

THE 1994 CLEAN UP OF GREAT SLAVE LAKE
under a program funded by the
ARCTIC ENVIRONMENTAL STRATEGY
ADMINISTRATION BY THE METIS NATION YK.
FIELD OPERATIONS BY TERRA VERRA CO.

This report is divided into ten sections placed in chronological order to describe phases of the third and final year of the clean-up of Great Slave Lake. The various sections are listed as follows:

Section 1 - The refit of the vessel Hugh A. Young and four barges under an arrangement between D.I.A.N.D. and D.P.W. marine division

Section 2 - Operational preparations in Yellowknife.

Section 3 - Outpost Island (Philmore)

Section 4 - Aurous Mine, Wilson Island

Section 5 - DeStaffany and related sites

Section 6 - Thompson Landing

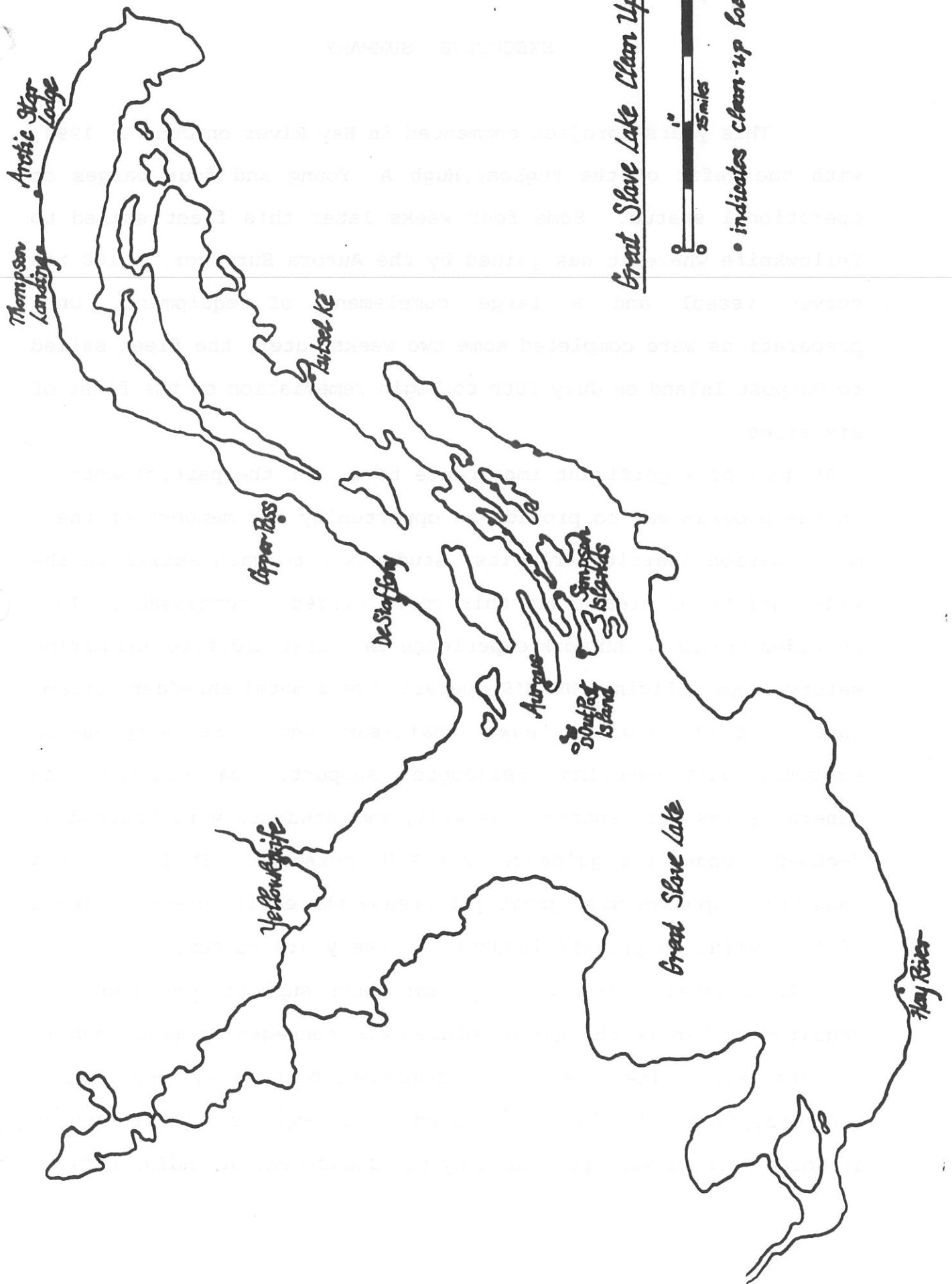
Section 7 - Arctic Star Lodge

Section 8 - Communities

Section 9 - Old Hearne Channel Minesite (Copper Pass)

Section 10 - Demobilization

Section 11 - Miscellaneous



Great Slave Lake Clean Up 1994



• indicates clean-up location

EXECUTIVE SUMMARY

This years' project commenced in Hay River on June 1, 1994, with the refit of the tugboat, Hugh A. Young and four barges to operational status. Some four weeks later this fleet sailed to Yellowknife where it was joined by the Aurora Surveyor, a 100 ton survey vessel and a large complement of equipment. Once preparations were completed some two weeks later, the fleet sailed to Outpost Island on July 10th to begin remediation of the first of six sites.

An goal of significant importance to all of the participants in the program was to provide an opportunity for members of the Metis Nation (particularly its' students), to gain skills in the wide variety of areas that this years project encompassed. This included training and work experience in: first aid, fire and marine safety, rope splicing, WHIMIS, operation of a metal shredder, plasma cutter, metal cut-off saw, chain-saw and fire suppression equipment, boat handling, helicopter support, load-rigging, and general ships maintenance. As well, two students were trained as deckhands under the guidance of D.P.W. personnel. It is expected that this exposure will greatly increase the entire crews' chances of employment in private industry in the years to come.

An extensive amount of primary and support equipment was required to handle the large volumes and tonnages of metal debris at this years' sites. A crucial component of this equipment was a 500 horsepower hydraulic metal shredder. It and its' sister machine in Coral Harbour were purchased by the Department of Indian Affairs

and Northern Development to reduce the volume of the many hundreds of thousands of 45 gallon steel drums scattered throughout the north at sites left there prior to the establishment of land use regulations in 1972. The enormous volume of this many drums as well as their classification as dangerous goods would have made the cost of disposal prohibitive without volume reduction and the reclassification of the shredded product as scrap metal. This shredder is capable of reducing the volume of steel drums and like items to 1/5th of their original size and has proven invaluable as it increased the on-board storage capacity of the operation by a factor of four. With a skilled operator it will handle approximately 80 drums per hour.

The remaining support equipment included a plasma arc cutter employed extensively on the larger steel items, welding equipment for machine repair, a 915 tracked loader, gasoline powered cut-off saws to cut some 1.25 miles of steel pipe, as well as the extensively used four wheel drive all terrain vehicles for material transport. A Hughes 500D helicopter was required for the last two locations due to the inaccessibility of these sites.

The western arctic shredder dubbed T-WRECKS, and various support equipment, have successfully completed their first year of operation in a marine pilot project on Great Slave Lake. When completed, this years' pilot project will have disposed approximately 460 tons of steel, 2.5 tons of broken glass, 16 tons of calcium carbonate, and 2 tons of asbestos related material. Eight separate mine shafts were capped at three locations, five with reinforced concrete and the remaining three filled with local

material. Out Post Island required moving 2500 cubic meters of waste rock to cover a large trench previously filled with waste metal and to groom the site. Thirty-five thousand cubic feet of waste wood was burned at sixty-nine separate burn sites including sixteen condemned buildings, many containing asbestos sheeting which required prior disposal. Thirty-one hundred gallons of waste oil were collected and burned in a high temperature waste oil incinerator purchased for the Arctic Environmental Strategy. Thirty lbs of freon 12 were collected from abandoned refrigeration equipment with a freon recovery unit.

This years' clean-up was made possible under a program funded by the Arctic Environmental Strategy, Department of Indian Affairs and Northern Development with the co-operation of the Federal Department of Public Works marine division. The program was administered by the Metis Nation of Yellowknife and site management, crew supervision and this report were provided by Terra Verra Company of Yellowknife.

You will find included in this document a map outlining the various locations worked on in 1994 by the Hugh A. Young and related vessels. An additional thirteen sites were cleaned up under a separate arrangement with a local businessman employing a 50' fishing vessel and Metis Nation employees. This is indicated on the map provided. Some historical material on Out Post Island and DeStaffany Mine sites is included as well as photo-documentation of the various sites.

material. Out Post Island required moving 2500 cubic meters of waste rock to cover a large trench previously filled with waste metal and to groom the site. Thirty-five thousand cubic feet of waste wood was burned at sixty-nine separate burn sites including sixteen condemned buildings, many containing asbestos sheeting which required prior disposal. Thirty-one hundred gallons of waste oil were collected and burned in a high temperature waste oil incinerator purchased for the Arctic Environmental Strategy. Thirty lbs of freon 12 were collected from abandoned refrigeration equipment with a freon recovery unit.

This years' clean-up was made possible under a program funded by the Arctic Environmental Strategy, Department of Indian Affairs and Northern Development with the co-operation of the Federal Department of Public Works marine division. The program was administered by the Metis Nation of Yellowknife and site management, crew supervision and this report were provided by Terra Verra Company of Yellowknife.

You will find included in this document a map outlining the various locations worked on in 1994 by the Hugh A. Young and related vessels. An additional thirteen sites were cleaned up under a separate arrangement with a local businessman employing a 50' fishing vessel and Metis Nation employees. This is indicated on the map provided. Some historical material on Out Post Island and DeStaffany Mine sites is included as well as photo-documentation of the various sites.

PHOTOGRAPHS

Cover - Composite satellite photograph of Great Slave Lake

Section 1

- 001 - Hugh A. Young on slipway, Hay River
- 002 - Phil Bosse; chief engineer, Dave Newton; Captain
- 003 - Gary Vaillancourt; superintendent
- 004 - Hay River refit crew
- 005 - Shelly Maurice; deckhand, practising a splice
- 006 - Engine room, Hugh A. Young
- 007 - Props and shafts replaced
- 008 - Engineer and deckhands replacing cutlass bearings with hydraulic puller
- 009 - Cleaning the fuel tanks
- 010 - Rudders dropped for inspection
- 011 - DPW fleet, hulls primed and ready to paint
- 012 - Ed Pitman; deckhand
- 013 - Unloading barges in preparation for launch
- 014 - Painting hulls
- 015 - Houseboat launching (274)
- 016 - Fuel barge launching (262)
- 017 - Hugh A. Young getting an extra push
- 018 - Deckhands training with emergency survival suits
- 019 - Tow assembled and heading down the river
- 020 - Goodbye Hay River

Section 2

- 021 - Yellowknife, July 1
- 022 - Rope handling training for the new student crew
- 023 - Life preserver demonstration
- 024 - Loading material for shaft capping
- 025 - Water tank
- 026 - Waste oil incinerator on board
- 027 - Painting party
- 028 - Garbage incinerator
- 029 - Fire drill
- 030 - Pulling the Aurora Surveyor offshore
- 031 - Towing out to open water
- 032 - The Aurora Surveyor and Hugh A. Young
- 033 - Metal shredder loaded at Giant mine

Section 3

- 034 - Outpost Island, main mill site, looking east
- 035 - Mill site, facing north
- 036 - Mill site, facing west
- 037 - A smoky day
- 038 - Burnt utilidor, facing east
- 039 - Shaft, centre of main island
- 040 - Boilers with asbestos covering
- 041 - One of many burn piles along the islands length
- 042 - Making a road for plasma cutting equipment
- 043 - One

- 044 - ...piece
- 045 - ...at a time. Mill site, facing north-west
- 047 - Shaft in photo 039 capped
- 048 - On the job training, welding waste oil tank stand
- 049 - Domestic metal garbage, East Is. dump
- 050 - Main trench before loading
- 051 - Loader training for students
- 052 - Shredder training
- 053 - Boat handling and safety training
- 054 - On the job, plasma cutter training
- 055 - Mill and main site, initial view
- 056 - Ten days later
- 057 - Three weeks later
- 058 - Water tank footings, minus water tank remains
- 059 - Just enough room
- 060 - Covering the trench from ore pile
- 061 - Standing on the newly covered trench, facing west
- 062 - Main site from across the bay, facing east
- 063 - Main dock and metal cross found on site
- 064 - Main site with boilers, facing south west
- 065 - Main ore pile and trench site
- 066 - A monument

Section 4

- 067 - Aurous mine, upper shaft
- 068 - Support floor in place
- 069 - Rebar, screen and cement, upper shaft
- 070 - Upper shaft capped (typical)

Section 5

- 071 - Destaffany, mill site facing north
- 072 - Burnt equipment in undergrowth (typical)
- 073 - Mill site
- 074 - Mill site
- 075 - Debris (typical)
- 076 - Cook house, c/w asbestos siding, Mill Cove
- 077 - Mill site
- 078 - Garage, Mill Cove
- 079 - Upper mill site
- 080 - Burnt utilidor
- 081 - Log cabin beyond salvage, Mill Cove
- 082 - Office and bunkhouse, Mill Cove
- 083 - Removing asbestoside from bunkhouse
- 084 - Compressor house, stacked with waste wood, Mill Cove
- 085 - Controlled burn
- 086 - Flooding of burnt site
- 087 - Log cabin beyond salvage, Old Camp
- 088 - Manway, Old Camp
- 089 - Burning day
- 090 - Final burning, Old Camp
- 091 - Groomed work road (typical)
- 092 - Loading fill for trails from crush pile
- 093 - Camp site, Mill Cove
- 094 - Mill site, cleared, facing south





2



2



3



4

Most purchasing during this phase was done by DPW crew including food based on their standard food and supply lists. The Metis Nation supplied a cook under contract, two student deck hands, and approximately seven casual employee's to this phase of the project. Only the two deckhands and one labourer were asked to continue with the project. Of the 142 potential man days devoted to this phase of the project, 38 man days or 27% was lost due to absenteeism. The ships voyage to Yellowknife was uneventful.

Section 6 - 7

- 095 - 096, Main lodge site, facing east Arctic Star Lodge
- 097 - Main guest house from lodge site, facing north
- 098 - Lodge site, facing south
- 099 - Walkway from lodge to cabin cluster below (100)
- 100 - Guide house, fish shack, store room, cooler shed
- 101 - Boat ramps in front of photo 100
- 103 - Burnt guest cabin remains
- 104 - Guide house
- 105 - Main store house
- 106 - Dock and drums by generator shack
- 107 - Tanks and collapsed dock at original landing site
- 108 - Generator shack and 8x16 fuel tank
- 109 - Generator
- 110 - Tug skidding generator fuel tank
- 111 - Loading tank, (note bent pole)
- 112 - The indispensable ATV
- 113 - Fleet berthed at small island (closest approach)
- 114 - Burnt metal shredded into bins
- 115 - Partial collection of debris from lodge incinerator
- 116 - Main building cluster
- 117 - Main guest house
- 118 - Gathering nails from burn site with magnet
- 119 - Glass, nails, etc. in barrels for helicopter
- 120 - Long lining cargo on board
- 121 - Dock sections slung to burn pile
- 122 - Dock before repair. Tow parked at original site
- 123 - Dock sections and waterlogged cribbing
- 124 - Dock sections piled for burning
- 125 - The final burn
- 126 - Docking island, cabin cluster and generator site
- 127 - Docking island, lodge site to right, facing south west

Section 8

- 128 - Loading shredder, Lutsel Ke (Snowdrift)
- 129 - Unloading shredder
- 130 - Superintendent loading shredder with D6 Cat
- 131 - Hauling shredder from dump

Section 9

- 132 - Fleet parked at Copper Pass winter road access
- 133 - Winter road
- 134 - North cut with cable hoist and debris
- 135 - 100 of 200 drums (empty) on site
- 136 - Winter access road
- 137 - 10,000 gal. tank and debris (south cut)
- 138 - Cable hoist
- 139 - Garbage dump, main camp site
- 140 - Cook shack, main camp
- 141 - Cook shack
- 142 - Collapsed tent frames
- 143 - Tent frames, main site
- 144 - Shop and garage building, hoist site
- 145 - 2000 gal tank, cable, debris

- 146 - Bombardier snow tractor
- 147 - Drums in undergrowth (typical)
- 148 - Slinging drums to staging area
- 149 - Compressor and bombardier on board
- 150 - Lone lining pieces directly on board
- 151 - Diver rigging submerged drums for shredder
- 152 - Hoist site (north) cleared, facing north
- 153 - Camp site cleared
- 154 - Tank site (south), facing east
- 155 - Bombardier site cleared
- 156 - Worker giving report to accident committee
- 157 - Renewable resources fuel cache cleaned up
- 158 - Goodbye East Arm
- 159 - Arriving in Yellowknife

Section 10

- 160 - Tight parking at government wharf
- 161 - Unloading metal shred into city dump trucks
- 162 - Two bins empty, one to go
- 163 - Rearranging barges to unload Cat 915
- 164 - Waste drums unloaded for landfill
- 165 - DPW fleet departs Yellowknife for Hay River
- 166 - Unloading parts and equipment with shredder
- 167 - Shredder departs the Aurora for the season.

SECTION 1

REFIT OF VESSEL HUGH A. YOUNG

General refit activities commenced on June 01, 1994. Engine and generator overhaul were completed earlier that spring by Kingland Ford of Hay River. Approximately 90% of the freshwater piping on board the Hugh A. Young had been replaced and ships water, sewer and electrical systems were operational at this time. This was accomplished by DPW personnel.

On site June 01 1994 were Capt. Dave Newton, chief engineer Phil Bosse, Rodger Fournier, superintendent for DPW, Scott Mitchell-DIAND and Gary Vaillancourt of Terra Verra Co. under contract to the Metis Nation as operational superintendent.

The boat and attending barges had not been in service since 1991 and had previously been employed in Tuktoyuktuk on dredging operations. As it was thought that the Hugh A. Young would be decommissioned and possibly sold, no particular effort had been made to maintain the vessel over the next few years in drydock. Parts and equipment, general supplies and consumables were scavenged to the point of non-existence and remaining inventory was mixed with unrelated items in random locations throughout the boat and barges. This necessitated a major clean-up and rough inventory and warehousing effort before even the simplest tasks related to the actual refit could be undertaken. It was decided to work with DPW people on hand as well as two student deck hands until enough order could be established to constructively employ additional workers as this was impossible for the first five days. Additional personnel were added as it became possible to accommodate them.

Refit was a multi facettted affair consisting of painting the entire fleet, repair and\or replacement of equipment, ordering and purchasing large quantities of various supplies and the subsequent preparation for and actual launch of the vessel and barges themselves. This occurred on June 16, 1994. The fleet was taken to the public wharf in Hay River where additional work was done to bring the equipment and crew up to full operational capacity for the voyage to Yellowknife. The Hugh A. Young and four barges, captain, engineer, superintendent, cook, and two student deck hands departed for Yellowknife on June 24th at 11:00 A.M.

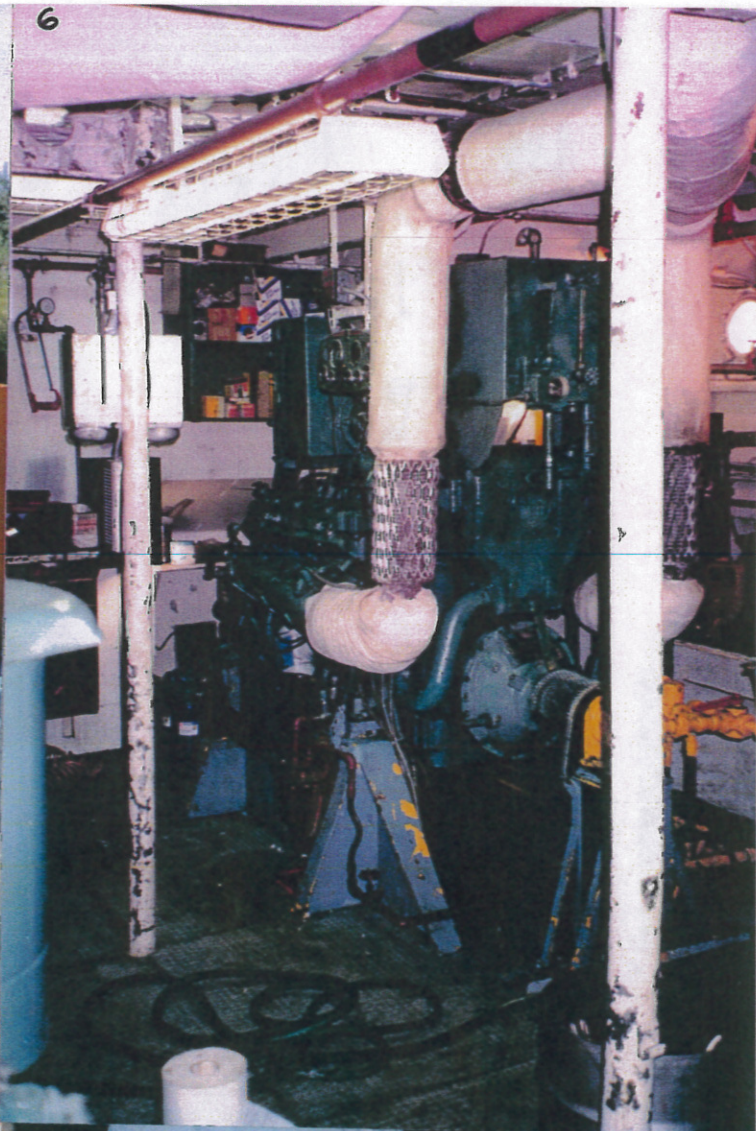
It would take many pages to describe the total listing of the various tasks accomplished during the refit but a partial summary is provided below. Very little was not serviced.

- install vaccumn toilet
- install pressure pump, plumbing repair
- galley, hallways, rooms, wheelhouse re-floored, painted
- electrical repairs, installations, house boat and H.A.Y.
- food purchased, stocked, inventoried
- cleaning supplies purchased, stocked
- general inventory, stocking of ships equipment
- washer, dryer installed
- separated and loaded 40 drums waste oil
- clean up DPW yard
- radar installation
- repair and install tire bumper system
- tugboat shafts, props, rudders dismantalled repaired
- slipways repaired
- seacocks dismantalled , repaired
- towing ropes cut, spliced
- radio installations
- room heaters repaired, serviced
- appliances installed
- degrease, paint galley and equipment
- walking ramps constructed
- clean out fuel and water tanks
- offload DPW equipment on barges
- superstructure , hull painting
- construct plank flooring in hopper barges
- repair emergency fire supression equipment

5



6

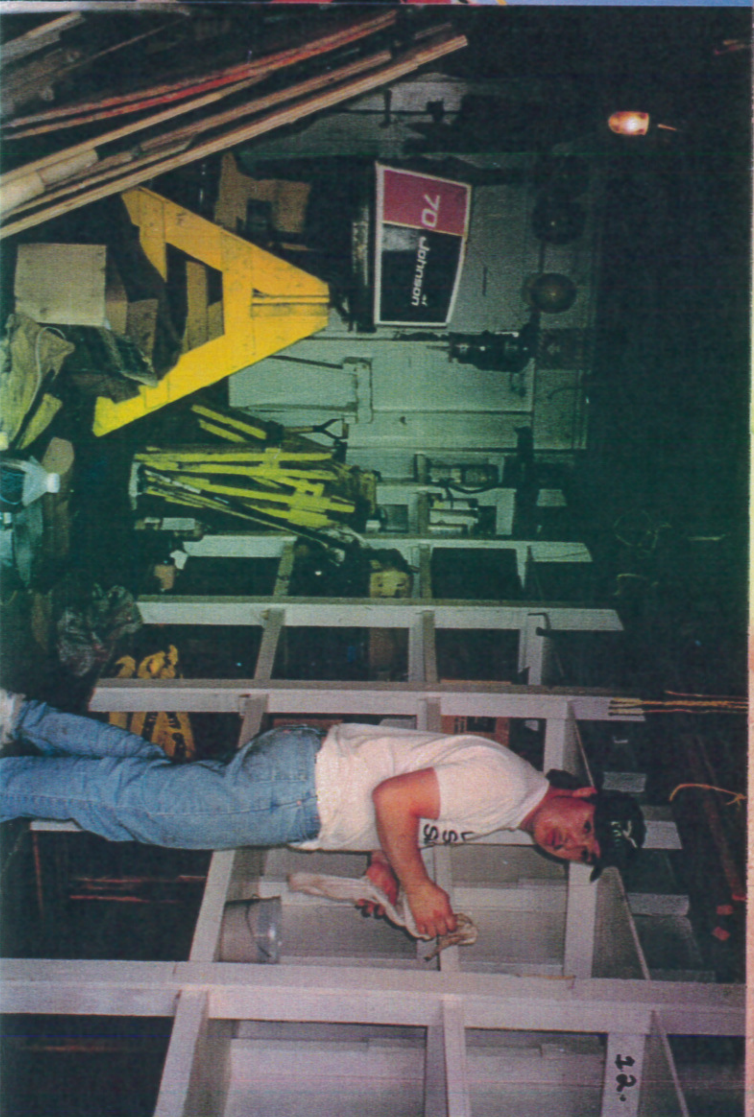


7



8







20



19



18



17



13



16



15



SECTION 2

ASSEMBLY OF OPERATIONAL EQUIPMENT

YELLOWKNIFE, NT.

Sailing to Yellowknife took about 24 hrs. The fleet arrived in Yellowknife approximately 2:00 PM. on Saturday June 25. Boats were tied up at the government wharf, some minor shipboard routine completed and the crew was given the rest of the afternoon off. Sunday was a regular day off. (much needed rest).

Monday morning was the beginning of an intense period of activity as preparations began for the "send-off" party scheduled for July 1st. This was to be done concurrently with the operational refit of the Aurora Surveyor and the Hugh A. Young. Remaining supplies and a large compliment of DIAND equipment including a trailer mounted metal shredder were loaded. As the Aurora Surveyor was grounded at this point, it was also necessary to tow it off of Jolliffe Island and reposition it at Giant mine in preparation for loading the shredder. This was accomplished with a heroic effort by all concerned by the evening of June 30th at 9:30 PM.

Monday as well, saw the arrival of the student crew on board in Yellowknife.

The first part of the Yellowknife preparations consisted of a large amount of painting and cleaning in preparation for the July 1 celebration as well as the loading of supplies and equipment as they arrived and manpower was freed up from party preparations. Approximately 50% of required equipment and supplies were on board by July 1 although a good deal of it was still unprepared for field

operations. July 1 and 2 were spent primarily on celebrations and clean-up. On July 02, a meeting was held first between Bill Carpenter of the Metis Nation, Scott Mitchell of DIAND, and Rodger Fournier of DPW. This was followed by a meeting between the above mentioned as well as Captain Dave Newton, Jack Poitras of the Metis Nation and Gary Vaillancourt of Terra Verra Co.

From this meeting it was decided the Metis Nation was to manage purchasing, expediting, flight bookings, photo documentation, personnel payroll, invoicing, budget, WHIMIS and dangerous goods training and operations and scheduling of the Seabird and its crew. On Monday July 4th, equipment from the DSS warehouse was loaded with the help of some student crew and a Terra Verra employee. The rest of the week was occupied with WHIMIS and dangerous goods training and a first aid course. Various fire and marine safety drills were conducted as well under the direction of Capt. Newton. Most of the remaining loading was done by the superintendent and a Terra Verra employee while all but two of the crew underwent training. A helicopter chartered by the Metis Nation flew to the Simpson Islands to inventory sites reported by the operators of the Seabird on Wed July 6th. Departure for Outpost Island occurred the morning of July 10.



22



21



22

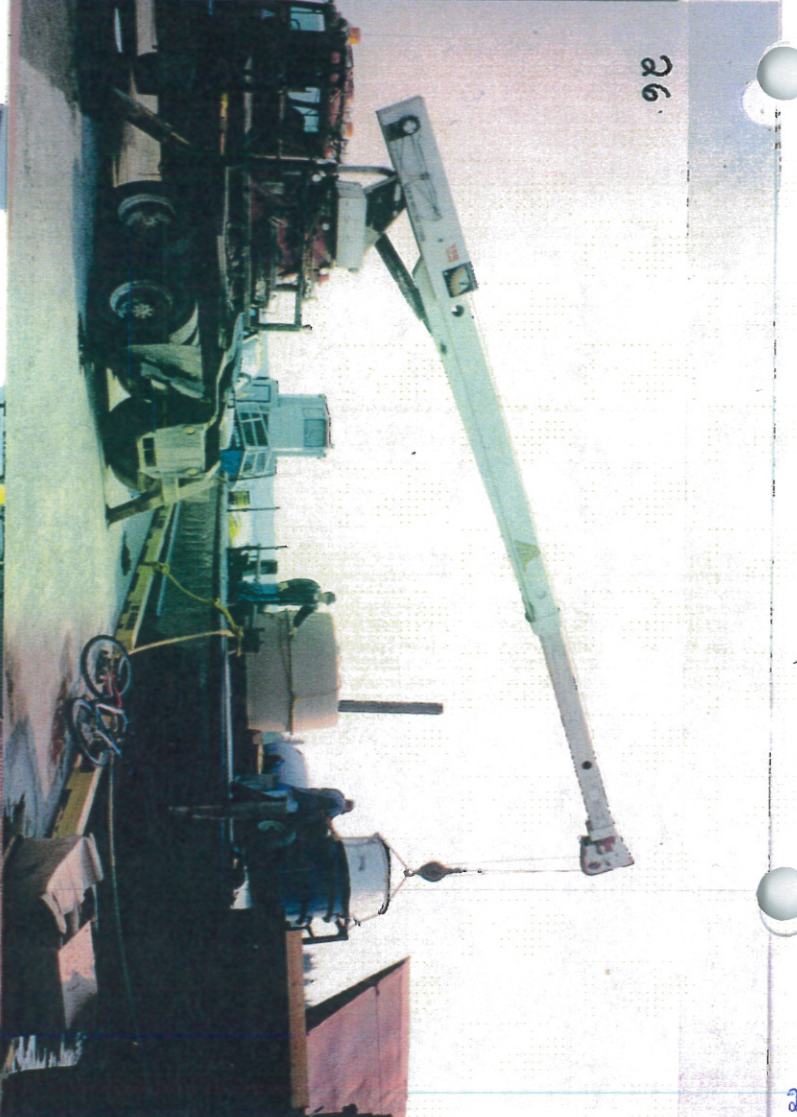


23

25



26



24

27



28



29



SECTION 3
OUTPOST ISLAND
(PHILMORE)

The first impression of Outpost Island for those who had not seen it before was somewhat overwhelming as the various reports and photographs did not convey the magnitude of the clean up required. It was decided following the inventory flights of a few days previously, that due to the small volume of waste at the sites assigned to the Seabird, their boat and crew would be used at Outpost Island for approximately the first two weeks and still leave enough time to cover their sites as well. The first task upon arrival was to clear a beachhead so as to be able to off load enough equipment to begin cleaning the immediate area at the landing site. As the loader was not to arrive for another week, first efforts were directed towards general site clean up. Material capable of being handled by hand, and loaded or dragged by quad (ATV) or pick up truck was deposited in two of the three open shafts at the main site. The first shaft, approximately 11'x11' was already partially filled with metal debris, leaving about ten feet of space remaining to the collar. This was filled within the first two days and the remaining material was brought to the 'cut', a trench approximately 50' long, 20' wide and a measured 50' deep. This cut was about half full of water and proved to be large enough to handle the remaining metal debris although approx. 100 45 gal. drums and the sheet metal from a large fuel tank had to be shredded to reduce their volume enough to load here. The considerable volume



30



31



32



33

of waste wood strewn about the main site was piled at various locations. Forty drums of calcium carbonate, four drums of asbestos and two drums of corrosive chemicals were collected and loaded as well. Efforts for the first week were focused on the main site. As no time had been allocated previously for any equipment training for the crew, this was begun in an 'on the job' fashion on site. Various people were given the opportunity to try plasma cutting, welding, chain and cutoff saw handling, fire control, ATV handling and time operating the metal shredder and tracked loader. The ATV's and cutoff saws proved to be indispensable and saw a good deal of use.

On July 14 Scott Mitchell, Arnold Enge and a renewable resource officer arrived on site for an inspection to determine if burning could be safely carried out due to very dry conditions. As burning had been going on for the past three days it was a relief to gain approval after the fact. This flight precipitated a problem which has appeared prior to the arrival of almost every flight since. Once it is known that a flight is due, a mysterious rash of illnesses appear, previously unannounced, requiring medical attention in town.

The Hugh A. Young departed on the evening of Sat. July 16 to pick up a 955 Cat tracked loader and returned on July 20. It was then employed to begin removing the heavier items to the cut and start levelling the large pile of ore that was piled around the main site.

Ground crew began removing the supply pipe, railway trestle and rail that ran approx 1/2 mile to the end of Outpost Island itself. Also,

two smaller shafts were filled with steel from the local area and capped with reinforced concrete. Burning of waste timbers was conducted throughout the entire period whenever winds were favourable. Concurrently, the plasma cutter was employed to cut up some large chimney sections, vehicle body, steam boiler, miscellaneous large machines and a 30' dia. fuel tank into manageable pieces. On July 23, the DIAND waste oil burner began operation. It ran for 25 hours over five days until the main ignition burner failed due to inadequate shielding and subsequent overheating. During this time, it processed 740 gals of a total of approx. 1400 gals of waste oil obtained from DPW facilities in Hay River as well as 250 gals obtained on site. On July 25, the Seabird left Outpost to begin waste pick up at the first group of sites in the Simpson Islands. They returned on July 28 with metal debris which was placed in the cut. A crew was sent out at this time to clean up the East Island site. This consisted of bagging and removing 42 large bags of garbage from the camp dump site, burning the remains of several buildings and some tent floors and removing a small quantity of 'Asbestoside' building paper from the sides of one building. The Seabird was due to depart on July 29 but was delayed by the untimely resignation of two of its crew. By the time this was straightened out, it was too windy for a departure until Aug 1. It was necessary to replace the two Seabird crew who had departed on July 31 with two men from the main crew. A rendezvous with the Seabird was arranged for Aug 6 at DeStaffany mine to return the two employees and some fire equipment.

Outpost Island site was completely finished and equipment loaded

by noon on Aug. 2. The cut and the two mine shafts on the main site were entirely filled with steel and covered over with a metre of waste rock. The remaining shafts were capped with reinforced concrete. All loose steel was buried and all wood collected and burned. The entire site was levelled and groomed. Several large machines and a plaque were left to commemorate the site. Departure for Aurous mine was delayed until the following day at 7:00 PM due to high winds.



GREAT SLAVE LAKE

TAILINGS

MILL

MINE

MINE

OUTPOST ISLAND

EAST ISLAND

GREAT SLAVE LAKE

GARBAGE

DUMP

EXPLORATION PITS

CAMP

SITE

TENT

FLOODS

LEGEND:

■ BUILDINGS

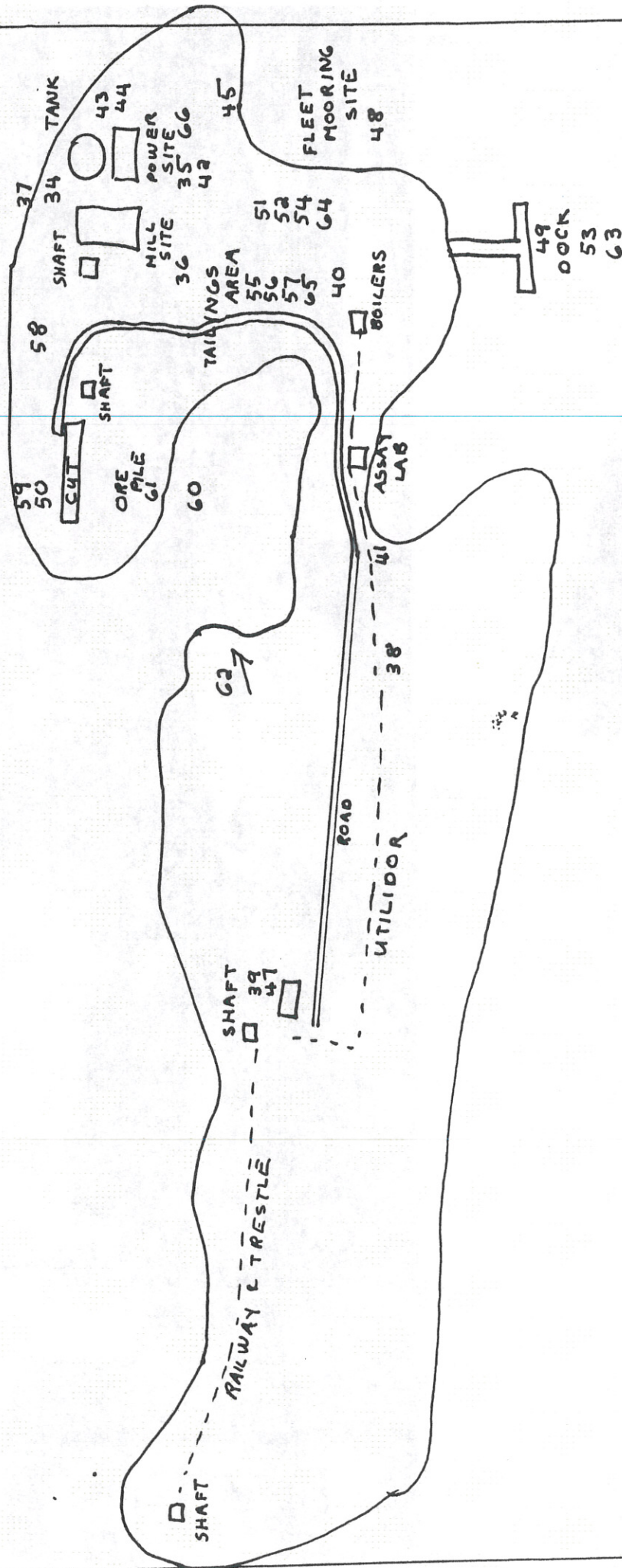
PHILMORE MINE

SITE PLAN





GREAT SLAVE
LAKE



PHILMORE MINE
MAIN ISLAND
(OUTPOST)

v - NUMBERS REFERENCE NUMBERS



34



35

36



37



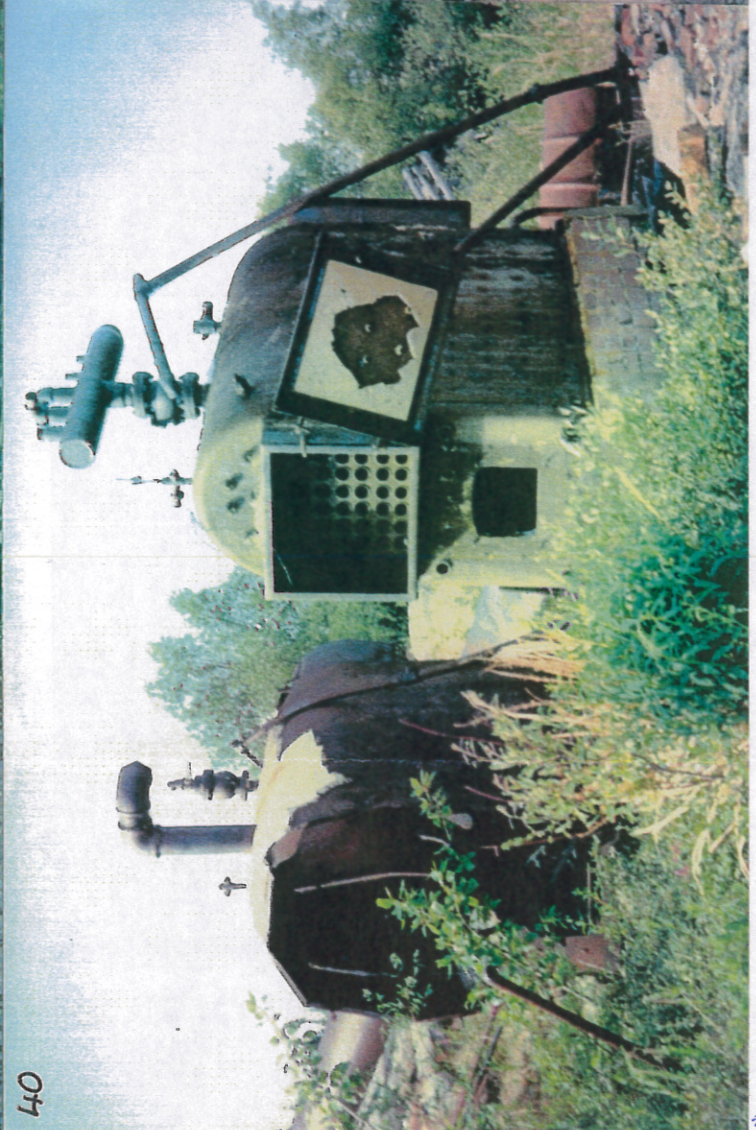
38



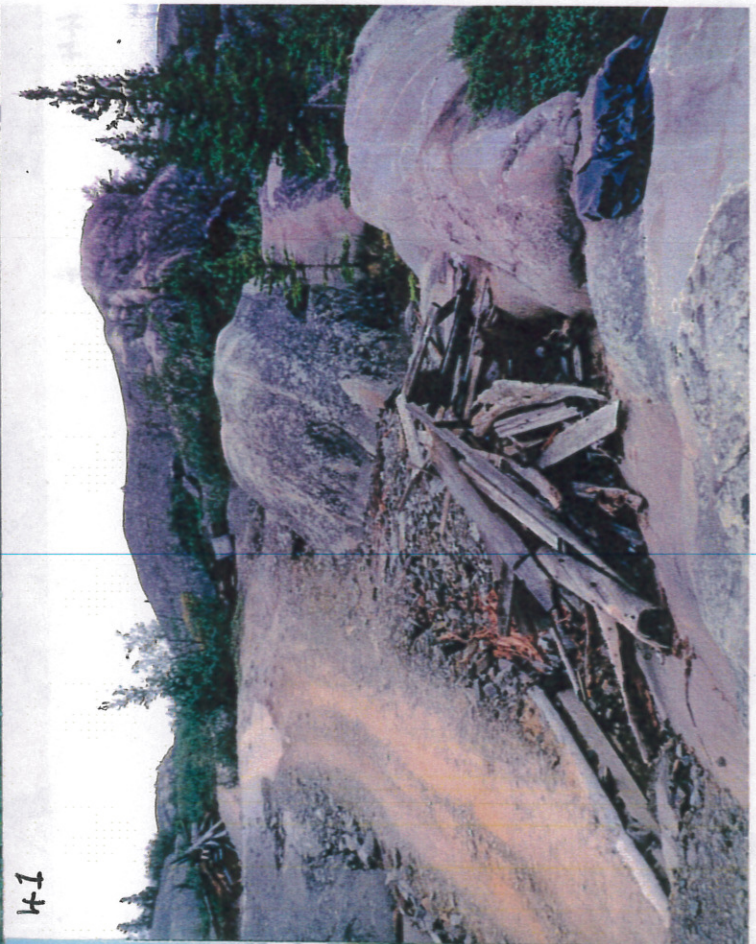
39



40



41





42



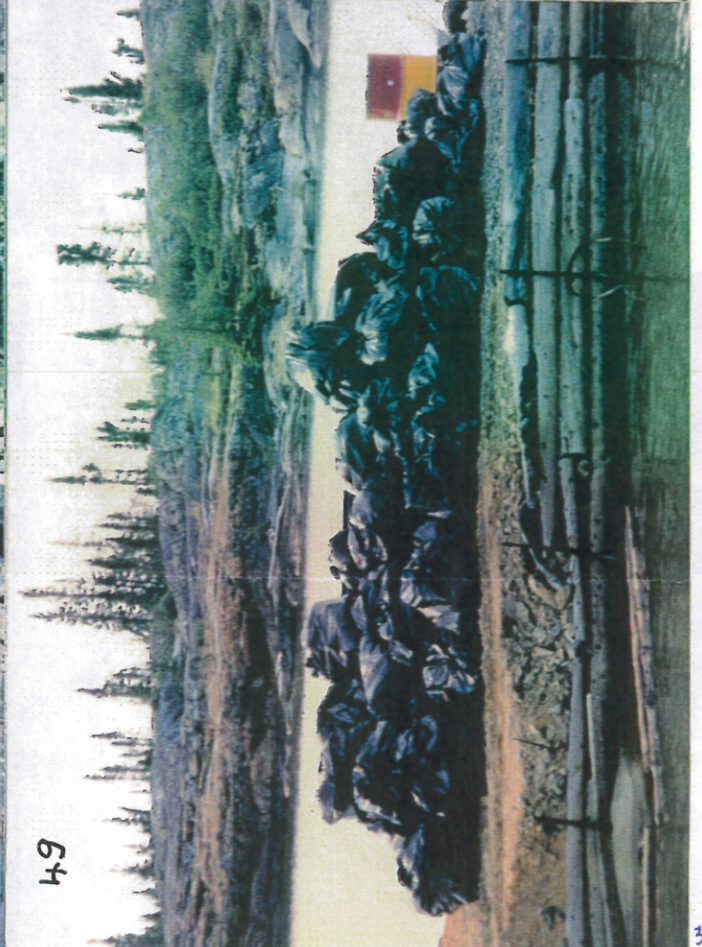
43



44



45





51



52



53

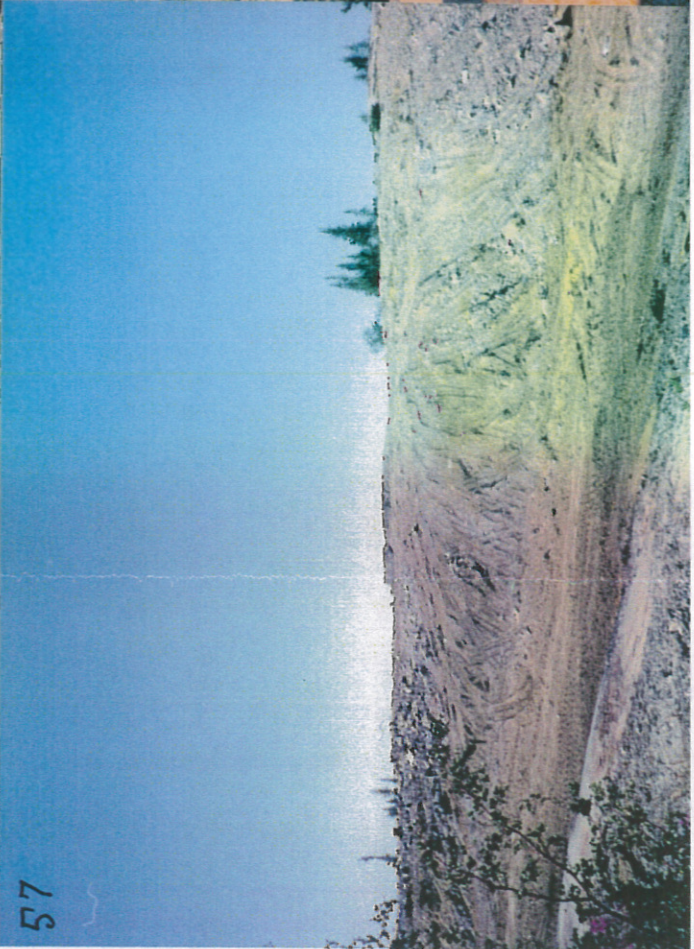


54

55



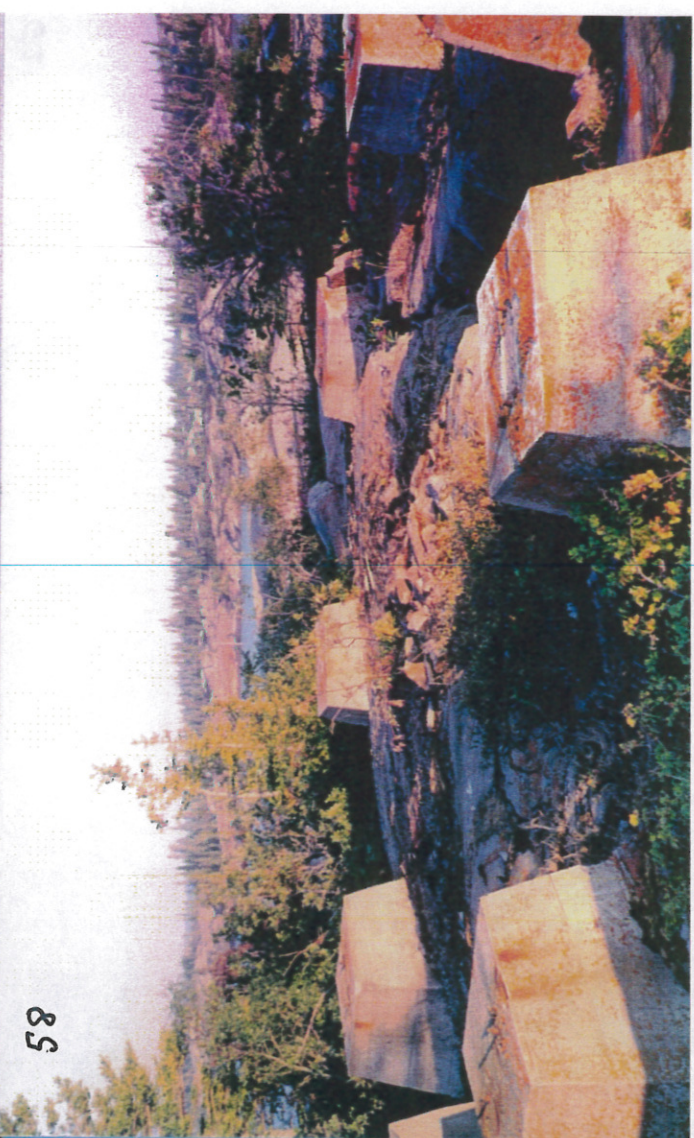
56

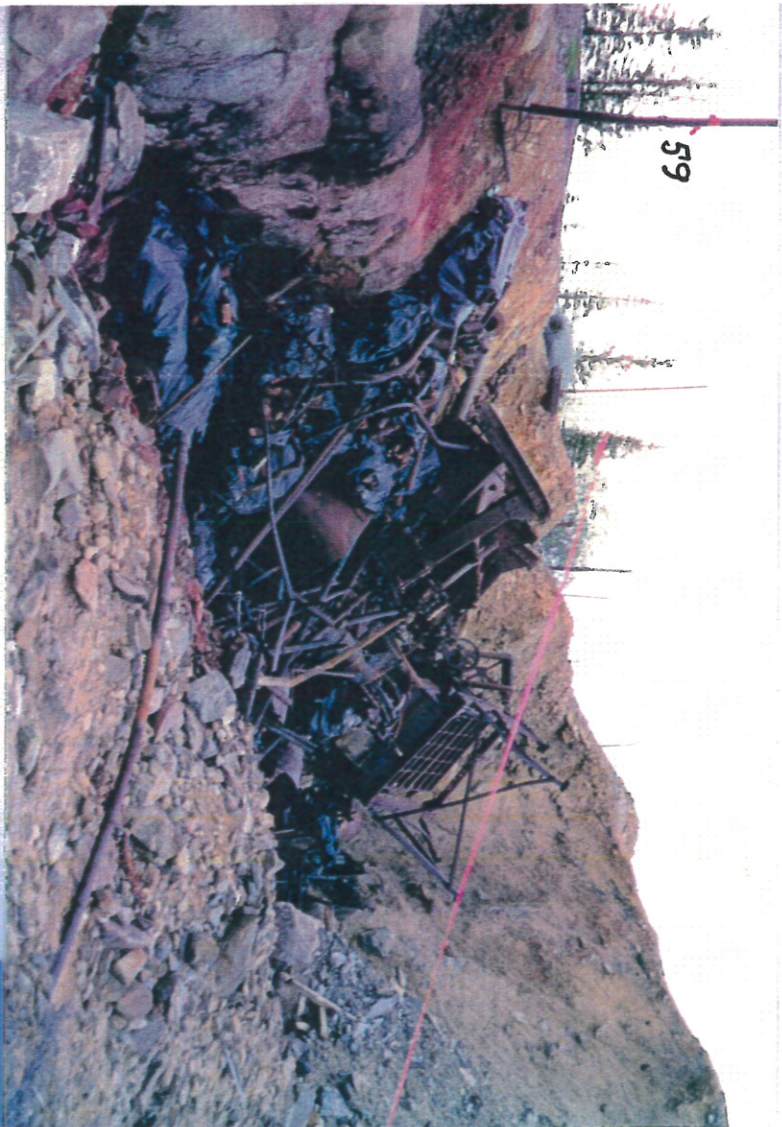


57



58





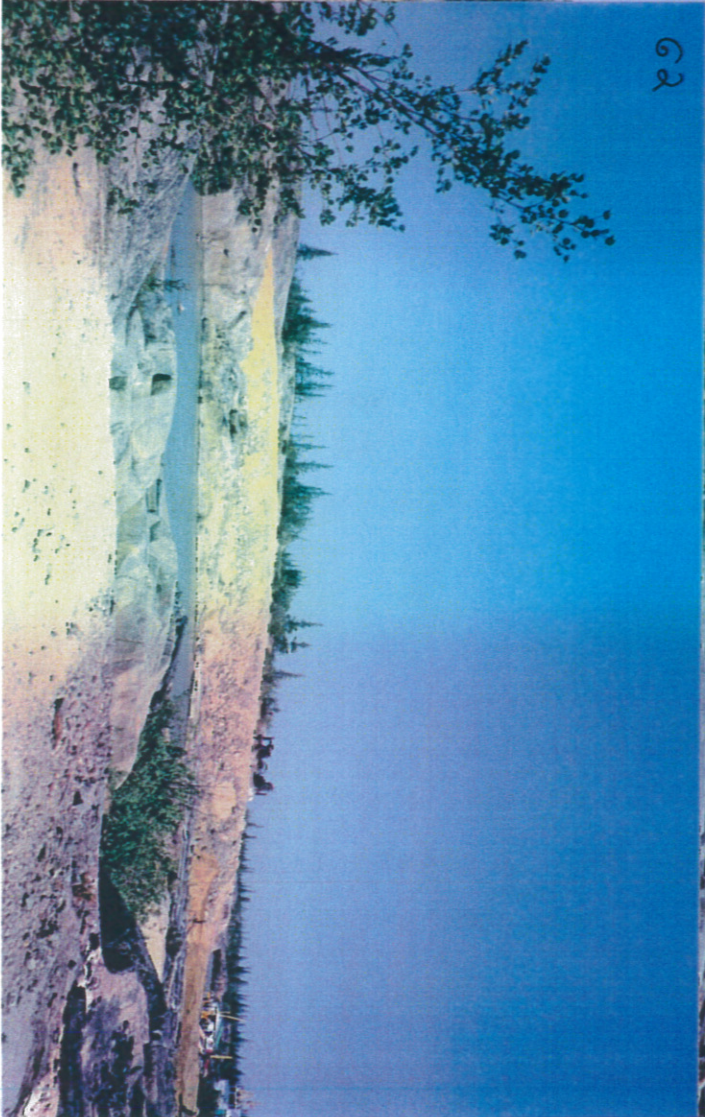
59



60



61



62

SECTION 5

DESTAFFANY MINE SITE

The fleet arrived at Destaffany on the evening of Aug. 06. Destaffany mine encompasses a number of sites where past activity has occurred, but only two, the 'Old Camp' and 'Mill Cove' required any remediation. The other locations consisted mainly of small trenches of varying size at the end a network of totally overgrown cat roads. Much effort was spent finding and brushing ATV trails so as to create access to various buildings and metal debris. This required extensive chainsaw use and a good deal of trail repair at the Mill Cove site. It was decided early on that the network of trails required for access would be built with particular attention paid to their aesthetic qualities. It was felt that due to the popularity of the area, its natural beauty and an abundance of fine fill material, this site could be enhanced if work could be completed leaving a park-like setting in its wake. An early evaluation was made of two log buildings for this purpose, but extensive rot made repairing them impractical.

Mill Cove was a rambling site with a total of seven larger structures, most of which were lined with asbestos paper. Numerous other locations contained overgrown timbers, walkways and rusted mining equipment. The main mill site consisted of a few larger pieces of machinery, some concrete foundations and the usual collection of burnt pipes and miscellaneous metal that one would expect in a building of this nature. The Old Camp site, a half a mile down the lake, contained two buildings, a small shaft and cut

