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File: S04A-006
S04L1-006

Box 126
Norman Wells, NT

Your file - Votre référence

Our file - Notre référence

25 August 2004

Edna Tobac
Land Technician
Sahtu Land & Water Board
Box 1
FORT GOOD HOPE, NT
X0E 0H0

Dear Sir:

Re: Land Use Permit Application S04A-00
Water Licence Application S04L1-006
Summit Creek Drilling Program
Tulita District

I have reviewed the above applications and am submitting my attached comments to you for your review and inclusion into the above applications.

If you require more information or clarification of my comments, please contact me at (867) 587-2912 or via e-mail at marionl@inac.gc.ca.

Yours truly,

Louis Marion
Resource Management Officer III, pipeline
Norman Wells sub-district



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CONDITIONS ANNEXED TO AND FORMING PART OF
LAND USE PERMIT NUMBER S04A-006

26 (1) (A) - LOCATION AND AREA

1.1 The Permittee shall not conduct this land use operation on any **PLANS**
lands not designated in the accepted application, unless otherwise
authorized in writing by the S.L.W.B.

Rationale - Permittees, for various reasons, find it necessary to change the location of the work area after commencing the land use operation. The Land Use Inspectors can approve alterations to the program in the approved manner. A revised plan is required from the Permittee even though it may be "after the fact" where field approval has been given by a Land Use Inspector. The Inspector should ensure the amendment does not conflict with other legislation.

1.2 The Permittee shall not conduct any part of the land use operation **PRIVATE**
within three hundred (300) metres of any privately owned land **PROPERTY**
or structure, unless otherwise authorized in writing by the S.L.W.B.

Rationale - This condition is included where there is a possibility that the land use operation will infringe upon a person's private property. This infringement may be in the form of noises, vegetation disturbance, etc. Private structures includes squatters' cabins and private land includes leased land in this condition.

1.3 The Permittee shall not construct an adit or drillsite within **LOCATION**
100 metres of the normal high water mark of a stream **OF ADITS**
unless approval in writing is obtained from the S.L.W.B. **AND DRILLSITE**

Rationale - The intent of this condition is to set a minimum distance that adits and diamond drillsite are to be from streams in order to prevent the risk of waste material from entering streams. A distance of 50 metres is commonly used in British Columbia. The distance will depend on the slope of land, effluent being discharged, etc. This condition would only apply to operations using chemicals or where erosion may occur.

26 (1) (B) - TIME

2.1 The Permittee's Field Supervisor shall contact or meet with a **CONTACT**
Land Use Inspector at the Norman Wells office of the Department **INSPECTOR**
of Indian Affairs and Northern Development, telephone number
(867) 587 - 2911, at least 48 hours prior to the commencement of this
land use operation.

Already included in Draft

Rationale - It is beneficial to both parties to discuss the land use operation

to avoid later misunderstandings. The Inspector can explain the permit conditions to the Permittee and what he expects the Permittee to do in each instance. It is also an advantage to the Inspector to know that the operation has commenced in order that he may begin routine inspections. The inspector can avoid unnecessary travel and expense by knowing when the operation has commenced. The Land Use Inspector may wish to designate that a meeting is required under some circumstances.

- 2.2 The Permittee shall advise a Land Use Inspector at least ten (10) days prior to the completion of the land use operation of (a) his plan for removal or storage of equipment and materials, and (b) when final clean-up and restoration of the lands used will be completed. **REPORTS BEFORE REMOVAL**

Rationale - The intent of this condition is to inform the Inspector that the land use operation is in the final stages of completion as he may want to conduct an inspection before the Permittee leaves the work area.

- 2.3 The Permittee shall submit a progress report to the ^{Land Use Inspector} ~~S.L.W.B.~~ every 7 days during this land use operation. **PROGRESS**

Rationale - These reports are intended to keep the field office and the S.L.W.B. informed of activities during the land use operation. If routine inspections are being conducted, progress reports from the company may not be necessary. The Inspector may request to have the reports sent directly to him by the Permittee.

- 2.4 The Permittee shall notify a Land Use Inspector at least ten (10) days prior to backfilling any sump. **BACKFILLING NOTIFICATION**

Rationale - The intent of this condition is to allow a Land Use Inspector time to inspect the site prior to backfilling, to ensure compliance with other conditions, i.e., "Freeboard Clause".

- 2.7 The Permittee shall not conduct any over land movement of equipment and vehicles between Nov 30 and March 31, unless otherwise authorized by a Land Use Inspector in writing. **SHUT-DOWN PERIOD**

Rationale - This condition prohibits summer travel in permafrost areas, thus eliminating terrain disturbance.

- 2.9 The S.L.W.B., for the purpose of this operation, designates ~~April 15~~, as spring break-up. **SPRING BREAK-UP**

Rationale - This condition is necessary in every permit where other conditions refer to spring break-up. The Inspector should designate the date, using previous years' records.

- 2.10 The Permittee shall remove all ice bridges prior to spring break-up or completion of the land use operation unless otherwise approved in writing by a Land Use Inspector. **REMOVE ICE BRIDGE**

Rationale - This condition would apply where the Permittee has used logs, trees, and other binding and reinforcing materials. The idea is that the removal of the centre section will allow a channel for up-stream, over-ice flow of water in order to prevent ponding and jamming of ice and debris. There are other conditions on removal of snow stream crossings.

NOTE: all blasting in streams require a Department of Fisheries and Oceans Explosive Permit.

- 2.11 The Permittee shall remove all snow fills from stream crossings prior to spring break-up or completion of the land use operation, unless otherwise approved in writing by a Land Use Inspector **REMOVE SNOW FILLS**

Rationale - Self-explanatory.

- 2.12 The Permittee shall restore all sumps prior to spring break-up, unless otherwise authorized in writing by a Land Use Inspector. **SUMPS/SPRING BREAK-UP**

Rationale - The intent is to prevent sumps from filling and overflowing with run-off water during the summer, with the result that toxic materials may be spread to surrounding lands or waters. Also, sumps containing frozen material which are backfilled before spring break-up may remain frozen if the material is below the active layer. This is a special condition which would not appear unless the priority of backfilling before break-up is higher than requirement for material to be frozen. This may be the case on flood plains or unstable soils.

- 2.13 The S.L.W.B. reserves the right to impose closure of any area to the Permittee in periods when dangers to natural resources are severe. **CLOSURE**

Rationale - The intent of this condition is to advise the Permittee that the S.L.W.B. can order closure or suspension of operation due to: ground not being frozen so that rutting and gouging will occur, abundance of wildlife in and/or migrating through the work area. This is a special condition that would be included if the Inspector suspects that there may be a conflict with some parts of the project, e.g., caribou, muskox, use of unproven equipment.

- 2.14 The Permittee shall complete all clean-up and restoration of the lands used prior to the expiry date of this Permit. **CLEAN-UP**

Rationale - The intent of this condition is to ensure that the permit is valid from the start to the finish of the land use operation including final clean-up. Any material left for future work must have "approval to store" by the S.L.W.B.

26 (1) (C) - EQUIPMENT

- 3.1 The Permittee shall not use any equipment except of the type, size, and number that is listed in the accepted application, unless otherwise authorized in writing by the Land Use Inspector. **ONLY APPROVED EQUIPMENT**

Rationale - The potential impact of the type and size of equipment listed on the application is considered in granting a land use permit and the conditions attached thereto. This is especially important in sensitive areas or specific times of the year. In other critical areas consultation with experts of other agencies may be necessary. The use of heavier or lighter equipment could mean the difference between a class "A" or a class "B" permit. If the applicant by design neglected to state that he intended to use additional equipment, it would be grounds for cancellation of the permit.

- 3.2 The Permittee shall equip bulldozer blades used in this operation with "mushroom" type shoes or a similar type of device which shall be extended 15 centimetres below the cutting edge of the blade. **BULLDOZER BLADES AND SHOES**

Rationale - Shoes used on bulldozer blades help reduce damage to vegetation which, in areas where there are high ice content soils could result in subsidence of the land. The elevated bulldozer blades allow some snow to remain and be packed in place over the vegetation. The Land Use Inspector should determine the distance these devices will be extended below the cutting edge taking into consideration the terrain and snow conditions if known. The usual distance is 15 centimetres.

- 3.3 The Permittee shall use a forced-air, fuel-fired incinerator to incinerate all combustible garbage and debris. **INCINERATORS**

Rationale - This condition applies generally to operations conducted under the authority of a Class "A" permit where 25 or more people are employed at one location for an extended period of time. Also, in areas where there is an abundance of carnivorous animals which would be attracted to unburnt garbage.

26 (1) (D) - METHODS AND TECHNIQUES

- 4.1 The Permittee shall scout proposed lines and routes to select the best location for crossing streams and avoiding terrain obstacles prior to the movement of any vehicle that exerts **DETOURS & CROSSINGS**

pressure on the ground in excess of 35 K pa.

Rationale - The idea is that heavy machines such as bulldozers must not be used to explore for creek crossings and detour around other obstacles encountered on the proposed lines or routes, as considerable vegetation and trees are disturbed or destroyed in the process. Reconnaissance using light tracked vehicles, aircraft or by walking will result in less damage to the land and vegetation.

- 4.2 The Permittee shall construct and maintain winter roads with a minimum of ten (10) centimetres packed snow at all times during this land use operation. If this cannot be done, then the Permittee shall construct Ice Roads in a manner approved by a Land Use Inspector. **SNOW ROADS/
ICE ROADS**

Rationale - The intent of this condition is to protect mosses, grasses and small shrubs in place on the area where the winter road is to be constructed. A layer of snow packed in place will help reduce the amount of winter kill of vegetation due to exposure.

- 4.13 The Permittee shall not erect camps or store material on the surface ice of streams. **STORAGE
ON ICE**

Rationale - The intent of this condition is to reduce the risk of pollution of water bodies by not allowing camps or stockpiling of materials on ice. This condition applies particularly where such facilities would be located upstream from communities. Sometimes ice is used to minimize surface disturbance to land.

**26 (1) (E) - TYPE, LOCATION, CAPACITY
AND OPERATION OF FACILITIES**

- 5.1 The Permittee shall not locate any sump within one hundred (100) metres of the normal high water mark of any stream. **SUMPS
FROM WATER**

Rationale - The intent of this condition is to prevent toxic material, sewage or drilling fluid from entering bodies of water and harming fish and other aquatic life. It is particularly important if the sumps and pits are upstream from communities that use the water.

- 5.2 The Permittee shall maintain all drill wastes at least 1.2 metres below the lowest elevation of contiguous surrounding ground surface at all times. **SUMPS
FREEBOARD**

Rationale - The intent is total containment of drill waste. In permafrost areas, the intent is to bury the fluids below the active layer while they are frozen. If they are below the 1.2 metres freeboard, they will remain frozen. For sumps open over summer, the four-foot freeboard must be maintained while

allowing for the inclusion of any rain, surface or ground water that may enter the sump. This condition applies mainly to permafrost areas; however, it is a good operating procedure in all areas as it provides additional strength to sump walls. The Inspector may modify the 1.2 metre requirement depending on substantiation of the active layer.

5.3 The Permittee shall backfill and restore all sumps prior to the expiry date of this Permit. **BACKFILL SUMPS**

Rationale - The intent of this condition is to have all sumps and pits backfilled at the end of the land use operation in order that;

- (a) toxic materials will be buried;
- (b) the site will be restored as close as possible to its original state;
- (c) open sumps and pits can be hazardous to wildlife;
- (d) aesthetics will be improved.

5.4 The Permittee shall backfill all sumps in such a manner that drill waste is maintained below the 1.2 metre freeboard. **BACKFILL SUMPS-HOW**

Rationale - The intent of this condition is to bury all drill wastes to prevent them from spreading to surrounding land.

5.5 The Permittee shall: **BACKFILL SUMP OVERLAP**

- (a) Place all excavated material over the sump area to ensure ponding does not occur.
- (b) Overlap the material a minimum of two (2) metres beyond the edges of the existing sump wall.

Rationale - The overlap of material ensures that no hollows or cavities are left around the edges of the sump in which water can pond. Mounding the material over the sump allows for settling especially when the backfill material is frozen in chunks which cannot be compacted.

5.7 The Permittee shall ensure that the land use area is kept clean and tidy at all times. **CLEAN WORK AREA**

Rationale - the intent of this condition is to ensure that the Permittee keeps all areas clean during the operation. This should be enforced with discretion. Clean-up should be progressive.

26 (1) (F) - CONTROL OR PREVENTION OF FLOODING, EROSION AND SUBSIDENCE OF LAND

- 6.1 (a) The Permittee shall, where flowing water from bore holes is encountered, plug the bore hole in such a manner as to permanently prevent any further outflow of water. **PLUG ARTESIAN WELLS**
- (b) The artesian occurrence shall be reported to the S.L.W.B. within forty-eight (48) hours.

Rationale - Artesian wells resulting from drilling operations may, if not plugged, affect adjacent land owners wells and flood their lands. Erosion could result if artesian wells are not plugged. Artesian wells not plugged could lower the level of water in the ground in an area which could affect the vegetation. Sometimes water from artesian wells contains dissolved salts and sulphur which could be harmful to the surrounding land.

- 6.2 The Permittee shall remove any obstruction to natural drainage caused by any part of this land use operation. **NATURAL DRAINAGE**

Rationale - The intention of this condition is that no impoundment of water is allowed unless, of course, that this is the intent of the undertaking, such as in the case of construction of reservoirs to generate electricity, a water supply for towns and cities, or industrial use such as hydraulic mining. On exploration projects, all obstructions to natural drainage must be removed and the site restored prior to abandonment of the area worked.

- 6.3 The Permittee shall not cut any stream bank unless authorized in writing by a Land Use Inspector. **STREAM BANKS**

Rationale - The intent of this condition is to locate stream crossings, especially when there is flowing water, at locations preferably where both banks are low in order to prevent cutting. The chances of erosion and slumping shall be co-ordinated with a Fisheries Officer and Water Rights Inspector.

- 6.6 The Permittee shall install culverts or bridges as construction of the road progresses, unless otherwise authorized in writing by a Land Use Inspector. **INSTALLATION CULVERTS BRIDGES**

Rationale - The intent of this condition is to prevent ponding of water and erosion of all or part of the road grade. Without culverts or bridges, the Permittee would either have to use a ferry or ford the streams to move construction equipment. Fish spawning areas could be affected by the deposition of additional silt due to fording of equipment. Annual migration of fish could be disrupted.

- 6.7 The Permittee shall not use the bed of streams for access routes except for the purpose of crossing the streams, unless otherwise authorized by a Land Use Inspector. **STREAM BEDS - ACCESS**

Rationale - This condition would only apply where considerable cutting and filling has to be done to construct the road to follow in the stream bed which could result in erosion and movement downstream of considerable quantities of material when there is water flowing in the streams. Where dry stream beds can be used as roads without considerable cutting and filling, they should be used as they reduce the amount of surface disturbance which would otherwise result from using adjacent lands covered with vegetation.

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The Permittee shall not construct interceptor or off-shoot drainage ditches, unless approved in writing by the Land Use Inspector.

DITCHES

Rationale - The intent of this condition is to reduce the amount of unnecessary clearing of vegetation and disturbance of soil that would be a result of construction of drainage ditches that do not serve the purpose intended--drainage of water from the road. The Permittee must survey the site before construction to determine if there is sufficient slope to assure drainage of water.

6.15 The Permittee shall install erosion control structures as the land use operation progresses, unless otherwise authorized by a Land Use Inspector.

EROSION CONTROL WHEN

Rationale - This condition applies to projects where vegetation will be removed and it is known that erosion will occur. Examples of this type of project are: pipeline, power line, railway and road rights-of-way, large clearings on slopes such as wellsites, airstrips, mine sites, etc.

6.17 The Permittee shall prepare the site in such a manner as to prevent rutting of the ground surface.

PREVENTION OF RUTTING

Rationale - This condition applies where heavy machinery will be used during summer in permafrost areas. It requires the use of some type of supporting and insulating pad.

6.20 The Permittee shall not move any equipment or vehicles unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging.

VEHICLES MOVEMENT FREEZE-UP

Rationale - The onus is on the Permittee to determine whether or not the ground will support machinery and vehicles. Land Use Inspector may allow travel if the ground is sufficiently dry, devoid of vegetation or of a type where rutting or gouging will not occur. The idea is to prevent damage to the surface of the land and vegetation.

6.21 The Permittee shall suspend overland travel of equipment or vehicles if rutting occurs.

SUSPEND OVERLAND TRAVEL

Rationale - This condition would apply to operations during summer where vehicles make repeated trips over lines or trails and eventually rutting and vegetation damage occurs, particularly in wet areas. This condition could also apply to spring break-up and fall freeze-up when the amount of frost in the ground is marginal as to whether there is sufficiently frozen material for vehicles to travel without damaging the soil and vegetation.

26 (1) (G) - USE, STORAGE, HANDLING AND DISPOSAL OF CHEMICAL OR TOXIC MATERIAL

7.2 The Permittee shall not use the following materials during the drilling operation without the prior written approval of the S.L.W.B.: **PROHIBITED CHEMICALS**

- Chlorinated phenols (Dowicide B, etc.)
- Compounds composed primarily of heavy metals
- Asbestos

Rationale - This condition applies to oil and gas drilling operations where the drilling waste may be at some time released into the environment. The S.L.W.B. will co-ordinate approval with the Oil and Gas Section.

7.3 The Permittee shall submit to the S.L.W.B. a contingency plan, for chemical spills, for use during the construction and operation of the winter road and associated facilities. **CONTINGENCY PLAN**

7.5 The Permittee shall deposit all drill waste into a sump. **DRILL WASTE**

Rationale - This condition applies to oil and gas well drilling. The intent is to bury toxic materials in the ground and should dispersal through leaching begin, it will be gradual and in amounts that are small and diluted to the extent that no harm shall occur.

7.6 The Permittee shall not allow any drilling waste to spread to the surrounding lands. **DRILL WASTE CONTAINMENT**

Rationale - This condition implies toxic containment of drill wastes. The intent of this condition is that drill waste allowed to spread could kill or seriously retard vegetation of surrounding lands. Animals and birds may be seriously affected if they feed on certain compounds containing salts which are toxic. Aquatic life can be seriously affected from material entering bodies of water.

7.9 The Permittee shall report all spills immediately in accordance with instructions contained in "Spill Report" form N.W.T. 1086(10/79). 24 hour spill report line (867)920-8130.

**REPORT
CHEMICAL
AND
PETROLEUM
SPILLS**

Rationale - Protection of the environment i.e. domestic water sources, fish, wildlife, vegetation and soil.

26 (1) (H) - WILDLIFE AND FISHERIES HABITAT

8.1 The Permittee shall not unnecessarily damage wildlife habitat in conducting this land use operation.

**HABITAT
DAMAGE**

Rationale - The intent of this condition is to instruct the Permittee to be careful when using machinery, to do the least damage possible to vegetation. This condition should be used with discretion. It may not apply to polar desert areas or to very small operations.

26 (1) (I) THE STORAGE, HANDLING,, AND DISPOSAL OF REFUSE OR SEWAGE

9.1 The Permittee shall deposit all sewage into a sump or as directed by a Land Use Inspector.

**SEWAGE
DISPOSAL**

Rationale - This condition would generally apply to camps which will be stationary for fifteen (15) days or more. Sumps and pits are not necessary at mobile camps (moved every 15 days or less) as the amount of sewage would not be large enough to cause damage to land, vegetation or water bodies. Other consideration should be man days, proximity to human population and kinds of chemicals used.

9.4 The Permittee shall keep all garbage and debris in a covered metal container until disposed of. This container shall be marked with the Permittee's name.

**GARBAGE
CONTAINERS**

Rationale - This condition applies where there is an abundance of wildlife which would be attracted to garbage if it were accessible. Usually the Permittee would not have an incinerator at the camp, so that garbage would be burned in a pit at the camp or hauled to an approved disposal site located elsewhere.

9.5 The Permittee shall burn all garbage and debris at least daily.

**GARBAGE
DISPOSAL**

Rationale - The burning of garbage should be done in a container in accordance with the section of equipment. By burning garbage daily the chances of wildlife being attracted is reduced. The garbage must be completely burned.

9.7 The Permittee shall remove all noncombustible garbage and debris from the land use area to a disposal site approved in writing by a Land Use Inspector. **REMOVE GARBAGE**

Rationale - This condition allows the permittee to burn garbage to reduce the volume; however, it prohibits the burying of garbage and debris on site. That is, all non-combustibles must be removed to an approved site. This condition will apply where the Permittee is unable to dig a pit suitable to bury the garbage in.

9.11 The Permittee shall remove from the "Mackenzie Valley", all scrap metal, discarded machinery and parts, barrels and kegs, buildings and building material. **REMOVE WASTE MATERIAL**

Rationale - The definition of Mackenzie Valley may have to be explained to Permittee. This is the same definition as the Mackenzie Valley Resource Management Act. It is believed that objects buried in permafrost areas will move towards the surface as a result of frost action. The rate of movement depends on many things, including soil type, surface area of object and depth of burial.

9.12 The Permittee shall dispose of all combustible waste petroleum products by incineration or removal. **WASTE PETROLEUM DISPOSAL**

Rationale - This condition will apply whenever the motor oil is changed in machinery used on this land use operation. Burning waste petroleum products effectively eliminates material which would otherwise pollute soil, water and destroy vegetation if disposed of indiscriminately. This condition could also apply to crude oil and sludge obtained from a well which is being tested.

26 (I) (J) - HISTORICAL AND ARCHAEOLOGICAL SITES AND BURIAL GROUNDS

10.1 The permittee shall not operate any machinery or equipment within (150) metres of any known Historical or Archaeological Site and Burial Ground. **NO ACTIVITY**

10.2 The permittee shall make every effort to ensure that no Historical or Archaeological Site or Burial Ground will be affected by this operation. **SITES PROTECTION**

26 (I) (M) - PETROLEUM FUEL STORAGE

13.2 The Permittee shall not place any petroleum fuel storage containers within thirty (30) metres of the normal high water mark of any stream. **FUEL BY STREAM**

Rationale - This condition applies to petroleum fuel caches where the Permittee is not required to construct dykes around the fuel containers. The fuel containers would consist primarily of barrels and kegs. The fuel caches would be of a temporary nature in most instances, no more than one year.

13.4 The Permittee shall not allow petroleum products to spread to surrounding lands or into water bodies. **FUEL CONTAINMENT**

Rationale - This condition applies to all land use operations where petroleum fuel is used. The intent is that spilled or leaked petroleum fuel, if allowed to spread to surrounding lands or into bodies of water, could harm vegetation, create a fire hazard, or be detrimental to fish and other aquatic life, if the volume is large enough.

13.6 The Permittee shall construct a dyke around each stationary fuel container or group of stationary fuel containers where any one container has a capacity exceeding 4 000 litres. **DYKE/FUEL CONTAINERS**

Rationale - This condition will apply to all land use operations having fuel storage facilities established for less than three years. The condition specifically requires only dyking, but does not require an impermeable dyke, that is a separate condition. The intent of this condition is to protect vegetation, fish and other aquatic life from being harmed by fuel spills. There are N.W.T. fire ordinances which require this as well.

change Draft to seal Land Use Inspector

13.7 The Permittee shall line the dyke and area enclosed by the dyke with a type of plastic film liner approved by the Land Use Inspector. **LINE DYKE**

Rationale - This condition will be used along with the condition requiring that the dyked area be impermeable. It simply requires that a plastic film liner be installed. A committee chaired by the Environmental Protection service called the Technical Sub-Committee on Petroleum Dyking has evaluated and reported on different type of liners which are acceptable for the north.

13.8 The volume of the dyked area shall be 10% greater than the capacity of the largest fuel container placed therein. **CAPACITY**

Rationale - The condition ensures that the dyke area is large enough to contain all of the fuel that may be spilled from any one container in addition to some room left over for displaced volume by the container.

13.9 The Permittee shall ensure that the dyke and the area enclosed by the dyke shall be impermeable to petroleum products at all times. **IMPERMEABLE DYKE**

Rationale - The intent of this condition is that dykes must be impermeable to spilled petroleum if the petroleum is to be contained effectively. It does not specify how the dykes are to be maintained impermeable. Therefore, this condition would normally be

used with other conditions requiring dyking and requiring lining of the dyke. Other methods of constructing impermeable dykes may be acceptable, depending on the situation. These include grouting with bentonite, cement or some other impervious material. Clay or snow/ice dykes may also be impervious under some situations.

13.10 The Permittee shall:

CHECK FOR LEAKS

- (a) examine all fuel storage containers for leaks a minimum of once every day.
- (b) repair all leaks immediately.

Rationale - The frequency of checks should be designated by the Land Use Inspector on the basis of quantity of fuel, type of container, location, etc.

13.11 The Permittee shall maintain a watchman at the site at all times when fuel is stored on site.

WATCHMAN

Rationale - This would apply to sites accessible to the public where large quantities of fuel are stored. An alternative may be to use locks or fence the storage areas.

13.12 The Permittee shall submit to the S.L.W.B. a contingency plan, for petroleum spills, for use during the construction and operation of the winter road and associated facilities.

CONTINGENCY PLAN

13.16 The Permittee shall seal all container outlets except the outlet currently in use.

SEAL OUTLET

Rationale - The intent of this condition is to prevent leakage of petroleum fuel from valves, nozzles or other orifices on fuel containers from which fuel is not being used, particularly where fuel caches are unattended. This is to prevent leakage of gasses that could be a hazard to wildlife or vegetation. Leaking combustible gasses could be a fire hazard if adjacent to forest and vegetation during fire season. Cylinders and tanks not currently in use should be stored in an upright position.

26 (1) (N) - DEBRIS AND BRUSH DISPOSAL

14.1 The Permittee shall dispose of all debris and brush by:

BRUSH DISPOSAL

- (a) windrowing the debris and brush to the side of the line, and
- (b) making breaks in the windrow of at least seven (7) metres wide at intervals of not more than three hundred and

thirty (30) metres.

14.2 The Permittee shall make the windrow of brush and debris lie flat and compact by:

BRUSH DISPOSAL

- (a) bucking the material into suitable lengths and lopping the branches from the stem, and/or
- (b) crushing with heavy machinery in order to compact the material.

Rationale - This condition will apply where fairly large timber is encountered during the construction of lines. The purpose of the windrow is aesthetics and also it reduces the wild fire hazard. The brush and debris will decay faster if placed close to the ground.

14.3 The Permittee shall ensure that windrows are separated from standing timber.

WINDROWS LOCATION

Rationale - This condition will ensure that the fire hazard is reduced by keeping the dead timber out of the standing timber.

14.13 The Permittee shall spread all cut debris and brush over the areas cleared, prior to completion of the operation or expiry of the Land Use Permit.

SPREAD BRUSH

Rationale - This condition applies to permafrost regions where the trees, brush and debris spread over the cleared areas add insulation and therefore reduce the risk of permafrost melting resulting in subsidence and erosion. This condition would apply to the region of discontinuous permafrost where the balance of insulation to heat is critical. The condition could also apply to cleared slopes to retard erosion.

14.14 The Permittee shall salvage all portions of trees cleared that are larger than thirteen (13) centimetres in diameter.

SALVAGE TIMBER

Rationale - This condition applies where a Permittee is cleaning lines, or other sites in timber agreements or timber permit areas and the woods operator wants all salvageable trees. It could also apply in special situations where a group of individuals require logs or fire wood.

14.15 The Permittee shall neatly pile all salvaged wood at locations specified in writing by a Land Use Inspector.

PILE WOOD

Rationale - In special circumstances the salvaged wood must be protected and available for the users.

26 (1) (O) - RESTORATION OF THE LANDS

Change
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to Soil
Land Use Inspector

15.1 The Permittee shall establish vegetation on all areas stripped of vegetation during this land use operation to a minimum of seventy (70%) per cent ground cover, unless otherwise authorized in writing by the Land Use Inspector.

REVEGETATE
STRIPPED
AREA

Rationale - Revegetation of land use areas is the responsibility of the Permittee. The Land Use Inspector may wish to designate the percentage of ground cover that is required depending on the situation. Also, in the field the Inspector may waive the condition or specify that only certain areas must be re-vegetated where a definite advantage is gained by re-seeding.

15.2 The Permittee shall apply grass seed and fertilizer to areas designated in writing by a Land Use Inspector.

REPLANT
DESIGNATED
AREAS

Rationale - This condition will usually apply to areas where there are unstable soils, such as on hillsides, stream banks, etc., that may slump and erode, and for cosmetic purposes on stripped areas visible to the public along highways, roads, and from viewpoints, campgrounds, etc.

15.3 The Permittee shall commence and foster Revegetation on all parts of the land used, as may be directed by a Land Use Inspector, within one year of the completion of the land use operation.

RE-ESTABLISH
VEGETATION

Rationale - This condition gives the Permittee definite time within which he must commence Revegetation of disturbed areas to prevent erosion or subsidence of land. The Inspector will have to use discretion in directing the Permittee to use domestic grasses because of the northern limit for perennial growth of these plants. Transplanting native species from adjacent areas may achieve the desired results.

15.5 The Permittee shall save the organic soil stripped from the excavation area.

SAVE
ORGANIC SOIL

Rationale - The intent of this condition is to save organic soils stripped from areas cleared for the purpose of excavating gravel, clay, or other material. It may also apply to exploration sites where sumps are constructed.

15.6 The Permittee shall place the organic soil over the disturbed area prior to the expiry date of this Permit.

PLACE
ORGANIC SOIL

Rationale - When the quarry or borrow pit is to be abandoned, the Permittee is to spread the organic soil over the excavated area to aid in promoting vegetation which, in

turn , will help arrest erosion. On dri sites, the organic soil should be placed over the sump cap.

26 (1) (P) - DISPLAY OF PERMITS AND PERMIT NUMBERS

16.1 The Permittee shall display a copy of this Permit in a conspicuous **DISPLAY** place in each campsite established to carry out this land use **PERMIT** operation.

Rationale - This condition supplements section 30 (a) of the Regulations in that it tells the Permittee how and where the permit or copies of it are to be displayed.

26 (1) (Q) - MATTERS NOT INCONSISTENT WITH THE REGULATIONS

17.5 The Permittee shall provide in writing to the Land Use Inspector **IDENTIFY** at least forty-eight (48) hours prior to commencement of this land **AGENT** use operation, the following information:

- (a) person, or persons, in charge of the field operation to whom notices, orders, and reports may be served;
- (b) alternates;
- (c) all the indirect methods for contacting the above person(s).

Rationale - This condition would be used where the applicant has not given the contractors or field supervisors names on the application as he does not know who they will be at the time of application. Sometimes contracts are awarded after the land use permit is issued so that permit conditions can become part of the contract.

17.6 The Permittee shall, while conducting the operation, make **TRAPS** every effort to avoid covering or destroying traps or snares **PROTECTION** that may be found in the area.

17.7 The Permittee shall restore any trails used by trappers or hunters **TRAILS** by slashing any and all trees that may fall across these paths **RESTORATION** or trails and by removing any other obstructions such as snow piles or debris that may be pushed across the trails.

17.8 The Permittee shall not feed wildlife. **NO FEEDING WILDLIFE**

Rationale - The intent of this condition is to protect wildlife. Animals and birds, particularly young animals and birds, could become dependent upon food given to them and when the land use operation ceases, they could have difficulty adapting or reverting

to hunting for their natural food on the land. Also, feeding of some animals, especially bears, can be dangerous because when deprived of food offered, they will be looking for it, breaking in buildings and caches and, on occasion, attacking man. Concentration of certain types of wildlife around exploration camps may affect the local trappers success.

17.9 **PART 1 - In this Permit:**

"sump" means a man-made pit, trench hollow or cavity in the earth's surface used for the purpose of depositing waste material therein.

"drill waste" means all materials or chemicals, solid or liquid, associated with the drilling of bore holes and includes bore hole cuttings.

"dogleg" means clearing a line, trail or right-of-way that is curved sufficiently so that no part of the clearing beyond the curve is visible when approached from either direction.