

AUG-17-09 12:04PM  
AUG-17-2009 12:04 FROM: ARCTIC ALARM STATION 8736924: 6046888768  
1U: 916045881173

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109-399



Canada

## NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-5130

FAX: (867) 873-6824

EMAIL: spill@gnwt.ca

REPORT LINE USE ONLY

|   |   |  |  |   |
|---|---|--|--|---|
| A | REPORT DATE: MONTH-DAY-YEAR<br>08-17-2009   | REPORT TIME<br>3:30 PM   | ORIGINAL SPILL REPORT,<br>OR<br>UPDATE #<br>TO THE ORIGINAL SPILL REPORT | REPORT NUMBER<br>09-399                 |
| B | OCCURRENCE DATE: MONTH-DAY-YEAR<br>07-31-2009   | OCCURRENCE TIME  |  |   |
| C | LAND USE PERMIT NUMBER (IF APPLICABLE)<br>KTL 306 C016  | WATER LICENSE NUMBER (IF APPLICABLE)<br>2BE-MEG 0608   |  |   |
| D | GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION<br>McGregor Lake Camp   | REGION<br>Q. ADJACENT JURISDICTION OR OCEAN  |  |   |
| E | LATITUDE<br>DEGREES 66 MINUTES 55 SECONDS 55  | LONGITUDE<br>DEGREES 115 MINUTES 13 SECONDS 05   |  |   |
| F | RESPONSIBLE PARTY OR VESSEL NAME<br>SOSO Nunavut Ltd.   | RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION<br>Suite 507, 700 West Pender Street, Vancouver |  |   |
| G | ANY CONTRACTOR INVOLVED   | CONTRACTOR ADDRESS OR OFFICE LOCATION<br>BC VBC 1G8  |  |   |
| H | PRODUCT SPILLED<br>Heating oil (P50)  | QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES<br>200 litres                                  | U.N. NUMBER  |   |
|   | SECOND PRODUCT SPILLED (IF APPLICABLE)  | QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES  | U.N. NUMBER  |   |
| I | SPILL SOURCE<br>200 Litre Fuel drum   | SPILL CAUSE<br>Breach of berm  | AREA OF CONTAMINATION IN SQUARE METRES<br>3m X 5m                        |   |
| J | PHOTO'S AFFECTING SPILL OR RECOVERY   | DESCRIBE ANY ASSISTANCE REQUIRED<br>NO   | HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT<br>NO                          |   |
| K | ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS<br>The Camp is currently dormant, not used for any exploration activity. The company hired Mr. Steve Ward, a former Camp Manager to visit the Camp on July 31 - Aug 6, 2009. He found that approx. 45 gallon heating oil has breached the berm and leaked into soil. He stopped the leakage, fixed berm, and improved containment plan is attached (will be emailed). A site Remediation |  |  |   |
| L | REPORTED TO SPILL LINE BY<br>Afsaal Pirzada   | POSITION<br>Consulting Geologist   | EMPLOYER<br>SOSO Nunavut   | LOCATION CALLING FROM<br>Vancouver      |
| M | ANY ALTERNATE CONTACT<br>Gordon Addie   | POSITION<br>President  | EMPLOYER<br>SOSO Nunavut Ltd   | ALTERNATE CONTACT LOCATION<br>Vancouver |
| N | RECEIVED AT SPILL LINE BY<br>CASH   | POSITION<br>STATION OPERATOR   | EMPLOYER   | LOCATION CALLED<br>YELLOWKNIFE, NT      |
|   | LEAD AGENCY ORC OCS GNWT QBN DLA INAC ONB OTC   | SIGNIFICANCE MINOR MAJOR UNKNOWN   | FILE STATUS OPEN CLOSED  | REPORT LINE NUMBER<br>(867) 920-5130    |
|   | AGENCY  | CONTACT NAME   | CONTACT TIME   | REMARKS                                 |
|   | LEAD AGENCY   | INAC-NATYAN ROME   | 16:18  | Spilled in                              |
|   | FIRST SUPPORT AGENCY  |  |  |   |
|   | SECOND SUPPORT AGENCY   |  |  |   |
|   | THIRD SUPPORT AGENCY  |  |  |   |

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**5050 Nunavut Ltd.  
Suite 507, 700 West Pender Street  
Vancouver, B.C.  
V6C 1G8**

090309

August 17, 2009

Robert Eno  
Director,  
Environmental Protection Division  
Dept. of Environment  
Gov't of Nunavut  
Iqaluit, NU

Dear Mr Eno:

**Re: Remedial Action Plan for the Hydrocarbon Leakage Area at McGregor Lake  
Camp in Nunavut (KIA Camp License # KTL306C016-Amended; INAC  
Land Use Permit: N2008C0008; NWB License No. 2BE-MCG0608)**

#### **Introduction**

5050 Nunavut Limited (5050 Nunavut), presently holds a Kitikmeot Inuit Association (KIA) Land Use License KTL306C016-Amended; permitting a camp (with airstrip), staking & prospecting, exploration (geophys-grd/air) drilling and bulk fuel storage at McGregor Lake to support exploration activities associated with the MIE and Bear Valley Projects. The Company also holds Nunavut Water Board License Number 2BE-MCG0608 for water use, and INAC Land Use Permit N2008C0008. The project consists of 91 claims comprising 230,001 acres in three areas i.e., All Night Lake, McGregor Lake, and UNAD Joint Venture. The property is located 60 km (northern edge) to 85 km (southern edge) south of the community of Kugluktuk on Coronation Gulf, Nunavut, and is 500 to 530 km north of Yellowknife, Northwest Territories (Figure 1).

In 2007, the Company established the McGregor Lake camp by upgrading the existing INCO camp on the north shore of the McGregor Lake (Figure 2). The camp is designed to accommodate 25 - 30 people. Occupancy is seasonal, with anywhere from 1 to 30 people living at the camp during the operational period. On-site facilities include: lakeside dock, kitchen, washrooms, sleeping accommodations, and a fuel storage area (Figure 3).

The camp was used in 2007 to support exploration activities such as exploratory drilling, geophysical surveying, prospecting and mapping.

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My McGregor Lake camp is dormant this year and is not supporting any exploration activity. The Company hired Mr. Steve Ward to visit the camp and ensure that everything met the Company's permitting requirements.

During his visit on July 31 to August 6, 2009, Mr. Ward found that some heating oil fuel from a partially filled barrel breached a fuel berm. He took all reasonable measures to safely stop the discharge, fixed the berm, and improved the containment, but he suspects that up to 45 gallons might have seeped into the soil. The Company is submitting this remediation plan to get approval for cleaning up the potential soil contamination area.

### Remediation Criteria

The campsite is situated on the north shore of McGregor Lake, approximately 100 m from the high water mark of McGregor Lake (Figure 3). The camp is located on a flat bench of glacial till dominantly comprising of silt and gravel. It is a remote location with no nearby community. Thus no persons other than 5050 Nunavut personnel and various contractor personnel are expected to be affected in the event of an incident.

Based on the distance of the reported fuel spill area (over 100 m) from the nearest water body (McGregor Lake) and the reported quantity of fuel leaked into the soil (approximately 45 gallons), there is very low probability of the lake water to be impacted by the leakage. Due to presence of permafrost no groundwater contamination is anticipated.

The soil remediation of the potentially contaminated area will be carried out as per guidelines provided in the following documents:

1. A Property Owner's Guide to Contaminated Site Remediation in Nunavut, Department of Environment, Government of Nunavut, August 2009.
2. Environmental Guidelines for Contaminated Site Remediation, Environmental Protection Division, Department of Environment, Government of Nunavut, Revised March 2009.

The following land uses are considered applicable to the McGregor Lake camp.

- Wildland: because the area provides habitat for transitory wildlife and birds.
- Residential: due to its seasonal residential use for 1 to 30 people to support exploration program.
- Industrial: due to storage of fuel, helicopter pad and winter ice strip.

Based on the available information the leaked fuel was heating oil PHC, potential contaminants of concern (PCOCs) are considered as PHC Fraction 1 to 4, and polycyclic aromatic hydrocarbons (PAHs). Remediation will be carried out by adopting Tier 1 Remediation Criteria (Criteria based approach) which includes removal of the

contaminated soil having Petroleum Hydrocarbons (PHC) concentration in excess of the criteria and its off-site disposal.

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A summary of Tier 1 remediation criteria (mg/kg) for PHC in 'surface' soil is provided in Table 1.

| Land Use    | Soil Texture   | Fraction 1<br>(C6-C10)  | Fraction 2<br>(>C10-C16) | Fraction 3<br>(>C16-C34) | Fraction 4<br>(>C34) |
|-------------|----------------|-------------------------|--------------------------|--------------------------|----------------------|
| Wildland    | Fine Grained   | 210 (170 <sup>a</sup> ) | 150                      | 1300                     | 5600                 |
|             | Coarse Grained | 30 <sup>b</sup>         | 150                      | 300                      | 2800                 |
| Residential | Fine Grained   | 210 (170 <sup>a</sup> ) | 150                      | 1300                     | 5600                 |
|             | Coarse Grained | 210 (170 <sup>a</sup> ) | 150                      | 300                      | 2800                 |
| Industrial  | Fine Grained   | 320 (170 <sup>a</sup> ) | 260 (230 <sup>a</sup> )  | 2500                     | 6600                 |
|             | Coarse Grained | 320 (240 <sup>a</sup> ) | 260                      | 1700                     | 3300                 |

**Notes:**

*a = Where applicable, for protection against contaminated groundwater discharge to an adjacent surface water body or for protection of potable groundwater*

*b = Assumes contamination near residence*

General soil in the area is glacial till with silt and gravel, therefore fine grained soil texture criteria is considered applicable which will be modified if soil conditions at the spill area changes. McGregor Lake is the nearest surface water body located more than 100 m to the south of the hydrocarbon leakage area, therefore criteria for protection against contaminated groundwater discharge to an adjacent surface water body is considered applicable. The most stringent applicable land use criteria (Wildland / Residential) will be used as remediation standard.

Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines (Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health, Update 7, September 2007) will be used for remediation of PAHs contaminated soil.

### Remediation Action Plan

The reported spilled quantity of fuel is approximately 45 gallons. Based on the amount of fuel spilled, the clean up can be done using hand tools. The following two options were considered for the management of contaminated soil removed from the fuel leakage area.

1. Off-site disposal
2. On-site treatment

Estimated volume of contaminated soil is 2 to 5 drums (45 gallons each), therefore the Option 1 – Off-site disposal will be preferred.

The contaminated soil will be collected in 45 gallon drums and will be shipped to Yellowknife for disposal to an authorized facility. The Company holds a Hazardous

Waste Generator Number NUG 100022 which will be used to track and ship all the contaminated soil.

After completing soil clean up from the spill impacted area, confirmatory soil samples will be taken to confirm the effectiveness of the remediation work. The area will be re-graded and restored as close as possible to its original landscape. A phase 2 remediation will be carried out if the extent of contamination is found to be beyond the scope of hand digging tools. A separate phase 2 remediation plan will be submitted later if required.

5050 Nunavut Limited will ensure that the above-mentioned remediation plan and all other measures mentioned in our License are implemented to the satisfaction of KIA, INAC and Nunavut Water Board.

The undersigned has worked as Project Geologist for 5050 Nunavut's MIE and Bear Valley Projects for the period 2006-08. Undersigned also has over 5 years of experience in contaminated sites investigation, remediation and management. A Statement of Qualification is presented in Appendix A.

If you have any question or concern regarding this plan, please do not hesitate to call the undersigned at 778-558-4940 or Mr. Gordon Addie at 604-512-0145.

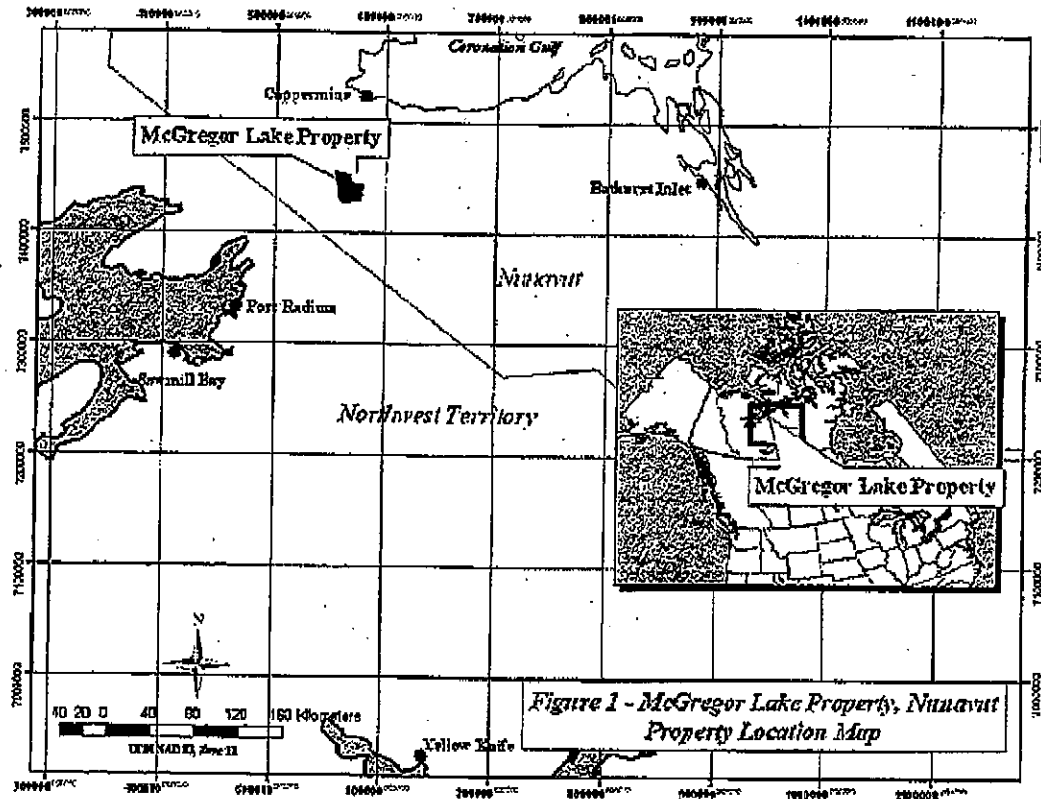
Yours truly,



Afzaal Pirzada, P.Geo.  
Consulting Geologist  
Geomap Exploration Inc.

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Figure 1: MIE Property Location Map



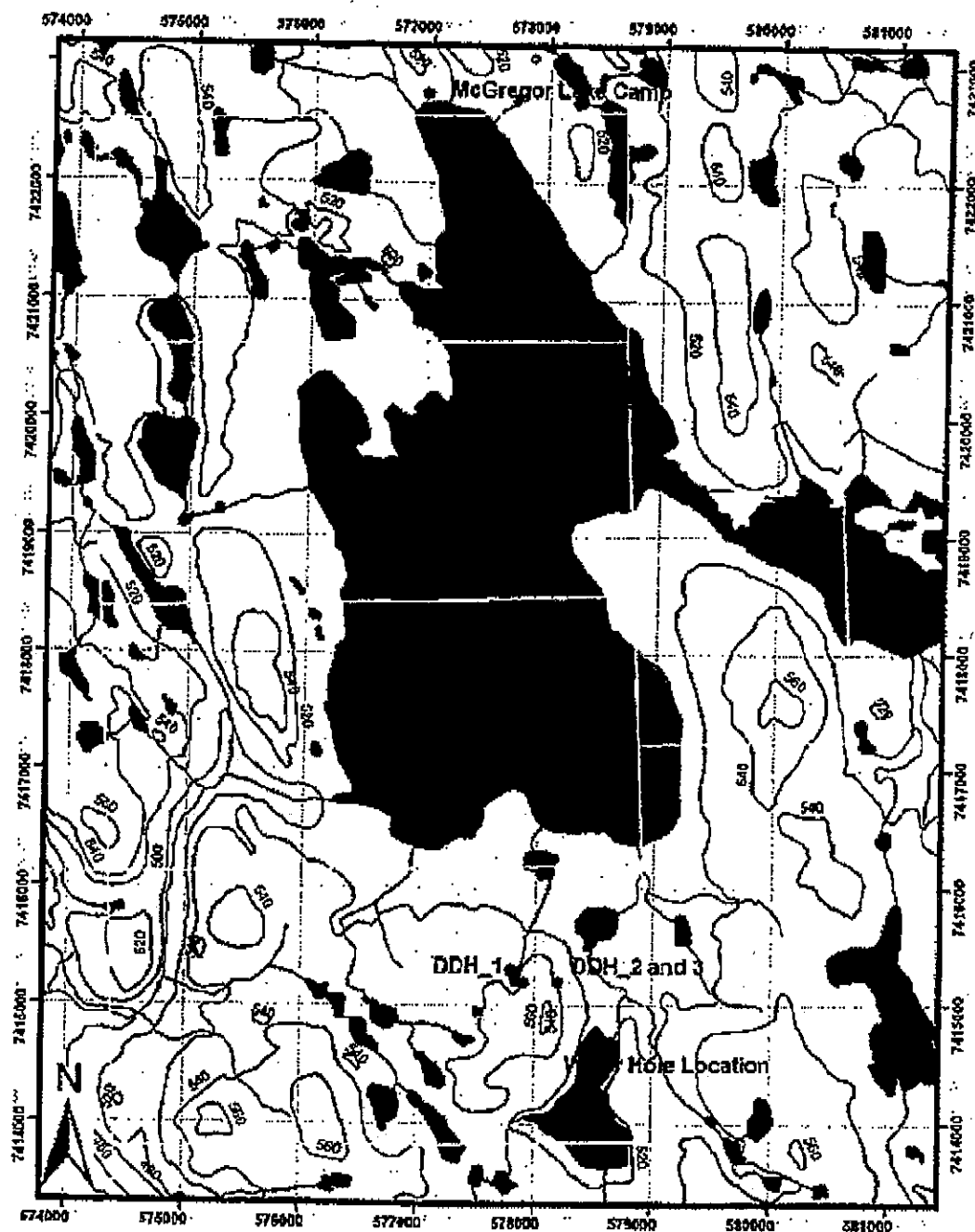
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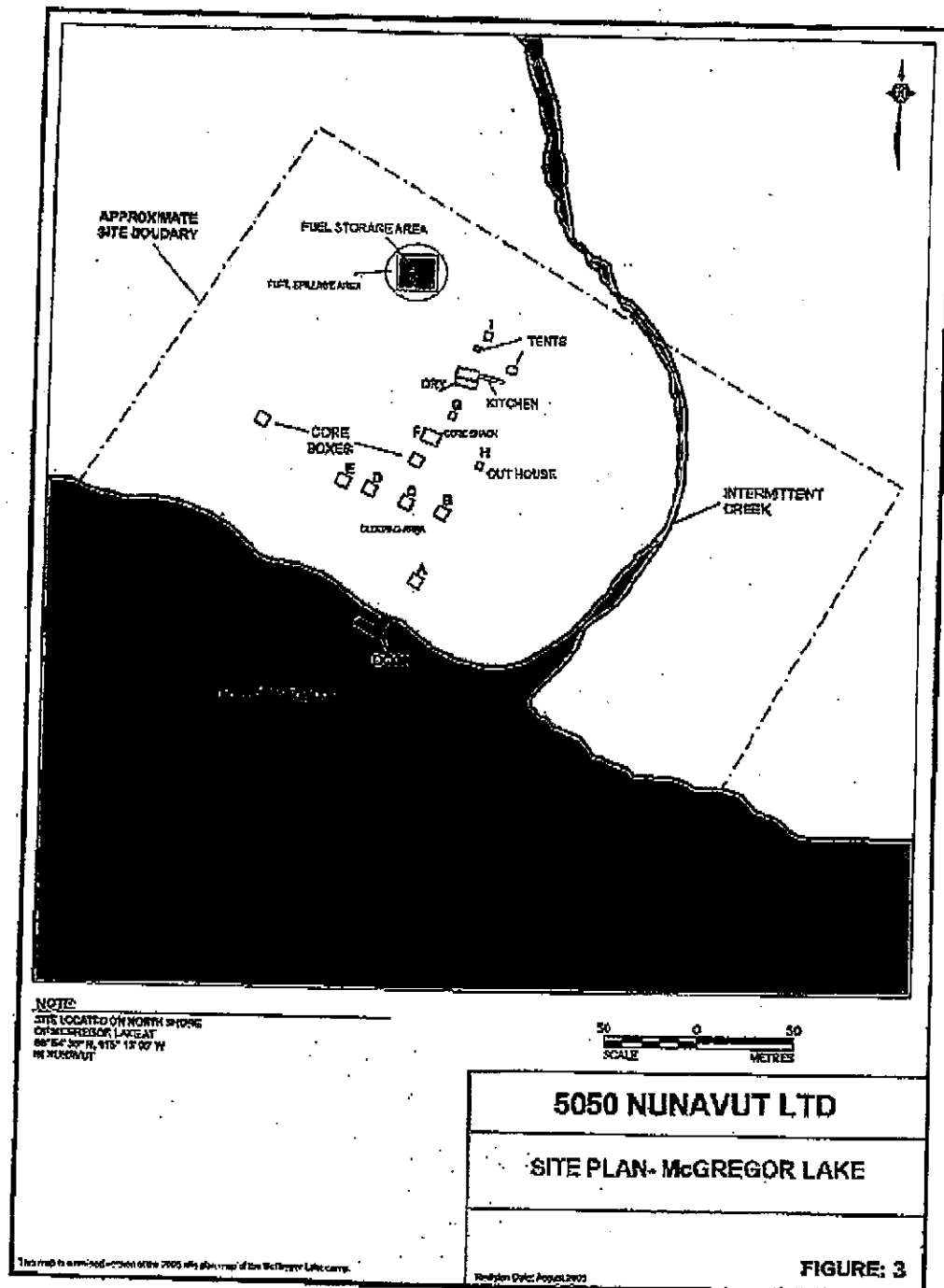
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Figure 2: McGregor Lake Camp Location



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Figure 3: McGregor Lake Camp Layout with Location of Fuel Spill Area





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**APPENDIX A**  
**Statement of Qualifications**

**Afzaal Pirzada, P.Geo.**

Mr. Pirzada is an Environmental Geologist with more than five years of experience in environmental site assessment, remediation and risk assessment. He has conducted environmental site assessments, developed remedial action plans (RAP) and remedial designs for contaminated sites at various residential, commercial and industrial settings including airports, highway yards, correctional institutions, mining areas, and commercial buildings etc. His expertise includes project coordination, preparation and execution of investigation and remediation work plans, hydrogeological investigations, and risk assessment.

Mr. Pirzada is familiar with Federal Environmental Acts and Regulations (CCME Guidelines and Standards) related to contaminated sites, as well as BC and Nunavut environmental regulations. He has carried out environmental investigations, developed several remedial action plans and has successfully applied various risk based remediation techniques to a variety of contaminants such as petroleum hydrocarbons, polycyclic aromatic hydrocarbons, and heavy metals. He has worked on complex remediation projects with multiple contaminants, complex remediation techniques, and remote site issues.

He also has more than 20 years of experience in mineral exploration and mining, geotechnical investigations, and terrain mapping.