



GEOLOGICAL SURVEY OF CANADA
COMMISSION GÉOLOGIQUE DU CANADA

Ottawa, November 24, 2016

Thomas Kabloona
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Subject: 8WLC- TWG1617 – Approval for the Use of Waters and Deposit of Waste Without a Licence

Dear Mr. Kabloona,

The Geological Survey of Canada (GSC), in collaboration with the Canada-Nunavut Geoscience Office (C-NGO) and partners from Canadian universities, completed the 2016 field activities pertaining to the NWB file 8WLC-TWG1617 in the Tehery-Wager area between Wager Bay and Chesterfield Inlet, Nunavut, on September 6, 2016. Please find below our report containing a summary description and supporting photographs of the restoration of our camp site.

As planned, geological mapping and research was carried out of a temporary, low-impact, tent camp situated on a sandy terrace of the Lorillard River (latitude: 65° 13' 45"N and longitude: 91° 05' 35"W). The temporary field camp (FPB camp; **Photos 1 & 2**) was set up by transporting camp gear and construction/research personnel on Turbo Otter flights using tundra tires from Baker Lake. The fuel necessary for camp and helicopter operations (70 barrels) was staged from Baker Lake and Chesterfield Inlet by Turbo Otter using tundra tires to a fuel cache using regulatory berms (**Photo 1**). Three small remote refueling caches comprising between 5 and 18 barrels of fuel were established at the 2015 Lorillard River camp (64° 36' 28"N and longitude: 90° 05' 16"W), south of Wager Bay (latitude: 65° 08' 35"N and longitude: 89° 05' 19"W), and northeast of Fehet Lake (latitude: 64° 37' 15"N and longitude: 92° 01' 14"W) to minimize the number of helicopter flights from camp to the southern and eastern reaches of the project area. Camp and all fuel caches were located 50-80 metres from high water line.

As planned, the work was undertaken by a crew of 12-16 participants supported by 1 Bell 206L3 helicopter based out of the FPB field camp between June 27th and July 29th. The crew involved 3-7 geologists, 1 GIS specialist, 6 university field assistants (including 1 Northerner), 1 cook, 1 helicopter pilot/engineer, and 2 bear monitors (local hires).

Field work out of FPB camp involved 2-12 km foot traverses by teams of two to three. Each team made field observations, and took measurements, photographs, and fist-size rock samples as required. Other teams conducted helicopter-assisted traverses to take till or stream sediment/water samples. All work had minimal disturbance on the land or water bodies.



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Photo 1. Overview of FPB camp site showing office and kitchen tents (white tents with blue roofs), white storage tents, individual sleeping tents (beige tents and smaller yellow tents) and fuel cache (rows of green and white drums to the right of beige sleeping tents). Turbo Otter landing strip (centre right hand side) is the same as used by Peregrine Diamonds Ltd. during operations at their Nanuq camp.



Photo 2. Closeup of FPB camp with sleeping tents and Turbo Otter landing strip (lower left hand side) in foreground, and kitchen/office tents and Lorillard River in background.

Discovery Mining Services was contracted for the small footprint tent camp construction and take-down. Camp construction took place between June 22nd and 26th and camp takedown took place between July 29th and 31st. No drilling or other industrial-type work was undertaken and no roads or tracks constructed.

All operations were carried out in a manner to minimize surface disturbance. Other than aircraft, there was no heavy equipment, nor motorized vehicles on site. The project footprint was kept as small as possible and all disturbed areas were properly restored (**Photo 3**).

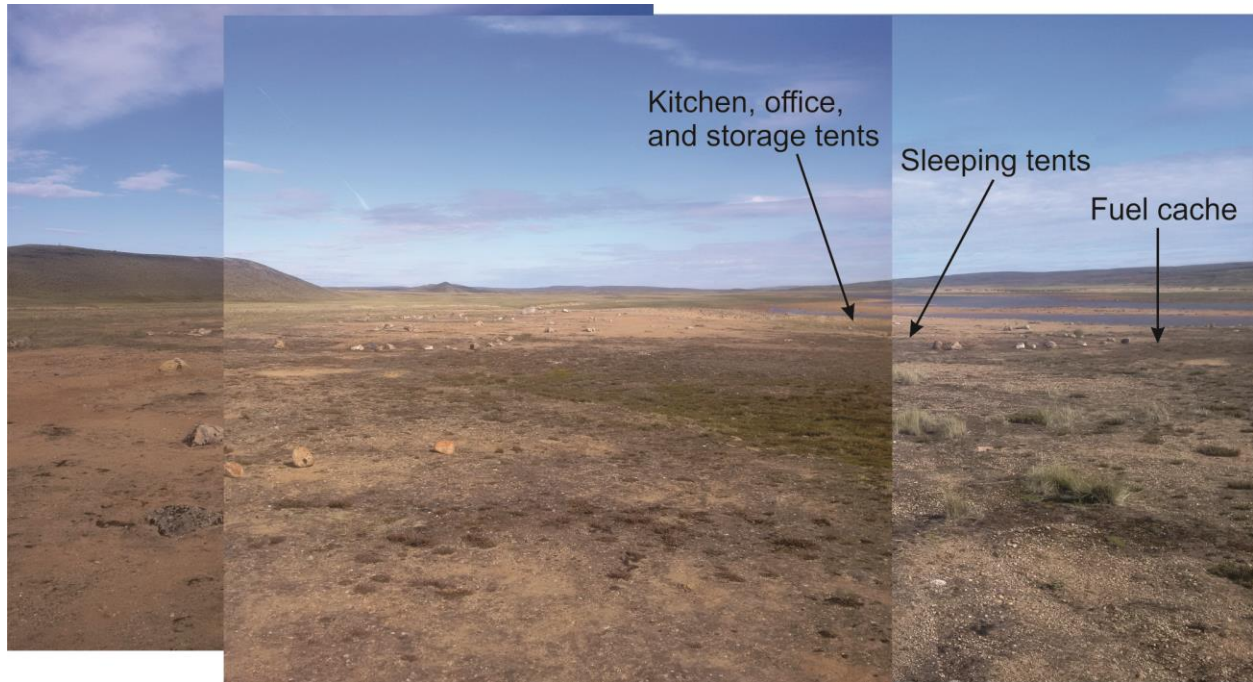


Photo 3. Photo mosaic of FPB camp following demobilization (linked to photos 1 and 2).

Water was used exclusively for cooking, drinking, and personal cleanliness. One 125 gallon plastic tank was used as clean water reservoir. Water was pumped from the Lorillard River using a small portable gasoline pump with a water intake hose equipped with a screen of appropriate mesh size to ensure that there was no entrapment of fish. The camp bulk daily water consumption ranged between 0.3 and 0.5 cubic metres.

During the duration of the field work no alteration to the bed or banks of the Lorillard River occurred.

All waste was sorted into 3 categories:

- Compostable (e.g. sewage)
- Burnable (e.g. cardboard, wood, paper, kitchen waste)
- Unburnable (e.g. metal, glass)

Compostable residues were buried beneath 1 metre of sandy soil >80 metres from high water line.

Burnable waste was processed in an enclosed incinerator meeting the Canadian Wide Standards for Dioxins and Furans, with ashes sealed in 5-gallon metal pails and flown to Baker Lake for final disposal at the municipal facility.

Unburnable waste was flattened/crushed and removed from the site in 5-gallon metal pails and flown to Baker Lake for final disposal at the municipal facility.

No petroleum spills occurred in camp or at the satellite fuel caches during field operations.

Camp demobilization took place in two stages: on July 29-August 1 and September 2-6. All camp gear and garbage were removed from the camp site (**Photo 3**), and any small debris systematically picked up/removed. The site was restored, to the extent practicable, to the state in which it was before its use.



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All sumps were backfilled and restored. Any remaining evidence of camp site use is anticipated to be erased/overgrown by next spring. All fuel caches were cleared with the exception of 14 drums remaining at the Lorillard camp fuel cache and 2 drums at the FPB camp fuel cache. These drums will be used for field work next summer and will be removed in July-August 2017.

Wildlife sighted over the whole project area included 1-100's caribous, 10's of muskoxen, a few hares and sik siks, and several birds (sandhill cranes, ducks, buntings, sandpipers, 1 falcon). No incidents resulting in harm to wildlife occurred. Rare archaeological sites encountered included inuksuk and cairns.

All previous documents related to this report are attached to the e-mail. They include:

- GSC-CNGO_Tehery-Wager Application For Renewal of Approval Without Licence – 8WLC-TWG1516
- GSC-CNGO Tehery-Wager Executive summary in Inuktitut
- GSC-CNGO Tehery-Wager Executive summary in English
- GSC-CNGO Tehery-Wager Appendix A
- Nunavut Water Board Approval for the Use of Waters and Deposit of Waste Without a Licence – 8WLC-TWG1617

Note that we plan to conduct a short field season in 2017 between June 22nd and July 5th with a focus on bedrock mapping. We are planning to use the same (or close by) camp site as in 2016 (FPB camp site; latitude: 65° 13' 45"N and longitude: 91° 05' 35"W) to minimize our footprint on the land. The camp will accommodate an estimated maximum of 6 people, including 3 geologists, 1 GIS specialist, 1 university field assistant, and 1 helicopter pilot/engineer. All work will be supported by 1 Bell 206L3 helicopter and supply flights by Turbo Otter. An application for a new Approval for the use of waters and deposit of waste without a licence and all relevant documentation will be submitted at least 30 days prior to the expiry of the current authorization.

Do not hesitate to contact me if you require any further information.

Sincerely,

A handwritten signature in cursive script that reads 'Natasha Wodicka'.

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