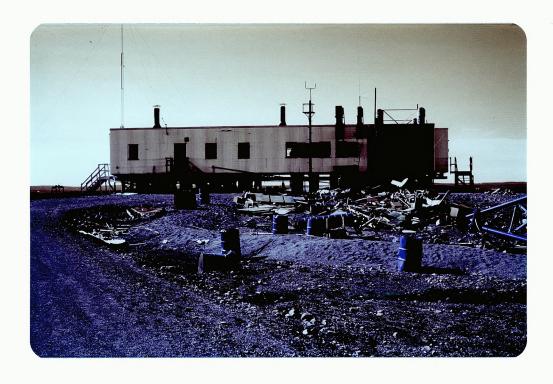


Photo 14 - Train Building (north side)



Photo 15 - Train Building (east side)



Photo 16 - Power and Heat Room debris



Photo 17 - Artwork on kitchen wall



Photo 18 - Water Storage and Snow Melting Room

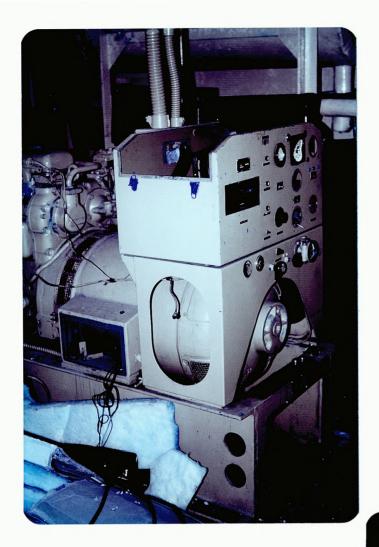


Photo 19 - Diesel Generator



Photo 20 - Power and Heat

Room

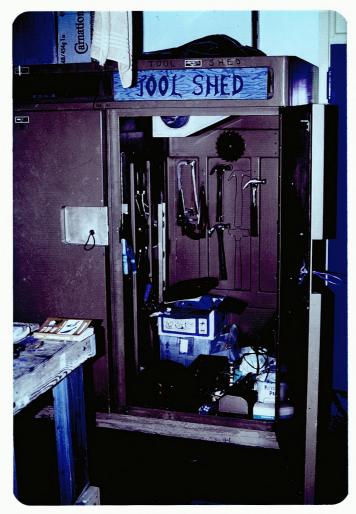


Photo 21 - Equipment Room cabinets



Photo 22 - Equipment Room work area



Photo 23 - Transient Dorm

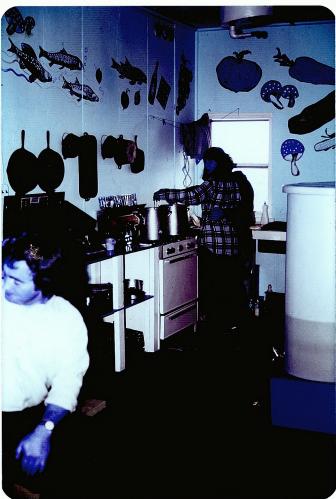


Photo 24 - Kitchen



Photo 25 - Dining Area



Photo 26 - Garage



Photo 27 - Warehouse (north and west sides)



Photo 28 - Warehouse (south and east sides)



Photo 29 - NANR House



Photo 30 - Quonset-type Hut



Photo 31 - POL Tanks and Pump House



Photo 32 - Honda ATC 90 with trailor

