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January 22, 2023

Richard Dwyer
Manager of Licensing
Nunavut Water Board
PO Box 119
Gjoa Haven, NU
X0B 1J0

RE: MMG Response to Comments on Application to Renew and Amend Water Licence 2BE-HIG1722

Dear Richard,

MMG Resources Inc. (MMG) thanks the Kitimeot Inuit Association (KitIA), Crown-Indigenous Relations and Norther Affairs Canada (CIRNAC) and Environment and Climate Change Canada (ECCC) for their review and comments on MMG's application for renewal with amendment of water licence 2BE-HIG1722 (the Licence) for the High Lake Project (the Project).

MMG also thanks the Nunavut Water Board (NWB) for the opportunity to respond to the comments submitted. Please see below and let me know if you have any questions.

Should you have any questions or concerns please contact Sarah Hasek, Tenement Officer, MMG Resources Inc. sarah.hasek@mmg.com Ph: 603-358-8155, who is the MMG representative regarding this renewal.

Regards,

Mario Car

Head of Projects, MMG Ltd.
mario.car@mmg.com

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Regards,

Mario Car

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mario.car@mmg.com

CIRNAC-1: Partitioned Daily Water Allotment

CIRNAC Comment:
MMG Resources Inc., have requested an amendment to their water licence that would allow flexibility in the allocation of water and the provision of sufficient water for the High Lake Camp. While the total water allotment for this licence (100 m³/day) is not to be exceeded, MMG is requesting the water allotment not be partitioned into 'drilling' and 'domestic' uses.

CIRNAC Recommendation:
(R-02) CIRNAC recommends MMG Resources Inc. provide a response to the non compliance items identified in the 2017 inspection report to the Board. This response should include a timetable as to how and when these items have or will be resolved.

MMG Response:
No response required. MMG thanks CIRNAC for their support of this request.

CIRNAC-2: Compliance with Water Licence

CIRNAC Comment:
CIRNAC notes from a 2017 Inspection report completed by CIRNAC that there were non compliance items identified in sections 1 and 2 as well as items requiring action under section 3.

CIRNAC Recommendation:
(R-02) CIRNAC recommends MMG Resources Inc. provide a response to the non compliance items identified in the 2017 inspection report to the Board. This response should include a timetable as to how and when these items have or will be resolved.

MMG Response:
The 2017 CIRNAC Inspection report noted three instances of non-compliance with Water Licence terms and identified four related "Actions Required". These licence conditions and actions required have been consolidated below, along with a response or update from MMG. Where appropriate, related terms and actions have been combined.

1. Term Non-compliance 1: *"D.4: The Licensee shall not open burn plastics, wood treated with preservatives, electric wire, Styrofoam, asbestos or painted wood to prevent the deposition of waste materials of incomplete combustion and/or leachate from contaminated ash residual, from impacting any surrounding waters, unless otherwise approved by the Board in writing."*

   Response: MMG will adhere to the Water Licence conditions applicable to open-burning, specifically Part D, Item 1: "*The Licensee shall not open-burn plastics, wood treated with preservatives, electric wire, Styrofoam, asbestos or painted wood to prevent the deposition of waste materials of incomplete combustion and/or leachate from contaminated ash residual, from impacting any surrounding waters, unless otherwise approved by the Board in writing."*

2. Action Required 1: "*all locations where structures were burned should be raked for plastic and other debris (nails etc). Any ash contaminated with melted plastic or other contaminants is to be*

collected and shipped out as waste. This is to be completed in the snowfree season in 2018 and confirmation of completion submitted to the Inspector."

Response: as noted in the 2017 CIRNAC Inspection Report (Section 1), MMG engaged a contractor to address some of the issues outlined shortly after the inspection, and their scope included the removal of residual debris related to open burning activity. In August of 2022, these sites were re-inspected by Stantec on behalf of MMG, who confirmed all residual debris was removed.

3. Term Non-compliance 2 "*H.2: The Licensee shall prevent any chemicals, petroleum products or wastes associated with the project from entering water. All sumps and fuel caches shall be located at a distance of at least thirty one (31) metres from the ordinary high water mark of any adjacent water body and inspected on a regular basis.*"

   Response: MMG has ensured that all sumps and fuel caches are located at least 31 m from any ordinary high water mark. MMG also checked all structures to verify no chemicals (even in small quantities) are stored in any near-water structures shortly after the 2017 inspection and re-verified this to be the case in August of 2022.

4. Action Required 2: "Confirm removal of all chemicals stored less than 31m from the Ordinary High Water Mark."

   Response: Shortly after the 2017 CIRNAC inspection, MMG checked all near-water structures and removed any chemicals found (even in small quantities). MMG had Stantec verify that all chemicals were successfully removed during their August 2022 site inspection.

5. Action Required 3: "*Undertake regular maintenance visits to the site to ensure compliance with all permits and licences.*"

   Response: MMG commits to conducting regular maintenance visits to High Lake to ensure compliance with all permits and licences. MMG last inspected site in August of 2022 and will include information related to that site inspection in the 2022 Annual Report to the NWB, as was included in the 2021 Annual Report (available on the NWB public registry).

6. Term non-compliance 3: "*The Licensee shall restore all drill holes and disturbed areas to natural conditions immediately upon completion of the drilling. The restoration of drill holes must include the removal of any drill casing materials and if having encountered artesian flow the capping of holes with a permanent seal.*", and;

   Action Required 4: *"Complete reclamation of all historic drilling locations. Any collars that are left purposely to house monitoring equipment should be identified to the Inspector for future reference."*

   Response: MMG commits to the closure and restoration of all drill holes and disturbed areas upon final closure of exploration tenements at the High Lake Project. At that time, drill casings will be cut at or below ground level and covered with soil. At present, the Project is in a period of extended care and maintenance, with only annual site inspections and necessary site maintenance activities being conducted. Upon the resumption of drilling activity, MMG will ensure that drill sites are closed following removal of each drill rig. Any historical drill sites which

may need closure will be closed during or prior to Project closure. MMG has included the costs for this activity in the Closure and Reclamation Plan and associated Security Estimate, submitted with the application for renewal with amendment.

ECCC-1: Open Burning and Incineration

ECCC Comment:
Section 15 (Quantity and Quality of Waste Involved) of the application document lists paper, plastic, wood, burlap, absorbent material, and food wastes as burnable wastes, to be treated by incineration and/or burning. However, combustion is not appropriate for some of these waste types.

ECCC strongly discourages the burning of plastic and any other waste types that release toxins during combustion. Relevant guidance documents should be consulted for appropriate management of specific waste types.

ECCC Recommendation:
ECCC provides the following recommendations regarding Section 15 (Quantity and Quality of Waste Involved) of the Application for Water Licence Amendment document:

1. Opening burning is discouraged, to the extent possible/practical, and burnable waste should be limited to paper products, paperboard packaging and untreated wood wastes only, as per the GNWT's document "Municipal Solid Wastes Suitable for Open Burning";
2. Consult ECCC's publication "Solid Waste Management for Northern and Remote Communities" for guidance on managing specific waste types;
3. Consult ECCC's publication "Technical Document for Batch Waste Incineration" for guidance regarding waste incineration, including appropriate waste types; and
4. Update Section 15 (Quantity and Quality of Waste Involved) of the application document to be consistent with the guidance documents referenced in the preceding bullets.

MMG Response:
MMG thanks ECCC for their guidance. MMG notes that no burning of any type has occurred in recent years due to the Project being in long term care and maintenance.

Responses to each recommendation are provided below:

1. MMG will adhere to the Water Licence Part D, Item 1 which states that: "The Licensee shall not open-burn plastics, wood treated with preservatives, electric wire, Styrofoam, asbestos or painted wood to prevent the deposition of waste materials of incomplete combustion and/or leachate from contaminated ash residual, from impacting any surrounding waters, unless otherwise approved by the Board in writing." To the extent practical, MMG will also minimize open burning and will adhere to the GNWT's document "Municipal Solid Wastes Suitable for Open Burning".
2. Prior to resumption of activity at High Lake, MMG will review ECCC's publication "Solid Waste Management for Northern and Remote Communities" prior to a change if Project phase to ensure High Lake waste management practices are aligned with this guidance.
3. Prior to resumption of activity at High Lake, MMG will review ECCC's publication "Technical Document for Batch Waste Incineration" as well as the manufacturer's manual for the High Lake

incinerator and ensure High Lake waste management practices are aligned with these guidance materials.

4. To address ECCC's comments and better reflect site practices, the row titled 'Burnable Solid Waste' in Section 15 of the application would be sub-divided and revised as follows:

Type of Waste	Composition	Quantity Generated	Treatment Method	Disposal Method
Burnable Solid Waste	Paper, untreated wood, oily rags, burlap, food and pacto waste.	5-20 bags/ day	Incineration	Ash Backhauled for disposal
	Paper products and untreated and unpainted wood (unless otherwise approved by the NWB)	1-5 bags/day	Open Burning	Ash Backhauled for disposal

ECCC-2: Conditions Applying to Abandonment and Restoration or Temporary Closing

ECCC Comment:
On page 15 of the existing water licence (i.e., Conditions Applying to Abandonment and Restoration or Temporary Closing), Condition 10 addresses reclamation of hydrocarbon contaminants at fuel transfer sites. The water licence would be strengthened by expanding this condition to encompass all potential sources of contamination.

ECCC Recommendation:
ECCC recommends revising Condition 10 of the section "Conditions Applying to Abandonment and Restoration or Temporary Closing" as follows:

10. The Licensee shall reclaim areas, including any refueling sites and storage areas, that have been contaminated by hydrocarbons or other project-related contaminants (such as chemicals and hazardous wastes) ~~from normal fuel transfer procedures~~ to meet objectives as outlined in the Government of Nunavut's Environmental Guideline for Site Remediation, 2010. The use of reclaimed soils for the purpose of back fill or general site grading may be carried out only upon consultation and approval by the Government of Nunavut, Department of Environment and an Inspector

MMG Response:
MMG thanks ECC for the feedback on Condition 10, "Conditions Applying to Abandonment and Restoration or Temporary Closing" of the Water License. However, we do not think this change is necessary and we are concerned that it could create some confusion as the High Lake Closure and Reclamation Plan already includes a commitment to remediate the site as per the Environmental Guideline for Site Remediation (Government of Nunavut 2010). Furthermore, MMG is committed to address any future site contamination at the time of exposure consistent

with the High Lake Spill Contingency Plan. MMG therefore recommends retaining the existing wording of Condition 10 without any changes.

ECCC-3: Secondary Containment

ECCC Comment:
Section 3 (Site Description) of the Spill Contingency Plan indicates that secondary containment will be provided at fuel caches, however limited detail is given. The spill plan would benefit from the inclusion of secondary containment details, particularly in relation to the spill prevention portion of the plan (i.e., Section 7).

ECCC Recommendation:
ECCC recommends that Section 7 (Spill Prevention) of the Spill Contingency Plan be updated to provide details of secondary containment for fuel transfer points and fuel storage sites.

MMG Response:
Instaberms, movable ridged spill trays, or similar impermeable containment is used as secondary containment at fuel caches. All secondary containment is sized to be 110% the volume of the largest tank it is to contain, or 100% of the largest tank plus 10% of the aggregate capacity of the stored tanks, whichever is greater.

This information has been added, verbatim, to Section 7 of the attached Spill Contingency Plan.

SPILL CONTINGENCY PLAN

EXPLORATION OPERATIONS

HIGH LAKE PROPERTY

NUNAVUT, CANADA

For:
Crown-Indigenous Relations and Northern Affairs Canada
Land Administration File
76M/7-1-11 High Lake

Prepared: December 2009
Revised: January 2023

MMG Resources Inc.
PO Box 91460, STN West Vancouver, West Vancouver, BC V7V 3P1

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1. PREAMBLE

This Spill Contingency Plan has been compiled with respect to the requirements within the Spill Contingency Planning and Reporting Regulations in Northwest Territories as adopted by the Government of Nunavut. The Spill Contingency Plan applies to the High Lake Project operated by MMG Resources Inc. in the Kitikmeot District of Nunavut (Figure 1). The Spill Contingency was originally in place for seasonal exploration operations from 2010 to 2013. The High Lake camp was not opened in 2014 and in 2015 saw a short period of limited occupancy to support reclamation of 10 wood frame tents and one plywood clad structure. Following this reclamation work the site was placed on long term care and maintenance.

All fuel and lubricants have now been removed from site. The Spill Contingency plan is to be revised, and the Contacts (4.0) updated, at the re-commencement of exploration activities and/or any time during operations. The revision date will be noted on the title page of the plan.

2. INTRODUCTION

This Spill Contingency Plan is to provides a plan of action for reasonably foreseeable spill events at the High Lake camp considering the nature of the fuels and other hazardous materials that will be handled during the Company's operations The plan defines the responsibilities of key response personnel and outlines the procedures for responding to spill in a way that will act to minimize potential health and safety hazards, environmental damage and remediation costs. The plan has been prepared to provide ready access to all the information needed in dealing with a spill.

The objectives of the Plan are to:

- Define the reporting procedures and communication network to be used in the event of a system failure or material spill.
- Define procedures for the safe and effective containment and clean-up/disposal of a system failure or material spill.
- Define specific individuals and their responsibilities with respect to responding to a spill.

It is MMG Resources Inc. policy to comply with all existing laws and regulations to help ensure the protection of the environment, to provide such protection of the environment as is technically feasible, to cooperate with other groups working on protection of the environment and to keep employees, government officials and the public informed.

Personnel will be instructed on the plan upon arrival in camp. Instruction will also be given on how to properly manipulate and store fuel and other hazardous substances and on the location of emergency equipment. A more graphical representation of this plan will be posted in common camp areas.

2.1. ENVIRONMENTAL POLICY

MMG aims to achieve a high standard of care for the natural environment in all the activities in which we engage. MMG undertakes to minimize our impact on the environment

MMG will:

- conduct our operations in compliance with all relevant environmental regulations, licenses and legislation as a minimum condition
- identify, monitor and manage environmental risks arising from our operations
- seek continuous improvement in environmental performance, production processes, waste management and the use of resources
- provide appropriate training and awareness for all employees on environmental issues
- communicate regularly with employees about our aim and about individual responsibilities
- inform our customers and suppliers of our aim and of their responsibilities in relation to our business
- communicate with stakeholders, the community and governments about our environmental performance, and contribute to the development of laws and regulations which may affect our business

3. SITE DESCRIPTION

The High Lake Camp has historically been used as a base of operations for mineral exploration programs within the High Lake Project area on a seasonal basis between March 1 and September 31. The camp is located approximately 550 km north-northeast of Yellowknife (Figure 1). Access is restricted to fixed wing aircraft of limited capacity on a year-round basis, with larger aircraft capacity seasonally operating from the frozen lake surface. The camp is located on the sloping southwest shore of High Lake and consists of a mix of plywood clad and canvass covered wooden frame structures offering accommodations for up to 40 people (Figure 2 and 3). The camp can support a population of up to 40 people.

Fuel is transported to site seasonally using the frozen lake surface to allow Hercules operations and is then shuttled with a helicopter into the two (North and South) fuel caches on the high ground behind the camp. On site fuel is stored in 205L drums that are stacked no more than 3 high in secondary containment berms. Bungs are positioned to allow inspection of the drums and to avoid leakage. The fuel caches allow for the storage of up to 800 drums on site.

Propane is to be stored in 100lb cylinders within a designated area away from camp. These will be secured to prevent accidental tipping of propane cylinders. Propane is brought to site continually on re-supply flights, with a total number of cylinders stored on site not exceeding 30.

Each of the tents will have a drum of fuel supported on wooden crib. A plastic spill container will be placed below each drum and absorbent matting will be fixed around each bung/fuel supply assembly.

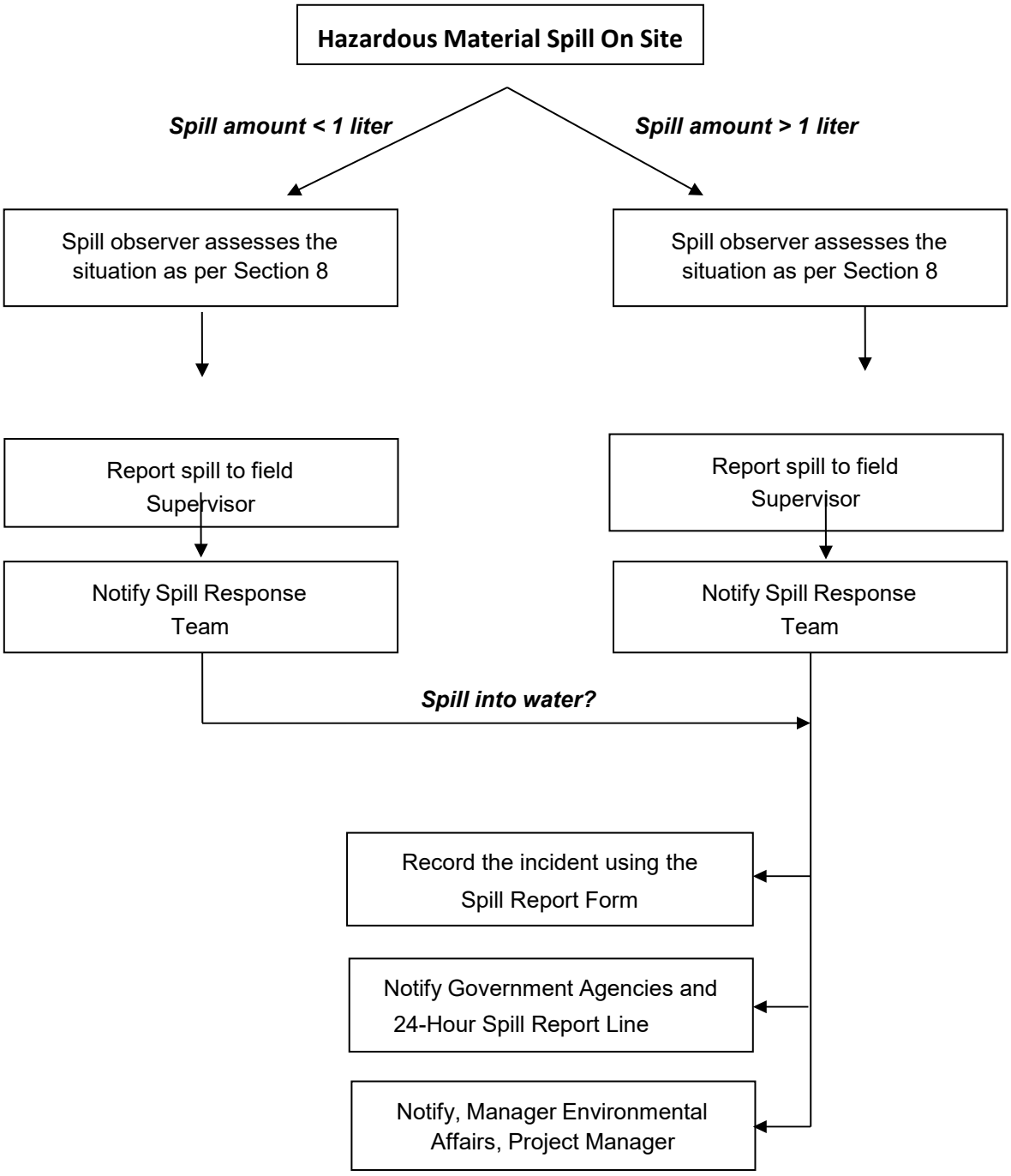
Other chemicals will be securely stored in the camp area, primarily within the drill foreman’s work area.

4. CONTACTS

Project Manager	TBA	
Operations Manager	TBA	
Development Manager	TBA	
Exploration Manager	TBA	
Kitikmeot Inuit Association		(867) 983-2458
Nunavut Water Board	Richard Dwyer	(867) 360-6338 (867) 360-6369 (fax)
24-Hour Spill Report Line, Government of Nunavut	(867)-920-8130 (phone) (867)-873-6924 (fax) spills@gov.nt.ca (email)	
Government of Canada – Department of Environment and Natural Resources, Government of the Northwest Territories		(867) 920-8130
Resource Management/Water Resource Officer CIRNAC – Kitikmeot Region	Baba Pedersen	(867) 222-2839
WSCC 24-Hour Incident Reporting line		1-800-661-0792
WorkSafe BC Prevention Information Line		1-888-621-7233
Kugluktuk Health Centre		(867) 982-4531
Kugluktuk RCMP	Emergency line Non-emergency	(867) 982-1111 (867) 982-0123

5. RESPONSE ORGANIZATION

The following is a flow chart to illustrate the sequence of events if a hazardous material spill occurs at the High Lake Project site.



6. SPILL RESPONSE TEAM

All personnel will be informed of the contents of the Spill Contingency Plan and trained in the safe use of relevant spill prevention and clean up equipment. The Field Supervisor will appoint and train two persons to be the Spill Response Team. They will also be responsible to carry out the daily inspections of the fuel storage areas and equipment. Personnel on site will be limited, so for any large spill more people will be brought in to help, from surrounding exploration operations primarily from the IZOK Lake Camp located 200km South of the High Lake Camp and secondly from Yellowknife (Figure 1).

Spill Response Team Responsibilities

- Perform daily inspections at the Camp fuel and chemical storage areas and fuel hoses.
- Report any spill to Project Manager or designate.
- Containment of the spill and site remediation.

Field Supervisor Responsibilities

- Assume complete authority over the spill scene and coordinate all personnel involved.
- Evaluate spill situation and develop overall plan of action.
- Activate the spill contingency plan
- Immediately report the spill to the 24-Hour Spill Report Line and regulatory agencies. (For spill greater than 10 litres)
- Fill out the Spill Report Form (for spill greater than 10 litres)
- Report the spill to the Project Manager. (for spill greater than 1 litre)
- If required, obtain additional manpower, equipment, and material if not available on site for spill response.

Manager, Environmental Affairs Responsibilities

- Provide regulatory agencies and MMG Resources Inc. management with information regarding the status of the clean-up activities.
- Prepare and submit a report on the spill incident to regulatory agencies within 30 days of the event.

7. SPILL PREVENTION

The first line of defence against spills is spill prevention. All efforts to avoid spills will be made by prioritizing preventative measures in the following manner. Instaberms, movable ridged spill trays, or similar impermeable containment is used as secondary containment at fuel caches. All secondary containment is sized to be 110% the volume of the largest tank it is to contain, or 100% of the largest tank plus 10% of the aggregate capacity of the stored tanks, whichever is greater.

7.1. SPILL OF FUEL ON LAND

Steel drums will be stored in such a manner that they will not be susceptible to tipping over, rolling or otherwise being unstable. Care will be exercised so that nothing can cause damage to steel fuel drums by

falling or rolling onto or into them. When unloading steel fuel drums from aircraft, the use of a ramp or a cushion (automotive tire) will ensure that the drums are not damaged.

7.2. LEAK OF FUEL FROM RESERVOIR AND DISTRIBUTION LINES

Stability of all reservoir and distribution assemblies is of utmost importance to ensure that the risk of damage is minimized. All stands for reservoirs will be constructed to strength standards beyond those required. Distribution lines from reservoirs to appliances will be fitted with an appropriate shut-off valve immediately downstream from the reservoir. The line will be installed in such a way to prevent being chafed in the wind, chewed on by animals or tripped on by humans. This will be done by securing it to rigid structures, encasing it in armour or any other effective manner. These measures apply broadly to heating oil, gasoline and propane set-ups.

7.3. SPILL OF FUEL ON WATER

Liquid fuel in steel drums will be stored at least 30m back from the lakeshore on hard ground. All care shall be taken when refuelling float planes at the float dock. Fuel will only be brought down to the dock when fuelling is imminent. Partially used drums will be removed from the dock immediately upon completion of fuelling. Absorbent pads will be used both around the rim of the fuel drum and the rim of the aircraft's fuel tank to ensure that any overflow does not enter the body of water. Any spill into a water body, regardless of volume, will be reported immediately.

7.4. RELEASE OF PROPANE

Propane will be stored in appropriate, certified containers. Propane containers will be inspected and monitored on a regular basis for any signs of deterioration or corrosion. Containers will be secured and fastened in an upright position to ensure there is no danger of tipping and eliminating the risk of damage to the regulator in the event of a fall.

7.5. SPILL OF BATTERY ACID

All batteries will be protected from damage by fastening them into the space designed for them when in use and stored safely when not in use. Batteries will be transported in appropriate containers as stipulated under the dangerous goods requirements. Batteries that no longer hold a charge will be flown out and disposed of in the appropriate facilities.

8. INITIAL ACTION

These instructions are to be followed by the first person on the spill scene.

1. Always be alert and consider your safety first.
2. Wear personal protective equipment
3. Do not smoke and eliminate all source of ignition
4. Assess the hazard to people in the vicinity of the spill.
5. If possible control danger to human life
6. Do not touch, smell, taste or get close to unknown substance.

7. If substance has been identified and if possible and safe to do so, try to stop the flow of material.
    - If filling is in progress, stop at once
    - If seeping through a small hole, use a patch kit if practical to do so.
    - If necessary and practical, pump the fuel from the leaking container into a refuge container
8. Immediately report the spill to the Field Supervisor and Spill Response Team by radio, satellite phone or in person.
9. Resume any effective action to contain, mitigate, or terminate the flow of the spilled material.
10. If in doubt about cleaning procedures or for a very large spill, regulatory agencies can help.

9. REPORTING

The person who notices the spill must immediately notify the Field Supervisor. As soon as possible the Field Supervisor will report the spill to:

- The 24-Hour Spill Report Line Phone (867) 920-8130, Fax (867) 873-6924
- Complete and submit the NT NU Spill Report Form – See Appendix I
- Notify permitting authorities (Nunavut Water Board, Kitikmeot Inuit Association)

10. RESOURCE INVENTORY

A spill kit with a capacity of 240 litres will be located at the fuel tank area and will contain:

1 – 360 litre/79 gallon polyethylene drum
4 – oil absorbent booms (5” X 10’)
100 – oil absorbent sheets (16.5” X 20” X 3/8”)
1 – drain cover (36” X 36” X 1/16”)
1 – Caution tape (3” X 500’)
1 – 1 lb plugging compound
2 – pair Nitrile gloves
2 – pair Safety goggles 2 – pair Tyvek coveralls 1 – instruction booklet
10 – printed disposable bags (24” X 48”) 1- shovel (in remote spill kit only)
1- plastic tarp

Shovels, water pump, plastic pails, garbage bags, extra absorbent pad, drip pans will be placed on the side of the wall at the main office and the kitchen. Fire extinguishers are available throughout the camp facility.

Drill Spill Kits with a capacity of 25 L will contain the following:

10 - Pads (17”x19”x2/8”)
3 -Socks (3”x4’)
1 -Pair of Gloves
1 -Disposal Bags

1 -Warning Sign
1 -Literature (Inventory List, MSDS, Instructions)

11. HAZARDOUS MATERIAL INVENTORY

This following section lists for each hazardous substance present on the project area, health hazards, spill procedure and disposal procedures. For more detailed information, refer to the MSDS sheets.

11.1. DIESEL FUEL, JET-B, GASOLINE

DIESEL, JET-B AND GASOLINE ARE HIGHLY FLAMMABLE

11.1.1. GENERAL PRECAUTIONS

- Do not smoke
- Will be easily ignited by heat, sparks or flames
- Gasoline and Jet-B are more volatile than diesel
- Explosion hazard indoors, in confined spaces and outdoors
- Vapours may form explosive mixtures with air
- Vapours may travel to source of ignition and flash back
- Most vapours are heavier than air. They will spread along ground and collect in low or confined areas.
- Keep pump or electrical equipment far away, be very careful with metallic tools that could sparks on rocks, wait for vapours to dissipate
- Inhalation may cause central nervous effects
- Aspiration into lungs may cause pneumonitis which can be fatal
- Eye and skin irritation
- Prolonged exposure has caused cancers in laboratory animals

11.1.2. SPILL ON LAND

- Build a containment berm, downslope, using, peat, moss, and soil material, bags filled with sand or rocks and place a plastic tarp at the foot of the berm to pool the spill. Spill can be pumped if in a large amount
- Soak up spilled substance by using absorbent pads
- Excavate the surface soil if necessary. If large excavation is needed, first contact regulatory agencies for approval.
- Remove spill substance splashed on vegetation by applying a thin dusting of Spag-zorb or other ultra-dry absorbent.
- Dispose hydrocarbons, absorbent pad, contaminated soil and cleaning material in an empty drum, seal it and label it.
- On marshy zones, don’t destroy vegetal cover, limit personnel and equipment. Remove pooled oil with absorbent pads and/or skimmer.

11.1.3. SPILL ON WATER

- Contain spill as close to release point as possible
- On small spill, deploy hydrophobic absorbent pads
- On larger spill and weather conditions permitting, use containment boom to limit fuel dispersion. Use a skimmer, pump or hydrophobic absorbent pads to remove fuel inside the boom.
- Dispose hydrocarbons, absorbent pad, contaminated soil and cleaning material in an empty drum, seal it and label it.

11.1.4. SPILL ON RIVERS AND STREAMS

- Prevent entry into water, if possible, by building a berm or trench.
- Intercept moving slicks in quiet areas using (absorbent) booms.
- Do not use absorbent booms/pads in fast currents and turbulent water.

11.1.5. SPILL ON ICE AND SNOW

- Build a containment berm of compacted snow around spill.
- If hydrocarbons are pooling on ice, pump large amount or use hydrophobic absorbent pads.
- Don't delay removing the spill as hydrocarbons could seep through cracks into the water.
- Scrape ice, shovel all contaminated snow in plastic buckets with lids or in drums. Dispose absorbent pads and other contaminated equipment in separated containers. Label and seal the containers.

11.1.6. SPILL DISPOSAL

- Contact Federal and Territorial regulatory agencies to identify appropriate disposal methods before disposing of contaminated material.

11.2. PROPANE

EXTREMELY FLAMMABLE

11.2.1. GENERAL PRECAUTIONS

- Do not smoke
- Cylinders may explode when heated
- Cylinders may rocket if ruptured
- Will be easily ignited by heat, sparks or flames
- Explosion hazard indoors, in confined spaces and outdoors
- Vapours may form explosive mixtures with air
- Vapours may travel to source of ignition and flash back
- Vapours from liquefied gas are initially heavier than air and spread along ground.
- Contact with gas or liquefied gas may cause burns, severe injuries and/or frostbite
- Keep pump or electrical equipment far away, be very careful with metallic tools that could sparks on rocks, wait for vapours to dissipate
- Liquid may cause frostbites and blisters

- Blurred vision if goes in the eyes
- Narcotic asphyxiation
- Dizziness, disorientation, excitation, headache, vomiting, unconsciousness if inhaled

11.2.2. SPILL ON LAND, WATER, ICE AND SNOW

- Eliminate all source of ignition
- Do not attempt to contain the propane release if not absolutely sure on what to do.
- Do not touch or walk through spilled material
- Stop leak if can be done without risk
- If possible, turn container so that gas escapes rather than liquid.
- Water spray can be used to knock down vapors but don't direct water at spill or source of leak
- Prevent spreading of vapors in confined areas
- If or when possible, confine spill with confinement berm. Throw absorbent pads into spill, retrieved them with gaffs or pitchforks.
- Small fire can be extinguished with dry chemical or CO_2.
- Dispose contaminated materials in a labelled drum.

11.2.3. SPILL DISPOSAL

- Contact Federal and Territorial regulatory agencies to identify appropriate disposal methods for defective equipment that resulted in the release.

11.3. MOTOR OIL, HYDRAULIC OIL, TRANSMISSION FLUID

11.3.1. GENERAL PRECAUTIONS

- Avoid breathing mists, may cause lung irritation
- On skin may cause mild irritation

11.3.2. SPILL ACTION

- Soak up with absorbent material
- Disposed contaminated soil and material in sealed and labelled container
- Small amount can be incinerated
- Large amount to be disposed as hazardous waste.

11.4. ANTIFREEZE

11.4.1. GENERAL PRECAUTIONS

- Respiratory irritation with prolonged exposure.
- Kidney, liver and bladder problems reported in animals

11.4.2. SPILL ON LAND

- Soak up by using absorbent pads
- Dispose antifreeze, absorbent pad, contaminated soil and cleaning material in an empty drum, seal it and label it.

- On marshy zones, don't destroy vegetal cover, limit personnel and equipment. If possible remove pooled antifreeze with absorbent pads.

11.4.3. SPILL ON RIVERS AND STREAMS

- Prevent entry into water, if possible, by building a berm or trench.

11.4.4. SPILL ON ICE AND SNOW

- Build a containment berm of compacted snow around spill.
- If pooling on ice, pump large amount or use absorbent pads.
- Don't delay removing the spill as it can seep through cracks into the water.
- Scrape ice, shovel all contaminated snow into plastic buckets with lids or in drums.
- Dispose absorbent pads and other contaminated equipment in separated containers. Label and seal the containers.

11.4.5. SPILL DISPOSAL

- Contact Federal and Territorial regulatory agencies to identify appropriate disposal methods before disposing of contaminated material.

11.5. BATTERY ACID

11.5.1. GENERAL PRECAUTIONS

- Fire and explosion hazard
- Can be extinguished with dry chemical fire extinguisher.
- Ventilate area
- Remove combustible materials
- Mist inhalation hazard when being charged or spilled
- Acid burns to skin and eyes irritation

11.5.2. SPILL ACTION

- Neutralize with soda or lime
- Dispose battery and neutralized contaminated material in a sealed and labelled container
- Dispose as an hazardous waste

11.6. POLY-DRILL DR-133

11.6.1. GENERAL PRECAUTIONS

- May cause skin and eye irritation

11.6.2. SPILL ACTION

- Soak up with absorbent pad
- Dispose residue, contaminated soil and material in labelled containers. Solidify with sand.
- Small amount can be incinerated, otherwise dispose as hazardous waste.

11.7. 550-X POLYMER

11.7.1. GENERAL PRECAUTIONS

- Prolonged skin contact may cause irritation
- Possible eye irritation
- Ingestion may cause nausea, vomiting, cramps, diarrhea

1.1.1. SPILL ACTION

- Clean up spill with gloves.
- Scrape soil or surface and disposed in labelled containers
- Dispose as hazardous waste

12. APPENDIX – SPILL REPORT FORM

Northwest Territories | Nunavut | Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE
TEL: (867) 920-8130
FAX: (867) 873-6924
EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR	REPORT TIME	☐ ORIGINAL SPILL REPORT, OR	REPORT NUMBER ____-____
B	OCCURRENCE DATE: MONTH – DAY – YEAR	OCCURRENCE TIME	☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT	
C	LAND USE PERMIT NUMBER (IF APPLICABLE)	WATER LICENCE NUMBER (IF APPLICABLE)		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION	REGION ☐ NWT ☐ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES MINUTES SECONDS	LONGITUDE DEGREES MINUTES SECONDS		
F	RESPONSIBLE PARTY OR VESSEL NAME	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION		
G	ANY CONTRACTOR INVOLVED	CONTRACTOR ADDRESS OR OFFICE LOCATION		
H	PRODUCT SPILLED	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER	
	SECOND PRODUCT SPILLED (IF APPLICABLE)	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER	
I	SPILL SOURCE	SPILL CAUSE	AREA OF CONTAMINATION IN SQUARE METRES	
J	FACTORS AFFECTING SPILL OR RECOVERY	DESCRIBE ANY ASSISTANCE REQUIRED	HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT	
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS			

L	REPORTED TO SPILL LINE BY	POSITION	EMPLOYER	LOCATION CALLING FROM	TELEPHONE
M	ANY ALTERNATE CONTACT	POSITION	EMPLOYER	ALTERNATE CONTACT LOCATION	ALTERNATE TELEPHONE

REPORT LINE USE ONLY

N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130

LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC | SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN | FILE STATUS ☐ OPEN ☐ CLOSED

AGENCY	CONTACT NAME	CONTACT TIME	REMARKS
LEAD AGENCY			
FIRST SUPPORT AGENCY			
SECOND SUPPORT AGENCY			
THIRD SUPPORT AGENCY			

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13. APPENDIX – FIGURES

Figure 1 – Regional Overview Map

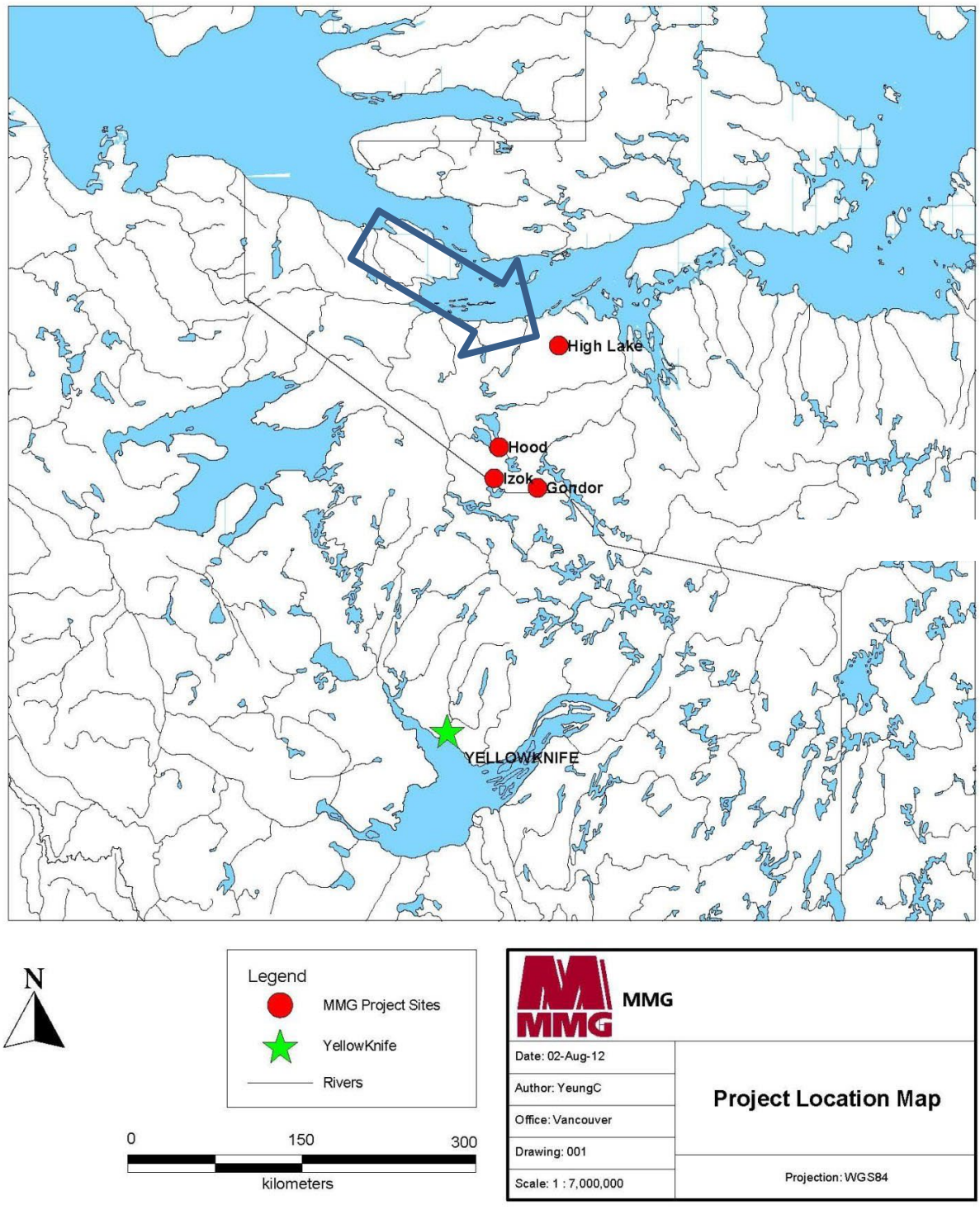

Figure 2 – Historic Layout High Lake Camp

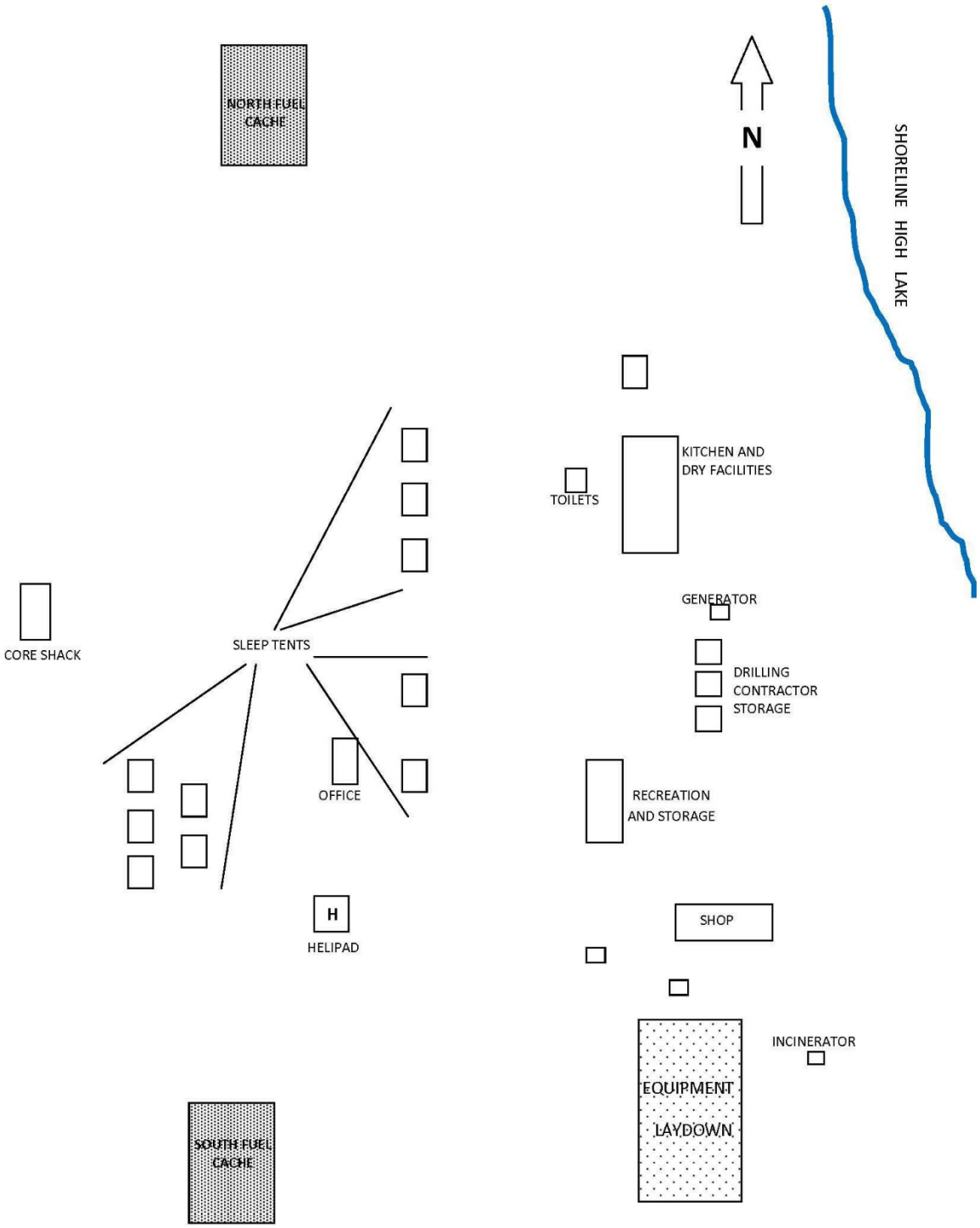

Figure 3 - High Lake Camp site August 2013

14. APPENDIX – MSDS SHEETS

2 Cycle Motor Oil
Antifreeze
Aviation Gas
Barimol Grease
Dexron
Diesel Fuel
Drill Rod Grease
Duratran Engine Oil
Fuel Oil – Gasoline
Fuel Oil – Jet B
Fuel Oil – Kerosene
Linseed Soap
Pellets CaCl
Poly Drill 1330
Poly Drill 133 x
Poly Drill OBX
Propane
Stove Oil
Transmission Fluid
Unleaded Gasoline

A complete set of MSDS information is kept in hardcopy on site. To be provided on request.