Email

Dear

Re: Request for Access to Information under Part II of the Access to Information and Protection Privacy Act (the ATIPP Act, 2015)

On September 23, 2019, the City of St. John's received your request for access to the following information:

I request the following documents that pertain to the selection of the site, design, construction and operation of the Paul Reynolds Centre:

- 1. Detail budgets prepared as part of council's decision to proceed. I request all documents and support material and all correspondence (electronic, typed or handwritten) between staff and between staff and council. For greater clarity, I would like the budget amounts and supporting documents for each major category such as land cost, site work, building envelope, HVAC etc.
- 2. I request documents, notes and correspondence that report and pertain to the final capital cost of the building.
- 3. I request documents, notes and correspondence that relate to any and all variance between budgeted amounts and final cost.
- 4. I request a list of staff who prepared the documents presented to council, including the project cost estimates. I request correspondence, notes and documents that relate to the decision criteria used to evaluate the final site and project.
- 5. I request a list of days when the facility was closed or partially closed due to maintenance or repair issues. I request details of each of those incidents including cause, cost of repair and who paid for those repairs.
- 6. I request a copy of the geotechnical report prepared for the site evaluation.
- 7. I request a list of any major repairs or capital expenditures that are presently foreseen or planned for that facility.

Please see the enclosed documentation as requested:

- 1) Soil and Water Sampling Report
- 2) Hazard Materials Report produced by AllTech
- 3) Tender Results
- 4) Council Directive for Award to Ellisdon



- 5) Purchase Order for Ron Fougere Associates
- 6) Geotechnical Report

Note that staff involved with the project were: Gordon Tucker, Manager Capital Works Buildings, David Blackmore, Deputy City Manager Planning, Development and Engineering, Brendan O'Connel, Director of Engineering. All these staff members have since retired and as such current staff were unable to locate all the records requested. Most transitory records (drafts, handwritten notes, etc.) would have been destroyed as per our record retention policy. In response #1 in your request, please see the Purchase Order enclosed. In response to #2, please see the Council Directive to award the project to EllisDon. In response to #3 and #7, we are unable to provide the records requested due to current litigation, please see Section 30 of the Act (below). Please see the staff list and explanation above in response to #4. In response to #5, I direct you to our City website (<a href="www.stjohns.ca">www.stjohns.ca</a>) for a list of all public notices of when the facility was closed. Finally, in response to #6, please find a copy of the geotechnical report enclosed.

#### Legal advice

- **30.** (1) The head of a public body may refuse to disclose to an applicant information
  - (a) that is subject to solicitor and client privilege or litigation privilege of a public body; or
  - (b) that would disclose legal opinions provided to a public body by a law officer of the Crown.
  - (2) The head of a public body shall refuse to disclose to an applicant information that is subject to solicitor and client privilege or litigation privilege of a person other than a public body.

Please be advised that you may ask the Information and Privacy Commissioner to review the processing of your access request, as set out in Section 42 of the ATIPP Act. A request to the Commissioner must be made in writing within 15 business days of the date of this letter or within a longer period that may be allowed by the Commissioner:

Office of the Information and Privacy Commissioner 2 Canada Drive; P. O. Box 13004, Stn. A, St. John's, NL. A1B 3V8 Telephone: (709) 729-6309; Facsimile: (709) 729-6500

You may also appeal directly to the Supreme Court Trial Division within 15 business days after you receive the decision of the public body, pursuant to Section 52 of the Act.

If you have any further questions, please feel free to contact me by telephone at 576-8429 or by e-mail at <a href="kcutler@stjohns.ca">kcutler@stjohns.ca</a>.

Yours truly,

Kenessa Cutler ATIPP Coordinator





#### Stantec Consulting Ltd.

141 Kelsey Drive, St. John's, NL A1B 0L2 Tel: (709) 576-1458 Fax: (709) 576-2126

July 14, 2014 File: 121617902

Attention: Ms. Roula Al Abdullah

EllisDon Corporation 71 Airport Rd, Suite 105 St. John's NL A1A 4Y3

Dear Ms. Al Abdullah,

Reference: Soil & Water Sampling, Concrete Septic Tank, Wedgewood Park Aquatic Centre Site,

St. John's, NL

Acting at your request, Stantec Consulting Ltd. (Stantec) has carried out soil and water sampling in an abandoned concrete septic tank unearthed during construction excavation activities at the site of the new Wedgewood Park Aquatic Centre in St. John's, NL. Stantec understands that this work was requested to determine concentrations of various potential contaminants of concern (PCOCs) in the soil and water in the tank for purposes of determining the appropriate disposal options for these materials as part of tank decommissioning and removal activities at the site. This letter report contains all of the findings, results, conclusions and recommendations for this sampling program.

#### **REGULATORY FRAMEWORK**

Based on Newfoundland and Labrador Department of Environment and Conservation (NLDEC) waste disposal requirements, disposal of soil is permitted at an approved municipal landfill, subject to the permission of the owner/operator, as well as if the following conditions are met:

- Results of soil sample analysis meet the applicable regulatory guidelines for industrial land use, including the Atlantic RBCA (Risk-Based Corrective Action) Version 3.0 User Guidance Document (July 2012) for petroleum hydrocarbons (i.e., total petroleum hydrocarbons (TPH) and benzene, toluene, ethyl-benzene and xylenes (BTEX)) and the Canadian Council of Ministers of the Environment (CCME) Canadian Soil Quality Guidelines (SQGs) (available online at http://ceag-rcqe.ccme.ca) for all other PCOCs; or,
- Soil sample leachate analysis pass the Toxicity Characteristics Leaching Procedure (TCLP) standard test for leachability for the parameters listed in Attachment 2 of the NLDEC Leachable Toxic Waste Guidance Document, November 2003.

In addition, results of laboratory analysis of PCOCs in soil are also compared to the Atlantic RBCA and CCME SQGs for residential and commercial land use as part of this study to further evaluate other possible disposal options for soil in the tank.



Reference: Soil & Water Sampling, Concrete Septic Tank, Wedgewood Park Aquatic Centre Site,

St. John's, NL

To evaluate possible disposal options for water in the tank, the results of analysis of PCOCs in the water sample were compared to the Newfoundland & Labrador Environmental Control Water and Sewage Regulations Discharge Criteria for Discharge to a Body of Water (Schedule A), where available. For those PCOCs where no discharge criteria exist under the Newfoundland & Labrador Environmental Control Water and Sewage Regulations, the CCME Canadian Water Quality Guidelines for the Protection of Freshwater Aquatic Life (FAL) (available online) were used to evaluate the potential effect on aquatic life associated with the discharge of water from the tank at the site or to a storm water sewer.

#### **METHODOLOGY**

A total of four (4) soil samples (i.e., BS1 to BS4) and one (1) water sample (WATER-1) were collected from the unearthed concrete septic tank at the Wedgewood Park Aquatic Centre site. The soil and water samples were sampled by bulk sample methods from the tank, and were examined in the field for any evidence of petroleum hydrocarbon impacts. The samples were placed in clean, sample containers/jars provided by the laboratory, and were shipped to Maxxam Analytics in St. John's, NL and Bedford, NS for analysis, as required. Soil samples were analyzed for petroleum hydrocarbons, available metals, polycyclic aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs); while the water sample was analyzed for petroleum hydrocarbons, total metals, and PCBs.

#### **RESULTS OF SOIL AND WATER SAMPLING**

Laboratory analytical results for the soil samples are provided in Tables 1 to 4, and the results for the water sample are provided in Tables 5 to 7 (attached). The full Maxxam Analytics laboratory analytical report is also provided as an attachment.

Based on analytical results, no detectable concentrations of petroleum hydrocarbons, metals, PAHs, or PCBs were identified in any of the soil samples at concentrations that exceed applicable industrial guidelines. Furthermore, with the exception of lead in soil sample BS1, the analytical results for all other PCOCs analyzed in the soil samples were also below the applicable guidelines for residential and commercial land uses. The concentration of lead identified in soil sample BS1 exceeded the applicable CCME SQG for a residential site of 70 mg/kg, returning a concentration of 74 mg/kg.

With respect to the water sample, a concentration of petroleum hydrocarbons was detected below the applicable NL discharge criteria of 15 mg/L, returning a concentration of 1.8 mg/L. However, several metals parameters (i.e., iron, lead and phosphorus) had detectable concentrations that exceeded the applicable NL Discharge Criteria, and the detected concentration of aluminum and PCBs exceeded the applicable CCME FAL guidelines. All other metals parameters detected in the water sample were below applicable discharge criteria. It should be noted that the water sample was not filtered prior to analysis, and the measured concentrations of metals and PCBs in the sample could potentially be influenced by sediment content, resulting in an overestimation of the actual dissolved-phase concentrations of metals and PCBs in the water sample.



Reference: Soil & Water Sampling, Concrete Septic Tank, Wedgewood Park Aquatic Centre Site,

St. John's, NL

#### **DISCUSSION & CONCLUSIONS**

Based on results of soil sampling carried out as part of the current program, no petroleum hydrocarbons, metals, PAHS, or PCBs were identified in any of the soil samples at concentrations that exceed applicable industrial guidelines, and therefore soil present in the tank is considered acceptable for disposal at the municipal landfill, subject to authorization by the landfill owner/operator. Please note that the soil within the tank is not considered suitable to remain on site for beneficial use (i.e., landscaping, grading, etc.) since lead was detected in one sample (BS1) at a concentration that exceeds the applicable CCME SQG of 70 mg/kg for residential/parkland use, returning a concentration of 74 mg/kg.

Based on results of water sampling carried out as part of the current program, a concentration of petroleum hydrocarbons was detected below the applicable NL discharge criteria of 15 mg/L, returning a concentration of 1.8 mg/L. However, surface sheening was identified on the water at the time of sampling and therefore it is advised that water in the tank be removed for proper disposal by a licensed liquid waste contractor. The recommendation for disposal of the tank's water content by a licensed liquid waste contractor is further supported by analytical results for metals and PCBs, which identified a number of metals as well as PCBs at concentrations that exceeded applicable discharge guidelines, and suggests the water is not suitable for discharge at the site or to a storm water sewer.

Finally, based on analytical results and field observations, it is not anticipated that the concrete tank is impacted by its soil and water contents, and as such would not be expected to require specialized disposal.

#### **CLOSURE**

This report documents work that was performed in accordance with generally accepted professional standards at the time and location in which the services were provided. No other representations, warranties or guarantees are made concerning the accuracy or completeness of the data or conclusions contained within this report, including no assurance that this work has uncovered all potential liabilities associated with the identified property.

This report provides an evaluation of selected environmental conditions associated with the identified portion of the property that was assessed at the time the work was conducted and is based on information obtained by and/or provided to Stantec at that time. There are no assurances regarding the accuracy and completeness of this information. All information received from the client or third parties in the preparation of this report has been assumed by Stantec to be correct. Stantec assumes no responsibility for any deficiency or inaccuracy in information received from others.

The opinions in this report can only be relied upon as they relate to the condition of the portion of the identified property that was assessed at the time the work was conducted. Activities at the property subsequent to Stantec's assessment may have significantly altered the property's condition. Stantec cannot comment on other areas of the property that were not assessed.



Reference: Soil & Water Sampling, Concrete Septic Tank, Wedgewood Park Aquatic Centre Site,

St. John's, NL

Conclusions made within this report consist of Stantec's professional opinion as of the time of the writing of this report, and are based solely on the scope of work described in the report, the limited data available and the results of the work. They are not a certification of the property's environmental condition. This report should not be construed as legal advice.

This report has been prepared for the exclusive use of the client identified herein and any use by any third party is prohibited. Stantec assumes no responsibility for losses, damages, liabilities or claims, howsoever arising, from third party use of this report.

The locations of any utilities, buildings and structures, and property boundaries illustrated in or described within this report, if any, including pole lines, conduits, water mains, sewers and other surface or sub-surface utilities and structures are not guaranteed. Before starting work, the exact location of all such utilities and structures should be confirmed and Stantec assumes no liability for damage to them.

The conclusions are based on the site conditions encountered by Stantec at the time the work was performed at the specific testing and/or sampling locations, and conditions may vary among sampling locations. Factors such as areas of potential concern identified in previous studies, site conditions (e.g., utilities) and cost may have constrained the sampling locations used in this assessment. In addition, analysis has been carried out for only a limited number of chemical parameters, and it should not be inferred that other chemical species are not present. Due to the nature of the investigation and the limited data available, Stantec does not warrant against undiscovered environmental liabilities nor that the sampling results are indicative of the condition of the entire site. As the purpose of this report is to identify site conditions which may pose an environmental risk; the identification of non-environmental risks to structures or people on the site is beyond the scope of this assessment.

Should additional information become available which differs significantly from our understanding of conditions presented in this report, Stantec specifically disclaims any responsibility to update the conclusions in this report.



Reference: Soll & Water Sampling, Concrete Septic Tank, Wedgewood Park Aquatic Centre Site, St. John's, NL

This report was prepared by Carolyn Anstey-Moore, M.Sc., M.A.Sc., P.Geo., and reviewed by Robert MacLeod, M.Sc., P.Geo. We trust that this report meets your present requirements. If you have any questions or require additional information, please contact our office at your convenience.

Regards,

STANTEC CONSULTING LTD.

Carolyn Anstey-Moore, M.Sc., M.A.Sc., P.Geo. Senior Associate, Environmental Geoscientist

Phone: (709) 576-1458 Ext. 5761282

Fax: (709) 576-2126

Carolyn.AnsteyMoore@stantec.com

Attachment:

Analytical Summary Tables of Soil and Water Sample Results (Tables 1 to 7)
Maxxam Analytics Inc. Laboratory Analytical Report





Table 1 Results of Laboratory Analysis of Petroleum Hydrocarbons in Soil Soil and Water Sampling, Concrete Septic Tank Wedgewood Park Aquatic Centre Site, St. John's, NL Stantec Project No. 121617902

	٥ "	Sample	BTEX Parameters (mg/kg)					Total Pe	troleum Hyd	rocarbons	(mg/kg)		Return to			
Sample I.D.	Sampling Date	Depth (mbgs)	Benzene	Toluene	Ethyl- benzene	Xylenes	F1 (C <sub>6</sub> - C <sub>10</sub> )	F2 (C <sub>10</sub> - C <sub>16</sub> )	C <sub>16</sub> - C <sub>21</sub>	C <sub>21</sub> -C <sub>32</sub>	F3 (C <sub>16</sub> - C <sub>34</sub> )	Modified TPH - Tier I <sup>2</sup>	Baseline? <sup>3</sup>	Resemblance		
BS1	26-Jun-14	-	0 035	nd	nd	nd	nd	200	61	190	-	440	No	Weathered fuel oil fraction. Lube oil fraction		
BS2	26-Jun-14	=	nd	0.53	nd	nd	nd	nd	nd	nd	-	nd	-			
BS3	26-Jun-14	-	nd	nd	nd	nd	nd	nd	nd	37	-	37	Yes	Lube oil fraction		
BS4	26-Jun-14	-	nd	0 044	nd	nd	nd	nd	14	76	-	89	Yes	Lube oil fraction		
	RD		0 025	0 025	0.025	0.05	2.5	10	10	15	-	15	-	-		
Tier I RBSLs		0 099/2.5	77/10 000	30/10 000	8.8/110	-	-	-	-	-	270/4000	-	-			

#### Notes:

- 1 = Atlantic Partnership in RBCA (Risk-Based Corrective Action) Implementation (PIRI) Tier I Risk Based Screening Levels (RBSLs) for a residential/commercial(industrial) site with non-potable groundwater and coarse grained soil fuel oil impacts (Table 4a July 2012)
- 2 = Modified TPH = TPH C6 C32 (excluding BTEX)
- 3 = Atlantic PIRI analytical method does not analyze for >C32. Laboratory certificate indicates (Yes or No) whether chromatogram for each sample returns to baseline after C32. Samples are considered to have returned to baseline if the area from C32-C36 is less than 10% of the area from C10-C32
- RDL = Reportable Detection Limit for routine analysis
- nd = Not detected above standard RDL
- mbgs = meters below ground surface
- "-" = Not applicable

Table 2 Results of Laboratory Analysis of Available Metals in Soil Soil and Water Sampling, Concrete Septic Tank Wedgewood Park Aquatic Centre Site, St. John's, NL Stantec Project No. 121617902

Parameters	RDL	Units	Guideline <sup>1</sup>	BS1	BS2	BS3	BS4
				26-Jun-14	26-Jun-14	26-Jun-14	26-Jun-14
Aluminum	10	mg/kg	-	13,000	12,000	15,000	13,000
Antimony	2.0	mg/kg	20/40	nd	nd	nd	nd
Arsenic	2.0	mg/kg	12	5.4	3.1	4.1	4
Barium	5.0	mg/kg	750/2000	79	32	66	90
Beryllium	2.0	mg/kg	4/8	nd	nd	nd	nd
Boron	5.0	mg/kg	-	nd	nd	nd	nd
Cadmium	0.30	mg/kg	1.4/22	nd	nd	nd	nd
Chromium	2.0	mg/kg	64/87	9.6	6.5	7.1	6.8
Cobalt	1.0	mg/kg	40/300	7.3	5.8	5.7	7.4
Copper	2.0	mg/kg	63/91	27	16	15	17
Iron	50	mg/kg	-	23,000	22,000	22,000	23,000
Lead	0.50	mg/kg	70/260/600	<u>74</u>	10	11	32
Lithium	2.00	mg/kg	-	28	29	28	30
Manganese	2.0	mg/kg	-	820	780	690	810
Mercury	0.10	mg/kg	6.6/24/50	0.17	nd	nd	nd
Molybdenum	2.0	mg/kg	5/40	nd	nd	nd	nd
Nickel	2.0	mg/kg	50	11	9.4	8.4	9.8
Rubidium	2.0	mg/kg	-	6.6	4.1	6.9	5.1
Selenium	2.0	mg/kg	1/2.9	nd	nd	nd	nd
Silver	0.50	mg/kg	20/40	nd	nd	nd	nd
Strontium	5.0	mg/kg	-	16	13	15	12
Thallium	0.10	mg/kg	1	nd	nd	nd	nd
Tin	2.0	mg/kg	5/300	2.6	nd	nd	nd
Uranium	0.10	mg/kg	23/33/300	0.58	0.46	0.54	0.49
Vanadium	2.0	mg/kg	130	16	12	17	13
Zinc	5.0	mg/kg	200/360	91	64	66	76

#### Notes:

1 = Canadian Council of Ministers of the Environment (CCME) Canadian Soil Quality Guidelines (available online). Residential/Commercial/Industrial land use.

RDL = Reportable Detection Limit for routine analysis

nd = Not detected above standard RDL

mbgs = meters below ground surface

Bold/Underlined = Value exceeds applicable residential guideline

Table 3 Results of Laboratory Analysis of Polycyclic Aromatic Hydrocarbons in Soil Soil and Water Sampling, Concrete Septic Tank Wedgewood Park Aquatic Centre Site, St. John's, NL Stantec Project No. 121617902

Parameter	RDL	Units	B(a)P PEF	CCME CSQG <sub>HH</sub> <sup>1</sup> (All Land Uses)	HH Guidelines - Other Jurisdictions <sup>2</sup> (All Land Uses)	CCME CSQG <sub>EH</sub> 1	BS1	BS1 Lab-Dup	BS2	BS3	BS4
Non Caraina gania DALIa							26-Jun-14	26-Jun-14	26-Jun-14	26-Jun-14	26-Jun-14
Non-Carcinogenic PAHs  1-Methylnaphthalene	0.01	no cr /1/ cr			560*		0.044	0.032	nd	nd	nd
, ,		mg/kg	-	-	560*	-		*****			
2-Methylnaphthalene	0.01	mg/kg	-	-	96*	-	0.061	0.045	nd	nd	nd
Acenaphthene	0.01	mg/kg	-	-		-	0.032	0.023	nd	nd	nd
Acenaphthylene	0.01	mg/kg	-	-	9.6*	-	nd	nd	nd	nd	nd
Anthracene	0.01	mg/kg	-	-	4 200*	2.5/32	0.058	0.045	nd	nd	0.015
Fluoranthene	0.01	mg/kg	-	-	9.6*	50/180	0.39	0.27	0.024	0.02	0.099
Fluorene	0.01	mg/kg	-	-	5 600*	-	0.055	0.033	nd	nd	0.012
Naphthalene	0.01	mg/kg	-	-	2 800*	22/0.013 <sup>4</sup>	0.043	0.036	nd	nd	nd
Perylene	0.01	mg/kg	-	-	2 800**	-	0.047	0.043	nd	0.014	0.026
Phenanthrene	0.01	mg/kg	-	-	3 800**	50/0.046 <sup>4</sup>	0.28	0.2	nd	nd	0.074
Pyrene	0.01	mg/kg	-	-	96*	100	0.34	0.27	0.018	0.018	0.085
Carcinogenic PAHs							•				
Benzo[a]anthracene	0.01	mg/kg	0.1	-	-	1/10	0.16	0.12	nd	nd	0.04
Benzo[a]pyrene	0.01	mg/kg	1	_	-	20/72	0.15	0.14	nd	nd	0.031
Benzo[b]fluoranthene	0.01	mg/kg	0.1	_	-	1/10	0.15	0.13	nd	nd	0.033
Benzo[ghi]perylene	0.01	mg/kg	0.01	_	-	-	0.12	0.12	nd	nd	0.024
Benzo[j]fluoranthene	0.01	mg/kg	0.1	-	-	1/10	0.092	0.067	nd	nd	0.024
Benzo[k]fluoranthene	0.01	mg/kg	0.1	-	-	1/10	0.078	0.065	nd	nd	0.019
Chrysene	0.01	mg/kg	0.01	-	-	-	0.18	0.17	nd	nd	0.042
Indeno[1 2 3-cd]pyrene	0.01	mg/kg	0.1	-	-	1/10	0.09	0.092	nd	nd	0.018
Dibenz[a h]anthracene	0.01	mg/kg	1	-	-	1/10	0.028	0.028	nd	nd	nd
Benzo(a)p	yrene TF	PE conc	entration	5.3 <sup>1 5</sup>	-	-	0.2	0.2	0.0	0.0	0.1

#### Notes:

- 1 = Canadian Counsel of Ministers of the Environment (CCME) Soil Quality Guidelines for the Protection of Environmental and Human Health (CSQG on-line 2013). As per CCME recommendations soil samples are compared against the soil quality guidelines for the protection of human health and environmental health separately. Residential/Commercial(Industrial) land use.
- 2 = Human Health Criteria for non-carcinogenic PAHs in soil. Guidelines from other jurisdictions applied in the absence of applicable CCME guidelines. Source guideline for specific PAH parameter:\*Ontario Ministry of the Environment (MOE) Soil Groundwater and Sediment Standards for Use Under Part XV.I of the Environmental Protection Act April 15 2011. Soil Components for Table 3 Full Depth Non-potable Scenario (lowest applicable human health guideline)
  \*\*Texas Risk Reduction Program (TRRP) Tier I protective concentration level (PCL) Table 5 (June 2012).
- 3 = Carcinogenic PAHs assessed as B[a]P TPE for Human Health
- 4 = Guideline if potential impact to surface water (freshwater)
- 5 = Based on CCME guidelines for ingestion inhalation and dermal exposures. Where a parameter is not detected 1/2 of the RDL is used in the TPE calculation. B[a]P TPE = Benzo(a)pyrene Total Potency Equivalent concentration. Calculation assumes that soil is not contaminated with coal tar or creosote timbers B(a)P PEF = Benzo(a)pyrene Potency Equivalent Factor

TPE = Total potency equivalent

RDL = Reportable Detection Limit for routine analysis

nd = not detected above standard RDL

" - " = no guideline available

Table 4 Results of Laboratory Analysis of Polychlorinated Biphenyls in Soil Soil and Water Sampling, Concrete Septic Tank Wedgewood Park Aquatic Centre Site, St. John's, NL Stantec Project No. 121617902

Sample I.D.	Date	Polychlorinated Biphenyls (PCBs)
BS1	26-Jun-13	0.056
BS1 Lab-Dup	26-Jun-13	nd
BS2	26-Jun-13	nd
BS3	26-Jun-13	nd
BS4	26-Jun-13	0.085
	RDL	0.05
	Units	mg/kg
	Guideline <sup>1</sup>	0.5/33

#### Notes:

1 = Canadian Council of Ministers of the Environment (CCME) Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health (CSQG online). Residential/Commercial(Industrial) land use.

RDL = Reportable Detection Limit for routine analysis

nd = Not detected above standard RDL

mbgs = meters below ground surface

Lab-Dup = Laboratory QA/QC duplicate sample

Table 5 Results of Laboratory Analysis of Petroleum Hydrocarbons in Water Soil and Water Sampling, Concrete Septic Tank Wedgewood Park Aquatic Centre Site, St. John's, NL

Stantec Project No. 121617902

	Sampling Date	BTEX Parameters (mg/L)					Total Pe	troleum Hydi	rocarbons (mg/			
Sample ID		Benzene	Toluene	Ethyl- benzene	Xylenes	F1 (C <sub>6</sub> -C <sub>10</sub> )	F2 (C <sub>10</sub> -C <sub>16</sub> )	F3 (C <sub>16</sub> -C <sub>32</sub> )	Returned to baseline? <sup>4</sup>	Modified TPH <sup>2</sup>	Resemblance	
Water-1	26-Jun-14	nd	nd	nd	nd	nd nd		0 33	Yes	18	Weathered fuel oil fraction. Lube oil fraction. Unidentified compound(s) in lube oil range.	
	RDL	0.0010	0.0010	0.0010	0.0020	0 010	0.050	0.15	-	0.10	-	
NL Disc	charge Criteria 3	2.6	20	20	20	-	-	-	-	15	-	

#### Notes:

1 = NL Environmental Control Water and Sewage Regulations Discharge Criteria for Discharge of Oil to a Body of Water (Schedule A)

2 = Modified TPH = TPH  $C_6$  -  $C_{32}$  (excluding BTEX).

RDL = Reportable Detection Limit.

ND = Not detected above standard RDL.

"-" = Not analyzed not applicable or no applicable guideline.

Table 6 Results of Laboratory Analysis of Total Metals in Water Soil and Water Sampling, Concrete Septic Tank Wedgewood Park Aquatic Centre Site, St. John's, NL Stantec Project No. 121617902

Parameters	RDL	Units	Guideline <sup>1</sup>	WATER-1
				26-Jun-14
Aluminum	5.0	ug/L	5*	12,000
Antimony	1.0	ug/L	-	1.3
Arsenic	1.0	ug/L	500	14
Barium	1.0	ug/L	5,000	430
Beryllium	1.0	ug/L	-	nd
Bismuth	2.0	ug/L	-	nd
Boron	50	ug/L	5,000	nd
Cadmium	0.017	ug/L	50	0.41
Calcium	100	ug/L	-	39,000
Chromium	1.0	ug/L	50	6
Cobalt	0.40	ug/L	-	8.8
Copper	2.0	ug/L	300	46
Iron	50	ug/L	10,000	45,000
Lead	0.50	ug/L	20	130
Magnesium	100	ug/L	-	5,900
Manganese	2.0	ug/L	-	6,400
Mercury	0.013	ug/L	5	-
Molybdenum	2.0	ug/L	73*	3.6
Nickel	2.0	ug/L	500	4.4
Phosphorus	100	ug/L	0.5	800
Potassium	100	ug/L	-	7,800
Selenium	1.0	ug/L	10	1.9
Silver	0.10	ug/L	50	0.72
Sodium	100	ug/L	-	110,000
Strontium	2.0	ug/L	-	130
Thallium	0.10	ug/L	0.8*	nd
Tin	2.0	ug/L	-	2
Titanium	2.0	ug/L		1,000
Uranium	0.10	ug/L	33*	0.83
Vanadium	2.0	ug/L	-	14
Zinc	5.0	ug/L	500	72

#### Notes:

1 = NL Environmental Control Water and Sewage Regulations Discharge Criteria for Discharge to a Body of Water (Schedule A), where available; \*otherwise Canadian Council of Ministers of the Environment (CCME) Canadian Water Quality Guidelines for the Protection of Freshwater Aquatic Life (FAL) (available online). Short-term exposure guideline used where available to evaluate potential effect on aquatic life associated with discharge of purge tank water at site. Most conservative criteria used for those metals where criteria depend on

RDL = Reportable Detection Limit for routine analysis

nd = Not detected above standard RDL

"-" = No applicable guideline

na = Not available

Bold/Shaded = Value exceeds applicable guideline

Table 7 Results of Laboratory Analysis of Polychlorinated Biphenyls in Water Soil and Water Sampling, Concrete Septic Tank Wedgewood Park Aquatic Centre Site, St. John's, NL Stantec Project No. 121617902

Parameter		Polychlorinated Biphenyls (PCBs)
	RDL	0.05
	Units	ug/L
	Guideline <sup>1</sup>	0.001
WATER-1	26-Jun-14	0.16
WATER-1 Lab Dup	26-Jun-14	0.13

#### Notes:

1 = Canadian Council of Ministers of the Environment (CCME) Canadian Water Quality Guidelines for the Protection of Freshwater Aquatic Life (FAL) (available online). CCME no longer recommends this guideline and has withdrawn the value. This substance is classified as a Track 1 substance under the national CCME Policy for the Management of Toxic Substances (PMTS) (i.e., persistent, bioaccumulative, primarily the result of human activity, and Canadian Environmental Protection Act-toxic or equivalent) and should be considered subject to virtual elimination strategies; with guidelines serving as action levels or interim management objectives towards virtual elimination.

RDL = Reportable Detection Limit for routine analysis

nd = Not detected above standard RDL

Lab-Dup = Laboratory QA/QC duplicate sample

Bold/Shaded = Value exceeds evaluation criteria



Your P.O. #: 16300R-20 Your Project #: 121617092.200 Site Location: WEDGEWOOD PARK

Your C.O.C. #: ES865314

#### **Attention:Dennis Pynn**

Stantec Consulting Ltd St. John's - Standing Offer 141 Kelsey Drive St. John's, NL A1B 0L2

Report Date: 2014/07/03

Report #: R3077493

Version: 1

## **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B4B1533 Received: 2014/06/27, 10:31

Sample Matrix: Soil # Samples Received: 4

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	Reference
TEH in Soil (PIRI) (1, 2)	3	2014/06/27	2014/06/27	ATL SOP 00111	Based on Atl. PIRI
TEH in Soil (PIRI) (1, 2)	1	2014/06/27	2014/06/30	ATL SOP 00111	Based on Atl. PIRI
Metals Solids Acid Extr. ICPMS (1)	4	2014/06/27	2014/06/30	ATL SOP 00058	Based on EPA6020A
Moisture (1)	4	N/A	2014/06/30	ATL SOP 00001	MOE Handbook 1983
PAH Compounds by GCMS (SIM) (1, 2)	1	2014/06/27	2014/06/27	ATL SOP 00102	Based on EPA8270C
PAH Compounds by GCMS (SIM) (1, 2)	3	2014/06/27	2014/06/28	ATL SOP 00102	Based on EPA8270C
PCBs in soil by GC/ECD (1, 2)	4	2014/06/27	2014/06/30	ATL SOP 00106	Based on EPA8082
PCB Aroclor sum (soil) (1)	4	N/A	2014/06/30		
VPH in Soil (PIRI) (1)	3	2014/06/27	2014/06/28	ATL SOP 00119	Based on Atl. PIRI
VPH in Soil (PIRI) (1)	1	2014/06/27	2014/07/03	ATL SOP 00119	Based on Atl. PIRI
ModTPH (T1) Calc. for Soil (1, 3)	4	N/A	2014/06/30	N/A	Based on Atl. PIRI

Sample Matrix: Water # Samples Received: 1

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	Reference
TEH in Water (PIRI) (1)	1	2014/06/27	2014/06/29	ATL SOP 00113	Based on Atl. PIRI
Metals Water Total MS (1, 3)	1	2014/06/27	2014/06/28	ATL SOP 00058	Based on EPA6020A
PCBs in water by GC/ECD (1)	1	2014/06/27	2014/06/30	ATL SOP 00107	Based on EPA8082
PCB Aroclor sum (water) (1)	1	N/A	2014/06/30		
VPH in Water (PIRI) (1)	1	2014/06/27	2014/06/28	ATL SOP 00118	Based on Atl. PIRI
ModTPH (T1) Calc. for Water (1)	1	N/A	2014/06/30	N/A	Based on Atl. PIRI

#### Remarks:

Reporting results to two significant figures at the RDL is to permit statistical evaluation and is not intended to be an indication of analytical precision.

- \* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) This test was performed by Maxxam Bedford
- (2) Soils are reported on a dry weight basis unless otherwise specified.
- (3) New RDLs in effect due to release of NS Contaminated Sites Regulations. Reduced RDL based on MDL study performance. Low level analytical run checks being implemented.



Attention:Dennis Pynn

Stantec Consulting Ltd St. John's - Standing Offer 141 Kelsey Drive St. John's, NL A1B 0L2 Your P.O. #: 16300R-20 Your Project #: 121617092.200 Site Location: WEDGEWOOD PARK

Your C.O.C. #: ES865314

Report Date: 2014/07/03

Report #: R3077493

Version: 1

## **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B4B1533 Received: 2014/06/27, 10:31

**Encryption Key** 

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Michelle Hill, Project Manager Email: MHill@maxxam.ca Phone# (902)420-0203 Ext:289

\_\_\_\_\_

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Stantec Consulting Ltd

Client Project #: 121617092.200
Site Location: WEDGEWOOD PARK

Your P.O. #: 16300R-20 Sampler Initials: RMP

## **RBCA HYDROCARBONS IN SOIL (SOIL)**

Maxxam ID		WM0950	WM0951	WM0952		WM0953			
Sampling Date		2014/06/26	2014/06/26	2014/06/26		2014/06/26			
COC Number		ES865314	ES865314	ES865314		ES865314			
	Units	BS1	BS2	BS3	QC Batch	BS4	RDL	MDL	QC Batch
Petroleum Hydrocarbons			·				•	•	
Benzene	mg/kg	0.035	ND	ND	3658882	ND	0.025	N/A	3659399
Toluene	mg/kg	ND	0.53	ND	3658882	0.044	0.025	N/A	3659399
Ethylbenzene	mg/kg	ND	ND	ND	3658882	ND	0.025	0.025	3659399
Xylene (Total)	mg/kg	ND	ND	ND	3658882	ND	0.050	N/A	3659399
C6 - C10 (less BTEX)	mg/kg	ND	ND	ND	3658882	ND	2.5	N/A	3659399
>C10-C16 Hydrocarbons	mg/kg	200	ND	ND	3657136	ND	10	N/A	3657136
>C16-C21 Hydrocarbons	mg/kg	61	ND	ND	3657136	14	10	N/A	3657136
>C21- <c32 hydrocarbons<="" td=""><td>mg/kg</td><td>190</td><td>ND</td><td>37</td><td>3657136</td><td>76</td><td>15</td><td>N/A</td><td>3657136</td></c32>	mg/kg	190	ND	37	3657136	76	15	N/A	3657136
Modified TPH (Tier1)	mg/kg	440	ND	37	3657070	89	15	N/A	3657070
Reached Baseline at C32	mg/kg	No	NA	Yes	3657136	Yes	N/A	N/A	3657136
Hydrocarbon Resemblance	mg/kg	COMMENT (1)	NA	COMMENT (2)	3657136	COMMENT (2)	N/A	N/A	3657136
Surrogate Recovery (%)									
Isobutylbenzene - Extractable	%	101	72 (3)	83	3657136	85 (3)			3657136
n-Dotriacontane - Extractable	%	112 (4)	83 (4)	93 (4)	3657136	111 (4)			3657136
Isobutylbenzene - Volatile	%	105 (5)	131 (5)	114 (5)	3658882	103			3659399

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected

N/A = Not Applicable

- (1) Weathered fuel oil fraction. Lube oil fraction.
- (2) Lube oil fraction.
- (3) TEH samples were extracted using a flat-bed shaker instead of the accelerated mechanical shaker due to matrix incompatibility.
- (4) TEH Analysis: Silica gel clean-up performed prior to analysis as per client request.
- (5) VPH samples were extracted using a flat-bed shaker instead of the accelerated mechanical shaker due to matrix incompatibility.



Stantec Consulting Ltd

Client Project #: 121617092.200
Site Location: WEDGEWOOD PARK

Your P.O. #: 16300R-20 Sampler Initials: RMP

## **RBCA HYDROCARBONS IN WATER (WATER)**

Maxxam ID		WM0954			
Sampling Date		2014/06/26			
COC Number		ES865314			
	Units	WATER-1	RDL	MDL	QC Batch
Petroleum Hydrocarbons			-	•	•
Benzene	mg/L	ND	0.010	N/A	3657046
Toluene	mg/L	ND	0.010	N/A	3657046
Ethylbenzene	mg/L	ND	0.010	N/A	3657046
Xylene (Total)	mg/L	ND	0.020	N/A	3657046
C6 - C10 (less BTEX)	mg/L	ND	0.10	N/A	3657046
>C10-C16 Hydrocarbons	mg/L	0.50	0.050	N/A	3657309
>C16-C21 Hydrocarbons	mg/L	0.33	0.050	N/A	3657309
>C21- <c32 hydrocarbons<="" td=""><td>mg/L</td><td>0.95</td><td>0.10</td><td>N/A</td><td>3657309</td></c32>	mg/L	0.95	0.10	N/A	3657309
Modified TPH (Tier1)	mg/L	1.8	0.10	N/A	3657189
Reached Baseline at C32	mg/L	Yes	N/A	N/A	3657309
Hydrocarbon Resemblance	mg/L	COMMENT (1)	N/A	N/A	3657309
Surrogate Recovery (%)					
Isobutylbenzene - Extractable	%	120			3657309
n-Dotriacontane - Extractable	%	109 (2)			3657309
Isobutylbenzene - Volatile	%	101 (3)			3657046
001 0 111 0 1 11					

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected

N/A = Not Applicable

- (1) Weathered fuel oil fraction. Lube oil fraction. Unidentified compound(s) in lube oil range.
- (2) TEH sample contained sediment.
- (3) Elevated VPH RDL(s) due to sample dilution / matrix interference. VPH sample contained sediment.



Stantec Consulting Ltd

Client Project #: 121617092.200 Site Location: WEDGEWOOD PARK

Your P.O. #: 16300R-20 Sampler Initials: RMP

## **RESULTS OF ANALYSES OF SOIL**

Maxxam ID		WM0950	WM0951	WM0952	WM0953			
Sampling Date		2014/06/26	2014/06/26	2014/06/26	2014/06/26			
COC Number		ES865314	ES865314	ES865314	ES865314			
	Units	BS1	BS2	BS3	BS4	RDL	MDL	QC Batch
Inorganics								
Moisture	%	10	32	22	13	1	0.2	3657479
RDL = Reportable Dete	ection Limit							
QC Batch = Quality Co	ntrol Datch							



Stantec Consulting Ltd

Client Project #: 121617092.200 Site Location: WEDGEWOOD PARK

Your P.O. #: 16300R-20 Sampler Initials: RMP

## **ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)**

Maxxam ID		WM0950	WM0951	WM0952	WM0953			
Sampling Date		2014/06/26	2014/06/26	2014/06/26	2014/06/26			
COC Number		ES865314	ES865314	ES865314	ES865314			
	Units	BS1	BS2	BS3	BS4	RDL	MDL	QC Batch
Metals								
Acid Extractable Aluminum (AI)	mg/kg	13000	12000	15000	13000	10	N/A	3659382
Acid Extractable Antimony (Sb)	mg/kg	ND	ND	ND	ND	2.0	N/A	3659382
Acid Extractable Arsenic (As)	mg/kg	5.4	3.1	4.1	4.0	2.0	N/A	3659382
Acid Extractable Barium (Ba)	mg/kg	79	32	66	90	5.0	N/A	3659382
Acid Extractable Beryllium (Be)	mg/kg	ND	ND	ND	ND	2.0	N/A	3659382
Acid Extractable Bismuth (Bi)	mg/kg	ND	ND	ND	ND	2.0	N/A	3659382
Acid Extractable Boron (B)	mg/kg	ND	ND	ND	ND	50	N/A	3659382
Acid Extractable Cadmium (Cd)	mg/kg	ND	ND	ND	ND	0.30	N/A	3659382
Acid Extractable Chromium (Cr)	mg/kg	9.6	6.5	7.1	6.8	2.0	N/A	3659382
Acid Extractable Cobalt (Co)	mg/kg	7.3	5.8	5.7	7.4	1.0	N/A	3659382
Acid Extractable Copper (Cu)	mg/kg	27	16	15	17	2.0	N/A	3659382
Acid Extractable Iron (Fe)	mg/kg	23000	22000	22000	23000	50	N/A	3659382
Acid Extractable Lead (Pb)	mg/kg	74	10	11	32	0.50	N/A	3659382
Acid Extractable Lithium (Li)	mg/kg	28	29	28	30	2.0	N/A	3659382
Acid Extractable Manganese (Mn)	mg/kg	820	780	690	810	2.0	N/A	3659382
Acid Extractable Mercury (Hg)	mg/kg	0.17	ND	ND	ND	0.10	N/A	3659382
Acid Extractable Molybdenum (Mo)	mg/kg	ND	ND	ND	ND	2.0	N/A	3659382
Acid Extractable Nickel (Ni)	mg/kg	11	9.4	8.4	9.8	2.0	N/A	3659382
Acid Extractable Rubidium (Rb)	mg/kg	6.6	4.1	6.9	5.1	2.0	N/A	3659382
Acid Extractable Selenium (Se)	mg/kg	ND	ND	ND	ND	1.0	N/A	3659382
Acid Extractable Silver (Ag)	mg/kg	ND	ND	ND	ND	0.50	N/A	3659382
Acid Extractable Strontium (Sr)	mg/kg	16	13	15	12	5.0	N/A	3659382
Acid Extractable Thallium (TI)	mg/kg	ND	ND	ND	ND	0.10	N/A	3659382
Acid Extractable Tin (Sn)	mg/kg	2.6	ND	ND	ND	2.0	N/A	3659382
Acid Extractable Uranium (U)	mg/kg	0.58	0.46	0.54	0.49	0.10	N/A	3659382
Acid Extractable Vanadium (V)	mg/kg	16	12	17	13	2.0	N/A	3659382
Acid Extractable Zinc (Zn)	mg/kg	91	64	66	76	5.0	N/A	3659382

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

N/A = Not Applicable

ND = Not detected



Stantec Consulting Ltd

Client Project #: 121617092.200 Site Location: WEDGEWOOD PARK

Your P.O. #: 16300R-20 Sampler Initials: RMP

## **SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)**

Maxxam ID		WM0950	WM0950	WM0951	WM0952	WM0953			
Sampling Date		2014/06/26	2014/06/26	2014/06/26	2014/06/26	2014/06/26			
COC Number		ES865314	ES865314	ES865314	ES865314	ES865314			
	Units	BS1	BS1 Lab-Dup	BS2	BS3	BS4	RDL	MDL	QC Batch
Polyaromatic Hydrocarbons	5								
1-Methylnaphthalene	mg/kg	0.044	0.032	ND	ND	ND	0.010	N/A	3657748
2-Methylnaphthalene	mg/kg	0.061	0.045	ND	ND	ND	0.010	N/A	3657748
Acenaphthene	mg/kg	0.032	0.023	ND	ND	ND	0.010	N/A	3657748
Acenaphthylene	mg/kg	ND	ND	ND	ND	ND	0.010	N/A	3657748
Anthracene	mg/kg	0.058	0.045	ND	ND	0.015	0.010	N/A	3657748
Benzo(a)anthracene	mg/kg	0.16	0.12	ND	ND	0.040	0.010	N/A	3657748
Benzo(a)pyrene	mg/kg	0.15	0.14	ND	ND	0.031	0.010	N/A	3657748
Benzo(b)fluoranthene	mg/kg	0.15	0.13	ND	ND	0.033	0.010	N/A	3657748
Benzo(g,h,i)perylene	mg/kg	0.12	0.12	ND	ND	0.024	0.010	N/A	3657748
Benzo(j)fluoranthene	mg/kg	0.092	0.067	ND	ND	0.024	0.010	N/A	3657748
Benzo(k)fluoranthene	mg/kg	0.078	0.065	ND	ND	0.019	0.010	N/A	3657748
Chrysene	mg/kg	0.18	0.17	ND	ND	0.042	0.010	N/A	3657748
Dibenz(a,h)anthracene	mg/kg	0.028	0.028	ND	ND	ND	0.010	N/A	3657748
Fluoranthene	mg/kg	0.39	0.27	0.024	0.020	0.099	0.010	N/A	3657748
Fluorene	mg/kg	0.055	0.033	ND	ND	0.012	0.010	N/A	3657748
Indeno(1,2,3-cd)pyrene	mg/kg	0.090	0.092	ND	ND	0.018	0.010	N/A	3657748
Naphthalene	mg/kg	0.043	0.036	ND	ND	ND	0.010	N/A	3657748
Perylene	mg/kg	0.047	0.043	ND	0.014	0.026	0.010	N/A	3657748
Phenanthrene	mg/kg	0.28	0.20	ND	ND	0.074	0.010	N/A	3657748
Pyrene	mg/kg	0.34	0.27	0.018	0.018	0.085	0.010	N/A	3657748
Surrogate Recovery (%)									
D10-Anthracene	%	88	86	85	81	92			3657748
D14-Terphenyl (FS)	%	94	108	91	88	90			3657748
D8-Acenaphthylene	%	85	74	86	84	85			3657748

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

ND = Not detected

N/A = Not Applicable



Stantec Consulting Ltd

Client Project #: 121617092.200
Site Location: WEDGEWOOD PARK

Your P.O. #: 16300R-20 Sampler Initials: RMP

## POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		WM0950	WM0950	WM0951	WM0952	WM0953			
Sampling Date		2014/06/26	2014/06/26	2014/06/26	2014/06/26	2014/06/26			
COC Number		ES865314	ES865314	ES865314	ES865314	ES865314			
	Units	BS1	BS1 Lab-Dup	BS2	BS3	BS4	RDL	MDL	QC Batch
PCBs									
Aroclor 1016	ug/g	ND	ND	ND	ND	ND	0.050	N/A	3657555
Aroclor 1221	ug/g	ND	ND	ND	ND	ND	0.050	N/A	3657555
Aroclor 1232	ug/g	ND	ND	ND	ND	ND	0.050	N/A	3657555
Aroclor 1248	ug/g	ND	ND	ND	ND	ND	0.050	N/A	3657555
Aroclor 1242	ug/g	ND	ND	ND	ND	ND	0.050	N/A	3657555
Aroclor 1254	ug/g	ND	ND	ND	ND	ND	0.050	N/A	3657555
Aroclor 1260	ug/g	0.056	ND	ND	ND	0.085	0.050	N/A	3657555
Calculated Total PCB	ug/g	0.056		ND	ND	0.085	0.050	N/A	3657395
Surrogate Recovery (%)									
Decachlorobiphenyl	%	80 (1)	84 (1)	94	95	96			3657555

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

ND = Not detected

N/A = Not Applicable

(1) PCB samples were extracted using a flat-bed shaker instead of the accelerated mechanical shaker due to matrix incompatibility.



Stantec Consulting Ltd

Client Project #: 121617092.200 Site Location: WEDGEWOOD PARK

Your P.O. #: 16300R-20 Sampler Initials: RMP

# **ELEMENTS BY ICP/MS (WATER)**

Maxxam ID		WM0954			
Sampling Date		2014/06/26			
COC Number		ES865314			
	Units	WATER-1	RDL	MDL	QC Batch
Metals					
Total Aluminum (Al)	ug/L	12000	5.0	N/A	3657594
Total Antimony (Sb)	ug/L	1.3	1.0	N/A	3657594
Total Arsenic (As)	ug/L	14	1.0	N/A	3657594
Total Barium (Ba)	ug/L	430	1.0	N/A	3657594
Total Beryllium (Be)	ug/L	ND	1.0	N/A	3657594
Total Bismuth (Bi)	ug/L	ND	2.0	N/A	3657594
Total Boron (B)	ug/L	ND	50	N/A	3657594
Total Cadmium (Cd)	ug/L	0.41 (1)	0.10	N/A	3657594
Total Calcium (Ca)	ug/L	39000	100	N/A	3657594
Total Chromium (Cr)	ug/L	6.0	1.0	N/A	3657594
Total Cobalt (Co)	ug/L	8.8	0.40	N/A	3657594
Total Copper (Cu)	ug/L	46	2.0	N/A	3657594
Total Iron (Fe)	ug/L	45000	50	N/A	3657594
Total Lead (Pb)	ug/L	130	0.50	N/A	3657594
Total Magnesium (Mg)	ug/L	5900	100	N/A	3657594
Total Manganese (Mn)	ug/L	6400	2.0	N/A	3657594
Total Molybdenum (Mo)	ug/L	3.6	2.0	N/A	3657594
Total Nickel (Ni)	ug/L	4.4	2.0	N/A	3657594
Total Phosphorus (P)	ug/L	800	100	N/A	3657594
Total Potassium (K)	ug/L	7800	100	N/A	3657594
Total Selenium (Se)	ug/L	1.9	1.0	N/A	3657594
Total Silver (Ag)	ug/L	0.72	0.10	N/A	3657594
Total Sodium (Na)	ug/L	110000	100	N/A	3657594
Total Strontium (Sr)	ug/L	130	2.0	N/A	3657594
Total Thallium (TI)	ug/L	ND	0.10	N/A	3657594
Total Tin (Sn)	ug/L	2.0	2.0	N/A	3657594
Total Titanium (Ti)	ug/L	1000	2.0	N/A	3657594
Total Uranium (U)	ug/L	0.83	0.10	N/A	3657594
Total Vanadium (V)	ug/L	14	2.0	N/A	3657594
Total Zinc (Zn)	ug/L	72	5.0	N/A	3657594
PDI - Papartable Detection	Limit				

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

N/A = Not Applicable

ND = Not detected

(1) Elevated reporting limit due to sample matrix.



Stantec Consulting Ltd

Client Project #: 121617092.200
Site Location: WEDGEWOOD PARK

Your P.O. #: 16300R-20 Sampler Initials: RMP

## POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Maxxam ID		WM0954	WM0954			
Sampling Date		2014/06/26	2014/06/26			
COC Number		ES865314	ES865314			
	Units	WATER-1	WATER-1 Lab-Dup	RDL	MDL	QC Batch
PCBs	*	<u> </u>	<u> </u>	•	•	•
Aroclor 1016	ug/L	ND	ND	0.050	N/A	3657543
Aroclor 1221	ug/L	ND	ND	0.050	N/A	3657543
Aroclor 1232	ug/L	ND	ND	0.050	N/A	3657543
Aroclor 1248	ug/L	ND	ND	0.050	N/A	3657543
Aroclor 1242	ug/L	ND	ND	0.050	N/A	3657543
Aroclor 1254	ug/L	ND	ND	0.050	N/A	3657543
Aroclor 1260	ug/L	0.16	0.13	0.050	N/A	3657543
Calculated Total PCB	ug/L	0.16		0.050	N/A	3657454
Surrogate Recovery (%)	•	•	•	•	•	
Decachlorobiphenyl	%	32 (1)	44 (1)			3657543

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

ND = Not detected

N/A = Not Applicable

(1) PCB sample decanted as per client request.



Stantec Consulting Ltd

Client Project #: 121617092.200 Site Location: WEDGEWOOD PARK

Your P.O. #: 16300R-20 Sampler Initials: RMP

#### **GENERAL COMMENTS**

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1 17.1°C

Samples received at an average temperature >10°C

Sample WM0954-01: The sample was decanted prior to digestion due to >5% solids as per the clients request.

Results relate only to the items tested.



#### **QUALITY ASSURANCE REPORT**

Stantec Consulting Ltd

Client Project #: 121617092.200

Site Location: WEDGEWOOD PARK

			Matrix	Spike	Spiked	Blank	Method I	Blank	RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3657046	Isobutylbenzene - Volatile	2014/06/28	86 (1)	70 - 130	102	70 - 130	102	%		
3657136	Isobutylbenzene - Extractable	2014/06/27	87	30 - 130	92	30 - 130	90	%		
3657136	n-Dotriacontane - Extractable	2014/06/27	129	30 - 130	92	30 - 130	88	%		
3657309	Isobutylbenzene - Extractable	2014/06/29	114	30 - 130	115	30 - 130	116	%		
3657309	n-Dotriacontane - Extractable	2014/06/29	95	30 - 130	97	30 - 130	97	%		
3657543	Decachlorobiphenyl	2014/06/30			112	30 - 130	80	%		
3657555	Decachlorobiphenyl	2014/06/30	85 (2)	30 - 130	110	30 - 130	104	%		
3657748	D10-Anthracene	2014/06/27	93	30 - 130	88	30 - 130	87	%		
3657748	D14-Terphenyl (FS)	2014/06/27	94	30 - 130	91	30 - 130	97	%		
3657748	D8-Acenaphthylene	2014/06/27	88	30 - 130	90	30 - 130	79	%		
3658882	Isobutylbenzene - Volatile	2014/06/28	112 (3)	60 - 140	109	60 - 140	100	%		
3659399	Isobutylbenzene - Volatile	2014/06/30	111	60 - 140	100	60 - 140	94	%		
3657046	Benzene	2014/06/28	123	70 - 130	113	70 - 130	ND ,RDL=0.0010	mg/L		
3657046	C6 - C10 (less BTEX)	2014/06/28					ND ,RDL=0.010	mg/L		
3657046	Ethylbenzene	2014/06/28	111	70 - 130	111	70 - 130	ND ,RDL=0.0010	mg/L		
3657046	Toluene	2014/06/28	114	70 - 130	111	70 - 130	ND ,RDL=0.0010	mg/L		
3657046	Xylene (Total)	2014/06/28	110	70 - 130	110	70 - 130	ND ,RDL=0.0020	mg/L		
3657136	>C10-C16 Hydrocarbons	2014/06/27	NC	30 - 130	76	30 - 130	ND ,RDL=10	mg/kg		
3657136	>C16-C21 Hydrocarbons	2014/06/27	NC	30 - 130	83	30 - 130	ND ,RDL=10	mg/kg		
3657136	>C21- <c32 hydrocarbons<="" td=""><td>2014/06/27</td><td>NC</td><td>30 - 130</td><td>93</td><td>30 - 130</td><td>ND ,RDL=15</td><td>mg/kg</td><td></td><td></td></c32>	2014/06/27	NC	30 - 130	93	30 - 130	ND ,RDL=15	mg/kg		
3657309	>C10-C16 Hydrocarbons	2014/06/29	100	30 - 130	103	30 - 130	ND ,RDL=0.050	mg/L		
3657309	>C16-C21 Hydrocarbons	2014/06/29	103	30 - 130	103	30 - 130	ND ,RDL=0.050	mg/L		
3657309	>C21- <c32 hydrocarbons<="" td=""><td>2014/06/29</td><td>104</td><td>30 - 130</td><td>109</td><td>30 - 130</td><td>ND ,RDL=0.10</td><td>mg/L</td><td></td><td></td></c32>	2014/06/29	104	30 - 130	109	30 - 130	ND ,RDL=0.10	mg/L		
3657543	Aroclor 1016	2014/06/30					ND ,RDL=0.050	ug/L	NC	40
3657543	Aroclor 1221	2014/06/30					ND ,RDL=0.050	ug/L	NC	40
3657543	Aroclor 1232	2014/06/30					ND ,RDL=0.050	ug/L	NC	40
3657543	Aroclor 1242	2014/06/30					ND ,RDL=0.050	ug/L	NC	40
3657543	Aroclor 1248	2014/06/30					ND ,RDL=0.050	ug/L	NC	40
3657543	Aroclor 1254	2014/06/30			119	N/A	ND ,RDL=0.050	ug/L	NC	40
3657543	Aroclor 1260	2014/06/30					ND ,RDL=0.050	ug/L	NC	40
3657555	Aroclor 1016	2014/06/30					ND ,RDL=0.050	ug/g	NC	50



## QUALITY ASSURANCE REPORT(CONT'D)

Stantec Consulting Ltd

Client Project #: 121617092.200

Site Location: WEDGEWOOD PARK

			Matrix	Spike	Spiked	Blank	Method	Blank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3657555	Aroclor 1221	2014/06/30					ND ,RDL=0.050	ug/g	NC	50
3657555	Aroclor 1232	2014/06/30					ND ,RDL=0.050	ug/g	NC	50
3657555	Aroclor 1242	2014/06/30					ND ,RDL=0.050	ug/g	NC	50
3657555	Aroclor 1248	2014/06/30					ND ,RDL=0.050	ug/g	NC	50
3657555	Aroclor 1254	2014/06/30	101	N/A	116	N/A	ND ,RDL=0.050	ug/g	NC	50
3657555	Aroclor 1260	2014/06/30					ND ,RDL=0.050	ug/g	NC	50
3657594	Total Aluminum (Al)	2014/06/28	93	80 - 120	93	80 - 120	ND ,RDL=5.0	ug/L		
3657594	Total Antimony (Sb)	2014/06/28	94	80 - 120	100	80 - 120	ND ,RDL=1.0	ug/L		
3657594	Total Arsenic (As)	2014/06/28	93	80 - 120	96	80 - 120	ND ,RDL=1.0	ug/L		
3657594	Total Barium (Ba)	2014/06/28	87	80 - 120	90	80 - 120	ND ,RDL=1.0	ug/L		
3657594	Total Beryllium (Be)	2014/06/28	94	80 - 120	96	80 - 120	ND ,RDL=1.0	ug/L		
3657594	Total Bismuth (Bi)	2014/06/28	95	80 - 120	98	80 - 120	ND ,RDL=2.0	ug/L		
3657594	Total Boron (B)	2014/06/28	92	80 - 120	94	80 - 120	ND ,RDL=50	ug/L		
3657594	Total Cadmium (Cd)	2014/06/28	96	80 - 120	101	80 - 120	ND ,RDL=0.010	ug/L		
3657594	Total Calcium (Ca)	2014/06/28	94	80 - 120	95	80 - 120	ND ,RDL=100	ug/L		
3657594	Total Chromium (Cr)	2014/06/28	89	80 - 120	92	80 - 120	ND ,RDL=1.0	ug/L		
3657594	Total Cobalt (Co)	2014/06/28	91	80 - 120	95	80 - 120	ND ,RDL=0.40	ug/L		
3657594	Total Copper (Cu)	2014/06/28	91	80 - 120	95	80 - 120	ND ,RDL=2.0	ug/L		
3657594	Total Iron (Fe)	2014/06/28	95	80 - 120	96	80 - 120	ND ,RDL=50	ug/L		
3657594	Total Lead (Pb)	2014/06/28	92	80 - 120	95	80 - 120	ND ,RDL=0.50	ug/L		
3657594	Total Magnesium (Mg)	2014/06/28	96	80 - 120	97	80 - 120	ND ,RDL=100	ug/L		
3657594	Total Manganese (Mn)	2014/06/28	93	80 - 120	98	80 - 120	ND ,RDL=2.0	ug/L		
3657594	Total Molybdenum (Mo)	2014/06/28	93	80 - 120	96	80 - 120	ND ,RDL=2.0	ug/L		
3657594	Total Nickel (Ni)	2014/06/28	93	80 - 120	97	80 - 120	ND ,RDL=2.0	ug/L		
3657594	Total Phosphorus (P)	2014/06/28	96	80 - 120	96	80 - 120	ND ,RDL=100	ug/L		
3657594	Total Potassium (K)	2014/06/28	94	80 - 120	93	80 - 120	ND ,RDL=100	ug/L		
3657594	Total Selenium (Se)	2014/06/28	95	80 - 120	97	80 - 120	ND ,RDL=1.0	ug/L		
3657594	Total Silver (Ag)	2014/06/28	93	80 - 120	96	80 - 120	ND ,RDL=0.10	ug/L		
3657594	Total Sodium (Na)	2014/06/28	91	80 - 120	91	80 - 120	ND ,RDL=100	ug/L		
3657594	Total Strontium (Sr)	2014/06/28	95	80 - 120	100	80 - 120	ND ,RDL=2.0	ug/L		
3657594	Total Thallium (TI)	2014/06/28	96	80 - 120	97	80 - 120	ND ,RDL=0.10	ug/L		



## QUALITY ASSURANCE REPORT(CONT'D)

Stantec Consulting Ltd

Client Project #: 121617092.200

Site Location: WEDGEWOOD PARK

			Matrix	Spike	Spiked	Blank	Method	Blank	RPD	
QC Batch	Parameter	Date	% Recovery	% Recovery QC Limits 9		QC Limits	Value	Units	Value (%)	QC Limits
3657594	Total Tin (Sn)	2014/06/28	93	80 - 120	97	80 - 120	ND ,RDL=2.0	ug/L		
3657594	Total Titanium (Ti)	2014/06/28	93	80 - 120	98	80 - 120	ND ,RDL=2.0	ug/L		
3657594	Total Uranium (U)	2014/06/28	101	80 - 120	103	80 - 120	ND ,RDL=0.10	ug/L		
3657594	Total Vanadium (V)	2014/06/28	90	80 - 120	94	80 - 120	ND ,RDL=2.0	ug/L		
3657594	Total Zinc (Zn)	2014/06/28	93	80 - 120	97	80 - 120	ND ,RDL=5.0	ug/L		
3657748	1-Methylnaphthalene	2014/06/30	74	30 - 130	80	30 - 130	ND ,RDL=0.010	mg/kg	NC	50
3657748	2-Methylnaphthalene	2014/06/30	79	30 - 130	85	30 - 130	ND ,RDL=0.010	mg/kg	NC	50
3657748	Acenaphthene	2014/06/30	81	30 - 130	86	30 - 130	ND ,RDL=0.010	mg/kg	NC	50
3657748	Acenaphthylene	2014/06/30	85	30 - 130	86	30 - 130	ND ,RDL=0.010	mg/kg	NC	50
3657748	Anthracene	2014/06/30	93	30 - 130	87	30 - 130	ND ,RDL=0.010	mg/kg	NC	50
3657748	Benzo(a)anthracene	2014/06/30	88	30 - 130	84	30 - 130	ND ,RDL=0.010	mg/kg	28.1	50
3657748	Benzo(a)pyrene	2014/06/30	79	30 - 130	78	30 - 130	ND ,RDL=0.010	mg/kg	9.0	50
3657748	Benzo(b)fluoranthene	2014/06/30	85	30 - 130	87	30 - 130	ND ,RDL=0.010	mg/kg	9.6	50
3657748	Benzo(g,h,i)perylene	2014/06/30	83	30 - 130	78	30 - 130	ND ,RDL=0.010	mg/kg	1.5	50
3657748	Benzo(j)fluoranthene	2014/06/30	83	30 - 130	87	30 - 130	ND ,RDL=0.010	mg/kg	31.3	50
3657748	Benzo(k)fluoranthene	2014/06/30	84	30 - 130	88	30 - 130	ND ,RDL=0.010	mg/kg	18.2	50
3657748	Chrysene	2014/06/30	91	30 - 130	90	30 - 130	ND ,RDL=0.010	mg/kg	6.2	50
3657748	Dibenz(a,h)anthracene	2014/06/30	79	30 - 130	73	30 - 130	ND ,RDL=0.010	mg/kg	NC	50
3657748	Fluoranthene	2014/06/30	103	30 - 130	83	30 - 130	ND ,RDL=0.010	mg/kg	34.3	50
3657748	Fluorene	2014/06/30	86	30 - 130	87	30 - 130	ND ,RDL=0.010	mg/kg	NC	50
3657748	Indeno(1,2,3-cd)pyrene	2014/06/30	81	30 - 130	76	30 - 130	ND ,RDL=0.010	mg/kg	2.7	50
3657748	Naphthalene	2014/06/30	76	30 - 130	87	30 - 130	ND ,RDL=0.010	mg/kg	NC	50
3657748	Perylene	2014/06/30	81	30 - 130	86	30 - 130	ND ,RDL=0.010	mg/kg	NC	50
3657748	Phenanthrene	2014/06/30	106	30 - 130	78	30 - 130	ND ,RDL=0.010	mg/kg	32.1	50
3657748	Pyrene	2014/06/30	96	30 - 130	84	30 - 130	ND ,RDL=0.010	mg/kg	23.2	50
3658882	Benzene	2014/06/28	93	60 - 140	94	60 - 140	ND ,RDL=0.025	mg/kg		
3658882	C6 - C10 (less BTEX)	2014/06/28					ND ,RDL=2.5	mg/kg		
3658882	Ethylbenzene	2014/06/28	123	60 - 140	113	60 - 140	ND ,RDL=0.025	mg/kg		
3658882	Toluene	2014/06/28	135	60 - 140	105	60 - 140	ND ,RDL=0.025	mg/kg		
3658882	Xylene (Total)	2014/06/28	136	60 - 140	105	60 - 140	ND ,RDL=0.050	mg/kg		
3659382	Acid Extractable Aluminum (AI)	2014/06/30					ND ,RDL=10	mg/kg		



## QUALITY ASSURANCE REPORT(CONT'D)

Stantec Consulting Ltd

Client Project #: 121617092.200

Site Location: WEDGEWOOD PARK

			Matrix	Matrix Spike		Blank	Method I	Blank	RPD	
QC Batch	Parameter	Date	% Recovery QC Limits %		% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3659382	Acid Extractable Antimony (Sb)	2014/06/30	105	75 - 125	107	75 - 125	ND ,RDL=2.0	mg/kg		
3659382	Acid Extractable Arsenic (As)	2014/06/30	102	75 - 125	102	75 - 125	ND ,RDL=2.0	mg/kg		
3659382	Acid Extractable Barium (Ba)	2014/06/30	96	75 - 125	96	75 - 125	ND ,RDL=5.0	mg/kg		
3659382	Acid Extractable Beryllium (Be)	2014/06/30	102	75 - 125	101	75 - 125	ND ,RDL=2.0	mg/kg		
3659382	Acid Extractable Bismuth (Bi)	2014/06/30	104	75 - 125	103	75 - 125	ND ,RDL=2.0	mg/kg		
3659382	Acid Extractable Boron (B)	2014/06/30	99	75 - 125	110	75 - 125	ND ,RDL=50	mg/kg		
3659382	Acid Extractable Cadmium (Cd)	2014/06/30	99	75 - 125	100	75 - 125	ND ,RDL=0.30	mg/kg		
3659382	Acid Extractable Chromium (Cr)	2014/06/30	99	75 - 125	97	75 - 125	ND ,RDL=2.0	mg/kg		
3659382	Acid Extractable Cobalt (Co)	2014/06/30	98	75 - 125	98	75 - 125	ND ,RDL=1.0	mg/kg		
3659382	Acid Extractable Copper (Cu)	2014/06/30	98	75 - 125	98	75 - 125	ND ,RDL=2.0	mg/kg		
3659382	Acid Extractable Iron (Fe)	2014/06/30					ND ,RDL=50	mg/kg		
3659382	Acid Extractable Lead (Pb)	2014/06/30	98	75 - 125	99	75 - 125	ND ,RDL=0.50	mg/kg		
3659382	Acid Extractable Lithium (Li)	2014/06/30	111	75 - 125	110	75 - 125	ND ,RDL=2.0	mg/kg		
3659382	Acid Extractable Manganese (Mn)	2014/06/30	104	75 - 125	104	75 - 125	ND ,RDL=2.0	mg/kg		
3659382	Acid Extractable Mercury (Hg)	2014/06/30	94	75 - 125	96	75 - 125	ND ,RDL=0.10	mg/kg		
3659382	Acid Extractable Molybdenum (Mo)	2014/06/30	95	75 - 125	100	75 - 125	ND ,RDL=2.0	mg/kg		
3659382	Acid Extractable Nickel (Ni)	2014/06/30	102	75 - 125	101	75 - 125	ND ,RDL=2.0	mg/kg		
3659382	Acid Extractable Rubidium (Rb)	2014/06/30	104	75 - 125	105	75 - 125	ND ,RDL=2.0	mg/kg		
3659382	Acid Extractable Selenium (Se)	2014/06/30	101	75 - 125	101	75 - 125	ND ,RDL=1.0	mg/kg		
3659382	Acid Extractable Silver (Ag)	2014/06/30	101	75 - 125	101	75 - 125	ND ,RDL=0.50	mg/kg		
3659382	Acid Extractable Strontium (Sr)	2014/06/30	102	75 - 125	103	75 - 125	ND ,RDL=5.0	mg/kg		
3659382	Acid Extractable Thallium (Tl)	2014/06/30	101	75 - 125	102	75 - 125	ND ,RDL=0.10	mg/kg		
3659382	Acid Extractable Tin (Sn)	2014/06/30	100	75 - 125	105	75 - 125	ND ,RDL=2.0	mg/kg		
3659382	Acid Extractable Uranium (U)	2014/06/30	101	75 - 125	101	75 - 125	ND ,RDL=0.10	mg/kg		
3659382	Acid Extractable Vanadium (V)	2014/06/30	98	75 - 125	98	75 - 125	ND ,RDL=2.0	mg/kg		
3659382	Acid Extractable Zinc (Zn)	2014/06/30	101	75 - 125	103	75 - 125	ND ,RDL=5.0	mg/kg		
3659399	Benzene	2014/06/30	104	60 - 140	85	60 - 140	ND ,RDL=0.025	mg/kg		
3659399	C6 - C10 (less BTEX)	2014/06/30					ND ,RDL=2.5	mg/kg		
3659399	Ethylbenzene	2014/06/30	119	60 - 140	103	60 - 140	ND ,RDL=0.025	mg/kg		
3659399	Toluene	2014/06/30	139	60 - 140	94	60 - 140	ND ,RDL=0.025	mg/kg		
3659399	Xylene (Total)	2014/06/30	135	60 - 140	103	60 - 140	ND ,RDL=0.050	mg/kg		



#### QUALITY ASSURANCE REPORT(CONT'D)

Stantec Consulting Ltd

Client Project #: 121617092.200

Site Location: WEDGEWOOD PARK

Your P.O. #: 16300R-20 Sampler Initials: RMP

		Matrix	Spike	Spiked	Blank	Method Blank		RPD	
QC Batch Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

- (1) VPH sample contained sediment.
- (2) PCB samples were extracted using a flat-bed shaker instead of the accelerated mechanical shaker due to matrix incompatibility.
- (3) VPH samples were extracted using a flat-bed shaker instead of the accelerated mechanical shaker due to matrix incompatibility.



Stantec Consulting Ltd

Client Project #: 121617092.200 Site Location: WEDGEWOOD PARK

Your P.O. #: 16300R-20 Sampler Initials: RMP

#### **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Alan Stewart, Scientific Specialist (Organics)

Mike MacGillivray, Scientific Specialist (Inorganics)

Rose MacDonald, Scientific Specialist (Organics)

Comarie MacDonald

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

2829 Agricola Street Halifax, Nova Scotia, B3K 4E5 Bus.: (902) 497-1611 Fax.: (902) 453-6624

# ASBESTOS ASSESSMENT WEDGEWOOD PARK RECREATION CENTRE ST. JOHN'S, NEWFOUNDLAND

Prepared for:

City of St. John's P.O. BOX 908 St. John's Newfoundland A1C 5M2 Attention: Mr. Bob Wilson

Prepared by:

ALL-TECH Environmental Services Limited 34 Pippy Place, P.O. Box 8865 St. John's, Newfoundland A1B 3T2

December 12, 1997

**ALL-TECH** 

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## 1.0 INTRODUCTION

ALL-TECH Environmental Services Limited was contracted by the City of St. John's to perform an asbestos assessment of the Wedgewood Park Recreation Centre on Gleneyre Street, St. John's, Newfoundland. The assessment was performed on August 10, 1997. Using standard methodologies, suspect asbestos samples were collected from various locations throughout the building and the samples were transported to an independent laboratory for analysis.

Results of the representative samples are found in Appendix 1.

# 2.0 ASBESTOS ASSESSMENT

Asbestos is a general term which is used to describe a group of fibrous mineral silicates. There are six major types of asbestos which include: chrysotile (white asbestos), crocidolite (blue), amosite (brown), anthophyllite, tremolite and actinolite. Commercially, asbestos has been used widely in such applications as fireproofing, textiles, friction products, reinforcing materials (i.e. cement pipes, sheets) and insulation, both thermal and acoustic.

Asbestos materials can be found in one of two forms; a friable asbestos or a non-friable type. Friable asbestos material refers to material, that when dry, can be crumbled, pulverized or reduced to a powder by hand pressure. This type of asbestos material is hazardous due to its potential to become airborne, if damaged or disturbed.

Friable asbestos building products used that have been used in the past are sprayed acoustic and fire protection insulations which were installed on mechanical room ceilings, building structures, ceiling finishes, etc., and mechanical insulations on piping, tanks, boilers, vessels, etc. Some non-friable building products are vinyl acoustic floor tiles, gaskets, transite panels, piping and shingles.

Non-friable materials if handled improperly during removal or renovations, such as cutting transite panels with an electrical tool, can cause high fibre releases.

Asbestos containing materials can be properly managed and left in place depending on their location and friability. Non-friable materials receive less attention than friable materials due to the fact that the asbestos fibres in the non-

friable material are bound or held tightly together. This makes the non-friable products safer and easier to manage.

# 2.1 SCOPE OF WORK

Representative suspect as bestos containing materials were sampled from ceiling & wall finishes, vinyl acoustic flooring, adhesive products, vinyl sheet flooring, mechanical piping, duct work, etc. throughout the building. The asbestos assessment involved a visual investigation of all mechanical piping, deck structure, wall & ceiling finishes, floors and ducts for the presence of asbestos materials. An on-site walk through was performed with a City of St. John's representative prior to starting the assessment.

No destructive testing or demolition of walls and ceilings was undertaken during this asbestos assessment. The requested scope of work for this project was limited to non-destructive testing.

It should be noted that asbestos containing materials such as piping straight runs, fittings may be present behind plaster and gyproc walls, ceilings, columns, shafts, etc. Also, asbestos containing paper may be present under wood flooring and in wall cavities. Care should be taken during renovations and maintenance work to ensure that there is no asbestos containing materials within these noted areas.

# 2.2 METHODOLOGY

A total of fourteen (14) bulk asbestos samples were collected from within the building. All samples were sent to an independent laboratory for analyses.

Representative bulk asbestos material samples from ceiling & wall finishes, vinyl flooring, adhesive, mechanical and pipe insulation were carefully collected and placed into a sealed container and transported to the laboratory for polarized light microscopy identification.

The laboratory is accredited by the American Industrial Hygiene Association and by the National Voluntary Laboratory Accreditation Program for asbestos identification.

# 2.3 APPLICABLE STANDARDS

Health & Welfare Canada standards (Treasury Board Guidelines TB PROC 4-3) for occupational exposure to asbestos falls under the Occupational Health Regulations. They are primarily used for the occupational exposure to employees and workers who from day to day come in contact with asbestos. Health & Welfare Canada follows airborne standards set by the American Conference of Governmental Industrial Hygienists (ACGIH) when dealing with asbestos.

Their limits for asbestos exposure are as follows:

Chrysotile 2.0 f/cc Amosite 0.5 f/cc Crocidolite 0.2 f/cc

Notification from the ACGIH regarding asbestos TLV'S will be lowered to 0.2 f/cc within the next couple of months.

The Treasury Board Guidelines cover such areas as:

- control of airborne asbestos dust
- personal protective equipment
- cleanliness of the work area
- health surveillance
- environmental surveillance

## 2.4 SURVEY FINDINGS

A total of fourteen (14) bulk material samples were taken from the building and analyzed for asbestos content. Eleven (11) of the samples analyzed contained asbestos greater than 1 percent asbestos by volume. (See Appendix 1 for asbestos samples.)

The assessment determined that the facility has both friable and non-friable asbestos containing products.

#### FRIABLE MECHANICAL AND PIPE MATERIAL

Most original mechanical pipe insulation fittings contains asbestos throughout the building. Based on our sample analysis, fittings were found to contain up to 50 percent chrysotile by volume. (see samples 01, 04 and 05). All pipe insulation was found in good to poor condition. The breeching from the boiler in the boiler room

contained magblock insulation up to 55 percent by volume chrysotile asbestos (see sample 06).

Friable Asbestos containing mechanical materials were sampled in the building during this assessment.

It should be noted that asbestos containing fittings and straight runs may exist within the ceiling plenum, false walls, pipe shafts and columns (limited access prevented a proper assessment of these areas).

#### FRIABLE ACOUSTIC TEXTURE COATS AND PLASTER FINISHES

Gyproc and joint filler compound finishes were observed throughout the building during the assessment. Samples were taken and were found to contain no asbestos, (see sample analysis for results).

Sprayed on texture coat finishes were not observed during the audit.

### FRIABLE ACOUSTIC AND THERMAL FIREPROOFING PRODUCT

Sprayed acoustic or sprayed fireproofing was not observed/sampled during the assessment.

#### FRIABLE CEILING TILES

Ceiling tiles were observed in the building during the assessment. These ceiling tiles were found to be non- asbestos containing (see sample 09). There was 2' x 2' ceiling tiles observed throughout the building.

#### FRIABLE VINYL SHEET FLOORING

Vinyl sheet flooring was observed within the building during the assessment. Vinyl sheet flooring observed was sampled and found not to contain asbestos (see samples 10 and 13).

#### **NON-FRIABLE VINYL FLOOR TILES**

Vinyl floor tiles were observed/sampled throughout the building during the assessment. The beige floor tiles observed were sampled and found to contain up to 10 percent chrysotile asbestos (see sample 11).

#### **FLOOR MASTIC ADHESIVES**

Floor tile adhesive observed was sampled and found to be non-asbestos containing (see samples 11, 12 and 13).

#### NON-FRIABLE TRANSITE PANELS AND SHEETING

Transite panels was not observed during the assessment. It should be noted that transite panels may exist inside the electrical transformers.

#### NON-FRIABLE TRANSITE PIPING

Transite piping was not observed within the building.

#### **ELECTRICAL WIRING/LIGHTING**

No electrical materials were sampled during the assessment due to the live electrical equipment could not be shut down during the survey.

#### **ROOFING MATERIALS**

No access to roof was provided to test materials on the roof.

#### **EXTERIOR WINDOW CAULKING COMPOUNDS**

No exterior caulking compound was sampled during the assessment

#### 2.5 RECOMMENDATIONS

Retain a copy of this report on-site for future reference of friable and non-friable asbestos products.

Follow provincial and federal regulations regarding the management, handling, removal and disposal of asbestos contain materials. Develop an Asbestos Management Program for the on-going management of asbestos related concerns.

If destructive testing is performed at a later date and if testing reveals that there is an extensive amount of concealed pipe lagging containing asbestos, the glove bag method or Type III removal procedures is recommended.

All asbestos containing material in poor condition should be repair or removed as soon as possible.

Use the glove bag method to remove minor amounts asbestos containing materials from the mechanical systems straight runs, elbows, fittings and tees, prior to starting the renovations or demolition.

Use Type I/ Type II repair methods to repair damaged mechanical piping insulation located in the basement and garage area were applicable.

Use Type III method to remove large amounts of asbestos containing material from the mechanical systems straight runs, elbows, fittings and tees, prior to starting renovations or demolition.

Train employees with regard to the hazard of asbestos materials and the proper techniques to manage the asbestos products within the facility.

Provide air monitoring and inspection during the removal of asbestos to ensure that all government guidelines and regulations are followed throughout the removal.

Ensure that all asbestos removal contractor is a reputable contractor and has proper training in the removal of asbestos products.

If you have any questions regarding this report, please do not hesitate to call me at (902) 497-1611.

Yours truly,

Robert Gardner, Env. Tech.

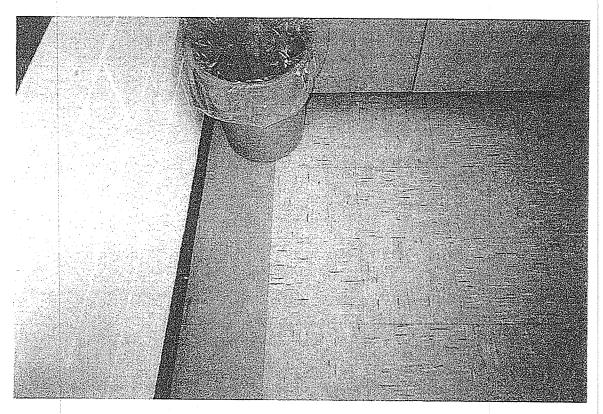
**Project Consultant** 

**ALL-TECH Environmental Services Limited.** 

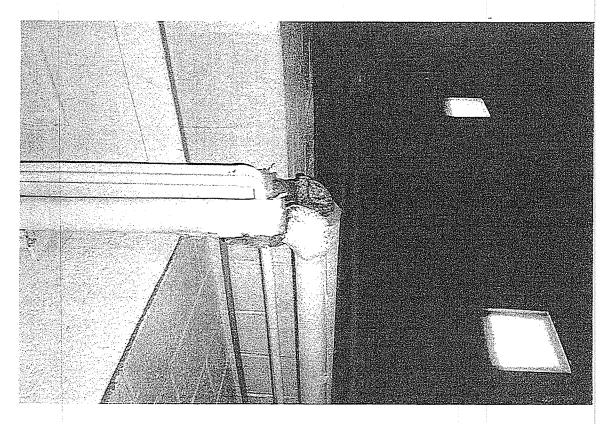
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# PLM BULK SAMPLE RESULTS, WEDGEWOOD PARK RECREATION CENTRE, ST. JOHN'S, NF.

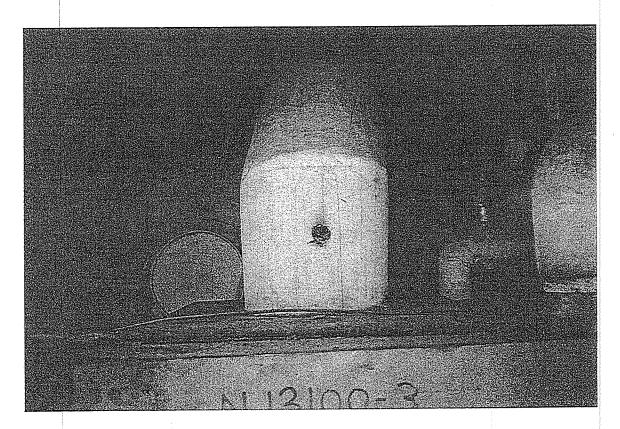
SAMPLE NUMBER	SAMPLE LOCATIONS DESCRIPTION	SAMPLE RESULTS
01	PIPE FITTING-PARGING CEMENT ROOM 100.	50% CHRYSOTILE
02	PIPE INSULATION ROOM 100	NONE DETECTED
03	PIPE INSULATION BOILER ROOM 001	NONE DETECTED
04	PIPE FITTING-PARGING CEMENT BOILER ROOM 001	30% CHRYSOTILE
05	PIPE FITTING-PARGING CEMENT BOILER ROOM 001	40% CHRYSOTILE
06	BREECHING INSULATION BOILER ROOM 001	55% CHRYSOTILE
07	GYPROC ON CEILING ROOM 101	NONE DETECTED
08	DRYWALL JOINT COMPOUND ROOM 101	NÕNE DETECTED
09	24" X 24" CEILING TILE ROOM 107	NONE DETECTED
10	BLUE VINYL SHEET FLOORING ROOM 115	NONE DETECTED
11	A) 12" X 12" BEIGE VINYL FLOOR TILE B) BLACK MASTIC, ROOM 116	A) 10% CHRYSOTILE B) NONE DETECTED
12	A) 12" X 12" BEIGE VINYL FLOOR TILE B) BLACK MASTIC, ROOM 116	A) NONE DETECTED B) NONE DETECTED
13	A) TAN VINYL SHEET FLOORING B) BLACK MASTIC	A) NONE DETECTED B) NONE DETECTED
14	PIPE FITTING-PARGING CEMENT ROOM 203	NONE DETECTED



FLOOR TILE, ROOM 116.



PIPE FITTINGS, ROOM 100.



BOILER BREECHING, ROOM 001.

Wedgewood Park Recreation Centre.

Design	Description	Quantity	Cond.	Sample	Asbestos ty	ype A	ccess.	Action
Asset number:	71207 <b>Building:</b> Wed	gewood Park	Rec. Ce	ntre				
Level: 01 F	Room: 000 Asbestos present	: potential	-					
Structure	concrete		n/a		n/a		Andrew and a second	
Structure	steel		n/a		n/a		Control Services	
Wali	metal		n/a		n/a		7.00	
Wali	concrete		n/a		n/a		and the same of th	
Comments: exterion No ac	or of building cess to roof.							
Level: 01	Room: 100 Asbestos present	: yes					and the first territory	
Ceiling	none observed		n/a		n/a		Control of the contro	
Duct	not insulated		n/a		n/a	: : : : :		
Floor	ceramic tile		n/a		n/a			
Mechanical	not insulated		n/a		n/a			
Pipe	straight run - fiberglass		n/a	02	none detec	ted		
Pipe	fittings - parging 45.	0 units	good	01	chrysotile	50% ,	С	7
Pipe	fittings - parging 10.	0 units	poor	V01	chrysotile	50%	A	3
Structure	steel		n/a		n/a			
Wall	concrete		n/a		n/a			
Comments: use ty Pool a	pe I removal techniques rea.						-	
Level: 01	Room: 101 Asbestos present	: potential						
Ceiling	gyproc		n/a	07	none detec	ted	NOTE INCOME THE PROPERTY.	
Ceiling	joint compound		n/a	08	none detec	ted	PLANTING ARTHUR	
Duct	none observed		n/a		n/a		Parameter and other contents	
Floor	concrete		n/a		n/a			
Printed: DEC 16,1	997	Page: 1						

		(501102 2) 1155	••	,			
		Wedgewood Park Ro	ecreation	Centre.			
Design	Description	Quantity	Cond.	Sample	Asbestos type	Access.	Action
Mechanical	none observed		n/a		n/a		
Pipe	none observed		n/a		n/a	And a color of the	
Structure	no access		n/a		n/a	or an included and a second and	
Wall	gyproc		n/a	V07	none detected		
Wall	joint compound		n/a	V08	none detected	A A To Do con and a A Co	
Wall	concrete		n/a		n/a	To fine an interest of the second	
Comments: no	access into walls or ceiling	cavities					
Level: 01	Room: 102 Asbest	tos present: potentia	ıl .			To a control of the c	
Ceiling	gyproc		n/a	V07	none detected		
Ceiling	joint compound		n/a	V08	none detected		
Dust	none observed		n/a		n/a	1	

Level: 01	Room: 102 Asbestos present: po	otential		
Ceiling	дургос	n/a	V07	none detected
Ceiling	joint compound	n/a	V08	none detected
Duct	none observed	n/a		n/a
Floor	concrete	n/a		n/a
Mechanical	none observed	n/a		n/a
Pipe	not insulated	n/a		n/a
Structure	no access	n/a		n/a
Wall	gyproc	n/a	V07	none detected
Wall	joint compound	n/a	V08	none detected
Wall	concrete	n/a		n/a

Comments: no access into walls or ceiling cavities

Level: 01	<b>Room:</b> 103	Asbestos present:	potential			:
Ceiling	gyproc		n/a	ì	V07	none detecte
Ceiling	joint compound		n/a	ì	V08	none detecte
Duct	none observed		n/a	ì		n/a
Floor	ceramic tile		n/s	ì		n/a

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### Wedgewood Park Recreation Centre.

Design	Description	Quantity	Cond.	Sample	Asbestos ty	ype Access.	Action
Mechanical	none observed		n/a		n/a		
Pipe	straight run - fiberglass		n/a		n/a		On a little of the control of the co
Pipe	not insulated		n/a		n/a		
Structure	no access		n/a		n/a		e de adrian la companio de la companio della compan
Wall	concrete		n/a		n/a		Other designation of the state
Comments: no ac	cess into walls or ceiling ca	vities					es diliberativo es el control es estados es el control es el control es estados es el control es el control es estados es el control es el con
							Admin A final are of ministrates
-							
Level: 01	Room: 103A Asbesto	s present: yes				:	
Ceiling	gyproc		n/a	V07	none detec	ted	An inches and a second a second and a second
Ceiling	joint compound		n/a	V08	none detec	ted	Ba film Political and a series
Duct	no access		n/a		n/a		de male monde es Arthur
Floor	concrete		n/a		n/a	<u>:</u> :	Mary distribution from the American
Mechanical	hot water tank - not insulated		n/a		n/a		
Pipe	straight run - fiberglass		n/a		n/a		day 1 Mary 2000 december 5
Pipe	fittings - parging	9.0 units	good	V01	chrysotile	50% C	7
Pipe	not insulated		n/a		n/a		ACTION OF THE STATE OF THE STAT
Structure	no access		n/a		n/a		
Wall	concrete		n/a		n/a		*andrails den datum
Comments: use ty	pe I removal techniques						·
Level: 01	Room: 104 Asbesto	s present: yes					
Ceiling	gyproc		n/a	V07	none detec	ted	American contraction of the table
Ceiling	joint compound		n/a	V08	none detec	cted	Explorer and off reduction
Duct	no access		n/a		n/a		14 folia debia debia debia debia
Floor	ceramic tile		n/a		n/a		Amend Amend (Inc.)
*							

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	1	(302 000	a by asset mamp	<b>-</b> ,			
		Wedgewood	l Park Recreation	Centre.		MARINE PLANE	
Design	Description	Qu	nantity Cond.	Sample	Asbestos type	Access.	Action
Mechanical	hot water tank - not insulated		n/a		n/a		
Pipe	straight run - fibergla	SS :	n/a		n/a		
Pipe	fittings - parging	20.0 ι	units fair	V01	chrysotile 50%	Α	5
Pipe	not insulated		n/a		n/a		
Structure	no access		n/a		n/a		
Wall	concrete		n/a		n/a		
Wall	wood		n/a		n/a		
	ype I removal technique		mathoda			Para Collection on the Collect	
кера	ir damaged pipe insula	non under type i	meulous.				
Level: 01	Room: 105 Ash	estos present:	yes		:		
Ceiling	gyproc		n/a	V07	none detected	1000 to the second of the seco	
Ceiling	joint compound		n/a	V08	none detected		
Duct	no access		n/a		n/a		
	1 2 2		_				

Level: 01	Room: 105 Asbestos present: yes	,		
Ceiling	дургос	n/a V07	none detected	
Ceiling	joint compound	n/a V08	none detected	
Duct	no access	n/a	n/a	
Floor .	ceramic tile	n/a	n/a	
Mechanical	hot water tank - not insulated	n/a	n/a	
Pipe	straight run - fiberglass	n/a	n/a	
Pipe :	fittings - parging 15.0 units	good V01	chrysotile 50% A	7
Pipe	not insulated	n/a	n/a	
Pipe	fittings - parging 5.0 units	poor V01	chrysotile 50% A	3
Structure	no access	n/a	n/a	
Wall	concrete	n/a	n/a	

Comments: use type I removal techniques

Repair damaged pipe insulation under type I methods.

Level: 01	<b>Room:</b> 106	Asbestos present: yes				
Ceiling	gyproc		n/a	V07	none detected	

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		Wedgewo	od Park Re	creation	Centre.				
Design	Description	•	Quantity	Cond.	Sample	Asbestos t	ype	Access.	Action
Ceiling	joint compound			n/a	V08	none detec	ted		
Duct	no access			n/a		n/a			
Floor	ceramic tile			n/a		n/a			
Mechanical	hot water tank - not insulated			n/a		n/a			
Pipe	straight run - fiberg	lass		n/a		n/a			
Pipe	fittings - parging	15.0	units	good	V01	chrysotile	50%	A	7
Pipe	not insulated			n/a		n/a			
Pipe	fittings - parging	5.0	units	poor	V01	chrysotile	50%	Α	3
Structure	no access			n/a		n/a			
Wall	concrete			n/a		n/a			
•	pe I removal techniq r damaged pipe insu		e I methods	•					
Level: 01	Room: 107 A	sbestos present:	yes				:		
Ceiling	24"x 24" ceiling tile	e		n/a	09	none detec	cted		

Level: 01	Room: 107 Asbestos present: yes		
Ceiling	24"x 24" ceiling tile	n/a 09	none detected
Duct	none observed	n/a	n/a
Floor	carpet	n/a	п/а
Mechanical	none observed	n/a	n/a
Pipe	straight run - fiberglass	n/a	n/a
Pipe	fittings - parging 5.0 units	good V01	chrysotile 50% C 7
Structure	wood	n/a	n/a
Structure	steel	n/a	n/a .
Wall	concrete	n/a	n/a

Comments: use type I removal techniques

	1			İ
Level: 01	Room: 108	Asbestos present:	potential	
20.01	7100 TOO		Poterman	

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	8.	Wedge	wood Park Re	ecreation	Centre.		All productions and the state of the state o	
Design	Description		Quantity	Cond.	Sample	Asbestos type	Access.	Action
Ceiling	gyproc			n/a	V07	none detected		
Ceiling	joint compound			n/a	V08	none detected		
Duct	no access			n/a		n/a	and the second s	
Floor	concrete			n/a		n/a		
Mechanical	none observed			n/a		n/a	to and the state of the state o	
Pipe	not insulated			n/a		n/a		
Structure	no access			n/a		n/a		
Wall	concrete			n/a		n/a		
Comments: no a	eccess into walls or o	ceiling cavities						
Level: 01	Room: 108A	Asbestos preser	it: potentia	1				
Ceiling	gyproc			n/a	V07	none detected	Woods in the state of the state	
a	• • • • •			,	Troo			

Level: 01	Room: 108A Asbestos prese	ent: potential	
Ceiling	gyproc	n/a V07	none detected
Ceiling	joint compound	n/a V08	none detected
Duct	no access	n/a	n/a
Floor	concrete	n/a	n/a
Mechanical	none observed	n/a	n/a
Pipe	not insulated	n/a	n/a
Structure	no access	n/a	n/a
Wall	concrete	n/a	n/a

Comments: no access into walls or ceiling cavities

Level: 01	Room: 108B	Asbestos present:	potential		To the state of th
Floor	no access		n/a	n/a	- The second sec

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Wedgewood Park Recreation Centre.

Design	Description	Quantity	Cond.	Sample	Asbestos type	Access.	Action
Comments: no	access into room						
Level: 01	Room: 109 Asbestos p	resent: potentia	1				
Ceiling	gyproc		n/a	V07	none detected		
Ceiling	joint compound		n/a	V08	none detected	111000	
Duct	none observed		n/a		n/a	der in Ambrelland, and Grant	
Floor	concrete		n/a		n/a		
Mechanical	none observed		n/a		n/a	To provide the second s	
Pipe	not insulated		n/a		n/a		
Structure	no access		n/a	,	n/a	Acceptance	
Wall	concrete		n/a		n/a		
Comments: no	access into walls or ceiling cavit	ies					
					- : : :		
						English of the second of the s	
Level: 01	Room: 110 Asbestos p	resent: potentia	1				
Ceiling	gyproc		n/a	V07	none detected	ST VERSON TO THE	
Ceiling	joint compound		n/a	V08	none detected		
Duct	no access		n/a		n/a		
Floor	concrete		n/a		п/а		
Mechanical	none observed		n/a		n/a		
Pipe	not insulated		n/a		n/a	ALTO-IR and All-Alto-Ir	
Structure	no access		n/a		n/a	And in the contract	
· Wall	concrete		n/a		n/a	Volabilitati (Ali iliano)	
Comments: 20	access into walls or ceiling cavit	iec				A province of the second	
Comments: no	access thro wans of centing cavil	103				da (AP Paladelli da Anna F	
						al canada	

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### Wedgewood Park Recreation Centre.

Design	Description		Quantity	Cond.	Sample	Asbestos type	Access.	Action
Level: 01	Room: 111	Asbestos present	: potential					
Ceiling	gyproc			n/a	V07	none detected		
Ceiling	joint compound			n/a	V08	none detected		
Duct	none observed			n/a		n/a		
Floor	ceramic tile			n/a		n/a		
Mechanical	none observed			n/a		n/a		
Pipe	none observed			n/a		n/a		
Structure	no access			n/a		n/a		
Wall	concrete			n/a		n/a		
Comments: no	o access into walls or	ceiling cavities						
Level: 01	Room: 112	Asbestos present	: potential					
Ceiling	24"x 24" ceiling	g tile		n/a	V09	none detected		
Duct	none observed			n/a		n/a		
Floor	carpet			n/a		n/a		
Mechanical	none observed			n/a		n/a		
Pipe	straight run - fil	perglass		n/a		n/a		
Structure	steel			n/a		n/a		
Wall	concrete			n/a		n/a		
Comments: n	o access into walls or	ceiling cavities						
Level: 01	<b>Room:</b> 113	Asbestos presen	t: potentia	1				
Ceiling	24"x 24" ceiling	g tile		n/a	<b>V</b> 09	none detected		
Duct	none observed			n/a		n/a		
Floor	carpet			n/a		n/a	381.20 111.20 110	

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### Wedgewood Park Recreation Centre.

	•	agowood I aik I	oci cataon	Condo.			
Design	Description	Quantity	Cond.	Sample	Asbestos type	Access.	Action
Mechanical	none observed		n/a		n/a		
Pipe	straight run - fiberglass		n/a		n/a		
Structure	steel		n/a		n/a		
Wall	concrete		n/a		n/a		
Comments: r	to access into walls or ceiling cavitie	es					
Level: 01	Room: 114 Asbestos pr	esent: potentia	l				
Ceiling	gyproc		n/a	V07	none detected		
Ceiling	joint compound		n/a	V08	n/a		
Duct	none observed		n/a		n/a		
Floor	concrete		n/a		n/a		
Mechanical	none observed		n/a		n/a		
Pipe	none observed		n/a		n/a		
Structure	no access		n/a		n/a		
Wall	concrete		n/a		n/a		
	no access into walls or ceiling cavitie	es				a shariffed in a	
Level: 01	Room: 115 Asbestos pr	esent: potentia	1				
Ceiling	gyproc		n/a	V07	none detected		
Ceiling	joint compound		n/a	V08	none detected		
Duct	none observed		n/a		n/a		
Floor	vinyl sheet flooring		n/a	10	none detected		
Mechanical	none observed		n/a		n/a		
Pipe	none observed		n/a		n/a		
Structure	no access		n/a		n/a		
Wall	concrete		n/a		n/a		

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Wedgewood Park Recreation Centre.

Design Description Quantity Cond. Sample Asbestos type Access. Action

Comments: no access into walls or ceiling cavities

Level: 01	Room: 116 Asbestos present: yes			
Ceiling	24"x 24" ceiling tile	n/a V09	none detected	
Duct	none observed	n/a	n/a	
Floor	12"x 12" vinyl acoustic 39.0 m <sup>2</sup> tile	good 11	chrysotile 10% A	7
Floor	12"x 12" vinyl acoustic tile	n/a 12	none detected	
Floor	adhesive	n/a V11	none detected	
Mechanical	none observed	n/a	n/a	
Pipe	none observed	n/a	n/a	
Structure	steel	n/a	n/a	
Wall	concrete	n/a	n/a	

Comments: no access into walls

Level: 01	<b>Room:</b> 117	Asbestos present:	potential		
Ceiling	gyproc		n/a	V07	none detected
Ceiling	joint compound		n/a	V08	none detected
Duct	none observed		n/a		n/a
Floor	concrete		n/a		n/a
Mechanical	none observed		n/a		n/a
Pipe	none observed		n/a		n/a
Structure	no access		n/a		n/a
Wall	concrete		n/a		n/a

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### Wedgewood Park Recreation Centre.

Design	Description	Quantity	Cond.	Sample	Asbestos type	Access.	Action
Comments:	no access into walls or ceiling cavities						
Level: 01	Room: 118 Asbestos present	: yes					
Ceiling	none observed		n/a		n/a		
Duct	not insulated		n/a		n/a		
Floor	12"x 12" vinyl acoustic 190.0 tile	) m²	good	V11	chrysotile 10%	Α	7
Floor	adhesive		n/a	V11	none detected		
Mechanical	not insulated		n/a		n/a		
Pipe	straight run - fiberglass		n/a		n/a		
Pipe	fittings - parging 10.0	units	good	V01	chrysotile 50%	С	7
Structure	steel		n/a		n/a		
Wall	concrete		n/a		n/a		
	use type II removal techniques Gymnasium.						
Level: 01	Room: 119 Asbestos present	: potentia	I				
Ceiling	gyproc		n/a	V07	none detected		
Ceiling	joint compound		n/a	V08	none detected		
Duct	none observed		n/a		n/a		
Floor	concrete		n/a		n/a		
Mechanical	none observed		n/a		n/a		
Pipe	none observed		n/a		n/a		
Structure	no access		n/a		n/a		
Wall	concrete		n/a		n/a		

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Wedgewood Park Recreation Centre.

Design	Description		Quantity	Cond.	Sample	Asbestos t	type Access	. Action
Comments: no ac Emer	cess into walls or gency exit.	ceiling cavities						
Level: 01	Room: 120	Asbestos present	potential					
Floor	no access			n/a		n/a		
Comments: no acc	cess into room							
Level: 02	Room: 200	Asbestos present	potential					
Ceiling	gyproc			n/a	V07	none detec	cted	
Ceiling	joint compound			n/a	V08	none detec	cted	
Duct	none observed			n/a		n/a		
Floor	rubber			n/a		n/a	-	
Floor	vinyl sheet floori	ng		n/a	13	none detec	cted	
Floor	adhesive			n/a	V13	none detec	cted	
Mechanical	none observed			n/a		n/a		
Pipe	none observed			n/a		n/a		
Structure	no access			n/a		n/a		
Wall	concrete			n/a		n/a		
Comments: no acc	cess into walls or	ceiling cavities						
Level: 02	Room: 201	Asbestos present	: potential		——————————————————————————————————————			
Ceiling	12"x 12" ceiling	tile		n/a	V09	none detec	cted	
Duct	none observed			n/a		n/a		
Floor	vinyl sheet floori	ng		n/a	V13	none detec	cted	
Floor	adhesive			n/a	V13	none detec	cted	

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### **Assessment Report**

(sorted by asset number)

		(Sorted by asset	t numbe				
		Wedgewood Park Rec	creation	Centre.			
Design	Description	Quantity	Cond.	Sample	Asbestos type	Access.	Action
Mechanical	none observed		n/a		n/a		
Pipe	straight run - fiberglass		n/a		n/a		
Structure	steel		n/a		n/a		
Wall	concrete		n/a		n/a		
Wall	gyproc		n/a	V07	none detected		
Wall	joint compound		n/a	V08	none detected		
Comments: no a	access into walls						
Level: 02	Room: 202 Asbestos	present: potential					
Ceiling	gyproc		n/a	V07	none detected		
Ceiling	joint compound		n/a	V08	none detected		
Duct	none observed		n/a		n/a		
					₹		

Level: 02	Room: 202 Asbestos present:	potential			
Ceiling	gyproc	n/a	V07	none detected	
Ceiling	joint compound	n/a	V08	none detected	
Duct	none observed	n/a		n/a	
Floor	vinyl sheet flooring	n/a	V13	none detected	
Floor	adhesive	n/a	V13	none detected	
Mechanical	none observed	n/a		n/a	
Pipe	not insulated	n/a		n/a	
Structure	no access	n/a		n/a	
Wall	gyproc	n/a	V07	none detected	
Wall	joint compound	n/a	V08	none detected	

Comments: no access into walls or ceiling cavities

Level: 02	Room: 203 Asbestos present:	potential	
Ceiling	24"x 24" ceiling tile	n/a V09	none detected
Duct	none observed	n/a	n/a
Floor	carpet	n/a	n/a
Mechanical	none observed	n/a	n/a

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### Wedgewood Park Recreation Centre.

Design	<b>Description</b> Quantity	Cond. Sampl	e Asbestos type Access.	Action
Pipe	straight run - fiberglass	n/a	n/a	
Pipe	fittings	n/a V14	none detected	
Structure	steel	n/a	n/a	
Wall	gyproc	n/a V07	none detected	
Wall	joint compound	n/a V08	none detected	
***************************************	access into walls or ceiling cavities			
Level: 02	Room: 204 Asbestos present: yes		·	
Ceiling	24"x 24" ceiling tile	n/a V09	none detected	
Duct	none observed	n/a	n/a	
Floor	carpet	n/a	n/a	
Mechanical	none observed	n/a	n/a	
Pipe	straight run - fiberglass	n/a	n/a	
Pipe	fittings - parging 5.0 units	good V01	chrysotile 50% C	7
Structure	steel	n/a	n/a	
Wall	gyproc	n/a V07	none detected	
Wall	joint compound	n/a V08	none detected	
Comments: us	e type I removal techniques			
Level: 02	Room: 205 Asbestos present: potent	ial		
Ceiling	gyproc	n/a V07	none detected	
Ceiling	joint compound	n/a V08	none detected	
Duct	none observed	n/a	n/a	
Floor	vinyl sheet flooring	n/a V13	none detected	
Floor	adhesive	n/a V13	none detected	
Mechanical	none observed	n/a	n/a	

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	v	Vedgewood Park Re		Centre.			
Design	Description	Quantity	Cond.	Sample	Asbestos type	Access.	Action
Pipe	none observed		n/a		n/a		
Structure	no access		n/a		n/a	77	
Wall	concrete		n/a		n/a		
Wall	gyproc		n/a	V07	none detected		
Wall	joint compound		n/a	V08	none detected		
Comments: n	o access into walls or ceiling cavi	ties					
Level: 02	Room: 206 Asbestos	present: potentia	1		:		
Ceiling	gyproc		n/a	V07	none detected		
Ceiling	joint compound		n/a	V08	none detected		
Duct	none observed		n/a		n/a		

Level: 02	Roum. 200 Asbestos present.	potentiai		<u></u>
Ceiling	gyproc	n/a	V07	none detected
Ceiling	joint compound	n/a	V08	none detected
Duct	none observed	n/a		n/a
Floor	vinyl sheet flooring	n/a	V13	none detected
Floor	adhesive	n/a	V13	none detected
Mechanical	none observed	n/a		n/a
Pipe	none observed	n/a		n/a
Structure	no access	n/a		n/a
Wall	concrete	n/a		n/a
Wall	gyproc	n/a	V07	none detected
Wall	joint compound	n/a	V08	none detected
			1	

Comments: no access into walls or ceiling cavities

Level: 02	Room: 207	Asbestos present:	potential		
Ceiling	24"x 24" ceilin	ng tile	n/a	. <b>V</b> 09	none detected
Duct	not insulated		n/a		n/a
Floor	carpet		n/a		n/a
Mechanical	none observed		n/a		n/a

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### Wedgewood Park Recreation Centre.

Design	Description		Quantity	Cond.	Sample	Asbestos typ	oe Access.	Action
Pipe	none observed			n/a		n/a		
Structure	steel			n/a		n/a		
Wall	gyproc			n/a	V07	none detecte	d	
Wall	joint compound			n/a	V08	none detecte	:d	
Comments: no ac	cess into walls or c	eiling cavities				·		

Level: 02	Room: 208 Asbestos present:	potential		
Ceiling	24"x 24" ceiling tile	n/a	V09	none detected
Duct	not insulated	n/a		n/a
Floor	carpet	n/a		n/a
Mechanical	none observed	n/a		n/a
Pipe	none observed	n/a		n/a
Structure	steel	n/a		n∕a
Wall	gyproc	n/a	V07	none detected
Wall	joint compound	n/a	V08	none detected
<b>a</b> .				

Comments: no access into walls or ceiling cavities

Level: 02	Room: 209 Asbestos present: yes		
Ceiling	24"x 24" ceiling tile	n/a V09	none detected
Duct	not insulated	n/a	n/a
Floor	carpet	n/a	n/a
Mechanical	none observed	n/a	n/a
Pipe	straight run - fiberglass	n/a	n/a
Pipe	fittings - parging 2.0 units	good V01	chrysotile 50% C
Structure	steel	n/a	n/a
Wall	дургос	n/a V07	none detected

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### **Assessment Report**

(sorted by asset number)

Wedgewood Park Recreation Centre.

I	Design	Description	Quantity	Cond.	Sample	Asbestos type	Access.	Action
; <b>(</b>	Comments: 1	ise type I removal techniques						
	Level: 02	Room: 210 Asbes	stos present: potentia	l				
(	Ceiling	gyproc		n/a	V07	none detected		
(	Ceiling	joint compound		n/a	V08	none detected		
. ]	Duct	none observed		n/a		n/a	:	
	Floor	carpet		n/a		n/a		
	Mechanical	none observed		n/a		n/a		
ι	Pipe	none observed		n/a		n/a		
	Structure	no access		n/a		n/a	:	
	Wall	gyproc		n/a	V07	none detected		
_	Wall	joint compound		n/a	V08	none detected		
⊃e -u	Comments:	no access into walls or ceiling	g cavities					
10							:	
,	Level: 02	Room: 211 Asbe	estos present: potenti	al				
.ec	Ceiling	gyproc		n/a	V07	none detected		
71/	Ceiling	joint compound		n/a	V08	none detected		
uţ	Duct	none observed		n/a		n/a		
11	Floor	carpet		n/a		n/a		
	Mechanical	none observed		n/a		n/a		
	Pipe	none observed		n/a		n/a		
	Structure	no access		n/a		n/a		
		gyproc		n/a	<b>V</b> 07	none detected		
	Wall	joint compound		n/a	V08	none detected		
	Wall	Joint compound						

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Wedgewood Park Recreation Centre.

Design Description Quantity Cond. Sample Asbestos type Access. Action

Comments: no access into walls or ceiling cavities

Level: 02	Room: 212 Asbestos present:	potential	
Ceiling	gyproc	n/a V07	none detected
Ceiling	joint compound	n/a V08	none detected
Duct	none observed	n/a	n/a
Floor	carpet	n/a	n/a
Mechanical	none observed	n/a	n/a
Pipe	none observed	n/a	n/a
Structure	no access	n/a	n/a
Wall	gyproc	n/a V07	none detected
Wall	joint compound	n/a V08	none detected

Comments: no access into walls or ceiling cavities

Level: B	Room: 01 Asbestos pr	esent: yes			
Ceiling	none observed		n/a	n/a	
Duct	none observed		n/a	n/a	
Floor	concrete		n/a	n/a	
Mechanical	hot water tank - not insulated		n/a	n/a	
Mechanical	boiler #1		n/a	n/a	
Mechanical	breeching	1.0 units	good 06	chrysotile 55% B 7	
Mechanical	stack		n/a	n/a D	
Pipe	straight run - fiberglass		n/a 03	none detected	
Pipe	fittings - parging	25.0 units	good 04	chrysotile 30% B 7	
Pipe	fittings	5.0 units	poor 05	chrysotile 30% B 7	

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#### Wedgewood Park Recreation Centre.

Design	Description	Quantity	Cond. Sample	Asbestos type	Access.	Action
Pipe	not insulated		n/a	n/a		
Structure	concrete		n/a	n/a		
Wall	concrete		n/a	n/a		
Comments:	use type III removal techniques					
	Boiler room.	TT 41 1				

Repair damaged insulation using type II methods.

Level: B	Room: 02	Asbestos present:	potential		
Ceiling	none observed		n/a	n/a	
Duct	none observed		n/a	n/a	
Floor	concrete		n/a	n/a	
Floor	metal		n/a	n/a	
Mechanical	none observed		n/a	n/a	
Pipe	none observed		n/a	n/a	
Structure	steel		n/a	n/a	
Wall	concrete		n/a	n/a	
Wall	concrete		n/a	n/a	
Wall	concrete		n/a	n/a	

Comments: no access into walls

Printed: DEC 16,1997

### Tender Results - Wedgewood Park Aquatic Centre



		BASE BID							
Contractor	Tender Price HST Included	Amended by fax HST Included	Final Tender Price HST inlcuded	HST	Tender Price Less HST	Bid Bond	Confirmation of Addenda		
Ellis Don	\$36,000,000.00	X	\$36,000,000.00	\$4,141,593.00	\$31,858,407.08	Yes	Yes		
Marco	\$36,160,000.00	-\$50,000.00	\$36,110,000.00	\$4,154,247.79	\$31,955,752.21	Yes	Yes		
Allied Construction	\$36,704,053.84	X	\$36,704,053.84	\$4,222,590.26	\$32,481,463.58	Yes	Yes		
Pomerleau	\$36,900,342.10	X	\$36,900,342.10	\$4,245,172.10	\$32,655,170.00	Yes	Yes		
Bird Construction	\$37,648,271.00	X	\$37,648,271.00	\$4,331,217.02	\$33,317,053.98	Yes	Yes		
Olympic	\$37,763,406.03	Х	\$37,763,406.03	\$4,344,462.64	\$33,418,943.39	Yes	Yes		
PCL Construction	\$39,550,000.00	-\$690,430.00	\$38,859,570.00	\$4,470,570.00	\$34,389,000.00	Yes	No		
Redwood	\$48,000,000.00	-\$7,901,977.00	\$40,098,023.00	\$4,613,046.89	\$35,484,976.11	Yes	Yes		

### **COUNCIL DIRECTIVE**

### REGULAR MEETING Date: 2014/02/10 12:00:00 AM CD# R2014-02-10/3

To:

Dave Blackmore

Position:

Deputy City Manager, Planning, Development & Engineering

RE:

Tender - Wedgewood Park Community Centre

**DECISION:** 

Council agreed to award the tender to the low bidder, EllisDon in the amount of

\$31,858,407.08 plus HST.

Action:

As required.

Date:

2014/02/10

Signed by:

Neil A. Martin

Deputy City Manager, Corporate Services & City Clerk

**Status Comments:** 

Closed By:

Dave Blackmore

kd

cc:

Tanya Haywood/Director - Recreation/Community Services; Jill Brewer/Deputy City Manager, Community Services/Community Services; Robert Bishop/Deputy City Manager, Financial Management

Response Required:

YES

Response deadline:

2014/02/28

Response Received:

Attachments:

		P.O	CITY OF ST. BOX 908, ST. JOH							
<u>VENDOR:</u>		SHIP TO:		BILL TO:		PURCHASE ORDER		PURC	PUR00064561	
RON FOUGERE ASSOCIATES LTD P.O. BOX 21118 ST. JOHN'S NL A1A 5B2		CITY OF ST. JOHN'S		CITY OF ST. JOHN'S DEPARTMENT OF FINANCE ACCOUNTS PAYABLE DIVISION P.O. BOX 908 ST. JOHN'S, NL. CANADA A1C 5M2 accountspayable@stjohns.ca			DATE		2015/11/03	
						CONTRACT#				
								1		
SHIPPING METHOD PAYMENT TERMS FOB REQUIRED DATE PROMISED DATE ST NET 30 Destination 2015/10/21 2015/10/21						BUYER JOHN HAMILTON (709) 576-6136				
LINE	DESCRIPTION				ITEM#	QTY.	U/M	UNIT PRIC	E EXTENDED PRICE	
Consulting Fees, Resi Requested by pmcdo From Req/Line: 5206 Vendor is Ron Fouge	68/1 Dept: BPM	Services			N/A	430,000.00	EA	\$ 1.0000	\$ 430,000.00	
							SUBTOTAL: S		\$ 430,000.00 \$ 55,900.00	
Authorized Signature ALL AMOUNTS IN CANADIAN DOLLARS UNLESS OTHERWISE NOTED							ORDER TOTAL:		\$ 485,900.00	
/		Nev	ST. JOH wfoundland and Lab	I <b>N'S</b> orador, Canada						

### **Appendix A**

**Geotechnical Investigation Report**