NORTHWEST TERRITORIES WATER BOARD

MUNICIPAL QUESTIONNAIRE FOR WATER LICENCE APPLICATION

Version 2.0 August 1999

Northwest Territories Water Board

Municipal Questionnaire For Water Licence Application

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NOTE If space is insufficient for any of the responses on this questionnaire, please use the back of the sheet or an attachment.

GENERAL

A								
27/05/04 dd / mm / yy							i.	
int <u>Inuvialui</u> municipality	t Projects Inc. (2003)						
107 Macl	cenzie Road, B	ag Service #	<u> </u>					
Inuvik, N	<u>Γ</u>							
X0E 0T0								
(867)777- telephone nu		(867)77 facsimile		<u> </u>				
s David We				Zoë Wa.				_
Acting Ma	nager			Environn position	nental Sci	entist		_
(867) 777- telephone nu		(867) 777-32 facsimile numb		(867) 777 telephone r			777-3256 le number	
nity Status	☐ City		'illage 🔲	Town	X C	Camp		
	Haml	et 📙 S	Settlement Corp	oration				
ion (according to n	nost recent censi	is results)						
15				Estimated gr	owth rate ov	er next 5 year	% 's	
1	5			5	5 Estimated gr	5 Estimated growth rate or	5 Estimated growth rate over next 5 year	5 % Estimated growth rate over next 5 years

Renewal → Water Licence #

New Application

7.	Has any baseline data been collected for the main water bodies in the area?				
	⊠ No ☐ Yes				
	If yes, please attach all data gathered on the physical, biological and chemical characteristics at each sampling location. Attach a summary of program details indicating sampling locations, description of waste at each location, sampling frequency, and parameters analyzed. Include an outline of Quality Assurance/Quality Control methods being applied to sampling, preservation and analysis within the program.				
8.	Has any baseline data collection and evaluation been undertaken with respect to the various biophysical components of the environment potentially affected by the project (e.g. wildlife, soils, air quality), i.e. In addition to water related information requested in this questionnaire?				
	□ No 🗷 Yes □ Unknown				
	If yes, please attach copies of the reports or cite titles, authors and dates.				
	Prepared by Title Completion Date				
	Royal Military College Environmental Sciences Group. Kittigazuit 1998 Site Assessment/Delineation. 1998.				
	Inuvialuit Environmental Inc. Preliminary Risk Assessment, Kittigazuit, NT. 1999.				
	Royal Military College Environmental Sciences Group. Investigation of DDT Contamination, Kittigazuit, NWT, 1999. 1999.				
	Inuvialuit Environmental & Geotechnical. 2002 Yellow Beetle Army Base 2002 Clean-up. 2002.				
	IEG Environmental. Yellow Beetle Army Camp Hydrocarbon Delineation 2003. 2003.				
	_				
	If yes, briefly describe the proposals.				
9.	Attach detailed maps which show the relative locations of the:				
	a. raw water intake,				
	b. water treatment facilities,				
	c. fuel & chemical storage,				
	d. sewage treatment area and discharge outlets,				
	e. wastewater treatment area and discharge outlets,				
	f. solid waste disposal areas and drainage patterns.				
	g. Hazardous waste disposal area,				
	h. Transportation access routes,i. Existing waterbodies/courses and any changes to these water bodies/courses which have or may occur as a				
	result of water use of waste disposal facilities, locations of environmental monitoring sites.				

Acres 646

- 10. Attach detailed scale plan drawing(s) of the proposed (or present) sewage treatment system. The drawing(s) must be stamped by an engineer registered in NWT and include the following:
 - (a) details of pond size and elevation;
 - (b) precise details of all retaining structures (dimensions, materials of construction, etc.);
 - (c) details of the drainage basin, and existing and proposed drainage modifications;
 - (d) details of all decant, siphon mechanisms etc, including sewage treatment facilities:
 - (e) details regarding direction and route followed by wastewater flow from the area:
 - (f) indications of the distance to nearby major watercourses, and fish bearing waters:
 - (g) location and construction of liners;
 - (h) leachate and groundwater collection systems; and
 - (i) control structures.

Attach detailed scale plan drawings of the proposed (or present) solid waste disposal area. The drawings must include the following:

- (a) precise details of all retaining structures (dimensions, materials of construction, etc.);
- (b) details of the drainage basin, and existing and proposed drainage modifications;
- (c) details regarding direction and route followed by wastewater flow from the area:
- (d) indications of the distance to nearby major watercourses, and fish bearing waters;
- (e) all sources of seepage presently encountered in the vicinity of these areas;
- (f) the volume of each seepage flow (m³/day); and
- (g) the direction of each flow.
- 12. Attach the present or proposed contingency plan which will be used for each portion of the waste control system in the event it fails to operate properly. What are contingencies?

On-site storage at barge camp until problem is mitigated. Storage capability on barge = 6,500 L. A NTCL engineer will accompany the barge camp. This individual will be responsible for daily maintenance checks of the waste water treatment plant. This individual will also be responsible for mitigating any problems that may arise with regard to the waste water treatment plant.

13. Attach the present or proposed spill contingency plan which will be employed in case a spill of hazardous materials occurs. Describe courses of action, mitigative methods and equipment available for use.

See attached spill contingency plan, onsite equipment will include dump truck, loader, and backhoe, along with shovels, and 55 gallon spill recovery barrels.

Note: Individual detailed large scale drawings of all facilities (dam, decant system, ditch, dike, water treatment plant, etc) constructed or proposed <u>must</u> be attached. Specific details with regards to the methods of construction, materials used, etc. are required.

WATER SUPPLY

\sim	, •	~
•	ection	к
v	vvuun	u

1	3.7.1				
1.	VOI	ume	OΤ	water	use

volume of water us	e			
	System of Distribution	Estimated number of people on each system	Estimated average water use (L/c/d)	Total water use (L/d)
	Barge Systems	15	225	3375 (L/d)
				(L/d)
				(L/d)
				(L/d)
			Total:	3375 (L/d)
	3375 Water usage (L/d)	X 1 m+3 1000 L	— = Water Usage:	3.4 (m ³ /d)
	3.4 Water usage (m³/d)	X 365 days Year	= Water Usage:	* will not be used 365 days/year
	iver		nal Tanks (Barge Camp)	
	source and alternative,	ir any.		
Town of Inuvik water Primary Source	er Supply		Alternative Source	
Journe			, momani ve Bource	

Usual break-up and freeze-up months:

3.

	May – June (Mackenzie River)	October – November (Mackenzie River)
	break-up	freeze-up
5.	Please provide short descriptions for the following	g:
	Freshwater intake facility Town of Inu	ıvik Water Supply
	Operating capacity of the pumps used N/A	
	7 . 1	
6.	Type of water storage facility (check where appli	icable)
	☐ Reservoir ☐ Storage Tank	Self contained within hull of barge description
7.	What is the capacity of the water storage facility?	90.5m³
	•	
8.	What is the rate of withdrawal from the source?	3.4(m³/d)
9.	Is water drawn from the source intermittently	y Scontinuously
	If it is drawn intermittently, during what month(s)	is it drawn?
	For what time period is it drawn (days/weeks/mor	nths)?
10.	What is the rate of flow of source (if river) or size	(if lake)? N/A
11.	At the intended rate of water usage, describe the e	effects on the river or lake from which water will be drawn.
	N/A	

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12.	General condition of:
	(a) Water supply facility
	Satisfactory Unsatisfactory
	If unsatisfactory, explain.
	(b) Storage facility
	If unsatisfactory, explain.
	(c) Distribution system
	Satisfactory Unsatisfactory
	If unsatisfactory, explain.
•	
•	
13.	Are there any changes planned in the water supply system? No Yes
	If yes, please attach a copy of the plan, or describe changes.
	,, p

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WATER TREATMENT (POTABLE WATER WILL BE TANKED FROM THE TOWN OF INUVIK)

(POTABLE WATER WILL BE TANKED FROM THE TOWN OF INUVIK Section C - N/A

1.	Indicate the quality of the raw water prior to treatment & distribution.				
	⊠ good ☐ fair ☐ poor				
	Describe: Potable water will be tanked from the town of Inuvik, NT				
2.	Indicate the capacity of the treatment facility. N/A				
3.	Type of water treatment facility				
	☐ Filtration & Chlorination ☐ Chlorination only ☐ None				
	Other N/A description				
	acson priori				
4.	Describe in detail the method of water treatment (i.e. Backwash, flocculation, sedimentation, chemicals used), and provide the results of the most recent bacteriological and chemical analysis. Attach a diagram if possible.				
	N/A				
5.	Have there been any problems or health and environmental concerns with the water treatment facilities?				
	No ☐ Yes				
	If Yes, please describe				
•					
•					
•					

;		
:	·	
<u> </u>	6.	
		✓ No ☐ YesIf yes, please attach a copy of the plan or indicate changes.
		if yes, please attach a copy of the plan of indicate changes.
9.		
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SEWAGE DISPOSAL

Section D

l.	Indicate the level of treatment the sewage will be receiving:
	primary secondary tertiary
	Pre-treatment (if applicable): screening maceration
	Lagoons (if applicable): anaerobic aerobic facultative
2.	Indicate the capacity of the sewage treatment facility 9.4 m/day
3.	Indicate the retention time of the sewage while in the treatment facility. 1 Day
4.	Indicate the estimated rate of discharge of wastewater. 0.061 L/sec
5.	Indicate the location of the discharge point. On map
6.	Will the discharge be: seasonal 🗵 continuous
	If the discharge is seasonal, during what month(s) is it done?
	What is the duration of the discharge (days/weeks/months)?
7.	Comment on the general condition of the:
	(a) Sewage collection system N/A
	(b) Discharge control system N/A
	(c) Dams, diversion dykes, berms
	N/A

پسر	8.	Have there been any problems or health and environmental concerns with the sewage disposal facilities:
\bigcirc		▼ No □ Yes
		If Yes, please describe.
	9.	The average depth of the wastewater lagoon isN/A
t	10.	What is the design freeboard? N/A
•		
	11.	Is there any harvesting of fish or shell fish in the waters where waste is discharged?
		▼ No □ Yes
		If Yes, please indicate species harvested, and estimated amounts
\bigcirc		
T.	12.	Will the municipality be using a honey bag pit?
÷		▼ No □ Yes
† 2		If Yes, describe its:
>		Location
元 :		Drainage
;		Operation & Maintenance
: .		
:	13.	Are there any sources of commercial or industrial liquid waste being discharged or deposited to the municipal system which may affect the quality of the effluent or leachate produced?
		▼ No Yes
:		If Yes. please describe.
<u>.</u>		

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14.	. Have any spills occurred in the past five years?	
	No ☐ Yes	(
	If Yes, please describe	
15.	. Have there been any operating problems with the lagoon?	,
	□ No □ Yes	
	If Yes, please describe. N/A	
•		
16.	. Are any changes planned in the sewage disposal facilities?	
	▼ No Yes	
	If yes, please describe and, if possible, attach a copy of the plan.	

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SOLID WASTE DISPOSAL (ALL SOLID WASTE WILL BE TRANSPORTED TO THE TOWN OF INUVIK LANDFILL)

Sec	ction E
1.	Indicate the capacity of the disposal area. N/A
2.	The average depth of the solid waste disposal site is
3.	Are there any sources of commercial or industrial solid waste being deposited in a stamicipal system which may affect the quality of the effluent or leachate produced?
	▼ No □ Yes
	If Yes, please describe.
4.	Briefly describe how the solid waste will be possible delivered to the disposal area.
	Solid waste will be held in the camp facilities and description to Inuvik where it will be disposed of in the town's
	landfill
5.	Is the solid waste site fenced?
	□ No □ Yes
6.	Will the municipal to a dead animal pit?
	□ No Yes
	If Yes, describe as:
	Location
	The state of the s
•	Co. 19. 5x. & Maintenance

Will the municipality be using a bulky r	metal waste disposal are	a?	
□ No □ Yes			
If Yes, briefly describe its location and o	operation plan:		
	<u> </u>		
Will the municipality be using a hazardo	ous waste disposal area?		
☐ No ☐ Yes			
If Yes, describe its:			
Location			
Structure			
Operation & Maintenance			
Are there any hazardous commercial wa	astes epitalogia e o ud v	vaste disposal system?	
☐ No ☐ Yes	allh		
If Yes, describe and not amounts and ex-	dling/disposal	methods for these wastes.	
	11.		
	\		
If any natural wat county gain acce	ess to the proposed solid	l waste disposal area, what	nethods will be used to
areas from the sure (s) equestion and	ering these areas? Indic attach all pertinent deta	ate the volume of water whi ils of proposed diversions.	ch may enter these
Source	ce	Volume (m³/day)	
			-
	If Yes, briefly describe its location and Will the municipality be using a hazard No Yes If Yes, describe its: Location Structure Operation & Maintenance Are there any hazardous commercial was not a mounts and an areas from the roure (s) question and areas from the roure (s) question and areas from the roure (s) question areas from the roure (s)	If Yes, briefly describe its location and operation plan: Will the municipality be using a hazardous waste disposal area? No Yes If Yes, describe its: Location Structure Operation & Maintenance Are there any hazardous commercial wastes experience and to a mounts and speed and ling/disposal if Yes, describe and not amounts and speed and ling/disposal if any natural waste pour appearance to the proposed solid decrease the appearance of the proposed solid decrease the appea	Will the municipality be using a hazardous waste disposal area? No Yes If Yes, describe its: Location Structure Operation & Maintenance Are there any hazardous commercial wastes encours be and waste disposal system? No Yes If Yes, describe and not amounts and seemed dling/disposal methods for these wastes.

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Francisco.

Par Charles

:	11.	·
	12.	Have there been any problems or health and environmental concerns with the solid waster as all the ities?
•		□ No □ Yes
÷		If Yes, please describe.
j.	·	
:	13.	Are any changes planned in the solid waste disposal system?
		□ No □ Yes
· ·/~\		If Yes, describe and note amounts and special handling/disperance thods for these wastes.
\bigcup	·	
2		
g of the op	10.	If any natural watercourse may gain access apposed solid waste disposal area, what methods will be used to
•		decrease the amount of runoff water areas? Indicate the volume of water which may enter these areas from the source(s) in question. Question the source of t
•		Volume (m³/day)

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*		
7		
	11.	Pleas of school nature of any diversions of watercourses
	•	

2.	Have there bee	en any problei	is of ficatili at	nd environme	inai concein	is with the S	ona waste a	isposai raciiii	ties?
	☐ No	☐ Yes							
	If Yes, please	describe.							
_				,_					
_									
				-					
3 .	Are any chang	es planned in	he solid wast	e disposal sys	stem?				
	□ No	☐ Yes				4			
	If Yes, please	describe and,	f possible, att	ach a copy of	the plan.	7/1			
-			· · · · · ·						
-									
					46				
					V_{ij}	1.			
					KIII .	•			
					11/2				

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Water Quality Monitoring Program

Section G

	Briefly describe the methodology that is presently used to sample the raw water supply.
	N/A
٠	IVA
	Briefly describe any monitoring that is done on wastewater effluent and leachate.
	Samples will be collected following proper procedure, and analyzed for BOD, fecal coliforms, and any other
٠	Samples will be confected following proper procedure, and analyzed for BOD, fecal comorns, and any other
	necessary analysis.
	Recognized laboratory performing analysis of samples.
	EnviroTest Labratories
-	Name
	Kelly Jones
	contact name
	1212 AAIL A NE
-	1313 44th Avenue NE postal address
	Calgary, Alberta T2E 6L5
	postal address
	(403) 201,0007
-	(403) 291-9897 telephone number
_	(403) 291-0298
	facsimile number
	Are any changes planned in the water quality monitoring program?
	No ☐ Yes
	<u> </u>
	If Yes, describe.
-	

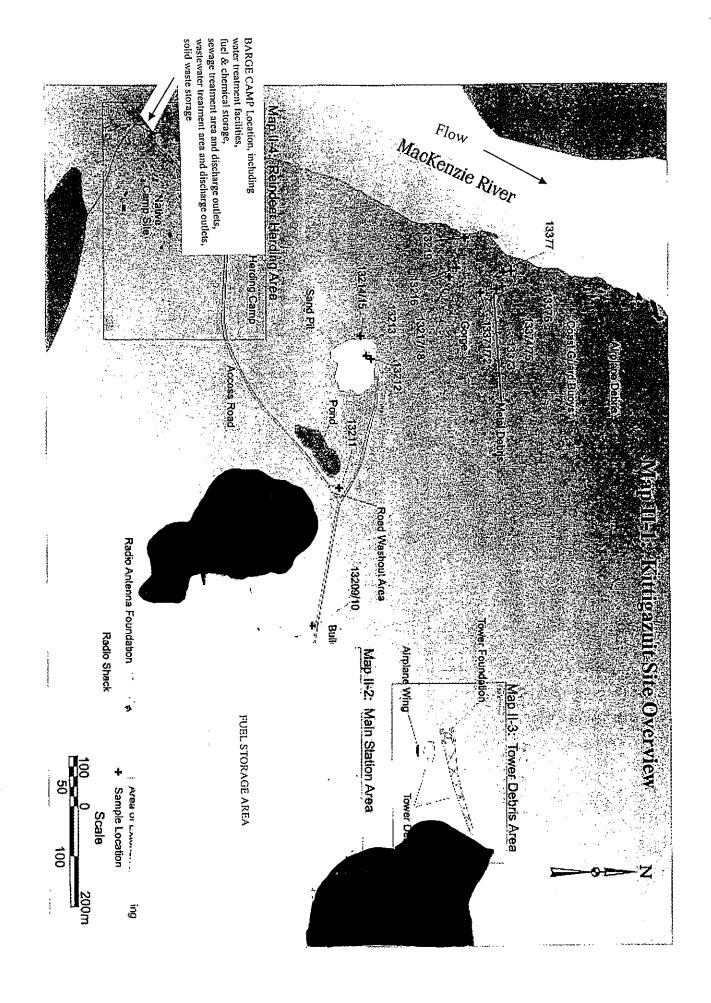
ABANDONMENT AND RESTORATION PROGRAM

Section F

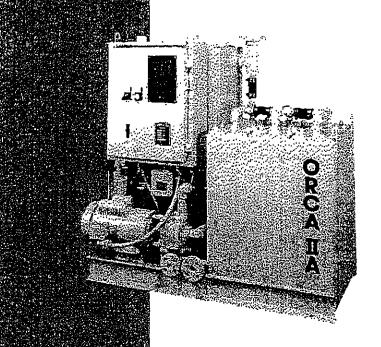
	List and describe the locations of abandoned or restored water treatment facilities.
	N/A
·.	List and describe the locations of abandoned or restored sewage treatment facilities.
	N/A
	List and describe the locations of abandoned or restored solid waste disposal facilities. N/A
	Do you have an abandonment and restoration plan?
	⊠ No ☐ Yes
	If Yes, please attach a copy of the plan.

ENVIRONMENTAL ASSESSMENT AND SCREENING

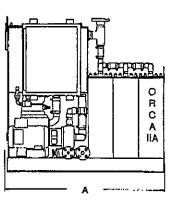
Sec	tion H	
1.	Has this project ever undergone an initial environmental review, including previous owners?	
	☑ No ☐ Yes	
	If Yes, by whom/when	
	Unknown	
2.	Has approval been obtained or sought from the Department of Fisheries and Oceans for using any fish bea waterbodies for containment or disposal of waste?	ring
	▼ No	
3.	Are there any environmental studies ongoing or planned?	
	⊠ No Yes	
	If Yes, list:	
	Prepared by Title Completion Date	







ORCA IIA sewage treatment systems are U.S. Coast Guard certified and IMO approved Type II MSD systems. The ORCA IIA is a physical/chemical system, utilizing 5% chlorine solution for disinfection and is designed specifically for marine applications. The ORCA IIA system is equipped with a solid-state microprocessor control and monitoring system which automatically controls the treatment of sewage, warns of any shutdown, and pinpoints any malfunctions. The microprocessor control activates ORCA IIA on demand only... therefore the system draws power only when treatment is needed.



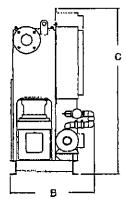


DIAGRAM B

General Dimensions

DIAGRAM B

Model	CAPACITY			WEIGHT				DIMENSIONS					
	No. of	Per Day		Dry		Wet		Length (A)		Depth(B)		Height (C)	
	People :	gals.	liters	lbs	kgs.	lbs.	kgs.	in.	mm	in.	trifti	in.	mm.
ORCA IIA-12	17	360	1,363	550	249	705	320	30.3	768	23.0	584	45.4	1,178
ORCA HA-24	24	720	2,725	660	299	890	404	37.3	946	23.0	584	46.4	1,178
ORCA IIA-36	36	1,080	4,006	775	352	1,075	488	44,3	1,124	23.0	504	46.4	1,170
ORCA IIA-70	70	2,500	9,462	1.450	658	2,100	933	56.0	1,422	29.0	737	50.0	1,270

For low-volume flush or vacuum toilets, the maximum number of people can be doubled.

Transfer Kit for ORCA® IIA-12/24/36/70

There are certain applications which require the installation of a system to transfer sewage to the ORCA. By design, the ORCA IIA-12/24/36 & 70 has a small sewage inlet tank. Sewage can only enter this inlet tank in small quantities. Because of this design, a surge/collection tank may be needed to control the flow of sewage to the ORCA IIA unit. Envirovac manufactures a dedicated transfer kit which consists of:

- one grinder pump (installed in the ships black water holding tank)
- one control panel (interfaced with the ORCA control panel)
- three level probes (installed in the ships black water holding (ank)
 This system automatically transfers the correct amount of sewage to
 the ORCA for processing. Contact Envirovac or your local ORCA
 agent to determine if a transfer system is required with your ORCA.



FUEL / OIL SPILL CONTINGENCY PLAN (LAND)

YELLOW BEETLE CAMP

All fuel on site will have secondary containment that can contain 100% of the volume of the tanks. Volumes of fuel to be stored on site are estimated to be 17,600-L of diesel fuel and 1100-L of gasoline.

Although this plan is identified as the Fuel/Oil Spill Contingency Plan, it is applicable to ALL liquid hydrocarbon spills on land.

TRANSPORTATION

Liquid fuels and oils will be stored in a closed system during transportation. Access route will be the East Channel of the Mackenzie River from Inuvik.

MAINTENANCE AND CONTROL

This contingency plan is project specific and will be reviewed:

- As changes to applicable environmental legislation come into effect
- During any on-site training exercises; and
- After each and every fuel / oil spill incident.

Changes to phone numbers and names of those individuals identified in this contingency plan will be made on an as and when required basis.

NOTIFICATION

Spills will be immediately be reported to the following organizations:

- IEG Environmental,
- Inuvialuit Land Administration
- Indian Northern Affairs Canada
- Northwest Territory Emergency Spill Response Line

INITIAL RESPONSE

- Receive or make the initial assessment;
- Be alert and consider your safety first. If possible, identify the product spilled;
- Assess the hazard to persons in the vicinity of the spill and eliminate all sources of ignition;
- Keep the public away from the area;
- Assess whether the spill can be readily or brought under control;
- Initiate the emergency plan at the assessed level as per section 2.2, classification of emergency's
- Request external assistance if additional resources may be required.
- Report the spill without delay to the Spill Response Team and ensure that government is notified at the same time by the N.W.T. 24 hour Spill Report Line (867) 920-8130; and
- · Establish and maintain contact with appropriate emergency services and external agencies

CONTAINMENT

- If safe to do so, and if possible, try to stop the flow of material. This may be righting a drum or pail, turning the hole to the top, closing a valve or placing a pail under the leak etc. If the source is from equipment that is running, shut off the equipment and attempt to capture further flow.
- Erect barriers to minimize the migration of the spill. This can be done with as little as a shovel and surrounding soil. If the spill is within the fuel storage area, it is contained within the bermed area and the impervious liner.

- Deploy absorbent pads, socks as required
- Notify and request assistance if required from external NWT Emergency Spill Response line.

RECOVERY

The goal of recovering the spilled fuel or other hydrocarbons is to ensure that as much as possible is recovered as soon as possible therefore minimizing the impact on the environment.

- Ensure that the spill has been adequately contained before starting recovery procedures
- Depending on the characteristics of the spill, containment and recovery may be done simultaneously
- If required, set up a decontamination site so that individuals involved with containment/recovery operation don't spread the material beyond its contained limits.
- Assess which recovery method is most suitable/efficient for the circumstances, taking into
 account the amount of fuel to be recovered, where the spill has occurred and the anticipated
 dangers to human life and the natural environment.

RECOVERY METHODS

DIRECT SUCTION TECHNIQUES

The direct suction technique will be utilized as part of the initial response to the spill.

USE OF ABSORBENT MATERIAL

Absorbents are materials that soak up fuel either by absorption or adsorption. They are commonly used for final cleanup and recovery of small amounts of fuel. They are effective in recovering thin layers of fuel. The Yellow Beetle camp will have sorbent pads on location to be used for soaking up the small spills or residue. The saturated sorbent pads will be placed in open drums. When a drum is full, it will be closed up and sent to Alberta for final disposition.

STAND DOWN

Deliver 'stand-down' instructions to all external services when they are no longer required to support the emergency situation.

Update Spill Report.



FUEL / OIL SPILL CONTINGENCY PLAN (WATER)

YELLOW BEETLE CAMP

The East Channel of the Mackenzie River borders the project site on the west. All fuel on site is stored within secondary containment away from the river to minimize the threat of a spill migrating into the river. A minor spill could still occur while refuelling the generator or ATVs. As a precaution, absorbent pads will be "at hand" when refuelling and jerry cans will be stored in the fuel containment area. Refuelling will not take place within 30m of waterbodies.

TRANSPORTATION

Liquid fuels and oils will be stored in a closed system during transportation. Access route will be the East Channel of the Mackenzie River. A spill could potentially occur while transferring the drums from the barge to the containment area. Ensure all bungs and seals are tight prior to moving. Avoid mechanical handling methods that could puncture the drums.

With these spill controls in place, any spill on water is anticipated to be minor in nature and although requires the same degree of attention as a larger spill, the equipment onsite will be appropriate for the risk.

MAINTENANCE AND CONTROL

This contingency plan is project specific and will be reviewed:

- As changes to applicable environmental legislation come into effect
- During any on-site training exercises; and
- After each and every fuel / oil spill incident.

Changes to phone numbers and names of those individuals identified in this contingency plan will be made on an as and when required basis. Barge unloading and water pump intake are also located in a location of quieter water.

NOTIFICATION

Spills will be immediately be reported to the following organizations:

- IEG Environmental,
- Inuvialuit Land Administration
- Indian Northern Affairs Canada
- Northwest Territory Emergency Spill Response Line

INITIAL RESPONSE

- Receive or make the initial assessment;
- Be alert and consider your safety first. If possible, identify the product spilled:
- · Assess the hazard to persons in the vicinity of the spill and eliminate all sources of ignition;
- · Keep the public away from the area;
- Assess whether the spill can be readily or brought under control;
- Initiate the emergency plan at the assessed level as per section 2.2, classification of emergency's
- · Request external assistance if additional resources may be required.
- Report the spill without delay to the Spill Response Team and ensure that government is notified at the same time by the N.W.T. 24 hour Spill Report Line (867) 920-8130; and
- Establish and maintain contact with appropriate emergency services and external agencies

CONTAINMENT

- If safe to do so, and if possible, try to stop the flow of material. This may be righting a drum or pail, turning the hole to the top, etc
- Deploy absorbent pads, socks as required;
- Notify and request assistance if required from external NWT Emergency Spill Response line.

RECOVERY

The goal of recovering the spilled fuel or other hydrocarbons is to ensure that as much as possible is recovered as soon as possible therefore minimizing the impact on the environment. The volume anticipated in any spill on the water is anticipated to be extremely small.

- Ensure that the spill has been adequately contained before starting recovery procedures. If the spill is within current flow and a small volume, recovery is likely not possible.
- Depending on the characteristics of the spill, containment and recovery may be done simultaneously
- If required, set up a decontamination site so that individuals involved with containment/recovery operation don't spread the material beyond its contained limits.
- Assess which recovery method is most suitable/efficient for the circumstances, taking into
 account the amount of fuel to be recovered, where the spill has occurred and the anticipated
 dangers to human life and the natural environment.

RECOVERY METHODS

In all likelihood recovery will be one of the following two recovery methods:

DIRECT SUCTION TECHNIQUES

The direct suction technique will be utilized as part of the initial response to the spill.

USE OF ABSORBENT MATERIAL

Absorbents are materials that soak up fuel either by absorption or adsorption. They are commonly used for final cleanup and recovery of small amounts of fuel. They are effective in recovering thin layers of fuel. The Yellow Beetle camp will have sorbent pads on location to be used for soaking up the small spills or residue. The saturated sorbent pads will be placed in open drums. When a drum is full, it will be closed up and sent to Alberta for final disposition.

STAND DOWN

Deliver 'stand-down' instructions to all external services when they are no longer required to support the emergency situation.

Update Spill Report

RAW SEWAGE SPILL CONTINGENCY PLAN

YELLOW BEETLE CAMP

All sewage (grey and black water) from the camp will be contained and removed from site to Inuvik for treatment.

INITIAL RESPONSE

- Receive or make the initial assessment;
- Be alert and consider your safety first;
- Assess the hazard to persons in the vicinity of the spill;
- · Keep the public away from the area;

CONTAINMENT

- If safe to do so, and if possible, try to stop the flow of material. This may be righting the pail, turning the hole to the top, etc
- Erect barriers to minimize the migration of the spill. This can be done with as little as a shovel and surrounding soil.

RECOVERY

Shovel contaminated soils into pails or open topped drum.