

SEWAGE LAGOON DISCHARGE ASSESSMENT TUKTOYAKTUK, NORTHWEST TERRITORIES

Prepared for:

Iqbal Arshad
Capital Planning Officer
Department of Municipal and Community Affairs
Government of Northwest Territories
Box 1320
Yellowknife NT
X1A 2L9

Prepared by:



February, 2006
IEG Project: 20213

Calgary, AB



Yellowknife, NT



Fort McMurray, AB



Inuvik, NT

**SEWAGE LAGOON DISCHARGE ASSESSMENT
TUKTOYAKTUK, NORTHWEST TERRITORIES**

Submitted to:

Iqbal Arshad
Capital Planning Officer
Department of Municipal and Community Affairs
Government of Northwest Territories
Box 1320
Yellowknife NT
X1A 2L9

DISTRIBUTION:

1 Copy	Iqbal Arshad Department of Municipal and Community Affairs
1 Copy	IEG Environmental Inuvik, NT
1 Copy	IEG Environmental Calgary, AB

TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	Scope of Work	1
2.0	SEWAGE LAGOON OPERATIONS	1
3.0	DISCHARGE ASSESSMENT (2004)	2
3.1	Field Summary.....	2
3.1.1	Site visit October 4–7, 2004.....	2
3.1.2	Site visit October 27, 2004.....	2
3.2	Methodology	2
3.2.1	Water and Sediment Samples	2
3.2.2	Plume delineation	3
3.3	Sample Results	3
3.3.1	Water and Sediment Chemistry	3
3.3.2	Plume delineation	7
3.3.3	Mixing Zone	8
4.0	ECOLOGICAL ASSESSMENT (2005)	9
4.1	Methodology	9
4.1.1	Fish Collection.....	9
4.1.2	Benthic Community Survey.....	11
4.1.3	Supporting Sampling and Analysis	11
4.2	Results	12
4.2.1	Fish Community Structure.....	12
4.2.2	Tissue Analysis	12
4.2.3	Benthic Community.....	13
4.2.4	Supporting Analyses	14
5.0	CONCLUSIONS & RECOMMENDATIONS	15

1.0 INTRODUCTION

IEG Environmental (IEG) was contracted by the Government of the Northwest Territories (GNWT) Department of Municipal and Community Affairs (MACA) to undertake a sewage lagoon discharge assessment in Tuktoyaktuk, NT. The Hamlet of Tuktoyaktuk's water licence requires they investigate the potential impacts of the seasonal sewage discharge from the municipal sewage lagoon on the receiving environment, Kugmallit Bay. The assessment includes:

- Water and sediment study before discharge;
- Water study during discharge;
- Water and sediment study after discharge;
- Study fish and benthic organisms at the point of discharge and in a suitable reference area in Tuktoyaktuk Harbour; and
- Analysis and interpretation of the results.

1.1 Scope of Work

The scope of work includes the following major tasks:

- Obtain and review all related documentation, including the Water License, annual reports, construction drawings, operating and maintenance manuals, guidelines etc.
- Travel to Tuktoyaktuk to complete the sampling program:
 - Sample and analyze the water of Kugmallit Bay at the point of discharge, before, during and after decanting the sewage lagoon;
 - Sample and analyze the sediments before and after decanting the sewage lagoon; and
 - Sample and analyze the fish and benthic organisms (including shellfish).
- Assess the impacts of sewage discharge on fish and shellfish harvesting activities; and
- Generate a report summarizing and interpreting the results.

2.0 SEWAGE LAGOON OPERATIONS

All municipal wastewater generated in the Hamlet of Tuktoyaktuk is collected by vacuum truck and transported to the municipal sewage lagoon located approximately 5.0 km from the community. The lagoon is a natural lake, approximately 5.9 ha in area. It has been modified with a perimeter berm at the south edge for retention purposes. The lagoon is discharged to an adjacent ocean inlet once a year in the fall. A temporary pump is set up on top of the berm to accomplish the discharge.

3.0 DISCHARGE ASSESSMENT (2004)

3.1 Field Summary

The project was awarded at the end of September 2004. It was important to travel to Tuktoyaktuk as soon as possible after the award date so the Hamlet could discharge the lagoon before it became too cold to do so. Therefore, there was insufficient time to apply for and receive the permits required to complete the fisheries study. The fisheries study was performed during the 2005 lagoon discharge period (refer to Section 4.0).

3.1.1 *Site visit October 4-7, 2004*

The first site visit took place October 4 – 7, 2004. During this site visit:

- Water and sediment samples were collected before discharge;
- Water samples were collected during discharge;
- Background samples were collected; and
- The plume mixing zone was measured.

To complete the field work, IEG field technicians traveled from Yellowknife and Inuvik.

Due to weather delays, the Hamlet could not discharge the lagoon continuously and it was evident that the lagoon would not finish pumping while IEG staff were on site. It was decided with the project officer that IEG would return to Tuktoyaktuk after the lagoon had discharged and after the ice was frozen thick enough for IEG to safely travel onto the ice to collect the after discharge samples.

IEG staff did not meet with the Tuktoyaktuk Hunters and Trappers Committee (HTC) during the 2004 site visits because the permitting work for the fisheries portion of the project was not completed. IEG did meet with the Hamlet to inform the Hamlet about the project.

3.1.2 *Site visit October 27, 2004*

IEG staff traveled from Inuvik to Tuktoyaktuk October 27, 2004 to complete the after-discharge water and sediment sampling. During this site visit a hole had to be augured through the ice to collect the water and sediment samples.

3.2 Methodology

The following methodology was used to collect samples for the project.

3.2.1 *Water and Sediment Samples*

Water and sediment samples were collected at three different locations:

- Site 1, downstream of Site 2;
- Site 2, immediately downstream of the effluent discharge; and
- Background, in Tuktoyaktuk Harbour.

All three site locations are indicated on Figure 1 in Appendix A. Site 1, being further downstream from the point of discharge, was expected to be characterized by more complete mixing of the discharged effluent, which would initially be buoyant due to freshwater content.

During the October 4 – 7 site visit, conditions dictated that two sample points (Site 1 and Site 2) be established for the water and sediment sampling,. The bay was frozen except for an opening of approximately 10,000m².

Water samples collected before and during discharge at Sites 1 and 2 were collected from the side of a boat using a bailer. Water samples collected after discharge were collected using a bailer through a hole that had been augured through the ice. The bailer was rinsed a minimum of three times before sample collection. Sample collection followed *Standard Methods for the Examination of Water and Wastewater* (20th edition, 1998). Once the samples were collected they were preserved overnight at 4°C and then transported to Taiga Environmental Laboratories in Yellowknife, NT.

The before-discharge sediment samples were collected using a sediment corer from the side of a boat. The after-discharge sediment samples were collected with the sediment corer through a hole augured in the ice. The sediment cores were packaged and sent to EnviroTest Laboratories in Edmonton, AB.

Analytical results are presented and discussed in Section 3.3.

3.2.2 Plume delineation

As outlined in the Terms of Reference for the project, salinity was to be used to delineate the plume migration through Kugmallit Bay. To complete the delineation of the effluent plume IEG decided to temporarily install portable salinity meters, with data loggers, in Kugmallit Bay.

The eight salinity meters were anchored in place and set to automatically log a reading every 0.5 hour. Please see a photo of meter installation setup in Appendix B.

The spatial distribution of the eight probes was limited by the available area of open water, the locations of the meter stations are identified in Figure 1, Appendix A. The average depth of the water at all eight stations was 0.75 m and the average depth of the probes was 0.6 m below the surface.

The meters logged data from the late afternoon of October 5 to the morning of October 7th, 2004. Pumping began at 18:30 October 5th and continued discontinuously until after the IEG team left the site on October 7th, 2004.

3.3 Sample Results

These results are presented in summary form and discussed below.

3.3.1 Water and Sediment Chemistry

The results of the water sample analysis showed there was little change between the two test sites and the control site before, during and after discharge.

Table 1 summarizes the water sample results below, highlights of the results are:

- Fecal Coliforms of 1 CFU/100 ml and Biological Oxygen Demand of 2 mg/L were unchanged for all sites during all phases of discharge.
- The maximum pH deviation of 0.17 occurred at Site 1 during the discharge phase and the greatest difference from the control site was 0.10 which occurred at Site 1 after the discharge. This variation is pH is within the expected natural range of pH fluctuations.
- Total suspended solids (TSS) were measured at 4 mg/L to 102 mg/L at Site 1 before and after the discharge. TSS at Site 2 ranged between 34 mg/L to 24 mg/L before and after the discharge respectively. The TSS of 34 mg/L before discharge at Site 2 may be attributed to the propeller of the boat stirring up the sediment. TSS levels of 34 to 24 mg/L are low and expected to fall within the range of natural variation. TSS of 104 mg/L would be considered high, however it is unclear if the value is a result of the sewage lagoon discharge because Site 1 appeared to be outside of the influence of the discharge which will be further discussed in the following section.
- Total Phosphorus levels increased from 0.05 mg/L to 0.09 mg/L to 0.11 mg/L at Site 1 throughout the 3 phases respectively. Site 2 showed smaller deviations of 0.06 mg/L, 0.09 mg/L and 0.09 mg/L respectively. The level of Total Phosphorus at the control site was 0.06 mg/L. All Phosphorus levels are considered high for natural system.
- All parameters were compared to the Canadian Council of Ministers of the Environment (CCME) *Canada Environmental Quality Guidelines for Marine Aquatic Life*. Of the parameters sampled for the study, only pH is represented in the guideline and all values fell within the pH range outlined in the guideline.
- Overall, the analytical data suggest that effluent may be slightly enriching the receiving waters, but there is no significant impairment of water quality

Table 1: Summary of Water Sample Results

ANALYTE	SITE 1			SITE 2			CONTROL	GUIDELINE ¹
	Before	During	After	Before	During	After		
Coliforms, Fecal (CFU/100ml)	1	1	1	1	1	1	1	N.G.
BOD (mg/L)	2	2	2	2	2	2	2	N.G.
pH	7.85	7.89	7.72	7.85	7.88	7.74	7.82	7.0-8.7
Solids, Total Suspended (mg/L)	4	16	102	34	12	24	12	N.G.
Phosphorus, Total (mg/L)	0.05	0.09	0.11	0.06	0.09	0.09	0.06	N.G.

¹ Canadian Environmental Quality Guideline, Marine Aquatic Life

N.G.: No Guideline

The results of the sediments analysis indicate consistency in sediment chemistry among the sampling sites, and before and after discharge.

Table 2 summarizes the sediment sample results below, highlights of the results are:

- Only levels of Titanium and % Sand increased at both sites.
- Sodium, % moisture, Total Nitrogen by LECO, and % clay decreased at both sites.
- Levels of Mercury, Silver, Beryllium, Cadmium, and Thallium were unchanged or below the detection limit at both sampling sites.
- The texture of the sediment remained unchanged.
- For a number of metals, levels increased at Site 1 after discharge while they decreased at Site 2 after discharge. These include: Aluminum, Barium, Calcium, Cobalt, Chromium, Copper, Iron, Potassium, Magnesium, Nickel, Phosphorus, Strontium, Vanadium, and Zinc. % Silt showed the same trend.
- Levels of Available Phosphate and Molybdenum at Site 1 remained unchanged after discharge at 5 ppm and 1 ppm respectively.
- At Site 2 Manganese and Lead remained unchanged after discharge at 150 ppm and 9 ppm respectively.
- All sediment sample results were compared to the CCME *Canada Environmental Quality Guidelines for Marine Sediment*. There are two guideline values for sediment; the interim sediment quality guideline (ISQG) and the probable effect level (PEL). As indicated in Table 2 below, the ISQG was used as it is the more conservative guideline. The two parameters that exceeded the ISQG were Copper before and after discharge at Site 2 and Chromium after discharge at Site 1. The PEL is 108 mg/kg for copper and 160 mg/kg for Chromium. The measured levels of both elements in the sediment samples are lower than the respective PELs.

When comparing the results to the control site sediment chemistry there were no measurements that differed by an order of magnitude and no clear trends of increasing or decreasing metal content either before or after the discharge occurred.

Table 2: Summary of Sediment Sample Results (2004)

ANALYTE	Unit	SITE 1			SITE 2			GUIDELINE ¹	CONTROL
		Before	After	Change	Before	After	Change		
Inorganic Carbon	%	0.11	0.61	0.5	0.26	0.15	-0.11	N.G.	0.27
Total Organic Carbon	%	2.3	1.4	-0.9	4.7	2.6	-2.1	N.G.	3.5
Total Carbon by Combustion	%	2.4	2	-0.4	5	2.7	-2.3	N.G.	3.8
Available Phosphate-P	mg/kg	5	5	0	1	2	1	N.G.	<1
Mercury (Hg)	mg/kg	0.06	<0.05	>0.01	0.06	<0.05	>0.01	0.130 ²	0.06
Silver (Ag)	mg/kg	<1	<1	D.L.	<1	<1	D.L.	N.G.	<1
Aluminum (Al)	mg/kg	4700	6100	1400	7300	6600	-700	N.G.	5300
Barium (Ba)	mg/kg	150	210	60	350	170	-180	N.G.	190
Beryllium (Be)	mg/kg	<2	<2	D.L.	<2	<2	D.L.	N.G.	<2
Calcium (Ca)	mg/kg	4400	14200	9800	9100	6600	-2500	N.G.	11300
Cadmium (Cd)	mg/kg	<1	<1	D.L.	<1	<1	D.L.	0.7 ²	<1
Cobalt (Co)	mg/kg	5	7	2	9	8	-1	N.G.	5
Chromium (Cr)	mg/kg	18	105	87	35	22	-13	52.3 ²	11
Copper (Cu)	mg/kg	11	15	4	23	19	-4	18.7	13
Iron (Fe)	mg/kg	12200	27200	15000	17800	15800	-2000	N.G.	16700
Potassium (K)	mg/kg	1000	1200	200	2000	1500	-500	N.G.	1300
Magnesium (Mg)	mg/kg	3700	6800	3100	6500	4400	-2100	N.G.	6200
Manganese (Mn)	mg/kg	130	430	300	150	150	0	N.G.	210
Molybdenum (Mo)	mg/kg	1	1	0	2	1	-1	N.G.	2
Sodium (Na)	mg/kg	3400	1700	-1700	11800	2000	-9800	N.G.	6200
Nickel (Ni)	mg/kg	17	59	42	36	25	-11	N.G.	17
Phosphorus (P)	mg/kg	380	2450	2070	500	470	-30	N.G.	450
Lead (Pb)	mg/kg	<5	7	<2	9	9	0	30.2 ²	6
Tin (Sn)	mg/kg	<5	<5	D.L.	6	<5	-1	N.G.	<5
Strontium (Sr)	mg/kg	25	42	17	50	30	-20	N.G.	40
Titanium (Ti)	mg/kg	46	52	6	26	34	8	N.G.	35
Thallium (Tl)	mg/kg	<1	<1	D.L.	<1	<1	D.L.	N.G.	<1
Vanadium (V)	mg/kg	18	25	7	25	23	-2	N.G.	21
Zinc (Zn)	mg/kg	50	60	10	90	70	-20	124 ²	50
% Moisture	%	39.8	16.4	-23.4	92.8	23.5	-69.3	N.G.	51.1
% Sand	%	75	77	2	53	61	8	N.G.	68
% Silt	%	12	15	3	24	22	-2	N.G.	18
% Clay	%	13	8	-5	22	16	-6	N.G.	14
Texture		Sandy loam	Sandy loam	no change	Sandy clay	Sandy loam	-	N.G.	Sandy loam
Total Nitrogen by LECO	%	0.15	0.09	-0.06	0.32	0.21	-0.11	N.G.	0.25

N.G.: No Guideline

D.L.: Below Detection Limit

¹ Canadian Environmental Quality Guideline² Interim Soil Quality Guideline

3.3.2 Plume delineation

In situ measures of salinity were used to delineate the effluent plume. As freshwater in the lagoon was pumped into the bay, it mixed with salt water from the ocean and the salinity dropped. This was observed and recorded to produce Figures 2-4 in Appendix A which display the size and extent of the effluent plume. Figure 2 shows the receiving water before the discharge, Figure 3 shows the extent of the plume during discharge, and Figure 4 shows the plume a few hours after the pump shut off before it was started again, representing the salinity in the receiving water after discharge.

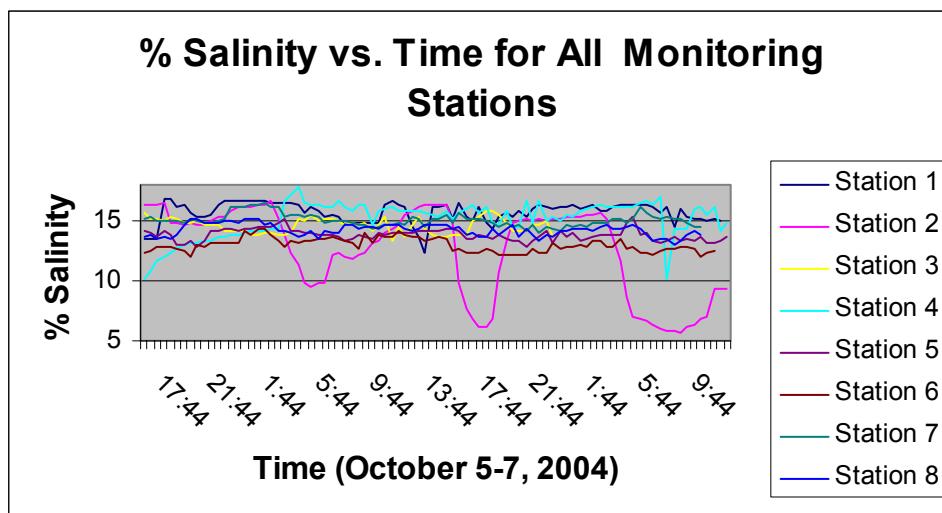
The discharge process began at 18:30 local time on Oct 5, 2004 and was discontinuous due to the pump shutting down because of the cold weather. The following is a summary of pumping during the first site visit through the observations by IEG staff and discussions with the Hamlet staff. These observations were compared to the raw data from the data loggers.

- At 9:00 am October 6, 2004, 14 hours after discharge began the pump was observed to be off. The salinity in the bay was uniform at 16% with station 6 reporting 13.5% at a separate, natural mixing zone closer to open waters.
- The effluent plume reached its' maximum extent 60m with a 6.5% salinity at station 2. Station 6 and 7 were reporting 14% salinity indicating the natural mixing zone further downstream from the discharge outlet had expanded more into the inlet. This had previously not been observed.
- Observations taken October 7, 2004 at 12:00 am to 1:00 am local showed no signs of an effluent plume because the pump froze and ceased to function.
- The pump was again functioning at 4:00 am to 5:00 am on October 7, 2004. The plume at this time resembled the shape and extent from the previous day.
- The last observation taken at 8:00 am to 9:00 am indicated a similar effluent plume with 9.5% being the lowest salinity recorded at station 2.
- Figure 2 indicates that station 2 was the closest station to the extent of the plume.
- The data correlates to when the pump was on/off. During the operation of the pump salinity dropped to a low of 6.5% and returned to background levels within 2 hours of the pump turning off.

The following is a comparison graph of the salinity versus time for all eight stations throughout the entire discharge process. It can be clearly seen the only station influenced by the discharge is station 2. The salinity at station 2 decreased shortly after the pump started pumping and returned to background levels approximately 2 hours after the pump stopped pumping.

The following are observations of when the pump was either on or off during the study.

- Pump started at approximately 18:30 October 5th
- October 6th
 - Pump is off at 9:00
 - Pump is on at 11:00
 - Pump is off at 14:45
 - Pump is on at 16:00
 - Pump is on at 19:00
 - Pump is off at 21:30
- October 7th, pumping started again at approximately 10:00



Plume Delineation, Station Summary

3.3.3 Mixing Zone

The station equipment used to determine the dimensions of the plume was only able to determine the outer-most extent because of the ice in the bay. The thin ice prevented IEG from installing the stations closer to the discharge point.

At this time, IEG cannot determine the shape or extents of the plume between station 2 and the discharge point and therefore cannot determine if the plume meets the mixing zone criteria in *Guidelines for the Discharge of Treated Municipal Wastewater in the Northwest Territories*, Section 4.5 - Initial Mixing zone.

The guidelines state 4.5.1 (b) "The initial mixing zone around a point discharge in a lake, estuary or marine water may extend up to 100 metres horizontally in all directions, but shall not encompass more than 1/3 of the least cross-sectional area of the water along any horizontal direction through the discharge point." Section 4.5.2 Initial Mixing Zone Limitations outlines further criteria for the mixing zone.

4.0 ECOLOGICAL ASSESSMENT (2005)

Consistent with recommendations made to MACA in 2004, a fish and benthic study was completed at the end of August, 2005 during shortly after the completion of the fall discharge.

The fish and benthic study was completed to describe fish and benthic communities present within the potentially impacted area, and to determine if there is any evidence of adverse impacts on the aquatic ecosystem as a result of the effluent discharge. To achieve this goal IEG completed the following tasks:

- Concurrent enumerative sampling of fish species and benthic taxonomic groupings inside the impacted area and at a control point;
- Morphometric measurement of representative fish species:
 - Total length;
 - Standard length;
 - Fork length; and
 - Weight
- Sampling of muscle tissue from selected shallow water, inshore fish species for analysis of metal and PCB burdens.
- Collection of water and sediment samples for chemical analysis.

All efforts followed the exposure vs. reference approach, in which equivalent sampling is conducted in the area of possible contamination (the “exposed” area) and an otherwise similar area where there is no known contamination. All sampling efforts representative of the exposure area were conducted within 200 m of the point of effluent discharge and were well within the defined effluent plume.

4.1 Methodology

4.1.1 Fish Collection

Fishing efforts were conducted to gain an understanding of fish community structure in the vicinity of the Tuktoyaktuk sewage lagoon discharge, and to collect fish tissue samples for analysis of metals and PCBs. Based on the number and species of fish caught, general fish health measures, and tissue chemistry data, no impacts on fish community composition or health were evident in the vicinity of the discharge.

The fish community survey was designed to include three main components, as follow:

1. evaluation of fish community structure;
2. evaluation of fish health, and
3. evaluation of the usability of fish resources (e.g., metal and PCB concentrations in tissues)

Gill netting was carried out under License to Collect Fish for Scientific Purposes No. SLE-05/06309 issued by Fisheries and Oceans Canada. The fish species identified in the permit for possible collection included those species suggested as target species in the original TOR. The TOR had identified four species of bottom dwelling fish (two flounder and two sculpin). In

further consideration of fish expected to be common to the area, and considering the types of fish typically caught in local subsistence fisheries, the expanded list of target fish species included:

- Starry flounder – *Platichthys stellatus* (identified in TOR)
- Saffron flounder – *Eliginus gracilis* (identified in TOR)
- Arctic flounder – *Pleuronectes glacialis* (identified in TOR)
- Fourhorn sculpin – *Myoxocephalus quadricornis* (identified in TOR)
- Broad whitefish – *Coregonus nasus*
- Lake whitefish (crooked-back whitefish) – *Coregonus clupeaformis*
- Inconnu - *Stenodus leucichthys*
- Least Cisco – *Coregonus sardinella*, and
- Arctic Cisco – *Coregonus autumnalis*

Fish were collected in both the reference and exposure locations by means of over-night sets of two 150-foot multi-panel gillnets (1/1.5/2-inch mesh, and 3/4/5-inch mesh) in each area. Nets were set on 20 September, 2005. Net sets were bottom sets in water depths ranging from 2 to 3m. In each case, nets were deployed in late evening and retrieved early the following morning (approximately 10 to 11-hr set durations). Fish captured live that were not targeted for tissue metal analysis were enumerated and released. The total catch of all species caught was recorded, including both live releases and fish retained for detailed examination.

Of the various species caught in the area, certain species were selected for the purpose of tissue sample collection and analysis. The intent of species selection was to target fish representative of species routinely caught for human consumption and also to represent different physiology and behavioural patterns. The actual decision regarding species selection was made at the time of the examination of the first net set, and in part reflected the abundance of fish caught at the time.

Gender, visible external and internal signs of health anomalies, and measurements of weight and length were recorded for those fish sacrificed for tissue metal analysis. Otoliths and scales were collected and provided to Fisheries and Oceans Canada for later age determination at their discretion.

A total of 25 samples of fish muscle samples were collected (10 reference and 15 exposure specimens). To the degree possible, like-sized individuals of the same species were targeted to reduce the effect confounding factors due to age. Boneless, skinless fillets were collected from the mid-dorsal region of each specimen using a stainless steel knife. Dissecting instruments were rinsed between the collection of each tissue sample, and the fillets were handled in a manner so as not to come into contact with any surfaces or equipment other than the clean utensils used for sample collection. Tissue samples were placed into clean, pre-labelled plastic sample vials and frozen prior to shipment to EnviroTest Laboratories.

4.1.2 Benthic Community Survey

Benthic macro-invertebrate samples were collected from both the reference and exposure areas on 21 September, 2005. Samples were collected at shallow near-shore stations at the same location as sampling of sediments and water for supporting analysis (see Section 4.1.3). This allows for integrated interpretation of the benthic data in context of the quality of the sediment in which the benthic organisms reside.

Benthic samples were collected as composites using a petite *ponar* grab sampler (sampling area of 0.023 m²). Each sample consisted of a total of five composite grabs, for a total sample area of 0.116 m². Individual grab samples were visually inspected in a plastic tub in order to assess the quality of the grab in terms of quantity of sediment as well as sediment characteristics. If the grab was deemed suitable (i.e., of sufficient volume and composed of suitable substrates), it was poured into a 250-µm sieve and gently washed to remove fine particulate matter before being transferred to a pre-labelled 1-litre plastic container. Ethanol was added to each sample container to properly preserve the organisms. Sample containers were labelled externally with permanent marker and also labelled internally using pencil on small paper tags.

In addition to the collection of grab samples for benthic invertebrate analysis and sediment chemistry, the following variables were recorded at each sampling stations:

- substrate description (e.g. fine sand, gravel, silt, etc.);
- presence/absence of aquatic vegetation;
- presence absence of organic debris;
- water velocity depth;
- water colour and transparency;
- extent of riparian cover and surrounding land use.

The samples collected for benthic analysis were submitted to Zaranco Environmental Assessment Services (ZEAS) for processing. Benthic organisms were sorted to the lowest achievable level of taxonomic resolution, typically species or genus. The quality assurance program for ZEAS reflects the latest version of the QA/QC requirements for Environment Canada Environmental Effects Monitoring (EEM) programs.

4.1.3 Supporting Sampling and Analysis

At both the exposure location and the reference location, samples of water and sediment were collected during the completion of the fish and benthic surveys. The sediment and water samples were analysed for a suite of parameters consistent with those analysed in the sediment and water samples collected in the 2004 discharge assessment. In addition to these parameters, analysis of PCBs was also conducted on the media samples collected in support of the 2005 ecological assessment.

Water samples were collected as surface grab samples by submerging pre-rinsed and pre-labelled sample bottles approximately 0.5 m below the water surface. Sediment samples were collected using the same petite *ponar* grab sampler as used for the collection of samples for benthic analysis. A single composite sediment sample was collected at each of the exposure and reference areas. The composite was created by collecting the surface 5 cm of sediment from each

of 3 or 4 grab samples, and thoroughly mixing that material prior to taking ~500 ml as representative of the composite material.

Sediment and water samples were stored at 4° C until the time of submission to EnviroTest Laboratories for analysis.

4.2 Results

4.2.1 Fish Community Structure

The abundance (total fish numbers) and diversity (number of different species) were found to be high in both the reference and exposure areas. Species assemblage did not completely overlap, suggesting some possible inherent habitat difference between the two sampling areas. The reference area was within an expanse of water that was wider and more open than the exposure area, which may have influenced fish community make-up. Despite the noted differences, there is no indication that the status of the fish community

Detailed physiological assessment and tissue sampling was conducted on 15 fish from the exposure area and 10 fish from the reference area.

Physiological measurements of fish sacrificed for tissue metal analysis are presented in Tables 3 and 4 (Appendix C). No signs of internal or external stress were observed in any of the fish captured. Two fish specimens (one from each of the exposure and reference areas) contained parasitic cysts. The presence is not uncommon in ‘pristine’ waters (Scott and Crossman, 1973) and they are not indicative of a contaminant-related effect.

In addition to measures of weight and length, fish *condition* (the relationship between the weight and length of a fish) was determined for all fish collected for detailed assessment (Figure 5 in Appendix A). All physiological measures suggest that the growth and health of fish collected in the exposure area, when compared to the reference area, is not subject to any impairment. The condition measures of exposure fish suggest that exposure fish may be slightly more robust than reference fish, which may be related to a greater availability of food (see Section 4.2.3 regarding benthic community status).

4.2.2 Tissue Analysis

The results of fish tissue metal and PCB analyses for Exposure and Reference specimens are summarized in Tables 5 and Table 6, respectively (Appendix C), with full Laboratory Certificates of Analysis presented in Appendix D.

The only regulatory guideline pertaining to fish tissues is the Canadian tissue residue PCB guideline for the protection of wildlife that consume fish. Since tissue concentrations of all PCBs were less than the detection limit, they are not considered to be of concern. For all other analytical parameters, there is no basis for concern for the health of any consumers of fish.

- The concentrations of analytical parameters in tissue samples from the exposure area were not notably higher than in corresponding measures from the reference area.
- Many elements, including Ag, Be, Cd, Co, Sb, Sn, Tl, and V, were present in fish tissues at concentrations that were below the analytical detection limits.

- Elements including Mn, Mo, Ni, and Pb were present in fish tissues at concentrations that were at or near the detection limit in one specimen, and for all other specimens were present at concentrations that were below the analytical detection limits.
- The concentrations of arsenic in fish tissue were slightly higher in samples collected from the reference area than those collected from the exposure area. This is attributable to differences in the water and sediment chemistry in the reference area which also display the same trend.
- The concentrations of mercury in samples collected from the exposure area are slightly higher than in samples collected from the reference area. This slight difference is due to the inclusion of three piscivorous (fish eating) specimens that were included in the exposure samples. Mercury biaccumulates up the food chain and as such it is not unexpected that slightly higher mercury body burden corresponds with fish of higher trophic levels (such as inconnu). The mercury levels detected are not levels of concern either for the fish or for consumers. Other samples included fish with similar eating habits (e.g. cisco and whitefish species) and these all returned similar mercury levels, slightly lower than the piscivorous specimens.

Overall, the results of analysis of fish tissues show no evidence of contamination associated with the release of lagoon effluents. This is consistent with an absence of evidence of any contamination of the ambient media (see Section 4.2.4 for discussion of sediment and water chemistry).

4.2.3 Benthic Community

A summary of benthic invertebrate survey results is presented in Table 7 (Appendix C). In general, both areas exhibit low overall diversity and abundance, which is expected for Arctic benthic communities. Even under conditions of low productivity, the relative measures of abundance (i.e., number of organisms) and diversity (i.e., number of taxa), and the species composition of the benthic communities were markedly different when comparing the reference and exposed areas. This major difference likely reflects differences in habitat. In the reference area, visual inspection of the benthic grab samples showed a high abundance of organic debris in the exposure area relative to the reference area. The debris appears to be of natural origin, and provides a much better food-base in the exposure area than in the reference area. The benthic community in the exposed area included relatively high densities of taxa that typically thrive under conditions of nutrient availability, such as nematodes and oligochaetes. These differences could be associated with the elevated nutrients and organic matter of either natural origin or associated with the treated sewage effluent discharge.

Water chemistry analysis has also revealed that the exposure area is not as saline as the reference area, which may affect benthic community status. The very low abundance of benthic organisms in the reference area may be due to the fact that this area was more open and more susceptible tidal oscillations and wave action. These forces can lead to shifting sediments and fluctuations in salinity and other aspects of water chemistry in the near-shore area. Such conditions are not favourable to benthic invertebrates.

Regardless of underlying causes, the occurrence of relatively abundant and diverse benthic community in the exposure area is not considered indicative of adverse effects associated with the discharge of effluents from the treatment lagoon.

4.2.4 Supporting Analyses

The results of analysis of water and sediment samples collected at the time of the ecological survey are presented in Tables 8 and 9, respectively. These results are similar to the results of water and sediment analysis conducted during the 2004 assessment of the discharge.

The water chemistry results show, as in the 2004 sampling, that a number of metals are present at concentrations that are less than analytical detection limits. All PCBs were also below detection limits. For elements that were detectable, the concentrations measured in the exposure area are not notably different than measured in the reference area. In most cases, concentrations in the exposure area sample were actually slightly lower than in the sample from the reference area. This trend applies to arsenic, which was the only parameter found to exceed the federal guideline value. Overall, there is no evidence that water quality in the exposure area is impaired as result of effluent releases.

For sediment, the results were similar to those for water chemistry. Measures of many metals and all PCBs were less than analytical detection limits in both the exposure and reference areas. Several metals (As, Cd, and Cu) were present in sediments at concentrations exceeding the Interim Sediment Quality Guideline (a highly conservative screening value), but lower than the Probable Effect Level (the level at which there is some expectation that measurable effects may occur). The concentration of each of these elements in the exposure area sediment sample was similar to, or lower than, concentrations measured in the reference area sample. The presence of these elements at these levels is not expected to be harmful in either area. Overall, there is no evidence that sediment chemistry in the exposure area has been impaired by the release of lagoon effluents. Accordingly, there is no expectation that the benthic community would be impaired, as has been found to be the case.

5.0 CONCLUSIONS & RECOMMENDATIONS

The results from the 2004 discharge assessment and the 2005 ecological assessment indicate:

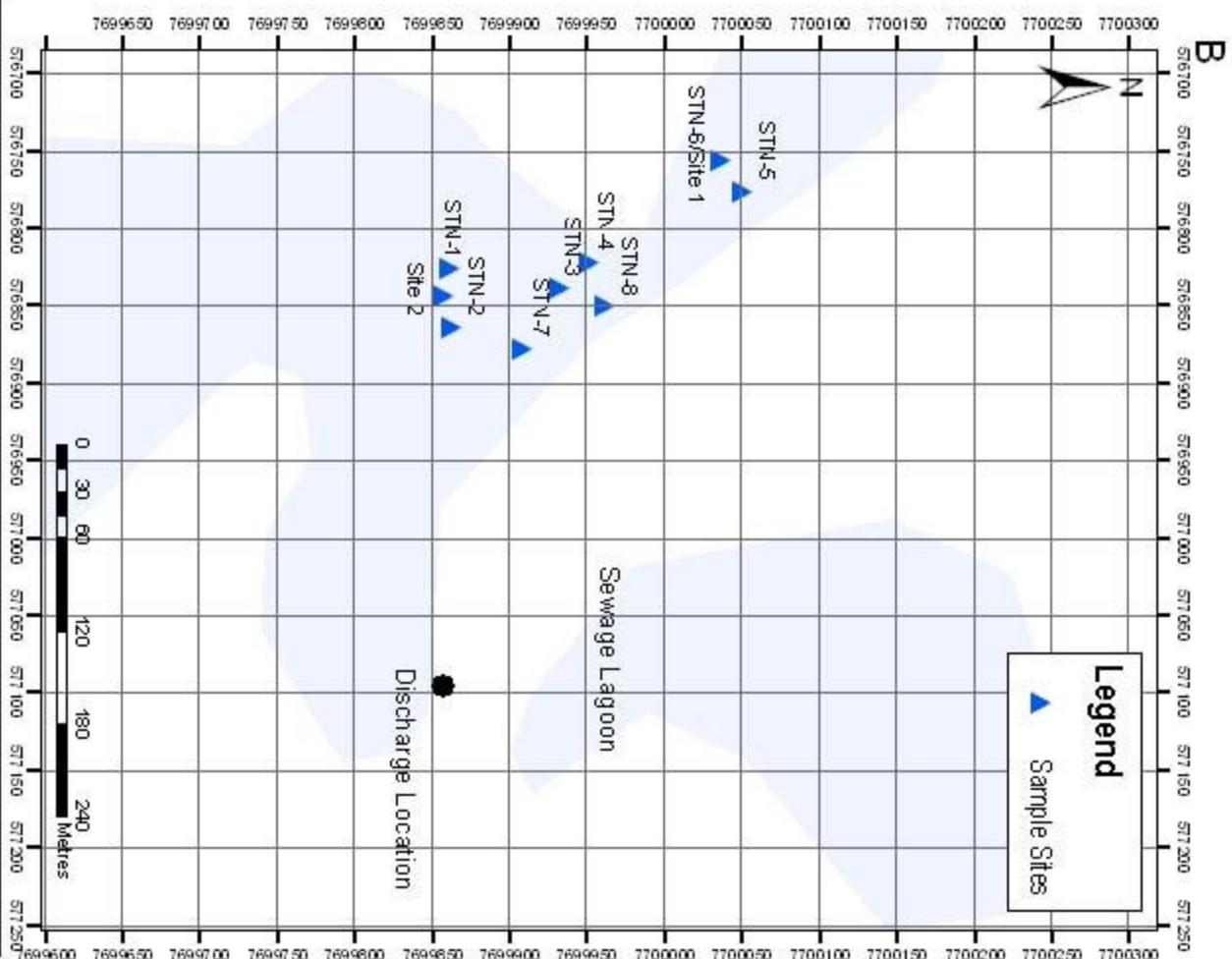
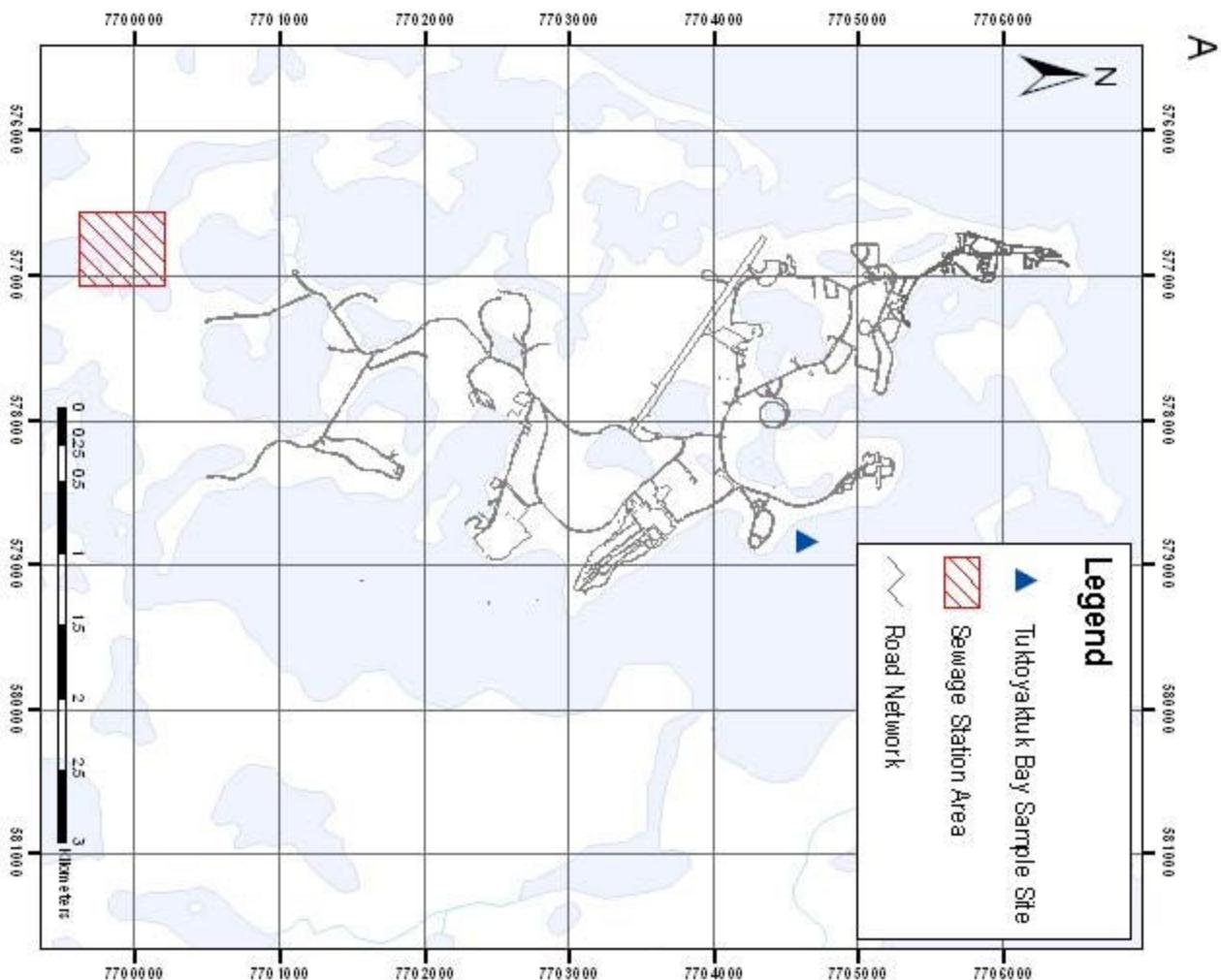
- The effluent plume is of very limited duration and appears also to be of limited size, and mixes readily with the receiving waters. Due to prevailing currents and the shallow depths, the effluent plume mixes and dissipates rapidly as evidenced by the fact that % salinity returned to natural levels within approximately 2 hours of pump stoppage.
- Water quality analysis (2004 and 2005) suggests that the effluent discharge may be causing very slight freshwater dilution of the marine/estuarine receiving waters, and may also be causing very slight enrichment. It is not clear if the salinity and nutrient effects are natural or affluent-related. In any case, both influences are spatially and temporally confined, and neither is expected to have adverse impacts on the local aquatic ecosystem.
- The results of the sediment analysis in both 2004 and 2005 revealed no clear indication of sediment quality impacts associated with effluent discharge. Long-term sediment quality in the area of the discharge does not differ from background, and parameters of potential concern (heavy metals, PCBs) are present at concentrations that are very low, often less than detection limits and less than levels that might have ecological effects.
- The benthic community is more diverse and abundant in the exposure area relative to the reference area, which likely reflects greater availability of organic matter and nutrients. This may reflect either natural conditions or to some extent the influence of the lagoon discharge. The benthic community status is not evidence of any adverse effects of the effluent release.
- Fish were abundant and healthy in the exposed area, and did not exhibit any indication of impaired health of individuals or the overall populations. The levels of parameters of potential concern (metals, PCBs) were low and not suggestive of impacts. This is consistent with the concurrent findings that the supporting environment (water, sediment, benthic community) is not evidently impaired. Equally, the use of this diverse and healthy fish community by local inhabitants and wildlife is not adversely affected.

The current study employs a number of tools to assess both the physical and biological conditions within the aquatic ecosystem downstream of the lagoon discharge. These tools provide a substantial amount of direct information which serves to define the environmental status in this ecosystem on a media-specific basis. For a complete understanding of the state of the environment in relation to lagoon discharge, the results of each specific study component can be considered collectively in a weight-of-evidence manner. This integration serves to link sediment and water quality, which is in part a reflection of effluent quality, with the health of communities of aquatic biota in the receiving environment. In the simplest sense, the observed effects (if any) on aquatic biota, as identified via the benthic invertebrate and fish surveys, are interpreted in light of the chemical data for the physical media in which they reside. In summary, there are no indications of impairment of water or sediment, nor are there indications of impairment of the benthic community, serving as a food source to the fish community, nor the fish community itself.

Based on these major findings, the current practice of annual discharge of treatment lagoon water need not be modified, so long as effluent quality continues to meet discharge criteria. No further assessment of the receiving environment is considered necessary at this time. Confirmatory monitoring of similar scope could be conducted in 3 to 5 year cycles if desired.

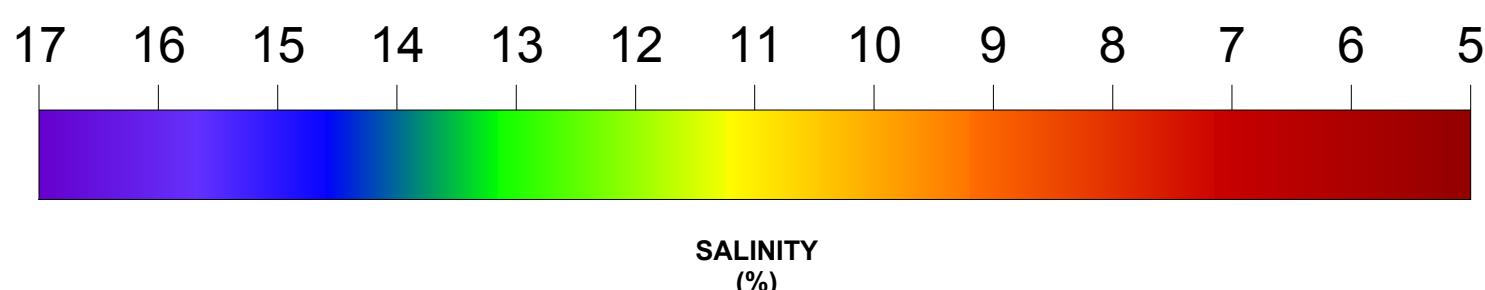
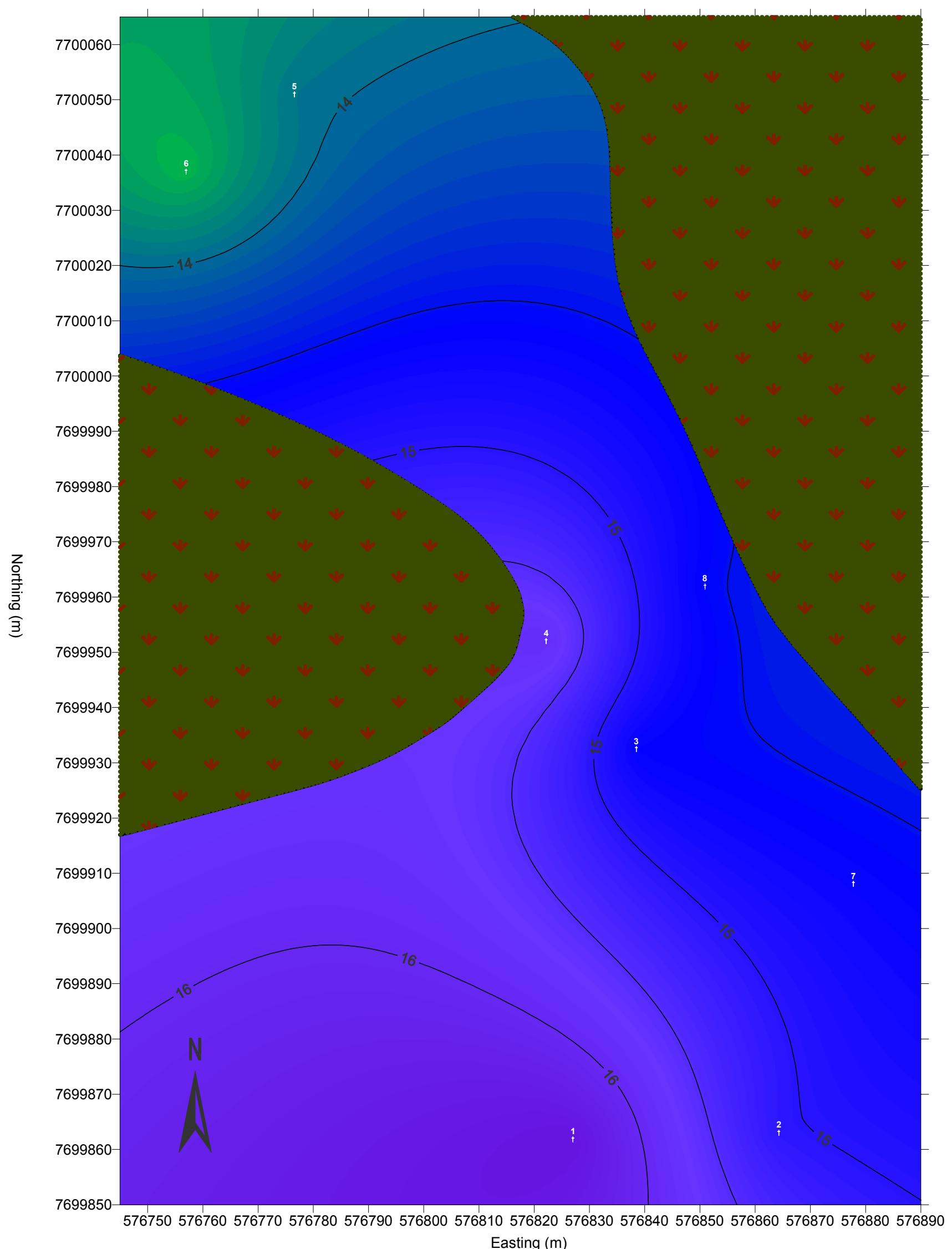
Appendix A

Figures



Tuktoyaktuk Sewage Lagoon Study Site	
Project 5727-04	November 16, 2004
DEPT OF MUNICIPAL & COMMUNITY AFFAIRS - GNWT Tuktoyaktuk Sewage Lagoon - Discharge Monitoring Program Data Collected October 6, 2004	datum: NAD 83

Figure 1

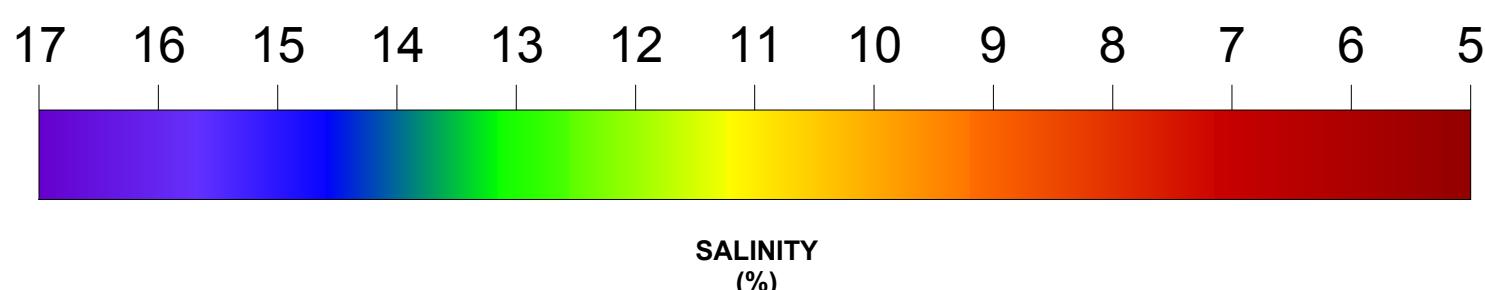
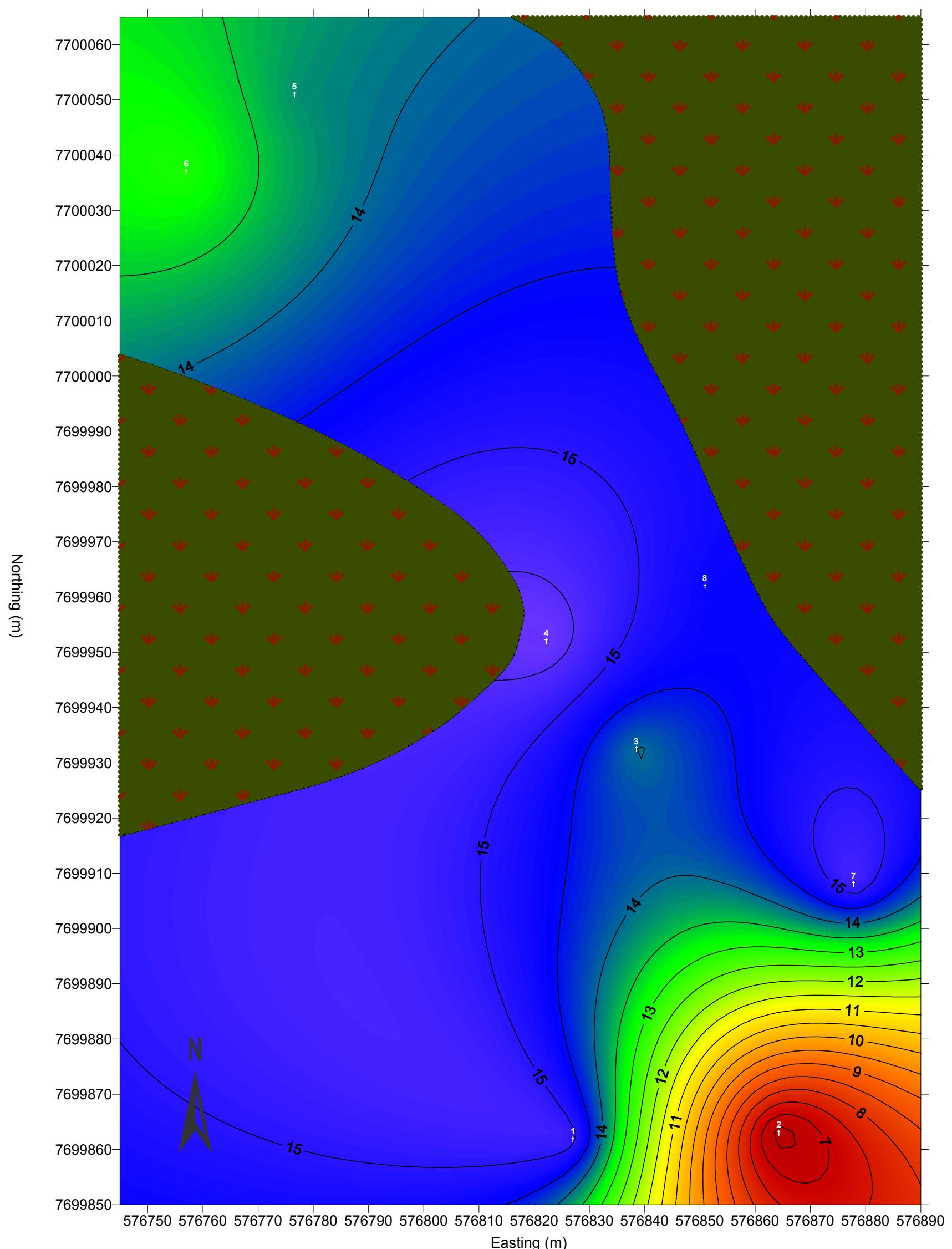


0 10 20 30 40 50 metres
Approximate Scale 1:750



INUVALUIT LAND ADMINISTRATION
Tuktoyaktuk Sewage Lagoon
Discharge Monitoring Program
Data Collected October 7, 2004
Positional data by GPS, NAD83 datum

SEAWATER SALINITY MAP (09:00-10:00)



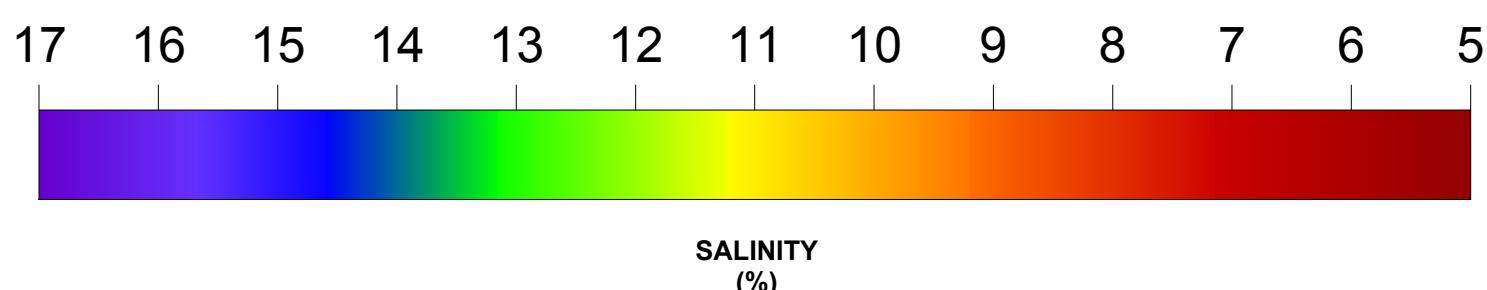
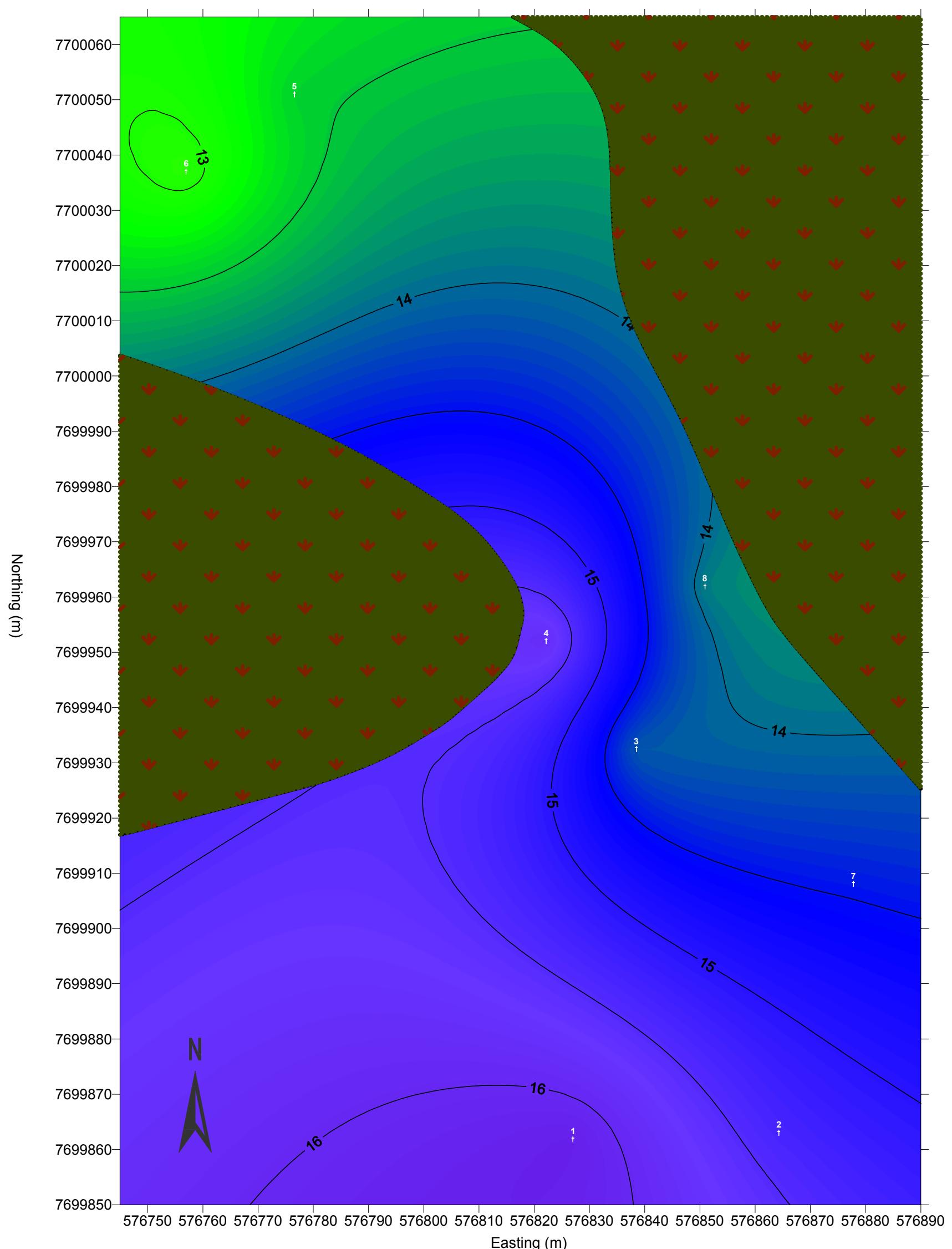
0 10 20 30 40 50 metres
Approximate Scale 1:750



INUVALUIT LAND ADMINISTRATION
Tuktoyaktuk Sewage Lagoon
Discharge Monitoring Program
Data Collected October 7, 2004
Positional data by GPS, NAD83 datum

SEAWATER SALINITY MAP (15:00-16:00)

Project 5727-04 November 16, 2004 Figure 3



0 10 20 30 40 50 metres
Approximate Scale 1:750



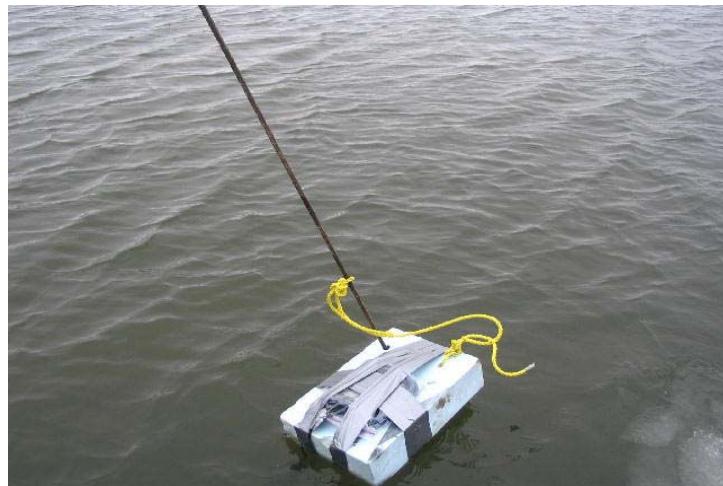
INUVAIQUIT LAND ADMINISTRATION
Tuktoyaktuk Sewage Lagoon
Discharge Monitoring Program
Data Collected October 7, 2004
Positional data by GPS, NAD83 datum

SEAWATER SALINITY MAP (0:00-1:00)

Project 5727-04 November 16, 2004 Figure 4

Appendix B
Photos

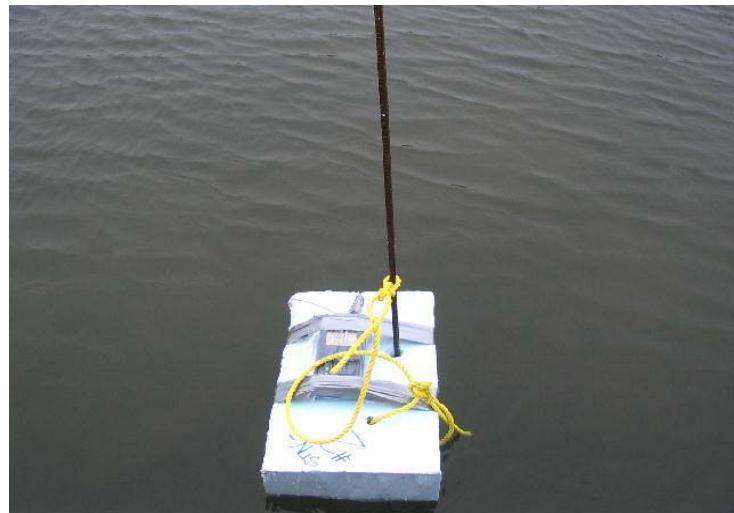
PHOTO LOG



Date: 10/4/04	Location: Discharge Inlet	Direction: South
Description: Portable Salinity Metre		



Date: 10/4/04	Location: Discharge Inlet	Direction: South
Description: Sarah Dando, IEG recording observations		



Date: 10/4/04	Location: Discharge Inlet	Direction: South
Description: Portable Salinity Metre		



Date: 10/4/04	Location: Discharge Inlet	Direction: South
Description: Portable Salinity Metre		



Date: 10/4/04	Location: Discharge Inlet	Direction: South
Description: Portable Salinity Metre		



Date: 10/4/04	Location: Discharge Inlet	Direction: North
Description: Discharge Inlet leading to Kugmallit Bay		



Date: 10/4/04	Location: Discharge Inlet	Direction: SW
Description: Portable Salinity Metre from atop the hill between the discharge inlet and the lagoon		



Date: 10/4/04	Location: Discharge Inlet	Direction: SW
Description: Boat launch to place salinity metres		



Date: 10/4/04	Location: Discharge Inlet	Direction: West
Description: Discharge inlet taken from atop the hill		



Date: 10/4/04	Location: Discharge Inlet	Direction: SW
Description: Discharge inlet taken from atop the hill		



Date: 10/4/04	Location: Discharge Inlet	Direction: South
Description: Discharge inlet taken from atop the hill		



Date: 10/4/04	Location: Discharge Inlet	Direction: South
Description: Discharge inlet taken from atop the berm		



Date: 10/4/04	Location: Discharge Inlet	Direction: SE
Description: Access along beach and discharge inlet		



Date: 10/4/04	Location: Hill	Direction: SE
Description: Discharge, Inlet		



Date: 10/4/04	Location: Hill	Direction: SW
Description: Access along beach and Discharge inlet		



Date: 10/4/04	Location: Hill	Direction: SW
Description: Discharge Inlet		



Date: 10/4/04	Location: Discharge Pipe	Direction: SW
Description: Discharge Pipe leading into discharge inlet		



Date: 10/4/04	Location: Pump Station	Direction: NW
Description: Pump station setup and standing fuel tank		



Date: 10/4/04	Location: Pump Station	Direction: SW
Description: Pump station facing sewage lagoon		

Appendix C

Tables

Table 3 - Morphometric Data - Exposure Specimens

Species	Sample ID	Length (mm)			Weight (g)	Condition	Notes
		Total	Fork	Standard			
<i>Stenodus leucichthys</i>	E1	398	364	335	410	1.09	small fish removed from stomach
<i>S. leucichthys</i>	E2	298	268	247	155	1.03	
<i>Coregonus sardinella</i>	E3	224	202	184	90	1.44	
<i>C. sardinella</i>	E4	308	282	257	210	1.24	
<i>Coregonus autumnalis</i>	E5	232	205	186	105	1.63	
<i>Coregonus nasus</i>	E6	306	275	252	255	1.59	
<i>C. nasus</i>	E7	265	241	218	200	1.93	
<i>C. nasus</i>	E8	272	245	223	195	1.76	
<i>C. nasus</i>	E9	266	237	216	155	1.54	
<i>C. nasus</i>	E10	244	217	198	145	1.87	
<i>C. nasus</i>	E11	270	251	224	170	1.51	
<i>Coregonus clupeaformis</i>	E12	309	277	250	240	1.54	encysted parasite (worm)
<i>C. clupeaformis</i>	E13	298	268	243	230	1.60	
<i>C. clupeaformis</i>	E14	296	267	242	205	1.45	
<i>C. clupeaformis</i>	E15	273	247	225	160	1.40	

Table 4 - Morphometric Data - Reference Specimens

Species	Sample ID	Length (mm)			Weight (g)	Condition	Notes
		Total	Fork	Standard			
<i>Coregonus sardinella</i>	R1	286	261	238	150	1.11	encysted parasite
<i>C. sardinella</i>	R2	275	264	220	120	1.13	
<i>C. sardinella</i>	R3	280	255	229	115	0.96	
<i>C. sardinella</i>	R4	255	227	205	105	1.22	
<i>C. sardinella</i>	R5	261	236	215	105	1.06	
<i>Coregonus autumnalis</i>	R6	311	285	257	245	1.44	
<i>C. autumnalis</i>	R7	311	285	257	205	1.21	
<i>C. autumnalis</i>	R8	312	289	262	210	1.17	
<i>C. autumnalis</i>	R9	331	309	285	255	1.10	
<i>C. autumnalis</i>	R10	312	285	255	230	1.39	

Table 3 and Table 4 - Morphometric Data

Collected By: Laboratory: Sample Date: Lab Reference No.:	MDL	Units	E1	E2	E3	E4	E5
			IEG ETL	IEG ETL	IEG ETL	IEG ETL	IEG ETL
			21-09-05 L362317-1	21-09-05 L362317-2	21-09-05 L362317-3	21-09-05 L362317-4	21-09-05 L362317-5
Total Metals - CCME							
Arsenic (As)	0.05	mg/kg	0.60	0.48	0.43	1.36	0.31
Calcium (Ca)	20	mg/kg	80	150	280	240	820
Silver (Ag)	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aluminum (Al)	2	mg/kg	<2	<2	9	<2	<2
Potassium (K)	20	mg/kg	4880	4340	4180	5020	4590
Magnesium (Mg)	5	mg/kg	337	286	292	361	363
Barium (Ba)	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Sodium (Na)	20	mg/kg	350	450	290	640	500
Beryllium (Be)	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Iron (Fe)	5	mg/kg	<5	<5	11	6	8
Manganese (Mn)	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Cadmium (Cd)	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt (Co)	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium (Cr)	0.1	mg/kg	0.6	0.5	0.5	0.6	0.6
Copper (Cu)	0.05	mg/kg	0.35	0.29	0.20	0.29	0.23
Molybdenum (Mo)	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel (Ni)	0.02	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Lead (Pb)	0.02	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Antimony (Sb)	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Tin (Sn)	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Strontium (Sr)	0.05	mg/kg	0.21	0.55	0.90	1.03	4.05
Thallium (Tl)	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Vanadium (V)	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Zinc (Zn)	0.5	mg/kg	4.1	3.1	3.2	4.0	4.8
Phosphorus (P)	20	mg/kg	2580	2190	2100	2890	2520
Selenium (Se)	0.05	mg/kg	1.27	0.87	0.76	0.90	1.16
Titanium (Ti)	0.05	mg/kg	0.11	0.12	0.11	0.11	0.10
% Moisture	0.1	%	76.1	78.4	78.8	76.3	75.9
Mercury (Hg)	0.01	mg/kg	0.42	0.20	0.12	0.10	0.07
Total PCBs - CCME							
Aroclor 1016	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1221	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1232	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1242	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1248	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1254	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1260	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1262	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1268	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Total PCBs	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Decachlorobiphenyl		%	88	80	78	80	77

Collected By: Laboratory: Sample Date: Lab Reference No.:	MDL	Units	E6	E7	E8	E9	E10
			IEG ETL	IEG ETL	IEG ETL	IEG ETL	IEG ETL
			21-09-05 L362317-6	21-09-05 L362317-7	21-09-05 L362317-8	21-09-05 L362317-9	21-09-05 L362317-10
Total Metals - CCME							
Arsenic (As)	0.05	mg/kg	0.37	<0.05	0.05	0.27	0.21
Calcium (Ca)	20	mg/kg	140	330	290	160	2290
Silver (Ag)	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aluminum (Al)	2	mg/kg	5	<2	12	3	13
Potassium (K)	20	mg/kg	4580	4430	4620	4300	4800
Magnesium (Mg)	5	mg/kg	319	292	316	306	389
Barium (Ba)	0.1	mg/kg	0.1	0.2	0.4	0.1	0.5
Sodium (Na)	20	mg/kg	310	330	320	390	490
Beryllium (Be)	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Iron (Fe)	5	mg/kg	9	<5	13	<5	16
Manganese (Mn)	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	0.7
Cadmium (Cd)	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt (Co)	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium (Cr)	0.1	mg/kg	0.5	0.6	0.6	0.5	0.5
Copper (Cu)	0.05	mg/kg	0.18	0.19	0.33	0.18	0.25
Molybdenum (Mo)	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel (Ni)	0.02	mg/kg	<0.02	<0.02	0.02	<0.02	<0.02
Lead (Pb)	0.02	mg/kg	<0.02	<0.02	0.02	<0.02	<0.02
Antimony (Sb)	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Tin (Sn)	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Strontium (Sr)	0.05	mg/kg	0.58	0.96	1.01	0.36	11.2
Thallium (Tl)	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Vanadium (V)	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Zinc (Zn)	0.5	mg/kg	3.8	3.9	4.8	3.6	4.8
Phosphorus (P)	20	mg/kg	2360	2440	2540	2360	3770
Selenium (Se)	0.05	mg/kg	1.96	0.64	0.63	1.56	0.57
Titanium (Ti)	0.05	mg/kg	0.13	0.10	0.19	0.12	0.30
% Moisture	0.1	%	79.2	77.7	78.0	80.2	78.7
Mercury (Hg)	0.01	mg/kg	0.05	0.06	0.06	0.04	0.04
Total PCBs - CCME							
Aroclor 1016	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1221	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1232	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1242	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1248	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1254	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1260	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1262	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1268	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Total PCBs	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Decachlorobiphenyl		%	82	79	77	78	84

Collected By: Laboratory: Sample Date: Lab Reference No.:	MDL	Units	E11	E12	E13	E14	E15
			IEG ETL	IEG ETL	IEG ETL	IEG ETL	IEG ETL
			21-09-05	21-09-05	21-09-05	21-09-05	21-09-05
			L362317-11	L362317-12	L362317-13	L362317-14	L362317-15
Total Metals - CCME							
Arsenic (As)	0.05	mg/kg	0.47	0.45	1.67	0.47	0.19
Calcium (Ca)	20	mg/kg	80	120	220	110	400
Silver (Ag)	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aluminum (Al)	2	mg/kg	<2	10	<2	<2	<2
Potassium (K)	20	mg/kg	4340	4520	4700	4620	4320
Magnesium (Mg)	5	mg/kg	301	326	338	303	308
Barium (Ba)	0.1	mg/kg	<0.1	0.2	0.1	<0.1	0.2
Sodium (Na)	20	mg/kg	350	310	290	390	390
Beryllium (Be)	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Iron (Fe)	5	mg/kg	<5	12	<5	<5	15
Manganese (Mn)	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Cadmium (Cd)	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt (Co)	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium (Cr)	0.1	mg/kg	0.4	0.4	0.5	0.6	0.3
Copper (Cu)	0.05	mg/kg	0.21	0.17	0.19	0.19	0.20
Molybdenum (Mo)	0.05	mg/kg	<0.05	0.08	<0.05	<0.05	<0.05
Nickel (Ni)	0.02	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Lead (Pb)	0.02	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Antimony (Sb)	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Tin (Sn)	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Strontium (Sr)	0.05	mg/kg	0.26	0.48	1.23	0.37	1.83
Thallium (Tl)	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Vanadium (V)	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Zinc (Zn)	0.5	mg/kg	2.9	3.8	4.6	3.6	4.2
Phosphorus (P)	20	mg/kg	2580	2440	2660	2530	2530
Selenium (Se)	0.05	mg/kg	0.79	0.65	1.20	0.74	0.53
Titanium (Ti)	0.05	mg/kg	0.09	0.58	0.15	0.09	0.17
% Moisture	0.1	%	77.8	79.5	76.4	79.6	79.8
Mercury (Hg)	0.01	mg/kg	0.03	0.03	0.03	0.04	0.03
Total PCBs - CCME							
Aroclor 1016	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1221	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1232	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1242	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1248	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1254	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1260	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1262	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1268	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Total PCBs	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Decachlorobiphenyl		%	79	76	83	82	83

Collected By: Laboratory: Sample Date: Lab Reference No.:	MDL	Units	R1 IEG ETL	R2 IEG ETL	R3 IEG ETL	R4 IEG ETL	R5 IEG ETL
			21-09-05 L362317-16	21-09-05 L362317-17	21-09-05 L362317-18	21-09-05 L362317-19	21-09-05 L362317-20
Total Metals - CCME							
Arsenic (As)	0.05	mg/kg	1.36	1.24	1.28	1.13	1.44
Calcium (Ca)	20	mg/kg	480	230	500	410	370
Silver (Ag)	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aluminum (Al)	2	mg/kg	<2	7	<2	<2	<2
Potassium (K)	20	mg/kg	4610	4640	4370	4980	4760
Magnesium (Mg)	5	mg/kg	315	380	351	358	339
Barium (Ba)	0.1	mg/kg	<0.1	0.1	0.2	<0.1	0.2
Sodium (Na)	20	mg/kg	490	750	720	660	620
Beryllium (Be)	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Iron (Fe)	5	mg/kg	14	8	1390	<5	8
Manganese (Mn)	0.5	mg/kg	<0.5	<0.5	5.5	<0.5	<0.5
Cadmium (Cd)	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt (Co)	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium (Cr)	0.1	mg/kg	0.5	0.5	0.4	0.5	0.5
Copper (Cu)	0.05	mg/kg	0.20	0.33	0.19	0.26	0.23
Molybdenum (Mo)	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel (Ni)	0.02	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Lead (Pb)	0.02	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Antimony (Sb)	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Tin (Sn)	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Strontium (Sr)	0.05	mg/kg	1.74	0.87	2.24	1.38	1.41
Thallium (Tl)	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Vanadium (V)	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Zinc (Zn)	0.5	mg/kg	3.6	4.9	5.1	3.2	4.6
Phosphorus (P)	20	mg/kg	2740	2640	2730	2740	2590
Selenium (Se)	0.05	mg/kg	0.78	0.62	0.40	0.48	0.44
Titanium (Ti)	0.05	mg/kg	0.12	0.16	0.13	<0.05	<0.05
% Moisture	0.1	%	80.0	77.1	78.8	76.0	78.9
Mercury (Hg)	0.01	mg/kg	0.05	0.05	0.04	0.04	0.04
Total PCBs - CCME							
Aroclor 1016	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1221	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1232	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1242	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1248	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1254	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1260	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1262	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1268	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Total PCBs	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Decachlorobiphenyl		%	83	77	74	80	78

Collected By: Laboratory: Sample Date: Lab Reference No.:	MDL	Units	R6	R7	R8	R9	R10
			IEG ETL	IEG ETL	IEG ETL	IEG ETL	IEG ETL
			21-09-05	21-09-05	21-09-05	21-09-05	21-09-05
			L362317-21	L362317-22	L362317-23	L362317-24	L362317-25
Total Metals - CCME							
Arsenic (As)	0.05	mg/kg	1.38	1.49	1.27	1.36	1.70
Calcium (Ca)	20	mg/kg	110	110	130	360	480
Silver (Ag)	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aluminum (Al)	2	mg/kg	<2	<2	3	<2	<2
Potassium (K)	20	mg/kg	5300	5310	5220	4670	4910
Magnesium (Mg)	5	mg/kg	371	371	365	335	370
Barium (Ba)	0.1	mg/kg	<0.1	<0.1	0.3	<0.1	<0.1
Sodium (Na)	20	mg/kg	500	660	640	560	620
Beryllium (Be)	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Iron (Fe)	5	mg/kg	<5	5	5	<5	12
Manganese (Mn)	0.5	mg/kg	<0.5	<0.5	0.5	<0.5	<0.5
Cadmium (Cd)	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt (Co)	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium (Cr)	0.1	mg/kg	0.6	0.6	0.5	0.5	0.5
Copper (Cu)	0.05	mg/kg	0.31	0.37	0.37	0.25	0.31
Molybdenum (Mo)	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel (Ni)	0.02	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Lead (Pb)	0.02	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02
Antimony (Sb)	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Tin (Sn)	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Strontium (Sr)	0.05	mg/kg	0.29	0.34	0.40	1.62	0.23
Thallium (Tl)	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Vanadium (V)	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Zinc (Zn)	0.5	mg/kg	3.2	4.5	3.3	2.9	3.0
Phosphorus (P)	20	mg/kg	3060	3130	3030	2950	2940
Selenium (Se)	0.05	mg/kg	0.69	0.67	0.50	0.79	0.49
Titanium (Ti)	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	0.07
% Moisture	0.1	%	76.7	76.2	73.6	76.3	77.7
Mercury (Hg)	0.01	mg/kg	0.03	0.03	0.03	0.02	0.03
Total PCBs - CCME							
Aroclor 1016	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1221	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1232	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1242	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1248	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1254	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1260	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1262	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor 1268	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Total PCBs	0.01	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01
Decachlorobiphenyl		%	79	83	78	79	76

Collected By:	IEG:	IEG:
Laboratory:	ZEAS	ZEAS
Sample Date:	21-09-05	21-09-05
P. Sarcodina O. Foraminifera	-	4
ROUNDWORMS		
P. Nemata	-	20
P. Annelida		
WORMS		
Cl. Oligochaeta	-	65
BRISTLE WORMS		
Cl. Polychaeta		
F. Nephtyidae		
<i>Nephtys neotena</i>	-	28
F. Spionidae		
indeterminate	-	100
ARTHROPODS		
P. Arthropoda		
SP. Crustacea		
Cl. Malacostraca		
SEED SHRIMPS		
Cl. Ostracoda	-	20
Cl. Malacostraca		
WATER SCUDS		
O. Amphipoda		
F. Lysianassidae		
<i>Onisimus</i>	2	-
F. Pontoporeiidae		
<i>Diporeia affinis</i>	-	36
AQUATIC SOW BUGS		
O. Isopoda		
F. Idoteidae		
<i>Mesidotea entomon</i>	3	-
MOLLUSCS		
P. Mollusca		
CLAMS		
Cl. Bivalvia		
F. Hiatellidae		
<i>Cyrtodaria kurriana</i>	6	16
F. Tellinidae		
<i>Macoma</i>	6	53
TRUE FLIES		
O. Diptera		
MIDGES		
F. Chironomidae		
S.F. Chironominae		
<i>Chironomus</i>	-	1
<i>Paratanytarsus</i>	-	2
S.F. Orthocladiinae		
<i>Cricotopus (Isocladius)</i>	-	5
<i>Psectrocladius</i>	-	2
TOTAL NUMBER OF ORGANISMS	17	352
TOTAL NUMBER OF TAXA *	4	13

* Bold entries excluded from taxa count.

Collected By:	MDL	Units	Reference	Exposure	
Laboratory:			IEG ETL	IEG ETL	
Sample Date:			L335240-1	L335240-2	Guideline ¹
Lab Reference No.:					
Routine Water Analysis					
Chloride (Cl)	1	mg/L	12200	8180	-
Calcium (Ca)	0.5	mg/L	301	223	-
Potassium (K)	0.5	mg/L	260	176	-
Magnesium (Mg)	0.1	mg/L	885	609	-
Sodium (Na)	1	mg/L	7160	4880	-
Sulfate (SO ₄)	0.5	mg/L	1850	1250	-
Ion Balance		%	105	107	-
TDS (Calculated)		mg/L	22700	15400	-
Hardness (as CaCO ₃)		mg/L	4400	3060	-
Nitrate+Nitrite-N	0.1	mg/L	<0.1	<0.1	-
Nitrate-N	0.1	mg/L	<0.1	<0.1	-
Nitrite-N	0.05	mg/L	<0.05	<0.05	-
pH	0.1	pH	7.8	7.8	7.0 to 8.7
Conductivity (EC)	0.2	uS/cm	32900	23300	-
Bicarbonate (HCO ₃)	5	mg/L	135	135	-
Carbonate (CO ₃)	5	mg/L	<5	<5	-
Hydroxide (OH)	5	mg/L	<5	<5	-
Alkalinity, Total (as CaCO ₃)	5	mg/L	111	111	-
Total Metals - CCME					
Calcium (Ca)	0.5	mg/L	297	227	-
Potassium (K)	0.1	mg/L	250	180	-
Magnesium (Mg)	0.1	mg/L	880	623	-
Sodium (Na)	1	mg/L	7170	5190	-
Iron (Fe)	0.005	mg/L	0.171	0.443	-
Manganese (Mn)	0.001	mg/L	0.062	0.065	-
Silver (Ag)	0.0004	mg/L	<0.0004	<0.0004	-
Aluminum (Al)	0.01	mg/L	0.11	0.20	-
Arsenic (As)	0.0004	mg/L	0.0565	0.0351	0.0125
Boron (B)	0.05	mg/L	2.87	1.83	-
Barium (Ba)	0.003	mg/L	0.055	0.098	-
Beryllium (Be)	0.001	mg/L	<0.001	<0.001	-
Cadmium (Cd)	0.0002	mg/L	<0.0002	<0.0002	0.00012
Cobalt (Co)	0.002	mg/L	<0.002	<0.002	-
Chromium (Cr)	0.005	mg/L	<0.005	<0.005	0.056
Copper (Cu)	0.001	mg/L	0.007	0.007	-
Mercury (Hg)	0.0002	mg/L	<0.0002	<0.0002	-
Lithium (Li)	0.01	mg/L	0.13	0.09	-
Molybdenum (Mo)	0.005	mg/L	0.010	0.007	-
Nickel (Ni)	0.002	mg/L	<0.002	<0.002	-
Lead (Pb)	0.0001	mg/L	0.0002	0.0003	-
Antimony (Sb)	0.0004	mg/L	0.0011	0.0009	-
Selenium (Se)	0.0004	mg/L	0.212	0.210	-
Tin (Sn)	0.05	mg/L	<0.05	<0.05	-
Titanium (Ti)	0.001	mg/L	0.007	0.007	-
Thallium (Tl)	0.0001	mg/L	<0.0001	<0.0001	-
Uranium (U)	0.0001	mg/L	0.0029	0.0022	-
Vanadium (V)	0.001	mg/L	0.041	0.033	-
Zinc (Zn)	0.004	mg/L	0.011	0.010	-

Collected By: Laboratory: Sample Date: Lab Reference No.:	MDL	Units	Reference IEG ETL	Exposure IEG ETL	Guideline ¹		
					L335240-1	L335240-2	ISQG ²
Total Metals - CCME							
% Moisture	0.1	%	62	49	-	-	
Silver (Ag)	1	mg/kg	<1	<1	-	-	
Arsenic (As)	0.2	mg/kg	12.8	13.8	7.24	41.6	
Barium (Ba)	5	mg/kg	144	334	-	-	
Beryllium (Be)	1	mg/kg	<1	<1	-	-	
Cadmium (Cd)	0.5	mg/kg	0.7	<0.5	0.7	4.2	
Cobalt (Co)	1	mg/kg	11	15	-	-	
Chromium (Cr)	0.5	mg/kg	27.6	35.1	52.3	160	
Copper (Cu)	2	mg/kg	37	32	18.7	108	
Mercury (Hg)	0.05	mg/kg	<0.05	0.06	0.13	0.7	
Molybdenum (Mo)	1	mg/kg	1	2	-	-	
Nickel (Ni)	2	mg/kg	42	47	-	-	
Lead (Pb)	5	mg/kg	15	17	30.2	112	
Antimony (Sb)	0.2	mg/kg	<0.2	<0.2	-	-	
Selenium (Se)	0.2	mg/kg	1.9	1.2	-	-	
Tin (Sn)	5	mg/kg	<5	<5	-	-	
Thallium (Tl)	1	mg/kg	<1	<1	-	-	
Uranium (U)	40	mg/kg	<40	<40	-	-	
Vanadium (V)	1	mg/kg	43	48	-	-	
Zinc (Zn)	10	mg/kg	120	140	0.124	0.271	
Total PCBs - CCME							
Aroclor 1016	0.01	mg/kg	<0.01	<0.01	-	-	
Aroclor 1221	0.01	mg/kg	<0.01	<0.01	-	-	
Aroclor 1232	0.01	mg/kg	<0.01	<0.01	-	-	
Aroclor 1242	0.01	mg/kg	<0.01	<0.01	-	-	
Aroclor 1248	0.01	mg/kg	<0.01	<0.01	-	-	
Aroclor 1254	0.01	mg/kg	<0.01	<0.01	0.0663	0.709	
Aroclor 1260	0.01	mg/kg	<0.01	<0.01	-	-	
Aroclor 1262	0.01	mg/kg	<0.01	<0.01	-	-	
Aroclor 1268	0.01	mg/kg	<0.01	<0.01	-	-	
Total PCBs	0.05	mg/kg	<0.05	<0.05	0.0215	0.189	
Decachlorobiphenyl		%	78	87	-	-	

1 - Canadian Water Quality Guidleine for the Protection of Marine Aquatic Life

2 - Interim Sediment Quality Guideline

3 - Probable Effect Level

Collected By: Laboratory: Sample Date: Lab Reference No.:	MDL	Units	Reference IEG ETL	Exposure IEG ETL	Guideline ¹
Total PCBs - CCME			L335240-1	L335240-2	
Aroclor 1016	0.00005	mg/L	<0.00005	<0.00005	-
Aroclor 1221	0.00005	mg/L	<0.00005	<0.00005	-
Aroclor 1232	0.00005	mg/L	<0.00005	<0.00005	-
Aroclor 1242	0.00005	mg/L	<0.00005	<0.00005	-
Aroclor 1248	0.00005	mg/L	<0.00005	<0.00005	-
Aroclor 1254	0.00005	mg/L	<0.00005	<0.00005	-
Aroclor 1260	0.00005	mg/L	<0.00005	<0.00005	-
Aroclor 1262	0.00005	mg/L	<0.00005	<0.00005	-
Aroclor 1268	0.00005	mg/L	<0.00005	<0.00005	-
Total PCBs	0.00005	mg/L	<0.00005	<0.00005	-
Decachlorobiphenyl		%	85	81	-

1 - Canadian Water Quality Guidleine for the Protection of Marine Aquatic Life

Appendix D
Laboratory Certificates of Analysis

ANALYTICAL REPORT

INUVIALUIT ENVIRONMENTAL & GEOTECH

ATTN: DAVID WELL

PO BAG SERVICE #7

INUVIK NT X0E 0T0

DATE: 29-DEC-04 02:43 PM

Revision: 1

Lab Work Order #: L221211

Sampled By:

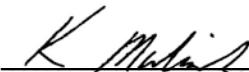
Date Received: 29-OCT-04

Project P.O. #: P.O.#3517

Project Reference: 57 27-04

Comments:

APPROVED BY:



KAREN BONNIE MALANOWICH

Project Manager

THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN AUTHORITY OF THE LABORATORY.
ANY REMAINING SAMPLES WILL BE DISPOSED OF AFTER 30 DAYS FOLLOWING ANALYSIS. PLEASE CONTACT THE LAB IF YOU
REQUIRE ADDITIONAL SAMPLE STORAGE TIME.

LABORATORY ACCREDITATIONS:

- STANDARDS COUNCIL OF CANADA IN COOPERATION WITH THE CANADIAN ASSOCIATION FOR ENVIRONMENTAL ANALYTICAL LABORATORIES (CAEAL) FOR SPECIFIC TESTS AS REGISTERED BY THE COUNCIL (EDMONTON, CALGARY, GRANDE PRAIRIE, SASKATOON, WINNIPEG, THUNDER BAY, WATERLOO)
- AMERICAN INDUSTRIAL HYGIENE ASSOCIATION (AIHA) IN THE INDUSTRIAL HYGIENE PROGRAM (EDMONTON, WINNIPEG)

- STANDARDS COUNCIL OF CANADA IN COOPERATION WITH THE CANADIAN FOOD INSPECTION AGENCY (CFIA) FOR FERTILIZER AND FEED TESTING (SASKATOON) AND FOR MICROBIOLOGICAL TESTING IN FOOD (WINNIPEG)

LABORATORY RECOGNITIONS:

- STANDARDS COUNCIL OF CANADA - GLP COMPLIANT FACILITY (EDMONTON, OTTAWA)

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L221211-1 TUK A1 TUKTOYAKTUK								
Sample Date: 26-OCT-04								
Matrix: SEDIMENT								
Total Organic Carbon								
Total Carbon by Combustion	2.0		0.1	%	03-NOV-04	03-NOV-04	HSL	R235036
Inorg/Org Carbon calc needs C-TOT-LECO								
Inorganic Carbon	0.61		0.01	%	03-NOV-04	03-NOV-04	JRB	R235055
Total Organic Carbon	1.4		0.1	%	03-NOV-04	03-NOV-04	JRB	R235055
Available Phosphate-P	5		1	mg/kg	04-NOV-04	04-NOV-04	NLM	R235205
Mercury (Hg)	<0.05		0.05	mg/kg		08-NOV-04	QLI	R236116
% Moisture	16.4		0.5	%	04-NOV-04	04-NOV-04	BD	R235333
Total Nitrogen by LECO	0.09		0.02	%	04-NOV-04	04-NOV-04	HSL	R235148
Particle Size - Hydrometer								
% Sand	77		1	%	03-NOV-04	04-NOV-04	YL	R235145
% Silt	15		1	%	03-NOV-04	04-NOV-04	YL	R235145
% Clay	8		1	%	03-NOV-04	04-NOV-04	YL	R235145
Texture	Sandy loam				03-NOV-04	04-NOV-04	YL	R235145
Metals (Strong Acid Rec.)								
Silver (Ag)	<1		1	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Aluminum (Al)	6100		200	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Barium (Ba)	210		10	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Beryllium (Be)	<2		2	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Calcium (Ca)	14200		100	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Cadmium (Cd)	<1		1	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Cobalt (Co)	7		1	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Chromium (Cr)	105		2	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Copper (Cu)	15		3	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Iron (Fe)	27200		200	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Potassium (K)	1200		100	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Magnesium (Mg)	6800		200	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Manganese (Mn)	430		20	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Molybdenum (Mo)	1		1	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Sodium (Na)	1700		100	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Nickel (Ni)	59		2	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Phosphorus (P)	2450		30	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Lead (Pb)	7		5	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Tin (Sn)	<5		5	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Strontium (Sr)	42		1	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Titanium (Ti)	52		5	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Thallium (Tl)	<1		1	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Vanadium (V)	25		1	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
Zinc (Zn)	60		10	mg/kg	04-NOV-04	04-NOV-04	BEM	R235243
L221211-2 TUK A2 TUKTOYAKTUK								
Sample Date: 26-OCT-04								
Matrix: SEDIMENT								
Total Organic Carbon								
Total Carbon by Combustion	2.7		0.1	%	03-NOV-04	03-NOV-04	HSL	R235036
Inorg/Org Carbon calc needs C-TOT-LECO								
Inorganic Carbon	0.15		0.01	%	03-NOV-04	03-NOV-04	JRB	R235055
Total Organic Carbon	2.6		0.1	%	03-NOV-04	03-NOV-04	JRB	R235055
Available Phosphate-P	2		1	mg/kg	04-NOV-04	04-NOV-04	NLM	R235205
Mercury (Hg)	<0.05		0.05	mg/kg		08-NOV-04	QLI	R236116

ENVIRO-TEST ANALYTICAL REPORT

Reference Information

Methods Listed (if applicable):

ETL Test Code	Matrix	Test Description	Preparation Method Reference(Based On)	Analytical Method Reference(Based On)
C-TOT-LECO-SK	Soil	Total Carbon by combustion method Nelson, D.W. and Sommers, L.E. 1996. Total carbon and organic matter. p 961-1010. In: J.M. Bartels et al. (ed.). Methods of Soil Analysis: Part 3 Chemical Methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5.		SSSA (1996) - Combustion Instrument
HG-HYD-ED	Soil	Mercury (Hg) (CVAA)	APHA 3112 B	APHA 3112 B
METAL-EXD-SK	Soil	Metals (Strong Acid Rec.)		SW 846 - 3050/6010-ICP-OES
N-TOT-LECO-SK	Soil	Total Nitrogen by combustion method Nelson, D.W. and Sommers, L.E. 1996. Total Carbon, organic carbon and organic matter. P. 973-974 In: J.M. Bartels et al. (ed.) Methods of soil analysis: Part 3 Chemical methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5		SSSA (1996) p. 973-974
PO4-AVAIL-SK	Soil	Available Phosphate-P		Comm. Soil Sci. Plant Anal. 25 (5&6)
PSA-1-SK	Soil	Particle Size - Hydrometer		Forestry Canada (1991) p.42-45.
Kalra, Y.P., Maynard, D.G. 1991. Methods manual for forest soil and plant analysis. Forestry Canada. p. 42-45.				

** Laboratory Methods employed follow in-house procedures, which are generally based on nationally or internationally accepted methodologies.

Chain of Custody numbers:

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
ED	Enviro-Test Laboratories - Edmonton, Alberta, Canada	SK	Enviro-Test Laboratories - Saskatoon, Saskatchewan, Canada

GLOSSARY OF REPORT TERMS

Surr - A surrogate is an organic compound that is similar to the target analyte(s) in chemical composition and behavior but not normally detected in environmental samples. Prior to sample processing, samples are fortified with one or more surrogate compounds.

The reported surrogate recovery value provides a measure of method efficiency. The Laboratory warning units are determined under column heading D.L.

mg/kg (units) - unit of concentration based on mass, parts per million

mg/L (units) - unit of concentration based on volume, parts per million

< - Less than

D.L. - Detection Limit

N/A - Result not available. Refer to qualifier code and definition for explanation

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

UNLESS OTHERWISE STATED, SAMPLES ARE NOT CORRECTED FOR CLIENT FIELD BLANKS.

Although test results are generated under strict QA/QC protocols, any unsigned test reports, faxes, or emails are considered preliminary.

Enviro-Test Laboratories has an extensive QA/QC program where all analytical data reported is analyzed using approved referenced procedures followed by checks and reviews by senior managers and quality assurance personnel. However, since the results are obtained from chemical measurements and thus cannot be guaranteed, Enviro-Test Laboratories assumes no liability for the use or interpretation of the results.



PRELIMINARY RESULTS

INUVIALUIT ENVIRONMENTAL & GEOTECH

ATTN: JOEY HERRINGTON

DOWLAND BUILDING NAVY ROAD, PO BOX 3178

INUVIK NT X0E 0T0

DATE: 03-NOV-05 06:31 PM

Lab Work Order #: L335240

Date Received: 28-OCT-05

Project P.O. #: 3869

Job Reference: 20213

Comments:

DOUG JOHNSON
Director of Operations, Edmonton

SANDRA WATSON
Account Manager

THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN AUTHORITY OF THE LABORATORY.
ANY REMAINING SAMPLES WILL BE DISPOSED OF AFTER 30 DAYS FOLLOWING ANALYSIS. PLEASE CONTACT THE LAB IF YOU
REQUIRE ADDITIONAL SAMPLE STORAGE TIME.

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L335240-1	REFERENCE TUKTOYAKTUK								
Sample By:	NOT PROVIDED on 20-SEP-05								
Matrix:	WATER/SEDIMENT								
Total Metals - CCME									
Total Trace Metals									
Silver (Ag)	<0.0004	RAMB	0.0004	mg/L		31-OCT-05	CLL	R341841	
Aluminum (Al)	0.11		0.01	mg/L		31-OCT-05	CLL	R341841	
Arsenic (As)	0.0565		0.0004	mg/L		31-OCT-05	CLL	R341841	
Boron (B)	2.87		0.05	mg/L		31-OCT-05	CLL	R341841	
Barium (Ba)	0.055		0.003	mg/L		31-OCT-05	CLL	R341841	
Beryllium (Be)	<0.001		0.001	mg/L		31-OCT-05	CLL	R341841	
Cadmium (Cd)	<0.0002		0.0002	mg/L		31-OCT-05	CLL	R341841	
Cobalt (Co)	<0.002		0.002	mg/L		31-OCT-05	CLL	R341841	
Chromium (Cr)	<0.005		0.005	mg/L		31-OCT-05	CLL	R341841	
Copper (Cu)	0.007		0.001	mg/L		31-OCT-05	CLL	R341841	
Mercury (Hg)	<0.0002		0.0002	mg/L		31-OCT-05	CLL	R341841	
Lithium (Li)	0.13		0.01	mg/L		31-OCT-05	CLL	R341841	
Molybdenum (Mo)	0.010		0.005	mg/L		31-OCT-05	CLL	R341841	
Nickel (Ni)	<0.002		0.002	mg/L		31-OCT-05	CLL	R341841	
Lead (Pb)	0.0002		0.0001	mg/L		31-OCT-05	CLL	R341841	
Antimony (Sb)	0.0011		0.0004	mg/L		31-OCT-05	CLL	R341841	
Selenium (Se)	0.212		0.0004	mg/L		31-OCT-05	CLL	R341841	
Tin (Sn)	<0.05		0.05	mg/L		31-OCT-05	CLL	R341841	
Titanium (Ti)	0.007		0.001	mg/L		31-OCT-05	CLL	R341841	
Thallium (Tl)	<0.0001		0.0001	mg/L		31-OCT-05	CLL	R341841	
Uranium (U)	0.0029		0.0001	mg/L		31-OCT-05	CLL	R341841	
Vanadium (V)	0.041		0.001	mg/L		31-OCT-05	CLL	R341841	
Zinc (Zn)	0.011		0.004	mg/L		31-OCT-05	CLL	R341841	
Total Major Metals									
Calcium (Ca)	297		0.5	mg/L		01-NOV-05	HAS	R341863	
Potassium (K)	250		0.1	mg/L		01-NOV-05	HAS	R341863	
Magnesium (Mg)	880		0.1	mg/L		01-NOV-05	HAS	R341863	
Sodium (Na)	7170		1	mg/L		01-NOV-05	HAS	R341863	
Iron (Fe)	0.171		0.005	mg/L		01-NOV-05	HAS	R341863	
Manganese (Mn)	0.062		0.001	mg/L		01-NOV-05	HAS	R341863	
% Moisture	62		0.1	%		30-OCT-05	PDS	R340756	
PCBs									
Aroclor 1016	<0.00005		0.00005	mg/L	02-NOV-05	03-NOV-05	JLD	R342358	
Aroclor 1221	<0.00005		0.00005	mg/L	02-NOV-05	03-NOV-05	JLD	R342358	
Aroclor 1232	<0.00005		0.00005	mg/L	02-NOV-05	03-NOV-05	JLD	R342358	
Aroclor 1242	<0.00005		0.00005	mg/L	02-NOV-05	03-NOV-05	JLD	R342358	
Aroclor 1248	<0.00005		0.00005	mg/L	02-NOV-05	03-NOV-05	JLD	R342358	
Aroclor 1254	<0.00005		0.00005	mg/L	02-NOV-05	03-NOV-05	JLD	R342358	
Aroclor 1260	<0.00005		0.00005	mg/L	02-NOV-05	03-NOV-05	JLD	R342358	
Aroclor 1262	<0.00005		0.00005	mg/L	02-NOV-05	03-NOV-05	JLD	R342358	
Aroclor 1268	<0.00005		0.00005	mg/L	02-NOV-05	03-NOV-05	JLD	R342358	
Total PCBs	<0.00005		0.00005	mg/L	02-NOV-05	03-NOV-05	JLD	R342358	
Surr: Decachlorobiphenyl	85		65-119	%	02-NOV-05	03-NOV-05	JLD	R342358	
PCBs									
Aroclor 1016	<0.01		0.01	mg/kg	02-NOV-05	03-NOV-05	JLD	R342823	
Aroclor 1221	<0.01		0.01	mg/kg	02-NOV-05	03-NOV-05	JLD	R342823	
Aroclor 1232	<0.01		0.01	mg/kg	02-NOV-05	03-NOV-05	JLD	R342823	
Aroclor 1242	<0.01		0.01	mg/kg	02-NOV-05	03-NOV-05	JLD	R342823	
Aroclor 1248	<0.01		0.01	mg/kg	02-NOV-05	03-NOV-05	JLD	R342823	

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L335240-1	REFERENCE TUKTOYAKTUK								
Sample By:	NOT PROVIDED on 20-SEP-05								
Matrix:	WATER/SEDIMENT								
PCBs									
	Aroclor 1254	<0.01		0.01	mg/kg	02-NOV-05	03-NOV-05	JLD	R342823
	Aroclor 1260	<0.01		0.01	mg/kg	02-NOV-05	03-NOV-05	JLD	R342823
	Aroclor 1262	<0.01		0.01	mg/kg	02-NOV-05	03-NOV-05	JLD	R342823
	Aroclor 1268	<0.01		0.01	mg/kg	02-NOV-05	03-NOV-05	JLD	R342823
	Total PCBs	<0.05		0.05	mg/kg	02-NOV-05	03-NOV-05	JLD	R342823
Surr:	Decachlorobiphenyl	78		74-126	%	02-NOV-05	03-NOV-05	JLD	R342823
Metals in Soil - CCME List									
	Silver (Ag)	<1		1	mg/kg	02-NOV-05	QLI	R342332	
	Arsenic (As)	12.8		0.2	mg/kg	02-NOV-05	QLI	R342332	
	Barium (Ba)	144		5	mg/kg	02-NOV-05	QLI	R342332	
	Beryllium (Be)	<1		1	mg/kg	02-NOV-05	QLI	R342332	
	Cadmium (Cd)	0.7		0.5	mg/kg	02-NOV-05	QLI	R342332	
	Cobalt (Co)	11		1	mg/kg	02-NOV-05	QLI	R342332	
	Chromium (Cr)	27.6		0.5	mg/kg	02-NOV-05	QLI	R342332	
	Copper (Cu)	37		2	mg/kg	02-NOV-05	QLI	R342332	
	Mercury (Hg)	<0.05		0.05	mg/kg	02-NOV-05	QLI	R342332	
	Molybdenum (Mo)	1		1	mg/kg	02-NOV-05	QLI	R342332	
	Nickel (Ni)	42		2	mg/kg	02-NOV-05	QLI	R342332	
	Lead (Pb)	15		5	mg/kg	02-NOV-05	QLI	R342332	
	Antimony (Sb)	<0.2		0.2	mg/kg	02-NOV-05	QLI	R342332	
	Selenium (Se)	1.9		0.2	mg/kg	02-NOV-05	QLI	R342332	
	Tin (Sn)	<5		5	mg/kg	02-NOV-05	QLI	R342332	
	Thallium (Tl)	<1		1	mg/kg	02-NOV-05	QLI	R342332	
	Uranium (U)	<40		40	mg/kg	02-NOV-05	QLI	R342332	
	Vanadium (V)	43		1	mg/kg	02-NOV-05	QLI	R342332	
	Zinc (Zn)	120		10	mg/kg	02-NOV-05	QLI	R342332	
Routine Water Analysis									
	Chloride (Cl)	12200		1	mg/L	03-NOV-05	JWU	R342065	
	Nitrate+Nitrite-N	<0.1		0.1	mg/L	28-OCT-05	TL	R340539	
	Nitrate-N	<0.1		0.1	mg/L	28-OCT-05	TL	R340539	
	Nitrite-N	<0.05		0.05	mg/L	28-OCT-05	TL	R340539	
pH, Conductivity and Total Alkalinity									
	pH	7.8		0.1	pH	01-NOV-05	PTT	R341598	
	Conductivity (EC)	32900		0.2	uS/cm	01-NOV-05	PTT	R341598	
	Bicarbonate (HCO3)	135		5	mg/L	01-NOV-05	PTT	R341598	
	Carbonate (CO3)	<5		5	mg/L	01-NOV-05	PTT	R341598	
	Hydroxide (OH)	<5		5	mg/L	01-NOV-05	PTT	R341598	
	Alkalinity, Total (as CaCO3)	111		5	mg/L	01-NOV-05	PTT	R341598	
Ion Balance Calculation									
	Ion Balance	105			%	03-NOV-05			
	TDS (Calculated)	22700			mg/L	03-NOV-05			
	Hardness (as CaCO3)	4400			mg/L	03-NOV-05			
ICP metals and SO4 for routine water									
	Calcium (Ca)	301		0.5	mg/L	03-NOV-05	AHY	R342647	
	Potassium (K)	260		0.5	mg/L	03-NOV-05	AHY	R342647	
	Magnesium (Mg)	885		0.1	mg/L	03-NOV-05	AHY	R342647	
	Sodium (Na)	7160		1	mg/L	03-NOV-05	AHY	R342647	
	Sulfate (SO4)	1850		0.5	mg/L	03-NOV-05	AHY	R342647	

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L335240-2	EXPOSURE TUKTOYAKTUK								
Sample By:	NOT PROVIDED on 20-SEP-05								
Matrix:	WATER/SEDIMENT								
Total Metals - CCME									
Total Trace Metals									
Silver (Ag)	<0.0004	0.0004	mg/L		31-OCT-05	CLL	R341841		
Aluminum (Al)	0.20	0.01	mg/L		31-OCT-05	CLL	R341841		
Arsenic (As)	0.0351	0.0004	mg/L		31-OCT-05	CLL	R341841		
Boron (B)	1.83	0.05	mg/L		31-OCT-05	CLL	R341841		
Barium (Ba)	0.098	0.003	mg/L		31-OCT-05	CLL	R341841		
Beryllium (Be)	<0.001	0.001	mg/L		31-OCT-05	CLL	R341841		
Cadmium (Cd)	<0.0002	0.0002	mg/L		31-OCT-05	CLL	R341841		
Cobalt (Co)	<0.002	0.002	mg/L		31-OCT-05	CLL	R341841		
Chromium (Cr)	<0.005	0.005	mg/L		31-OCT-05	CLL	R341841		
Copper (Cu)	0.007	0.001	mg/L		31-OCT-05	CLL	R341841		
Mercury (Hg)	<0.0002	0.0002	mg/L		31-OCT-05	CLL	R341841		
Lithium (Li)	0.09	0.01	mg/L		31-OCT-05	CLL	R341841		
Molybdenum (Mo)	0.007	0.005	mg/L		31-OCT-05	CLL	R341841		
Nickel (Ni)	<0.002	0.002	mg/L		31-OCT-05	CLL	R341841		
Lead (Pb)	0.0003	0.0001	mg/L		31-OCT-05	CLL	R341841		
Antimony (Sb)	0.0009	0.0004	mg/L		31-OCT-05	CLL	R341841		
Selenium (Se)	0.210	0.0004	mg/L		31-OCT-05	CLL	R341841		
Tin (Sn)	<0.05	0.05	mg/L		31-OCT-05	CLL	R341841		
Titanium (Ti)	0.007	0.001	mg/L		31-OCT-05	CLL	R341841		
Thallium (Tl)	<0.0001	0.0001	mg/L		31-OCT-05	CLL	R341841		
Uranium (U)	0.0022	0.0001	mg/L		31-OCT-05	CLL	R341841		
Vanadium (V)	0.033	0.001	mg/L		31-OCT-05	CLL	R341841		
Zinc (Zn)	0.010	0.004	mg/L		31-OCT-05	CLL	R341841		
Total Major Metals									
Calcium (Ca)	227	0.5	mg/L		01-NOV-05	HAS	R341863		
Potassium (K)	180	0.1	mg/L		01-NOV-05	HAS	R341863		
Magnesium (Mg)	623	0.1	mg/L		01-NOV-05	HAS	R341863		
Sodium (Na)	5190	1	mg/L		01-NOV-05	HAS	R341863		
Iron (Fe)	0.443	0.005	mg/L		01-NOV-05	HAS	R341863		
Manganese (Mn)	0.065	0.001	mg/L		01-NOV-05	HAS	R341863		
% Moisture	49	0.1	%		30-OCT-05	PDS	R340756		
PCBs									
Aroclor 1016	<0.00005	0.00005	mg/L	02-NOV-05	03-NOV-05	JLD	R342358		
Aroclor 1221	<0.00005	0.00005	mg/L	02-NOV-05	03-NOV-05	JLD	R342358		
Aroclor 1232	<0.00005	0.00005	mg/L	02-NOV-05	03-NOV-05	JLD	R342358		
Aroclor 1242	<0.00005	0.00005	mg/L	02-NOV-05	03-NOV-05	JLD	R342358		
Aroclor 1248	<0.00005	0.00005	mg/L	02-NOV-05	03-NOV-05	JLD	R342358		
Aroclor 1254	<0.00005	0.00005	mg/L	02-NOV-05	03-NOV-05	JLD	R342358		
Aroclor 1260	<0.00005	0.00005	mg/L	02-NOV-05	03-NOV-05	JLD	R342358		
Aroclor 1262	<0.00005	0.00005	mg/L	02-NOV-05	03-NOV-05	JLD	R342358		
Aroclor 1268	<0.00005	0.00005	mg/L	02-NOV-05	03-NOV-05	JLD	R342358		
Total PCBs	<0.00005	0.00005	mg/L	02-NOV-05	03-NOV-05	JLD	R342358		
Surr: Decachlorobiphenyl	81	65-119	%	02-NOV-05	03-NOV-05	JLD	R342358		
PCBs									
Aroclor 1016	<0.01	0.01	mg/kg	02-NOV-05	03-NOV-05	JLD	R342823		
Aroclor 1221	<0.01	0.01	mg/kg	02-NOV-05	03-NOV-05	JLD	R342823		
Aroclor 1232	<0.01	0.01	mg/kg	02-NOV-05	03-NOV-05	JLD	R342823		
Aroclor 1242	<0.01	0.01	mg/kg	02-NOV-05	03-NOV-05	JLD	R342823		
Aroclor 1248	<0.01	0.01	mg/kg	02-NOV-05	03-NOV-05	JLD	R342823		

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L335240-2	EXPOSURE TUKTOYAKTUK								
Sample By:	NOT PROVIDED on 20-SEP-05								
Matrix:	WATER/SEDIMENT								
PCBs									
Aroclor 1254	<0.01	0.01	mg/kg	02-NOV-05	03-NOV-05	JLD	R342823		
Aroclor 1260	<0.01	0.01	mg/kg	02-NOV-05	03-NOV-05	JLD	R342823		
Aroclor 1262	<0.01	0.01	mg/kg	02-NOV-05	03-NOV-05	JLD	R342823		
Aroclor 1268	<0.01	0.01	mg/kg	02-NOV-05	03-NOV-05	JLD	R342823		
Total PCBs	<0.05	0.05	mg/kg	02-NOV-05	03-NOV-05	JLD	R342823		
Surr: Decachlorobiphenyl	87	74-126	%	02-NOV-05	03-NOV-05	JLD	R342823		
Metals in Soil - CCME List									
Silver (Ag)	<1	1	mg/kg	02-NOV-05	QLI	R342332			
Arsenic (As)	13.8	0.2	mg/kg	02-NOV-05	QLI	R342332			
Barium (Ba)	334	5	mg/kg	02-NOV-05	QLI	R342332			
Beryllium (Be)	<1	1	mg/kg	02-NOV-05	QLI	R342332			
Cadmium (Cd)	<0.5	0.5	mg/kg	02-NOV-05	QLI	R342332			
Cobalt (Co)	15	1	mg/kg	02-NOV-05	QLI	R342332			
Chromium (Cr)	35.1	0.5	mg/kg	02-NOV-05	QLI	R342332			
Copper (Cu)	32	2	mg/kg	02-NOV-05	QLI	R342332			
Mercury (Hg)	0.06	0.05	mg/kg	02-NOV-05	QLI	R342332			
Molybdenum (Mo)	2	1	mg/kg	02-NOV-05	QLI	R342332			
Nickel (Ni)	47	2	mg/kg	02-NOV-05	QLI	R342332			
Lead (Pb)	17	5	mg/kg	02-NOV-05	QLI	R342332			
Antimony (Sb)	<0.2	0.2	mg/kg	02-NOV-05	QLI	R342332			
Selenium (Se)	1.2	0.2	mg/kg	02-NOV-05	QLI	R342332			
Tin (Sn)	<5	5	mg/kg	02-NOV-05	QLI	R342332			
Thallium (Tl)	<1	1	mg/kg	02-NOV-05	QLI	R342332			
Uranium (U)	<40	40	mg/kg	02-NOV-05	QLI	R342332			
Vanadium (V)	48	1	mg/kg	02-NOV-05	QLI	R342332			
Zinc (Zn)	140	10	mg/kg	02-NOV-05	QLI	R342332			
Routine Water Analysis									
Chloride (Cl)	8180	1	mg/L	03-NOV-05	JWU	R342065			
Nitrate+Nitrite-N	<0.1	0.1	mg/L	28-OCT-05	TL	R340539			
Nitrate-N	<0.1	0.1	mg/L	28-OCT-05	TL	R340539			
Nitrite-N	<0.05	0.05	mg/L	28-OCT-05	TL	R340539			
pH, Conductivity and Total Alkalinity									
pH	7.8	0.1	pH	01-NOV-05	PTT	R341598			
Conductivity (EC)	23300	0.2	uS/cm	01-NOV-05	PTT	R341598			
Bicarbonate (HCO3)	135	5	mg/L	01-NOV-05	PTT	R341598			
Carbonate (CO3)	<5	5	mg/L	01-NOV-05	PTT	R341598			
Hydroxide (OH)	<5	5	mg/L	01-NOV-05	PTT	R341598			
Alkalinity, Total (as CaCO3)	111	5	mg/L	01-NOV-05	PTT	R341598			
Ion Balance Calculation									
Ion Balance	107		%	03-NOV-05					
TDS (Calculated)	15400		mg/L	03-NOV-05					
Hardness (as CaCO3)	3060		mg/L	03-NOV-05					
ICP metals and SO4 for routine water									
Calcium (Ca)	223	0.5	mg/L	03-NOV-05	AHY	R342647			
Potassium (K)	176	0.5	mg/L	03-NOV-05	AHY	R342647			
Magnesium (Mg)	609	0.1	mg/L	03-NOV-05	AHY	R342647			
Sodium (Na)	4880	1	mg/L	03-NOV-05	AHY	R342647			
Sulfate (SO4)	1250	0.5	mg/L	03-NOV-05	AHY	R342647			

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier key listed:

Qualifier	Description
RAMB	Result Adjusted For Method Blank

Methods Listed (if applicable):

ETL Test Code	Matrix	Test Description	Preparation Method Reference(Based On)	Analytical Method Reference(Based On)
CL-ED	Water	Chloride (Cl)		APHA 4500 CI E-Colorimetry
ETL-ROUTINE-ICP-ED	Water	ICP metals and SO4 for routine water		APHA 3120 B-ICP-OES
IONBALANCE-ED	Water	Ion Balance Calculation		APHA 1030E
MET1-TOT-CCME-ED	Water	Total Trace Metals	EPA3015	EPA 6020
MET2-TOT-LOW-ED	Water	Total Major Metals	EPA3015	EPA 200.7
METAL-CCME-ED	Soil	Metals in Soil - CCME List	EPA 3050	EPA 6020
N2N3-ED	Water	Nitrate+Nitrite-N		APHA 4500 NO3H-Colorimetry
NO2-ED	Water	Nitrite-N		APHA 4500 NO2B-Colorimetry
NO3-ED	Water	Nitrate-N		APHA 4500 NO3H-Colorimetry
PCB-ED	Water	PCBs		EPA 3510/8082-GC-ECD
PCB-ED	Soil	PCBs		EPA 3550/8082-GC-ECD
PH/EC/ALK-ED	Water	pH, Conductivity and Total Alkalinity		APHA 4500-H, 2510, 2320
PREP-MOISTURE-ED	Soil	% Moisture		Oven dry 105C-Gravimetric

** Laboratory Methods employed follow in-house procedures, which are generally based on nationally or internationally accepted methodologies.

Chain of Custody numbers:

230614

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
ED	Enviro-Test Laboratories - Edmonton, Alberta, Canada		

Reference Information

GLOSSARY OF REPORT TERMS

Surr - A surrogate is an organic compound that is similar to the target analyte(s) in chemical composition and behavior but not normally detected in environmental samples. Prior to sample processing, samples are fortified with one or more surrogate compounds.

The reported surrogate recovery value provides a measure of method efficiency. The Laboratory warning units are determined under column heading D.L.

mg/kg (units) - unit of concentration based on mass, parts per million

mg/L (units) - unit of concentration based on volume, parts per million

< - Less than

D.L. - Detection Limit

N/A - Result not available. Refer to qualifier code and definition for explanation

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

UNLESS OTHERWISE STATED, SAMPLES ARE NOT CORRECTED FOR CLIENT FIELD BLANKS.

Although test results are generated under strict QA/QC protocols, any unsigned test reports, faxes, or emails are considered preliminary.

Enviro-Test Laboratories has an extensive QA/QC program where all analytical data reported is analyzed using approved referenced procedures followed by checks and reviews by senior managers and quality assurance personnel. However, since the results are obtained from chemical measurements and thus cannot be guaranteed, Enviro-Test Laboratories assumes no liability for the use or interpretation of the results.



PRELIMINARY RESULTS

INUVIALUIT ENVIRONMENTAL & GEOTECH

ATTN: JOEY HERRINGTON

DOWLAND BUILDING NAVY ROAD, PO BOX 3178

INUVIK NT X0E 0TO

Report On: 28-FEB-06 12:47 PM

Lab Work Order #: **L362317**

Date Received: **09-FEB-06**

Project P.O. #: 3819

Job Reference: 20213

Legal Site Desc:

CofC Numbers: 196137, 196138, 199403

Comments:

DOUG JOHNSON
Director of Operations, Edmonton

SANDRA WATSON
Account Manager

THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN AUTHORITY OF THE LABORATORY.
ANY REMAINING SAMPLES WILL BE DISPOSED OF AFTER 30 DAYS FOLLOWING ANALYSIS. PLEASE CONTACT THE LAB IF YOU
REQUIRE ADDITIONAL SAMPLE STORAGE TIME.

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L362317-1	E1 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Arsenic (As)	0.60			0.05	mg/kg	23-FEB-06	CLL	R375591	
Phosphorus (P)	2580	RAMB	20	mg/kg	23-FEB-06	CVE	R375592		
Selenium (Se)	1.27		0.05	mg/kg	23-FEB-06	CLL	R375591		
Titanium (Ti)	0.11		0.05	mg/kg	23-FEB-06	CLL	R375591		
Metals in Tissue									
Silver (Ag)	<0.05		0.05	mg/kg	23-FEB-06	CLL	R375591		
Aluminum (Al)	<2		2	mg/kg	23-FEB-06	CLL	R375591		
Barium (Ba)	<0.1		0.1	mg/kg	23-FEB-06	CLL	R375591		
Beryllium (Be)	<0.2		0.2	mg/kg	23-FEB-06	CLL	R375591		
Cadmium (Cd)	<0.01		0.01	mg/kg	23-FEB-06	CLL	R375591		
Cobalt (Co)	<0.1		0.1	mg/kg	23-FEB-06	CLL	R375591		
Chromium (Cr)	0.6		0.1	mg/kg	23-FEB-06	CLL	R375591		
Copper (Cu)	0.35		0.05	mg/kg	23-FEB-06	CLL	R375591		
Molybdenum (Mo)	<0.05		0.05	mg/kg	23-FEB-06	CLL	R375591		
Nickel (Ni)	<0.02		0.02	mg/kg	23-FEB-06	CLL	R375591		
Lead (Pb)	<0.02		0.02	mg/kg	23-FEB-06	CLL	R375591		
Antimony (Sb)	<0.05		0.05	mg/kg	23-FEB-06	CLL	R375591		
Tin (Sn)	<0.1		0.1	mg/kg	23-FEB-06	CLL	R375591		
Strontium (Sr)	0.21		0.05	mg/kg	23-FEB-06	CLL	R375591		
Thallium (Tl)	<0.05		0.05	mg/kg	23-FEB-06	CLL	R375591		
Vanadium (V)	<0.1		0.1	mg/kg	23-FEB-06	CLL	R375591		
Zinc (Zn)	4.1		0.5	mg/kg	23-FEB-06	CLL	R375591		
Metals in Tissue									
Calcium (Ca)	80		20	mg/kg	23-FEB-06	CVE	R375592		
Potassium (K)	4880		20	mg/kg	23-FEB-06	CVE	R375592		
Magnesium (Mg)	337		5	mg/kg	23-FEB-06	CVE	R375592		
Sodium (Na)	350		20	mg/kg	23-FEB-06	CVE	R375592		
Iron (Fe)	<5		5	mg/kg	23-FEB-06	CVE	R375592		
Manganese (Mn)	<0.5		0.5	mg/kg	23-FEB-06	CVE	R375592		
% Moisture		76.1	0.1	%		24-FEB-06	CMM	R375742	
PCBs		Mercury (Hg)	0.42	0.01	mg/kg	23-FEB-06	CLL	R375591	
Aroclor 1016	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1221	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1232	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1242	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1248	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1254	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1260	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1262	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1268	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Total PCBs	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Surr: Decachlorobiphenyl	88	67-112	%	21-FEB-06	28-FEB-06	AMB	R376452		
L362317-2	E2 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Arsenic (As)	0.48		0.05	mg/kg	23-FEB-06	CLL	R375591		
Phosphorus (P)	2190	RAMB	20	mg/kg	23-FEB-06	CVE	R375592		

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L362317-2	E2 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Selenium (Se)	0.87		0.05	mg/kg		23-FEB-06	CLL	R375591	
Titanium (Ti)	0.12		0.05	mg/kg		23-FEB-06	CLL	R375591	
Metals in Tissue									
Silver (Ag)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Aluminum (Al)	<2		2	mg/kg		23-FEB-06	CLL	R375591	
Barium (Ba)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Beryllium (Be)	<0.2		0.2	mg/kg		23-FEB-06	CLL	R375591	
Cadmium (Cd)	<0.01		0.01	mg/kg		23-FEB-06	CLL	R375591	
Cobalt (Co)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Chromium (Cr)	0.5		0.1	mg/kg		23-FEB-06	CLL	R375591	
Copper (Cu)	0.29		0.05	mg/kg		23-FEB-06	CLL	R375591	
Molybdenum (Mo)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Nickel (Ni)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Lead (Pb)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Antimony (Sb)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Tin (Sn)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Strontium (Sr)	0.55		0.05	mg/kg		23-FEB-06	CLL	R375591	
Thallium (Tl)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Vanadium (V)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Zinc (Zn)	3.1		0.5	mg/kg		23-FEB-06	CLL	R375591	
Metals in Tissue									
Calcium (Ca)	150		20	mg/kg		23-FEB-06	CVE	R375592	
Potassium (K)	4340		20	mg/kg		23-FEB-06	CVE	R375592	
Magnesium (Mg)	286		5	mg/kg		23-FEB-06	CVE	R375592	
Sodium (Na)	450		20	mg/kg		23-FEB-06	CVE	R375592	
Iron (Fe)	<5		5	mg/kg		23-FEB-06	CVE	R375592	
Manganese (Mn)	<0.5		0.5	mg/kg		23-FEB-06	CVE	R375592	
% Moisture	78.4		0.1	%		24-FEB-06	CMM	R375742	
Mercury (Hg)	0.20		0.01	mg/kg		23-FEB-06	CLL	R375591	
PCBs									
Aroclor 1016	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1221	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1232	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1242	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1248	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1254	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1260	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1262	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1268	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Total PCBs	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Surf: Decachlorobiphenyl	80		67-112	%	21-FEB-06	28-FEB-06	AMB	R376452	
L362317-3	E3 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Arsenic (As)	0.43		0.05	mg/kg		23-FEB-06	CLL	R375591	
Phosphorus (P)	2100	RAMB	20	mg/kg		23-FEB-06	CVE	R375592	
Selenium (Se)	0.76		0.05	mg/kg		23-FEB-06	CLL	R375591	
Titanium (Ti)	0.11		0.05	mg/kg		23-FEB-06	CLL	R375591	

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L362317-3	E3 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Silver (Ag)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Aluminum (Al)	9		2	mg/kg		23-FEB-06	CLL	R375591	
Barium (Ba)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Beryllium (Be)	<0.2		0.2	mg/kg		23-FEB-06	CLL	R375591	
Cadmium (Cd)	<0.01		0.01	mg/kg		23-FEB-06	CLL	R375591	
Cobalt (Co)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Chromium (Cr)	0.5		0.1	mg/kg		23-FEB-06	CLL	R375591	
Copper (Cu)	0.20		0.05	mg/kg		23-FEB-06	CLL	R375591	
Molybdenum (Mo)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Nickel (Ni)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Lead (Pb)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Antimony (Sb)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Tin (Sn)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Strontium (Sr)	0.90		0.05	mg/kg		23-FEB-06	CLL	R375591	
Thallium (Tl)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Vanadium (V)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Zinc (Zn)	3.2		0.5	mg/kg		23-FEB-06	CLL	R375591	
Metals in Tissue									
Calcium (Ca)	280		20	mg/kg		23-FEB-06	CVE	R375592	
Potassium (K)	4180		20	mg/kg		23-FEB-06	CVE	R375592	
Magnesium (Mg)	292		5	mg/kg		23-FEB-06	CVE	R375592	
Sodium (Na)	290		20	mg/kg		23-FEB-06	CVE	R375592	
Iron (Fe)	11		5	mg/kg		23-FEB-06	CVE	R375592	
Manganese (Mn)	<0.5		0.5	mg/kg		23-FEB-06	CVE	R375592	
% Moisture									
Mercury (Hg)	78.8		0.1	%		24-FEB-06	CMM	R375742	
PCBs									
Aroclor 1016	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1221	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1232	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1242	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1248	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1254	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1260	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1262	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1268	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Total PCBs	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Surf: Decachlorobiphenyl	78	67-112		%	21-FEB-06	28-FEB-06	AMB	R376452	
L362317-4	E4 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Arsenic (As)	1.36		0.05	mg/kg		23-FEB-06	CLL	R375591	
Phosphorus (P)	2890	RAMB	20	mg/kg		23-FEB-06	CVE	R375592	
Selenium (Se)	0.90		0.05	mg/kg		23-FEB-06	CLL	R375591	
Titanium (Ti)	0.11		0.05	mg/kg		23-FEB-06	CLL	R375591	
Metals in Tissue									
Silver (Ag)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L362317-4	E4 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Aluminum (Al)	<2		2	mg/kg		23-FEB-06	CLL	R375591	
Barium (Ba)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Beryllium (Be)	<0.2		0.2	mg/kg		23-FEB-06	CLL	R375591	
Cadmium (Cd)	<0.01		0.01	mg/kg		23-FEB-06	CLL	R375591	
Cobalt (Co)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Chromium (Cr)	0.6		0.1	mg/kg		23-FEB-06	CLL	R375591	
Copper (Cu)	0.29		0.05	mg/kg		23-FEB-06	CLL	R375591	
Molybdenum (Mo)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Nickel (Ni)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Lead (Pb)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Antimony (Sb)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Tin (Sn)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Strontium (Sr)	1.03		0.05	mg/kg		23-FEB-06	CLL	R375591	
Thallium (Tl)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Vanadium (V)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Zinc (Zn)	4.0		0.5	mg/kg		23-FEB-06	CLL	R375591	
Metals in Tissue									
Calcium (Ca)	240		20	mg/kg		23-FEB-06	CVE	R375592	
Potassium (K)	5020		20	mg/kg		23-FEB-06	CVE	R375592	
Magnesium (Mg)	361		5	mg/kg		23-FEB-06	CVE	R375592	
Sodium (Na)	640		20	mg/kg		23-FEB-06	CVE	R375592	
Iron (Fe)	6		5	mg/kg		23-FEB-06	CVE	R375592	
Manganese (Mn)	<0.5		0.5	mg/kg		23-FEB-06	CVE	R375592	
% Moisture	76.3		0.1	%		24-FEB-06	CMM	R375742	
Mercury (Hg)	0.10		0.01	mg/kg		23-FEB-06	CLL	R375591	
PCBs									
Aroclor 1016	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1221	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1232	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1242	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1248	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1254	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1260	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1262	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1268	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Total PCBs	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Surf: Decachlorobiphenyl	80		67-112	%	21-FEB-06	28-FEB-06	AMB	R376452	
L362317-5	E5 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Arsenic (As)	0.31		0.05	mg/kg		23-FEB-06	CLL	R375591	
Phosphorus (P)	2520	RAMB	20	mg/kg		23-FEB-06	CVE	R375592	
Selenium (Se)	1.16		0.05	mg/kg		23-FEB-06	CLL	R375591	
Titanium (Ti)	0.10		0.05	mg/kg		23-FEB-06	CLL	R375591	
Metals in Tissue									
Silver (Ag)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Aluminum (Al)	<2		2	mg/kg		23-FEB-06	CLL	R375591	

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L362317-5	E5 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Barium (Ba)	0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Beryllium (Be)	<0.2		0.2	mg/kg		23-FEB-06	CLL	R375591	
Cadmium (Cd)	<0.01		0.01	mg/kg		23-FEB-06	CLL	R375591	
Cobalt (Co)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Chromium (Cr)	0.6		0.1	mg/kg		23-FEB-06	CLL	R375591	
Copper (Cu)	0.23		0.05	mg/kg		23-FEB-06	CLL	R375591	
Molybdenum (Mo)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Nickel (Ni)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Lead (Pb)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Antimony (Sb)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Tin (Sn)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Strontium (Sr)	4.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Thallium (Tl)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Vanadium (V)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Zinc (Zn)	4.8		0.5	mg/kg		23-FEB-06	CLL	R375591	
Metals in Tissue									
Calcium (Ca)	820		20	mg/kg		23-FEB-06	CVE	R375592	
Potassium (K)	4590		20	mg/kg		23-FEB-06	CVE	R375592	
Magnesium (Mg)	363		5	mg/kg		23-FEB-06	CVE	R375592	
Sodium (Na)	500		20	mg/kg		23-FEB-06	CVE	R375592	
Iron (Fe)	8		5	mg/kg		23-FEB-06	CVE	R375592	
Manganese (Mn)	<0.5		0.5	mg/kg		23-FEB-06	CVE	R375592	
% Moisture	75.9		0.1	%		24-FEB-06	CMM	R375742	
Mercury (Hg)	0.07		0.01	mg/kg		23-FEB-06	CLL	R375591	
PCBs									
Aroclor 1016	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1221	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1232	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1242	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1248	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1254	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1260	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1262	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1268	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Total PCBs	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Surr: Decachlorobiphenyl	77		67-112	%	21-FEB-06	28-FEB-06	AMB	R376452	
L362317-6	E6 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Arsenic (As)	0.37					23-FEB-06	CLL	R375591	
Phosphorus (P)	2360		RAMB	20	mg/kg	23-FEB-06	CVE	R375592	
Selenium (Se)	1.96			0.05	mg/kg	23-FEB-06	CLL	R375591	
Titanium (Ti)	0.13			0.05	mg/kg	23-FEB-06	CLL	R375591	
Metals in Tissue									
Silver (Ag)	<0.05			0.05	mg/kg	23-FEB-06	CLL	R375591	
Aluminum (Al)	5			2	mg/kg	23-FEB-06	CLL	R375591	
Barium (Ba)	0.1			0.1	mg/kg	23-FEB-06	CLL	R375591	

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L362317-6	E6 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Beryllium (Be)	<0.2		0.2	mg/kg		23-FEB-06	CLL	R375591	
Cadmium (Cd)	<0.01		0.01	mg/kg		23-FEB-06	CLL	R375591	
Cobalt (Co)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Chromium (Cr)	0.5		0.1	mg/kg		23-FEB-06	CLL	R375591	
Copper (Cu)	0.18		0.05	mg/kg		23-FEB-06	CLL	R375591	
Molybdenum (Mo)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Nickel (Ni)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Lead (Pb)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Antimony (Sb)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Tin (Sn)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Strontium (Sr)	0.58		0.05	mg/kg		23-FEB-06	CLL	R375591	
Thallium (Tl)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Vanadium (V)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Zinc (Zn)	3.8		0.5	mg/kg		23-FEB-06	CLL	R375591	
Metals in Tissue									
Calcium (Ca)	140		20	mg/kg		23-FEB-06	CVE	R375592	
Potassium (K)	4580		20	mg/kg		23-FEB-06	CVE	R375592	
Magnesium (Mg)	319		5	mg/kg		23-FEB-06	CVE	R375592	
Sodium (Na)	310		20	mg/kg		23-FEB-06	CVE	R375592	
Iron (Fe)	9		5	mg/kg		23-FEB-06	CVE	R375592	
Manganese (Mn)	<0.5		0.5	mg/kg		23-FEB-06	CVE	R375592	
% Moisture	79.2		0.1	%		24-FEB-06	CMM	R375742	
Mercury (Hg)	0.05		0.01	mg/kg		23-FEB-06	CLL	R375591	
PCBs									
Aroclor 1016	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1221	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1232	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1242	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1248	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1254	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1260	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1262	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1268	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Total PCBs	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Surr: Decachlorobiphenyl	82		67-112	%	21-FEB-06	28-FEB-06	AMB	R376452	
L362317-7	E7 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Arsenic (As)	<0.05					23-FEB-06	CLL	R375591	
Phosphorus (P)	2440	RAMB	20	mg/kg		23-FEB-06	CVE	R375592	
Selenium (Se)	0.64		0.05	mg/kg		23-FEB-06	CLL	R375591	
Titanium (Ti)	0.10		0.05	mg/kg		23-FEB-06	CLL	R375591	
Metals in Tissue									
Silver (Ag)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Aluminum (Al)	<2		2	mg/kg		23-FEB-06	CLL	R375591	
Barium (Ba)	0.2		0.1	mg/kg		23-FEB-06	CLL	R375591	
Beryllium (Be)	<0.2		0.2	mg/kg		23-FEB-06	CLL	R375591	

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L362317-7	E7 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Cadmium (Cd)	<0.01		0.01	mg/kg		23-FEB-06	CLL	R375591	
Cobalt (Co)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Chromium (Cr)	0.6		0.1	mg/kg		23-FEB-06	CLL	R375591	
Copper (Cu)	0.19		0.05	mg/kg		23-FEB-06	CLL	R375591	
Molybdenum (Mo)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Nickel (Ni)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Lead (Pb)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Antimony (Sb)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Tin (Sn)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Strontium (Sr)	0.96		0.05	mg/kg		23-FEB-06	CLL	R375591	
Thallium (Tl)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Vanadium (V)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Zinc (Zn)	3.9		0.5	mg/kg		23-FEB-06	CLL	R375591	
Metals in Tissue									
Calcium (Ca)	330		20	mg/kg		23-FEB-06	CVE	R375592	
Potassium (K)	4430		20	mg/kg		23-FEB-06	CVE	R375592	
Magnesium (Mg)	292		5	mg/kg		23-FEB-06	CVE	R375592	
Sodium (Na)	330		20	mg/kg		23-FEB-06	CVE	R375592	
Iron (Fe)	<5		5	mg/kg		23-FEB-06	CVE	R375592	
Manganese (Mn)	<0.5		0.5	mg/kg		23-FEB-06	CVE	R375592	
% Moisture	77.7		0.1	%		24-FEB-06	CMM	R375742	
Mercury (Hg)	0.06		0.01	mg/kg		23-FEB-06	CLL	R375591	
PCBs									
Aroclor 1016	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1221	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1232	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1242	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1248	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1254	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1260	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1262	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1268	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Total PCBs	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Surr: Decachlorobiphenyl	79	67-112	%	21-FEB-06	28-FEB-06	AMB	R376452		
L362317-8	E8 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Arsenic (As)	0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Phosphorus (P)	2540	RAMB	20	mg/kg		23-FEB-06	CVE	R375592	
Selenium (Se)	0.63		0.05	mg/kg		23-FEB-06	CLL	R375591	
Titanium (Ti)	0.19		0.05	mg/kg		23-FEB-06	CLL	R375591	
Metals in Tissue									
Silver (Ag)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Aluminum (Al)	12		2	mg/kg		23-FEB-06	CLL	R375591	
Barium (Ba)	0.4		0.1	mg/kg		23-FEB-06	CLL	R375591	
Beryllium (Be)	<0.2		0.2	mg/kg		23-FEB-06	CLL	R375591	
Cadmium (Cd)	<0.01		0.01	mg/kg		23-FEB-06	CLL	R375591	

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L362317-8	E8 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Cobalt (Co)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Chromium (Cr)	0.6		0.1	mg/kg		23-FEB-06	CLL	R375591	
Copper (Cu)	0.33		0.05	mg/kg		23-FEB-06	CLL	R375591	
Molybdenum (Mo)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Nickel (Ni)	0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Lead (Pb)	0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Antimony (Sb)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Tin (Sn)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Strontium (Sr)	1.01		0.05	mg/kg		23-FEB-06	CLL	R375591	
Thallium (Tl)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Vanadium (V)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Zinc (Zn)	4.8		0.5	mg/kg		23-FEB-06	CLL	R375591	
Metals in Tissue									
Calcium (Ca)	290		20	mg/kg		23-FEB-06	CVE	R375592	
Potassium (K)	4620		20	mg/kg		23-FEB-06	CVE	R375592	
Magnesium (Mg)	316		5	mg/kg		23-FEB-06	CVE	R375592	
Sodium (Na)	320		20	mg/kg		23-FEB-06	CVE	R375592	
Iron (Fe)	13		5	mg/kg		23-FEB-06	CVE	R375592	
Manganese (Mn)	<0.5		0.5	mg/kg		23-FEB-06	CVE	R375592	
% Moisture	78.0		0.1	%		24-FEB-06	CMM	R375742	
Mercury (Hg)	0.06		0.01	mg/kg		23-FEB-06	CLL	R375591	
PCBs									
Aroclor 1016	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1221	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1232	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1242	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1248	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1254	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1260	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1262	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1268	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Total PCBs	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Surr:	Decachlorobiphenyl	77	67-112	%	21-FEB-06	28-FEB-06	AMB	R376452	
L362317-9	E9 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Arsenic (As)	0.27	RAMB	0.05	mg/kg		23-FEB-06	CLL	R375591	
Phosphorus (P)	2360		20	mg/kg		23-FEB-06	CVE	R375592	
Selenium (Se)	1.56		0.05	mg/kg		23-FEB-06	CLL	R375591	
Titanium (Ti)	0.12		0.05	mg/kg		23-FEB-06	CLL	R375591	
Metals in Tissue									
Silver (Ag)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Aluminum (Al)	3		2	mg/kg		23-FEB-06	CLL	R375591	
Barium (Ba)	0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Beryllium (Be)	<0.2		0.2	mg/kg		23-FEB-06	CLL	R375591	
Cadmium (Cd)	<0.01		0.01	mg/kg		23-FEB-06	CLL	R375591	
Cobalt (Co)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L362317-9	E9 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Chromium (Cr)	0.5	0.1	mg/kg		23-FEB-06	CLL	R375591		
Copper (Cu)	0.18	0.05	mg/kg		23-FEB-06	CLL	R375591		
Molybdenum (Mo)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Nickel (Ni)	<0.02	0.02	mg/kg		23-FEB-06	CLL	R375591		
Lead (Pb)	<0.02	0.02	mg/kg		23-FEB-06	CLL	R375591		
Antimony (Sb)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Tin (Sn)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Strontium (Sr)	0.36	0.05	mg/kg		23-FEB-06	CLL	R375591		
Thallium (Tl)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Vanadium (V)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Zinc (Zn)	3.6	0.5	mg/kg		23-FEB-06	CLL	R375591		
Metals in Tissue									
Calcium (Ca)	160	20	mg/kg		23-FEB-06	CVE	R375592		
Potassium (K)	4300	20	mg/kg		23-FEB-06	CVE	R375592		
Magnesium (Mg)	306	5	mg/kg		23-FEB-06	CVE	R375592		
Sodium (Na)	390	20	mg/kg		23-FEB-06	CVE	R375592		
Iron (Fe)	<5	5	mg/kg		23-FEB-06	CVE	R375592		
Manganese (Mn)	<0.5	0.5	mg/kg		23-FEB-06	CVE	R375592		
% Moisture	80.2	0.1	%		24-FEB-06	CMM	R375742		
Mercury (Hg)	0.04	0.01	mg/kg		23-FEB-06	CLL	R375591		
PCBs									
Aroclor 1016	<0.01	0.01	mg/kg		21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1221	<0.01	0.01	mg/kg		21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1232	<0.01	0.01	mg/kg		21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1242	<0.01	0.01	mg/kg		21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1248	<0.01	0.01	mg/kg		21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1254	<0.01	0.01	mg/kg		21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1260	<0.01	0.01	mg/kg		21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1262	<0.01	0.01	mg/kg		21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1268	<0.01	0.01	mg/kg		21-FEB-06	28-FEB-06	AMB	R376452	
Total PCBs	<0.01	0.01	mg/kg		21-FEB-06	28-FEB-06	AMB	R376452	
Surr:	Decachlorobiphenyl	78	67-112	%	21-FEB-06	28-FEB-06	AMB	R376452	
L362317-10	E10 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Arsenic (As)	0.21	0.05	mg/kg		23-FEB-06	CLL	R375591		
Phosphorus (P)	3770	20	mg/kg		23-FEB-06	CVE	R375592		
Selenium (Se)	0.57	0.05	mg/kg		23-FEB-06	CLL	R375591		
Titanium (Ti)	0.30	0.05	mg/kg		23-FEB-06	CLL	R375591		
Metals in Tissue									
Silver (Ag)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Aluminum (Al)	13	2	mg/kg		23-FEB-06	CLL	R375591		
Barium (Ba)	0.5	0.1	mg/kg		23-FEB-06	CLL	R375591		
Beryllium (Be)	<0.2	0.2	mg/kg		23-FEB-06	CLL	R375591		
Cadmium (Cd)	<0.01	0.01	mg/kg		23-FEB-06	CLL	R375591		
Cobalt (Co)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Chromium (Cr)	0.5	0.1	mg/kg		23-FEB-06	CLL	R375591		

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L362317-10	E10 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Copper (Cu)	0.25	0.05	mg/kg		23-FEB-06	CLL	R375591		
Molybdenum (Mo)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Nickel (Ni)	<0.02	0.02	mg/kg		23-FEB-06	CLL	R375591		
Lead (Pb)	<0.02	0.02	mg/kg		23-FEB-06	CLL	R375591		
Antimony (Sb)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Tin (Sn)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Strontium (Sr)	11.2	0.05	mg/kg		23-FEB-06	CLL	R375591		
Thallium (Tl)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Vanadium (V)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Zinc (Zn)	4.8	0.5	mg/kg		23-FEB-06	CLL	R375591		
Metals in Tissue									
Calcium (Ca)	2290	20	mg/kg		23-FEB-06	CVE	R375592		
Potassium (K)	4800	20	mg/kg		23-FEB-06	CVE	R375592		
Magnesium (Mg)	389	5	mg/kg		23-FEB-06	CVE	R375592		
Sodium (Na)	490	20	mg/kg		23-FEB-06	CVE	R375592		
Iron (Fe)	16	5	mg/kg		23-FEB-06	CVE	R375592		
Manganese (Mn)	0.7	0.5	mg/kg		23-FEB-06	CVE	R375592		
% Moisture	78.7	0.1	%		24-FEB-06	CMM	R375742		
Mercury (Hg)	0.04	0.01	mg/kg		23-FEB-06	CLL	R375591		
PCBs									
Aroclor 1016	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1221	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1232	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1242	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1248	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1254	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1260	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1262	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1268	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Total PCBs	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Surr: Decachlorobiphenyl	84	67-112	%	21-FEB-06	28-FEB-06	AMB	R376452		
L362317-11	E11 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Arsenic (As)	0.47	0.05	mg/kg		23-FEB-06	CLL	R375591		
Phosphorus (P)	2580	20	mg/kg		23-FEB-06	CVE	R375592		
Selenium (Se)	0.79	0.05	mg/kg		23-FEB-06	CLL	R375591		
Titanium (Ti)	0.09	0.05	mg/kg		23-FEB-06	CLL	R375591		
Metals in Tissue									
Silver (Ag)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Aluminum (Al)	<2	2	mg/kg		23-FEB-06	CLL	R375591		
Barium (Ba)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Beryllium (Be)	<0.2	0.2	mg/kg		23-FEB-06	CLL	R375591		
Cadmium (Cd)	<0.01	0.01	mg/kg		23-FEB-06	CLL	R375591		
Cobalt (Co)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Chromium (Cr)	0.4	0.1	mg/kg		23-FEB-06	CLL	R375591		
Copper (Cu)	0.21	0.05	mg/kg		23-FEB-06	CLL	R375591		

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L362317-11	E11 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Molybdenum (Mo)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Nickel (Ni)	<0.02	0.02	mg/kg		23-FEB-06	CLL	R375591		
Lead (Pb)	<0.02	0.02	mg/kg		23-FEB-06	CLL	R375591		
Antimony (Sb)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Tin (Sn)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Strontium (Sr)	0.26	0.05	mg/kg		23-FEB-06	CLL	R375591		
Thallium (Tl)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Vanadium (V)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Zinc (Zn)	2.9	0.5	mg/kg		23-FEB-06	CLL	R375591		
Metals in Tissue									
Calcium (Ca)	80	20	mg/kg		23-FEB-06	CVE	R375592		
Potassium (K)	4340	20	mg/kg		23-FEB-06	CVE	R375592		
Magnesium (Mg)	301	5	mg/kg		23-FEB-06	CVE	R375592		
Sodium (Na)	350	20	mg/kg		23-FEB-06	CVE	R375592		
Iron (Fe)	<5	5	mg/kg		23-FEB-06	CVE	R375592		
Manganese (Mn)	<0.5	0.5	mg/kg		23-FEB-06	CVE	R375592		
% Moisture	77.8	0.1	%		24-FEB-06	CMM	R375742		
Mercury (Hg)	0.03	0.01	mg/kg		23-FEB-06	CLL	R375591		
PCBs									
Aroclor 1016	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1221	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1232	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1242	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1248	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1254	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1260	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1262	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1268	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Total PCBs	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Surf: Decachlorobiphenyl	79	67-112	%	21-FEB-06	28-FEB-06	AMB	R376452		
L362317-12	E12 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Arsenic (As)	0.45	0.05	mg/kg		23-FEB-06	CLL	R375591		
Phosphorus (P)	2440	20	mg/kg		23-FEB-06	CVE	R375592		
Selenium (Se)	0.65	0.05	mg/kg		23-FEB-06	CLL	R375591		
Titanium (Ti)	0.58	0.05	mg/kg		23-FEB-06	CLL	R375591		
Metals in Tissue									
Silver (Ag)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Aluminum (Al)	10	2	mg/kg		23-FEB-06	CLL	R375591		
Barium (Ba)	0.2	0.1	mg/kg		23-FEB-06	CLL	R375591		
Beryllium (Be)	<0.2	0.2	mg/kg		23-FEB-06	CLL	R375591		
Cadmium (Cd)	<0.01	0.01	mg/kg		23-FEB-06	CLL	R375591		
Cobalt (Co)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Chromium (Cr)	0.4	0.1	mg/kg		23-FEB-06	CLL	R375591		
Copper (Cu)	0.17	0.05	mg/kg		23-FEB-06	CLL	R375591		
Molybdenum (Mo)	0.08	0.05	mg/kg		23-FEB-06	CLL	R375591		

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L362317-12	E12 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Nickel (Ni)	<0.02	0.02	mg/kg		23-FEB-06	CLL	R375591		
Lead (Pb)	<0.02	0.02	mg/kg		23-FEB-06	CLL	R375591		
Antimony (Sb)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Tin (Sn)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Strontium (Sr)	0.48	0.05	mg/kg		23-FEB-06	CLL	R375591		
Thallium (Tl)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Vanadium (V)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Zinc (Zn)	3.8	0.5	mg/kg		23-FEB-06	CLL	R375591		
PCBs									
Aroclor 1016	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1221	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1232	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1242	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1248	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1254	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1260	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1262	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1268	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Total PCBs	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Surf: Decachlorobiphenyl	76	67-112	%	21-FEB-06	28-FEB-06	AMB	R376452		
L362317-13	E13 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Arsenic (As)	1.67	0.05	mg/kg		23-FEB-06	CLL	R375591		
Phosphorus (P)	2660	20	mg/kg		23-FEB-06	CVE	R375592		
Selenium (Se)	1.20	0.05	mg/kg		23-FEB-06	CLL	R375591		
Titanium (Ti)	0.15	0.05	mg/kg		23-FEB-06	CLL	R375591		
Metals in Tissue									
Silver (Ag)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Aluminum (Al)	<2	2	mg/kg		23-FEB-06	CLL	R375591		
Barium (Ba)	0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Beryllium (Be)	<0.2	0.2	mg/kg		23-FEB-06	CLL	R375591		
Cadmium (Cd)	<0.01	0.01	mg/kg		23-FEB-06	CLL	R375591		
Cobalt (Co)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Chromium (Cr)	0.5	0.1	mg/kg		23-FEB-06	CLL	R375591		
Copper (Cu)	0.19	0.05	mg/kg		23-FEB-06	CLL	R375591		
Molybdenum (Mo)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Nickel (Ni)	<0.02	0.02	mg/kg		23-FEB-06	CLL	R375591		

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L362317-13	E13 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Lead (Pb)	<0.02	0.02	mg/kg		23-FEB-06	CLL	R375591		
Antimony (Sb)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Tin (Sn)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Strontium (Sr)	1.23	0.05	mg/kg		23-FEB-06	CLL	R375591		
Thallium (Tl)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Vanadium (V)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Zinc (Zn)	4.6	0.5	mg/kg		23-FEB-06	CLL	R375591		
Metals in Tissue									
Calcium (Ca)	220	20	mg/kg		23-FEB-06	CVE	R375592		
Potassium (K)	4700	20	mg/kg		23-FEB-06	CVE	R375592		
Magnesium (Mg)	338	5	mg/kg		23-FEB-06	CVE	R375592		
Sodium (Na)	290	20	mg/kg		23-FEB-06	CVE	R375592		
Iron (Fe)	<5	5	mg/kg		23-FEB-06	CVE	R375592		
Manganese (Mn)	<0.5	0.5	mg/kg		23-FEB-06	CVE	R375592		
% Moisture	76.4	0.1	%		24-FEB-06	CMM	R375742		
Mercury (Hg)	0.03	0.01	mg/kg		23-FEB-06	CLL	R375591		
PCBs									
Aroclor 1016	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1221	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1232	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1242	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1248	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1254	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1260	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1262	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1268	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Total PCBs	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Surf: Decachlorobiphenyl	83	67-112	%	21-FEB-06	28-FEB-06	AMB	R376452		
L362317-14	E14 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Arsenic (As)	0.47	0.05	mg/kg		23-FEB-06	CLL	R375591		
Phosphorus (P)	2530	20	mg/kg		23-FEB-06	CVE	R375592		
Selenium (Se)	0.74	0.05	mg/kg		23-FEB-06	CLL	R375591		
Titanium (Ti)	0.09	0.05	mg/kg		23-FEB-06	CLL	R375591		
Metals in Tissue									
Silver (Ag)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Aluminum (Al)	<2	2	mg/kg		23-FEB-06	CLL	R375591		
Barium (Ba)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Beryllium (Be)	<0.2	0.2	mg/kg		23-FEB-06	CLL	R375591		
Cadmium (Cd)	<0.01	0.01	mg/kg		23-FEB-06	CLL	R375591		
Cobalt (Co)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Chromium (Cr)	0.6	0.1	mg/kg		23-FEB-06	CLL	R375591		
Copper (Cu)	0.19	0.05	mg/kg		23-FEB-06	CLL	R375591		
Molybdenum (Mo)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Nickel (Ni)	<0.02	0.02	mg/kg		23-FEB-06	CLL	R375591		
Lead (Pb)	<0.02	0.02	mg/kg		23-FEB-06	CLL	R375591		

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L362317-14	E14 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Antimony (Sb)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Tin (Sn)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Strontium (Sr)	0.37	0.05	mg/kg		23-FEB-06	CLL	R375591		
Thallium (Tl)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Vanadium (V)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Zinc (Zn)	3.6	0.5	mg/kg		23-FEB-06	CLL	R375591		
Metals in Tissue									
Calcium (Ca)	110	20	mg/kg		23-FEB-06	CVE	R375592		
Potassium (K)	4620	20	mg/kg		23-FEB-06	CVE	R375592		
Magnesium (Mg)	303	5	mg/kg		23-FEB-06	CVE	R375592		
Sodium (Na)	390	20	mg/kg		23-FEB-06	CVE	R375592		
Iron (Fe)	<5	5	mg/kg		23-FEB-06	CVE	R375592		
Manganese (Mn)	<0.5	0.5	mg/kg		23-FEB-06	CVE	R375592		
% Moisture	79.6	0.1	%		24-FEB-06	CMM	R375742		
Mercury (Hg)	0.04	0.01	mg/kg		23-FEB-06	CLL	R375591		
PCBs									
Aroclor 1016	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1221	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1232	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1242	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1248	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1254	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1260	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1262	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1268	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Total PCBs	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Surr: Decachlorobiphenyl	82	67-112	%	21-FEB-06	28-FEB-06	AMB	R376452		
L362317-15	E15 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Arsenic (As)	0.19	0.05	mg/kg		23-FEB-06	CLL	R375591		
Phosphorus (P)	2530	20	mg/kg		23-FEB-06	CVE	R375592		
Selenium (Se)	0.53	0.05	mg/kg		23-FEB-06	CLL	R375591		
Titanium (Ti)	0.17	0.05	mg/kg		23-FEB-06	CLL	R375591		
Metals in Tissue									
Silver (Ag)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Aluminum (Al)	<2	2	mg/kg		23-FEB-06	CLL	R375591		
Barium (Ba)	0.2	0.1	mg/kg		23-FEB-06	CLL	R375591		
Beryllium (Be)	<0.2	0.2	mg/kg		23-FEB-06	CLL	R375591		
Cadmium (Cd)	<0.01	0.01	mg/kg		23-FEB-06	CLL	R375591		
Cobalt (Co)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Chromium (Cr)	0.3	0.1	mg/kg		23-FEB-06	CLL	R375591		
Copper (Cu)	0.20	0.05	mg/kg		23-FEB-06	CLL	R375591		
Molybdenum (Mo)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Nickel (Ni)	<0.02	0.02	mg/kg		23-FEB-06	CLL	R375591		
Lead (Pb)	<0.02	0.02	mg/kg		23-FEB-06	CLL	R375591		
Antimony (Sb)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L362317-15	E15 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Tin (Sn)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Strontium (Sr)	1.83		0.05	mg/kg		23-FEB-06	CLL	R375591	
Thallium (Tl)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Vanadium (V)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Zinc (Zn)	4.2		0.5	mg/kg		23-FEB-06	CLL	R375591	
Metals in Tissue									
Calcium (Ca)	400		20	mg/kg		23-FEB-06	CVE	R375592	
Potassium (K)	4320		20	mg/kg		23-FEB-06	CVE	R375592	
Magnesium (Mg)	308		5	mg/kg		23-FEB-06	CVE	R375592	
Sodium (Na)	390		20	mg/kg		23-FEB-06	CVE	R375592	
Iron (Fe)	15		5	mg/kg		23-FEB-06	CVE	R375592	
Manganese (Mn)	<0.5		0.5	mg/kg		23-FEB-06	CVE	R375592	
% Moisture	79.8		0.1	%		24-FEB-06	CMM	R375742	
Mercury (Hg)	0.03		0.01	mg/kg		23-FEB-06	CLL	R375591	
PCBs									
Aroclor 1016	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1221	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1232	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1242	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1248	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1254	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1260	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1262	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1268	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Total PCBs	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Surr: Decachlorobiphenyl	83	67-112		%	21-FEB-06	28-FEB-06	AMB	R376452	
L362317-16	R1 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Arsenic (As)	1.36		0.05	mg/kg		23-FEB-06	CLL	R375591	
Phosphorus (P)	2740		20	mg/kg		23-FEB-06	CVE	R375592	
Selenium (Se)	0.78		0.05	mg/kg		23-FEB-06	CLL	R375591	
Titanium (Ti)	0.12		0.05	mg/kg		23-FEB-06	CLL	R375591	
Metals in Tissue									
Silver (Ag)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Aluminum (Al)	<2		2	mg/kg		23-FEB-06	CLL	R375591	
Barium (Ba)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Beryllium (Be)	<0.2		0.2	mg/kg		23-FEB-06	CLL	R375591	
Cadmium (Cd)	<0.01		0.01	mg/kg		23-FEB-06	CLL	R375591	
Cobalt (Co)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Chromium (Cr)	0.5		0.1	mg/kg		23-FEB-06	CLL	R375591	
Copper (Cu)	0.20		0.05	mg/kg		23-FEB-06	CLL	R375591	
Molybdenum (Mo)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Nickel (Ni)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Lead (Pb)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Antimony (Sb)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Tin (Sn)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L362317-16	R1 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Strontium (Sr)	1.74	0.05	mg/kg		23-FEB-06	CLL	R375591		
Thallium (Tl)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Vanadium (V)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Zinc (Zn)	3.6	0.5	mg/kg		23-FEB-06	CLL	R375591		
Metals in Tissue									
Calcium (Ca)	480	20	mg/kg		23-FEB-06	CVE	R375592		
Potassium (K)	4610	20	mg/kg		23-FEB-06	CVE	R375592		
Magnesium (Mg)	315	5	mg/kg		23-FEB-06	CVE	R375592		
Sodium (Na)	490	20	mg/kg		23-FEB-06	CVE	R375592		
Iron (Fe)	14	5	mg/kg		23-FEB-06	CVE	R375592		
Manganese (Mn)	<0.5	0.5	mg/kg		23-FEB-06	CVE	R375592		
% Moisture	80.0	0.1	%		24-FEB-06	CMM	R375742		
Mercury (Hg)	0.05	0.01	mg/kg		23-FEB-06	CLL	R375591		
PCBs									
Aroclor 1016	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1221	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1232	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1242	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1248	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1254	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1260	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1262	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1268	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Total PCBs	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Surf: Decachlorobiphenyl	83	67-112	%	21-FEB-06	28-FEB-06	AMB	R376452		
L362317-17	R2 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Arsenic (As)	1.24	0.05	mg/kg		23-FEB-06	CLL	R375591		
Phosphorus (P)	2640	20	mg/kg		23-FEB-06	CVE	R375592		
Selenium (Se)	0.62	0.05	mg/kg		23-FEB-06	CLL	R375591		
Titanium (Ti)	0.16	0.05	mg/kg		23-FEB-06	CLL	R375591		
Metals in Tissue									
Silver (Ag)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Aluminum (Al)	7	2	mg/kg		23-FEB-06	CLL	R375591		
Barium (Ba)	0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Beryllium (Be)	<0.2	0.2	mg/kg		23-FEB-06	CLL	R375591		
Cadmium (Cd)	<0.01	0.01	mg/kg		23-FEB-06	CLL	R375591		
Cobalt (Co)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Chromium (Cr)	0.5	0.1	mg/kg		23-FEB-06	CLL	R375591		
Copper (Cu)	0.33	0.05	mg/kg		23-FEB-06	CLL	R375591		
Molybdenum (Mo)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Nickel (Ni)	<0.02	0.02	mg/kg		23-FEB-06	CLL	R375591		
Lead (Pb)	<0.02	0.02	mg/kg		23-FEB-06	CLL	R375591		
Antimony (Sb)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Tin (Sn)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Strontium (Sr)	0.87	0.05	mg/kg		23-FEB-06	CLL	R375591		

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L362317-17	R2 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Thallium (Tl)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Vanadium (V)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Zinc (Zn)	4.9	0.5	mg/kg		23-FEB-06	CLL	R375591		
Metals in Tissue									
Calcium (Ca)	230	20	mg/kg		23-FEB-06	CVE	R375592		
Potassium (K)	4640	20	mg/kg		23-FEB-06	CVE	R375592		
Magnesium (Mg)	380	5	mg/kg		23-FEB-06	CVE	R375592		
Sodium (Na)	750	20	mg/kg		23-FEB-06	CVE	R375592		
Iron (Fe)	8	5	mg/kg		23-FEB-06	CVE	R375592		
Manganese (Mn)	<0.5	0.5	mg/kg		23-FEB-06	CVE	R375592		
% Moisture	77.1	0.1	%		24-FEB-06	CMM	R375742		
Mercury (Hg)	0.05	0.01	mg/kg		23-FEB-06	CLL	R375591		
PCBs									
Aroclor 1016	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1221	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1232	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1242	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1248	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1254	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1260	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1262	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1268	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Total PCBs	<0.01	0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Surf: Decachlorobiphenyl	77	67-112	%	21-FEB-06	28-FEB-06	AMB	R376452		
L362317-18	R3 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Arsenic (As)	1.28	0.05	mg/kg		23-FEB-06	CLL	R375591		
Phosphorus (P)	2730	20	mg/kg		23-FEB-06	CVE	R375592		
Selenium (Se)	0.40	0.05	mg/kg		23-FEB-06	CLL	R375591		
Titanium (Ti)	0.13	0.05	mg/kg		23-FEB-06	CLL	R375591		
Metals in Tissue									
Silver (Ag)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Aluminum (Al)	<2	2	mg/kg		23-FEB-06	CLL	R375591		
Barium (Ba)	0.2	0.1	mg/kg		23-FEB-06	CLL	R375591		
Beryllium (Be)	<0.2	0.2	mg/kg		23-FEB-06	CLL	R375591		
Cadmium (Cd)	<0.01	0.01	mg/kg		23-FEB-06	CLL	R375591		
Cobalt (Co)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Chromium (Cr)	0.4	0.1	mg/kg		23-FEB-06	CLL	R375591		
Copper (Cu)	0.19	0.05	mg/kg		23-FEB-06	CLL	R375591		
Molybdenum (Mo)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Nickel (Ni)	<0.02	0.02	mg/kg		23-FEB-06	CLL	R375591		
Lead (Pb)	<0.02	0.02	mg/kg		23-FEB-06	CLL	R375591		
Antimony (Sb)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		
Tin (Sn)	<0.1	0.1	mg/kg		23-FEB-06	CLL	R375591		
Strontium (Sr)	2.24	0.05	mg/kg		23-FEB-06	CLL	R375591		
Thallium (Tl)	<0.05	0.05	mg/kg		23-FEB-06	CLL	R375591		

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L362317-18	R3 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Vanadium (V)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Zinc (Zn)	5.1		0.5	mg/kg		23-FEB-06	CLL	R375591	
Metals in Tissue									
Calcium (Ca)	500		20	mg/kg		23-FEB-06	CVE	R375592	
Potassium (K)	4370		20	mg/kg		23-FEB-06	CVE	R375592	
Magnesium (Mg)	351		5	mg/kg		23-FEB-06	CVE	R375592	
Sodium (Na)	720		20	mg/kg		23-FEB-06	CVE	R375592	
Iron (Fe)	1390		5	mg/kg		23-FEB-06	CVE	R375592	
Manganese (Mn)	5.5		0.5	mg/kg		23-FEB-06	CVE	R375592	
% Moisture		78.8	0.1	%		24-FEB-06	CMM	R375742	
Mercury (Hg)	0.04		0.01	mg/kg		23-FEB-06	CLL	R375591	
PCBs									
Aroclor 1016	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1221	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1232	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1242	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1248	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1254	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1260	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1262	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1268	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Total PCBs	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Surf: Decachlorobiphenyl	74	67-112		%	21-FEB-06	28-FEB-06	AMB	R376452	
L362317-19	R4 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Arsenic (As)	1.13		0.05	mg/kg		23-FEB-06	CLL	R375591	
Phosphorus (P)	2740		20	mg/kg		23-FEB-06	CVE	R375592	
Selenium (Se)	0.48		0.05	mg/kg		23-FEB-06	CLL	R375591	
Titanium (Ti)	<0.05	RAMB	0.05	mg/kg		23-FEB-06	CVE	R375592	
Metals in Tissue									
Silver (Ag)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Aluminum (Al)	<2		2	mg/kg		23-FEB-06	CLL	R375591	
Barium (Ba)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Beryllium (Be)	<0.2		0.2	mg/kg		23-FEB-06	CLL	R375591	
Cadmium (Cd)	<0.01		0.01	mg/kg		23-FEB-06	CLL	R375591	
Cobalt (Co)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Chromium (Cr)	0.5		0.1	mg/kg		23-FEB-06	CLL	R375591	
Copper (Cu)	0.26		0.05	mg/kg		23-FEB-06	CLL	R375591	
Molybdenum (Mo)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Nickel (Ni)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Lead (Pb)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Antimony (Sb)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Tin (Sn)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Strontium (Sr)	1.38		0.05	mg/kg		23-FEB-06	CLL	R375591	
Thallium (Tl)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Vanadium (V)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch	
L362317-19	R4 TUK HARBOUR									
Sample By:	JH									
Matrix:	FISH TISSUE									
Metals in Animal Tissue										
Metals in Tissue										
Zinc (Zn)	3.2		0.5	mg/kg		23-FEB-06	CLL	R375591		
Metals in Tissue										
Calcium (Ca)	410		20	mg/kg		23-FEB-06	CVE	R375592		
Potassium (K)	4980		20	mg/kg		23-FEB-06	CVE	R375592		
Magnesium (Mg)	358		5	mg/kg		23-FEB-06	CVE	R375592		
Sodium (Na)	660		20	mg/kg		23-FEB-06	CVE	R375592		
Iron (Fe)	<5		5	mg/kg		23-FEB-06	CVE	R375592		
Manganese (Mn)	<0.5		0.5	mg/kg		23-FEB-06	CVE	R375592		
% Moisture										
% Moisture	76.0		0.1	%		24-FEB-06	CMM	R375742		
Mercury (Hg)	0.04		0.01	mg/kg		23-FEB-06	CLL	R375591		
PCBs										
Aroclor 1016	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1221	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1232	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1242	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1248	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1254	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1260	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1262	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1268	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Total PCBs	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Surf: Decachlorobiphenyl	80		67-112	%	21-FEB-06	28-FEB-06	AMB	R376452		
L362317-20	R5 TUK HARBOUR									
Sample By:	JH									
Matrix:	FISH TISSUE									
Metals in Animal Tissue										
Arsenic (As)	1.44		0.05	mg/kg		23-FEB-06	CLL	R375591		
Phosphorus (P)	2590		20	mg/kg		23-FEB-06	CVE	R375592		
Selenium (Se)	0.44		0.05	mg/kg		23-FEB-06	CLL	R375591		
Titanium (Ti)	<0.05	RAMB	0.05	mg/kg		23-FEB-06	CVE	R375592		
Metals in Tissue										
Silver (Ag)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591		
Aluminum (Al)	<2		2	mg/kg		23-FEB-06	CLL	R375591		
Barium (Ba)	0.2		0.1	mg/kg		23-FEB-06	CLL	R375591		
Beryllium (Be)	<0.2		0.2	mg/kg		23-FEB-06	CLL	R375591		
Cadmium (Cd)	<0.01		0.01	mg/kg		23-FEB-06	CLL	R375591		
Cobalt (Co)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591		
Chromium (Cr)	0.5		0.1	mg/kg		23-FEB-06	CLL	R375591		
Copper (Cu)	0.23		0.05	mg/kg		23-FEB-06	CLL	R375591		
Molybdenum (Mo)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591		
Nickel (Ni)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591		
Lead (Pb)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591		
Antimony (Sb)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591		
Tin (Sn)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591		
Strontium (Sr)	1.41		0.05	mg/kg		23-FEB-06	CLL	R375591		
Thallium (Tl)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591		
Vanadium (V)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591		
Zinc (Zn)	4.6		0.5	mg/kg		23-FEB-06	CLL	R375591		

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L362317-20	R5 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Calcium (Ca)	370		20	mg/kg		23-FEB-06	CVE	R375592	
Potassium (K)	4760		20	mg/kg		23-FEB-06	CVE	R375592	
Magnesium (Mg)	339		5	mg/kg		23-FEB-06	CVE	R375592	
Sodium (Na)	620		20	mg/kg		23-FEB-06	CVE	R375592	
Iron (Fe)	8		5	mg/kg		23-FEB-06	CVE	R375592	
Manganese (Mn)	<0.5		0.5	mg/kg		23-FEB-06	CVE	R375592	
% Moisture	78.9		0.1	%		24-FEB-06	CMM	R375742	
Mercury (Hg)	0.04		0.01	mg/kg		23-FEB-06	CLL	R375591	
PCBs									
Aroclor 1016	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1221	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1232	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1242	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1248	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1254	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1260	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1262	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1268	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Total PCBs	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Surr: Decachlorobiphenyl	78		67-112	%	21-FEB-06	28-FEB-06	AMB	R376452	
L362317-21	R6 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Arsenic (As)	1.38		0.05	mg/kg		23-FEB-06	CLL	R375591	
Phosphorus (P)	3060		20	mg/kg		23-FEB-06	CVE	R375592	
Selenium (Se)	0.69		0.05	mg/kg		23-FEB-06	CLL	R375591	
Titanium (Ti)	<0.05	RAMB	0.05	mg/kg		23-FEB-06	CVE	R375592	
Silver (Ag)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Aluminum (Al)	<2		2	mg/kg		23-FEB-06	CLL	R375591	
Barium (Ba)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Beryllium (Be)	<0.2		0.2	mg/kg		23-FEB-06	CLL	R375591	
Cadmium (Cd)	<0.01		0.01	mg/kg		23-FEB-06	CLL	R375591	
Cobalt (Co)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Chromium (Cr)	0.6		0.1	mg/kg		23-FEB-06	CLL	R375591	
Copper (Cu)	0.31		0.05	mg/kg		23-FEB-06	CLL	R375591	
Molybdenum (Mo)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Nickel (Ni)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Lead (Pb)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Antimony (Sb)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Tin (Sn)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Strontium (Sr)	0.29		0.05	mg/kg		23-FEB-06	CLL	R375591	
Thallium (Tl)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Vanadium (V)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Zinc (Zn)	3.2		0.5	mg/kg		23-FEB-06	CLL	R375591	
Metals in Tissue									
Calcium (Ca)	110		20	mg/kg		23-FEB-06	CVE	R375592	

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch	
L362317-21	R6 TUK HARBOUR									
Sample By:	JH									
Matrix:	FISH TISSUE									
Metals in Animal Tissue										
Metals in Tissue										
Potassium (K)	5300		20	mg/kg		23-FEB-06	CVE	R375592		
Magnesium (Mg)	371		5	mg/kg		23-FEB-06	CVE	R375592		
Sodium (Na)	500		20	mg/kg		23-FEB-06	CVE	R375592		
Iron (Fe)	<5		5	mg/kg		23-FEB-06	CVE	R375592		
Manganese (Mn)	<0.5		0.5	mg/kg		23-FEB-06	CVE	R375592		
% Moisture	76.7		0.1	%		24-FEB-06	CMM	R375742		
Mercury (Hg)	0.03		0.01	mg/kg		23-FEB-06	CLL	R375591		
PCBs										
Aroclor 1016	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1221	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1232	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1242	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1248	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1254	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1260	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1262	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Aroclor 1268	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Total PCBs	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452		
Surf: Decachlorobiphenyl	79		67-112	%	21-FEB-06	28-FEB-06	AMB	R376452		
L362317-22	R7 TUK HARBOUR									
Sample By:	JH									
Matrix:	FISH TISSUE									
Metals in Animal Tissue										
Arsenic (As)	1.49		0.05	mg/kg		23-FEB-06	CLL	R375591		
Phosphorus (P)	3130		20	mg/kg		23-FEB-06	CVE	R375592		
Selenium (Se)	0.67		0.05	mg/kg		23-FEB-06	CLL	R375591		
Titanium (Ti)	<0.05	RAMB	0.05	mg/kg		23-FEB-06	CVE	R375592		
Metals in Tissue										
Silver (Ag)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591		
Aluminum (Al)	<2		2	mg/kg		23-FEB-06	CLL	R375591		
Barium (Ba)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591		
Beryllium (Be)	<0.2		0.2	mg/kg		23-FEB-06	CLL	R375591		
Cadmium (Cd)	<0.01		0.01	mg/kg		23-FEB-06	CLL	R375591		
Cobalt (Co)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591		
Chromium (Cr)	0.6		0.1	mg/kg		23-FEB-06	CLL	R375591		
Copper (Cu)	0.37		0.05	mg/kg		23-FEB-06	CLL	R375591		
Molybdenum (Mo)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591		
Nickel (Ni)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591		
Lead (Pb)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591		
Antimony (Sb)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591		
Tin (Sn)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591		
Strontium (Sr)	0.34		0.05	mg/kg		23-FEB-06	CLL	R375591		
Thallium (Tl)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591		
Vanadium (V)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591		
Zinc (Zn)	4.5		0.5	mg/kg		23-FEB-06	CLL	R375591		
Metals in Tissue										
Calcium (Ca)	110		20	mg/kg		23-FEB-06	CVE	R375592		
Potassium (K)	5310		20	mg/kg		23-FEB-06	CVE	R375592		

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L362317-22	R7 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Magnesium (Mg)	371			5	mg/kg		23-FEB-06	CVE	R375592
Sodium (Na)	660			20	mg/kg		23-FEB-06	CVE	R375592
Iron (Fe)	5			5	mg/kg		23-FEB-06	CVE	R375592
Manganese (Mn)	<0.5			0.5	mg/kg		23-FEB-06	CVE	R375592
% Moisture	76.2			0.1	%		24-FEB-06	CMM	R375742
Mercury (Hg)	0.03			0.01	mg/kg		23-FEB-06	CLL	R375591
PCBs									
Aroclor 1016	<0.01			0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452
Aroclor 1221	<0.01			0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452
Aroclor 1232	<0.01			0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452
Aroclor 1242	<0.01			0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452
Aroclor 1248	<0.01			0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452
Aroclor 1254	<0.01			0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452
Aroclor 1260	<0.01			0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452
Aroclor 1262	<0.01			0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452
Aroclor 1268	<0.01			0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452
Total PCBs	<0.01			0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452
Surr:	Decachlorobiphenyl	83		67-112	%	21-FEB-06	28-FEB-06	AMB	R376452
L362317-23	R8 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Arsenic (As)	1.27			0.05	mg/kg		23-FEB-06	CLL	R375591
Phosphorus (P)	3030			20	mg/kg		23-FEB-06	CVE	R375592
Selenium (Se)	0.50			0.05	mg/kg		23-FEB-06	CLL	R375591
Titanium (Ti)	<0.05		RAMB	0.05	mg/kg		23-FEB-06	CVE	R375592
Metals in Tissue									
Silver (Ag)	<0.05			0.05	mg/kg		23-FEB-06	CLL	R375591
Aluminum (Al)	3			2	mg/kg		23-FEB-06	CLL	R375591
Barium (Ba)	0.3			0.1	mg/kg		23-FEB-06	CLL	R375591
Beryllium (Be)	<0.2			0.2	mg/kg		23-FEB-06	CLL	R375591
Cadmium (Cd)	<0.01			0.01	mg/kg		23-FEB-06	CLL	R375591
Cobalt (Co)	<0.1			0.1	mg/kg		23-FEB-06	CLL	R375591
Chromium (Cr)	0.5			0.1	mg/kg		23-FEB-06	CLL	R375591
Copper (Cu)	0.37			0.05	mg/kg		23-FEB-06	CLL	R375591
Molybdenum (Mo)	<0.05			0.05	mg/kg		23-FEB-06	CLL	R375591
Nickel (Ni)	<0.02			0.02	mg/kg		23-FEB-06	CLL	R375591
Lead (Pb)	<0.02			0.02	mg/kg		23-FEB-06	CLL	R375591
Antimony (Sb)	<0.05			0.05	mg/kg		23-FEB-06	CLL	R375591
Tin (Sn)	<0.1			0.1	mg/kg		23-FEB-06	CLL	R375591
Strontium (Sr)	0.40			0.05	mg/kg		23-FEB-06	CLL	R375591
Thallium (Tl)	<0.05			0.05	mg/kg		23-FEB-06	CLL	R375591
Vanadium (V)	<0.1			0.1	mg/kg		23-FEB-06	CLL	R375591
Zinc (Zn)	3.3			0.5	mg/kg		23-FEB-06	CLL	R375591
Metals in Tissue									
Calcium (Ca)	130			20	mg/kg		23-FEB-06	CVE	R375592
Potassium (K)	5220			20	mg/kg		23-FEB-06	CVE	R375592
Magnesium (Mg)	365			5	mg/kg		23-FEB-06	CVE	R375592

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L362317-23	R8 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Sodium (Na)	640		20	mg/kg		23-FEB-06	CVE	R375592	
Iron (Fe)	5		5	mg/kg		23-FEB-06	CVE	R375592	
Manganese (Mn)	0.5		0.5	mg/kg		23-FEB-06	CVE	R375592	
% Moisture	73.6		0.1	%		24-FEB-06	CMM	R375742	
Mercury (Hg)	0.03		0.01	mg/kg		23-FEB-06	CLL	R375591	
PCBs									
Aroclor 1016	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1221	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1232	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1242	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1248	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1254	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1260	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1262	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1268	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Total PCBs	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Surr: Decachlorobiphenyl	78	67-112	%	21-FEB-06	28-FEB-06	AMB	R376452		
L362317-24	R9 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Arsenic (As)	1.36		0.05	mg/kg		23-FEB-06	CLL	R375591	
Phosphorus (P)	2950		20	mg/kg		23-FEB-06	CVE	R375592	
Selenium (Se)	0.79		0.05	mg/kg		23-FEB-06	CLL	R375591	
Titanium (Ti)	<0.05	RAMB	0.05	mg/kg		23-FEB-06	CVE	R375592	
Metals in Tissue									
Silver (Ag)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Aluminum (Al)	<2		2	mg/kg		23-FEB-06	CLL	R375591	
Barium (Ba)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Beryllium (Be)	<0.2		0.2	mg/kg		23-FEB-06	CLL	R375591	
Cadmium (Cd)	<0.01		0.01	mg/kg		23-FEB-06	CLL	R375591	
Cobalt (Co)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Chromium (Cr)	0.5		0.1	mg/kg		23-FEB-06	CLL	R375591	
Copper (Cu)	0.25		0.05	mg/kg		23-FEB-06	CLL	R375591	
Molybdenum (Mo)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Nickel (Ni)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Lead (Pb)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Antimony (Sb)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Tin (Sn)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Strontium (Sr)	1.62		0.05	mg/kg		23-FEB-06	CLL	R375591	
Thallium (Tl)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Vanadium (V)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Zinc (Zn)	2.9		0.5	mg/kg		23-FEB-06	CLL	R375591	
Metals in Tissue									
Calcium (Ca)	360		20	mg/kg		23-FEB-06	CVE	R375592	
Potassium (K)	4670		20	mg/kg		23-FEB-06	CVE	R375592	
Magnesium (Mg)	335		5	mg/kg		23-FEB-06	CVE	R375592	
Sodium (Na)	560		20	mg/kg		23-FEB-06	CVE	R375592	

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L362317-24	R9 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Metals in Tissue									
Iron (Fe)	<5		5	mg/kg		23-FEB-06	CVE	R375592	
Manganese (Mn)	<0.5		0.5	mg/kg		23-FEB-06	CVE	R375592	
% Moisture	76.3		0.1	%		24-FEB-06	CMM	R375742	
Mercury (Hg)	0.02		0.01	mg/kg		23-FEB-06	CLL	R375591	
PCBs									
Aroclor 1016	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1221	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1232	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1242	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1248	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1254	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1260	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1262	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Aroclor 1268	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Total PCBs	<0.01		0.01	mg/kg	21-FEB-06	28-FEB-06	AMB	R376452	
Surr: Decachlorobiphenyl	79	67-112		%	21-FEB-06	28-FEB-06	AMB	R376452	
L362317-25	R10 TUK HARBOUR								
Sample By:	JH								
Matrix:	FISH TISSUE								
Metals in Animal Tissue									
Arsenic (As)	1.70		0.05	mg/kg		23-FEB-06	CLL	R375591	
Phosphorus (P)	2940		20	mg/kg		23-FEB-06	CVE	R375592	
Selenium (Se)	0.49		0.05	mg/kg		23-FEB-06	CLL	R375591	
Titanium (Ti)	0.07	RAMB	0.05	mg/kg		23-FEB-06	CVE	R375592	
Metals in Tissue									
Silver (Ag)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Aluminum (Al)	<2		2	mg/kg		23-FEB-06	CLL	R375591	
Barium (Ba)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Beryllium (Be)	<0.2		0.2	mg/kg		23-FEB-06	CLL	R375591	
Cadmium (Cd)	<0.01		0.01	mg/kg		23-FEB-06	CLL	R375591	
Cobalt (Co)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Chromium (Cr)	0.5		0.1	mg/kg		23-FEB-06	CLL	R375591	
Copper (Cu)	0.31		0.05	mg/kg		23-FEB-06	CLL	R375591	
Molybdenum (Mo)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Nickel (Ni)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Lead (Pb)	<0.02		0.02	mg/kg		23-FEB-06	CLL	R375591	
Antimony (Sb)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Tin (Sn)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Strontium (Sr)	0.23		0.05	mg/kg		23-FEB-06	CLL	R375591	
Thallium (Tl)	<0.05		0.05	mg/kg		23-FEB-06	CLL	R375591	
Vanadium (V)	<0.1		0.1	mg/kg		23-FEB-06	CLL	R375591	
Zinc (Zn)	3.0		0.5	mg/kg		23-FEB-06	CLL	R375591	
Metals in Tissue									
Calcium (Ca)	100		20	mg/kg		23-FEB-06	CVE	R375592	
Potassium (K)	4910		20	mg/kg		23-FEB-06	CVE	R375592	
Magnesium (Mg)	370		5	mg/kg		23-FEB-06	CVE	R375592	
Sodium (Na)	620		20	mg/kg		23-FEB-06	CVE	R375592	
Iron (Fe)	12		5	mg/kg		23-FEB-06	CVE	R375592	

ENVIRO-TEST ANALYTICAL REPORT

Reference Information

Sample Parameter Qualifier key listed:

Qualifier	Description
RAMB	Result Adjusted For Method Blank

Methods Listed (if applicable):

ETL Test Code	Matrix	Test Description	Preparation Method Reference(Based On)	Analytical Method Reference(Based On)
AS-FAUNA-ED	Tissue	Arsenic (As)	EPA 200.3	EPA 6020
HG-FAUNA-ED	Tissue	Mercury (Hg)	EPA 200.3	EPA 6020
MET1-FAUNA-ED	Tissue	Metals in Tissue	EPA 200.3	EPA 6020
MET2-FAUNA-ED	Tissue	Metals in Tissue	EPA 200.3	EPA 200.7
MOISTURE-IN-ED	Tissue	% Moisture		Gravimetric: Oven-dried @ 105C
P-FAUNA-ED	Tissue	Phosphorus (P)	EPA 200.3	EPA 200.7
PCB-ED	Tissue	PCBs		EPA 3550/8082-GC-ECD
SE-FAUNA-ED	Tissue	Selenium (Se)	EPA 200.3	EPA 6020
TI-FAUNA-ED	Tissue	Titanium (Ti)	EPA 200.3	EPA 200.3/200.7-ICP-OES

** Laboratory Methods employed follow in-house procedures, which are generally based on nationally or internationally accepted methodologies.

Chain of Custody numbers:

196137 196138 199403

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
ED	Enviro-Test Laboratories - Edmonton, Alberta, Canada		

GLOSSARY OF REPORT TERMS

Surr - A surrogate is an organic compound that is similar to the target analyte(s) in chemical composition and behavior but not normally detected in environmental samples. Prior to sample processing, samples are fortified with one or more surrogate compounds.

The reported surrogate recovery value provides a measure of method efficiency. The Laboratory warning units are determined under column heading D.L.

mg/kg (units) - unit of concentration based on mass, parts per million

mg/L (units) - unit of concentration based on volume, parts per million

< - Less than

D.L. - Detection Limit

N/A - Result not available. Refer to qualifier code and definition for explanation

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

UNLESS OTHERWISE STATED, SAMPLES ARE NOT CORRECTED FOR CLIENT FIELD BLANKS.

Although test results are generated under strict QA/QC protocols, any unsigned test reports, faxes, or emails are considered preliminary.

Enviro-Test Laboratories has an extensive QA/QC program where all analytical data reported is analyzed using approved referenced procedures followed by checks and reviews by senior managers and quality assurance personnel. However, since the results are obtained from chemical measurements and thus cannot be guaranteed, Enviro-Test Laboratories assumes no liability for the use or interpretation of the results.