

09 July 2009

REPORT ON A SPILL INCIDENT AT NANUQ CAMP, KIVALLIQ, NU: DISCOVERED AND CLEANED UP 07 JULY 2009

Introduction:

On 07 July 2009 at approximately 1700h, whilst reoccupying the field camp for the Nanuq Project, a summer field crew of Peregrine Diamonds Ltd. (Peregrine) discovered that two fuel drums already on site were leaking. Steps were taken immediately by the Peregrine representative on site, project geophysicist Maiko Sell, to lead cleanup of the spills they had encountered. Mr. Sell then phoned the NT-NU 24-Hour Spill Line to report the spill verbally at approximately 2200h on 08 July 2009. Over the two days, Mr. Sell corresponded with the undersigned, who submitted the Spill Report Form, provided advice and prepared this report. Documenting photos taken by Mr. Sell are attached.

Background:

The Nanuq camp, which was relocated in spring-summer 2008 to higher elevation along the same natural-gravel feature, serves an exploration programme conducted across a large claimblock in NTS 56G. The Nanuq claimblock, and the seasonal Nanuq tent camp immediately west, are located at the southern boundary of Ukkusiksalik National Park and southwest of Wager Bay; the claimblock is not in or beside an IOL. Baker Lake is located approximately 250 km southwest and Chesterfield Inlet is located approximately 120 km south of the southernmost claims of the Nanuq claimblock. The current camp is located at 65° 13' 33"N latitude and 91° 05' 22"W longitude. It is served by wheeled aircraft, and telephone and internet communications are maintained. The camp generator shed – site of the two spills – is 48m SE of the ordinary high-water mark (OHWM) of the Lorillard River. The camp can accommodate 20 persons.

Spills Discovered on Site:

Upon occupying the site, the Nanuq crew discovered that two refilled drums already on site had leaked fuel onto the underlying sand in the vicinity of the generator shed. One leak emanated from a faulty bung on a P50 diesel drum, and Mr. Sell calculated a loss of 80L. The other leak emanated from a puncture or pressure rupture in a petrol (gasoline) drum, and Mr. Sell calculated a loss of 15L.

Actions Taken:

After the leaks were stopped by repositioning the drums, the crew accessed a spill kit near the shed and dug out the contaminated sandy material and placed it in waste-management bags from the kit. The contaminated soil was then transferred onto tarps, where it will be shovel-turned through the summer whilst the camp is open.

Actions Planned to Conclude the Incident:

Additional tarps will be placed at the site of the excavated sand from the P50 spill, so that the material is thinly spread across the overlapped tarps in order to achieve a thin lift of material and thus encourage aeration. It is further planned to use rocks along the sides of the groundsheet to create a barrier wall on the N-NE side closest to the river. (Neither site is closer than 48M from the OHWM.) Similar action is being taken with regard to the excavated sand from the petrol spill.

If heavy-rain events are anticipated, additional clean tarps will be secured over top of the two sites, then removed afterwards. At the close of the season, the sites will be checked (sniff test), then securely covered for winter, to prevent snow accumulation directly on the tarped material. In the spring of 2010, the aeration activity will resume. It is not anticipated that the smaller spill site, containing the petrol-spill material (light fraction and thus easily aerated) will require a second season. However, both sites will continue to be monitored until the material is returned to its original state, which can be determined by taking soil samples for petroleum hydrocarbon (PHC) analysis according to Canadian Council of Ministers of the Environment (CCME) and territorial remediation guidelines for industrial sites.

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When the material reaches an acceptable level of ppm, it will be replaced into the holes from which it was dug, and the area smoothed to its original contours. In the meantime, excavations will be blocked or barricaded to prevent trip/fall danger to crewmembers.

A protocol ("Quality-Control Checklist") has been developed by Peregrine for checking refilled drums, which have proven to be the source of leaks and spills in Nunavut. Peregrine will work with its expeditors who ship fuel to site to ensure that drums are properly checked before being transported to site and also with site personnel, so that damaged drums are not offloaded at site.

Spill kit response materials will always be kept replenished.

Secondary containment for petrol drums, as well as for diesel drums at tents, will be selected and put in place, following discussion with the Indian and Northern Affairs Canada land-use inspector. Secondary containment (Insta-Berm) already is in use for the camp diesel cache, and a second Insta-Berm has been ordered for the Jet-B fuel cache.

A fuel-cache inspection form (part of the Nanuq Spill Plan) will be maintained in connection with daily checks of fuel drums.

Conclusion:

The above is an accounting of spill event #09-335 and its planned resolution. We trust that all is in order. Documenting photos taken to date are attached at the end of this report.

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PHOTO 1: AERIAL VIEW WITH SPILL SITES, NANUQ CAMP, NU



PHOTO 2: CLEANUP IN PROGRESS: DIGGING OUT DIESEL SPILL, NANUQ CAMP, NU



PHOTO 3: CLOSEUP OF FAULTY BUNG ON REFILLED DIESEL DRUM, NANUQ CAMP, NU



PHOTO 4: DIESEL SPILL MATERIAL TRANSFERRED ONTO TARP, NANUQ CAMP, NU



PHOTO 5: REFILLED PETROL DRUM WITH RUPTURE, NANUQ CAMP, NU



PHOTO 6: CLOSEUP OF PETROL DRUM RUPTURE, NANUQ CAMP, NU

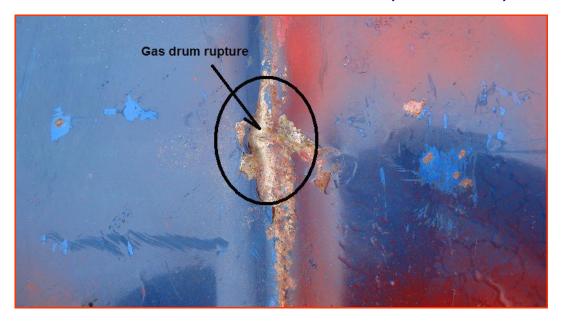


PHOTO 7: PETROL SPILL MATERIAL TRANSFERRED ONTO TARP, NANUQ CAMP, NU

