

P.O. Box 119

GJOA HAVEN, NT X0E 1J0 kNK5 wmoEp5 vtmpq

TEL: (867) 360-6338

NUNAVUT WATER BOARD

FAX: (867) 360-6369 NUNAVUT IMALIRIYIN KATIMAYINGI

EXPLORATION/ REMOTE CAMP

SUPPLEMENTARY QUESTIONNAIRE [for Amendment to Add Third Tent Camp]
(REVISION OF EXISTING QUESTIONNAIRE)

Applicant: _Peregrine Diamonds Ltd. _____Licence No: _____

AD	(For NWB Use Only) MINISTRATIVE INFORMATION				
1.	Environment Manager: SHIRLEY STANDAFER-PFISTER Tel: (250) 686-1769 Fax: (604) 408-8880 E-mail: shirley@pdiam.com				
2.	Project Manager: PETER HOLMES Tel: (604) 408-8880 Fax: (604) 408-8880 E-mail: peter@pdiam.com				
3.	Does the applicant hold the necessary property rights? Yes. Peregrine holds all ground 100%, including site of proposed NEW CAMP in 26B/10.				
4.	Is the applicant an 'operator' for another company (i.e., the holder of the property rights)? If so, please provide letter of authorization. No.				
5.	Duration of the Project [] Annual [X] Multi Year: If Multi-Year indicate proposed schedule of on site activities Current Licence #2BE-CHI0813: Start: 07 May 2008 Completion: 01 June 2013				
CA	MP CLASSIFICATION				
6.	Type of Camp				
	[] Mobile (self-propelled)				
	[] Temporary [X] Seasonally Occupied: e.g., Mar-Apr 2011 after construction of NEW CAMP in Feb 2011; possible summer use, if summer drilling is planned out of NEW CAMP, July-Sept 2011 [] Permanent [] Other:				
	What are the design population of the camp and the maximum population expected on site at one time? What will be the fluctuations in personnel? NEW CAMP will accommodate 20 persons in 2011 to serve exploration in vicinity of NEW CAMP, approx. 50km NW of existing Sunrise Camp (winter-use and summer-use) and Discovery Camp (summer-use only); both existing camps are of similar layout as NEW CAMP, but accommodating up to 24 persons at any one				

time. Typical loading of NEW CAMP = 16-20 persons, except during construction, startup and closure, when only a handful of people would be on site. Since activities are staged, personnel who complete their tasks (such as the ground geophysics crew) would leave site when their work is completed to make room for new

June 21 2006 Page 1 of 9

crew arriving (such as drill crew).

8. Provide history of the site if it has been used in the past.

Peregrine Diamonds Ltd. currently holds 25 federal Prospecting Permits and 581 mineral claims comprising the Chidliak Project on the Hall Peninsula. Peregrine was granted the original 35 Prospecting Permits on the Chidliak property on 01 February 2007, following grassroots prospecting in 2006; additional Prospecting permits were added on 01 February 2008. Claims were staked within the Prospecting Permits in July 2009. Current exploration commenced in 2008, when the first camp (Discovery Camp) was established; the second tent camp, Sunrise, 12km E, was established in spring 2009. Exploration by means of approved activities continues to the present time (2010) and will resume in 2011.

CAMP LOCATION

9. Please describe proposed camp location in relation to biogeographical and geomorphological features, and water bodies.

Proposed NEW CAMP is sited on a relatively level and boulder-free area of sparse vegetation adjacent to a small lake, "Camp Lake", which connects to "North Lake" to the north (Map 2, Photo 1); the Chidliak Operations Manager estimated a large area of usable space of approx. 1.3ha, of which only 0.2-0.3ha would be utilised for a small tent camp with setback from OHWM of at least 31m. Distance from NEW CAMP site to *CH-17* kimberlite drillsite on "North Lake", to be drilled in winter conditions (Mar-Apr 2011), is approx. 2.8km. Both "Camp Lake" and "North Lake" are deep and able to support lake landings/takeoffs during operations in 2011; there will be no land-based airstrip established for NEW CAMP. Site was selected by an Arctic geotechnical engineer and surveyed by Peregrine's archaeologist.

10. How was the location of the camp selected?

Few suitable locations on the property, and no other suitable locations near "North Lake" where drilling is planned in winter 2011. As noted above, location of NEW CAMP was selected by an Arctic geotechnical engineer and subjected to an archaeological survey and visit by Chidliak Operations Manager. A further determining factor was absence of caribou, which was determined by wildlife surveys in summer 2010 and examination of wildlife logs kept by field crews. Wildlife data for the property includes wildlife surveys in 2009 and 2010, GN-Wildlife data from surveys in the 1990s, and wildlife logs between 2008 and 2010.

Was the site previously used?

No, NEW CAMP not previously used. Existing camps have been in operation since 2008 (Discovery Camp) and 2009 (Sunrise Camp).

Was assistance from the Regional Inuit Association Land Manager sought?

No. Sites are on Crown land. Peregrine has consulted with the local HTAs in Iqaluit and Pangnirtung, and is continuing to gather local-use information from both the HTAs and local land-users. Some local use sites (7) were identified during consultation in mid-September, and Peregrine will be returning to the communities in late November 2010 for further information to add to its database. Peregrine commissioned a TK/IQ study from the hamlet of Pangnirtung in May 2010 through a Nunavut Research Institute licence; Peregrine awaits that report. Discussion was held in spring 2010 with QIA-Lands about participation in a regional TK/IQ study planned by QIA; further information on that project's status is awaited by Peregrine.

Include maps and/or aerial photographs. (Refer to Maps 1-3 and Photos 1-2).

11. Is the camp or any aspect of the project located on:

[x] Crown Lands	Permit Number(s)/Expiry Date: <u>N2008C0005</u> (expires 17 April
	2011; 1-yr. Extension applied for); NEW CAMP is on Crown Land.
[] Commissioners Lands	Permit Number (s)/Expiry Date:
[x] Inuit Owned Lands	Permit Number (s)/Expiry Date: QIA Land Licence
	#Q10L1C008 allows sampling on 8 IOLs + drilling of up to
	several targets on PA-28 (expires 01 Mar 2011)

12. Closest Communities (distance in km):

Iqaluit, ~75km SW of closest SW point on Chidliak property. Pangnirtung, ~133km N of NE corner

June 21 2006 Page 2 of 9

of property.

- 13. Has the proponent notified and consulted the nearby communities and potentially interested parties about the proposed work?
 - Yes, consultation regarding work on the Hall Peninsula properties has been under way with community groups and the QIA since 2008. Peregrine last met with groups in mid-September 2010, as it was important to Peregrine to meet with groups prior to filing any amendment application for a third camp. Peregrine met with Amarok HTA in Iqaluit on 13 September, held a radio call-in show public consultation (as requested by hamlet of Pangnirtung) on 14 September, then an open house and meeting with Pangnirtung HTA on 15 September. Peregrine will return to meet with groups and Pangnirtung hamlet council during week of 22 November 2010, and will send large topo maps in advance so land-users may mark sites for discussion in advance of Peregrine's meetings. QIA has a very busy schedule, but Peregrine is attempting also to meet with QIA-Lands during week of 22 November, as well.
- 14. Will the project have impacts on traditional water use areas used by the nearby communities? No. *Qasigijjat* (Ptarmigan Fjord), used by some Pangnirtung families, is 12km E of NEW CAMP. No activities in fjord or adjacent to it are planned. Incorporation of local land-use sites into project database will enable Peregrine to adjust timing of its activities and schedule avoidance of any local use areas. Ongoing consultation with Pangnirtung groups will continue. To date, Peregrine has identified (through co-operation of Pangnirtung land-users) 7 camping locations on Ptarmigan Fjord and input them into our database.

Will the project have impacts on local fish and wildlife habitats?

No. Fish will not be harvested from either "Camp Lake" or "North Lake"; fish studies at "North Lake" commenced in 2010. Exploration is occurring in small areas over a large property; example of drillhole size: Peregrine uses the INAC reporting standard of 0.1ha per drillhole. In the case of helicopter surveying, virtually all helicopter surveying, except for environmental surveys, is now complete in the north of the property. Caution will continue to be exercised in approaching polar bear habitat, as well as any bird-colonies (coastal) or aggregations of caribou; few caribou observations have been made in the several years that Peregrine has explored Chidliak under its permits and licences. Mitigation includes following the altitude and distance limits established in existing permits and in NIRB recommendations, completing Wildlife Logs of any observations to inform programmes, and giving animals and land-users the right-of-way. Another important mitigation is regular liaison with land-users to avoid impact to landuser activities. In all cases where human safety is not at stake, wildlife will be given right-of-way (e.g., not entering a sensitive area until the animals have moved on), and no harassment of wildlife will be tolerated. Peregrine also has a sampling protocol in place with the Canadian Wildlife Service in regard to Bird Site #29 along Cumberland Sound. Several potential raptor nest sites discovered through raptor surveying on the Chidliak property in 2009-2010 have been given a 1km buffer to avoid disturbance. In terms of the NEW CAMP: Locating this small camp in proximity to the proposed drilling area will lessen the amount of helicopter-flying, as drill crews will be able to commute back and forth from camp by skidoo, with heli-use generally restricted to drill moves.

PURPOSE OF THE CAMP

15.	⊘ Mining (Exploration)	
	O Tourism (hunting, fishing, wildlife ob	servation, adventure/expedition, etc.)
	(Omit questions # 1	1
	Other	(Omit questions # 16 to 22)
16.	Activities (check all applicable) O Preliminary site visit	
	Prospecting	
	- 0 1 1 1	
	 Geophysical survey 	
	○ Diamond drilling *	
	 Reverse circulation drilling 	
	O Evaluation Drilling/Bulk Sampling (a	llso complete separate questionnaire)

June 21 2006 Page 3 of 9

* Main target will be CH-17 kimberlite in "North Lake", 2.8km NE of NEW CAMP.

	 Other: 		
17.	Type of deposit:		
		0	Lead Zinc
		0	Diamond
		0	Gold
		0	Uranium
		\circ	Other:

DRILLING INFORMATION

18. Drilling Activities

- **⊘** Land Based drilling (**if warranted, summer 2011**)
- O Drilling on ice (on CH-17 target noted above, Mar-Apr

2011; this target was amongst the northern targets identified to NWB in spring 2010)

19. Describe what will be done with drill cuttings?

As previously in Chidliak drill programmes, cuttings will report to a suitable sump location (natural depression or outcrop near drillhole), and monitored such that drainage is away from watercourses. If drilling contractor Boart Longyear determines that a PolyDril tank is required, this would replace use of a sump. No drill additives will be employed in 2011.

- 20. Describe what will be done with drill water?

 Drillwater is recirculated up to 80%, with relict clean drillwater and cuttings report
 - Drillwater is recirculated up to 80%, with relict clean drillwater and cuttings reporting to a suitable sump location or PolyDril tank as noted in Question #19 above.
- 21. List the brand names and constituents of the drill additives to be used? Include MSDS sheets and provide confirmation that the additives are non-toxic and biodegradable.

 Updated MSDS inventory was supplied to regulators on a CD in June 2010. That list of
 - environmentally-benign drill additives remains in effect. No drill additives are proposed for use in 2011.
- 22. Will any core testing be done on site? Describe. No.

SPILL CONTINGENCY PLANNING

- 23. Does the proponent have a spill contingency plan in place? Please include for review. Yes, An updated Spill Contingency Plan (Appendix 7a) and Emergency Response Plan (Appendix 7b), dated 27 September 2010, have been provided with this amendment request to the NWB.
 - 24. How many spill kits will be on site and where will they be located?

 1 within NEW CAMP and 1 each at existing camps, with auxiliary materials (such as absorbent pads) deployed as/when required; 1 kit at camp fuel berms, 1 at heli area, 1 at any remote temporary fuel cache (for prospecting or sampling), and 1 at each drill site when drills are in operation. (Extra absorbents, as well as drip pans/catch pails and refuge drums, also will be present).
 - 25. Please describe the types, quantities, and method of storage of fuel and chemicals on site, and provide MSDS sheets.

DRILL SITE: 3-5 drums at any one time, whilst drilling is under way, then everything removed. Any drum cache at drill site will be in poly-lined area or inside secondary containment. Drum of diesel in use at drillshack will be within secondary containment. Drums are checked at least daily, but usually more often, *i.e.*, at each shift. Due to close proximity of NEW CAMP cache, hauls/backhauls will be easily accomplished.

NEW CAMP (Max. volumes for programme are shown here:)

June 21 2006 Page 4 of 9

Diesel – 50 (205L) drums stored in an Arctic-rated manufactured fuel berm area at camp.

Jet-B - 100 (205L) drums, stored as per diesel.

<u>Unleaded petrol (gasoline)</u> – 5 (205L) drums, stored as per diesel and Jet-B.

<u>Propane cylinders</u> – 15 (45kg), stored upright, secured with chain or in a cage, near the kitchen and dry (where propane use will occur). Empties will be bled and flown out on backhauls.

Bungs and valves will be checked daily during rounds by the camp personnel. A commercial hand-held gas detector can be used for checking propane bottles. Chemicals will be stored in their original, labelled containers in their use areas (kitchen, dry, generator shed, drillshack) on absorbent padding or inside non-reactive drip trays. Up to about 50L of chemicals/hazardous substances could be required at NEW CAMP. Drilling-related chemicals, principally oils/greases, are stored in their original large tubs at drill-side, in the approx. volume of 50L. Lead-acid batteries in use would be in corrosive-resistant sleeves and storage of any spares would be in similar boxes.

MSDS were updated and supplied to regulators in June 2010, thus are on file for this water licence.

WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

For this amendment, water use will be within the existing drilling allotment of 70m³ per day: No additional capacity is requested. Potable water for NEW CAMP will be drawn from "Camp Lake" (Map 2) and water for lake-based drilling in "North Lake" will be drawn directly from that lake. Water required from drilling any other lake-based targets in Mar-Apr 2011 will be drawn directly from the lake itself; any land-based drilling which might be planned for summer 2011 assumes pumping from the nearest-adjacent suitable water body, with no drawn-down of the water source.

27. Estimated demand (in L/day * person):

<u>Water use already is established in existing licence</u>. No new capacity is required for either drilling or camp use. For NEW CAMP: Greywater production of approx. 0.25m³ per person per day is allowed for, though it must be noted that the average use for both Discovery and Sunrise camps together in 2009 was < 4m³.

0	Domestic Use:	25 m³/day for car	mp Water Sou	rce: <u>existing camps + NEW</u>
				CAMP
0	Drilling Units:	70m³/day total	Water Source:	existing allowable for drilling
0	Other:		Water Source	ce:

- 28. Describe water intake for camp operations? Is the water intake equipped with a mesh screen to prevent entrapment of fish? Describe:
 - NEW CAMP water intake will be flexible plastic hose as per existing camps, with mesh screen used to prevent entrainment of fish in camp water systems.
- 29. Will drinking water quality be monitored? What parameters will be analysed and at what frequency?

Yes, water will be monitored for NEW CAMP as per existing camps. Chlorination is accepted by northern environmental-health officers as suitable treatment for camp potable-water supply, and is being conducted at current camps, along with UV filtration at Sunrise Camp; chlorination will be conducted at NEW CAMP. Drinking water will continue to be sampled (raw and treated) and analysed at an accredited environmental lab for faecals, total coliforms and *Escherichia coli* (*E. coli*) within 24 hours. Results to date at existing camps have been acceptable. Once-per-season potable-water sampling is planned at NEW CAMP; twice-per-season sampling was conducted at Discovery and Sunrise camps in 2010. (Separate winter water-quality sampling for total and dissolved metals, routines and nutrients, and turbidity will be conducted at "North Lake" and any other lake-drilling locations in Mar-Apr 2011).

- 30. Will drinking water be treated? How? Yes. See answer to Question #29 above.
- 31. Will water be stored on site?

Yes, water for NEW CAMP will be stored as per the existing camps. In the existing camps covered under the existing licence, water is pumped to 1100L poly-tanks in each camp. The tanks are sited in the camp drys, from whence water (after chlorination) is distributed via hose-lines to sinks (kitchen and dry), to Pacto sheds (hand-washing basins) and showers (dry).

June 21 2006 Page 5 of 9

WASTE TREATMENT AND DISPOSAL

32. Describe the characteristics, quantities, treatment and disposal methods for:

No waste treatment is required for this amendment, which has to do with an additional drillsite. In regard to the existing camps authorised in the current water licence, please note:

O Camp Sewage (blackwater)

NEW CAMP: Waste from Pacto toilets in Pacto shed is sealed and incinerated in dual-chamber fuel-fired incinerator on site; NEW CAMP will have a new Inciner8 unit. NEW CAMP Pacto shed will be erected at least 31m from water. Bagged sewage from Pactos up to a volume of approx. 30L/day will be generated, depending on camp population; bags will be incinerated on site in the existing dual-chamber Inciner8 units. Toilets are checked daily by camp attendants.

O Camp Greywater

Under the existing licence, cooking grease is removed from the waste stream for incineration; it does not enter the greywater sump. Enviro-products are used for washing and cleaning. Greywater from the kitchen and dry at NEW CAMP will be pumped to hand-dug sumps the requisite distance from water (at least 31m). The liquid component of greywater reporting to the sump will both evaporate and percolate through the gravelly soil in thawed conditions; the sump contents will be treated with Javex, if required to control odours which might attract wildlife; in summers 2009-2010, Peregrine began trial of a natural degreaser and odour-control enviro-product called Liqui-Bac (MSDS supplied in 2009); the product is being used on a trial basis at each camp in summer conditions, and may be considered for trial at NEW CAMP in summer 2011, if NEW CAMP is in operation in that period.

Solid Waste

Combustible kitchen waste on the order of at least one 121L garbage bin by volume will be incinerated daily at NEW CAMP. Non-combustible solid waste which can't be reused or recycled will be collected and removed on backhauls for proper disposal at the Iqaluit landfill (authorisation is on file with regulators); waste includes pails of clean ash from incinerators.

O Bulky Items/Scrap Metal

It is conceivable that up to 2/3 of a Twin-load of such scrap (500kg) could be accumulated during a programme operated out of NEW CAMP and flown out for proper disposal, most likely at a contractor's storage yard (e.g., broken parts, spent drill rod, etc.) Timbers would be stored on site for future needs.

O Waste Oil/Hazardous Waste

A volume of 2 drums' worth of waste oil/fuel, filters, oily rags, etc., could be generated in 2011 at NEW CAMP and at drillside during the winter programme,. These drums would be labelled as to contents, sealed and removed on backhauls for proper disposal to a Registered Waste Receiver.

Empty Barrels/Fuel Drums

Empty drums will be segregated from full drums, bungs tight, and flown out on backhauls, with a certain number reserved for use as refuge drums (containers for waste fuel, scrap, any spilt hydrocarbons, should such occur).

\bigcirc Other: *N/A*

- Please describe incineration system if used on site. What types of wastes will be incinerated?

 A CSA-rated dual-chamber incinerator, the Inciner8, is authorised for use in each camp under the existing licence, and this use will be extended to NEW CAMP via a new Inciner8 unit. Combustible waste typically, food waste, paper and Pacto bags will be incinerated. Ash remains will be bagged and flown out on backhauls for disposable at the Iqaluit landfill.
- 34. Where and how will non-combustible waste be disposed of? If in a municipality in Nunavut, has authorization been granted?

As indicated in the "Solid Waste" section above, non-combustible solid waste which can't be reused or recycled will be collected and removed on backhauls for proper disposal. Authorisation to dispose to the Iqaluit landfill was provided to regulators in 2009.

35. Describe location (relative to water bodies and camp facilities) dimensions and volume, and freeboard for sumps (if applicable).

June 21 2006 Page 6 of 9

Sumps (for NEW CAMP and for winter drilling out of this camp on "North Lake" or any other area lakes, will be sited as far as possible from waterbodies and at least 31m from OHWM, as already approved. NEW CAMP sumps for kitchen and dry will be like those for the existing camps, on the order of 1m x 1m x 1.5m, with a freeboard of at least 0.4m, depending on actual conditions. Sumps are expanded if required to accommodate volume. Any drill sump associated with 2011 drill locations will be a minimum of 31m from high-water mark of the closest waterbody.

36. Will leachate monitoring be done? What parameters will be sampled and analysed, and at what frequency?

N/A

OPERATION AND MAINTENANCE

37. Have the water supply and waste treatment and disposal methods been used and proven in cold climate? Yes.

What known O&M problems may occur? What contingency plans are in place? Please refer to the updated SPILL PLAN accompanying this amendment application.

ABANDONMENT AND RESTORATION

38. Provide a detailed description of progressive and final abandonment and restoration activities at the site.

Please refer to the updated ABANDONMENT & RESTORATION PLAN accompanying this amendment application. (At the end of final operations at NEW CAMP and at any camp, the camp infrastructure will be dismantled; materials which can be incinerated will be and remaining materials, drums, *etc.*, flown off site, such that the use area is returned to its prior condition. The camp sumps will be examined, cleaned of debris (if required), infilled and re-covered with reserved overburden. Documenting photographs will be taken before/during/after the cleanup.) A similar process will occur for any drillsites, with holes closed, materials removed and cleanup documented at the time of hole closure.

BASELINE DATA

38. Has or will any baseline information be collected as part of this project? Provide bibliography.

Two baseline-data reports have been provided to NWB to date and two more (for 2010) are in preparation.

- Physical Environment (Landscape and Terrain, Air, Water, etc.) "2009 BASELINE ENVIRONMENTAL PROGRAMME, CHIDLIAK PROJECT, SOUTH BAFFIN ISLAND, NUNAVUT", EBA Engineering Consultants, November 2009
- Biological Environment (Vegetation, Wildlife, Birds, Fish and Other Aquatic Organisms, etc.) "2009 BASELINE ENVIRONMENTAL PROGRAMME, CHIDLIAK PROJECT, SOUTH BAFFIN ISLAND, NUNAVUT", EBA Engineering Consultants, November 2009
- Socio-Economic Environment (Archaeology, Land and Resources Use, Demographics, Social and Culture Patterns, etc.) "ARCHAEOLOGICAL INVENTORY AND ASSESSMENT OF CHIDLIAK CLAIM BLOCK, HALL PENINSULA, BAFFIN ISLAND, NU", Thomson Heritage Consultants, December 2009
 - O <u>NOTE</u>: Report on the 2010 biophysical programmes from EBA Engineering and on the archaeological assessment from Thomson Heritage Consultants are in preparation and will be provided to our regulators later this autumn, when completed.

REGULATORY INFORMATION

- 40. Do you have a copy of
 - √ Article 13 Nunavut Land Claims Agreement
 - √ NWB Water Licensing in Nunavut Interim Procedures and Information Guide for Applicants
 - √ NWB Interim Rules of Practice and Procedure for Public Hearings

June 21 2006 Page 7 of 9

- NWTWB Guidelines for the Discharge of Treated Municipal Wastewater in the NWT
- √ NWTWB Guidelines for Contingency Planning
- √ DFO Freshwater Intake End of Pipe Fish Screen Guideline
- $\sqrt{\text{Fisheries Act s.35}}$
- √ RWED Environment Protection- Spill Contingency Regulations
- √ Canadian Drinking Water Quality Guidelines
- √ Public Health Act Camp Sanitation Regulations
- √ Public Health Act Water Supply Regulations
- √ Territorial Land Use Act and Regulations

You should consult the above document, guidelines, and legislation for compliance with existing regulatory requirements.

(MAP (GOOGLE EARTH IMAGE) OF PROPOSED LOCATION OF NEW CAMP IS ATTACHED AT THE END OF THIS QUESTIONNAIRE)

June 21 2006 Page 8 of 9



PROPOSED NEW CAMP IN RELATION TO "NORTH LAKE". WHITE ARROW ABOVE TERMINATES AT LOCATION OF CH-17 (ANOMALY CHI-166), JUST 2.8KM NE OF NEW CAMP.

June 21 2006 Page 9 of 9