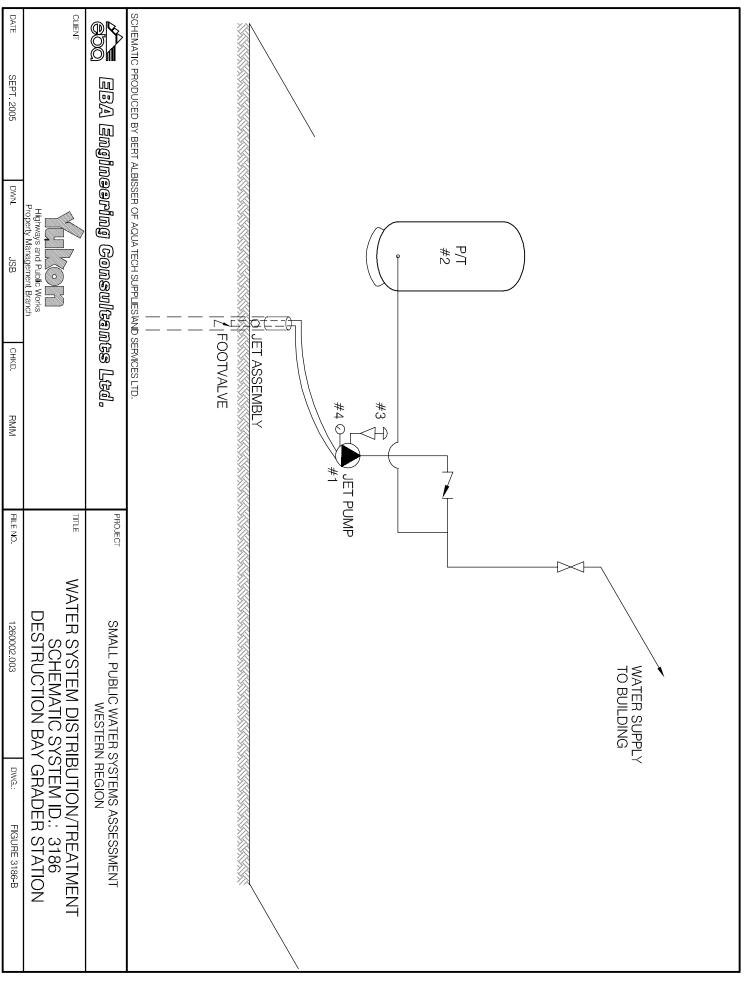


2:\0201Drawings\1260002 Water Assessment YTG\003 -Western Region\destruction\1260002 D Bay Grader Station_3186BSchematic.dwg, 4/4/2006 1:24:18 PM, Adobe PDF, jbuyck



02.1-1260002.003

Jul, .005

Western Region – Destruction Bay Grader Station Building # 3186

DISTRIBUTION & TREATMENT SYSTEM DATA

Item	Item Description	Manufacturer	Model	Part No.	Serial No.	Size
٣-	JET PLYMD	MONARCH	M7C-50		2004	//z #P:
7	PRESSURE TANK	CHALLENGER	PC-144		070494	
ო	Pressure Switch	SOULLE D	Fsc-2			ZHP 4 WP+
4	Plussine Contai	MARS A	Zu fo-lod Ai	(iAi)		/4" NPT
വ				~		
မ						
2						
ω						
თ						
10						



TABLE 3186- 1: SUMMARY OF BACTERIOLOGICAL RESULTS

		Number of	Time Period	Any Positive	Fraction of	Number of Time Period Any Positive Fraction of Any positive	Most Recent	is Most
		Sampling	over which	over which Total Coliform	Positive	E.Coli results?	E.Coli results? Sampling Event Recent Result	Recent Result
		Events	Sampling	Results?	Total	(yes or no)	Available for	Positive?
			was Done	(yes or no)	Coliform		EBA Review	
					Results vs.			
					Total			
					Sampling	·		
					Events			
Building #	Building # Building Name							
	Destruction Bay Grader	0	Sept-04 to	C s	0/0	U.	16 hin 05	2
3186	3186 Station	۵ م	Jun-05	01	0/9	01	CO-1100-01	01

Table	3186-2	Water	Quality	Results		
SOURCE	Building Bay	3186 - Des Grader Sta	struction ition			
Location/ Resident Address		estruction B	ау			
Treatment Disinfection		None None		G	CDWQ Crite	rt a
Source of Water		On-site wel				
Purpose of Sampling	Base Line	Base Line	Additional Analytical			
Sample Location			28-Jul-05	Lower		
Date Sampled Physical Tests (ALS)		Jun-15-05		AO	Upper MLAC	AO
Colour (CV) Conductivity (uS.cm)	>60	6.0 749	5.8			15
Fotal Dimolved Selids	452	492		10.200		500
Harducsa Cat'03 pH	8,20	<u>350</u> 8.36	-	6.5	жог, > 500 un	8.5
Turbidity (NTU)	21.1	12.7	23.0		1	5
S UV Transitiance			82.8			
Disselved Anions (ALS)	291	247				
Alkafinity-Total CaCO3 Chloride Cl	0.9	0,79				250
Fluoride F Siliente SiO4	0.25	0.276	15.7		1,5	
Sulphate SO4 Nitrate Nitrogen N	127 0.07	181 <0,10	<u>.</u>		10	500
Nitrite Nitropen N Anamonia Nitropen N	<0.005	0.31	:_		3.2	
Total Phosphate PCH			0.109			
Total Metals (4L5)	0,008	0.023	0.104			
Aluminum T-Al Antimony T-Sh	<0.0002	<0,00050			0.006	
Anenic T-As Herium T-Ba	0.306	0.0184	0.307		0_025	
Horon T-B Cadmium T-Cd	1.14	0.99	1.22		5 0,005	
Calcium T-Ca Chromium T-Cr	<0.001	47.5	56.6 <0.0020		0.05	
Copper T-Cu	0,0003	0,0192	0.0069		1	0.2
lenn T-Fe Lend T-Ph	2.94 0.0003	1.34 <0.0010	2,20 <0.0010		0.01	0.3
Megnesium 7-Mg Manganese T-Mn	9.165	56.2 0.137	66.1 0.238			0.05
Moreury T-Hg Potennium T-K		<0,00020 4.02	<0.00020 4.49		0.001	
Selenium T-Se Sodium T-Na	20.9	<0.0010 22.2	<0.0010 24.7		0.01	200
Unations	<0.0005	<0.00010	<0.00010		0.02	
Vansdiam T-V Zite: T-Za	0.019	<0.050	0.033			5
Dissolved Metals (.41.5)						
Aluminum D-Al Antimony D-Sh			<0.010		0.1	
Annuic D-As Banium D-Ba			0.0217		0.025	
Boroa D-B Cadmium D-Cd			1.22		5	
Calcium D-Ca		1	54.2		_	
Chromium D-Cr Copper D-Cu		<u> </u>	<0.0020 0.0022		0.05	1.0
from D-Fe Lond D-Pb			0.033 <0.0010		0.01	0.3
Magnenium D-Mg Manganese D-Mu			64.9		—	0.05
Mercury D-Hg Potusing D-K	1		<0.00020 4.67		0.001	
Seleninga D-Se		1	<0.0010		0.01	200
Sodium D-Na Uranium D-U			24.5 <0.00010		0.02	200
Vanadium D-V Zinc D-Za			<0.030 <0.050			5.0
Organic Parameters	1					
Faurie and Lignin Total Organic Carbon C			0.46			
Polycyclic Aromatic Hydrocarbons					1	
Avenaphthene			<0.000050			
Accurations			<0.000050 <0.000050			
Apthraceae Henri a)anthraceae			<0.000050 <0.000050			
Henro(apvice Henro(b)fluorinthese			<0.000010 <0.000050		0.00001	
Henzo(k)fluoranibene: Henzo(k)fluoranibene:		1	<0.000050			
Chrysenie	—		<0.000050			
Dibenzía, h)anthracene Fluoranthene			<0.000050 <0.000050			
Harrene Indeno(1,2,3-e,d)pyrene	1		<0.000050		1	
Naphthalene Phenanthrene			<0.000050		<u> </u>	
Рутепе			<0.000050 <0.000050			
Quinoline	1-		~0.000030			
Extractable Hydrocarbons EPH10-19			<0.30			
12H19-J2 LEPH			<1.0 <0.30			
102918			<1.0			
Field Chemistry (EBA)			0.10	6.5	1	8.5
pH FDS (ppm)	1-		8.39	C.0	1	500
EC (uSiem) Fearpentize (*C)			748 9.3			
Free Available Chlorine		1		1		

I'me Avelinks ("Biorise Notas: A Guldainos indicated for hardness are not CDWQG, rather they are generat aneihotic guldaines - eccessionces are indicated in yalkow holyhighting. <u>Rafes</u> and understein indicates exceedence of CDWQG Aventosic Objective (AC) Bold with Yelicow holyhighting indicates enceedence of CDWQG Aventosic Objective (AC) <u>Rold Undertines with Yelicow</u> holyhighting of dicates enceedence of CDWQG Aventosic Objective Raviult are osgeneed an miligram per titre except for planet Colour (CO) Conductively (umhoaten), Temperature ("C) and Turbistiy (NTU) < t Less than the objection limit indicated. AO = Avesthetic Objective MAC = Maximum Acceptable Concentration (Health Based)



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SMALL PUBLIC WATER SYSTEM ASSESSMENT

PART A: EBA Site Inspection

Inspector: Ryan Martin Luke Lebel

Date	July	28,	2005
------	------	-----	------

WELL ID #	Owner	Location Description
3186	YTE	Destruction Bay Grader Station

1. Well Location and Potential Contaminant Sources

- a. General location of well: (Community, Subdivision, etc.) Destruction Bay
- b. Specific location: (Road or street, Building number, name of owner and/, legal description,

c. G	PS location: N6792596 E617886 eh 802m ± 8m
d	Is there electric power? \square Yes \square No
e	Is there outside water access? \Box Yes \boxtimes No
f.	Does the well system have:
_	15 or more service connections to a piped distribution system? If so how many Destruction Bay Grader Station 5 or more delivery sites on a trucked distribution system? If so how many
g.	Nearest building, specify Located Inside grader station
h.	Distance from well to building
і. j.	If there is an effluent disposal field, is its location known? Yes No Distance from well to nearest point of known field:
k.	Well location relative to field: upslope downslope lateral

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1. Is there any part of a sewage disposal system(s)or other potential sources of pollution that may pose a

	ach prit @ 13 m, septre tank @ 23m - efficient field unknown, rock prit @ 17m.
m.	Is the well located within 300 m from a sewage lagoon or pit? \Box Yes \bigtriangledown No \mathcal{W}_{k_c}
n.	Is the well located within 120 m from a solid waste site or dump, cemetery? 🗌 Yes 🔯 No and study
0.	Is the infrastructure protecting the wellhead, pumphouse, storage tank and/or water treatment plant designed and secured to prevent:
	Unauthorized access by humans? I Yes I No Entrance by animals? I Yes I No Access possible to anyone with access to Access possible
p.	Is well site subject to flooding? Yes No
q.	Is the well site well drained? 🛛 🖾 Yes 🗌 No
r.	Is there a buried fuel tank on the property? X Yes INO
	If yes, is it in use abandoned
	Is the location known? \Box Yes \blacksquare No Distance from the well to known buried tank $\frac{I+is}{floor}$ somewhere under the grader solution $\frac{1+is}{floor}$
s.	Are there any other known contaminant sources on the property?
	Yes Do Describe
	If yes, specify the source: dump sewage lagoon cemetery other
	Potential Source 1: <u>Used antifreeze drup</u> Distance from well to Potential Source 1: $\sim 7m$
	Potential Source 2: Waste oil AST; Distance from well to Potential Source 2: ~9m
	Potential Source 3: $\frac{T_{ar} + L_{n}k}{5}$; Distance from well to Potential Source 3: $\frac{-45m}{5}$
	Potential Source 4: The or creosofe tark Distance from well to Potential Source 4: ~55m Salt and cold mix storage 760m; fuel pumping area @~36m
t.	Are there other wells on this property? \square Yes \square No
	How many? in use abandoned require proper sealing ~0.65 m from existing well

<u>2. v</u>	Vell and Wellhead information:
a.	When was well installed? Year Unknown Month
b.	Type: 🕅 drilled 🛛 dug 🗍 sand point 🗍 other
c.	Is there a drillers log for the well: 🛛 Yes 🖄 No
d.	Is there a surface seal to 6 m 🛛 Yes 🕅 No 🗆 unknown 🕅 unlikely
e.	Surface casing: Yes Diameter No
f.	Well casing: Diameter <u>10 cm</u> Material: Steel D plastic Concrete
g.	Depth of well: <u>unknown</u> measured (if possible) reported from log
h.	Static water level below ground: Unknown
	\Box measured (if possible) \Box reported \Box from log \Box flowing
i.	(If granular) Is the well completed: \Box open end casing \Box with a well screen
	with slotted pipe unknown other
j.	(If bedrock) Does the well have a liner? $\Box_{yes} \Box$ No $\Box_{steel} \Box$ plastic
k .	If there is a well screen: length unknown slot size(s) Location of screen: from to from log reported
1.	Is there a sump below the screen? \Box Yes \Box No $v_n k_{now h}$
m.	Is the well head: I in pumphouse I in pit I pitless adaptor I in a building
	in a wooden enclosure other, describe
n.	If the well head is located in a wooden enclosure,

	i. Is the well head below grade? describe in detail no, 0.15m above grade
	ii. Are there signs of ponding on the enclosure(e.g. water stains, etc.)? \Box Yes \bigotimes No
	iii. Is the wellhead enclosed by fiberglass insulations? \Box Yes \Join No
	iv. Any evidence of rodents? Specify Access Dossible
	v. Does the well casing have a proper seal cap? \Join Yes \Box No
	If no, describe condition solid plate double holed
3. V	Vater Supplying This Well:
<u>a.</u>	By definition is the water from a surface water source or under the direct influence of surface water?
	\bigtriangledown Yes \Box No \Box farther investigation required.
	If yes is there treatment or disinfection Yes No
	Explain (filtration, disinfection etc)
<u>4.</u> A	Aquifer Supplying This Well:
a.	The aquifer is: \Box bedrock \bigotimes granular sediment \Box unknown $1 \ge k \in k$
b.	Does water level and/or well capacity show seasonal fluctuation? Use No
<u>5.</u>	Pump Installation:
a.	Is the well equipped with a pump? \square yes \square No
a. b.	
	Type of pump: Thand Celectric submersible ist

d.	Date installed: By:
e.	For submersible pump, depth of setting below surface
f.	Drop pipe for submersible pump: steel plastic
g.	Pump delivers water to: Pressure tank elevated tank other
ı.	Are there automatic pump controls: 🖄 Yes 🛛 No
i.	Is there provision for taking water samples before water reaches storage? Yes No
j.	Is there a water meter on the system? \Box Yes \widecheck No
k.	Is the pump and piping protected from freezing? \bigvee Yes \Box No
	If yes, describe: located inside heated building
1.	Comments on pump installation:
6.	Conclusions
	Comments on overall installation:
	There is a sign in vashroom stating "Contaminated water Do Not Consum It appears that bottled water is provided. There is an abandoned w with a studie water level of 3.07m below grade.
	It appears that bottled water is provided. There is an abandoned 4
	with a static water level of 3.07 m below grade.
	TOS 376 DOM
	EC 748 MS
	04 8.39
	pH 8.39 Temp 9.3°C
b.F	Recommendations:

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	RT B:EBA Site Inspection
Ins	spector: <u>BEET ALBISSER</u> Date July 28/05
	WELL ID # Owner Location Description
	3186 YTG DESTRUCTION BAY GRADER STATION
	,
6.	Water Treatment
a.	Is well water treated? Type of treatment:
	□ chlorination □ iron and or manganese removal □ other
b.	Is water entering plumbing or piped distribution system treated with chlorine or another treatment that is as effective as chlorine used to achieve disinfection throughout the system?
	□ Yes □ No If so how
c.	If treated with chlorine, is the free residual chlorine concentration less than 0.2 mg/L
	Yes Noreading.
	Tested at(location)
d.	Is testing for chlorine residual concentration done at the tap (eg. Kitchen faucet) or from representative
	points in a piped distribution system, including a point from tap at the end line
	□ Yes □ No If yes how often?
e.	If the drinking water is being transported by water delivery truck does it have a minimum chlorine free
	residual of 0.4 mg/L at the time of fill. \Box Yes \Box No
7.	Water Quality (observations):
a.	Does the water stain plumbing? \square yes \square No \square slight \square severe
	Type of stain: D brown d red D black
b.	Does the water contain sediment? \Box Yes \Box No \Box occasional \Box constant
c.	Is there an unpleasant odour? \Box Yes \Box No \Box H ₂ S \Box Other
	6/11

	BA Engineering Consultants Ltd.
Crea	ating and Delivering Better Solutions
d.	Is there an unpleasant taste? I Yes INo I brackish I Other
e.	Is there a history of bad bacterial analyses? $?$ \Box Yes \Box No
f.	Is there a chemical analysis? $\begin{array}{c} 2 \\ \end{array}$ \Box Yes \Box No \Box adequate \Box incomplete
g.	Is there analysis of trihalomethanes (THMs) where the water source is a surface water supply or a well under the direct influence of surface water? \Box Yes \Box No
h. rang	Is the drinking water tested daily with an accurate reading chlorine test kit capable of reading in the ge 0 to 3.5 mg/L of free chlorine residual in increments of 0.1 mg/L ? \Box Yes \Box No \Box unknown
i.	If yes is the test performed in accordance with manufactures directions? \Box Yes \Box No \Box unknown
j.	Is a record of the date, time, name of person performing the test and results of the drinking water sample kept? Yes No
	TANK AND PIPING DETAILS
	Tank Room Is there a water tank? Yes No Details: Pressure TANK
	Where is it located? Comments: <u>Stop KNEK</u> NODTHWEST GANER
	Is the room in which the water tank is located heated to maintain an optimum temperature of 4°C for stored water? YES NO Comments:
	Are there windows in the add-on that may allow direct sunlight onto the water holding tank? YES
	NO
	Comments:
	Are there other heat sources near the tank? YES NO Comments:
	Is there waterproof flooring with a sealed base to contain spills? YES NO Comments:

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Overall Tank

What are the tank size and dimensions?

What material is the tank constructed of?

Is tank and associated piping constructed of safe materials (i.e. CSA approved and material that does not affect the taste of the water)? YES NO

Comments:

Tank Inlet, Outlet and Lid

Is there adequate access on the tank for cleaning (i.e. min 15" access lid)? YES NO

Does the lid have a tight seal and is it watertight when closed? YES NO

Does the tank have an overflow or high level whistle? YES NO

Is the water tank drain accessible? YES NO

WATER TANK AND WATER QUALITY CONDITION

Are there signs of staining or biofouling? YES NO Comments:

Is there any sediment or scum in bottom of tank? YES NO Comments: _____

Is there any odour associated with the water or tank? YES NO

Have there been any bacteriological analyses conducted previously? YES NO

Does the tank appear that it has been cleaned recently? YES NO

Are the tanks easily assessed for the purpose of cleaning and disinfection? YES NO

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- 8. Conclusions
- a. Comments on overall installation:

THIS IS AN ACCEPTABLE, BUT OLD INSTALLATION b. Recommendations: TRIL A NEW WELL. THIS WELL IS NOT & GOOD CANDITATE FOR IMPROVEMENT



Spill Report Information

Spill #	0334
Jurisdiction	Yukon
Community	Destruction Bay
Address	
Highway	· · · · · · · · · · · · · · · · · · ·
Milepost	
Feature	Destruction Bay
Location and Cause	vent leak
Latitude	61.25274646
Longitude	-138.80244846
Incident Date	9/26/2003 12:00:00 PM
Lead Agency	Yukon Government - Environmental Programs
Other Agency	
Company(s)	Yukon Electrical Company Ltd
Amount	500
Units	Litres
Quantity	Estimate
Release Description	Spilled
Additional Quanitit	
Concentration	
Concentration Unit	
Phase	Liquid
Major Contaminant	Diesel
2nd Contaminant	
3rd Contaminant	
4th Contaminant	
Outcome	cleaned-up but soil had not been removed at time of report - no further information on file



Spill Report Information

Spill #	9303
Jurisdiction	Yukon
Community	Destruction Bay
Address	
Highway	
Milepost	
Feature	Destruction Bay
Location and Cause	untreated sewage spilled due to mechanical failure - rubber coupling separated on the force main pipe elbow
Latitude	61.252546
Longitude	-138.800598
Incident Date	2/5/1993 2:30:00 PM
Lead Agency	Department of Indian Affairs and Northern Development
Other Agency	Yukon Government - Transportation
Company(s)	Community of Destruction Bay
Amount	37,800
Amount Units	Litres
Units	Litres
Units Quantity	Litres Estimate Spilled
Units Quantity Release Description	Litres Estimate Spilled
Units Quantity Release Description Additional Quanitit	Litres Estimate Spilled
Units Quantity Release Description Additional Quanitit Concentration	Litres Estimate Spilled
Units Quantity Release Description Additional Quanitit Concentration Concentration Unit	Litres Estimate Spilled Liquid Liquid
Units Quantity Release Description Additional Quanitit Concentration Concentration Unit Phase	Litres Estimate Spilled Liquid Liquid
Units Quantity Release Description Additional Quanitit Concentration Concentration Unit Phase Major Contaminant	Litres Estimate Spilled Liquid Liquid
Units Quantity Release Description Additional Quanitit Concentration Concentration Unit Phase Major Contaminant 2nd Contaminant	Litres Estimate Spilled Liquid Liquid



Spill Report Information

Enforcement and Emergencies Section 91782 Alaska Highway, Whitehorse, YT Y1A 5B7 PH: 867.667.3400 FAX: 867.667.7962

Spill #	9304	
Jurisdiction	Yukon]
Community	Destruction Bay	
Address		
Highway		
Milepost		
Feature	Destruction Bay	· .
Location and Cause	untreated sewage spilled due to separation again	mechanical failure - coupling/pipe
Latitude	61.252546]
Longitude	-138.800598]
Incident Date	3/29/1993]
Lead Agency	Department of Indian Affairs an	d Northern Development
Other Agency	Yukon Government - Transport	ation
Company(s)	Community of Destruction Bay	
Amount	11340	
Units	Litres] .
Quantity	Estimate	
Release Description	Spilled]
Additional Quanitit] .
Concentration]
Concentration Unit] .
Phase	Liquid	
Major Contaminan	t Raw Sewage	
2nd Contaminant		
3rd Contaminant		·
4th Contaminant]
Outcome		e collected in same pond - repairs to ed - spill being cleaned up with vacuum

Page 3 of 7



Spill Report Information

Enforcement and Emergencies Section 91782 Alaska Highway, Whitehorse, YT Y1A 5B7 PH: 867.667.3400 FAX: 867.667.7962

Spill #	9515	
Jurisdiction	Yukon	
Community	Destruction Bay] .
Address		
Highway		
Milepost] · · · · ·
Feature	Destruction Bay	
Location and Cause	pipeline sleeve broke 10m from breakage	final discharge - unknown cause for
Latitude	61.2480555555556].
Longitude	-138.793888888889	
Incident Date	5/12/1995]
Lead Agency	Department of Indian Affairs an	d Northern Development
Other Agency		······
Company(s)	YTG	
Amount	180	
Units	Litres	
Quantity	Estimate]
Release Description	Spilled	
Additional Quanitit		
Concentration]
Concentration Unit]
Phase	Liquid	
Major Contaminan	Raw Sewage	
2nd Contaminant	·	
3rd Contaminant	·	
4th Contaminant		
Outcome		end of April 1995 - not reported to spill vements to system to be made byt YTG

Wednesday, August 03, 2005

Page 4 of 7



Spill Report Information

Spill #	9634
Jurisdiction	Yukon
Community	Destruction Bay
Address	
Highway	
Milepost	
Feature	Destruction Bay
Location and Cause	break in main sewer line
Latitude	61.2480555555556
Longitude	-138.7938888888889
Incident Date	6/12/1996
Lead Agency	Department of Indian Affairs and Northern Development
Other Agency	
Company(s)	YTG
Amount	
Units	
Quantity	Unknown
Release Description	Spilled
Additional Quanitit	
Concentration	
Concentration Unit	
Phase	Liquid
Major Contaminan	Raw Sewage
2nd Contaminant	
3rd Contaminant	
4th Contaminant	
Outcome	pump activated 3x per day - approx 500 ga each time but sewage doesn't reach lagoon - DIAND inspected - to be repaired - no risk to environment



Spill Report Information

Enforcement and Emergencies Section 91782 Alaska Highway, Whitehorse, YT Y1A 5B7 PH: 867.667.3400 FAX: 867.667.7962

Spill #	9649
Jurisdiction	Yukon
Community	Destruction Bay
Address	
Highway	
Milepost	
Feature	Destruction Bay
Location and Cause	leaking sewer line
Latitude	61.2480555555556
Longitude	-138.793888888889
Incident Date	8/7/1996
Lead Agency	Department of Indian Affairs and Northern Development
Other Agency	
Company(s)	YTG
Amount	50
Units	Gallons (US, liquid)
Quantity	Estimate
Release Description	Leaked
Additional Quanitit	rate of spill reported at 1L/s
Concentration	
Concentration Unit	
Concentration Unit Phase	Liquid
	Liquid
Phase	Liquid
Phase Major Contaminan	Liquid
Phase Major Contaminan 2nd Contaminant	Liquid

Page 6 of 7

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Environment Environnement Canada Canada

Spill Report Information

Spill #	9672		
Jurisdiction	Yukon]	· .
Community	Destruction Bay]	
Address			
Highway			
Milepost	· .	}	
Feature	Destruction Bay		
Location and Cause	leaking utilidor - similar to Spill I	No. 9649	
Latitude	61.2480555555556]	
Longitude	-138.793888888889]	
Incident Date	9/24/1996 2:30:00 PM]	: .
Lead Agency	Department of Indian Affairs an	d Northern Developn	nent
Other Agency			
Company(s)	YTG		
Amount			
Units	·		•
Quantity	Unknown]	
Release Description	Leaked]	· .
Additional Quanitit] .	
Concentration	·] .	
Concentration Unit]	
Phase	Liquid]	
Major Contaminan	t Raw Sewage		
2nd Contaminant			
3rd Contaminant			
4th Contaminant]	
Outcome	eduction truck needed to pump information on file	o up before it enters	creek - no further





