

Phyllis,

Attached is amendment information relevant to water licence NWB2REP0305. On Rita's suggestion, I am submitting an amendment to the current water licence rather than a new application - in part because the character of the program is in many key ways similar to that already approved but also in the hope of facilitating the board's process of consideration. Early approval is essential to the structure of the program outlined here since much depends on the advantages of working in winter conditions - particularly as regards drill setups and the positioning of supplies.

To that end, I have attempted to submit this amendment as early as possible but it would be misleading to do so were the details not more precisely defined and it's taken some time to work them out.

I've tried to provide as much as possible by way of description, maps, and photographs to clarify and speed the assessment of proposed work. It's perhaps worth noting that operating and mitigation procedures of all types are strictly mandated by BHPB as a result of knowledge gleaned through many years of arctic work at the Ekati Mine and applied with equal rigor to the company's exploration activities. Ekati auditors will be on site to ensure compliance.

Map #1 (NTS 46L/09) and #2 (NTS 46K/12) are adjoining western and eastern sections respectively. Note that the drill site indicated on the map is the only one where work will definitely be performed. Other targets will be selected and drilled on the strength of data not yet available and these could be anywhere within the red dashed line encompassing "Area of Most Drilling" on both maps.

Note that the camp layout is an abstraction and does not denote configuration on the ground.



P.O. Box 119
GJOA HAVEN, NU X0E 1J0
TEL: (867) 360-6338
FAX: (867) 360-6369

kNK5 wmoEp5 vtmpq
NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI

**WATER LICENCE
APPLICATION FORM**

Nunavut Water
Board

Dec 16, 2003
JAN 06 2004 PB

Public Registry

Application for: (check one)

☐ New ☐ Amendment ☐ Renewal

☐ Assignment

LICENCE NO:

(for NWB use only)

**1. NAME AND MAILING ADDRESS OF
APPLICANT/LICENSEE**

BHP Billiton Diamonds Inc.
1400 – 1111 West Georgia St
Vancouver, BC V6E 4M3

Phone: 604 632-1450

Fax: 604 683-4125

e-mail: jeremy.j.howe@bhpbilliton.com

**2. ADDRESS OF CORPORATE
OFFICE IN CANADA (if applicable)**

Phone: _____

Fax: _____

e-mail: _____

3. LOCATION OF UNDERTAKING (describe and attach a topographical map, indicating the main components of the Undertaking)

Diamond drilling is proposed to the north and east of the hamlet of Repulse Bay. The nearest setup is about 7km from the village.
66° 30' N 86° 0' W x 66° 45' N 86° 45' W

Latitude: _____ Longitude: _____ NTS Map No. 46L scale 1:250,000

4. DESCRIPTION OF UNDERTAKING (attach plans and drawings)

see attachment

5. TYPE OF UNDERTAKING (A supplementary questionnaire must be submitted with the application for undertakings listed in "bold")

☐ Industrial ☐ Remote/Tourism Camps
☐ Mine Development ☐ Municipal
☐ Advanced Exploration ☐ Power
☒ Exploratory Drilling ☐ Other (describe): _____

6. WATER USE

☒ To obtain water ☐ To divert a watercourse
☐ To modify the bed or bank of a watercourse ☐ Flood control
☐ To alter the flow of, or store, water ☐ Other (describe): _____
☐ To cross a watercourse

INTERNAL	
PC	
MA	
FO	
LA	
EA	
ST	
TA1	
TA2	
PC	
CH	
BRD	
EXT.	

7. **QUANTITY OF WATER INVOLVED** (litres per second, litres per day or cubic metres per year, including both quantity to be used and quantity to be returned to source)

8. **WASTE** (for each type of waste describe: composition, quantity, methods of treatment and disposal, etc.)

☒ Sewage see attached ☒ Waste oil recovered and returned for recycling
☐ Solid Waste ☒ Greywater
☐ Hazardous ☒ Sludges see Detailed Summary
☐ Bulky Items/Scrap Metal ☐ Other (describe): _____

9. **PERSONS OR PROPERTIES AFFECTED BY THIS UNDERTAKING** (give name, mailing address and location; attach if necessary)

Land Use Permit

DIAND ☒ Yes ☐ No If no, date expected _____

Regional Inuit Association ☒ Yes ☐ No If no, date expected _____

Commissioner ☐ Yes ☐ No If no, date expected _____

10. **PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES** (direct, indirect, cumulative impacts, etc.)

Considerable effort is being directed to ensure that equipment, techniques, and procedures used in the program leave no significant environmental footprint while encouraging local people to gain participatory employment in the exploration process.

NIRB Screening ☐ Yes ☐ No If no, date expected _____

11. INUIT WATER RIGHTS

Will the project or activity substantially affect the quality, quantity, or flow of water flowing through Inuit Owned Lands and the rights of Inuit under Article 20 of the Nunavut Land Claims Agreement?

Notwithstanding the use of any of the materials proposed for use, no adverse affects as regards water quality or quantity are foreseen from the program. No drilling will be done nor water sourced from within the Repulse Bay hamlet watershed. A proposed study of elders' opinions and the community at large in January, is designed to ensure that the exploration work does not disturb traditional uses of the regional lakes and waters.

11. (Continued)

If yes, has the applicant entered into an agreement with the Designated Inuit organization to pay compensation for any loss or damage that may be caused by the alteration. If no compensation agreement has been made, how will compensation be determined?

12. **CONTRACTORS AND SUB-CONTRACTORS** (name, address and functions)

Drill Contractor – unknown at this time
Helicopter Contractor – unknown at this time
Contract Geologist – unknown at this time
Fixed wind contractors – First Air, Calm Air
Ground logistics support – unknown at this time
Camp contractor – Weatherhaven Resources, Discovery Mining Services

13. **STUDIES UNDERTAKEN TO DATE** (list and attach copies of studies, reports, research, etc.)
see below

14. THE FOLLOWING DOCUMENTS MUST BE INCLUDED WITH THE APPLICATION FOR THE REGULATORY PROCESS TO BEGIN

Supplementary Questionnaire (where applicable: see section 5) ☒ Yes ☐ No If no, date expected _____

Inuktitut/English Summary of Project ☐ Yes ☐ No If no, date expected _____

Application fee \$30.00 (c/o of Receiver General for Canada) ☒ Yes ☐ No If no, date expected _____

15. PROPOSED TIME SCHEDULE

☒ Annual (or) ☐ Multi Year

Start Date: April 15, 2003

Completion Date: April, 15, 2005

S. WEIDNER

Name (Print)

MANAGER OF OPERATIONS

Title (Print)

[Signature]

Signature

12-12-03

Date

For Nunavut Water Board use only

APPLICATION FEE

Amount: \$ _____

Receipt No.: _____

WATER USE DEPOSIT

Amount: \$ _____

Receipt No.: _____

13) Studies undertaken to date:

- Regional geochemical sampling & geophysical surveys. (proprietary information)
 - Consultation with Repulse Bay HTO regarding local sensitivities for wildlife, habitat & traditional use
- Studies to begin in 2004
- See attached Detailed Summary

**Water Licence Application
Supplementary Questionnaire
for Exploratory Drilling**

SECTION 1 :GENERAL	3
SECTION 2 :GEOLOGY AND MINERALOGY	9
SECTION 3 :EXPLORATION OPERATION	11
SECTION 4 :THE MILL OR PROCESSING PLANT	13
SECTION 5 :THE CONTAINMENT AREAS	15
SECTION 6 :WATER TREATMENT	18
SECTION 7 :ENVIRONMENTAL MONITORING PROGRAM	19
SECTION 8:	
ENVIRONMENTAL ASSESSMENT AND MONITORING.....	21

SECTION 1 :

GENERAL

SECTION 1 GENERAL SECTION 1 GENERAL SECTION 1 GENERAL

1.

Applicant BHP Billiton Diamonds Inc
(Company, corporation, owner)

1400 – 1111 West Georgia St, Vancouver, BC V6E 4M3
(Postal address)

604 632-1450
(Telephone number)

604 683 4125
(Fax)

jeremy.j.howe@bhpbilliton.com
(E-Mail)

Corporate Address (If different from above)

(Corporate Office Address)

(Telephone number)

(Fax)

(E-Mail)

Project Name Area 8

Location Kivalliq District, Nunavut

Closest Community Repulse Bay

Latitude/Longitude 85° 40' to 87° 20' W x 66° 20' to 67° 30' N
Show the location of the project on a general location map.

2.

Environmental Manager Doug Sweeney 604 694-1523

(Name)

(Telephone No.)

or Project Manager
and Europe Exploration

Sigfried Weidner, Operations Manager for N. America
(Title)

3. Indicate the status of the exploration activity on the date of application. (Check the appropriate space.)

Design	* _____
Under construction	_____
In operation	_____
Suspended	_____ until March _____
Care and Maintenance	_____
Abandoned	_____

4. If a change in the status of the exploration activity is expected, indicate the nature and anticipated date of such change.

Continuing exploration at the stage of drilling and prospecting but an expanded program with more rigs and two camp.

To realise the proposed objective, two diamond drill rigs need to be working by March. Camp construction would begin the first week of March, concurrent with fuel and supplies caching. The single RC drill would not begin until mid April.

5. Indicate the present (or purposed) schedule for the exploration activity.

Hours per week	_____ 24 _____
Days per week	_____ 7 _____
Weeks per year	_____ 32 _____
Number of employees	_____ 40 to 50 _____
Number of Inuit employees	_____ in every capacity that willingness, experience, and/or on site training will allow – perhaps up to 10 _____

6. Estimate the term (life) of the exploration activity.

2-3 years _____ (Months / Year)

7. How will the project effect the traditional uses on Inuit Owned Lands?

The area of drilling activity is not on IOL. Nonetheless, the intent is to avoid any disturbance of traditional use and this appears to have been successful thus far. Intermittent noise from over-flying helicopters is unavoidable to some degree but extended transits are conducted above 300m and to date we have had no instances of wildlife disturbance. The hamlet has been duly notified of all activities.

8. Have the Elders been consulted on effects to the traditional use on Inuit Owned Land? If so, list them. If not, why not?

Traditional use includes caribou hunting and fishing on some of the lakes but the area of major concern is the narwhal hunt, which occurs during a relatively small window in mid summer. To date, the HTO has been consulted on all aspects of the work to ensure that local concerns for the hunt (on land and sea) are respected. It was requested that special care be taken round Ici Lake as it is a common fishing lake and that airborne surveys avoid ocean overflights during the narwhal hunt (flight lines were diverted or delayed to this end). This year, crews lodged in the hamlet and became familiar with and accessible to the local people such that concerns could be readily presented – none of consequence were expressed. In 2004, though operations will be based from a camp(s), the plan is to rent a house in the community to facilitate materials expediting and community relations. This role will be filled by an Inuk from Taloyoak who worked for many years with BHP at Hope Bay and is familiar with both mining exploration and Inuit culture. BHPB will also be sending an experienced researcher to Nauyasat in December with the specific intent of collecting information on local traditional knowledge. This will be used to better tailor the specifics of the program.

9. Has the proponent consulted Inuit Organizations in the area? If so, list them.
See above
-
-
-
-

10. Has the proponent consulted surrounding communities on traditional water use areas? If so, list them. If not, why not?

The Hamlet of Repulse Bay was consulted to ensure they had no objections to the 2003 activities and none were expressed. BHPB had earlier defined the limits of the village watershed, with the assurance that no drilling or other work would be performed within it.

On completion of the 2003 work, the town council was addressed and advised that BHPB would return for further work in 2004. Another meeting with the community is planned for early December to outline the 2004 proposal and solicit input.

11. Attach a detailed map drawn to scale showing the relative locations (or proposed locations) of the exploration activity, Sewage and solid waste facilities, and containment areas. The plan should include the water intake and pumphouse, fuel and chemical storage facilities. Ore and waste rock storage piles, piping distribution systems, and transportation access routes around the site. The map also should include elevation contours, water bodies and an indication of drainage patterns for the area.

12. If applicable, provide a brief history of property development which took place before the present company gained control of the site. Include shafts, audits, mills (give rated capacity, etc.) waste dumps, chemical storage areas, tailings disposal areas and effluent discharge locations. Make references to the detailed map.

We are not aware of any previous activity in the area although concurrent exploration efforts by other companies are evident in the region.

13. Give a short description of the proposed or current freshwater intake facility, the type and operating capacity of the pumps used, and the intake screen size.

CAMPS: Water would be drawn through a 1.5" suction line with a 2mm mesh screen and pumped by a ¾ HP electric centrifugal pump to a 500 gallon tank in the camp from which it would be pressurized in the plumbing system. At a maximum capacity, the base camp would use about 1200 – 1600 gallons per day.

RC DRILL: The water usage will probably be in the neighbourhood of 40,000 liters per hole assuming no circulation loss and assuming we use the flood reverse drilling method. The intake from the lake will be from a hose intake with a maximum of 3 inches using a centrifugal pump. Screen size would be 2mm. Also see attachments.

DIAMOND DRILLS: Each rig is supplied by a diesel piston pump that pumps 2 –4 gallons/minute without re-circulation; 500 gallons per hole with re-circulation and cuttings removal. All pumps have 2mm screens on the intake.

14. At the rate of intended water usage for the exploration activity, explain water balance inputs and outputs in terms of estimated maximum draw down and recharge capability of the water source from fresh water will be drawn.

The scale of usage is deemed too small to measurably affect water sources. It should be remembered that the drills will source from many different lakes.

15. Will any work be done that penetrates regions of permafrost?

Yes. This appears to be unavoidable in the region.

16. If "YES" above, is the permafrost continuous or discontinuous ?

The working presumption is that it will be continuous, except beneath lakes, where a thaw halo is typical. Pressurised, heated water is the primary means of mitigating freezing problems although salt in the form of Ca Cl is sometimes used to suppress the freezing level if the drill hole is especially long. Experience to date on this project have required little salt as many of the targets are beneath lakes where there is no freezing.

17. Were (or will) any old workings or water bodies (be) dewatered in order to conduct the exploration activity ?

No

ATTACHMENTS

DESCRIPTION OF THE UNDERTAKING

Note: The information presented here is the most current to date although it cannot claim to represent final drill positions nor the precise type of equipment to be used since not all of the necessary data has been processed nor the priorities established at this time. Nonetheless, the general character of the proposal and positioning of drill setups are sufficient to encompass the possibilities we foresee. Exact drill locations and equipment details will be forwarded as soon as they're available.

In order to allow NWB sufficient time to process proposals of this type, we have found it necessary to submit them as early as possible and this does not always permit a precise description.

Summary

Following earlier regional mineral reconnaissance and claim staking in 2001 and 2002, a programme of diamond drilling is proposed to the north and east of Repulse Bay hamlet. The object is to test for the presence of the kimberlite rocks associated with diamond formation. Perhaps up to 20 holes would be drilled but most would be short since the local overburden is quite shallow. For that reason and to assist moves by helicopter, the drill rig would probably be quite small. The programme is expected to take up to 40 days, with the crew of 6-9 people staying in Repulse Bay and flying out daily to the rig by helicopter. Ideally this work should be performed in the early spring as a few of the targets are beneath lakes and better approached from setups on the lake ice.

If interesting rocks are encountered, it is likely that a second phase of drilling would be initiated in mid summer to obtain a larger and more reliable sample. The work would be identical to that outlined above except that the drill would be slightly larger and the depth of holes increased.

A geophysical ground survey (mag & EM) would be required 1 to 2 months prior to any drilling. Crews would be based in Repulse. This aspect of the work is not of a type that needs water licencing.

No IOLs are involved in the project region. e

Timing

Drilling to begin not later than mid April 2003 to ensure competent ice conditions. The programme would then finish about May10th. Should a second phase be recommended, it probably could not begin until late July 2003.

Support Equipment

1 – Hughes 500D or similarly sized small helicopter

1 – JKS 300 diamond drilling rig (first phase)

1 – Longyear 38 or Boyles 25A diamond drill (second phase, if warranted)

Drill rods, 1-2 piston pumps, waterline heaters and other typical drill support equipment

2 snowmobiles

Personnel

Up to 9 people

4 – 5 drillers

1 – 2 pilots

1 – 2 geologists

Mobilisation

Drill equipment and supplies would be mobilized on a charter Calm Air 748 and flown from the airport to the first drill setup by a contracted helicopter.

Fuel

BHPB has 100 drums of Jet B fuel for the helicopter currently stored at the airport. These would be sufficient for the programme.

About 30 diesel drums and 20/100lb propane cylinders for the drill would be flown in on a Calm Air charter.

Cuttings Removal

For those setups on lake ice, the "Polydrill" cuttings removal system would be used to extract fines from the drill fluids and permit their recirculation. The system uses an environmentally benign flocculant (see MSDS). The resulting mud is collected in bags and flown by helicopter to an upland depression where it cannot return to source. The bags are reused.

Cuttings from land-based drill sites are collected passively in an adjacent sump and, if necessary removed to a site where they cannot enter local waterways.

The above methods have been successfully used by BHPB for a number of years in kimberlite exploration near the Ekati diamond mine.

Drill Additives

Drilling in permafrost typically requires the addition of salt (CaCl or NaCl) to suppress the freezing temperature of the water used to flush cuttings. It is also sometimes added if water must be pumped on surface over a distance that might risk freezing en route to the rig. This is not generally required when drilling from lake ice setups (due to a thaw halo beneath the lake bottom) nor when holes are of short length. The initial phase of the work is unlikely to require salt although it will be available if required. If a second phase is warranted, the use of salt may be more necessary due to greater hole depths.

Bentonite clay is sometimes used to stabilize drill holes and prevent water loss in fractured ground conditions. It would be supplied but is unlikely to be used on the first phase drilling.

Hamlet Watershed

A few proposed drill sites are as close as 7 km from the hamlet but all are outside the town watershed.

Socioeconomic Benefits & Community Consultation

Brian McQuarrie, senior administrative officer for Repulse Bay, was consulted to see if the drill proposal presented problems for the hamlet but he reported that none were apparent.

Louise Siusangnark, head of the Repulse Bay HTO, was also consulted to get input on concerns about hunting, fishing, spawning, calving, migrations, and areas of historic use within the proposed area of use. (A copy of an information fax sent to the HTO is attached). A response is pending by mid January.

This early, small scale, stage of exploration does not usually give a lot of economic boost to the community, except from the purchase of meals and accommodation at the local inn. There are also few immediate opportunities for local employment since the positions are limited to certified drillers, pilots and geologists. If the work leads to a discovery however, then job positions and training possibilities for local people increase as the work expands. The HTO was informed of these constraints.

OTHER ATTACHMENTS

- Spill Response Plan
- 1:250,000 NTS map 46L extraction showing areas of interest
- Fax to Repulse Bay HTO
- Supplementary Questionnaire
- MSDS & toxicology test

DETAILED SUMMARY

Overview

An expanded program of exploration is envisioned on the property. This is a logical extension of last year's operation. Many aspects of the work would remain the same as that performed in 2003 including:

- Diamond drilling (from both lake ice and land set-ups)
- Regional sampling
- Air borne geophysical surveys

Expanded operations would include:

- Two diamond drills (variously NQ, HQ & PQ sized core) as opposed to the single rig used in 2003.
- A reverse circulation (RC) drill (8 3/4" bore) working largely on lake ice in the winter and from land-based positions after the thaw.
- A base camp supporting 25 people in winter and up to 50 people in summer.
- A smaller camp for drillers (about 20 – 24 people over all) that would be used only until the thaw.

Logistics and Equipment

- Mobilisation of the camp and equipment would be effected in winter on an airstrip ploughed on the ice of a lake and be designed to accommodate First Air's Hercules. Summer resupply would be via HS 748 or similar aircraft through the airstrip at Repulse Bay.

The airstrip on lake ice would be built according First Air's standards (5000' x 150'). Empty drums and snow-filled bags used as runway markers will be removed once the ice can no longer safely support landings.

The exact location of the ice strip has not yet been decided although 3 viable lakes have been examined (see map). The final choice will depend upon which is closest to the area that will ultimately require the most supplies, and of course the preferences of First Air. The most likely choice will be the lake near the camp.

No refuelling of aircraft would be done on the ice strip.

- A D6 Cat and 950 Cat loader (or similar sized equipment) would be needed to prepare the lake airstrip and to position supplies. The loader would probably be removed from the property on completion of the Herc airlift but the Cat would remain to perform assorted duties during the winter season.
- During the winter, the Cat would build compacted-snow skid routes over portages and plough lake surfaces for the drills, though only where this can be done without disruption of tundra or watercourses. Where skidding is ill advised, drills will be dismantled and flown by helicopter. The Cat would also clear drill and fuel cache sites, and maintain the airstrip on the lake. It would be mothballed over the summer.
- Two helicopters, based at the main camp, will likely be used – probably a 206B or 206L light duty machine and an AS B3 or Bell 204 medium lift machine. These would be used to commute crews and to move the drills and supplies after the thaw or in winter when this could not be done benignly by skidding.
- A company with extensive arctic experience in providing all aspects of turnkey logistical support would be contracted to construct the airstrip and haul routes. (Nuna Logistics, Kitnuna, etc).

Camps

Base Camp

- An area that is overlaid with fine glacial debris has been selected for the base camp. It lies between two lakes, the northerly one being the most convenient for water supply. (see photos and map)
- The camp would be an all electric turnkey installation designed and built by Weatherhaven Resources, a contractor with both extensive experience in the Arctic, and with both BHPB's mandated environmental standards and those of the territory.
- It would be designed to support up to 50 people, although 40 would be the typical resident population. While the smaller drill camp is in operation, the base camp would support about 20 to 25 people.
- Flush toilets would be provided. Treatment of sewage and grey water would be with a "Rotor Disc" S-75 model sewage treatment plant designed to handle up to 53 people. These units are currently in use at Miramar's Hope Bay operations in the Kitikmeot and elsewhere. (see attached specifications) The treated effluent would be discharged on the broad, flat area to the southwest of the camp (see photo). It would be further treated with an ultraviolet unit to destroy any remaining pathogens. No chlorine treatment would be used. This processing will be overwhelmingly superior to the Hamlet's primary treated marine disposal.
- Flat areas adjacent the camp and well back of about 100 meters from the water would be used for bermed fuel caches of drummed jet A and P-50 diesel fuel. Non-motive diesel powered equipment (the generator) will be supplied with bermed tanks to prevent spills. The equipment itself will be set within spill trays.
- Expected maximum camp water consumption per day would be about 1600 gallons (~ 7300 litres).

Small Camp

- This camp is to be built on flat ground adjacent the main drill site to allow safer and more reliable access by eliminating the need of commuting crews by helicopter during winter conditions.
- As the campsite is not ideally founded, it would be used only for the period before the thaw and thereafter would be either mothballed or torn down.
- It would support about 20 people involved with 2 drills at the site.
- When the camp is closed down, the drill personnel would be moved to the larger base camp for the remainder of the program.
- Maximum water consumption would be about 3500 litres per day
- Grey water would be run to a sump. Sanitary waste disposal would use "Pacto" sealing toilets followed by burning in the camp incinerator. This has proven to be a benign and effective procedure in camps of this size.

All camps will be surrounded by electrified fences to deter the encroachment of wildlife, especially polar bears.

Drilling

All drill rigs will be designed to broken down and flown by helicopter.

Diamond Drilling

- Average rig water consumption: with recirculation = 500 gal per hole; without recirculation = 2.4 gal. per minute.
- As was the case last year, the diamond drills will mandatorily use a 'polydrill' cuttings extraction and recirculation system when set up on lakes. It will also be used for land-based collars whenever there is a particular risk of cuttings entering the water that cannot otherwise be mitigated by retaining dams and settling sumps.

Reverse Circulation Drilling

Use of a reverse circulation drill is new to this project, though in common use elsewhere in the arctic. It is both clean and highly cost effective where the extraction of a larger sample is recommended. A description is provided below.

This method, also referred to as RC drilling, breaks up the rock to produce rock chips that are flushed to the surface by compressed air and water. Compressed air and water are forced down the hole between an inner and outer drill pipe and exit around the outer face of the drill bit. Drill cuttings are forced back into the drill stem through a centre hole in the drill bit where they are carried to surface through the inner pipe of the drill stem. At surface the rapidly moving rock cuttings are passed through a cyclone which vents most of the compressed air and drops the drill cuttings into a collection container, typically a plastic pail, for small diameter test sampling or onto a dewatering and sizing table and then into an ore bag for large diameter bulk sampling.

A closed containment system is used to recycle all fluids used during RC drilling. This system incorporates a mud tank mounted below the shaker table (dewatering and sizing) to capture the water and fines. The heavier fines are settled out via baffles and the light fines are run through a series of de-silting cyclones. The fluids are then recycled back down the hole. Upon completion of the RC hole, the mud tank is emptied with a vacuum and the material is transported and deposited to an upland sump location where it cannot enter the regional water system. All cutting sumps will be assessed by consultants from the Environment Department of BHPB's Ekati Diamond Mine™. All exposed drill holes are welded shut on completion.

Fuel Caches

In order to simplify overall containment, the scale of a spillage incident, and to facilitate transport to work sites, most fuel will be provided in drummed format.

Fuel caches will be established at upland sites removed at least 30 meters from water and close to the major areas of work. These will be determined from on-site inspection and the locations forwarded to all licencing agencies. Fuel-impermeable, lined berms will be built to contain these caches and mitigate spills. Proper drum management will be observed at all sites (see Emergency Response Plan).

In order to minimise the total amount of fuel on the property, most will be flown to site in two separate lots – one in March at the startup and one near the end of May while the lake airstrip can still support the Hercules. Fuel for use later in the season will likely be positioned by ice breaker in July and this will further reduce the amount on site at any given time (by about 800 drums P50 and 330 of JetA)

Empty drums will be systematically removed on backhaul charters and scheduled freighter flights.

Fuel types and total amounts will be as follows:

Jet A – 1700 drums

P-50 diesel – 480,000 litres (2350 dums)

Gasoline – 50 drums

Environmental Baseline Studies

Preliminary baseline studies will be initiated for the program, including:

- Wildlife studies
- Hydrology – quality, flow, etc
- Fisheries and aquatic habitat studies
- Archaeological assessment
- Traditional Knowledge evaluation and incorporation

- Botanical studies

Community Consultation

In January, an extensive community consultation is proposed to outline the ongoing exploration effort and solicit local opinions and advice.

A consultant has been contracted to canvas community elders at that time and present a detailed report of traditional uses of local land and water resources. This will be used to tailor the program to ensure that these uses are not compromised.

Johnny Qilluniq from Taloyoak, an Inuk with several years of camp management experience with BHP (and relatives in Repulse Bay), will be running project expediting in the hamlet and be the primary liaison with the community. He will also assist in recruiting and training people for available jobs in the program. A rental house has already been lined up as a base for this aspect of the work and to ensure an ongoing and seamless contact with the local populous.

Reclamation

Drill sites will be systematically returned to 'as near to original' condition upon completion of holes and re-siting of the rigs. No cuttings or debris will be left on lake surfaces.

As is typical in early exploration projects, both camps are designed to be both moved and removed as necessary. In the event of either of these, the sites would be cleaned and rehabilitated. Specific reclamation would be under the direction of Ekati environmental consultants and the procedures they have developed.

Other Licences

- KIA land use licence 1 KVL102B260
- NWB water licence NWB2REP0305
- DIAND Class A land use permit N2003C0006

Contractors

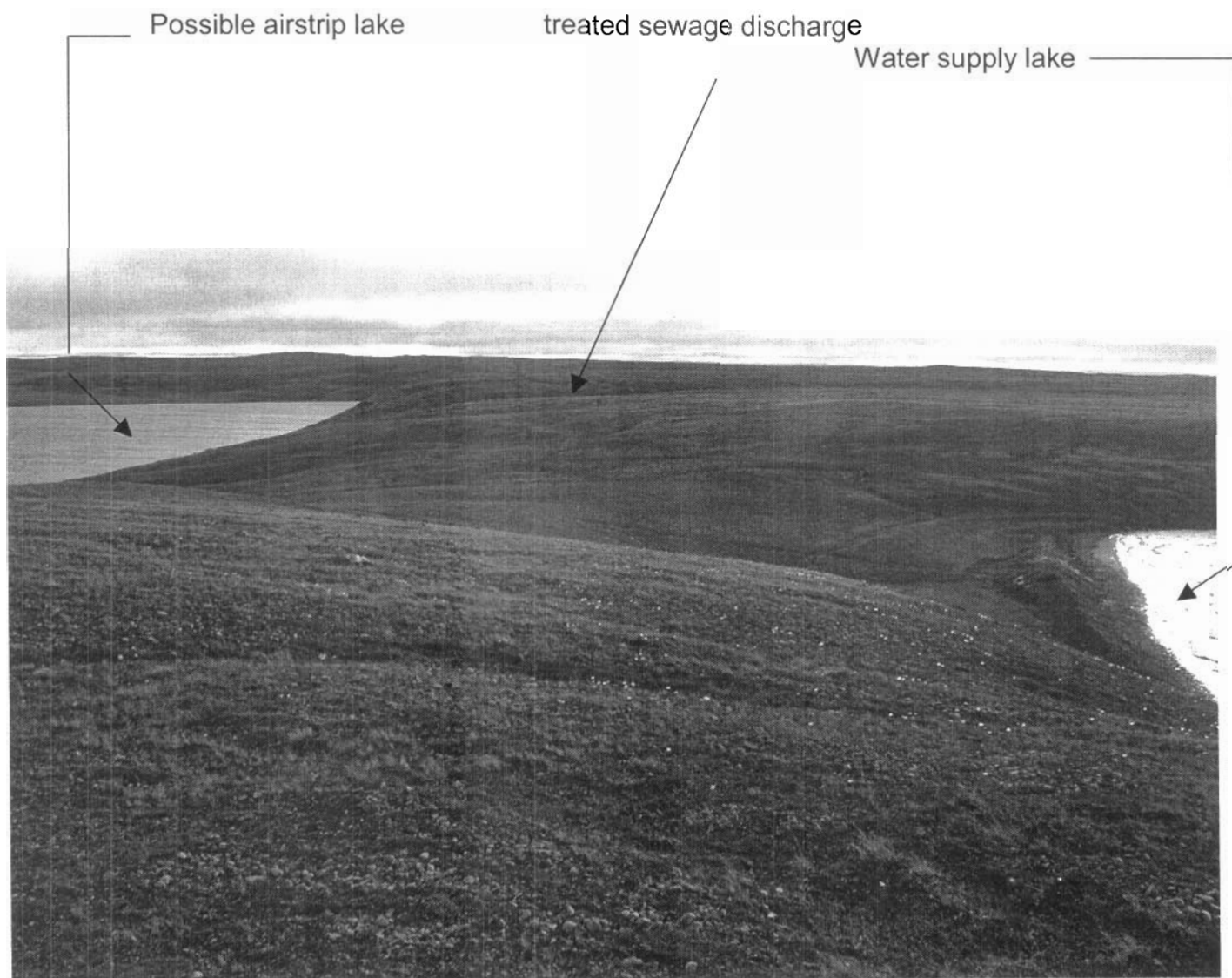
Most contractors have not yet been chosen although they will be in the following classes:

- Helicopter company
- Drilling Company
- Logistical ground support company (airstrip construction, clearing, overland hauling)
- First Air (Hercules)
- Calm Air
- Camp design and construction company
- Baseline environmental studies contractor

Addenda

Rotordisc S75 Sewage Treatment Plant with UV disinfection

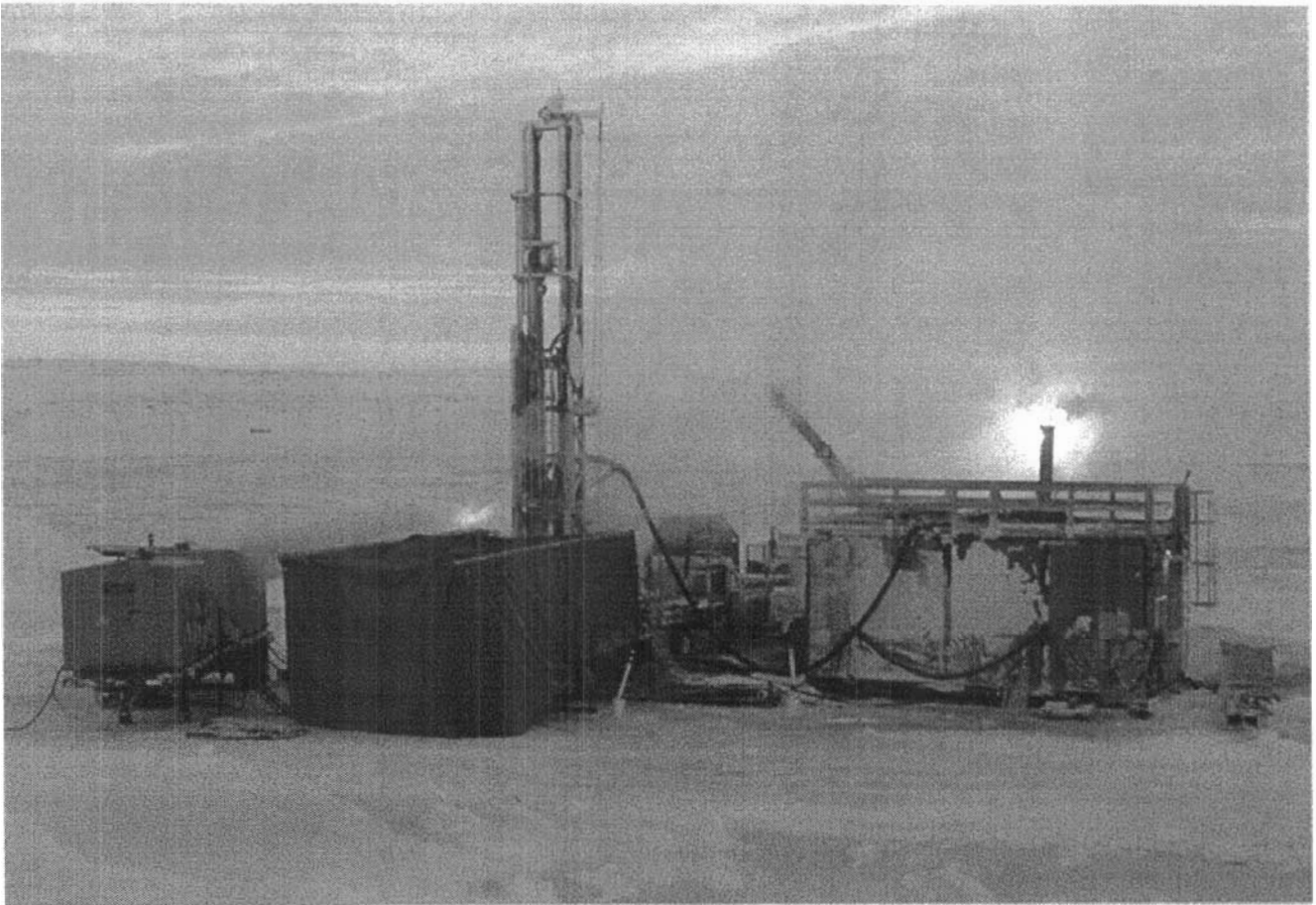
At 13,750 litres per day (double the expected volume) and influent strengths of 250mg/l BOD & TSS, the effluent BOD & TSS of the unit would be 15mg/l. This treated effluent would then be passed through a UV disinfection unit and discharged to a flat upland area that has slow return to a downstream water body.



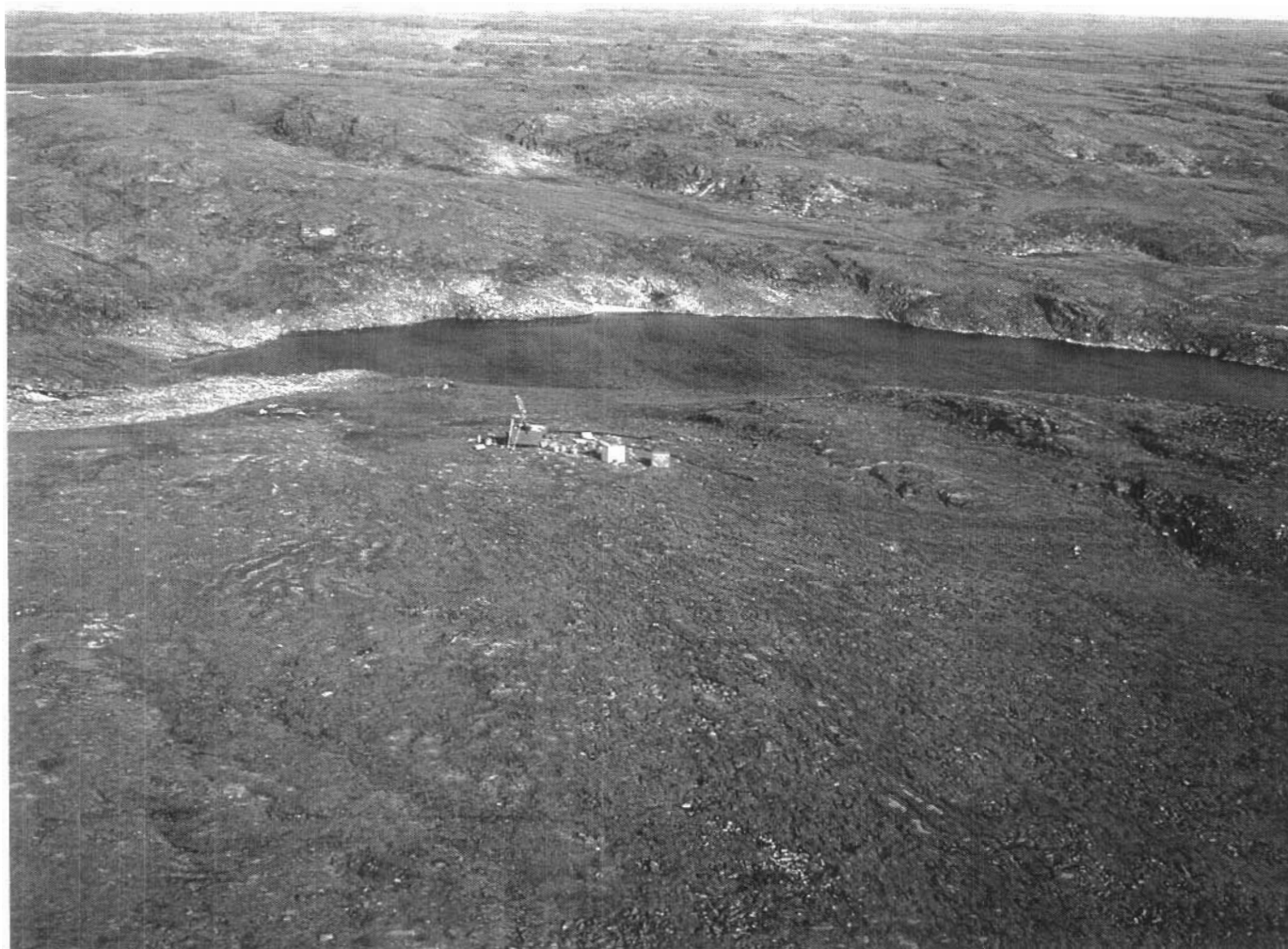
BASE CAMP SITE AREA LOOKING WEST



BASE CAMP SITE LOOKING EAST



RC Rig working at Ekati



Diamond Drill at Repulse (fence-like structure beyond drill is synthetic water dam to retain cuttings)



Possible icestrip lake near camp (looking north-west)

CONTACT THE FOLLOWING NUMBER IMMEDIATELY:**NWT/NU 24-HOUR SPILL REPORT LINE****1 (867) 920-8130****FAX (867)-873-6924**

OTHER CONTACTS	PHONE
NUNAVUT	
Kivalliq Inuit Association	867 645-2800
Nunavut Water Board	867 360-6338
Nunavut Impact Review Board	867 983-2594
Nunavut Tungavik Inc.	613 238-1096
Indian and Northern Affairs Canada, Iqaluit	867 975-4500
Repulse Bay Hamlet	867 462-9952
GNWT	
Harvey Gaukel, Hazardous Materials Specialist Environmental Protection Service, GNWT, RWED	(867) 873-7654
Sylvester Wong, Director Prevention Services, WCB	(867) 669-4408
Larry Adamson, Regional Superintendent, RWED	(867) 920-6134
Bruce Stebbing, Office of the Fire Marshall, GNWT, MACA	(867) 873-7030
FEDERAL GOVERNMENT	
RCMP, Repulse Bay	(867) 645-2822
Darren Unrau, Resource Management Officer (DIAND)	(867) 669-2763
David Milburn, Regional Manager, Water Resources Division (DIAND)	(867) 669-2650
Craig Broome, Environmental Protection Branch, Environment Canada	(867) 669-4730
Ron Allen, Manager, Fisheries and Oceans Canada	(867) 669-4902
LOCAL AIR CHARTER	
Calm Air, Churchill	(204) 675-8843
First Air	(867) 979-8302
SORBENTS	
Western/Westlund Frontier Mining	(867) 920-7617
Acklands-Grainger Inc.	(867) 873-4100

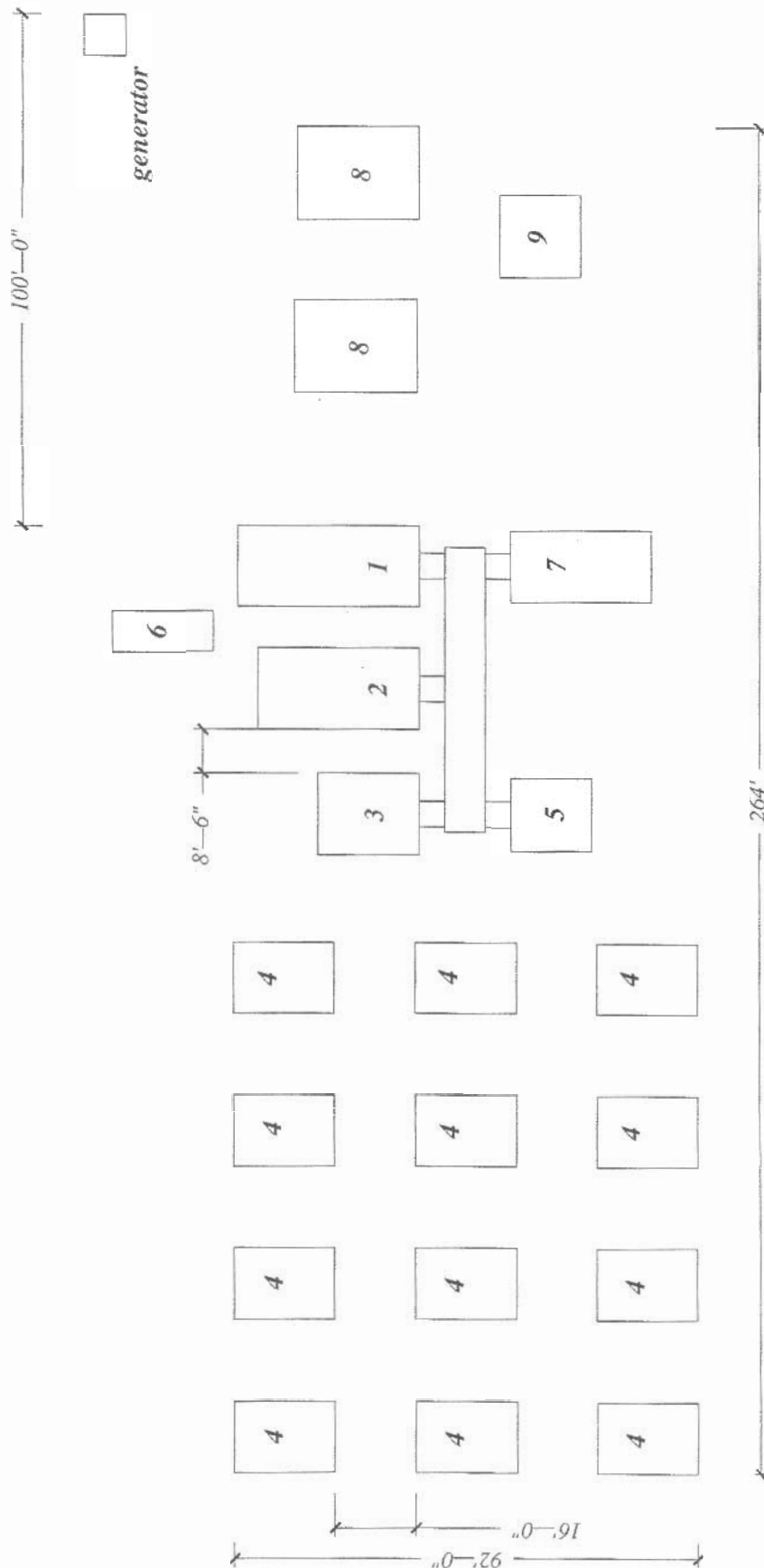
Internal Contacts



TITLE	NAME	PHONE	FAX
First Contact	Kimberly Scully	604 632-1464	604-683-4125
	Project Geologist	home 604 476-1755	
NAE Operations Manager	Sig Weidner	(604) 632- 1459 Cell (604) 716-3355 Home 604 944-2507	604-683-4125
NAE – HSEC Coordinator	Doug Sweeny	604 694-1523 Cell 604 781-0724	
Global HSEC Coordinator	Ed Routledge	604 694-1522 Home 604 904-2456	
Global Operations Leader	Eric Tweedie	604 694-1514 cell 778 882-9950	
Vice-President Exploration	Tom Whiting	011 61 3 9609 3283 cell 011 61 0419 643 881	



BHP Billiton 48 Person Camp Facilities Site Plan



LEGEND: 7,184 sq. ft.

1. Kitchen: Weatherhaven 4A Insulated 1 - 16' x 44' (KDR-071003/0420.3)
2. Ablution: Weatherhaven 4A Insulated 1 - 16' x 32' (ABL-071003/0424.2)
3. Ablution: Weatherhaven 4A Insulated 1 - 16' x 20' (ABL2-071003/0519.3)
4. Sleeper: Weatherhaven 4A Insulated 9 - 14' x 20' (SLR-071003/0419)
5. First Aid: Weatherhaven 4A Insulated 1 - 14' x 12' (AID-281003/0258)
6. Storage: Upgraded 20' ISO container
7. Office: Weatherhaven 4A Insulated 1 - 14' x 28' (OFC-281003/0125)
8. Core Logging/Tech: Weatherhaven 4A Insulated 2 - 18' x 24' (COR-281003/0317)
9. Core Splitting: Weatherhaven 4A Insulated 1 - 16' x 16' (COR-

NOTE: THIS DRAWING AND THE DESIGN SHOWN ARE THE PROPERTY OF WEATHERHAVEN AND MAY NOT BE REPRODUCED OR SUBMITTED TO THIRD PARTIES WITHOUT ITS EXPRESSED WRITTEN CONSENT.

Drawing No. P03-079 Site.4

AMENDMENT TO WATER LICENCE NWB2REP0305

EXECUTIVE SUMMARY

Overview

An expanded program of exploration is planned on the property. This is a natural follow-up to last year's work. Many aspects of the work would remain the same as that performed in 2003 including:

- Diamond drilling (from both lake ice and land set-ups)
- Regional sampling
- Air borne geophysical surveys

Expanded operations would include:

- Two diamond drills as opposed to the single rig used in 2003.
- A reverse circulation (RC) drill working largely on lake ice in the winter and from land-based positions after the thaw.
- A base camp supporting 25 people in winter and up to 50 people in summer.
- A smaller camp for drillers (about 20 – 24 people over all) that would be used only until the thaw.

Mobilisation

- The camp, fuel, supplies, and additional drills will be flown by First Air's Hercules to an airstrip ploughed on the ice of a lake near the campsite. This will be used until perhaps the end of May.
- A D6 Cat and freight sleigh will haul materials for the smaller camp overland from the Herc airstrip to the site. The route would stick mainly to frozen lakes.

Camps

Large Camp - The larger camp will be located on an esker between two lakes and will be built by the camp contractor that supplies it. It will be occupied by about 25 people until the ground begins to thaw in late May. Thereafter, it will house up to 50 people though the normal crew size will probably be closer to 40. Sewage will be processed in a small sewage treatment plant, sterilized and discharged to an area away from major water systems.

Small Camp – As the large camp is over 15km from the main drill site, a smaller camp will be built closer to that area of major work. The reason is to minimise the safety hazard of having to fly crews to the drills during winter conditions and short daylight. This camp will only operate until the thaw sets in, after which it will be closed down or dismantled. This camp will burn all septic waste in an incinerator

Other Equipment

- D6 Cat with freight sleigh. To clear snow and position supplies. This would only be used while the tundra and lakes are frozen. After the thaw, it would be parked for the season.
- 950 loader. To clear snow and load/unload the Hercules airplane. This would probably be removed on the last Hercules flight but, if it is left at the site, it would be parked for the season like the Cat.
- Helicopters. Two helicopters would probably be used – a small one to move work crews and a medium sized one move the drills during the summer or when they

cannot be safely skidded overland during the winter. They would be based in the main camp.

Drilling

- In winter conditions, most of the drilling will be done from the ice of lakes in the region. In summer, all set-ups will be land-based.
- No drill residue will be left on lake ice or returned to a water source.

Fuel Caches

- Diesel and Jet fuel in drums will be stored at various fuel caches. The sites will be chosen to ensure that they are close to the work areas but do not represent a hazard to water drainages.
- All fuel caches will be protected by fuel impermeable berms.
- Empty drums will be backhauled to Churchill on air cargo freighters or charters over the course of the program.

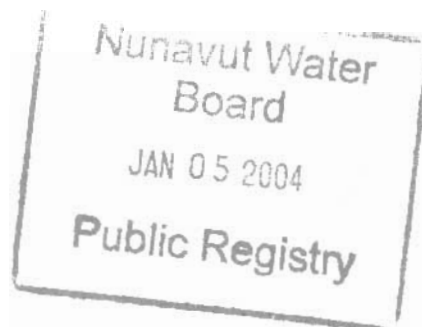
Timing

The program is scheduled to start in late February or early March because it is extremely important to take advantage of the frozen lakes and tundra. Work will continue through the summer and possibly into October although the length of the work will, in part, be determined by the results of the drilling.

Community Consultation

BHP Billiton is very concerned that the local people are fully consulted with and informed about this project, particularly as it is so close to the community. To that end, we have hired Johnny Qilluniq from Taloyoak to act as our expeditor and community consultant. Not only is he personally familiar with many of the residents, he has also previously worked for the company on similar mining exploration projects in the Kitikmeot and has a superb understanding of the nature of this type of work.

In January, we plan to meet with the community to discuss the project in detail and get guidance from the elders on how we can best minimise its impact and benefit the community. Johnny's role will help to ensure that this is an ongoing process throughout the year.



INTERNAL		INTERNAL	
PC			
MA			
FO			
LA			
BS			
ST			
TA1			
TA2			
RC			
ED		ED	
CH		CH	
BRD		BRD	
EXT.		EXT.	

ᐃᐅᑕᑦᑦᑦᑦ ᐅᑦᑦᑦᑦᑦᑦ

Δ^αΔ^βσ^γ Δ^δΔ^εσ^ζ

[illegible]

- [illegible]

$\Delta^a \Gamma^c \Gamma^d \Delta^b C D \sigma \Delta \quad \Delta D C \Gamma^b \Gamma^d \dot{\Gamma}^c \quad L d \sigma^a \Gamma \quad \Delta C^b a \sigma \Delta^c D^c$

- [illegible]

မှတ်ချက်များအား အောက်ဖော်ပြပါအတိုင်း

- [illegible]

◁▷^c↯^b↯LΔ^b

[illegible]

ᐱᕈᕐᕋ ᐱᕈᕐᕋ

- [illegible]

- [illegible]

$$\Delta dC^{\epsilon}\sigma^{\epsilon b}$$

- [illegible]

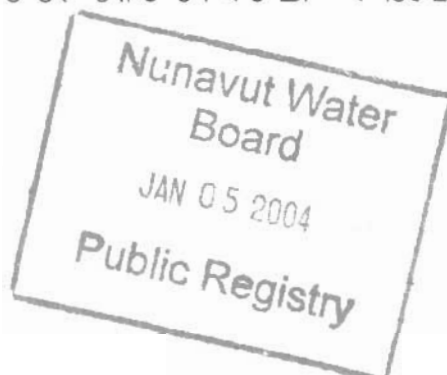
▷⁵⁶ℓ▷⁵⁶dΔ^c ρ^aσ⁷Lσ▷⁵⁷▷^c

- [illegible]

ፍጥረት ለጥራት ምስክር

[illegible]

ጋራ ምክር ቤቱ ለጥያቄው ምዝገባ ይደረጋል።

[illegible]

INTERNAL	
PC	<i>[Signature]</i>
MA	
FO	
LA	
BS	
ST	
TA1	
TA2	
RC	
ED	
CH	
BRD	
EXT.	