Melville Project

Annual Report & Final Closure and Restoration Plan

Water Licence 2BE-MVP1217

December 9th, 2013

Submitted to:

Nunavut Water Board

Licensing
P.O. Box 119
Gjoa Haven, Nunavut X0B 1J0

ᓇᓗᓇᐃᓴᖅᓯᒪᓂᖅᐸᑦ

ᐅᑯᐊ ᑭᖓᓪᓗᖅᓯᒋᑦ <ᖅᓇᐅᑦ ᓇᓗᓇᐃᓴᖅᓯᒪᔪᑦ Vale Exploration Canada’s Melville Project ᐱᓕᕆᐊᖅ ᐃᒋᖅᓗᑦ ᓕᐃᓴᖃᓯᖏᓐ 2BE-MVP1217 ᑐᓂᓴᐅᓕᐅᖅᓯᒪᔪᖅ ᒪᐃ 2012 ᐊᒻᒪ ᐃᓯᓕᖅᐹᓴᖅᑲᖅᑐᓂ ᒪᐃ 2017.

ᖃᐅᐅᓴᓂᖅᓗᑦ ᐱᓕᕆᐊᖅ ᐃᓗᓕᓂᖅᑐᖅ ᓴᖅᑭᑎᕐᑎᓂᖅᓕᑦ ᖃᐅᐅᓴᖅᑎᓪᓗᑎᑦ ᓇᔪᖅᑕᐅᓂᐊᖅᑐᑦ ᑲᖏᒪᑐᖃᖅᑯᓂᖅ 2012–ᒥ ᖃᖏᓚᑦᑯᓪᓗ ᖃᐅᐅᓴᖅᑐᑎᑦ ᓄᓇᖓᓂ ᐊᒻᒪ ᐅᓴᖃᖅᓯᐅᔪᖅᓴᓇᓕᐅᖅᑐᑦ ᑕᒪᐅᑭᓂ ᐃᓄᐃᑦ ᓄᓇᖓᓂ. ᓇᔪᖅᑕᐅᑲᖅᓂᕆᐅᕙᖅᑐᖅ 2013 ᑕᐃᒪᓂᑦ >ᓚᑎᓪᓗᑎᑦ ᐃᓄᐃᑦ ᓄᓇᖓᓕᐅᕙᖅᑐᑦ HB-09.

ᐃᒥᖅ ᐊᑐᖅᑕᐅᓕᐅᕙᖅᑐᖅ ᓇᔪᖅᑕᐅᔪᒥᑦ ᐊᒻᒪ >ᓚᑎᓪᓗᑎᑦ ᐃᓄᐃᑦ ᓄᓇᖑᓂᓂ ᒪᓕᓪᑐᑦ ᑭᓪᓕᖅᑲᑎᑕᐅᔪᓂ ᐃᒥᖅᓗᑦ ᓕᐃᓴᖃᓯᖏᓐ 2BE-MVP1217. ᐃᒥᖅ ᐊᑐᖅᑕᐅᑎᔪᓕᐅᕙᖅᑐᖅ 2.26 m3 ᓕᓴᓂᓯ ᐊᒻᒪ ᖃᐅᐅᓴᖅᑕᐅᓯᓕᐅᕙᖅᑐᖅ ᐊᑐᖅᑐᑎᑦ ᐃᒥᖅᓗᑦ ᐊᑐᖅᑕᐅᓂᓐᓄᓄᑦ ᖃᐅᐅᓴᖅᐅᓕᒻᒪᑦ. ᐃᒥᖅ ᐊᑐᖅᑕᐅᔪᖅ ᑕᐃᒪᓄᑦ >ᑐᓴᓪᓗᑎᑦ ᑐᓂᓚᓄᓐᓇᓕᐅᕙᖅᑐᖅ ᐱᔪᓇᖅᑎᑕᐅᔪᓂᑦ 95 m3 ᓇᔪᖅᑕᐅᔪᓂᑦ ᐃᓗᓪᓕᑕᐅᑕᐅᑎᑎᑕᐅᕙᖅᑐᖅ >ᑐᓇᕋᒃᖅᑎᓪᓗᑎᑦ ᓇᔪᖅᑕᐅᔪᒥᑦ ᐊᓴᖅᑐ 2013 ᐱᓴᓰᖅᑕᐅᑎᓪᓗᒍ ᖃᓄᖅᓂᐅᔪᖅ ᐱᓕᕆᐊᖅ. >ᕐᑐ ᐊᒻᒪ ᓇᔪᖅᑕᐅᔪᒥᑦ ᓭᓇᐅᑉᑕᑦ ᐋᓴᖅᑕᐅᓕᐅᕙᖅᑐᑦ ᐊᒻᒪ ᖃᖏᓚᑕᓄᑦᑑᒃᓴᐅᓪᓗᓂᑐᑎᓪᓗᑎᑦ. ᐅᑭᐅᓇᖅᑐᓕᒫᑦ ᐊᑕᑎᑯᐃᑦ ᐃᑭᑕᐅᓕᐅᕙᖅᑐᑦ ᐊᒻᒪ <ᐅᖏᓐ ᐱᖃᓄᐅᑎᓪᓗᑎᑦ ᐃᑭᐅᓇᖏᑕᑦ ᐊᑕᑎᑯᐃᑦ ᖃᖏᓚᑕᓄᑦᑑᒃᓴᐅᓕᐅᕙᖅᑐᑦ ᐃᖃᓗᓇᓂᑦ ᐃᒋᑕᐅᑎᐊᓂᐊᖅᓚᑕ. ᓇᔪᖅᑕᐅᔪᖅᐅᑎᖅᑎᑕᐅᓕᐅᕙᖅᑐᖅ ᖃᓄᐃᓇᓂᑕᓚᒋᓇᓕᐅᕙᖅᑕᖏᓂᑦ ᐅᐸᑕᐅᓕᐅᕙᖅᑎᓇᒍ.

- ᐅᓪᓗᑎᒧᑦ, ᑐᖓᔪᓂᑐᖅ ᑭᓪᓕᖅᑲᖅᑎᑕᐅᔪᒥᑦ 5 m3
- ᐅᓪᓗᑎᒧᑦ ᐱᔪᓇᖅᑎᑕᐅᔪᖅ ᐅᒧᖏᓐ
- ᐅᓪᓗᑎᒧᑦ. ᐅᑎᖅᑎᑕᐅᔪᓂ >ᑐᓚᑦᓕᐅᕙᖅᑎᓪᓗᑎᑦ

Executive Summary

The following Final Plan is a summary of the activity completed on Vale Exploration Canada's Melville Project under Water Licence number 2BE-MVP1217 which was issued in May 2012 and expires in May 2017.

The field program consisted of establishing an exploration camp on Crown land in 2012 along with airborne geophysics and geological prospecting on both Crown land and Inuit Owned Lands. The same camp was used for a 2013 diamond drilling program which occurred on the Inuit Owned Land parcel HB-09.

Water was drawn for use at camp as well as for drilling on the IOL parcel in accordance with the limits provided by Water Use Licence 2BE-MVP1217. Water for camp use averaged 2.26 m^3 per day, well below the maximum allowed 5 m^3 per day allowed by the Licence and was monitored via the use of a water flow meter. Water for diamond drilling was also kept well below the permitted 95 m^3 per day. Reclamation work at drill sites was undertaken immediately after drilling while reclamation work at them camp site was undertaken in August 2013 following the completion of the exploration program. The drill and the camp along with all support equipment were dismantled and flown to the town of Hall Beach for eventual transport on a sealift. All combustible garbage was incinerated on site and the ash along with non-combustible garbage was flown to Iqaluit for appropriate disposal. The site was then re-contoured and left as close as possible to its original state.

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1.0 Introduction

Vale Exploration Canada's (Vale) 2013 exploration program which ran from late-June to late August consisted of diamond drilling, ground geophysics and the demobilization of the camp. All ground geophysics and diamond drilling took place on Inuit Owned Land parcel HB-09 and are not covered in detail in this plan.

2.0 Closure and Restoration

2.1 Buildings and Contents

The camp covered an area of approximately 0.25 ha and consisted of Weatherhaven tents and a small plywood generator building. All reusable equipment such as tents, ten frames, stoves, beds, showers, etc. were dismantled and removed from site by airplane to Hall Beach from where they were shipped on the sealift to Valleyfield, QC and onwards. All consumables associated with camp construction and operations, such as nails, screws, anchors, etc. were recovered as much as possible, packaged and flown out with other non-hazardous solid waste for disposal in Iqaluit.

2.2 Fuel Cache

All remaining fuel drums and empty drums have been removed from site. The soil under the surrounding fuel caches was thoroughly inspected for any contamination and photographs have been taken.

2.3 Waste

All paper products, paperboard packaging, untreated wood, food wastes, and food packaging were incinerated in a high efficiency incinerator in accordance with the procedure describe in the Government of Nunavut's *Guideline for the Burning and Incineration of Solid Waste* (GN 2013). All other non-hazardous wastes were also incinerated in the two stage incinerator. Sewage was contained using Pacto toilets and then incinerated. During final camp closure, all ash was removed from the incinerator, packaged and backhauled to Iqaluit, Nunavut. The soil under and surrounding the incinerator was inspected for contamination. Greywater from the camp was directed to a sump over 30 m away from any water body and the sump filled during final closure.

2.4 Water System

All pumps, tanks and hoses for the water system were drained, dismantled, packaged and flown from site.

2.5 Drill Sites

All drill equipment and ancillary equipment was dismantled, packaged and transported back to camp at the end of the drilling program. From camp, the drill and ancillary equipment was flown to the town of Hall Beach from where it was shipped via sealift to Montreal, QC and then onwards by truck to Winnipeg, MB.

All drill locations were inspected and photographed immediately after completion of the drill holes. All waste was collected and returned to the camp for incineration or removed to an approved disposal facility in Iqaluit. No sumps were dug as all drill cuttings were directed to natural depressions capable of containing their volume. A diligent inspection was conducted of the soil surrounding all drill sites with particular attention paid to any possible contamination.

3.0 Area Occupied

The total area of Crown land occupied is 0.2975 ha, broken down as follows: 0.25 ha for the camp, 0.0425 for two fuel caches, 0.0025 for the pump site, and 0.0025 for the incinerator site.

The total area of land used on Inuit Owned Land Parcel HB-09 is 1.1747 ha, broken down as follows: 10,790 m of geophysical loop at 1 m wide for 1.079 ha, 382 1 m^2 geophysical survey stations for 0.0382 ha, 5 100 m^2 drill sites for 0.05 ha, and 3 25 m^2 natural depression sumps for another 0.0075 ha.

4.0 Water Use

4.1 Camp

Total water use for the camp totaled 146.8 m^3 over 65 days of operation for an average daily use of 2.26 m^3.

4.2 Drilling

The pump used for drilling draws approximately 65 m^3 per day. That is therefore the upper limit of water usage for drilling per day and is well below the 95 m^3 allowed by the Licence.

5.0 Unauthorized Discharges

No unauthorized discharges occurred in conjunction with Licence activities in 2013.

6.0 Artesian Flows

No occurrences of artesian flow were encountered in conjunction with Licence activities in 2013.

7.0 Inspection and Documentation

Prior to final closure of the site, a complete inspection of all disturbed areas was conducted. Photos and locations are provided on the following pages.

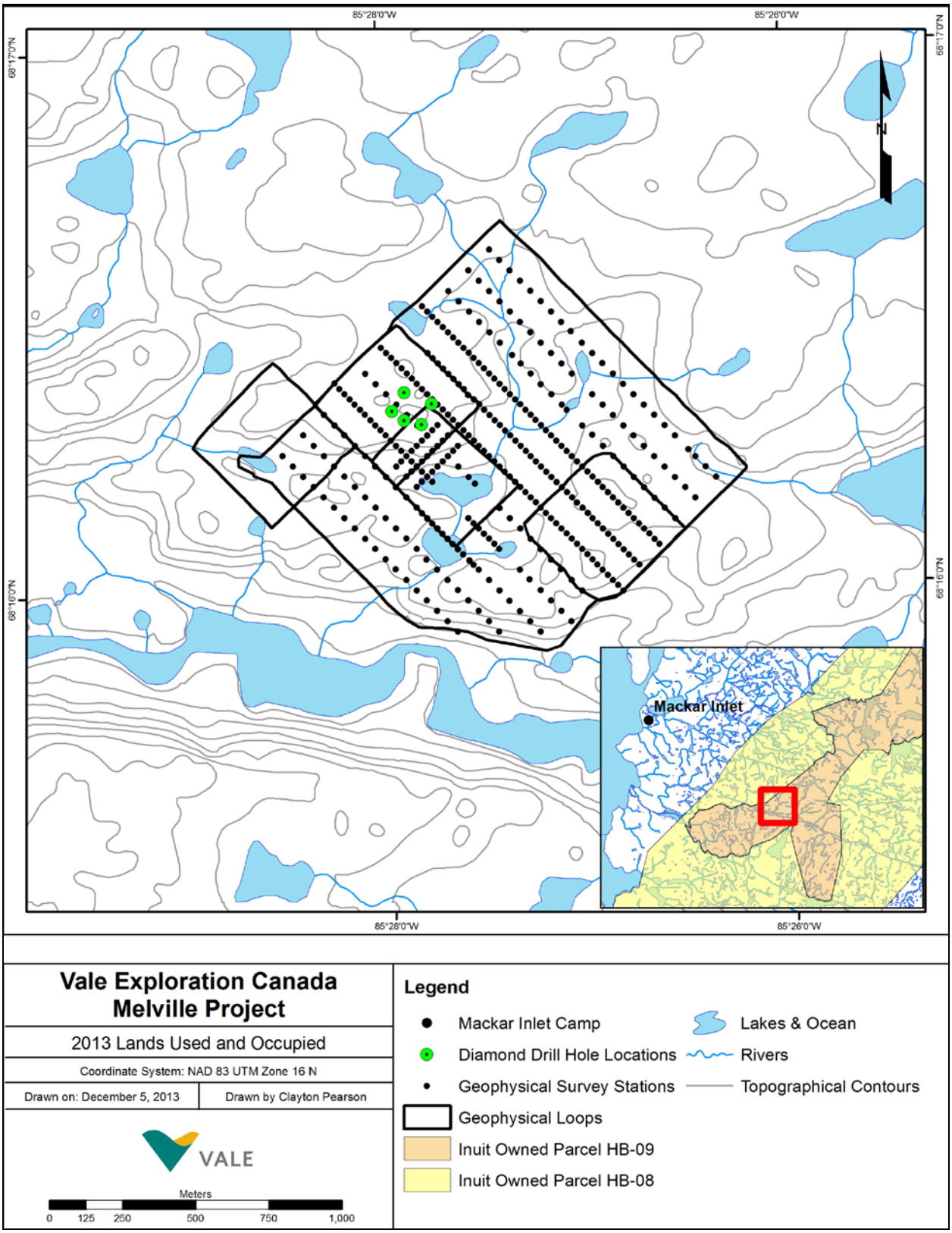

Figure 1 Map showing areas of geophysical survey and surface diamond drilling

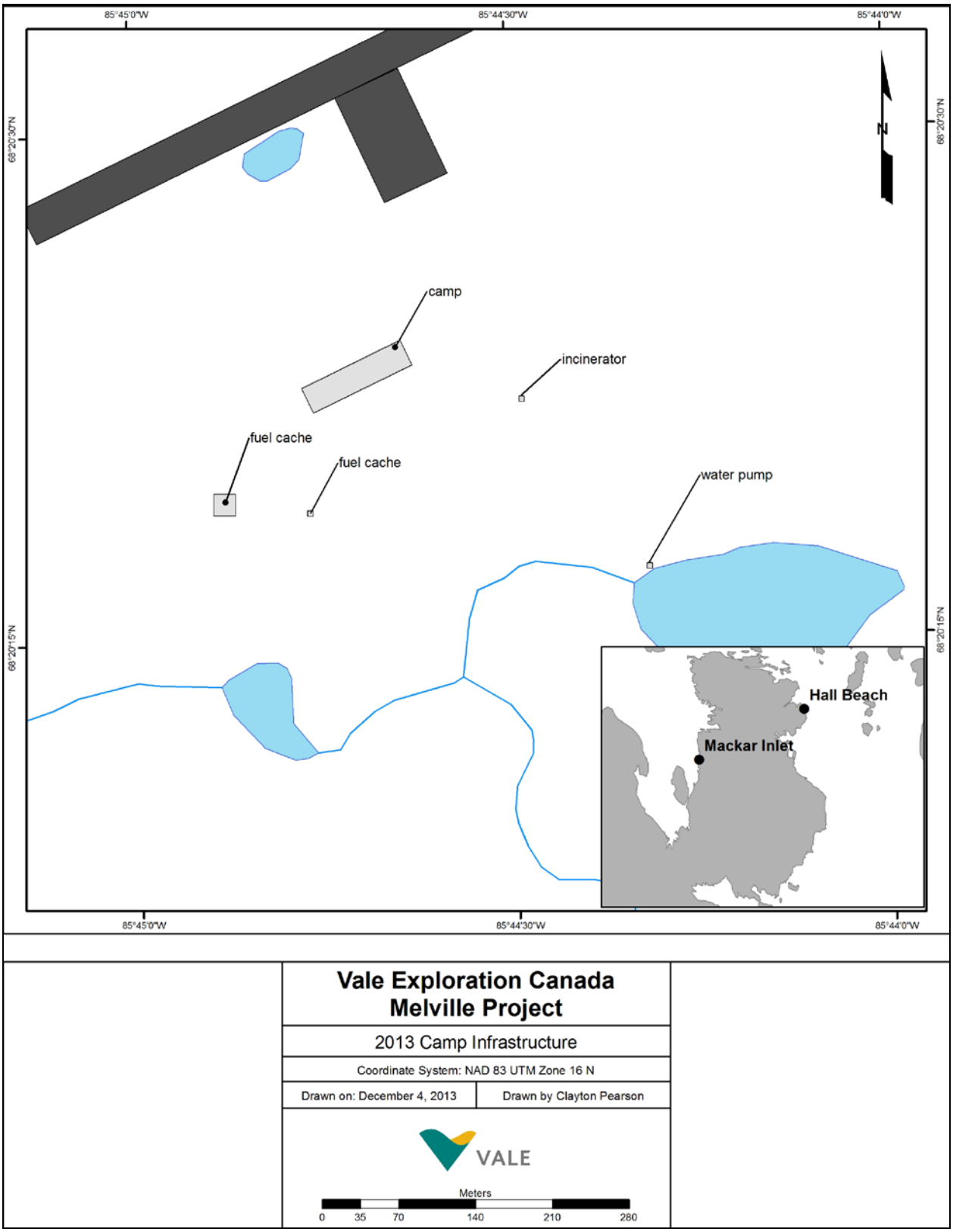

Figure 2 Map showing location of camp infrastructure

Figure 3 Location of camp prior to mobilization and construction

Figure 4 Location of camp after final closure and restoration

Figure 5 Location of larger, most westernmost fuel cache after final closure and restoration

Figure 6 Location of smaller, easternmost fuel cache after final closure and restoration

Figure 7 High efficiency incinerator while in operation

Figure 8 Area of incinerator after final closure and restoration

Figure 9 Location of greywater sumps after final closure and restoration

Figure 10 Location of diamond drill hole MLVL-13-001 prior to drilling

Figure 11 Location of diamond drill hole MLVL-13-001 after drilling and reclamation

Figure 12 Location of diamond drill hole MLVL-13-002 prior to drilling

Figure 13 Location of diamond drill hole MLVL-13-002 and final core storage after drilling and reclamation

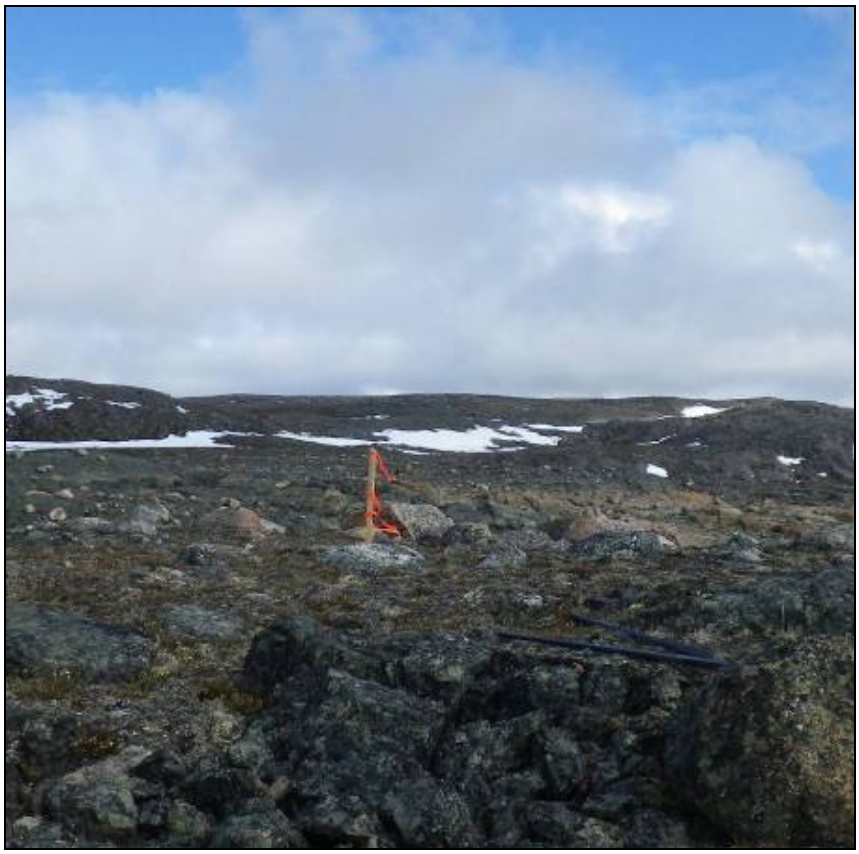

Figure 14 Location of diamond drill hole MLVL-13-003 prior to drilling

Figure 15 Location of diamond drill hole MLVL-13-003 after drilling and reclamation

Figure 16 Location of diamond drill hole MLVL-13-004 prior to drilling

Figure 17 Location of diamond drill hole MLVL-13-004 after drilling and reclamation

Figure 18 Location of diamond drill hole MLVL-13-005 prior to drilling

Figure 19 Location of diamond drill hole MLVL-13-005 after drilling and reclamation