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Hall Peninsula Project 2012, Water license 3BC-HPI1213 type ‘B’

Summary report of water use and waste disposal activities

Presented to the Nunavut Water Board, September 30th, 2012

Introduction

During summer 2012 geological field work on Hall Peninsula was conducted between June 22nd and August 8th (a period of 47 days). The scope of this work focussed on bedrock mapping at a scale of 1:250 000 and surficial sediment mapping (glacial deposits) at a scale of 1:100 000. Most of the field work was conducted out of a 20-25 person camp located in the southern part of Hall Peninsula, under full licencing from official authorities, including a water license ‘B’ provided by the Nunavut Water Board (3BC-HPI1213). Some field work was conducted out of Iqaluit. Modes of transportation included foot traverses supported by helicopter, Twin Otter flights supplied camp.

The following report will summarize the water consumption conditions and the liquid and solid waste disposal activities, as requested by the licence agreement with the Nunavut Water Board. Location maps and campsite photographs are presented at figure 1, 2, 3, 4 and 5.

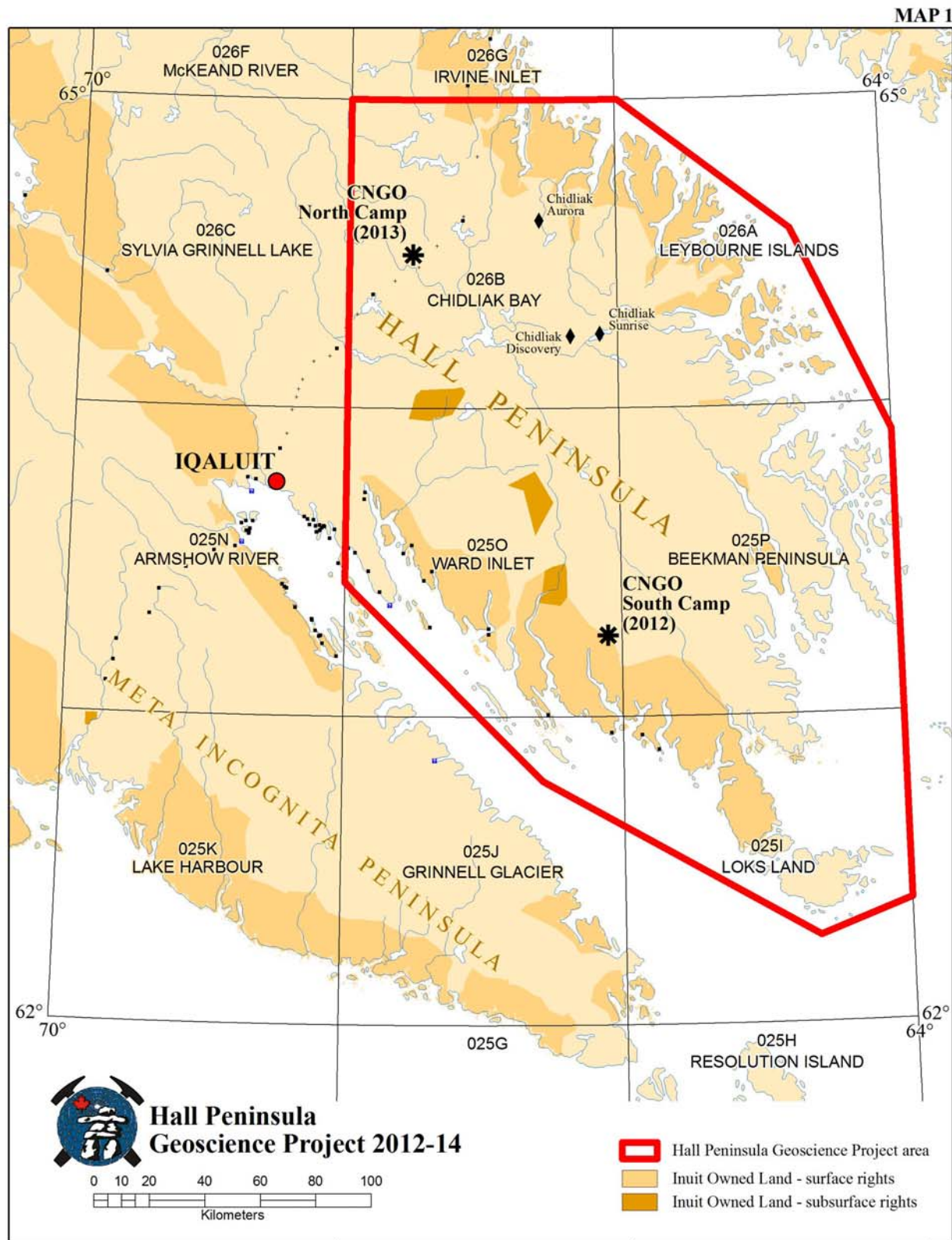


Figure 1 : South camp location map.

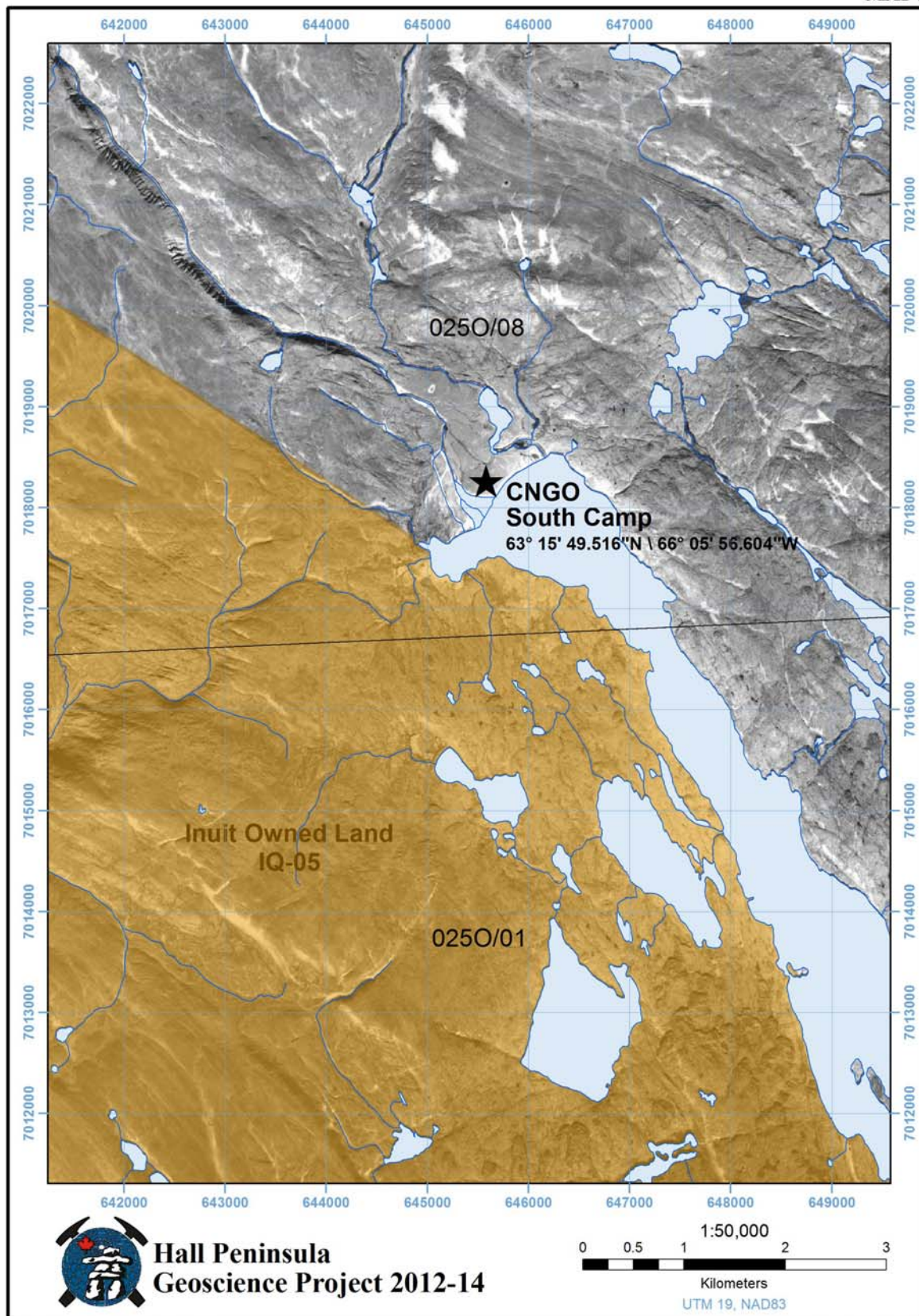


Figure 2: South Camp airphoto map.



Figure 3 : Aerial view of the camp site before the field season.

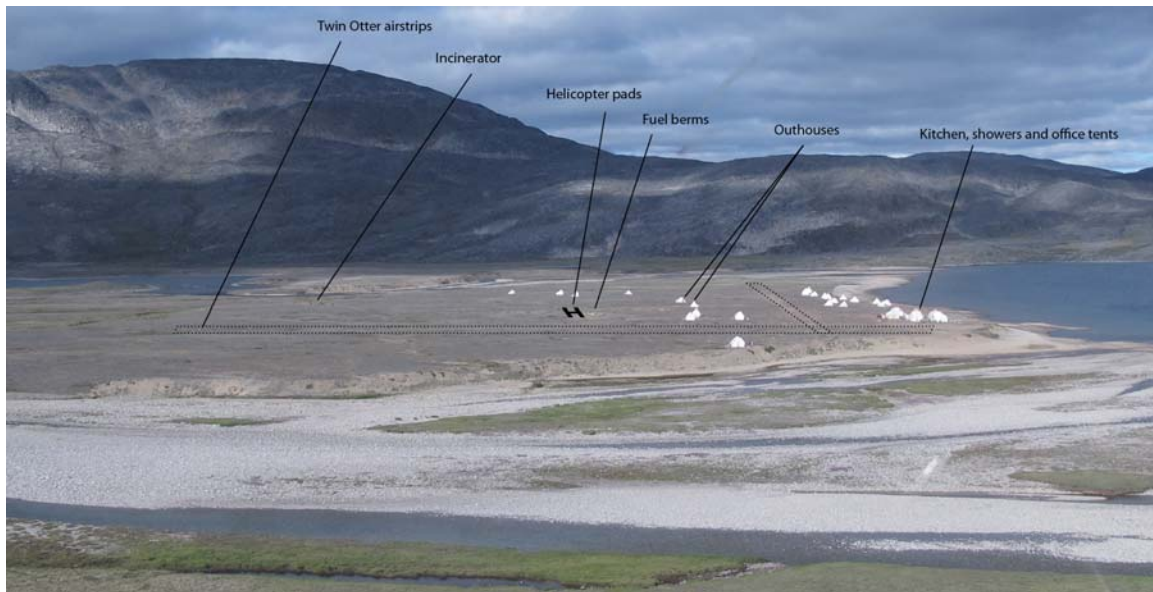


Figure 4: Aerial view of the camp during the field season.



Figure 5: Main camp sector photograph.

Water use

The water use was measured from the number of times the water container (1000 liters) was filled. This information was compiled in a log book by the water pump attendant.

46 water containers were filled, so at 1000 liters (1 cubic meter) per container, this is 46 cubic meters of water. This camp had no drilling operations, or any other industrial water-consuming activities. The water was solely used for drinking, kitchen and showers. (GPS coordinates NAD 83 : 66 05'48'' , 63 15'44'')



Figure 6: Water pump, container and heater system.

Waste disposal

Waste disposal were treated in the following conditions:

- Greywater originating from the shower tent and the kitchen tent were deposited in separate sumps, at a distance of more than 31 meters from any water body. (GPS coordinates NAD 83 : -66 06' 54'' , 63 15'45'')

- Toilet wastes were put in holes, 4-5 feet deep. Probably 10 holes were dug during the summer in an area of about 10 square meters, located more than 31 meters from any water body. (GPS coordinates NAD 83 : -66 05'54'' , 63 15'46'')

-Garbage was burnt into an incinerator. Ashes, metals, glass, other unburnable materials, hazardous wastes and waste oils were brought and disposed of at the Iqaluit community dump facility with authorization from the municipality. The incinerator was located more than 31 m from any water body. (GPS coordinates NAD 83 : -66 05'61'', 63 15'49'')



Figure 7: Kitchen sump during the field season.

A list of unauthorized discharge and a summary of follow-up actions taken

No unauthorized discharge are reported.

A list of all progressive and/or final reclamation work undertaken, including photographic records of site conditions before, during and after completion of operations;

Sumps and toilet wastes holes were refilled with original material to the former contour of the land. The ground surface is left clean and devoid of any garbage. The only remaining trace of the camp are the rocks that were used for securing the bottom of the tents.

A fuel cache of 8 fuel drums are left at the site. They will be used next summer, and any remaining drums will be removed before the end of the license period.



Figure 8: Shower sump and campsite after the field season.

Other aspects

The Helicopter and ATV maintenance operations were located at more than 31 m from any body of water. No material was moved from under the ordinary high water limit, no lake or river bank erosion was caused, and no sediments entered in the water due to our activities. The camp did not disturb any surface drainage. Other than the tents, no infrastructure was installed.

A result of all information requested and results of the monitoring program

No monitoring program was requested.

Conclusion

- 46 cubic meters of water was consumed, which is below the authorized limit allowed by the license.
- No unauthorized discharges are reported.
- The site was left in a state very similar to what was before we arrived, the sumps were back-filled.
- 8 barrels are still present as a cache for next summer field work, they will be completely removed at the end of the 2013 summer season.