

NTS 27B/12

**SITE INVESTIGATION AND REMEDIAL ACTION PLAN FOR THE
DEWAR LAKES CAMP, BAFFIN ISLAND GOLD PROJECT, BAFFIN
ISLAND, NUNAVUT**

Nunavut Water Board Water Licence 2BE-NAD0813

INAC Land Use Permit N2013C0014

QIA Licence Q07L3C03

NIRB Approval 04EN022

Approximate Location:

Latitude: 68° 37' 59" N

Longitude: 71° 06' 38 W

Prepared For:

Commander Resources Ltd.

11th Floor, 1111 Melville Street

Vancouver British Columbia

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Prepared by:

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November 28, 2016
Edmonton, Alberta, Canada

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1 Summary

APEX Geoscience Ltd. (APEX) was contracted by Commander Resources Inc. (Commander) to complete a Remedial Action Plan (the Plan) for the Dewar Lakes Camp Site (the Site), located on Baffin Island, Nunavut.

The Dewar Lakes Camp Site has not been used to conduct exploration programs since 2011. The site was last occupied in 2013 by Biogenie personnel, on behalf of Commander, to clean up and secure the Site after an episode of vandalism damaged camp structures.

A site inspection was conducted by the Indigenous and Northern Affairs Canada (INAC) Water Resources Officer in July, 2016. The inspector reported that the Site was vandalized and sustained significant damage. Most structures are compromised and the contents have been scatted by wind dispersion and wildlife.

The main objective of this document is to provide detailed information required to finalize a cleanup and rehabilitation plan for the Site. The Plan was established based on knowledge acquired by APEX through experience with similar campsite clean-up projects, and reviews of the 2016 INAC site inspection report and the 2013 Biogenie report. The Plan consists of a preliminary Site investigation, and a Camp Site clean-up and rebuild program which are anticipated to be conducted during the summer of 2017.

It is recommend that Commander conduct a preliminary Site visit in early June, or as soon as ground conditions allow for a proper inspection, in order to ascertain the materials that will be required to rebuild and to allow for sufficient time to procure these items. The Field Supervisor should be able to complete a Site visit in one day allowing for 2 additional days of travel.

To allow for a summer exploration program, the clean-up and rebuild of the Dewar Lakes Camp Site should be conducted in early July and is proposed to take approximately 10 field days (including travel days).

It is highly recommended that Commander complete community consultations to inform leaders of the local communities of the vandalism problem. In addition during future periods of inactivity, it is recommended that Commander request the assistance of the local community members to conduct Site visits to ensure the Site remains properly secured and to reduce the chance of further vandalism.

2 Introduction

APEX Geoscience Ltd. (APEX) was contracted by Commander Resources Inc. (Commander) to complete a Remedial Action Plan (the Plan) for the Dewar Lakes Camp Site (the Site). The Dewar Lakes Camp Site facilitated exploration on Commander's Baffin Island Gold Project, located on Baffin Island, Nunavut since 2006.

The main objective of this document is to provide the detailed information required to finalize clean-up and restoration plans for the Site.

The Plan was established based on knowledge acquired by APEX from experience on similar camp site cleanup projects and reviews of the site inspection report, conducted by the Indigenous and Northern Affairs Canada (INAC) Water Resources Officer in 2016, and the 2013 Biogenie report, which detailed the procedures for the previous Dewar Lakes Site clean-up. This Plan consists of a site investigation, campsite clean-up and camp rebuild program, anticipated to be conducted during the summer of 2017.

3 Project Background

Commander has been conducting exploration on its Baffin Island Project since 2004 and is planning to continue exploration in the future. Work conducted on the Property since 2004 has included ground geophysics, prospecting, rock sampling, geological mapping, and diamond drilling. The majority of the exploration work to date has been conducted on Inuit Owned Lands. Exploration work was operated out of two separate camps, located on crown land: a 40 person camp located on Dewar Lakes, adjacent to the North Warning System Fox-3 airstrip, and a 20 person camp located on Malrok Lake, approximately 40 miles west of the Dewar Lakes camp. The Malrok Lake camp was decommissioned and cleaned up in the summer of 2011 and all subsequent work on the project has been supported by the Dewar Lakes camp. No exploration work has been conducted on the Property since 2011.

The site was last occupied in 2013 by Biogenie personnel, on behalf of Commander, to clean up and secure the Site after an episode of vandalism damaged camp structures. This resulted in significant damage and exposure of contents to outdoor conditions, wind dispersion and wildlife. The Site was subsequently cleaned-up and secured by Biogenie upon request by Commander.

The Dewar Lakes Camp Site was inspected in the summer of 2016 by INAC Water Resources Officer Andrew Keim and found to be vandalised and damaged once again.

4 Regulatory Framework

The Dewar Lakes Camp Site is located on currently open crown land on the west side of Dewar Lakes, adjacent to the North Warning System Fox-3 airstrip (Figure 1). The campsite and previous exploration on the Property was most recently authorized



by INAC Land Use Permit N2013C0014, Nunavut Water Board (NWB) Water Licence 2BE-NAD0813, Nunavut Impact Review Board Screening Approval 04EN022 and Qikiqtani Inuit Association (QIA) Licence Q07L3C03. The permits and licences have expired, but Commander is in the process of renewing the exploration approvals.

5 Remedial Action Plan

5.1 Remediation Objectives

APEX has identified the following objectives for the remediation of the Dewar Lakes Camp Site:

- To provide for a cost-effective and environmentally acceptable Remediation Plan for the Site
- To provide a Remediation Plan that will prevent the potential migration and/or wind dispersion of contaminants into the surrounding ecosystem
- To provide a Remediation Plan that will be approved by regulators
- To restore the Site to a safe condition

In preparing this plan, a variety of potential remediation options were evaluated. Each option was reviewed to consider factors such as technical practicality, previous effectiveness and permanence. From this review, a short list of potentially applicable activities was compiled.

The short list of activities was then further assessed against other factors including:

- Physical conditions at the Site
- Working nature of the Site
- The short remediation season/timeframe (i.e. the summer months)
- Weather conditions
- Ability to mitigate risks to human and environmental health
- Stakeholder and regulatory authority expectations/requirements
- Reaching closure in a timely manner
- Flight and aircraft availabilities
- Available local materials
- Cost

5.2 Remediation Implementation Plan

5.2.1 *Permitting and Annual Reporting*

A number of activities are required to be completed prior to the commencement of the remediation activities. These include:

- Completion and submission of Annual Reports for 2014, 2015 and 2016 to INAC, NWB, NIRB, QIA and the Government of Nunavut (GN).
- Submission of outstanding (if any) Water Use Fees to NWB.
- Update of Health & Safety Manual, Non-technical Summary, Abandonment and Restoration Plan, Spill Contingency Plan and Waste Management Plan and submission to INAC, NWB, NIRB and the QIA.
- A new Exploration Agreement with NTI is currently being negotiated.
- Submission of extension requests to INAC for Land Use Permit N2013C0014 and to NWB for Water Licence 2BE-NAD0813.

5.2.2 *Preparation*

Some preparatory activities will also be required prior to mobilization in the summer of 2017. These will include, but not be limited to:

- Contacting officials in the surrounding communities to inform them of the vandalism problem and to make the status of the camp known to the public so it is not incorrectly assumed to be abandoned.
- Obtaining approval from Biogenie, on behalf of the DND (Department of Defense), for use of the Fox-3 airstrip.
- Obtaining approval from the community where hazardous and non-hazardous materials are to be disposed.
- Contacting the Hamlet of Clyde River to determine what happened to fuel drums that were transported to the Clyde River Airport.
- If required, removal of fuel at Clyde River Airport is to occur concurrently with Dewar Lakes Camp clean-up.

5.2.3 *Remediation*

Remediation activities at the Site will include:

- All salvageable and/or hazardous material that will remain on Site will be inventoried, as will the amount and nature of items to be backhauled for proper disposal.

- Photographs will be taken of the Site before and after clean-up
- All garbage that cannot be incinerated, ash from incinerated garbage, expired fuel and empty fuel drums to be removed for proper disposal
- Secondary containment to be inspected and either be fixed or replaced
- Sediment and erosion control measures will be implemented to prevent entry of sediment into water. Sediment and erosion control is generally comprised of two main strategies:
 1. Stabilization practices, which are used to prevent erosion and siltation and may include hydroseeding, mulching, geotextiles, sod stabilization, buffers, protection of trees and mature vegetation, and decreasing slope angles or lengths.
 2. Structural practices divert flows from exposed soils, store flows, or otherwise limit runoff and discharge of sediments from exposed areas of the site. Practices may include ditches, silt fences, earth dikes, drainage swales, sediment traps, check dams, slope drains, level spreaders, reinforced soil retaining systems, and sediment basins.
- The Malrock camp will be inspected during the course of the Dewar Lakes Camp clean-up and any remaining reclamation required will be documented and completed.

5.2.4 Analytical Testing

During remediation, testing will be performed as required. If land spills have occurred, soil samples will be collected after the contaminated soil is excavated to assess if any residual spill remains. If any spills have potentially affected a waterbody, water samples will be collected for analysis to determine any contamination levels.

If there appears to be any significant permafrost thawing within the camp area (such as along pathways), the depth to permafrost in those areas will be surveyed by Ground Penetrating Radar (GPR) and compared to that of the surrounding area to determine if any remedial action is required.

5.2.5 Land Treatment

Any land based spills will be handled as per the updated Spill Contingency Plan. Any areas found to have permafrost thawing will be cleaned up and sectioned off to allow ground to refreeze.

5.2.6 Water Treatment

Any spills that have affected waterbodies will be handled as per the updated Spill Contingency Plan

5.2.7 Monitoring

Monitoring of the camp after the clean-up will be conducted during camp use in the summer months.

6 Logistics and Remediation Schedule

Taking in to consideration all of the factors listed in the Action Plan a Remediation Schedule for the summer of 2017 is proposed as follows:

Table 6.1. Logistics Schedule

Date	Action	Description
June 1	Field supervisor travel	• Commercial flight from Edmonton to Iqaluit
June 2	Site Inspection by Field supervisor	• Charter flight from Iqaluit to Site • Site Inspection and rebuild material list • Charter flight from Site to Iqaluit
June 3	Field supervisor travel	• Commercial flight from Iqaluit to Edmonton
June 4 - July 1, 2017	Project preparation	• Procurement of tools and supplies in the south (Edmonton) and remotely in Yellowknife • Identifying status of fuel drums at Clyde River • Communications • Flight, helicopter and hotel bookings • Final cost adjustments
July 2, 2017	Mobilization of field supervisor to Iqaluit	• Commercial flight from Edmonton to Yellowknife • Field supervisor to ensure all required equipment and materials are available and procure any missing items
July 3, 2017	Mobilization of field crew to Iqaluit	• Commercial flight from Edmonton to Iqaluit
July 4, 2017	Mobilization of field crew and equipment to Site	• Charter flight for crew from Iqaluit to Site • Charter flight for field supervisor and equipment/materials from Yellowknife to Site • Mobilization of helicopter to Site
July 5 - 19, 2017	Camp clean up and rebuild	• Includes inspection of Malrok Camp and back-hauling of waste to local community (after approval obtained)
July 20, 2017	Demobilization of crew, equipment and Helicopter	• Charter flight from Site to Iqaluit • Demobilization of helicopter from Site
July 21, 2017	Demobilization of field crew from Iqaluit	• Commercial flight from Iqaluit to Edmonton

*Dates may need to change slightly, as historically the airstrip has been off limits from July 1 to July 10 for restocking of the radar site. Request will be made to Biogenie to use the strip at this time as the supply flights might be able to be used to backhaul materials from camp.

7 Conclusions

It is recommend that Commander conduct a preliminary Site visit in early June (or as soon as ground conditions allow for a proper inspection) in order to ascertain the materials that will be required for the rebuild and to allow for sufficient time to procure the items. The Field Supervisor should be able to complete a Site visit in one day allowing for 2 additional days of travel.

To allow for a summer exploration program, the clean-up and rebuild of the Dewar Lakes Camp Site should be conducted in early July and is proposed to take approximately 10 field days (including travel days).

It is highly recommended that Commander complete community consultations to inform leaders of the local communities of the vandalism problem. In addition during future periods of inactivity, it is recommended that Commander request the assistance of the local community members to conduct Site visits to ensure the Site remains properly secured and to reduce the chance of further vandalism.

Appendix 1

Water Licence Inspection Notice



WATER LICENCE INSPECTION FORM

☒ Original

☐ Follow-Up Report

Licensee		Licensee Representative	
Robert Cameron President and CEO Commander Resources Ltd 11 th Floor , 1111 Melville Street Vancouver British Columbia V6E 3V6		None.	
Licence No. / Expiry		Representative's Title	
2BE-NAD0813 (Expired)		None	
Land / Other Authorizations		Land / Other Authorizations	
N2013C0014 –Expired: August 14,2016		Nil	
Date of Inspection		Inspector	
July 20, 2016		A.Keim	
Activities Inspected			
<div><input checked="" type="checkbox"/> Camp<div><input checked="" type="checkbox"/> Roads/Hauling</div></div> <div><input checked="" type="checkbox"/> Drilling<div><input type="checkbox"/> Other: Water Discharge</div></div> <div><input type="checkbox"/> Mining</div> <div><input type="checkbox"/> Construction<div><input type="checkbox"/> Other: Municipal</div></div> <div><input type="checkbox"/> Reclamation</div> <div><input type="checkbox"/> Fuel Storage</div>			

Conditions:

A - Acceptable

C - Concern

U - Unacceptable

NA – Not Applicable

NI – Not Inspected

Water Use		Site Conditions		Haz/Mat Management	
	Condition	Comment		Condition	Comment
Intake/Screen	NA		Water Management Structures	NA	
Flow Measure. Device	NA		Culverts / Bridges	NA	
Source: Station Creek	NA		Drainage	NA	
Water Use:	NA		Erosion / Sediment	NA	
Recirculation (y /n)	NA		Mitigation Measures	U	
			Reclamation Activities	U	
			Materials Storage	U	
Waste Disposal			Signage	NA	
Waste Water	NA				
Solid Waste	U		Monitoring		
Hazardous Waste	U		Sample Collection / Analysis	U	
*The number in the comments field will correspond with specific comments provided below.					
Samples taken by Inspector:		Location(s): None were collected during the period of inspection			
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					

SECTION 1

☒ Comments (s.__)

☐ Non-Compliance with Act or Licence (s.__)

☐ Action Required (s.__)

Commander Resources’ Water License (Amendment 1) expired on September 1st 2013.

Administration

The Commander Resources site at Dewar Lakes has not been occupied since 2013.

Commander Resources Ltd has been conducting exploration in central Baffin Island since 2003. The Company has had a water license in place to conduct this activity since 2006. The majority of the work being conducted out of a 40 person camp located on Dewar Lakes latitude of 68o 38’ N and longitude of 71 o 08’ W , adjacent to the North Warning System Fox-3 airstrip, and a 20 person camp located on Malrok Lake, latitude of 68o 30’ 01” W and longitude of 72 o 27’ 39” N, approximately 40 miles west of the Dewar Lakes camp.

At the Dewar Lakes camp JET A fuel stored in 45 gallon drums and diesel fuel stored in two 12,500 gallon bulk fuel bladders were documented in inspections conducted between 2007 and 2013 prior to the expiry of the 2013. All fuel barrels and fuel bladders were found to be in secondary containment berms during these inspections.

Camp facilities consisted of accommodations for up to 40 persons, a large cook tent, gen shack, Incinerator, core shacks and metal silo structure to be used for storage.

Prior to the expiry of the license a large number of barrels of fuel were transported to the airport maintenance area of the Clyde River Airport. E-mails (8/21/2013) cc’d to the inspector detail some negotiation between the SAO of the Hamlet and S. Potts of Commander Resources regarding Storage and the sale of this fuel. It is not clear what the final result of these discussions was or what has become of the barrels of fuel.

Following the final year of activity 2013, an annual report for the 2013 year was filed by Mr. Potts with the Nunavut Water Board on



March 12, 2015.

Since that time there has been no communication to Inspectors or the Nunavut Water Board that we can locate or have on file.

It was unclear to inspectors at the time for the Inspection if the Camp has been abandoned or if the Licensee has placed the camp into some form of Care and Maintenance. Following the Inspection a number of attempts to contact the Licensee were undertaken and on August 31st, 2016 an e-mail was received by the Inspector from Mr. Rober Cameron (President and CEO) of Commander Resources.

In the E-mail Mr. Cameron advised the Inspector of the following:

- Commander Resources is working on revitalizing the existing permits (Land Permit and Water License)
- Commander Resources has sufficient resources to return to the site in 2017 to address deficiencies found during the inspection and intends to do so.
- Commander Resources has moved offices and their new coordinates are:

Commander Resources Ltd
1100-1111 Melville St.
Vancouver BC, Canada

SECTION 2

☐ Comments (s.__)

☐ Non-Compliance with Act or License (s.__)

☐ Action Required (s.__)

Inspection Findings:

- The fuel bladders were found in site but had been removed from service and packaged.
- Approximately 10 drums of unknown contents were found on site. Some in secondary containment some outside.
- Secondary conta9inment (4) has been blown/ knocked down in a number of places. (Unserviceable)
- Two snow machines found on ite have been stripped for parts.
- Core shack remains standing
- Gen shack does not contain any generators
- Canvas tents have blown down.
- Weather havens have collapsed; poles remain in place for the most part.
- Wooden floors for tents remain however sides have all blown away.
- Wind blown garbage is scattered across the tundra and down to the lake shore from the camp.

SECTION 3

☐ Comments (s.__)

☒ Non-Compliance with Act or License (s.__)

☐ Action Required (s.__)

Non-compliance
The Nunavut Waters and Nunavut Surface Rights Tribunal Act;

12. (1) Subject to subsection (2) and except in accordance with the conditions of a licence, no person shall deposit or permit the deposit of waste
- (a) in waters in Nunavut; or
 - (b) in any other place in Nunavut under conditions in which the waste, or any other waste that results from the deposit of that waste, may enter waters in Nunavut.
- (2) Subsection (1) does not apply in respect of
- (a) any unlicensed deposit of waste that is authorized by the regulations; or
 - (b) the deposit of waste in a national park.

Based on observations and photos collected during the period of the Inspection, the Inspector believe s that the Licensee has failed to adhere to section 12 as above and is in contravention of the Act.

Further, Subject to Section 42 of the Act the Nunavut Water Board may, subject to this Act and Regulations, upon application issue the appropriate License. In this case a Class B License for mining and Milling (Exploration Activities and the associated Camp Activities at Dewar Lakes, Nunavut. Subject to the conditions placed within that license the Inspector finds the following sections that are not in compliance;

Part B: General Conditions

- Part B (2) The Licensee has failed to file annual reports since the expiry of the License (2014, 2015)
- Part B (3) The Licensee has failed to inform the NWB of any changes in operating Plans or conditions associated with the project at least (30) Thirty days prior to any such change.

Part C: Conditions Applying to Water Use

- Part C (7) The Licensee has failed to ensure and maintain Sediment and erosion control measures shall be implemented prior to and maintained during the operation to prevent entry of sediment into water.

Additionally, Please note;

46. The expiry or cancellation of a licence does not relieve the holder from any obligations imposed by the licence.



The Licensee has indicated that they intend to address the above noted non-compliance following the revitalization of the required permits and authorizations. (Email, R.Cameron, August 31st, 2016)

Following receipt of the above e-mail the Inspector recommends that Commander Resources undertaken this process immediately and that the Inspector and INAC be kept informed of Commander's progress through the submission of an Action Plan that includes milestones and clear dates by which Commander Resources will return to a state of compliance with the legislation. Submission of this plan is required within 90 days and is to be submitted to the Inspector and the Nunavut Water Board.

Photo Log

Date	Authorization	Camera	Inspector
July 20, 2016	2BE-NAD0813 Expired	Sony Cyber shot	A. Keim









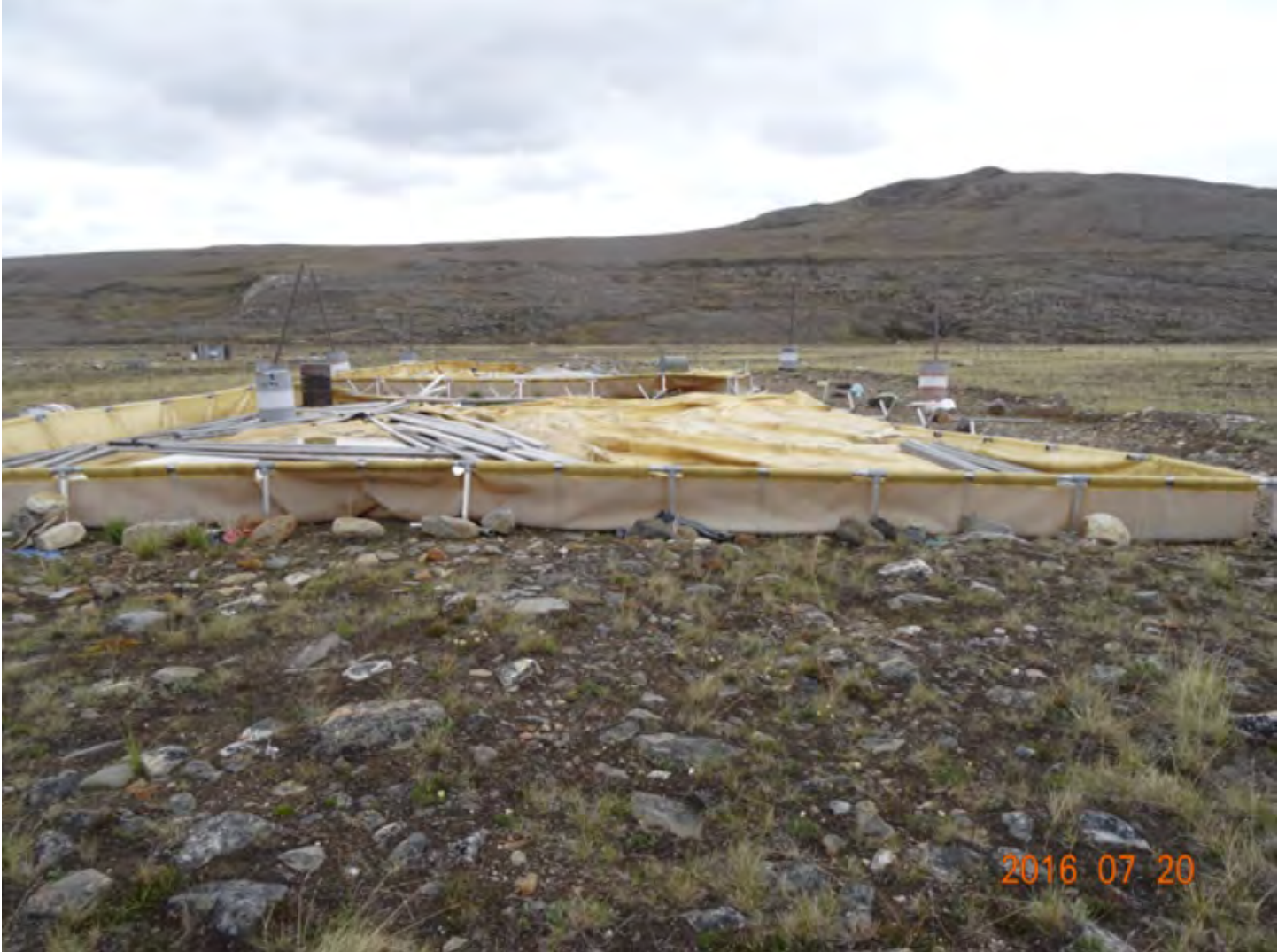


2016 07 20



2016 07 20







Licensee or Representative	Inspector's Name
	A. Keim
Signature	Signature
	On original document
Date	Date
	27/6/2016

Office Use Only:	Follow-up report to be issued by Inspector	<input type="checkbox"/> Yes <input type="checkbox"/> No
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