Limited Designated Substances and Hazardous Material Survey

OCHC Gladstone Avenue Complex
22 through 34 (even) Balsam Street; 38, 40 Balsam Street and 275 through 285 (odd) Rochester Street; 289 Rochester Street and 811 through 829 (odd) Gladstone Avenue
Ottawa, Ontario

Ottawa Community Housing Corporation

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Executive Summary

GHD was retained by Mr. Barron Meyerhoffer representing Ottawa Community Housing Corporation (Client or OCHC) to conduct a Designated Substances (DS) Survey for the three townhouse buildings forming the OCHC, 811 Gladstone Complex occupying the west portion of the neighbourhood block formed by Balsam Street, Rochester Street, Booth Street, and Gladstone Avenue in Ottawa, Ontario (Site or Property). The Work Area, as identified by the Client, was limited to:

- The three multi-unit residential buildings that occupy the Site.

The Client and Contractors working on this project should understand the limits of the scope for this current DS Survey assignment. If the Work Area needs to be increased for unforeseen construction conditions, then further DS surveys may be required.

GHD understands that the Client intends to redevelop the Site. We understand that the proposed development will consist of demolition and removal of the existing townhouses.

It is GHD's understanding that the DS Survey was requested to evaluate the potential for the presence of designated substances at the Work Area prior to demolition.

The DS Survey included a Site inspection to identify and quantify DS, sampling and analysis, and documentation of DS Survey activities in a report. Inspection and sampling was allowed in all potentially impacted areas of the Work Area, with the exceptions of the occupied units at 26 and 28 Balsam Street, and 825 Gladstone Avenue. It should be noted that no sampling was completed on the heating system, as this system was operational at the time of the Site visit. For the purpose of this investigation, Gladstone Avenue was assumed to be the west-east axis of the Site, and each building was treated as a separate structure.

The following conclusions/recommendations were developed based on the results of the DS Survey:

1. Notification and/or a copy of the limited DS Survey Report should be made available to employees and Contractors working in the Work Area.

2. GHD completed an Asbestos Survey in the Work Area in accordance with O. Reg. 278/05 as part of the DS Survey. GHD's Asbestos Survey identified the following building materials as ACMs:

   North (Balsam) Building

   Friable materials include drywall joint compound which was generally in good condition. Non-friable materials include flat tar and gravel roof in attic spaces, tar seal on foundation walls, vinyl floor tiles (12”x12” - brown, olive, dark brown with white streaks, 12”x12”, tan with brown streaks, 12”x12” - brown with dark brown streaks) and pipe wrap.

West (Rochester) Building

Friable materials include drywall joint compound which was generally in good condition. Non-friable materials include tar seal on foundation walls and vinyl floor tiles (12"x12" – battleship brown, 12"x12" – mock tile pattern, 12"x12" – mock grey stone pattern).

South (Gladstone) Building

Friable materials include drywall joint compound which was generally in good condition. Non-friable materials include flat tar and gravel roof in attic spaces, tar seal on foundation walls, vinyl floor tiles (12"x12" – olive with white streaks, 12"x12" – brown with white streaks, 12"x12" olive/brown with white streaks) and pipe wrap (assumed based on testing in North (Balsam) Building.

A contractor, certified for asbestos abatement, should be retained to complete asbestos abatement services prior to demolition of the buildings.

If hidden materials that may be potential ACM are discovered during maintenance, renovation or demolition activities, work should cease until samples are analysed. Alternatively, potential or suspected ACM can be managed as ACM for handling and disposal purposes.

3. Out of the 46 submitted paint samples, 16 contained lead between 90 ppm and 1,000 ppm, as such these samples are considered to be low-level lead-containing paints (LCP). For the purposes of maintenance, renovation, or demolition activities, all paint on surfaces should be treated as LCP. The observed paint was noted to be generally well adhered to the substrate; some peeling paint was observed.

   It is assumed that lead is present in electrical and plumbing services (solder), electrical conduit, batteries, and packing in older cast iron piping system materials at the Site.

   A Lead Management Plan (LMP) should be prepared in accordance with 2011 Ontario Ministry of Labour (MOL) and 2014 Environmental Abatement Council of Ontario (EACO) guidelines. The LMP would protect workers during demolition, renovation, and maintenance activities which will disturb lead containing materials, until all lead containing materials are removed from the Site.

   Building materials containing lead in surface coatings are typically characterized and disposed of as non-hazardous solid waste. However, the paint data should be provided to the disposal facility to provide confirmation of acceptance prior to shipping materials. Alternatively, a representative bulk sample of demolition debris could be collected and submitted for Toxicity Characteristic Leaching Procedure (TCLP) to provide confirmation that the material would not be classified as D008 leachate toxic hazardous waste.

4. Silica is present in footings, concrete block and poured concrete foundation walls, in plaster and texture coat, and in the fiberglass insulation in the Work Area. The Guideline for Silica on Construction Projects (MOL, April 2011) should be used to develop appropriate procedures to implement during maintenance, renovation, or demolition activities which disturb silica containing materials and may generate silica containing dust.

5. Man-made mineral fibre materials are present in fibreglass insulation on some of the pipes, and in fiberglass batt insulation found in the walls and attic space in the Work Area. Measures should be taken to control man-made mineral fibre dust hazard when the potential for creating airborne man-made mineral fibre dust entrained from such processes as renovation or demolition. The Guideline for Silica on Construction Projects (MOL, April 2011) should be used to develop appropriate procedures to implement during maintenance, renovation, or demolition activities that will disturb man-made mineral fibre materials in the Work Area.

6. No significant water intrusion or suspect mould growth was observed in above grade structures in the Work Area.

   It was noted that the basement crawlspaces, particularly in the South (Gladstone) Building, were often partially flooded with standing water. This standing water could increase humidity in the lower floor materials and contribute to potential mould growth on these surfaces.

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1. Introduction

GHD was retained by Mr. Barron Meyerhoffer representing Ottawa Community Housing Corporation (Client or OCHC) to conduct a Designated Substances (DS) Survey for the three townhouse buildings forming the 811 Gladstone Avenue Complex (Site or Property). The DS Survey was conducted as detailed in our Proposal (No. 11103730Meyerhoffer-11) dated January 19, 2018, with the following exceptions:

- Townhouses numbered 26 and 28 Balsam Street were not inspected as the units were occupied.
- The attic of the West (Rochester) Building (38, 40 Balsam Street, and 277 through 285 (odd) Rochester Street) was not accessed.
- Townhouse numbered 825 Gladstone Avenue was not inspected as the unit was occupied.

For the purposes of this investigation,

- Gladstone Avenue is considered to represent the west-east axis
- The Site is occupied by three separate townhouse buildings
  - 22 through 34 (even) Balsam Street; near the north limit of the Site
  - 38, 40 Balsam Street and 275 through 285 (odd) Rochester Street; near the west limit of the Site
  - 289 Rochester Street and 811 through 829 (odd) Gladstone Avenue, near the south limit of the Site
- Each building was treated as a separate structure

The Work Area, as identified by the Client was limited to:

- The three multi-unit residential buildings that occupy the Site

GHD understands that the Client intends to redevelop the Site. We understand that the proposed development will consist of demolition and removal of the existing townhouses.

It is GHD's understanding that the DS Survey was requested to evaluate the potential for the presence of designated substances at the Work Area prior to demolition.

The report is intended to provide a general overview of the three buildings, based on a survey of a representative number of random locations in various units in the buildings. The Client and Contractors working on this project should understand the limits of the scope for this current DS Survey assignment.

The scope of the DS Survey was to identify and evaluate designated substances within the Work Area. Designated Substances are defined and regulated by the Ontario Regulation (O. Reg.) 490/09 Designated Substances, O. Reg. 278/05 Designated Substance – Asbestos on Construction Projects and in Buildings and Repair Operations and the Occupational Health and

Safety Act (OHSA) Section 30 including: acrylonitrile, arsenic, asbestos, benzene, coke oven emissions, ethylene oxide, isocyanates, lead, mercury, silica, and vinyl chloride.

The following items were not inspected or sampled as part of Site inspections since these items were not readily accessible, it was not practical to safely access for inspection or sampling, or it was not necessary to inspect based on the age and type of construction and Site contact knowledge:

- Components or wiring within motors, lights or other electrical systems, equipment, wiring, and fixtures.
- Components of the heating systems
- Materials inside sealed manufactured products (i.e., fire doors, etc.).

This DS Survey has been prepared for Ottawa Community Housing Corporation and may not be relied upon by others without the written consent of GHD. Any such unauthorized reliance on or use of this DS Survey Report, including the information and conclusions provided, will be at the third party's risk.

1.1 Regulations and Guidance

The DS Survey was conducted in accordance with and consideration of the following Acts, Regulations and Guidance:

- Canadian Surface Coating Materials Regulation (SOR/2005-109 dated April 19, 2005, as amended in 2010), pursuant to the 2005 Hazardous Products Act.
- The United States Department of Housing and Urban Development (HUD) Guidelines for the Evaluation and Control of Lead-based Paint in Housing.
- Occupational Health & Safety Act:
  - O. Reg. 833/90, Control of Exposure to Biological or Chemical Agents
  - O. Reg. 278/05, Asbestos on Construction Projects and in Building and Repair Operations and the corresponding Guideline (MOL, May 2011).
  - O. Reg. 490/09 Designated Substances
  - Guideline for Lead on Construction Projects (MOL, April 2011)
  - Guideline for Silica on Construction Projects (MOL, April 2011)
  - Mercury-Containing Products Pollution Prevention Fact Sheet #21 (Ministry of the Environment (MOE), September 2001).
- Environmental Protection Act:
  - O. Reg. 347/90, General - Waste Management
- Lead Guideline for Construction, Renovation, Maintenance or Repair (EACO, October 2014)
- Construction Safety Association of Ontario – Synthetic Vitreous Fibres, Guidelines for Construction (Construction Safety Association of Ontario, 2005).

1.2 Scope of Work

On January 30 and 31, 2018, Mr. Scott Wallis, a representative of GHD, completed the Site assessment of the Work Area identified by OCHC staff. The assessment involved the visual review of the Work Area, and intrusive (destructive) sampling of representative areas in the buildings. The following tasks were completed as part of the DS Survey activities:

- Site inspection (limited to the Work Area)
  - Conduct an Asbestos Containing Materials (ACM) survey, by way of sampling suspect materials.
  - Quantify and determine the condition of suspect ACM.
  - Identify and document mercury containing equipment.
  - Conduct a lead based paint (LBP) survey, by way of sampling of suspect materials.
  - Quantify and determine the condition of suspect lead containing material.
  - Identify and document suspect arsenic containing materials.
  - Identify and document Benzene containing equipment and materials.
  - Identify and document other designated substance potentially associated with the building finish materials including Acrylonitrile, Coke Oven Emissions, Isocyanates, Silica, and Vinyl Chloride.
- Preparation of an inventory of designated substances and documentation of activities and evaluations for a DS Survey Report.

The inspection was destructive in nature; holes were made in the surface of exposed materials in representative areas of the building as determined by the assessor. It is however a random sampling, and there may be hazardous building materials present in areas that were not inspected.

2. Site Overview

The Site occupied the western portion of the neighbourhood block formed by Balsam Street, Gladstone Avenue, Rochester Street, and Booth Street in Ottawa, Ontario. The Site is located in an area developed for institutional and mixed residential / commercial use.

The Site contains three separate multi-unit residential buildings, reportedly constructed in the 1960s. All buildings are two stories in height, wood frame construction with firewalls between units of concrete block. The building exterior is finished with a mix of brick, siding, and concrete parging. There are mechanical rooms in the north and South (Gladstone) Buildings that contain a partial basement level; the remainder of the three buildings contain an earthen floor crawlspace and concrete block foundation walls. The majority of the residential units are presently vacant.

Photographs of the Work Area identifying typical sampled materials are provided in Appendix A.

3. Records Review

The Client did not provide previous designated substance reports for GHD to review and was not aware of any such studies.

4. Site Inspections

On January 30 and 31, 2018, Mr. Scott Wallis, a representative of GHD, conducted the Site assessment of the three buildings present at the Site.

5. DS Survey

5.1 Acrylonitrile

Acrylonitrile is a colourless to pale-yellow liquid at room temperature, with an unpleasant odour. It is used in the manufacturing of synthetic fibres, rubber, coatings, and adhesives.

Based on the Site inspection and our understanding of the historical use of the Site, no sources of acrylonitrile are present in the identified Work Area.

5.2 Arsenic

Arsenic is a silver-grey, brittle, crystalline solid at room temperature. Arsenic compounds are used as wood preservatives, insecticides, herbicides, in metal alloys and are naturally present in certain minerals and soils.

Based on the Site inspection, arsenic containing materials are not present in the Work Area. Arsenic may be present in decking material at the rear of the individual units; this area was outside the Work Area and direct observation of the ground surface was prevented by snow and ice cover at the time of inspection.

5.3 Asbestos

Asbestos is a group of fibrous minerals that occur naturally in soil and rock. Asbestos fibres were formerly used (primarily for their insulating and fireproofing properties) in roofing shingles, ceiling tiles, floor tiles, asbestos cement products, gaskets, insulation, paper products, and other building insulating products.

GHD conducted an Asbestos Survey (Refer to Section 6 of this report for findings) to investigate suspected asbestos containing materials (ACM) within the Work Area.

5.4 Benzene

Benzene is a colourless liquid at room temperature, with a sweet odour. Benzene and benzene-containing compounds are components of crude oil and refined petroleum products such as gasoline and are present in coal, natural gas, and other materials. Benzene is a component of

other chemicals that are used to make plastics, resins, nylon, synthetic rubber, lubricants, detergents, pharmaceuticals, and other materials.

At the time of the Site inspection, painted surfaces were observed, and plumbing and HVAC systems had some plastic components. Some of these materials may contain benzene in a stable form.

5.5 Coke Oven Emissions

Coke oven emissions are the airborne constituents of the by-product created by destructive distillation of coal and petroleum, and are a mixture of coal tar, coal tar pitch, volatiles, creosote, polycyclic aromatic hydrocarbons (PAHs), and metals. Coke oven emissions are typically associated with the production of steel and coal processing/coke manufacture.

Impacts to the Site from coke ovens are not suspected.

5.6 Ethylene Oxide

Ethylene oxide is a colourless gas at room temperature and a liquid at 12 degrees Celsius (°C). It is used in the manufacture of ethylene glycol, surfactants, fumigants, fungicides, and petroleum demulsifiers.

Based on the Site inspection, and historical use of the Site, no sources of ethylene oxide are present within the Work Area.

5.7 Isocyanates

Isocyanates are compounds that react with compounds containing alcohol (hydroxyl) groups to produce polyurethane polymers, which are components of polyurethane foams, thermoplastic elastomers, spandex fibres, and polyurethane paints. Isocyanates are raw materials used to manufacture polyurethane products, such as polyurethane foam, insulation materials, and surface coatings.

Based on the Site inspection, and historical use of the Site, no sources of isocyanates are present within the Work Area.

5.8 Lead

Lead is a naturally occurring bluish-grey metal that is solid at room temperature. Lead is used in the manufacture of batteries, ammunition, solder, paint, and piping.

Based on Site observations, it is assumed that lead is present in electrical and plumbing equipment (solder), electrical conduit, batteries, older paints, and packing in older cast iron piping system materials at the Site.

A paint sampling program within the Work Area was conducted by GHD as part of the DS Survey, and is presented in Section 7 of this report.

5.9 Mercury

Mercury is a naturally occurring metal. At room temperature, it is a shiny, silver-coloured odourless liquid. When heated it becomes a colourless, odourless gas. Mercury is used in fluorescent and 'non-red' neon light tubes, electrical switches, thermostats, dental fillings, certain batteries, some measuring devices (barometers, manometers, hygrometers, and thermometers), some manufacturing processes, older paints, and is present in some roofing products and tars at low concentrations.

Based on the Site inspection, mercury may be present in the fluorescent tubes occasionally observed at the Site, in the batteries used in emergency lighting systems. Mercury may be present in manometers used in the heating system.

A mercury sampling program was not conducted by GHD as part of the DS Survey.

5.10 Silica

Silica is a transparent to grey odourless powder or crystal at room temperature. It occurs widely in nature as sand, quartz, flint, and diatomite. Silica is used in the manufacture of glass, ceramics, abrasives, water treatment products, cosmetics, insecticides, paint, and foods. Silica is also used as a drying agent or preservative. Crystalline silica materials also are used in the production of concrete, cement, acoustic ceiling tiles, and ceramic tiles which are used for construction purposes.

Based on the Site inspection, crystalline silica is present in the brick, mortar, ceramic tiles, poured concrete walls, concrete block walls and in the fibreglass insulation found in the Work Area.

5.11 Vinyl Chloride

Vinyl chloride is a colourless, flammable gas at room temperature with a mild, sweet odour. Vinyl chloride is a degradation product of organic industrial/commercial solvents such as tetrachloroethylene (PCE) and trichloroethylene (TCE) which are used as degreasing and dry cleaning agents. One use of vinyl chloride is in the manufacture of polyvinyl chloride (PVC), which is used in many plastic products including plastic pipe, electrical cable insulation, plumbing and conduit fixtures, and clothing, upholstery, roofing, and flooring materials.

At the time of the Site inspection, GHD observed some PVC (a stable form of vinyl chloride) piping or plastic fixtures in the Work Area.

6. Asbestos Survey

6.1 Asbestos Sampling Methodology

An Asbestos Survey was conducted by GHD and samples were collected of materials in the work area in accordance with bulk asbestos sampling protocols and procedures provided in O. Reg. 278/05, Designated Substances in the Workplace: A Guide to the Asbestos Regulation for Construction Projects, Buildings and Repair Operations (MOL, revised May 2011), other guidance documents and experience.

6.2 Sampling

In order to verify that specific building materials do not contain asbestos, samples were collected of each material identified in the Work Area. The number of bulk samples for each type of material was determined by the requirements provided in Table 1 of O. Reg. 278 (Number of Bulk Samples Required). For this investigation, each building was treated as a separate area, containing a number of townhouse units. Samples were identified in the laboratory reports as (townhouse number)-(room identifier)-(building material)-(sample).

Bulk sample sets (64 total distinct building materials) with a total of 204 samples were submitted for analysis to determine asbestos type and, if present, the relative concentration. Photographs of typical sampled materials within the Work Area are provided in Appendix A.

The samples were submitted under Chain-of-Custody protocol to Paracel Laboratories Ltd. (Paracel) in Kingston, Ontario for asbestos analysis. Paracel is an accredited and certified laboratory. Samples of friable materials were submitted for analysis by polarized-light microscopy (PLM) using Method EPA/600/R-93/116.

6.3 Results

The detailed description of the samples collected, and the analytical data is provided in Table 6.1: Summary of Asbestos Bulk Samples below. The analytical laboratory reports, Paracel Report # 1806438, has been provided in Appendix B.

Table 6.1 Summary of Asbestos Bulk Samples – North (Balsam) Building

Sample Identification	Sample Location	Sample Description	Asbestos Content
22-2-BSW-W1-B	Unit 22 2nd floor, southwest bedroom wall	Drywall Joint Compound	2% Chrysotile Asbestos
24-2-BNW-W1-C	Unit 24 2nd floor, northwest bedroom wall	Drywall Joint Compound	Not Analyzed Stop Positive*
30-2-BSW-W1-B	Unit 30 2nd floor, southwest bedroom wall	Drywall Joint Compound	Not Analyzed Stop Positive*
32-2-BNE-W1-C	Unit 32 2nd floor, northeast bedroom wall	Drywall Joint Compound	Not Analyzed Stop Positive*
34-K-W1-A	Unit 34 Wall in kitchen	Drywall Joint Compound	Not Analyzed Stop Positive*
24-2-BNW-W2-B	Unit 24 2nd floor, northwest bedroom wall	Tar backed paper on fiberglass batt insulation	None Detected
32-2-BNW-W2-C	Unit 32 2nd floor, northwest bedroom wall	Tar backed paper on fiberglass batt insulation	None Detected
30-CRAWL-W2-D	Unit 30 crawlspace	Tar backed paper on fiberglass batt insulation	None Detected

Table 6.1 Summary of Asbestos Bulk Samples – North (Balsam) Building

Sample Identification	Sample Location	Sample Description	Asbestos Content
34-A-R1-A	Unit 34 Flat roof in attic	Tar and gravel roof	2% Chrysotile Asbestos
34-A-R1-B	Unit 34 Flat roof in attic	Tar and gravel roof	Not Analyzed Stop Positive*
34-A-R1-C	Unit 34 Flat roof in attic	Tar and gravel roof	Not Analyzed Stop Positive*
22-CRAWL-M4-A	Unit 22 Crawlspace wall	Tar seal on walls	65% Chrysotile Asbestos
30-CRAWL-M4-B	Unit 30 Crawlspace wall	Tar seal on walls	Not Analyzed Stop Positive*
34-CRAWL-W-M1-B	Unit 34 Crawlspace wall	Tar seal on walls	Not Analyzed Stop Positive*
22-2-Bath-F3-A	Unit 22 2nd floor bathroom floor	VSF - brown	Not Detected
22-2-Bath-F3-B	Unit 22 2nd floor bathroom floor	VSF - brown	Not Detected
22-2-Bath-F3-C	Unit 22 2nd floor bathroom floor	VSF - brown	Not Detected
24-2-Bath-F3-A	Unit 24 2nd floor bathroom floor	VSF – tan mottled brown	Not Detected
24-2-Bath-F3-B	Unit 24 2nd floor bathroom floor	VSF – tan mottled brown	Not Detected
32-2-Bath South-F3AC-C	Unit 32 2nd floor bathroom floor	VSF – tan mottled brown	Not Detected
30-2-Bath-F3-A	Unit 30 2nd floor bathroom floor	VSF - cream	Not Detected
30-2-Bath-F3-B	Unit 30 2nd floor bathroom floor	VSF - cream	Not Detected
30-2-Bath-F3-C	Unit 30 2nd floor bathroom floor	VSF - cream	Not Detected
32-2-Bath South-F3B-A	Unit 32 2nd floor bathroom floor	VSF – white with brown dots	Not Detected
32-2-Bath South-F3B-B	Unit 32 2nd floor bathroom floor	VSF – white with brown dots	Not Detected
32-2-Bath South-F3B-B	Unit 32 2nd floor bathroom floor	VSF – white with brown dots	Not Detected
34-2-Bath-F1-A	Unit 34 2nd floor bathroom floor	VSF – white / blue pebbles	Not Detected
34-2-Bath-F1-B	Unit 34 2nd floor bathroom floor	VSF – white / blue pebbles	Not Detected

Table 6.1 Summary of Asbestos Bulk Samples – North (Balsam) Building

Sample Identification	Sample Location	Sample Description	Asbestos Content
34-2-Bath-F1-C	Unit 34 2nd floor bathroom floor	VSF – white / blue pebbles	Not Detected
22-1-E-F3B-A	Unit 22 1st floor entry floor	VSF – mock tile	Not Detected
22-1-E-F3B-B	Unit 22 1st floor entry floor	VSF – mock tile	Not Detected
22-1-E-F3B-C	Unit 22 1st floor entry floor	VSF – mock tile	Not Detected
22-1-K-F2D-A	Unit 22 1st floor Kitchen Floor	VFT - brown	3% Chrysotile Asbestos
24-1-LR-F2C-A	Unit 24 1st floor living room floor	VFT - brown	Not Analyzed Stop Positive*
30-1-K-F2C-C	Unit 30 1st floor kitchen floor	VFT - brown	Not Analyzed Stop Positive*
22-LR-F2C-C	Unit 22 1st floor living room floor	VFT - olive	7% Chrysotile Asbestos
24-1-UR-F2E-A	Unit 24 1st floor utility room floor	VFT - olive	Not Analyzed Stop Positive*
30-1-E-F2F-B	Unit 30 1st floor entry floor	VFT - olive	Not Analyzed Stop Positive*
30-2-Bath-F2F-A	Unit 30 2nd floor bathroom floor	VFT – mottled light/dark brown	Not Detected
30-2-Bath-F2F-B	Unit 30 2nd floor bathroom floor	VFT – mottled light/dark brown	Not Detected
30-2-Bath-F2F-C	Unit 30 2nd floor bathroom floor	VFT – mottled light/dark brown	Not Detected
32-NE Entry – F2E-A	Unit 32 1St floor northeast entry floor	VFT-8”x8”, dark brown white streaks	5% Chrysotile Asbestos
32-NE Entry – F2E-B	Unit 32 1St floor northeast entry floor	VFT-8”x8”, dark brown white streaks	Not Analyzed Stop Positive*
32-NE Entry – F2E-C	Unit 32 1St floor northeast entry floor	VFT-8”x8”, dark brown white streaks	Not Analyzed Stop Positive*
22-K-F2E-A	Unit 22 1st floor Kitchen Floor	VFT-12”x12”, tan streaked brown	1% Chrysotile Asbestos
24-K-F2B-A	Unit 24 1st floor Kitchen Floor	VFT-12”x12”, tan streaked brown	Not Analyzed Stop Positive*
30-K-F2B-B	Unit 30 1st floor Kitchen Floor	VFT-12”x12”, tan streaked brown	Not Analyzed Stop Positive*
32-1-URSE-F2B-A	Unit 32 1st floor utility room floor	VFT-12”x12”, brown streaked dark brown	3% Chrysotile Asbestos

Table 6.1 Summary of Asbestos Bulk Samples – North (Balsam) Building

Sample Identification	Sample Location	Sample Description	Asbestos Content
32-1-URSE-F2B-B	Unit 32 1st floor utility room floor	VFT-12”x12”, brown streaked dark brown	Not Analyzed Stop Positive*
22-1-E-F2A-D	Unit 22 1st floor entry floor	VFT-12”x12”, brown streaked dark brown	Not Analyzed Stop Positive*
22-K-F2A-C	Unit 22 1st floor kitchen floor	VFT-12”x12”, tan mottled brown and white	Not Detected
24-1-LR-F2A-C	Unit 24 1st floor living room floor	VFT-12”x12”, tan mottled brown and white	Not Detected
34-UR-F2-B	Unit 34 1st floor utility room floor	VFT-12”x12”, tan mottled brown and white	Not Detected
32-1-URSE-F2A-A	Unit 32 1st floor utility room floor	VFT – 12”x12”, grey streaked black	Not Detected
32-1-K-F2A-B	Unit 32 1st floor kitchen floor	VFT – 12”x12”, grey streaked black	Not Detected
32-1-URSE-F2A-C	Unit 32 1st floor utility room floor	VFT – 12”x12”, grey streaked black	Not Detected
32-1-URSE-F2D-A	Unit 32 1st floor utility room floor	Leveling compound	Not Detected
32-1-URSE-F2D-B	Unit 32 1st floor utility room floor	Leveling compound	Not Detected
32-1-URSE-F2D-C	Unit 32 1st floor utility room floor	Leveling compound	Not Detected
NorthMech-M1-A	North mechanical room Basement – on wall near ceiling	Pipe wrap pipe insulation	5% Chrysotile Asbestos
NorthMech-M1-A	North mechanical room Basement – on wall near ceiling	Pipe wrap pipe insulation	Not Analyzed Stop Positive*
NorthMech-M1-A	North mechanical room Basement – on wall near ceiling	Pipe wrap pipe insulation	Not Analyzed Stop Positive*
34-E-W5-A	Unit 34 Building exterior	Concrete stucco parge	Not Detected
34-E-W5-B	Unit 34 Building exterior	Concrete stucco parge	Not Detected
24-E-W5-C	Unit 24 Building exterior	Concrete stucco parge	Not Detected
32-2-BNE-M3-A	Unit 32 On balcony, around window	Caulking – white, rigid	Not detected
24-E-M3-B	Unit 24 Building exterior, around window	Caulking – white, rigid	Not detected
32-E-M3-C	Unit 32	Caulking – white, rigid	Not detected

Table 6.1 Summary of Asbestos Bulk Samples – North (Balsam) Building

Sample Identification	Sample Location	Sample Description	Asbestos Content
	Building exterior, around window		
Notes: Minimum Detection Limit (MDL) of the analytical method, 0.5 percent. *Indicates an asbestos content of 0.5 percent or greater VSF – Vinyl Sheet Flooring VFT – Vinyl Floor Tile			

Table 6.2 Summary of Asbestos Bulk Samples – West (Rochester) Building

Sample Identification	Sample Location	Sample Description	Asbestos Content
38-R1-A	Unit 38 Flat roof above unit	Tar and gravel roofing material	None Detected
38-R1-B	Unit 38 Flat roof above unit	Tar and gravel roofing material	None Detected
40-R1-A	Unit 40 Flat roof above unit	Tar and gravel roofing material	None Detected
38-LR-W1-A	Unit 38 Wall in living room	Drywall joint compound	None Detected
40-1-K-W1-B	Unit 40 Wall in kitchen	Drywall joint compound	None Detected
277-K-W1-C	Unit 277 Wall in kitchen	Drywall joint compound	None Detected
281-LR-W1-A	Unit 281 Wall in living room	Drywall joint compound	3% Chrysotile Asbestos
285-2-BSE-W1-B	Unit 285 Wall in second floor southeast bedroom	Drywall joint compound	Not Analyzed Stop Positive*
276-CRAWL-W2-A	Unit 276 Wall in crawlspace	Tar backed paper on fiberglass batt insulation	None Detected
279-CRAWL-W2-A	Unit 279 Wall in crawlspace	Tar backed paper on fiberglass batt insulation	None Detected
285-LR-W2-A	Unit 285 Wall in living room	Tar backed paper on fiberglass batt insulation	None Detected
281-1-LR-F2B-B	Unit 281 Floor in living room	VFT-12”x12”, battleship brown	5% Chrysotile Asbestos
283-1-K-F2A-A	Unit 283 Floor in kitchen	VFT-12”x12”, battleship brown	Not Analyzed Stop Positive*
285-1-K-F2B-A	Unit 285 Floor in kitchen	VFT-12”x12”, battleship brown	Not Analyzed Stop Positive*

Table 6.2 Summary of Asbestos Bulk Samples – West (Rochester) Building

Sample Identification	Sample Location	Sample Description	Asbestos Content
279-1-K-F2C-A	Unit 279 Floor in kitchen	VFT-12"x12", cream	None Detected
279-1-K-F2C-B	Unit 279 Floor in kitchen	VFT-12"x12", cream	None Detected
279-1-K-F2C-C	Unit 279 Floor in kitchen	VFT-12"x12", cream	None Detected
281-2-BNW-F2D-A	Unit 281 Floor in second floor northwest bedroom	VFT-12"x12", mock tiles	3% Chrysotile Asbestos
281-2-BNW-F2D-B	Unit 281 Floor in second floor northwest bedroom	VFT-12"x12", mock tiles	Not Analyzed Stop Positive*
281-2-BNW-F2D-C	Unit 281 Floor in second floor northwest bedroom	VFT-12"x12", mock tiles	Not Analyzed Stop Positive*
281-2-BSW-F2E-A	Unit 281 Floor in second floor southwest bedroom	VFT-12"x12", grey stone	2% Chrysotile Asbestos
281-2-BSW-F2E-B	Unit 281 Floor in second floor southwest bedroom	VFT-12"x12", grey stone	Not Analyzed Stop Positive*
281-2-BSW-F2E-C	Unit 281 Floor in second floor southwest bedroom	VFT-12"x12", grey stone	Not Analyzed Stop Positive*
285-CRAWL-M4-A	Unit 285 Walls in crawlspace	Tar seal on walls	65% Chrysotile Asbestos
277-CRAWL-M4-B	Unit 277 Walls in crawlspace	Tar seal on walls	Not Analyzed Stop Positive*
276-CRAWL-M4-B	Unit 276 Walls in crawlspace	Tar seal on walls	Not Analyzed Stop Positive*
281-2-BNW-W2B-A	Unit 281 Wall	Tar paper on fiberglass batt insulation	None Detected
281-2-BNW-W2B-B	Unit 281 Wall	Tar paper on fiberglass batt insulation	None Detected
281-2-BNW-W2B-C	Unit 281 Wall	Tar paper on fiberglass batt insulation	None Detected
279-2-bath-F3-A	Unit 279 2nd floor bathroom floor	VSF – white/blue pebbles Mastic - yellow	None detected None detected
281-2-bath-F3-B	Unit 281 2nd floor bathroom floor	VSF – white/blue pebbles Mastic - yellow	None detected None detected

Table 6.2 Summary of Asbestos Bulk Samples – West (Rochester) Building

Sample Identification	Sample Location	Sample Description	Asbestos Content
285-2-bath-F3-C	Unit 285 2nd floor bathroom floor	VSF – white/blue pebbles Mastic - yellow	None detected None detected
281-2-Bath-F3A-A	Unit 281 2nd floor bathroom floor	VSF – white mottled tan	None Detected
281-2-Bath-F3A-B	Unit 281 2nd floor bathroom floor	VSF – white mottled tan	None Detected
281-2-Bath-F3A-C	Unit 281 2nd floor bathroom floor	VSF – white mottled tan	None Detected
283-1-E-F3-A	Unit 283 1st floor entry floor	VSF - white	None Detected
283-1-E-F3-B	Unit 283 1st floor entry floor	VSF - white	None Detected
283-1-E-F3-C	Unit 283 1st floor entry floor	VSF - white	None Detected
275-1-B-F3-A	Unit 275 1st floor bedroom floor	VSF - brown	None Detected
275-1-B-F3-B	Unit 275 1st floor bedroom floor	VSF - brown	None Detected
275-1-B-F3-C	Unit 275 1st floor bedroom floor	VSF - brown	None Detected
277-2-Bath-F3-A	Unit 277 2nd floor bathroom floor	VSF – brown pebbles	None Detected
277-2-Bath-F3-B	Unit 277 2nd floor bathroom floor	VSF – brown pebbles	None Detected
277-2-Bath-F3-C	Unit 277 2nd floor bathroom floor	VSF – brown pebbles	None Detected
279-1-LRSW-F2A-B	Unit 279 1st floor living room floor	VFT – 12”x12”, tan with brown flecks Mastic – yellow	None Detected
279-1-KSE-F2A-B	Unit 279 1st floor kitchen floor	VFT – 12”x12”, tan with brown flecks	None Detected
285-1-LR-F2B-B	Unit 285 1st floor living room floor	VFT – 12”x12”, tan with brown flecks	None Detected
279-E-W5-A	Unit 279 Building exterior	Concrete stucco parge	Not Detected
279-E-W5-B	Unit 279 Building exterior	Concrete stucco parge	Not Detected
283-E-W5-C	Unit 283 Building exterior	Concrete stucco parge	Not Detected
281-M3-C	Unit 281 Building exterior, around windows	Caulking – white, rigid	Not Detected

Table 6.2 Summary of Asbestos Bulk Samples – West (Rochester) Building

Sample Identification	Sample Location	Sample Description	Asbestos Content
279-M3-B	Unit 279 Building exterior, around windows	Caulking – white, rigid	Not Detected
283-M3-A	Unit 283 Building exterior, around windows	Caulking – white, rigid	Not Detected
Notes: Minimum Detection Limit (MDL) of the analytical method, 0.5 percent. *Indicates an asbestos content of 0.5 percent or greater VSF – Vinyl Sheet Flooring VFT – Vinyl Floor Tile			

Table 6.3 Summary of Asbestos Bulk Samples – South (Gladstone) Building

Sample Identification	Sample Location	Sample Description	Asbestos Content
811-2-BNW-R1-A	Unit 811 Flat roof in attic	Tar and gravel roofing	1% Chrysotile Asbestos
811-2-BNW-R1-B	Unit 811 Flat roof in attic	Tar and gravel roofing	Not Analyzed Stop Positive*
811-2-BNW-R1-C	Unit 811 Flat roof in attic	Tar and gravel roofing	Not Analyzed Stop Positive*
811-1-LR-C1-A	Unit 811 1st floor living room ceiling	Ceiling texture coat	Not Detected
811-1-H-C1-B	Unit 811 1st floor hall ceiling	Ceiling texture coat	Not Detected
811-2-BNW-C1-D	Unit 811 2nd floor northwest bedroom ceiling	Ceiling texture coat	Not Detected
811-2-BSE-W1-D	Unit 811 2nd floor southeast bedroom wall	Drywall Joint Compound	1% Chrysotile Asbestos
817-2-BNW-W1-C	Unit 817 2nd floor northwest bedroom wall	Drywall Joint Compound	Not Analyzed Stop Positive*
821-2-BSE-W1-C	Unit 821 2nd floor southeast bedroom wall	Drywall Joint Compound	Not Analyzed Stop Positive*
817-1-LR-W1-A	Unit 817 1st floor living room wall	Drywall Joint Compound	Not Analyzed Stop Positive*
289-2-BSW-W1-C	Unit 289 2nd floor southwest bedroom wall	Drywall Joint Compound	Not Analyzed Stop Positive*
813-2-Bath-F3-B	Unit 813 2nd floor bathroom floor	VSF-white pink pebbles	Not Detected
829-2-Bath-F3-A	Unit 829 2nd floor bathroom floor	VSF-white pink pebbles	Not Detected
829-2-Bath-F3-B	Unit 829 2nd floor bathroom floor	VSF-white pink pebbles	Not Detected

Table 6.3 Summary of Asbestos Bulk Samples – South (Gladstone) Building

Sample Identification	Sample Location	Sample Description	Asbestos Content
817-2-Bath-F3A-B	Unit 817 2nd floor bathroom floor	VSF - cream	Not Detected
823-2-Bath-F3-B	Unit 823 2nd floor bathroom floor	VSF - cream	Not Detected
823-2-Bath-F3-C	Unit 823 2nd floor bathroom floor	VSF - cream	Not Detected
819-2-Bath-F3-A	Unit 819 2nd floor bathroom floor	VSF – brown pebbles	Not Detected
819-2-Bath-F3-B	Unit 819 2nd floor bathroom floor	VSF – brown pebbles	Not Detected
819-2-Bath-F3-C	Unit 819 2nd floor bathroom floor	VSF – brown pebbles	Not Detected
827-2-Bath-F3A-A	Unit 827 2nd floor bathroom floor	VSF – mock 9”x9” slate tiles	Not Detected
289-2-Bath-F3-A	Unit 289 2nd floor bathroom floor	VSF – mock 9”x9” slate tiles	Not Detected
289-2-Bath-F3-B	Unit 289 2nd floor bathroom floor	VSF – mock 9”x9” slate tiles	Not Detected
827-2-Bath-F3B-A	Unit 827 2nd floor bathroom floor	VSF – mock wood	Not Detected
827-2-Bath-F3B-B	Unit 827 2nd floor bathroom floor	VSF – mock wood	Not Detected
827-2-Bath-F3B-C	Unit 827 2nd floor bathroom floor	VSF – mock wood	Not Detected
821-2-Bath-F3B-A	Unit 821 2nd floor bathroom floor	VSF – mock clay white grout	Not Detected
821-2-Bath-F3B-B	Unit 821 2nd floor bathroom floor	VSF – mock clay white grout	Not Detected
821-2-Bath-F3B-C	Unit 821 2nd floor bathroom floor	VSF – mock clay white grout	Not Detected
821-2-Bath-F3A-A	Unit 821 2nd floor bathroom floor	VSF – mock clay grey grout	Not Detected
821-2-Bath-F3A-B	Unit 821 2nd floor bathroom floor	VSF – mock clay grey grout	Not Detected
821-2-Bath-F3A-C	Unit 821 2nd floor bathroom floor	VSF – mock clay grey grout	Not Detected
819-CRAWL-M4-A	Unit 819 Crawlspace walls	Tar seal on walls	60% Chrysotile Asbestos
823-CRAWL-M4-A	Unit 823 Crawlspace walls	Tar seal on walls	Not Analyzed Stop Positive*

Table 6.3 Summary of Asbestos Bulk Samples – South (Gladstone) Building

Sample Identification	Sample Location	Sample Description	Asbestos Content
289-CRAWL-M4-B	Unit 289 Crawlspace walls	Tar seal on walls	Not Analyzed Stop Positive*
817-1-LR-W2-A	Unit 817 1st floor living room wall	Tar paper backing on fiberglass batt insulation	Not Detected
823-CRAWL-W2-D	Unit 823 Crawlspace wall	Tar paper backing on fiberglass batt insulation	Not Detected
829-2-BSE-W2-B	Unit 829 2nd floor southeast bedroom wall	Tar paper backing on fiberglass batt insulation	Not Detected
813-1-H-F6-B	Unit 813 Stair between 1st and 2nd floors	Brown vinyl stair tread	Not Detected
813-1-H-F6-C	Unit 813 Stair between 1st and 2nd floors	Brown vinyl stair tread	Not Detected
822-1-H-F6-C	Unit 822 Stair between 1st and 2nd floors	Brown vinyl stair tread	Not Detected
289-1-LR-F2A-B	Unit 289 1st floor living room floor	VFT – olive white streaks	4% Chrysotile Asbestos
289-1-LR-F2A-C	Unit 289 1st floor living room floor	VFT – olive white streaks	Not Analyzed Stop Positive*
821-1-K-F2C-B	Unit 821 1st floor kitchen floor	VFT – olive white streaks	Not Analyzed Stop Positive*
823-1-UR-F2B-C	Unit 823 1st floor utility room floor	VFT-grey flecked brown	Not Detected
827-1-E-F2A-A	Unit 827 1st floor entry floor	VFT-grey flecked brown	Not Detected
827-1-K-F2A-B	Unit 827 1st floor kitchen floor	VFT-grey flecked brown	Not Detected
819-1-UR-F2B-A	Unit 819 1st floor utility room floor	VFT-brown streaked white	Not Detected
829-1-H-F2C-C	Unit 829 1st floor hallway floor	VFT-brown streaked white	3% Chrysotile Asbestos
289-1-K-F2D-C	Unit 829 1st floor kitchen floor	VFT-brown streaked white	Not Analyzed Stop Positive*
817-1-K-F2A	Unit 817 1st floor kitchen floor	VFT-tan mottled brown and white	Not Detected
819-1-K-F2A-A	Unit 819 1st floor kitchen floor	VFT-tan mottled brown and white	Not Detected
829-1-UR-F2B-B	Unit 829 1st floor utility room floor	VFT-tan mottled brown and white	Not Detected

Table 6.3 Summary of Asbestos Bulk Samples – South (Gladstone) Building

Sample Identification	Sample Location	Sample Description	Asbestos Content
811-1-H-F2A-B	Unit 811 1st floor hallway floor	VFT-tan streaked brown	Not Detected
817-1-K-F2B-A	Unit 817 1st floor kitchen floor	VFT-tan streaked brown	Not Detected
823-2-BNW-F2A-D	Unit 823 2nd floor northwest bedroom floor	VFT-tan streaked brown	Not Detected
819-1-K-F2C-B	Unit 819 1st floor kitchen floor	VFT-olive brown with white streaks	5% Chrysotile Asbestos
819-1-K-F2C-D	Unit 819 1st floor kitchen floor	VFT-olive brown with white streaks	Not Analyzed Stop Positive*
819-1-K-F2C-E	Unit 819 1st floor kitchen floor	VFT-olive brown with white streaks	Not Analyzed Stop Positive*
811-2-BNW-F2B-A	Unit 811 2nd floor northwest bedroom floor	VFT – mock red slate	Not Detected
811-2-BSE-F2B-B	Unit 811 2nd floor southeast bedroom floor	VFT – mock red slate	Not Detected
811-2-BSE-F2B-C	Unit 811 2nd floor southeast bedroom floor	VFT – mock red slate	Not Detected
813-1-K-F2B-B	Unit 813 1st floor kitchen floor	VFT – beige mottled white and brown	Not Detected
813-1-K-F2B-C	Unit 813 1st floor kitchen floor	VFT – beige mottled white and brown	Not Detected
289-1-URNE-F2B-B	Unit 289 1st floor northeast utility room floor	VFT – beige mottled white and brown	Not Detected
821-1-K-F2B-B	Unit 821 1st floor kitchen floor	VFT-beige and white with grey backing	Not Detected
821-1-K-F2B-C	Unit 821 1st floor kitchen floor	VFT-beige and white with grey backing	Not Detected
821-1-K-F2B-D	Unit 821 1st floor kitchen floor	VFT-beige and white with grey backing	Not Detected
SOUTH MECH-M1-A	South (Gladstone) Building mechanical room Basement, on west wall near ceiling	Pipe wrap	Not Detected
SOUTH MECH-M1-B	South (Gladstone) Building mechanical room Basement, on west wall near ceiling	Pipe wrap	Not Detected
SOUTH MECH-M1-C	South (Gladstone) Building mechanical room	Pipe wrap	Not Detected

Table 6.3 Summary of Asbestos Bulk Samples – South (Gladstone) Building

Sample Identification	Sample Location	Sample Description	Asbestos Content
	Basement, on west wall near ceiling		
817-E-W5-A	Unit 817 Building exterior	Concrete stucco parge	Not Detected
817-E-W5-B	Unit 817 Building exterior	Concrete stucco parge	Not Detected
829-E-W5-C	Unit 817 Building exterior	Concrete stucco parge	Not Detected
289-M3-A	Unit 289 Building exterior – by window	Caulking – white, rigid	Not Detected
811-M3-B	Unit 811 Building exterior – by door	Caulking – white, rigid	Not Detected
821-M3-C	Unit 821 Building exterior – by window	Caulking – white, rigid	Not Detected

Notes:
Minimum Detection Limit (MDL) of the analytical method, 0.5 percent.
*Indicates an asbestos content of 0.5 percent or greater
VSF – Vinyl Sheet Flooring
VFT – Vinyl Floor Tile

O. Reg. 278 defines Asbestos Containing Materials (ACMs) as a materials containing 0.5 percent by dry weight or more of asbestos fibres. The following building materials were identified as ACMs:

North (Balsam) Building

- Drywall Joint Compound | Friable, white colored drywall joint compound found on walls and ceilings in the building. This material was identified to contain Chrysotile asbestos at concentrations above 0.5 percent. Visually similar material was identified in all units in the building, accordingly, all drywall joint compound is assumed to be ACM. The material was generally in good condition.
- Flat Tar and Gravel Roof in Attic | Non-friable roofing materials comprising layers of tarpaper and kraft paper, bonded with layers of tar was observed on the floor of the attics above units 34, 38, and 40. This material was identified to contain Chrysotile asbestos at concentrations above 0.5 percent. It is assumed that this material is present throughout the building, and all tar and gravel flat roofing materials should be considered ACM.
- Tar seal on foundation walls | Non-Friable black tar was present in the crawlspace, used to affix Styrofoam panels to the concrete block walls, and as damp proofing on the interior of the block walls. This material was identified to contain Chrysotile asbestos at concentrations above 0.5 percent.

  Visually similar material was identified in all crawlspaces of the building; accordingly all black tar damp proofing in the building is assumed to be ACM.

- Vinyl Floor Tile | Non-Friable vinyl floor tile (12"x12", brown) submitted from unit 22 (kitchen) was identified to contain Chrysotile asbestos at concentrations above 0.5 percent.

  Visually similar flooring to unit 22 (kitchen) was observed in unit 24 (living room), unit 30 (kitchen); these visually similar materials should also be treated as ACM.

- Vinyl Floor Tile | Non-Friable vinyl floor tile (olive) submitted from unit 22 (living room) was identified to contain Chrysotile asbestos at concentrations above 0.5 percent.

  Visually similar flooring to unit 22 (living room) was observed in unit 24 (utility room), unit 30 (entry), unit 24 (entry); these visually similar materials should also be treated as ACM.

- Vinyl Floor Tile | Non-Friable vinyl floor tile (dark brown with white streaks) was submitted from unit 32 (entry). This material was identified to contain Chrysotile asbestos at concentrations above 0.5 percent.

- Vinyl Floor Tile | Non-Friable vinyl floor tile (12"x12", tan with brown streaks) submitted from unit 22 (kitchen) was identified to contain Chrysotile asbestos at concentrations above 0.5 percent.

  Visually similar flooring to unit 22 (kitchen) was observed in unit 22 (living room), unit 24 (kitchen), unit 30 (kitchen); these visually similar materials should also be treated as ACM.

- Vinyl Floor Tile | Non-Friable vinyl floor tile (12"x12", brown with dark brown streaks) submitted from unit 32 (utility room) was identified to contain Chrysotile asbestos at concentrations above 0.5 percent.

  Visually similar flooring to unit 32 (utility room) was observed in unit 22 (entry); these visually similar materials should also be treated as ACM.

- Pipe wrap | Non-Friable pipe wrap pipe insulation was identified in two pipes on the basement level of the North (Balsam) Buildings mechanical room. The pipes (each approximately 8 meters (m) in length) were located affixed to the east wall near the ceiling, and extended a short distance vertically down the wall in the northeast corner of the room. This material was identified to contain Chrysotile asbestos at concentrations above 0.5 percent.

West (Rochester) Building

- Drywall Joint Compound | Friable, white colored drywall joint compound found on walls and ceilings in the building. This material was identified to contain Chrysotile asbestos at concentrations above 0.5 percent. Visually similar material was identified in all units in the building, accordingly, all drywall joint compound is assumed to be ACM. The material was generally in good condition.

- Tar seal on foundation walls | Non-Friable black tar was present in the crawlspace, used to affix Styrofoam panels to the concrete block walls, and as damp proofing on the interior of the block walls. This material was identified to contain Chrysotile asbestos at concentrations above 0.5 percent. Visually similar material was identified in all crawlspaces of the building; accordingly all black tar damp proofing in the building is assumed to be ACM.

- Vinyl Floor Tile | Non-Friable vinyl floor tile (12"x12", battleship brown) submitted from unit 281 (living room) was identified to contain Chrysotile asbestos at concentrations above 0.5 percent.

Visually similar flooring to unit 281 (living room) was observed in unit 279 (kitchen), unit 281 (southeast bedroom, southwest bedroom, and 2nd floor utility room), unit 283 (kitchen, and utility room), unit 285 (kitchen, and utility room); these visually similar materials should also be treated as ACM.

- Vinyl Floor Tile | Non-Friable vinyl floor tile (12"x12", mock tile pattern) was submitted from unit 281 (northwest bedroom). This material was identified to contain Chrysotile asbestos at concentrations above 0.5 percent and should be treated as ACM.
- Vinyl Floor Tile | Non-Friable vinyl floor tile (12"x12", mock grey stone pattern) was submitted from unit 281 (southwest bedroom). This material was identified to contain Chrysotile asbestos at concentrations above 0.5 percent and should be treated as ACM.

South (Gladstone) Building

- Drywall Joint Compound | Friable, white colored drywall joint compound found on walls and ceilings in the building. This material was identified to contain Chrysotile asbestos at concentrations above 0.5 percent. Visually similar material was identified in all units in the building, accordingly, all drywall joint compound is assumed to be ACM. The material was generally in good condition.
- Flat Tar and Gravel Roof in Attic | Non-friable roofing materials comprising layers of tarpaper and kraft paper, bonded with layers of tar was observed on the floor of the attic above unit 811. This material was identified to contain Chrysotile asbestos at concentrations above 0.5 percent. It is assumed that this material is present throughout the building, and all tar and gravel flat roofing materials should be considered ACM.
- Tar seal on foundation walls | Friable black tar was present in the crawlspace, used to affix Styrofoam panels to the concrete block walls, and as damp proofing on the interior of the block walls. This material was identified to contain Chrysotile asbestos at concentrations above 0.5 percent. Visually similar material was identified in all crawlspaces of the building; accordingly all black tar damp proofing in the building is assumed to be ACM.
- Vinyl Floor Tile | Non-Friable vinyl floor tile (12"x12", olive, with white streaks) submitted from unit 289 (living room) and identified to contain Chrysotile asbestos at concentrations above 0.5 percent.

  Visually similar flooring to unit 289 (living room) was observed in unit 821 (kitchen); these visually similar materials should also be treated as ACM.
- Vinyl Floor Tile | Non-Friable vinyl floor tile (12"x12", brown with white streaks) was submitted from unit 829 (ground floor hallway) and identified to contain Chrysotile asbestos at concentrations above 0.5 percent.

  Visually similar flooring to unit 829 (ground floor hallway) was observed in unit 819 (utility room), unit 289 (kitchen), and unit 289 (utility room); these visually similar materials should also be treated as ACM.
- Vinyl Floor Tile | Non-Friable vinyl floor tile (12"x12", olive/brown with white streaks) was submitted from unit 819 (kitchen). This material was identified to contain Chrysotile asbestos at concentrations above 0.5 percent, and should be treated as ACM.

- Pipe wrap | Non-Friable pipe wrap pipe insulation was identified in two pipes on the basement level of the South (Gladstone) Buildings mechanical room. The pipes (each approximately 8 meters (m) in length) were located affixed to the east wall near the ceiling, and extended a short distance vertically down the wall in the northeast corner of the room.

  While the submitted samples of the pipe wrap from the South (Gladstone) Buildings mechanical room was determined to not contain asbestos, visually similar samples collected from the North (Balsam) Buildings mechanical room was identified to contain Chrysotile asbestos at concentrations above 0.5 percent. Accordingly, the Client should treat all pipe wrap insulation found at the Site as ACM.

7. Lead Paint Sampling

7.1 Lead Surface Coating Regulations and Standards

The Canadian Federal Government has been limiting the amount of lead in paint to 0.5 percent (5,000 ppm) since 1975. The Surface Coating Materials Regulation (SOR/2005-109 dated April 19, 2005), reduced the concentration of Lead in paint and surface coating materials to 600 ppm or 0.06 percent. The act was revised again 2010 Hazardous Products Act, to define Lead Containing Paint (LCP) as paint containing 0.009 percent (90 ppm) of lead. The general industry practice is to consider paint with 0.009 percent (90 ppm) or more as lead-containing paint (LCP) and paint with 0.5 percent (5000 ppm) or more as lead-based paint.

Recent EACO guidance suggests that paint containing low levels (less than 0.1 percent/1,000 parts per million) provides a low risk to building occupants as long as aggressive activities such as sanding, cutting, and hot work are not conducted on painted materials.

O. Reg. 490/09 regulates lead in industrial workplaces as a designated substance. The Ontario Ministry of Labour (MOL) Occupational Exposure Level (OEL) for workers to inorganic lead is 0.05 milligrams per cubic metre (mg/m^3) for an eight-hour time-weighted average exposure. If lead is present in paint or other materials and there may be potential worker exposure at unacceptable levels, a Lead Control Program is required by the MOL to manage occupational exposures, including for renovation and demolition activities. The Guideline for Lead on Construction Projects (MOL, April 2011) provides guidance on measures to be implemented to control potential lead hazards during maintenance, renovation, or demolition activities, which involve the disturbance of materials with elevated lead levels. Lead-containing waste with certain concentrations is also regulated in accordance with O. Reg. 347/90, General – Waste Management.

7.2 Paint Sampling

There were 46 samples of the paint collected from the walls and ceilings found in the Work Area. With only minor exceptions the painted surfaces within the Work Area was in good condition (i.e., paint was generally well adhered to walls and ceilings) at the time of the inspection.

The paint chip samples were submitted under Chain-of-Custody protocol to Paracel Laboratories Ltd. (Paracel) in Kingston, Ontario for lead concentration analysis. Paracel is an accredited and certified laboratory. Samples of paint chips were submitted for analysis by Inductively Coupled

Plasma - Optical Emission Spectroscopy (ICP-OES) using Ministry of Environment (MOE) Method E3470.

The results of the analysis are summarized in the table below.

7.3 Paint Chip Testing

Samples of the paint applied to the floor and walls were collected and analyzed for lead content and are summarized in Table 7.1: Summary of Lead in Paint Chips Samples, below. The laboratory analytical reports (Paracel Reports # 1806434) have been provided in Appendix C.

Table 7.1 Summary of Lead in Paint Chip Samples

Sample Identification	Sample Locations	Sample Descriptions	Lead Concentration (ug/g or ppm)
38-K-Wall-P1	Unit 38 – 1st floor kitchen – wall	White paint	<20
277-LR-W-P1	Unit 277 – 1st floor living room – wall	Orange paint	<20
277-LR-Ceiling-P2	Unit 277 – 1st floor living room - ceiling	White paint	89
277-2-BSW-Wall-P3	Unit 277 – 2nd floor southwest bedroom – ceiling	White / grey paint	<20
279-LR-Wall-P1	Unit 279 – 1st floor living room - wall	Pale blue paint	<20
279-2-BNW-Wall-P2	Unit 279 – 2nd floor northwest bedroom – wall	Pale blue paint	<20
279-2-BSW-Wall-P3	Unit 279 – 2nd floor southwest bedroom – wall	Beige paint	<20
281-2-BNW-Wall-P2	Unit 281 – 2nd floor northwest bedroom – wall	White paint	<20
283-LR-Wall-P1	Unit 283 – 1st floor Living room - wall	Tan paint	<20
283-2-BSW-Wall-P2	Unit 283 – 2nd floor Southwest bedroom - wall	Rose paint	<20
283-2-BNW-Wall-P3	Unit 283 – 2nd floor Northwest bedroom - wall	Green paint	<20
285-LR-Ceiling-P1	Unit 285 – 1st floor Living room – ceiling	White / grey paint	78
285-2-BSE-Wall-P2	Unit 285 – 2nd floor Southeast bedroom - wall	Blue paint	<20
285-2-BSW-Wall-P3	Unit 285 – 2nd floor Southwest bedroom – wall	Green paint	<20
22-2-BNE-Wall-P2	Unit 22 – 2nd floor Northeast bedroom – wall	White / grey paint	<20

Table 7.1 Summary of Lead in Paint Chip Samples

Sample Identification	Sample Locations	Sample Descriptions	Lead Concentration (ug/g or ppm)
22-2-BNE-Ceiling-P3	Unit 22 – 2nd floor Northeast bedroom - ceiling	White paint	224
24-1-UR-Ceiling-P1 (white)	Unit 24 – 1st floor Utility room – ceiling	White paint	298
24-2-BNE-Wall-P1 (blue)	Unit 24 – 2nd floor Northeast bedroom – wall	Blue paint	<20
24-2-BNW-Wall-P1 (aqua)	Unit 24 – 2nd floor Northwest bedroom – wall	Aqua paint	94
30-1-UR-Wall-P1 (white)	Unit 30 – 1st floor Utility room – wall	White paint	324
30-1-entrance-Wall-P1 (green)	Unit 30 – 1st floor Entry – wall	Green paint	<20
30-1-LR-Wall-P1 (orange)	Unit 30 – 1st floor Living room – wall	Orange paint	<20
32-2-BNE-W-P1	Unit 32 – 2nd floor Northeast bedroom – wall	Tan Paint	337
34-2-BNW-C-P2	Unit 34 – 2nd floor Northwest bedroom – ceiling	White / grey paint	101
34-2-BNE-W-P1	Unit 34 – 2nd floor Northeast bedroom – wall	Beige paint	<20
Mech Room#1-Floor-P1	North mechanical room – basement Floor	Grey paint	138
Mech Room#1-Wall-P2	North mechanical room – basement Wall	Beige paint	115
Mech Room#1-Ceiling-P3	North mechanical room – basement Ceiling	Beige paint	<20
811-1-KIT-W-P1-beige	Unit 811 – 1st floor Kitchen – wall	Beige paint	<20
813-2-BSW-C-P2-grey	Unit 813 – 2nd floor Southwest bedroom – ceiling	Grey paint	57
813-1-LR-W-P1-beige	Unit 813 – 1st floor Living room – wall	Beige paint	225
819-2-BSW-C-P2-tan/white	Unit 819 – 2nd floor Southwest bedroom – ceiling	Tan/white paint	23
819-1-LR-W-P1-beige	Unit 819 – 1st floor Living room – wall	Beige paint	253
821-2-BSE-W-P3-white	Unit 821 – 2nd floor Southeast bedroom – wall	White paint	190
821-1-LR-W-P1-white	Unit 821 – 1st floor Living room – wall	White paint	<20

Table 7.1 Summary of Lead in Paint Chip Samples

Sample Identification	Sample Locations	Sample Descriptions	Lead Concentration (ug/g or ppm)
823-1-LR-W-P1-white	Unit 823 – 1st floor Living room – wall	White paint	528
823-2-BSE-W-P2-cream	Unit 823 – 2nd floor Southeast bedroom – wall	Cream paint	160
823-2-BSW-W-P3-cream	Unit 823 – 2nd floor Southwest bedroom – wall	Cream paint	<20
827-2-BNW-W-P1-beige	Unit 827 – 2nd floor Northwest bedroom – wall	Beige paint	<20
827-2-BNE-W-P2-grey	Unit 827 – 2nd floor Northeast bedroom – wall	Grey paint	116
829-2-BSW-C-P1-white	Unit 829 – 2nd floor Southwest bedroom - ceiling	White paint	53
829-2-BSE-C-P2-white	Unit 829 – 2nd floor Southeast bedroom - ceiling	White paint	234
829-1-LR-W-P3-tan	Unit 829 – 1st floor Living room – wall	Tan paint	<20
289-2-BNW-W-P3-grey	Unit 289 – 2nd floor Northwest bedroom – wall	Grey paint	439
289-2-BNE-C-P2-grey	Unit 289 – 2nd floor Northeast bedroom – ceiling	Grey paint	<20
South Mech-W-P1-tan	South mechanical room – basement wall	Tan paint	30

Notes:
ųg/g - micrograms per gram
ppm - parts per million
* Indicates a lead concentration of 5,000 ppm or greater, which has been defined as lead-based paint

All 46 paint samples had lead concentrations lower than 5,000 ppm, as such no sampled paint is considered to be a lead-based paint.

None of the 46 submitted paint samples contained lead between 1,000 ppm and 5,000 ppm, as such no sampled paint is considered to be a high-level lead-containing paint.

The 16 of the 46 submitted paint samples contained lead between 90 ppm and 1,000 ppm, as such these samples are considered to be low-level lead-containing paints.

The 30 of the 46 submitted paint samples contained lead below 90 ppm, or below the analysis method detection limit (20 ppm). These paints are not considered lead containing paints.

It is also assumed that lead is present in electrical connections and plumbing (solder), electrical conduit, batteries, and packing in older cast iron piping system materials at the Site.

Accordingly, a Lead Management Plan should be prepared for the Site prior to initiating demolition activities.

8. Conclusions/Recommendations

The following conclusions/recommendations were developed based on the results of the DS Survey:

1. Notification and/or a copy of the limited DS Survey Report should be made available to employees and Contractors working in the Work Area.

2. GHD completed an Asbestos Survey in the Work Area in accordance with O. Reg. 278/05 as part of the DS Survey. GHD's Asbestos Survey identified the following building materials as ACMs:

   North (Balsam) Building

   Friable materials include drywall joint compound which was generally in good condition. Non-friable materials include flat tar and gravel roof in attic spaces, tar seal on foundation walls, vinyl floor tiles (12"x12" - brown, olive, dark brown with white streaks, 12"x12", tan with brown streaks, 12"x12" - brown with dark brown streaks) and pipe wrap.

   West (Rochester) Building

   Friable materials include drywall joint compound which was generally in good condition. Non-friable materials include tar seal on foundation walls and vinyl floor tiles (12"x12" – battleship brown, 12"x12" – mock tile pattern, 12"x12" – mock grey stone pattern).

   South (Gladstone) Building

   Friable materials include drywall joint compound which was generally in good condition. Non-friable materials include flat tar and gravel roof in attic spaces, tar seal on foundation walls, vinyl floor tiles (12"x12" – olive with white streaks, 12"x12" – brown with white streaks, 12"x12", olive/brown with white streaks) and pipe wrap (assumed based on testing in North (Balsam) Building.

   A contractor, certified for asbestos abatement, should be retained to complete asbestos abatement services prior to demolition of the buildings.

   If hidden materials that may be potential ACM are discovered during maintenance, renovation or demolition activities, work should cease until samples are analysed. Alternatively, potential or suspected ACM can be managed as ACM for handling and disposal purposes.

3. The 16 of the 46 submitted paint samples contained lead between 90 ppm and 1,000 ppm, as such these samples are considered to be low-level lead-containing paints (LCP). For the purposes of maintenance, renovation, or demolition activities, all paint on surfaces should be treated as LCP. The observed paint was noted to be generally well adhered to the substrate; some peeling paint was observed.

It is assumed that lead is present in electrical and plumbing services (solder), electrical conduit, batteries, and packing in older cast iron piping system materials at the Site.

A Lead Management Plan (LMP) should be prepared in accordance with 2011 Ontario Ministry of Labour (MOL) and 2014 Environmental Abatement Council of Ontario (EACO) guidelines. The LMP would protect workers during demolition, renovation, and maintenance activities which will disturb lead containing materials, until all lead containing materials are removed from the Site.

Building materials containing lead in surface coatings are typically characterized and disposed of as non-hazardous solid waste. However, the paint data should be provided to the disposal facility to provide confirmation of acceptance prior to shipping materials. Alternatively, a representative bulk sample of demolition debris could be collected and submitted for Toxicity Characteristic Leaching Procedure (TCLP) to provide confirmation that the material would not be classified as D008 leachate toxic hazardous waste.

4. Silica is present in footings, concrete block and poured concrete foundation walls, in plaster and texture coat, and in the fiberglass insulation in the Work Area. The Guideline for Silica on Construction Projects (MOL, April 2011) should be used to develop appropriate procedures to implement during maintenance, renovation, or demolition activities which disturb silica containing materials and may generate silica containing dust.

5. Man-made mineral fibre materials are present in fibreglass insulation on some of the pipes, and in fiberglass batt insulation found in the walls and attic space in the Work Area. Measures should be taken to control man-made mineral fibre dust hazard when the potential for creating airborne man-made mineral fibre dust entrained from such processes as renovation or demolition. The Guideline for Silica on Construction Projects (MOL, April 2011) should be used to develop appropriate procedures to implement during maintenance, renovation, or demolition activities that will disturb man-made mineral fibre materials in the Work Area.

6. No significant water intrusion or suspect mould growth was observed in above grade structures in the Work Area.

   It was noted that the basement crawlspaces, particularly in the South (Gladstone) Building, were often partially flooded with standing water. This standing water could increase humidity in the lower floor materials and contribute to potential mould growth on these surfaces.

9. Limitations

The field work component of the DS Survey was conducted by GHD on January 30 and 31, 2018. The DS Survey was completed to identify designated substances and hazardous building materials within the area defined as 'the Work Area' as identified by the Client.

GHD does not typically collect samples of building materials if said collection has the potential to compromise the integrity of the Building or its components or materials are not readily accessible. These building materials include interior of fire doors, refractory materials within boilers, gasket materials, and below grade structures. In addition, GHD does not sample energized equipment due

to the inherent electrical hazards. These include components or wiring within motors, high voltage wiring, elevators (including brakes), lights or other electrical equipment and fixtures.

This DS Survey was conducted in a manner consistent with the level of care and skill exercised by members of the profession, and was based upon information made available to GHD representatives at the time of this Assessment. GHD has analysed and evaluated the information collected during this investigation using applicable engineering and industrial hygiene techniques and principles.

Reliance or use of this report by any third party without explicit authorization from GHD and the Client does not make said third party a third party beneficiary to GHD's contract with the Client. Any such unauthorized reliance on or use of this report, including any of its information or conclusions, will be at the third party's risk. For the same reasons, no warranties or representations, expressed or implied in this report, are made to any such third party.

As applicable, the owner/operator of the subject Site is responsible for corrective or remedial action required and disclosure of any information obtained during this assessment or information contained in this report.

All of Which is Respectfully Submitted,

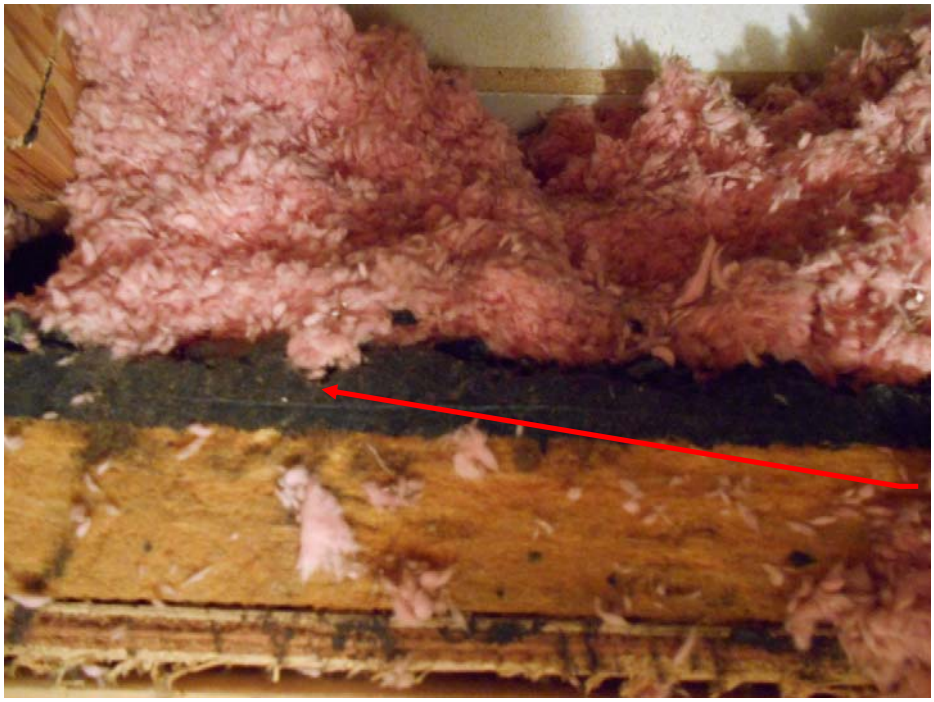
GHD

Scott Wallis, B. Sc.

Luke Lopers, P. Eng.

Appendices

Appendix A
Site Photographs



34-R1-A
Tar and
Gravel roof
(ACM)

Photo 1 – North (Balsam) Building | Flat tar and gravel roof in attic

34-CRAWL-W-
M1-B
Tar seal on
Walls
(ACM)

Photo 2 – North (Balsam) Building | Tar damp proofing on crawlspace walls behind Styrofoam panels

Site Photographs

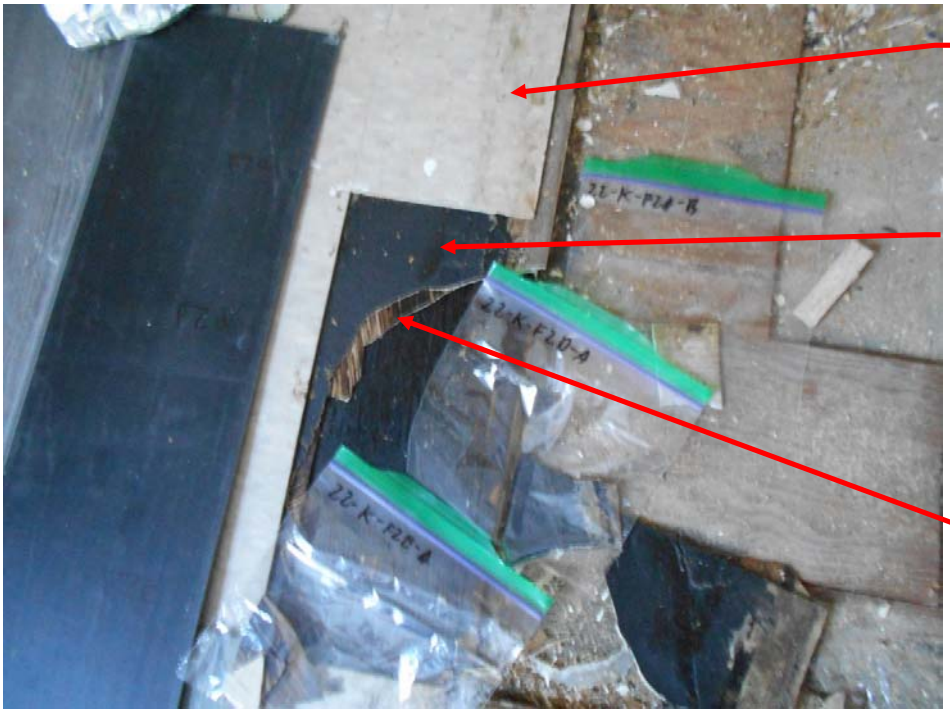


Photo 3 – North (Balsam) Building | VFT – tan streaked dark brown, VFT – brown, VFT - tan streaked brown

Photo 4 – North (Balsam) Building | VFT - olive

Site Photographs

32-NE entry-F2E-A
VFT – 8"x8", brown streaked white
(ACM)

Photo 5 – North (Balsam) Building | VFT – 8"x8", brown with white streaks

NorthMech-M1-A
Sweat paper
(ACM)

Photo 6 – North (Balsam) Building | sweat paper insulation on 2 pipes in basement of mechanical room

Site Photographs

283-1-K-F2A-A
VFT – 12"x12",
battleship brown
(ACM)

Photo 7 – West (Rochester) Building | VFT – 12"x12", battleship brown

275-CRAWL-
M4-B
Black tar on
walls
(ACM)

Photo 8 – West (Rochester) Building | black tar damp proofing holding Styrofoam to walls

Site Photographs

811-2-BNW-R1-A
Tar and Gravel flat roof (ACM)

Photo 9 – South (Gladstone) Building | tar and gravel flat roof forming attic floor

279-CRAWL-M4-A
Tar damp proofing (ACM)

Photo 10 – South (Gladstone) Building | tar damp proofing used to attach Styrofoam panels to crawlspace walls

Site Photographs

289-1-LR-F2A-B VFT – olive grey (under laminate floor) (ACM)

Photo 11 – South (Gladstone) Building | VFT – olive grey tiles under laminate floor

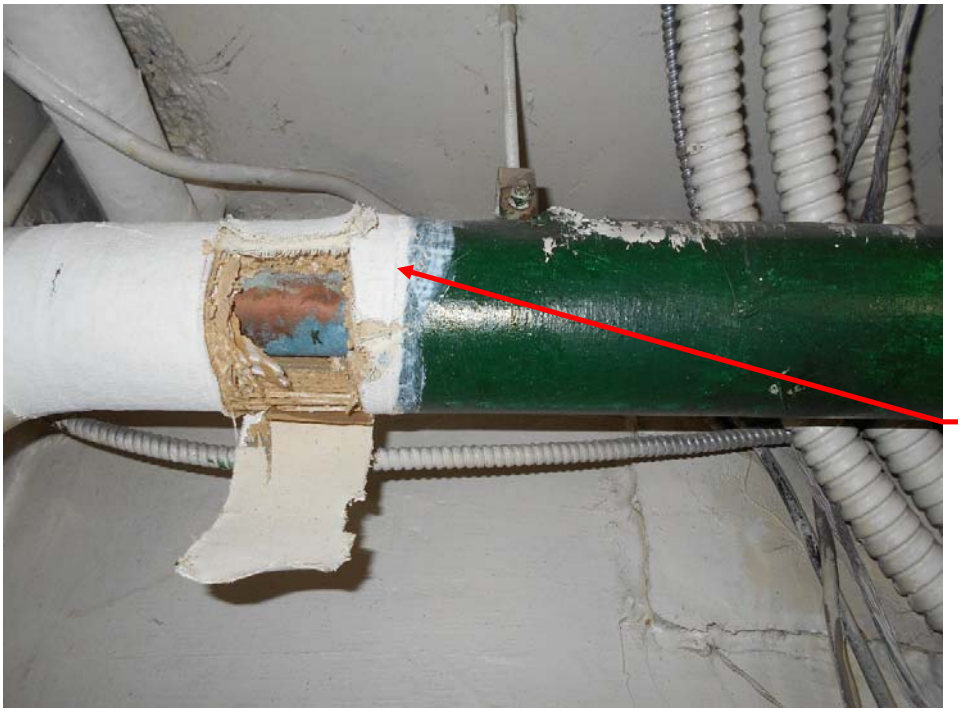
289-1-K-F2D-C VFT-brown streaked white (ACM)

Photo 12 – South (Gladstone) Building | VFT – brown streaked white

Site Photographs

819-1-K
F2C-B
VFT – olive brown with white streaks (ACM)

Photo 13 – South (Gladstone) Building | VFT – olive grey tiles under laminate floor



SouthMech-M1-A
Sweat paper (assumed ACM)

Photo 12 – South (Gladstone) Building | South Mechanical room basement – sweat paper insulation on pipes

Site Photographs

Site Photographs

Appendix B
Analytical Laboratory Reports - Asbestos

PARACEL LABORATORIES LTD.

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RELIABLE.

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1-800-749-1947
www.paracellabs.com

Certificate of Analysis

GHD Limited (Kingston)

1225 Gardiners Rd.
Kingston, ON K7P 0G3
Attn: Scott Wallis

Client PO: TBD
Project: 11140575-E5
Custody: 21385,26462,21386,21387,26463,464,465,466,467,468,

Report Date: 16-Feb-2018
Order Date: 9-Feb-2018

Order #: 1806438

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
1806438-01	38-R1-A
1806438-02	38-R1-B
1806438-03	40-R1-A
1806438-04	38-LR-W1-A
1806438-05	40-1K-W1-B
1806438-06	227-K-W1-C
1806438-07	281-LR-W1-A
1806438-08	285-2-BSE-W1-B
1806438-09	276-CRAWL-W2-A
1806438-10	279-CRAWL-W2-A
1806438-11	285-LR-W2-A
1806438-12	281-1-LR-F2B-B
1806438-13	283-1-K-F2A-A
1806438-14	285-1-K-F2B-A
1806438-15	279-1-K-F2C-A
1806438-16	279-1-K-F2C-B
1806438-17	279-1-K-F2C-C
1806438-18	281-2-BMW-F2D-A
1806438-19	281-2-BMW-F2D-B
1806438-20	281-2-BMW-F2D-C
1806438-21	281-2-BSE-F2E-A
1806438-22	281-2-BSE-F2E-B
1806438-23	281-2-BSE-F2E-C
1806438-24	285-CRAWL-M4-A
1806438-25	277-CRAWL-M4-B
1806438-26	276-CRAWL-M4-B

Approved By:

Emma Diaz

Senior Analyst

1806438-27	281-2-BNW-W2B-A
1806438-28	281-2-BNW-W2B-B
1806438-29	281-2-BNW-W2B-C
1806438-30	279-2-Bath-F3-A
1806438-31	281-2-Bath-F3-B
1806438-32	285-2-Bath-F3-C
1806438-33	281-2-Bath-F3A-C
1806438-34	281-2-Bath-F3A-B
1806438-35	281-2-Bath-F3A-A
1806438-36	283-1-E-F3-A
1806438-37	283-1-E-F3-B
1806438-38	283-1-E-F3-C
1806438-39	276-1B-F3-A
1806438-40	276-1B-F3-B
1806438-41	276-1B-F3-C
1806438-42	277-2-Bath-F3-A
1806438-43	277-2-Bath-F3-B
1806438-44	277-2-Bath-F3-C
1806438-45	279-1-LRSW-F2A-B
1806438-46	279-1-KSE-F2A-B
1806438-47	285-1-UR-F2B-B
1806438-48	22-2-BSW-W1-B
1806438-49	24-2-BNW-W1-C
1806438-50	30-2-BSW-W1-B
1806438-51	32-2-BNE-W1-C
1806438-52	34-K-W1-A
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1806438-79	22-1-E-F3B-C
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1806438-81	24-1-LR-F2C-A
1806438-82	30-1-K-F2C-C
1806438-83	22-LR-F2C-C
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1806438-AJ	North Mech-M1-C
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1806438-AO	811-1-H-C1-B

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1806438-AQ	811-2-BSE-W1-D
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1806438-AS	821-2-BSE-W1-C
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1806438-DB	South Mech-M1-B
1806438-DC	South Mech-M1-C
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1806438-DE	817E-W5-B
1806438-DF	829E-W5-C
1806438-DG	289-M3-A
1806438-DH	811-M3-B
1806438-DI	821-M3-C
1806438-DJ	34E-W5-A
1806438-DK	34E-W5-B
1806438-DL	24E-W5-C
1806438-DM	32-2-BNE-M3-A
1806438-DN	24E-M3-B
1806438-DO	32E-M3-C
1806438-DP	279E-W5-A
1806438-DQ	279E-W5-B
1806438-DR	283E-W5-C
1806438-DS	281-M3-C
1806438-DT	279E-M3-B
1806438-DU	283-M3-A

Certificate of Analysis

Client: GHD Limited (Kingston)

Client PO: TBD

Report Date: 16-Feb-2018

Order Date: 9-Feb-2018

Project Description: 11140575-E5

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Paracel I.D.	*Sample Date*	*Layers Analyzed*	*Colour*	*Description*	*Asbestos Detected:*	*Material Identification*	*% Content*
1806438-01	31-Jan-18	sample homogenized	Black	Roofing Material	No	**Client ID: 38-R1-A** [AS-PRE]	
						MMVF	4
						Non-Fibers	96
1806438-02	31-Jan-18	sample homogenized	Black	Roofing Material	No	**Client ID: 38-R1-B** [AS-PRE]	
						MMVF	10
						Non-Fibers	90
1806438-03	31-Jan-18	sample homogenized	Black	Roofing Material	No	**Client ID: 40-R1-A** [AS-PRE]	
						MMVF	10
						Non-Fibers	90
1806438-04	31-Jan-18	sample homogenized	Beige	Drywall Joint Compound	No	**Client ID: 38-LR-W1-A**	
						Non-Fibers	100
1806438-05	31-Jan-18	sample homogenized	Beige	Drywall Joint Compound	No	**Client ID: 40-1K-W1-B**	
						Non-Fibers	100
1806438-06	31-Jan-18	sample homogenized	Beige	Drywall Joint Compound	No	**Client ID: 227-K-W1-C**	
						Non-Fibers	100
1806438-07	31-Jan-18	sample homogenized	Beige	Drywall Joint Compound	**Yes**	**Client ID: 281-LR-W1-A**	
						Chrysotile	3
						Non-Fibers	97
1806438-08	31-Jan-18					**Client ID: 285-2-BSE-W1-B**	
						not analyzed	
1806438-09	31-Jan-18	sample homogenized	Black	Tar Paper	No	**Client ID: 276-CRAWL-W2-A**	
						Cellulose	80
						Non-Fibers	20
1806438-10	31-Jan-18	sample homogenized	Black	Tar Paper	No	**Client ID: 279-CRAWL-W2-A**	
						Cellulose	80
						Non-Fibers	20
1806438-11	31-Jan-18	sample homogenized	Black	Tar Paper	No	**Client ID: 285-LR-W2-A**	
						Cellulose	80
						Non-Fibers	20
1806438-12	31-Jan-18	sample homogenized	Beige	Vinyl Floor Tile	**Yes**	**Client ID: 281-1-LR-F2B-B**	
						Chrysotile	5
						Non-Fibers	95
1806438-13	31-Jan-18					**Client ID: 283-1-K-F2A-A**	
						not analyzed	

Certificate of Analysis
Client: GHD Limited (Kingston)
Client PO: TBD

Report Date: 16-Feb-2018
Order Date: 9-Feb-2018
Project Description: 11140575-E5

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Paracel I.D.	*Sample Date*	*Layers Analyzed*	*Colour*	*Description*	*Asbestos Detected:*	*Material Identification*	*% Content*
1806438-14	31-Jan-18					Client ID: 285-1-K-F2B-A	
						not analyzed	
1806438-15	31-Jan-18	sample homogenized	Beige	Vinyl Floor Tile	No	Client ID: 279-1-K-F2C-A	
						Non-Fibers	100
1806438-16	31-Jan-18	sample homogenized	Beige	Vinyl Floor Tile	No	Client ID: 279-1-K-F2C-B	
						Non-Fibers	100
1806438-17	31-Jan-18	sample homogenized	Beige	Vinyl Floor Tile	No	Client ID: 279-1-K-F2C-C	
						Non-Fibers	100
1806438-18	31-Jan-18	sample homogenized	Beige	Vinyl Floor Tile	Yes	Client ID: 281-2-BMW-F2D-A	
						Chrysotile	3
						Non-Fibers	97
1806438-19	31-Jan-18					Client ID: 281-2-BMW-F2D-B	
						not analyzed	
1806438-20	31-Jan-18					Client ID: 281-2-BMW-F2D-C	
						not analyzed	
1806438-21	31-Jan-18	sample homogenized	Grey	Vinyl Floor Tile	Yes	Client ID: 281-2-BSE-F2E-A	
						Chrysotile	2
						Non-Fibers	98
1806438-22	31-Jan-18					Client ID: 281-2-BSE-F2E-B	
						not analyzed	
1806438-23	31-Jan-18					Client ID: 281-2-BSE-F2E-C	
						not analyzed	
1806438-24	31-Jan-18	sample homogenized	Black/White	Tar Seal	Yes	Client ID: 285-CRAWL-M4-A [ASLYR, AS-PRE]	
						Chrysotile	65
						Non-Fibers	35
1806438-25	31-Jan-18					Client ID: 277-CRAWL-M4-B [ASLYR]	
						not analyzed	
1806438-26	31-Jan-18					Client ID: 276-CRAWL-M4-B [ASLYR]	
						not analyzed	
1806438-27	31-Jan-18	sample homogenized	Black	Tar Paper	No	Client ID: 281-2-BNW-W2B-A	
						Cellulose	80
						Non-Fibers	20
1806438-28	31-Jan-18	sample homogenized	Black	Tar Paper	No	Client ID: 281-2-BNW-W2B-B	
						Cellulose	80
						Non-Fibers	20

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Client: GHD Limited (Kingston)

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Asbestos, PLM Visual Estimation **MDL - 0.5%**

Paracel I.D.	*Sample Date*	*Layers Analyzed*	*Colour*	*Description*	*Asbestos Detected:*	*Material Identification*	*% Content*
1806438-29	31-Jan-18	sample homogenized	Black	Tar Paper	No	**Client ID: 281-2-BNW-W2B-C**	
						Cellulose	80
						Non-Fibers	20
1806438-30	31-Jan-18	sample homogenized	White/Yellow	Vinyl Sheet Flooring/Mastic	No	**Client ID: 279-2-Bath-F3-A** [ASLYR]	
						Cellulose	15
						Non-Fibers	85
1806438-31	31-Jan-18	sample homogenized	White/Yellow	Vinyl Sheet Flooring/Mastic	No	**Client ID: 281-2-Bath-F3-B** [ASLYR]	
						Cellulose	15
						Non-Fibers	85
1806438-32	31-Jan-18	sample homogenized	White/Yellow	Vinyl Sheet Flooring/Mastic	No	**Client ID: 285-2-Bath-F3-C** [ASLYR]	
						Cellulose	15
						Non-Fibers	85
1806438-33	31-Jan-18	sample homogenized	Beige	Vinyl Sheet Flooring	No	**Client ID: 281-2-Bath-F3A-C**	
						Non-Fibers	85
						Other fibers	15
1806438-34	31-Jan-18	sample homogenized	Beige	Vinyl Sheet Flooring	No	**Client ID: 281-2-Bath-F3A-B**	
						Non-Fibers	85
						Other fibers	15
1806438-35	31-Jan-18	sample homogenized	Beige	Vinyl Sheet Flooring	No	**Client ID: 281-2-Bath-F3A-A**	
						Non-Fibers	85
						Other fibers	15
1806438-36	31-Jan-18	sample homogenized	White	Vinyl Sheet Flooring	No	**Client ID: 283-1-E-F3-A**	
						Cellulose	15
						Non-Fibers	85
1806438-37	31-Jan-18	sample homogenized	White	Vinyl Sheet Flooring	No	**Client ID: 283-1-E-F3-B**	
						Cellulose	15
						Non-Fibers	85
1806438-38	31-Jan-18	sample homogenized	White	Vinyl Sheet Flooring	No	**Client ID: 283-1-E-F3-C**	
						Cellulose	15
						Non-Fibers	85
1806438-39	31-Jan-18	sample homogenized	Brown	Vinyl Sheet Flooring	No	**Client ID: 276-1B-F3-A**	
						Cellulose	15
						Non-Fibers	85

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Asbestos, PLM Visual Estimation **MDL - 0.5%**

Paracel I.D.	*Sample Date*	*Layers Analyzed*	*Colour*	*Description*	*Asbestos Detected:*	*Material Identification*	*% Content*
1806438-40	31-Jan-18	sample homogenized	Brown	Vinyl Sheet Flooring	No	Client ID: 276-1B-F3-B	
						Cellulose	15
						Non-Fibers	85
1806438-41	31-Jan-18	sample homogenized	Brown	Vinyl Sheet Flooring	No	Client ID: 276-1B-F3-C	
						Cellulose	15
						Non-Fibers	85
1806438-42	31-Jan-18	sample homogenized	Brown	Vinyl Sheet Flooring	No	Client ID: 277-2-Bath-F3-A	
						Cellulose	15
						Non-Fibers	85
1806438-43	31-Jan-18	sample homogenized	Brown	Vinyl Sheet Flooring	No	Client ID: 277-2-Bath-F3-B	
						Cellulose	15
						Non-Fibers	85
1806438-44	31-Jan-18	sample homogenized	Brown	Vinyl Sheet Flooring	No	Client ID: 277-2-Bath-F3-C	
						Cellulose	15
						Non-Fibers	85
1806438-45	31-Jan-18	sample homogenized	Beige/Yellow	Vinyl Floor Tile/Mastic	No	Client ID: 279-1-LRSW-F2A-B	[ASLYR]
						Non-Fibers	100
1806438-46	31-Jan-18	sample homogenized	Beige	Vinyl Floor Tile	No	Client ID: 279-1-KSE-F2A-B	
						Non-Fibers	100
1806438-47	31-Jan-18					Client ID: 285-1-UR-F2B-B	[ASLYR]
						not analyzed	
1806438-48	31-Jan-18	sample homogenized	Beige	Drywall Joint Compound	**Yes**	Client ID: 22-2-BSW-W1-B	
						Chrysotile	2
						Non-Fibers	98
1806438-49	31-Jan-18					Client ID: 24-2-BNW-W1-C	
						not analyzed	
1806438-50	31-Jan-18					Client ID: 30-2-BSW-W1-B	
						not analyzed	
1806438-51	31-Jan-18					Client ID: 32-2-BNE-W1-C	
						not analyzed	
1806438-52	31-Jan-18					Client ID: 34-K-W1-A	
						not analyzed	
1806438-53	31-Jan-18	sample homogenized	Black/Brown	Tar Paper	No	Client ID: 24-2-BNW-W2-B	
						Cellulose	45
						Non-Fibers	55

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Asbestos, PLM Visual Estimation **MDL - 0.5%**

Paracel I.D.	*Sample Date*	*Layers Analyzed*	*Colour*	*Description*	*Asbestos Detected:*	*Material Identification*	*% Content*
1806438-54	31-Jan-18	sample homogenized	Brown/Black	Tar Paper	No	Client ID: 32-2-BNW-W2-C	
						Cellulose	45
						Non-Fibers	55
1806438-55	31-Jan-18	sample homogenized	Black/Brown	Tar Paper	No	Client ID: 30-CRAWL-W2-D	
						Cellulose	45
						Non-Fibers	55
1806438-56	31-Jan-18	sample homogenized	Black	Roofing Material	**Yes**	Client ID: 34-A-R1-A [AS-PRE]	
						Chrysotile	2
						Non-Fibers	98
1806438-57	31-Jan-18					Client ID: 34-A-R1-B	
						not analyzed	
1806438-58	31-Jan-18					Client ID: 34-A-R1-C	
						not analyzed	
1806438-59	31-Jan-18	sample homogenized	Black/White	Roofing Material	**Yes**	Client ID: 22-CRAWL-MY-A [ASLYR, AS-PRE]	
						Chrysotile	65
						Non-Fibers	35
1806438-60	31-Jan-18					Client ID: 30-CRAWL-MY-B [ASLYR]	
						not analyzed	
1806438-61	31-Jan-18					Client ID: 34-CRAWL-W-M1-B [ASLYR]	
						not analyzed	
1806438-62	31-Jan-18	sample homogenized	Brown	Vinyl Sheet Flooring	No	Client ID: 22-2-Bath-F3-A	
						Cellulose	15
						Non-Fibers	85
1806438-63	31-Jan-18	sample homogenized	Brown	Vinyl Sheet Flooring	No	Client ID: 22-2-Bath-F3-B	
						Cellulose	15
						Non-Fibers	85
1806438-64	31-Jan-18	sample homogenized	Brown	Vinyl Sheet Flooring	No	Client ID: 22-2-Bath-F3-C	
						Cellulose	15
						Non-Fibers	85
1806438-65	31-Jan-18	sample homogenized	Brown	Vinyl Sheet Flooring	No	Client ID: 24-2-Bath-F3-A	
						Cellulose	15
						Non-Fibers	85
1806438-66	31-Jan-18	sample homogenized	Brown	Vinyl Sheet Flooring	No	Client ID: 24-2-Bath-F3-B	
						Cellulose	15
						Non-Fibers	85

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Asbestos, PLM Visual Estimation **MDL - 0.5%**

Paracel I.D.	*Sample Date*	*Layers Analyzed*	*Colour*	*Description*	*Asbestos Detected:*	*Material Identification*	*% Content*
1806438-67	31-Jan-18	sample homogenized	Brown	Vinyl Sheet Flooring	No	Client ID: 32-2-Bath South-F3AC-C	
						Cellulose	15
						Non-Fibers	85
1806438-68	31-Jan-18	sample homogenized	Cream	Vinyl Sheet Flooring	No	Client ID: 30-2-Bath-F3-A	
						Non-Fibers	100
1806438-69	31-Jan-18	sample homogenized	Cream	Vinyl Sheet Flooring	No	Client ID: 30-2-Bath-F3-B	
						Non-Fibers	100
1806438-70	31-Jan-18	sample homogenized	Cream	Vinyl Sheet Flooring	No	Client ID: 30-2-Bath-F3-C	
						Non-Fibers	100
1806438-71	31-Jan-18	sample homogenized	White	Vinyl Sheet Flooring	No	Client ID: 32-2-Bath South-F3B-A	
						Non-Fibers	100
1806438-72	31-Jan-18	sample homogenized	White	Vinyl Sheet Flooring	No	Client ID: 32-2-Bath South-F3B-B	
						Non-Fibers	100
1806438-73	31-Jan-18	sample homogenized	White	Vinyl Sheet Flooring	No	Client ID: 32-2-Bath South-F3B-C	
						Non-Fibers	100
1806438-74	31-Jan-18	sample homogenized	White	Vinyl Sheet Flooring	No	Client ID: 34-2-Bath-F1-A	
						Cellulose	15
						Non-Fibers	85
1806438-75	31-Jan-18	sample homogenized	White	Vinyl Sheet Flooring	No	Client ID: 34-2-Bath-F1-B	
						Cellulose	15
						Non-Fibers	85
1806438-76	31-Jan-18	sample homogenized	White	Vinyl Sheet Flooring	No	Client ID: 34-2-Bath-F1-C	
						Cellulose	15
						Non-Fibers	85
1806438-77	31-Jan-18	sample homogenized	Beige	Vinyl Sheet Flooring	No	Client ID: 22-1-E-F3B-A	
						Cellulose	15
						Non-Fibers	85
1806438-78	31-Jan-18	sample homogenized	Beige	Vinyl Sheet Flooring	No	Client ID: 22-1-E-F3B-B	
						Cellulose	15
						Non-Fibers	85
1806438-79	31-Jan-18	sample homogenized	Beige	Vinyl Sheet Flooring	No	Client ID: 22-1-E-F3B-C	
						Cellulose	15
						Non-Fibers	85

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Asbestos, PLM Visual Estimation **MDL - 0.5%**

Paracel I.D.	*Sample Date*	*Layers Analyzed*	*Colour*	*Description*	*Asbestos Detected:*	*Material Identification*	*% Content*
1806438-80	31-Jan-18	sample homogenized	Brown	Vinyl Floor Tile	**Yes**	Client ID: 22-1-K-F2D-A	
						Chrysotile	3
						Non-Fibers	97
1806438-81	31-Jan-18					Client ID: 24-1-LR-F2C-A	
						not analyzed	
1806438-82	31-Jan-18					Client ID: 30-1-K-F2C-C	
						not analyzed	
1806438-83	31-Jan-18	sample homogenized	Olive	Vinyl Floor Tile	**Yes**	Client ID: 22-LR-F2C-C	
						Chrysotile	7
						Non-Fibers	93
1806438-84	31-Jan-18					Client ID: 24-1-UR-F2E-A	
						not analyzed	
1806438-85	31-Jan-18					Client ID: 30-1-E-F2F-B	
						not analyzed	
1806438-86	31-Jan-18	sample homogenized	Brown	Vinyl Floor Tile	No	Client ID: 30-2-Bath-F2D-A	
						Non-Fibers	100
1806438-87	31-Jan-18	sample homogenized	Brown	Vinyl Floor Tile	No	Client ID: 30-2-Bath-F2D-B	
						Non-Fibers	100
1806438-88	31-Jan-18	sample homogenized	Brown	Vinyl Floor Tile	No	Client ID: 30-2-Bath-F2D-C	
						Non-Fibers	100
1806438-89	31-Jan-18	sample homogenized	Brown	Vinyl Floor Tile	**Yes**	Client ID: 32-NE Entry-F2E-A	
						Chrysotile	5
						Non-Fibers	95
1806438-90	31-Jan-18					Client ID: 32-NE Entry-F2E-B	
						not analyzed	
1806438-91	31-Jan-18					Client ID: 32-NE Entry-F2E-C	
						not analyzed	
1806438-92	31-Jan-18	sample homogenized	Beige	Vinyl Floor Tile	**Yes**	Client ID: 22-K-F2E-A	
						Chrysotile	1
						Non-Fibers	99
1806438-93	31-Jan-18					Client ID: 24-K-F2B-A	
						not analyzed	
1806438-94	31-Jan-18					Client ID: 30-K-F2B-B	
						not analyzed	

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Asbestos, PLM Visual Estimation **MDL - 0.5%**

Paracel I.D.	*Sample Date*	*Layers Analyzed*	*Colour*	*Description*	*Asbestos Detected:*	*Material Identification*	*% Content*
1806438-95	31-Jan-18	sample homogenized	Brown	Vinyl Floor Tile	**Yes**	Client ID: 32-1-URSE-F2B-A	
						Chrysotile	3
						Non-Fibers	97
1806438-96	31-Jan-18					Client ID: 32-1-URSE-F2B-B	
						not analyzed	
1806438-97	31-Jan-18					Client ID: 22-1-E-F2A-D	
						not analyzed	
1806438-98	31-Jan-18	sample homogenized	Beige	Vinyl Floor Tile	No	Client ID: 22-K-F2A-C	
						Non-Fibers	100
1806438-99	31-Jan-18	sample homogenized	Beige	Vinyl Floor Tile	No	Client ID: 24-1-LR-F2-A-C	
						Non-Fibers	100
1806438-AA	31-Jan-18	sample homogenized	Beige	Vinyl Floor Tile	No	Client ID: 34-UR-F2-B	
						Non-Fibers	100
1806438-AB	31-Jan-18	sample homogenized	Grey	Vinyl Floor Tile	No	Client ID: 32-1-URSE-F2A-A	
						Non-Fibers	100
1806438-AC	31-Jan-18	sample homogenized	Grey	Vinyl Floor Tile	No	Client ID: 32-1-K-F2A-B	
						Non-Fibers	100
1806438-AD	31-Jan-18	sample homogenized	Grey	Vinyl Floor Tile	No	Client ID: 32-1-URSE-F2A-C	
						Non-Fibers	100
1806438-AE	31-Jan-18	sample homogenized	Beige/Black	Leveling Compound/Mastic	No	Client ID: 32-1-URSE-F2D-A [ASLYR]	
						Non-Fibers	100
1806438-AF	31-Jan-18	sample homogenized	Beige/Black	Leveling Compound/Mastic	No	Client ID: 32-1-URSE-F2D-B [ASLYR]	
						Non-Fibers	100
1806438-AG	31-Jan-18	sample homogenized	Beige/Black	Leveling Compound/Mastic	No	Client ID: 32-1-URSE-F2D-C [ASLYR]	
						Non-Fibers	100
1806438-AH	31-Jan-18	sample homogenized	Brown/White	Sweat Paper	**Yes**	Client ID: North Mech-M1-A	
						Chrysotile	5
						Cellulose	85
						Non-Fibers	10
1806438-AI	31-Jan-18					Client ID: North Mech-M1-B	
						not analyzed	
1806438-AJ	31-Jan-18					Client ID: North Mech-M1-C	
						not analyzed	

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Asbestos, PLM Visual Estimation **MDL - 0.5%**

Paracel I.D.	*Sample Date*	*Layers Analyzed*	*Colour*	*Description*	*Asbestos Detected:*	*Material Identification*	*% Content*
1806438-AK	31-Jan-18	sample homogenized	Black	Roofing Material	**Yes**	Client ID: 811-2BNW-R1-A [AS-PRE]	
						Chrysotile	1
						Non-Fibers	99
1806438-AL	31-Jan-18					Client ID: 811-2BNW-R1-B	
						not analyzed	
1806438-AM	31-Jan-18					Client ID: 811-2BNW-R1-C	
						not analyzed	
1806438-AN	31-Jan-18	sample homogenized	White	Ceiling Texture	No	Client ID: 811-1-LR-C1-A	
						Non-Fibers	100
1806438-AO	31-Jan-18	sample homogenized	White	Ceiling Texture	No	Client ID: 811-1-H-C1-B	
						Non-Fibers	100
1806438-AP	31-Jan-18	sample homogenized	White	Ceiling Texture	No	Client ID: 811-2-BNW-C1-D	
						Non-Fibers	100
1806438-AQ	31-Jan-18	sample homogenized	Beige	Drywall Joint Compound	**Yes**	Client ID: 811-2-BSE-W1-D	
						Chrysotile	1
						Non-Fibers	99
1806438-AR	31-Jan-18					Client ID: 817-2-BNW-W1-C	
						not analyzed	
1806438-AS	31-Jan-18					Client ID: 821-2-BSE-W1-C	
						not analyzed	
1806438-AT	31-Jan-18					Client ID: 817-1-LR-W1-A	
						not analyzed	
1806438-AU	31-Jan-18					Client ID: 289-W-BSW-W1-C	
						not analyzed	
1806438-AV	31-Jan-18	sample homogenized	Pink	Vinyl Sheet Flooring	No	Client ID: 813-2-Bath-F3-B	
						Cellulose	10
						MMVF	5
						Non-Fibers	85
1806438-AW	31-Jan-18	sample homogenized	Pink	Vinyl Sheet Flooring	No	Client ID: 829-2-Bath-F3-A	
						Cellulose	10
						MMVF	5
						Non-Fibers	85

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Paracel I.D.	*Sample Date*	*Layers Analyzed*	*Colour*	*Description*	*Asbestos Detected:*	*Material Identification*	*% Content*
1806438-AX	31-Jan-18	sample homogenized	Pink	Vinyl Sheet Flooring	No	Client ID: 829-2-Bath-F3-B	
						Cellulose	10
						MMVF	5
						Non-Fibers	85
1806438-AY	31-Jan-18	sample homogenized	Beige	Vinyl Sheet Flooring	No	Client ID: 817-2-Bath-F3A-B	
						Non-Fibers	100
1806438-AZ	31-Jan-18	sample homogenized	Beige	Vinyl Sheet Flooring	No	Client ID: 823-2-Bath-F3-B	
						Non-Fibers	100
1806438-BA	31-Jan-18	sample homogenized	Beige	Vinyl Sheet Flooring	No	Client ID: 823-2-Bath-F3-C	
						Non-Fibers	100
1806438-BB	31-Jan-18	sample homogenized	Brown	Vinyl Sheet Flooring	No	Client ID: 819-2-Bath-F3-A	
						Cellulose	10
						MMVF	5
						Non-Fibers	85
1806438-BC	31-Jan-18	sample homogenized	Brown	Vinyl Sheet Flooring	No	Client ID: 819-2-Bath-F3-B	
						Cellulose	10
						MMVF	5
						Non-Fibers	85
1806438-BD	31-Jan-18	sample homogenized	Brown	Vinyl Sheet Flooring	No	Client ID: 819-2-Bath-F3-C	
						Cellulose	10
						MMVF	5
						Non-Fibers	85
1806438-BE	31-Jan-18	sample homogenized	Brown/Yellow	Vinyl Sheet Flooring/Adhesive	No	Client ID: 827-2-Bath-F3A-A [ASLYR]	
						Cellulose	15
						MMVF	5
						Non-Fibers	80
1806438-BF	31-Jan-18	sample homogenized	Brown/Yellow	Vinyl Sheet Flooring/Adhesive	No	Client ID: 289-2-Bath-F3-A [ASLYR]	
						Cellulose	15
						MMVF	5
						Non-Fibers	80
1806438-BG	31-Jan-18	sample homogenized	Brown/Yellow	Vinyl Sheet Flooring/Adhesive	No	Client ID: 289-2-Bath-F3-B [ASLYR]	
						Cellulose	15
						MMVF	5
						Non-Fibers	80

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Paracel I.D.	*Sample Date*	*Layers Analyzed*	*Colour*	*Description*	*Asbestos Detected:*	*Material Identification*	*% Content*
1806438-BH	31-Jan-18	sample homogenized	Brown	Vinyl Sheet Flooring	No	Client ID: 827-2-Bath-F3B-A	
						Cellulose	15
						Non-Fibers	85
1806438-BI	31-Jan-18	sample homogenized	Brown	Vinyl Sheet Flooring	No	Client ID: 827-2-Bath-F3B-B	
						Cellulose	15
						Non-Fibers	85
1806438-BJ	31-Jan-18	sample homogenized	Brown	Vinyl Sheet Flooring	No	Client ID: 827-2-Bath-F3B-C	
						Cellulose	15
						Non-Fibers	85
1806438-BK	31-Jan-18	sample homogenized	White	Vinyl Sheet Flooring	No	Client ID: 821-2-Bath-F3B-A	
						Cellulose	15
						Non-Fibers	85
1806438-BL	31-Jan-18	sample homogenized	White	Vinyl Sheet Flooring	No	Client ID: 821-2-Bath-F3B-B	
						Cellulose	15
						Non-Fibers	85
1806438-BM	31-Jan-18	sample homogenized	White	Vinyl Sheet Flooring	No	Client ID: 821-2-Bath-F3B-C	
						Cellulose	15
						Non-Fibers	85
1806438-BN	31-Jan-18	sample homogenized	Grey	Vinyl Sheet Flooring	No	Client ID: 821-2-Bath-F3A-A	
						Cellulose	15
						Non-Fibers	85
1806438-BO	31-Jan-18	sample homogenized	Grey	Vinyl Sheet Flooring	No	Client ID: 821-2-Bath-F3A-B	
						Cellulose	15
						Non-Fibers	85
1806438-BP	31-Jan-18	sample homogenized	Grey	Vinyl Sheet Flooring	No	Client ID: 821-2-Bath-F3A-C	
						Cellulose	15
						Non-Fibers	85
1806438-BQ	31-Jan-18	sample homogenized	Black/White	Roofing Material	**Yes**	Client ID: 819-CRAWL-M4-A [ASLYR, AS-PRE]	
						Chrysotile	60
						Non-Fibers	40
1806438-BR	31-Jan-18					Client ID: 823-CRAWL-M4-A [ASLYR]	
						not analyzed	
1806438-BS	31-Jan-18					Client ID: 289-CRAWL-M4-B [ASLYR]	
						not analyzed	

Certificate of Analysis

Client: GHD Limited (Kingston)

Client PO: TBD

Report Date: 16-Feb-2018

Order Date: 9-Feb-2018

Project Description: 11140575-E5

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Paracel I.D.	*Sample Date*	*Layers Analyzed*	*Colour*	*Description*	*Asbestos Detected:*	*Material Identification*	*% Content*
1806438-BT	31-Jan-18	sample homogenized	Brown/Black	Tar Paper	No	Client ID: 817-1-LR-W2-A	
						Cellulose	60
						Non-Fibers	40
1806438-BU	31-Jan-18	sample homogenized	Brown/Black	Tar Paper	No	Client ID: 823-CRAWL-W2-D	
						Cellulose	60
						Non-Fibers	40
1806438-BV	31-Jan-18	sample homogenized	Brown/Black	Tar Paper	No	Client ID: 829-2-BSE-W2-B	
						Cellulose	60
						Non-Fibers	40
1806438-BW	31-Jan-18	sample homogenized	Brown	Vinyl	No	Client ID: 813-1-H-F6-B	
						Non-Fibers	100
1806438-BX	31-Jan-18	sample homogenized	Brown	Vinyl	No	Client ID: 813-1-H-F6-C	
						Non-Fibers	100
1806438-BY	31-Jan-18	sample homogenized	Brown	Vinyl	No	Client ID: 822-1-H-F6-C	
						Non-Fibers	100
1806438-BZ	31-Jan-18	sample homogenized	Brown	Vinyl Floor Tile	**Yes**	Client ID: 289-1-LR-F2A-B	
						Chrysotile	4
						Non-Fibers	96
1806438-CA	31-Jan-18					Client ID: 289-1-LR-F2A-C	
						not analyzed	
1806438-CB	31-Jan-18					Client ID: 821-1-K-F2C-B	
						not analyzed	
1806438-CC	31-Jan-18	sample homogenized	Grey	Vinyl Floor Tile	No	Client ID: 823-1-UR-F2B-C	
						Non-Fibers	100
1806438-CD	31-Jan-18	sample homogenized	Grey	Vinyl Floor Tile	No	Client ID: 827-1-E-F2A-A	
						Non-Fibers	100
1806438-CE	31-Jan-18	sample homogenized	Grey	Vinyl Floor Tile	No	Client ID: 827-1-K-F2A-B	
						Non-Fibers	100
1806438-CF	31-Jan-18	sample homogenized	Brown	Vinyl Floor Tile	No	Client ID: 819-1-UR-F2B-A	
						Non-Fibers	100
1806438-CG	31-Jan-18	sample homogenized	Brown	Vinyl Floor Tile	**Yes**	Client ID: 829-1-H-F2C-C	
						Chrysotile	3
						Non-Fibers	97
1806438-CH	31-Jan-18					Client ID: 289-1-K-F2D-C	
						not analyzed	

Certificate of Analysis
Client: GHD Limited (Kingston)
Client PO: TBD

Report Date: 16-Feb-2018
Order Date: 9-Feb-2018
Project Description: 11140575-E5

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Paracel I.D.	Sample Date	Layers Analyzed	Colour	Description	Asbestos Detected:	Material Identification	% Content
1806438-CI	31-Jan-18	sample homogenized	Tan	Vinyl Floor Tile	No	Client ID: 817-1-K-F2A	
						Non-Fibers	100
1806438-CJ	31-Jan-18	sample homogenized	Tan	Vinyl Floor Tile	No	Client ID: 819-1-K-F2A-A	
						Non-Fibers	100
1806438-CK	31-Jan-18	sample homogenized	Tan	Vinyl Floor Tile	No	Client ID: 829-1-UR-F2B-B	
						Non-Fibers	100
1806438-CL	31-Jan-18	sample homogenized	Brown	Vinyl Floor Tile	No	Client ID: 811-1-H-F2A-B	
						Non-Fibers	100
1806438-CM	31-Jan-18	sample homogenized	Brown	Vinyl Floor Tile	No	Client ID: 817-1-K-F2A-A	
						Non-Fibers	100
1806438-CN	31-Jan-18	sample homogenized	Brown	Vinyl Floor Tile	No	Client ID: 823-2-BNW-F2A-D	
						Non-Fibers	100
1806438-CO	31-Jan-18	sample homogenized	Olive	Vinyl Floor Tile	Yes	Client ID: 819-1-K-F2C-B	
						Chrysotile	5
						Non-Fibers	95
1806438-CP	31-Jan-18					Client ID: 819-1-K-F2C-D	
						not analyzed	
1806438-CQ	31-Jan-18					Client ID: 819-1-K-F2C-E	
						not analyzed	
1806438-CR	31-Jan-18	sample homogenized	Red (Black)	Vinyl Floor Tile	No	Client ID: 811-2-BNW-F2B-A	
						Non-Fibers	100
1806438-CS	31-Jan-18	sample homogenized	Red (Black)	Vinyl Floor Tile	No	Client ID: 811-2-BSE-F2B-B	
						Non-Fibers	100
1806438-CT	31-Jan-18	sample homogenized	Red (Black)	Vinyl Floor Tile	No	Client ID: 811-2-BSE-F2B-C	
						Non-Fibers	100
1806438-CU	31-Jan-18	sample homogenized	Beige	Vinyl Floor Tile	No	Client ID: 813-1-K-F2B-B	
						Non-Fibers	100
1806438-CV	31-Jan-18	sample homogenized	Beige	Vinyl Floor Tile	No	Client ID: 813-1-K-F2B-C	
						Non-Fibers	100
1806438-CW	31-Jan-18	sample homogenized	Beige	Vinyl Floor Tile	No	Client ID: 289-1-URNE-F2B-B	
						Non-Fibers	100
1806438-CX	31-Jan-18	sample homogenized	Beige (Black)	Vinyl Floor Tile	No	Client ID: 821-1-K-F2B-B	
						Non-Fibers	100
1806438-CY	31-Jan-18	sample homogenized	Beige (Black)	Vinyl Floor Tile	No	Client ID: 821-1-K-F2B-C	
						Non-Fibers	100

Certificate of Analysis

Client: GHD Limited (Kingston)

Client PO: TBD

Report Date: 16-Feb-2018

Order Date: 9-Feb-2018

Project Description: 11140575-E5

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Paracel I.D.	*Sample Date*	*Layers Analyzed*	*Colour*	*Description*	*Asbestos Detected:*	*Material Identification*	*% Content*
1806438-CZ	31-Jan-18	sample homogenized	Beige (Black)	Vinyl Floor Tile	No	Client ID: 821-1-K-F2B-D	
						Non-Fibers	100
1806438-DA	31-Jan-18	sample homogenized	Brown	Paper	No	Client ID: South Mech-M1-A	
						Cellulose	90
						Non-Fibers	10
1806438-DB	31-Jan-18	sample homogenized	Brown	Paper	No	Client ID: South Mech-M1-B	
						Cellulose	90
						Non-Fibers	10
1806438-DC	31-Jan-18	sample homogenized	Brown	Paper	No	Client ID: South Mech-M1-C	
						Cellulose	90
						Non-Fibers	10
1806438-DD	31-Jan-18	sample homogenized	Grey	Concrete	No	Client ID: 817E-W5-A	
						Non-Fibers	100
1806438-DE	31-Jan-18	sample homogenized	Grey	Concrete	No	Client ID: 817E-W5-B	
						Non-Fibers	100
1806438-DF	31-Jan-18	sample homogenized	Grey	Concrete	No	Client ID: 829E-W5-C	
						Non-Fibers	100
1806438-DG	31-Jan-18	sample homogenized	White	Caulking	No	Client ID: 289-M3-A	
						Non-Fibers	100
1806438-DH	31-Jan-18	sample homogenized	White	Caulking	No	Client ID: 811-M3-B	
						Non-Fibers	100
1806438-DI	31-Jan-18	sample homogenized	White	Caulking	No	Client ID: 821-M3-C	
						Non-Fibers	100
1806438-DJ	31-Jan-18	sample homogenized	Grey	Concrete	No	Client ID: 34E-W5-A	
						Non-Fibers	100
1806438-DK	31-Jan-18	sample homogenized	Grey	Concrete	No	Client ID: 34E-W5-B	
						Non-Fibers	100
1806438-DL	31-Jan-18	sample homogenized	Grey	Concrete	No	Client ID: 24E-W5-C	
						Non-Fibers	100
1806438-DM	31-Jan-18	sample homogenized	White	Caulking	No	Client ID: 32-2-BNE-M3-A	
						Non-Fibers	100
1806438-DN	31-Jan-18	sample homogenized	White	Caulking	No	Client ID: 24E-M3-B	
						Non-Fibers	100
1806438-DO	31-Jan-18	sample homogenized	White	Caulking	No	Client ID: 32E-M3-C	
						Non-Fibers	100

Certificate of Analysis

Client: GHD Limited (Kingston)

Client PO: TBD

Report Date: 16-Feb-2018

Order Date: 9-Feb-2018

Project Description: 11140575-E5

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Paracel I.D.	*Sample Date*	*Layers Analyzed*	*Colour*	*Description*	*Asbestos Detected:*	*Material Identification*	*% Content*
1806438-DP	31-Jan-18	sample homogenized	Grey	Concrete	No	Client ID: 279E-W5-A	
						Non-Fibers	100
1806438-DQ	31-Jan-18	sample homogenized	Grey	Concrete	No	Client ID: 279E-W5-B	
						Non-Fibers	100
1806438-DR	31-Jan-18	sample homogenized	Grey	Concrete	No	Client ID: 283E-W5-C	
						Non-Fibers	100
1806438-DS	31-Jan-18	sample homogenized	White	Caulking	No	Client ID: 281-M3-C	
						Non-Fibers	100
1806438-DT	31-Jan-18	sample homogenized	White	Caulking	No	Client ID: 279E-M3-B	
						Non-Fibers	100
1806438-DU	31-Jan-18	sample homogenized	White	Caulking	No	Client ID: 283-M3-A	
						Non-Fibers	100

** MMVF: Man Made Vitreous Fibers: Fiberglass, Mineral Wool, Rockwool, Glasswool*

**** Analytes in bold indicate asbestos mineral content.**

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	NVLAP Lab Code *	Analysis Date
Asbestos, PLM Visual Estimation	by EPA 600/R-93/116	1 - Mississauga	200863-0	13-Feb-18

** Reference to the NVLAP term does not permit the user of this report to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.*

Qualifier Notes

Sample Qualifiers :

ASLYR: Layers were noted for this sample, however, the entire sample was homogenized per client request.

AS-PRE: Due to the difficult nature of the bulk sample (interfering fibers/binders), additional NOB preparation was required prior to analysis

Work Order Revisions / Comments

None

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Paracel ID: 1806438

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№ 21385

Page 1 of 18

Client Name: Scott Wallis	Project Reference: 11140575-E5	**Turnaround Time:**
Contact Name: GHD Ltd.	Quote #:	☐ Immediate ☐ 1 Day
Address: 1225 Gardiners Rd, Unit 104 Kingston, ON K7P 0G3	PO #: TBD	☐ 4 Hour ☐ 2 Day
	Email Address: scott.wallis@ghd.com	☐ 8 Hour ☐ 3 Day
Telephone: 613-389-9812		☑ Regular
		Date Required:

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☑Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☑ON ☐QC ☐AB ☐SK ☐Other:

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☑PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: 1806438 Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	38-R1-A	8 February 2018			Roofing Material	NO	YES
2	38-R1-B						
3	40-R1-A						
4	38-LR-W1-A				DWJC	YES	YES
5	40-LR-W1-B						
6	277-K-W1-C						
7	281-LR-W1-A						
8	285-2-BSE-W1-B						
9	276-CRAWL-W2-A				Tar on FG paper.	~~YES~~ NO	YES
10	279-CRAWL-W2-A						
11	285-LR-W2-A						
12							

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R -93/116

Comments: Tar paper only.

Method of Delivery: Drop-Box

Relinquished By (Sign): Scott.	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): Scott Wallis	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12-18 1026	Date/Time: Feb 12 '18
Date/Time: 2130 / 8 Feb 2018			

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Paracel ID: 1806438

Chain of Custody
(Lab Use Only)
№ 26462

Page 2 of 18

Client Name: GHD Ltd.	Project Reference: 1140575-E5	**Turnaround Time:** ☐ Immediate ☐ 1 Day ☐ 4 Hour ☐ 2 Day ☐ 8 Hour ☐ 3 Day ☑ Regular
Contact Name: Scott Wallis.	Quote #:	
Address: 1225 Gardiners Rd, Unit 104 Kingston, ON K7P 0G3	PO #: TBD	Date Required:
Telephone: 613-389-9812.	Email Address: scott.wallis@ghd.com.	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☑Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☑ON ☐QC ☐AB ☐SK ☐Other:____

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☑PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	281-1-LR-F2B-B	Feb 8 2018				☐	☐
2	283-1-K-F2A-A				VFT - Battleship Brown	NO ☐	YES ☐
3	285-1-K-F2B-A					☐	☐
4	279-1-K-F2C-A	Feb 9 2018				☐	☐
5	279-1-K-F2C-B				VFT - Cream	NO ☐	YES ☐
6	279-1-K-F2C-C					☐	☐
7	281-2-BMW-F2D-A	Feb 9 2018				☐	☐
8	281-2-BMW-F2D-B				VFT - Mock tile	NO ☐	YES ☐
9	281-2-BMW-F2D-C					☐	☐
10	281-2-BSW-F2E-A	Feb 9 2018				☐	☐
11	281-2-BSW-F2E-B				VFT - Grey Stone	NO ☐	YES ☐
12	281-2-BSW-F2E-C					☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments:

Method of Delivery: Drop Box

Relinquished By (Sign): SWall.	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): S Wallis			
Date/Time: 2130/ 8 Feb 2018	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12/18	Date/Time: Feb 12 '18

PARACEL LABORATORIES LTD. | TRUSTED . RESPONSIVI RELIABLE .

Paracel ID: 1806438

Chain of Custody
(Lab Use Only)
№ 21386

Page 3 of 18

Client Name: GHD Ltd.	Project Reference: 11140575-E5
Contact Name: Scott Wallis	Quote #:
Address: 1225 Gardiners Rd, Unit 104 Kingston ON K7P 0G3	PO #: TBD
Telephone: 613-389-9812	Email Address: scott.wallis@ghd.com.

Turnaround Time:
☐ Immediate ☐ 1 Day
☐ 4 Hour ☐ 2 Day
☐ 8 Hour ☐ 3 Day
☐ ~~Regular~~
Date Required:

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☑Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☑ON ☐QC ☐AB ☐SK ☐Other:

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☑PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	285-CRAWL-M4-A	January 30-2018			Tar seal on block	YES	YES
2	277-CRAWL-M4-B						
3	276-CRAWL-M4-B						
4	281-2-BNW-W2B-A				Tar paper bands on FG paper.	~~YES~~ NO	YES
5	281-2-BNW-W2B-B						
6	281-2-BNW-W2B-C						
7	279-2-Bath-F3-A				VSF-White/Blue pebbles.	YES	YES
8	281-2-Bath-F3-B						
9	285-2-Bath-F3-C						
10	281-2-Bath-F3A-C				VSF-White mottled tan.	YES	YES
11	281-2-Bath-F3A-B						
12	281-2-Bath-F3A-A						

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments: Tar banding only.

Method of Delivery: Drop Box

Relinquished By (Sign): Scott	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): S WALLIS			
Date/Time: 2130/8 Feb 2018	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12-18	Date/Time: Feb 12-18

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Paracel ID: 1806438

Chain of Custody
(Lab Use Only)
№ 21387

Page 4 of 18

Client Name: GHD Ltd.	Project Reference: 11140575-E5
Contact Name: Scott Wallis	Quote #:
Address: 1225 Gardiers Rd, Unit 104 Kingston, ON K7P 0G3	PO #: TBD
Telephone: 613-389-9812	Email Address: scott.wallis@ghd.com

Turnaround Time:
☐ Immediate ☐ 1 Day
☐ 4 Hour ☐ 2 Day
☐ 8 Hour ☐ 3 Day
☑ Regular
Date Required:

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☑Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☑ON ☐QC ☐AB ☐SK ☐Other:

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☑PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	283-1E-F3A	January 31 - 2018			VSF - White.	YES ☐	YES ☐
2	283-1-E-F3-B						
3	283-1-E-F3-C						
4	276-1B-F3-A				VSF- Brown.	YES ☐	YES ☐
5	276-1B-F3-B						
6	276-1B-F3-C						
7	277-2-Bath-F3-A				VSF- Brown pebbles.	YES ☐	YES ☐
8	277-2-Bath-F3-B						
9	277-2-Bath-F3-C						
10	279-1-LRSW-F2A-B				VFT - Tan with brown flecks.	YES ☐	YES ☐
11	279-1-KSE-F2A-B						
12	285-1-UR-F2B-B						

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R -93/116

Comments:

Method of Delivery: Drop-Box

Relinquished By (Sign): SWall.	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): SWALLIS			
Date/Time: 2130/8 Feb 2018	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12 18	Date/Time: Feb 12-18

PARACEL LABORATORIES LTD. | TRUSTED . RESPONSIVE . RELIABLE .

Paracel ID: 1806438

Chain of Custody
(Lab Use Only)
№ 26463

Page 5 of 18

Client Name: GHD Ltd.	Project Reference: 11140575-E5	**Turnaround Time:**
Contact Name: Scott Wallis	Quote #:	☐ Immediate ☐ 1 Day
Address: 1225 Gardiners Rd, Unit 104 Kingston, ON K7P 0G3	PO #: TBD	☐ 4 Hour ☐ 2 Day
	Email Address: scott.wallis@ghd.com	☐ 8 Hour ☐ 3 Day
Telephone: 613-389-9812		☑ Regular
		Date Required:

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☑Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☑ON ☐QC ☐AB ☐SK ☐Other:

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☑PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	22-2-BSW-W1-B	30 January 2018				☐	☐
2	24-2-BNW-W1-C					☐	☐
3	30-2-BSW-W1-B				DWJC	NO	YES
4	32-2-BNE-W1-C					☐	☐
5	34-K-W1-A					☐	☐
6	24-2-BNW-W2-B					☐	☐
7	32-2-BNW-W2-C				tar on FG paper	See Note.	YES
8	30-CRAWL-W2-D					☐	☐
9	34-A-R1-A					☐	☐
10	34-A-R1-B				Roofing	NO	YES
11	34-A-R1-C					☐	☐
12						☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments: tar paper only

Method of Delivery: Drop Box

Relinquished By (Sign):	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): SWallis			
Date/Time: 2130/8 Feb 2018	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12/18	Date/Time: Feb 12-18

PARACEL LABORATORIES LTD. | TRUSTED . RESPONSIVE . RELIABLE .

Paracel ID: 1806438

Chain of Custody
(Lab Use Only)
№ 26464

Client Name: GHD Ltd.	Project Reference: 1140575-E5	**Turnaround Time:**	
Contact Name: Scott Wallis	Quote #:	☐ Immediate	☐ 1 Day
Address: 1225 Gardiners Rd, Unit 104 Kingston, ON K7P 0G3	PO #: TBD	☐ 4 Hour	☐ 2 Day
		☐ 8 Hour	☐ 3 Day
	Email Address: scott.wallis@ghd.com		☑ Regular
Telephone: 613-389-9812		Date Required:	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☐Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☑ON ☐QC ☐AB ☐SK ☐Other:

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☑PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	22-CRAWL-MY-A	20-Feb-16				☐	☐
2	30-CRAWL-MY-B				Tar on door	YES ☐	YES ☐
3	34-CRAWL-W-MI-B					☐	☐
4	22-2-Bath-F3-A					☐	☐
5	22-2-Bath-F3-B				VSF-Brown	YES ☐	YES ☐
6	22-2-Bath-F3-C					☐	☐
7	24-2-Bath-F3-A					☐	☐
8	24-2-Bath-F3-B				VSF-tan mottled Brown	YES ☐	YES ☐
9	32-2-BathSouth-F3AC-C					☐	☐
10	30-2-Bath-F3-A					☐	☐
11	30-2-Bath-F3-B				VSF-Cream	YES ☐	YES ☐
12	30-2-Bath-F3-C					☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments:

Method of Delivery: Drop Box

Relinquished By (Sign): Scott	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): Scott Wallis	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12 18	Date/Time: Feb 12-18
Date/Time: 2:30/8 Feb 2016			

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Paracel ID: 1806438

Chain of Custody
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№ 26465

Page 7 of 18

Client Name: GHD Ltd.	Project Reference: 11140575-E	**Turnaround Time:** ☐ Immediate ☐ 1 Day
Contact Name: Scott Wallis	Quote #:	☐ 4 Hour ☐ 2 Day
Address: 1225 Gardiners Rd, Unit 104 Kingston, ON K7P 0G3	PO #: TBD	☐ 8 Hour ☐ 3 Day
	Email Address: scott.wallis@ghd.com	☑ Regular
Telephone: 613-389-9812		Date Required:

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☐Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☑ON ☐QC ☐AB ☐SK ☐Other:

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☑PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	32-2-BathSouth-F3B-A	Feb 8 2018				☐	☐
2	32-2-BathSouth-F3B-B				VSF - white with brown dots.	☑ YES	☑ YES
3	32-2-BathSouth-F3B-C					☐	☐
4	34-2-Bath-F1-A					☐	☐
5	34-2-Bath-F1-B				VSF - white/blue pebbles	☑ YES	☑ YES
6	34-2-Bath-F1-C					☐	☐
7	22-1-E-F3B-A					☐	☐
8	22-1-E-F3B-B				VSF - mock tile.	☑ YES	☑ YES
9	22-1-E-F3B-C					☐	☐
10						☐	☐
11						☐	☐
12						☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments:

Method of Delivery: Drop-Box

Relinquished By (Sign):	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): SWALLIS			
Date/Time: 2130/8 Feb 2018	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12-18	Date/Time: Feb 12 18

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Paracel ID: 1806438

Chain of Custody
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Page 8 of 18

Client Name: GHD	Project Reference: 11 14 05 75	**Turnaround Time:**	
Contact Name: Scott Wallis	Quote #:	☐ Immediate	☐ 1 Day
Address: 104-1225 Gardiners Rd Kingston ON	PO #: TBD	☐ 4 Hour	☐ 2 Day
	Email Address: scott.wallis@ghd.com	☐ 8 Hour	☐ 3 Day
Telephone: 613 389 9812			☒ Regular
		Date Required:	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☒Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☒ON ☐QC ☐AB ☐SK ☐Other:

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☒PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	22-1-K-FZD-A				VFT-BROWN	N	Y
2	24-1-LR-FZC-A						
3	30-1-K-FZC-C						
4	22-LR-FZC-C				VFT-olive	N	Y
5	24-1-UR-FZE-A						
6	30-1-E-FZF-B						
7	30-2-BATH-FZD-A				VFT-mottled light/dark brown	Y	Y
8	30-2-BATH-FZD-B						
9	30-2-BATH-FZD-C						
10	32-NEEntry-FZE-A				VFT-dark brown white streaks	N	Y
11	32-NEENTRY-FZE-B						
12	32-NEEntry-FZE-C						

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments:

Method of Delivery: Drop-Box

Relinquished By (Sign):	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): SJWALLIS			
Date/Time: 2130/8 Feb 2018	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12-18	Date/Time: Feb 12/18

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Paracel ID: 1806438

Chain of Custody
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№ 26467

Client Name: GHD	Project Reference: 11 14 05 75-E5	**Turnaround Time:**	
Contact Name: SCOTT WALLIS	Quote #:	☐ Immediate	☐ 1 Day
Address: 104-1225 GARDINERS RD KINGSTON, ON	PO #: TBD	☐ 4 Hour	☐ 2 Day
	Email Address: SCOTT.WALLIS@GHD.COM	☐ 8 Hour	☐ 3 Day
Telephone:			☒ Regular
		Date Required:	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☒Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☒ON ☐QC ☐AB ☐SK ☐Other:____

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☒PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	22-K-FZE-A				VFT - tan brown streaks	N ☐	☐
2	24-K-FZB-A					☐	☐ Y
3	30-K-FZB-B					☐	☐
4	32-1-URSE-FZB-A				VFT - brown streaked dark brown	N ☐	☐
5	32-1-URSE-FZB-B					☐	☐ Y
6	22-1-E -FZA-D					☐	☐
7	22-K-FZA-C				VFT - tan mottled brown + white	N ☐	☐
8	24-1-LR-FZA-C					☐	☐ Y
9	34-UR-FZ-B					☐	☐
10	32-1-URSE-FZA-A				VFT - grey streaked black	N ☐	☐
11	32-1-K -FZA-B					☐	☐ Y
12	32-1-URSE-FZA-C					☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments:

Method of Delivery: Drop Box

Relinquished By (Sign): SWall	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): S WALLIS			
Date/Time: 2030/8 Feb 2018	Date/Time: Feb 9/18 8:35	Date/Time: Feb 12-18	Date/Time: Feb 12-18

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Paracel ID: 1806438

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Client Name: GHD	Project Reference: 11 14 05 75 ES	**Turnaround Time:**
Contact Name: Scott Wallis	Quote #:	☐ Immediate ☐ 1 Day
Address: 104-1225 Gardiners Rd Kingston, ON	PO #: TBD	☐ 4 Hour ☐ 2 Day
	Email Address: Scott.wallis@GHD.com	☐ 8 Hour ☐ 3 Day
Telephone: 613 389 9812		☒ Regular
		Date Required:

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☒Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☒ON ☐QC ☐AB ☐SK ☐Other:

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☒PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	32-1-URSE-FZD-A				leveling cpd	Y ☐	☒
2	32-1-URSE-FZD-B					☐	☐
3	32-1-URSE-FZD-C					☐	☐
4	North MECH-MI-A				sheet paper	N ☐	☐
5	North MECH-MI-B					☐	☐
6	North MECH-MI-C					☐	☐
7						☐	☐
8						☐	☐
9						☐	☐
10						☐	☐
11						☐	☐
12						☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments:

Method of Delivery: Drop Box

Relinquished By (Sign):	Received at Depot:	Received at Lab:	Verified By:
Relinquished By (Print): S WALLIS			
Date/Time: 2030/8 Feb 2018	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12 18	Date/Time: Feb 12 18

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Client Name: GHD	Project Reference: 11 14 05 75-ES	**Turnaround Time:**	
Contact Name: Scott Wallis	Quote #:	☐ Immediate	☐ 1 Day
Address: 104-1225 Gardiners Rd Kingston, ON	PO #: TBD	☐ 4 Hour	☐ 2 Day
	Email Address: scott.wallis@ghd.com	☐ 8 Hour	☐ 3 Day
Telephone: 613 389 9812			☒ Regular
		Date Required:	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☒Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☒ON ☐QC ☐AB ☐SK ☐Other:____

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☒PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	811-2BNW-R1-A					☐	☐
2	811-2BNW-R1-B				roofing Material	N ☐	Y ☐
3	811-2BNW-R1-C				to go per Scott - AP	☐	☐
4	811-1LR-C1-A	2 08				☐	☐
5	811-1-H-C1-B	2 09			ceiling texture	Y ☐	Y ☐
6	811-2-BNW-C1-D	2 10				☐	☐
7	811-2-BSE-W1-D	N				☐	☐
8	817-2-BNW-W1-C					☐	☐
9	821-2-BSE-W1-C				DWJC	Y ☐	Y ☐
10	817-1-LR-W1-A					☐	☐
11	289-2-BSW-W1-C					☐	☐
12						☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R -93/116

Comments:

Method of Delivery: Drop Box

Relinquished By (Sign): SWall	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): S Wallis	Date/Time: 9 Feb 18 8:30	Date/Time: Feb 12 18	Date/Time: Feb 12 18
Date/Time: 2030/8 Feb 2018			

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Paracel ID: 1806438

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Page 12 of 18

Client Name: GHD	Project Reference: 11 14 05 75 ES	**Turnaround Time:**	
Contact Name: SCOTT WALLIS	Quote #:	☐ Immediate	☐ 1 Day
Address: 104-1225 GARDINERS RD KINGSTON, ON	PO #: TBD	☐ 4 Hour	☐ 2 Day
	Email Address: SCOTT.WALLIS@GHD.COM	☐ 8 Hour	☐ 3 Day
Telephone: 613 ~~328 97~~ 389 9812			☒ Regular
		Date Required:	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☒Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☒ON ☐QC ☐AB ☐SK ☐Other:____

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☒PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	813-2-BATH-F3-B					☐	☐
2	829-2-BATH-F3-A				VSF-white ~~plate~~ pink pebbles	Y ☐	Y ☐
3	829-2-BATH-F3-B					☐	☐
4	817-2-BATH-F3A-B					☐	☐
5	823-2-BATH-F3-B				VSF-cream	Y ☐	Y ☐
6	823-2-BATH-F3-C					☐	☐
7	819-2-BATH-F3-A					☐	☐
8	819-2-BATH-F3-B				VSF-brown pebbles	Y ☐	Y ☐
9	819-2-BATH-F3-C					☐	☐
10	827-2-BATH-F3A-A					☐	☐
11	~~289~~ 289-2-BATH-F3-A				VSF-mock 9x9 slate.	Y ☐	Y ☐
12	289-2-BATH-F3-B					☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments:

Method of Delivery: Drop-Box

Relinquished By (Sign): SWall.	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): S WALLIS	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12 18	Date/Time: Feb 12-18
Date/Time: 2030/8 Feb 2018			

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Paracel ID: 1806438

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№ 26471

Page 15 of 18

Client Name: GHD	Project Reference: 11 14 05 75 ES	**Turnaround Time:**	
Contact Name: Scott Wallis	Quote #:	☐ Immediate	☐ 1 Day
Address: 104-1225 Gardiners Rd, Kingston, ON	PO #: TBD	☐ 4 Hour	☐ 2 Day
	Email Address: scott.wallis@ghd.com	☐ 8 Hour	☐ 3 Day
Telephone: 613 389 9812			☒ Regular
		Date Required:	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☒Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☒ON ☐QC ☐AB ☐SK ☐Other:____

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☒PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	827-2-BATH-F3B-A					☐	☐
2	827-2-BATH-F3B-B	00			VSF-wood	Y ☐	Y ☐
3	827-2-BATH-F3B-C	0				☐	☐
4	821-2-BATH-F3B-A	N				☐	☐
5	821-2-BATH-F3B-B	2			VSF-mock clay, white grout	Y ☐	Y ☐
6	821-2-BATH-F3B-C	A				☐	☐
7	821-2-BATH-F3A-A	A				☐	☐
8	821-2-BATH-F3A-B				VSF-mock clay, grey grout	Y ☐	Y ☐
9	821-2-BATH-F3A-C	M				☐	☐
10	819-CRAWL-M4-A					☐	☐
11	823-CRAWL-M4-A				tar on block	Y ☐	Y ☐
12	289-CRAWL-M4-B					☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments:

Method of Delivery: Drop Box

Relinquished By (Sign): S Wall	Received at Depot: Myra Fraser	Received at Lab: LO	Verified By: LO
Relinquished By (Print): S WALLIS	Date/Time: Feb 9/18 8:3	Date/Time: Feb 12-18	Date/Time: Feb 12-18
Date/Time: 2030/8 Feb 2018			

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Paracel ID: 1806438

Chain of Custody (Lab Use Only)

№ 26472

Page 14 of 18

Client Name: GHD	Project Reference: 11 14 0575 ES	**Turnaround Time:**	
Contact Name: Scott Wallis	Quote #:	☐ Immediate	☐ 1 Day
Address: 104-1225 Gardiners Rd Kingston ON	PO #: TBD	☐ 4 Hour	☐ 2 Day
	Email Address: scott.wallis@ghd.com	☐ 8 Hour	☐ 3 Day
Telephone: 613 389 9812			☒ Regular
		Date Required:	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☒Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☒ON ☐QC ☐AB ☐SK ☐Other:

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☒PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	817-1-LR-W2-A					☐	☐
2	823-CRAWL-W2-D				tar paper on fiberglass	N ☐	Y ☐
3	829-2-BSE-W2-B					☐	☐
4	813-1-H-F6-B					☐	☐
5	813-1-H-F6-C				vinyl stair tread brown	Y ☐	Y ☐
6	822-1-H-F6-C					☐	☐
7	289-1-LR-F2A-B					☐	☐
8	289-1-LR-F2A-C				VFT - brown white streaks	N ☐	Y ☐
9	821-1-K-F2C-B					☐	☐
10	823-1-UR-F2B-C					☐	☐
11	827-1-E-F2A-A				VFT - grey brown flecks	N ☐	Y ☐
12	827-1-K-F2A-B					☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R -93/116

Comments: * only test paper, not fiberglass

Method of Delivery: Drop-Box

Relinquished By (Sign): Swall	Received by Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): S Wallis	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12-18	Date/Time: Feb 12 '18
Date/Time: 2030 / 8 Feb 2018			

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Paracel ID: 1806438

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№ 26473

Page 15 of 18

Client Name: GHD	Project Reference: 11140575 ES	**Turnaround Time:**	
Contact Name: Scott Wallis	Quote #:	☐ Immediate	☐ 1 Day
Address: 104-1225 Gardiners Rd Kingston ON	PO #: TBD	☐ 4 Hour	☐ 2 Day
	Email Address: ~~scottis@g~~ scott.wallis@GHD.com	☐ 8 Hour	☐ 3 Day
Telephone: 613 389 9812			☒ Regular
		Date Required:	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☒Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☒ON ☐QC ☐AB ☐SK ☐Other:____

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☒PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	819-1-UR-F2B-A					☐	☐
2	829-1-H-F2C-C				VFT-brown with white streaks	N ☐	Y ☐
3	289-1-K-F2D-C					☐	☐
4	817-1-K-F2A					☐	☐
5	819-1-K-F2A-A				VFT-tan mottled brown+white	N ☐	Y ☐
6	829-1-UR-F2B-B					☐	☐
7	811-1-H-F2A-B					☐	☐
8	817-1-K-F2B-A				VFT-tan brown streaks	N ☐	Y ☐
9	823-2-BNW-F2A-D					☐	☐
10	819-1-K-F2C-B					☐	☐
11	819-1-K-F2C-D				VFT-dk brown with white streaks	N ☐	Y ☐
12	819-1-K-F2C-E					☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments:

Method of Delivery: Drop Box

Relinquished By (Sign):	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): SWALLIS			
Date/Time: 2030/8 Feb 2018	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12-18	Date/Time: Feb 12-18

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Paracel ID: 1806438

Chain of Custody
(Lab Use Only)
№ 26474

Page 16 of 16

Client Name: GHD	Project Reference: 11 14 05 75 ES	**Turnaround Time:**	
Contact Name: Scott Wallis	Quote #:	☐ Immediate	☐ 1 Day
Address: 104 - 1225 Gardiners Rd Kingston ON	PO #: TBD	☐ 4 Hour	☐ 2 Day
	Email Address: scott.wallis@ghd.com	☐ 8 Hour	☐ 3 Day
Telephone: 613 389 9812			☒ Regular
		Date Required:	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☒Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☒ON ☐QC ☐AB ☐SK ☐Other:____

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☒PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	811-2-BNW-FZB-A					☐	☐
2	811-2-BSE-FZB-B				VFT - mock red slate.	Y ☐	Y ☐
3	811-2-BSE-FZB-C	W				☐	☐
4	813-1-K-FZB-B	D				☐	☐
5	813-1-K-FZB-C	N			VFT - beige mottled white + brown	Y ☐	Y ☐
6	289-1-URNE-FZB-B					☐	☐
7	821-1-K-FZB-B	2				☐	☐
8	821-1-K-FZB-C	N			VFT - beige + white, grey back	Y ☐	Y ☐
9	821-1-K-FZB-D	A				☐	☐
10	SOUTH MECH-MI-A	M				☐	☐
11	SOUTH MECH-MI-B				sweat paper	N ☐	Y ☐
12	SOUTH MECH-MI-C					☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments:

Method of Delivery: Drop-Box

Relinquished By (Sign): SWall	Received at Depot: Alyssa Fraser	Received at Lab: AC	Verified By: Li
Relinquished By (Print): S Wallis	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12-18	Date/Time: Feb 12-18
Date/Time: 2030/8 Feb 2018			

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Paracel ID: 1806438

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№ 26475

Page 17 of 18

Client Name: GHD	Project Reference: 11 14 05 75 ES	**Turnaround Time:**	
Contact Name: Scott Wallis	Quote #:	☐ Immediate	☐ 1 Day
Address: 104-1225 Gardiners Rd Kingston ON	PO #: TBD	☐ 4 Hour	☐ 2 Day
	Email Address: scott.wallis@ghd.com	☐ 8 Hour	☐ 3 Day
Telephone: 613 389 9812			☒ Regular
		Date Required:	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☒Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☒ON ☐QC ☐AB ☐SK ☐Other:____

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☒PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	817E-W5-A					☐	☐
2	817E-W5-B				concrete parge	Y ☐	Y ☐
3	829E-W5-C					☐	☐
4	289-M3-A					☐	☐
5	811-M3-B				exterior caulking	Y ☐	Y ☐
6	821-M3-C					☐	☐
7						☐	☐
8						☐	☐
9						☐	☐
10						☐	☐
11						☐	☐
12						☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R -93/116

Comments:

Method of Delivery: Drop-Box

Relinquished By (Sign):	Received by Depot:	Received at Lab:	Verified By:
Relinquished By (Print): SWALLIS			
Date/Time: 2030/Feb 6 2018	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12 18	Date/Time: Feb 12 18

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Paracel ID: 1806438

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№ 26476

Page 16 of 18

Client Name: GHD	Project Reference: 11 14 05 75 ES	**Turnaround Time:**	
Contact Name: Scott Wallis	Quote #:	☐ Immediate	☐ 1 Day
Address: 104-1225 Gardiners Rd Kingston ON	PO #: TBD	☐ 4 Hour	☐ 2 Day
	Email Address: Scott.Wallis@GHD.com	☐ 8 Hour	☐ 3 Day
Telephone: 613 389 9812			☒ Regular
		Date Required:	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☒Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☒ON ☐QC ☐AB ☐SK ☐Other:____

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☒PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	34E-WS-A	Feb 9/2018			conc perge	☐	☐
2	34E-WS-B					☐	☐
3	24E-WS-C					☐	☐
4	32-2-BNE-M3-A				exterior caulking	☐	☐
5	24E-M3-B					☐	☐
6	32E-M3-C					☐	☐
7	279E-WS-A				conc perge	☐	☐
8	279E-WS-B					☐	☐
9	283E-WS-C					☐	☐
10	281-M3-C				exterior caulking	☐	☐
11	279E-M3-B					☐	☐
12	283-M3-A					☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments:

Method of Delivery: Drop-Box

Relinquished By (Sign):	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): S Wallis			
Date/Time: 2030/8 Feb 2018	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12 4:5	Date/Time: Feb 12-4

Certificate of Analysis

Client: GHD Limited (Kingston)

Client PO: TBD

Report Date: 16-Feb-2018

Order Date: 9-Feb-2018

Project Description: 11140575-E5

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Paracel I.D.	*Sample Date*	*Layers Analyzed*	*Colour*	*Description*	*Asbestos Detected:*	*Material Identification*	*% Content*
1806438-DP	31-Jan-18	sample homogenized	Grey	Concrete	No	Client ID: 279E-W5-A	
						Non-Fibers	100
1806438-DQ	31-Jan-18	sample homogenized	Grey	Concrete	No	Client ID: 279E-W5-B	
						Non-Fibers	100
1806438-DR	31-Jan-18	sample homogenized	Grey	Concrete	No	Client ID: 283E-W5-C	
						Non-Fibers	100
1806438-DS	31-Jan-18	sample homogenized	White	Caulking	No	Client ID: 281-M3-C	
						Non-Fibers	100
1806438-DT	31-Jan-18	sample homogenized	White	Caulking	No	Client ID: 279E-M3-B	
						Non-Fibers	100
1806438-DU	31-Jan-18	sample homogenized	White	Caulking	No	Client ID: 283-M3-A	
						Non-Fibers	100

** MMVF: Man Made Vitreous Fibers: Fiberglass, Mineral Wool, Rockwool, Glasswool*

**** Analytes in bold indicate asbestos mineral content.**

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	NVLAP Lab Code *	Analysis Date
Asbestos, PLM Visual Estimation	by EPA 600/R-93/116	1 - Mississauga	200863-0	13-Feb-18

** Reference to the NVLAP term does not permit the user of this report to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.*

Qualifier Notes

Sample Qualifiers :

ASLYR: Layers were noted for this sample, however, the entire sample was homogenized per client request.

AS-PRE: Due to the difficult nature of the bulk sample (interfering fibers/binders), additional NOB preparation was required prior to analysis

Work Order Revisions / Comments

None

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Paracel ID: 1806438

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Page 1 of 18

Client Name: Scott Wallis	Project Reference: 11140575-E5	**Turnaround Time:**
Contact Name: GHD Ltd.	Quote #:	☐ Immediate ☐ 1 Day
Address: 1225 Gardiners Rd, Unit 104 Kingston, ON K7P 0G3	PO #: TBD	☐ 4 Hour ☐ 2 Day
	Email Address: scott.wallis@ghd.com	☐ 8 Hour ☐ 3 Day
Telephone: 613-389-9812		☑ Regular
		Date Required:

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☑Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☑ON ☐QC ☐AB ☐SK ☐Other:

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☑PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: 1806438 Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	38-R1-A	8 February 2018			Roofing Material	NO	YES
2	38-R1-B						
3	40-R1-A						
4	38-LR-W1-A				DWJC	YES	YES
5	40-LR-W1-B						
6	277-K-W1-C						
7	281-LR-W1-A						
8	285-2-BSE-W1-B						
9	276-CRAWL-W2-A				Tar on FG paper.	~~YES~~ NO	YES
10	279-CRAWL-W2-A						
11	285-LR-W2-A						
12							

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R -93/116

Comments: Tar paper only.

Method of Delivery: Drop-Box

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Relinquished By (Print): Scott Wallis	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12-18 1026	Date/Time: Feb 12 '18
Date/Time: 2130 / 8 Feb 2018			

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Paracel ID: 1806438

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№ 26462

Page 2 of 18

Client Name: GHD Ltd.	Project Reference: 1140575-E5	**Turnaround Time:** ☐ Immediate ☐ 1 Day ☐ 4 Hour ☐ 2 Day ☐ 8 Hour ☐ 3 Day ☑ Regular
Contact Name: Scott Wallis.	Quote #:	
Address: 1225 Gardiners Rd, Unit 104 Kingston, ON K7P 0G3	PO #: TBD	Date Required:
Telephone: 613-389-9812.	Email Address: scott.wallis@ghd.com.	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☑Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☑ON ☐QC ☐AB ☐SK ☐Other:____

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☑PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	281-1-LR-F2B-B	Feb 8 2018				☐	☐
2	283-1-K-F2A-A				VFT - Battleship Brown	NO ☐	YES ☐
3	285-1-K-F2B-A					☐	☐
4	279-1-K-F2C-A	Feb 9 2018				☐	☐
5	279-1-K-F2C-B				VFT - Cream	NO ☐	YES ☐
6	279-1-K-F2C-C					☐	☐
7	281-2-BMW-F2D-A	Feb 9 2018				☐	☐
8	281-2-BMW-F2D-B				VFT - Mock tile	NO ☐	YES ☐
9	281-2-BMW-F2D-C					☐	☐
10	281-2-BSW-F2E-A	Feb 9 2018				☐	☐
11	281-2-BSW-F2E-B				VFT - Grey Stone	NO ☐	YES ☐
12	281-2-BSW-F2E-C					☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments:

Method of Delivery: Drop Box

Relinquished By (Sign): SWall.	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): S Wallis			
Date/Time: 2130/ 8 Feb 2018	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12/18	Date/Time: Feb 12 '18

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Paracel ID: 1806438

Chain of Custody
(Lab Use Only)
№ 21386

Page 3 of 18

Client Name: GHD Ltd.	Project Reference: 11140575-E5
Contact Name: Scott Wallis	Quote #:
Address: 1225 Gardiners Rd, Unit 104 Kingston ON K7P 0G3	PO #: TBD
Telephone: 613-389-9812	Email Address: scott.wallis@ghd.com.

Turnaround Time:
☐ Immediate ☐ 1 Day
☐ 4 Hour ☐ 2 Day
☐ 8 Hour ☐ 3 Day
☐ ~~Regular~~
Date Required:

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☑Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☑ON ☐QC ☐AB ☐SK ☐Other:

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☑PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	285-CRAWL-M4-A	January 30-2018			Tar seal on block	YES	YES
2	277-CRAWL-M4-B						
3	276-CRAWL-M4-B						
4	281-2-BNW-W2B-A				Tar paper bands on FG paper.	~~YES~~ NO	YES
5	281-2-BNW-W2B-B						
6	281-2-BNW-W2B-C						
7	279-2-Bath-F3-A				VSF-White/Blue pebbles.	YES	YES
8	281-2-Bath-F3-B						
9	285-2-Bath-F3-C						
10	281-2-Bath-F3A-C				VSF-White mottled tan.	YES	YES
11	281-2-Bath-F3A-B						
12	281-2-Bath-F3A-A						

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments: Tar banding only.

Method of Delivery: Drop Box

Relinquished By (Sign): Scott	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): S WALLIS			
Date/Time: 2130/8 Feb 2018	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12-18	Date/Time: Feb 12-18

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Paracel ID: 1806438

Chain of Custody
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№ 21387

Page 4 of 18

Client Name: GHD Ltd.	Project Reference: 11140575-E5
Contact Name: Scott Wallis	Quote #:
Address: 1225 Gardiers Rd, Unit 104 Kingston, ON K7P 0G3	PO #: TBD
Telephone: 613-389-9812	Email Address: scott.wallis@ghd.com

Turnaround Time:
☐ Immediate ☐ 1 Day
☐ 4 Hour ☐ 2 Day
☐ 8 Hour ☐ 3 Day
☑ Regular
Date Required:

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☑Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☑ON ☐QC ☐AB ☐SK ☐Other:

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☑PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	283-1E-F3A	January 31 - 2018			VSF - White.	YES ☐	YES ☐
2	283-1-E-F3-B						
3	283-1-E-F3-C						
4	276-1B-F3-A				VSF- Brown.	YES ☐	YES ☐
5	276-1B-F3-B						
6	276-1B-F3-C						
7	277-2-Bath-F3-A				VSF- Brown pebbles.	YES ☐	YES ☐
8	277-2-Bath-F3-B						
9	277-2-Bath-F3-C						
10	279-1-LRSW-F2A-B				VFT - Tan with brown flecks.	YES ☐	YES ☐
11	279-1-KSE-F2A-B						
12	285-1-UR-F2B-B						

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R -93/116

Comments:

Method of Delivery: Drop-Box

Relinquished By (Sign): SWall.	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): SWALLIS			
Date/Time: 2130/8 Feb 2018	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12 18	Date/Time: Feb 12-18

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Paracel ID: 1806438

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Page 5 of 18

Client Name: GHD Ltd.	Project Reference: 11140575-E5	**Turnaround Time:**
Contact Name: Scott Wallis	Quote #:	☐ Immediate ☐ 1 Day
Address: 1225 Gardiners Rd, Unit 104 Kingston, ON K7P 0G3	PO #: TBD	☐ 4 Hour ☐ 2 Day
	Email Address: scott.wallis@ghd.com	☐ 8 Hour ☐ 3 Day
Telephone: 613-389-9812		☑ Regular
		Date Required:

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☑Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☑ON ☐QC ☐AB ☐SK ☐Other:

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☑PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	22-2-BSW-W1-B	30 January 2018				☐	☐
2	24-2-BNW-W1-C					☐	☐
3	30-2-BSW-W1-B				DWJC	NO	YES
4	32-2-BNE-W1-C					☐	☐
5	34-K-W1-A					☐	☐
6	24-2-BNW-W2-B					☐	☐
7	32-2-BNW-W2-C				tar on FG paper	See Note.	YES
8	30-CRAWL-W2-D					☐	☐
9	34-A-R1-A					☐	☐
10	34-A-R1-B				Roofing	NO	YES
11	34-A-R1-C					☐	☐
12						☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments: tar paper only

Method of Delivery: Drop Box

Relinquished By (Sign):	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): SWallis			
Date/Time: 2130/8 Feb 2018	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12/18	Date/Time: Feb 12-18

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Paracel ID: 1806438

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Client Name: GHD Ltd.	Project Reference: 1140575-E5	**Turnaround Time:**	
Contact Name: Scott Wallis	Quote #:	☐ Immediate	☐ 1 Day
Address: 1225 Gardiners Rd, Unit 104 Kingston, ON K7P 0G3	PO #: TBD	☐ 4 Hour	☐ 2 Day
		☐ 8 Hour	☐ 3 Day
	Email Address: scott.wallis@ghd.com		☑ Regular
Telephone: 613-389-9812		Date Required:	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☐Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☑ON ☐QC ☐AB ☐SK ☐Other:

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☑PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	22-CRAWL-MY-A	20-Feb-16				☐	☐
2	30-CRAWL-MY-B				Tar on door	YES ☐	YES ☐
3	34-CRAWL-W-MI-B					☐	☐
4	22-2-Bath-F3-A					☐	☐
5	22-2-Bath-F3-B				VSF-Brown	YES ☐	YES ☐
6	22-2-Bath-F3-C					☐	☐
7	24-2-Bath-F3-A					☐	☐
8	24-2-Bath-F3-B				VSF-tan mottled Brown	YES ☐	YES ☐
9	32-2-BathSouth-F3AC-C					☐	☐
10	30-2-Bath-F3-A					☐	☐
11	30-2-Bath-F3-B				VSF-Cream	YES ☐	YES ☐
12	30-2-Bath-F3-C					☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments:

Method of Delivery: Drop Box

Relinquished By (Sign): Scott	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): Scott Wallis	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12 18	Date/Time: Feb 12-18
Date/Time: 2:30/8 Feb 2016			

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Paracel ID: 1806438

Chain of Custody
(Lab Use Only)
№ 26465

Page 7 of 18

Client Name: GHD Ltd.	Project Reference: 11140575-E	**Turnaround Time:** ☐ Immediate ☐ 1 Day
Contact Name: Scott Wallis	Quote #:	☐ 4 Hour ☐ 2 Day
Address: 1225 Gardiners Rd, Unit 104 Kingston, ON K7P 0G3	PO #: TBD	☐ 8 Hour ☐ 3 Day
	Email Address: scott.wallis@ghd.com	☑ Regular
Telephone: 613-389-9812		Date Required:

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☐Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☑ON ☐QC ☐AB ☐SK ☐Other:

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☑PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	32-2-BathSouth-F3B-A	Feb 8 2018				☐	☐
2	32-2-BathSouth-F3B-B				VSF - white with brown dots.	☑ YES	☑ YES
3	32-2-BathSouth-F3B-C					☐	☐
4	34-2-Bath-F1-A					☐	☐
5	34-2-Bath-F1-B				VSF - white/blue pebbles	☑ YES	☑ YES
6	34-2-Bath-F1-C					☐	☐
7	22-1-E-F3B-A					☐	☐
8	22-1-E-F3B-B				VSF - mock tile.	☑ YES	☑ YES
9	22-1-E-F3B-C					☐	☐
10						☐	☐
11						☐	☐
12						☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments:

Method of Delivery: Drop-Box

Relinquished By (Sign):	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): SWALLIS			
Date/Time: 2130/8 Feb 2018	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12-18	Date/Time: Feb 12 18

PARACEL LABORATORIES LTD. | TRUSTED . RESPONSIV RELIABLE .

Paracel ID: 1806438

Chain of Custody
(Lab Use Only)
№ 26466

Page 8 of 18

Client Name: GHD	Project Reference: 11 14 05 75	**Turnaround Time:**	
Contact Name: Scott Wallis	Quote #:	☐ Immediate	☐ 1 Day
Address: 104-1225 Gardiners Rd Kingston ON	PO #: TBD	☐ 4 Hour	☐ 2 Day
	Email Address: scott.wallis@ghd.com	☐ 8 Hour	☐ 3 Day
Telephone: 613 389 9812			☒ Regular
		Date Required:	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☒Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☒ON ☐QC ☐AB ☐SK ☐Other:

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☒PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	22-1-K-FZD-A				VFT-BROWN	N	Y
2	24-1-LR-FZC-A						
3	30-1-K-FZC-C						
4	22-LR-FZC-C				VFT-olive	N	Y
5	24-1-UR-FZE-A						
6	30-1-E-FZF-B						
7	30-2-BATH-FZD-A				VFT-mottled light/dark brown	Y	Y
8	30-2-BATH-FZD-B						
9	30-2-BATH-FZD-C						
10	32-NEEntry-FZE-A				VFT-dark brown white streaks	N	Y
11	32-NEENTRY-FZE-B						
12	32-NEEntry-FZE-C						

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments:

Method of Delivery: Drop-Box

Relinquished By (Sign):	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): SJWALLIS			
Date/Time: 2130/8 Feb 2018	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12-18	Date/Time: Feb 12/18

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Paracel ID: 1806438

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Client Name: GHD	Project Reference: 11 14 05 75-E5	**Turnaround Time:**	
Contact Name: SCOTT WALLIS	Quote #:	☐ Immediate	☐ 1 Day
Address: 104-1225 GARDINERS RD KINGSTON, ON	PO #: TBD	☐ 4 Hour	☐ 2 Day
	Email Address: SCOTT.WALLIS@GHD.COM	☐ 8 Hour	☐ 3 Day
Telephone:			☒ Regular
		Date Required:	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☒Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☒ON ☐QC ☐AB ☐SK ☐Other:____

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☒PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	22-K-FZE-A				VFT - tan brown streaks	N ☐	☐
2	24-K-FZB-A					☐	☐ Y
3	30-K-FZB-B					☐	☐
4	32-1-URSE-FZB-A				VFT - brown streaked dark brown	N ☐	☐
5	32-1-URSE-FZB-B					☐	☐ Y
6	22-1-E -FZA-D					☐	☐
7	22-K-FZA-C				VFT - tan mottled brown + white	N ☐	☐
8	24-1-LR-FZA-C					☐	☐ Y
9	34-UR-FZ-B					☐	☐
10	32-1-URSE-FZA-A				VFT - grey streaked black	N ☐	☐
11	32-1-K -FZA-B					☐	☐ Y
12	32-1-URSE-FZA-C					☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments:

Method of Delivery: Drop Box

Relinquished By (Sign): SWall	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): S WALLIS			
Date/Time: 2030/8 Feb 2018	Date/Time: Feb 9/18 8:35	Date/Time: Feb 12-18	Date/Time: Feb 12-18

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Paracel ID: 1806438

Chain of Custody
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№ 26468

Page 10 of 18

Client Name: GHD	Project Reference: 11 14 05 75 ES	**Turnaround Time:**
Contact Name: Scott Wallis	Quote #:	☐ Immediate ☐ 1 Day
Address: 104-1225 Gardiners Rd Kingston, ON	PO #: TBD	☐ 4 Hour ☐ 2 Day
	Email Address: Scott.wallis@GHD.com	☐ 8 Hour ☐ 3 Day
Telephone: 613 389 9812		☒ Regular
		Date Required:

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☒Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☒ON ☐QC ☐AB ☐SK ☐Other:

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☒PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	32-1-URSE-FZD-A				leveling cpd	Y ☐	☒
2	32-1-URSE-FZD-B					☐	☐
3	32-1-URSE-FZD-C					☐	☐
4	North MECH-MI-A				sheet paper	N ☐	☐
5	North MECH-MI-B					☐	☐
6	North MECH-MI-C					☐	☐
7						☐	☐
8						☐	☐
9						☐	☐
10						☐	☐
11						☐	☐
12						☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments:

Method of Delivery: Drop Box

Relinquished By (Sign):	Received at Depot:	Received at Lab:	Verified By:
Relinquished By (Print): S WALLIS			
Date/Time: 2030/8 Feb 2018	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12 18	Date/Time: Feb 12 18

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Paracel ID: 1806438

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Page 11 of 18

Client Name: GHD	Project Reference: 11 14 05 75-ES	**Turnaround Time:**	
Contact Name: Scott Wallis	Quote #:	☐ Immediate	☐ 1 Day
Address: 104-1225 Gardiners Rd Kingston, ON	PO #: TBD	☐ 4 Hour	☐ 2 Day
	Email Address: scott.wallis@ghd.com	☐ 8 Hour	☐ 3 Day
Telephone: 613 389 9812			☒ Regular
		Date Required:	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☒Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☒ON ☐QC ☐AB ☐SK ☐Other:____

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☒PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	811-2BNW-R1-A					☐	☐
2	811-2BNW-R1-B				roofing Material	N ☐	Y ☐
3	811-2BNW-R1-C				to go per Scott - AP	☐	☐
4	811-1LR-C1-A	2 08				☐	☐
5	811-1-H-C1-B	2 09			ceiling texture	Y ☐	Y ☐
6	811-2-BNW-C1-D	2 10				☐	☐
7	811-2-BSE-W1-D	N				☐	☐
8	817-2-BNW-W1-C					☐	☐
9	821-2-BSE-W1-C				DWJC	Y ☐	Y ☐
10	817-1-LR-W1-A					☐	☐
11	289-2-BSW-W1-C					☐	☐
12						☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R -93/116

Comments:

Method of Delivery: Drop Box

Relinquished By (Sign): SWall	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): S Wallis	Date/Time: 9 Feb 18 8:30	Date/Time: Feb 12 18	Date/Time: Feb 12 18
Date/Time: 2030/8 Feb 2018			

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Page 12 of 18

Client Name: GHD	Project Reference: 11 14 05 75 ES	**Turnaround Time:**	
Contact Name: SCOTT WALLIS	Quote #:	☐ Immediate	☐ 1 Day
Address: 104-1225 GARDINERS RD KINGSTON, ON	PO #: TBD	☐ 4 Hour	☐ 2 Day
	Email Address: SCOTT.WALLIS@GHD.COM	☐ 8 Hour	☐ 3 Day
Telephone: 613 ~~328 97~~ 389 9812			☒ Regular
		Date Required:	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☒Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☒ON ☐QC ☐AB ☐SK ☐Other:____

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☒PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	813-2-BATH-F3-B					☐	☐
2	829-2-BATH-F3-A				VSF-white ~~plate~~ pink pebbles	Y ☐	Y ☐
3	829-2-BATH-F3-B					☐	☐
4	817-2-BATH-F3A-B					☐	☐
5	823-2-BATH-F3-B				VSF-cream	Y ☐	Y ☐
6	823-2-BATH-F3-C					☐	☐
7	819-2-BATH-F3-A					☐	☐
8	819-2-BATH-F3-B				VSF-brown pebbles	Y ☐	Y ☐
9	819-2-BATH-F3-C					☐	☐
10	827-2-BATH-F3A-A					☐	☐
11	~~289~~ 289-2-BATH-F3-A				VSF-mock 9x9 slate.	Y ☐	Y ☐
12	289-2-BATH-F3-B					☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments:

Method of Delivery: Drop-Box

Relinquished By (Sign): SWall.	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): S WALLIS	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12 18	Date/Time: Feb 12-18
Date/Time: 2030/8 Feb 2018			

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Client Name: GHD	Project Reference: 11 14 05 75 ES	**Turnaround Time:**	
Contact Name: Scott Wallis	Quote #:	☐ Immediate	☐ 1 Day
Address: 104-1225 Gardiners Rd, Kingston, ON	PO #: TBD	☐ 4 Hour	☐ 2 Day
	Email Address: scott.wallis@ghd.com	☐ 8 Hour	☐ 3 Day
Telephone: 613 389 9812			☒ Regular
		Date Required:	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☒Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☒ON ☐QC ☐AB ☐SK ☐Other:____

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☒PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	827-2-BATH-F3B-A					☐	☐
2	827-2-BATH-F3B-B	00			VSF-wood	Y ☐	Y ☐
3	827-2-BATH-F3B-C	0				☐	☐
4	821-2-BATH-F3B-A	N				☐	☐
5	821-2-BATH-F3B-B	2			VSF-mock clay, white grout	Y ☐	Y ☐
6	821-2-BATH-F3B-C	A				☐	☐
7	821-2-BATH-F3A-A	A				☐	☐
8	821-2-BATH-F3A-B				VSF-mock clay, grey grout	Y ☐	Y ☐
9	821-2-BATH-F3A-C	M				☐	☐
10	819-CRAWL-M4-A					☐	☐
11	823-CRAWL-M4-A				tar on block	Y ☐	Y ☐
12	289-CRAWL-M4-B					☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments:

Method of Delivery: Drop Box

Relinquished By (Sign): S Wall	Received at Depot: Myra Fraser	Received at Lab: LO	Verified By: LO
Relinquished By (Print): S WALLIS	Date/Time: Feb 9/18 8:3	Date/Time: Feb 12-18	Date/Time: Feb 12-18
Date/Time: 2030/8 Feb 2018			

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Page 14 of 18

Client Name: GHD	Project Reference: 11 14 0575 ES	**Turnaround Time:**	
Contact Name: Scott Wallis	Quote #:	☐ Immediate	☐ 1 Day
Address: 104-1225 Gardiners Rd Kingston ON	PO #: TBD	☐ 4 Hour	☐ 2 Day
	Email Address: scott.wallis@ghd.com	☐ 8 Hour	☐ 3 Day
Telephone: 613 389 9812			☒ Regular
		Date Required:	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☒Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☒ON ☐QC ☐AB ☐SK ☐Other:

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☒PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	817-1-LR-W2-A					☐	☐
2	823-CRAWL-W2-D				tar paper on fiberglass	N ☐	Y ☐
3	829-2-BSE-W2-B					☐	☐
4	813-1-H-F6-B					☐	☐
5	813-1-H-F6-C				vinyl stair tread brown	Y ☐	Y ☐
6	822-1-H-F6-C					☐	☐
7	289-1-LR-F2A-B					☐	☐
8	289-1-LR-F2A-C				VFT - brown white streaks	N ☐	Y ☐
9	821-1-K-F2C-B					☐	☐
10	823-1-UR-F2B-C					☐	☐
11	827-1-E-F2A-A				VFT - grey brown flecks	N ☐	Y ☐
12	827-1-K-F2A-B					☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R -93/116

Comments: * only test paper, not fiberglass

Method of Delivery: Drop-Box

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Relinquished By (Print): S Wallis	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12-18	Date/Time: Feb 12 '18
Date/Time: 2030 / 8 Feb 2018			

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Page 15 of 18

Client Name: GHD	Project Reference: 11140575 ES	**Turnaround Time:**	
Contact Name: Scott Wallis	Quote #:	☐ Immediate	☐ 1 Day
Address: 104-1225 Gardiners Rd Kingston ON	PO #: TBD	☐ 4 Hour	☐ 2 Day
	Email Address: ~~scottis@g~~ scott.wallis@GHD.com	☐ 8 Hour	☐ 3 Day
Telephone: 613 389 9812			☒ Regular
		Date Required:	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☒Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☒ON ☐QC ☐AB ☐SK ☐Other:____

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☒PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	819-1-UR-F2B-A					☐	☐
2	829-1-H-F2C-C				VFT-brown with white streaks	N ☐	Y ☐
3	289-1-K-F2D-C					☐	☐
4	817-1-K-F2A					☐	☐
5	819-1-K-F2A-A				VFT-tan mottled brown+white	N ☐	Y ☐
6	829-1-UR-F2B-B					☐	☐
7	811-1-H-F2A-B					☐	☐
8	817-1-K-F2B-A				VFT-tan brown streaks	N ☐	Y ☐
9	823-2-BNW-F2A-D					☐	☐
10	819-1-K-F2C-B					☐	☐
11	819-1-K-F2C-D				VFT-dk brown with white streaks	N ☐	Y ☐
12	819-1-K-F2C-E					☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments:

Method of Delivery: Drop Box

Relinquished By (Sign):	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): SWALLIS			
Date/Time: 2030/8 Feb 2018	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12-18	Date/Time: Feb 12-18

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Paracel ID: 1806438

Chain of Custody
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№ 26474

Page 16 of 16

Client Name: GHD	Project Reference: 11 14 05 75 ES	**Turnaround Time:**	
Contact Name: Scott Wallis	Quote #:	☐ Immediate	☐ 1 Day
Address: 104 - 1225 Gardiners Rd Kingston ON	PO #: TBD	☐ 4 Hour	☐ 2 Day
	Email Address: scott.wallis@ghd.com	☐ 8 Hour	☐ 3 Day
Telephone: 613 389 9812			☒ Regular
		Date Required:	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☒Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☒ON ☐QC ☐AB ☐SK ☐Other:____

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☒PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	811-2-BNW-FZB-A					☐	☐
2	811-2-BSE-FZB-B				VFT - mock red slate.	Y ☐	Y ☐
3	811-2-BSE-FZB-C	W				☐	☐
4	813-1-K-FZB-B	D				☐	☐
5	813-1-K-FZB-C	N			VFT - beige mottled white + brown	Y ☐	Y ☐
6	289-1-URNE-FZB-B					☐	☐
7	821-1-K-FZB-B	2				☐	☐
8	821-1-K-FZB-C	N			VFT - beige + white, grey back	Y ☐	Y ☐
9	821-1-K-FZB-D	A				☐	☐
10	SOUTH MECH-MI-A	M				☐	☐
11	SOUTH MECH-MI-B				sweat paper	N ☐	Y ☐
12	SOUTH MECH-MI-C					☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments:

Method of Delivery: Drop-Box

Relinquished By (Sign): SWall	Received at Depot: Alyssa Fraser	Received at Lab: AC	Verified By: Li
Relinquished By (Print): S Wallis	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12-18	Date/Time: Feb 12-18
Date/Time: 2030/8 Feb 2018			

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Paracel ID: 1806438

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Page 17 of 18

Client Name: GHD	Project Reference: 11 14 05 75 ES	**Turnaround Time:**	
Contact Name: Scott Wallis	Quote #:	☐ Immediate	☐ 1 Day
Address: 104-1225 Gardiners Rd Kingston ON	PO #: TBD	☐ 4 Hour	☐ 2 Day
	Email Address: scott.wallis@ghd.com	☐ 8 Hour	☐ 3 Day
Telephone: 613 389 9812			☒ Regular
		Date Required:	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☒Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☒ON ☐QC ☐AB ☐SK ☐Other:____

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☒PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	817E-W5-A					☐	☐
2	817E-W5-B				concrete parge	Y ☐	Y ☐
3	829E-W5-C					☐	☐
4	289-M3-A					☐	☐
5	811-M3-B				exterior caulking	Y ☐	Y ☐
6	821-M3-C					☐	☐
7						☐	☐
8						☐	☐
9						☐	☐
10						☐	☐
11						☐	☐
12						☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R -93/116

Comments:

Method of Delivery: Drop-Box

Relinquished By (Sign):	Received by Depot:	Received at Lab:	Verified By:
Relinquished By (Print): SWALLIS			
Date/Time: 2030/Feb 6 2018	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12 18	Date/Time: Feb 12 18

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Paracel ID: 1806438

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№ 26476

Page 16 of 18

Client Name: GHD	Project Reference: 11 14 05 75 ES	**Turnaround Time:**	
Contact Name: Scott Wallis	Quote #:	☐ Immediate	☐ 1 Day
Address: 104-1225 Gardiners Rd Kingston ON	PO #: TBD	☐ 4 Hour	☐ 2 Day
	Email Address: Scott.Wallis@GHD.com	☐ 8 Hour	☐ 3 Day
Telephone: 613 389 9812			☒ Regular
		Date Required:	

ASBESTOS & MOLD ANALYSIS

Matrix: ☐Air ☒Bulk ☐Tape Lift ☐Swab ☐Other **Regulatory Guideline:** ☒ON ☐QC ☐AB ☐SK ☐Other:____

Analyses: ☐Microscopic Mold ☐Culturable Mold ☐Bacteria GRAM ☐PCM Asbestos ☒PLM Asbestos ☐Chatfield Asbestos ☐TEM Asbestos

	Paracel Order Number: / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	34E-WS-A	Feb 9/2018			conc perge	☐	☐
2	34E-WS-B					☐	☐
3	24E-WS-C					☐	☐
4	32-2-BNE-M3-A				exterior caulking	☐	☐
5	24E-M3-B					☐	☐
6	32E-M3-C					☐	☐
7	279E-WS-A				conc perge	☐	☐
8	279E-WS-B					☐	☐
9	283E-WS-C					☐	☐
10	281-M3-C				exterior caulking	☐	☐
11	279E-M3-B					☐	☐
12	283-M3-A					☐	☐

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (**at additional cost**) per EPA 600/R-93/116

Comments:

Method of Delivery: Drop-Box

Relinquished By (Sign):	Received at Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): S Wallis			
Date/Time: 2030/8 Feb 2018	Date/Time: Feb 9/18 8:30	Date/Time: Feb 12 4:5	Date/Time: Feb 12-4

Appendix C
Analytical Laboratory Reports - Lead

PARACEL LABORATORIES LTD.
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300 - 2319 St. Laurent Blvd
Ottawa, ON, K1G 4J8
1-800-749-1947
www.paracellabs.com

Certificate of Analysis

GHD Limited (Kingston)

1225 Gardiners Rd.
Kingston, ON K7P 0G3
Attn: Scott Wallis

Client PO: TBD
Project: 11140575-E5
Custody: 114839, 840, 841, 842, 843, 844

Report Date: 14-Feb-2018
Order Date: 9-Feb-2018

Order #: 1806434

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
1806434-01	38-K-Wall-P1
1806434-02	277-LR-Wall-P1 (orange)
1806434-03	277-LR-Ceiling- P2 (white)
1806434-04	277-2-BSW-Wall-P3
1806434-05	279-LR-Wall-P1
1806434-06	279-2-BNW-Wall-P2
1806434-07	279-2-BSW-Wall-P3
1806434-08	281-2-BNW-Wall-P2
1806434-09	283-LR-Wall-P1
1806434-10	283-2-BSW-Wall-P2
1806434-11	283-2-BNW-Wall-P3
1806434-12	285-LR-Ceiling-P1
1806434-13	285-2-BSE-Wall-P2
1806434-14	285-2-BSW-Wall-P3
1806434-15	22-2-BNE-Wall-P2
1806434-16	22-2-BNE-Ceiling-P3
1806434-17	24-(UR)-Ceiling-P1 (white)
1806434-18	24-2-BNE-Wall-P1 (blue)
1806434-19	24-2-BNW-Wall-P1 (aqua)
1806434-20	30 (UR)-Wall-P1 (white)
1806434-21	30-1-entrance-Wall-P1 (green)
1806434-22	30(LR)-Wall-P1 (orange)
1806434-23	32-2-BNE-W-P1
1806434-24	34-2-BNW-C-P2
1806434-25	34-L-BNE-W-P1
1806434-26	Mech Room#1-Floor-P1
1806434-27	Mech Room#1-Wall-P2
1806434-28	Mech Room#1-Ceiling-P3
1806434-29	811-1-KIT-W-P1-beige
1806434-30	813-2-BSW-C-P2-grey
1806434-31	813-1-LR-W-P1-beige
1806434-32	819-2-BSW-C-P2-tan/white
1806434-33	819-1-LR-W-P1-beige
1806434-34	821-2-BSE-W-P3-white
1806434-35	821-1-LR-W-P1-white
1806434-36	823-1-LR-W-P1-white
1806434-37	823-2-BSE-W-P2-cream
1806434-38	823-2-BSw-W-P3-cream
1806434-39	827-2-BNW-W-P1-beige
1806434-40	827-2-BNE-W-P2-grey
1806434-41	829-2-BSW-C-P1-white
1806434-42	829-2-BSE-C-P2-white
1806434-43	829-1-LR-W-P3-tan
1806434-44	289-2-BNW-W-P3-grey
1806434-45	289-2-BNE-C-P2-grey
1806434-46	South Mech-W-P1-tan

Approved By: Mark Foto

Mark Foto, M.Sc.
Lab Supervisor

Certificate of Analysis
Client: GHD Limited (Kingston)
Client PO: TBD

Report Date: 14-Feb-2018
Order Date: 9-Feb-2018
Project Description: 11140575-E5

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Metals, ICP-OES	based on MOE E3470, ICP-OES	12-Feb-18	13-Feb-18

Sample and QC Qualifiers Notes

1- QR-05 : Duplicate RPDs higher than normally accepted. Remaining batch QA\QC was acceptable. May be sample effect.

Sample Data Revisions

None

Work Order Revisions/Comments:

None

Other Report Notes:

n/a: not applicable
ND: Not Detected
MDL: Method Detection Limit
Source Result: Data used as source for matrix and duplicate samples
%REC: Percent recovery.
RPD: Relative percent difference.

Certificate of Analysis
Client: GHD Limited (Kingston)
Client PO: TBD

Report Date: 14-Feb-2018
Order Date: 9-Feb-2018
Project Description: 11140575-E5

Sample Results

Lead

Matrix: Paint
Sample Date: 31-Jan-18

Paracel ID	Client ID	Units	MDL	Result
1806434-01	38-K-Wall-P1	ug/g	20	<20
1806434-02	277-LR-Wall-P1 (orange)	ug/g	20	<20
1806434-03	277-LR-Ceiling- P2 (white)	ug/g	20	89
1806434-04	277-2-BSW-Wall-P3	ug/g	20	<20
1806434-05	279-LR-Wall-P1	ug/g	20	<20
1806434-06	279-2-BNW-Wall-P2	ug/g	20	<20
1806434-07	279-2-BSW-Wall-P3	ug/g	20	<20
1806434-08	281-2-BNW-Wall-P2	ug/g	20	<20
1806434-09	283-LR-Wall-P1	ug/g	20	<20
1806434-10	283-2-BSW-Wall-P2	ug/g	20	<20
1806434-11	283-2-BNW-Wall-P3	ug/g	20	<20
1806434-12	285-LR-Ceiling-P1	ug/g	20	78
1806434-13	285-2-BSE-Wall-P2	ug/g	20	<20
1806434-14	285-2-BSW-Wall-P3	ug/g	20	<20
1806434-15	22-2-BNE-Wall-P2	ug/g	20	<20
1806434-16	22-2-BNE-Ceiling-P3	ug/g	20	224
1806434-17	24-(UR)-Ceiling-P1 (white)	ug/g	20	298
1806434-18	24-2-BNE-Wall-P1 (blue)	ug/g	20	<20
1806434-19	24-2-BNW-Wall-P1 (aqua)	ug/g	20	94
1806434-20	30 (UR)-Wall-P1 (white)	ug/g	20	324
1806434-21	30-1-entrance-Wall-P1 (green)	ug/g	20	<20
1806434-22	30(LR)-Wall-P1 (orange)	ug/g	20	<20
1806434-23	32-2-BNE-W-P1	ug/g	20	337
1806434-24	34-2-BNW-C-P2	ug/g	20	101
1806434-25	34-L-BNE-W-P1	ug/g	20	<20
1806434-26	Mech Room#1-Floor-P1	ug/g	20	138
1806434-27	Mech Room#1-Wall-P2	ug/g	20	115
1806434-28	Mech Room#1-Ceiling-P3	ug/g	20	<20
1806434-29	811-1-KIT-W-P1-beige	ug/g	20	<20
1806434-30	813-2-BSW-C-P2-grey	ug/g	20	57
1806434-31	813-1-LR-W-P1-beige	ug/g	20	225
1806434-32	819-2-BSW-C-P2-tan/white	ug/g	20	23
1806434-33	819-1-LR-W-P1-beige	ug/g	20	253
1806434-34	821-2-BSE-W-P3-white	ug/g	20	190

Certificate of Analysis
Client: GHD Limited (Kingston)
Client PO: TBD

Report Date: 14-Feb-2018
Order Date: 9-Feb-2018
Project Description: 11140575-E5

Sample Results

Lead

Matrix: Paint
Sample Date: 31-Jan-18

Paracel ID	Client ID	Units	MDL	Result
1806434-35	821-1-LR-W-P1-white	ug/g	20	<20
1806434-36	823-1-LR-W-P1-white	ug/g	20	528
1806434-37	823-2-BSE-W-P2-cream	ug/g	20	160
1806434-38	823-2-BSw-W-P3-cream	ug/g	20	<20
1806434-39	827-2-BNW-W-P1-beige	ug/g	20	<20
1806434-40	827-2-BNE-W-P2-grey	ug/g	20	116
1806434-41	829-2-BSW-C-P1-white	ug/g	20	53
1806434-42	829-2-BSE-C-P2-white	ug/g	20	234
1806434-43	829-1-LR-W-P3-tan	ug/g	20	<20
1806434-44	289-2-BNW-W-P3-grey	ug/g	20	439
1806434-45	289-2-BNE-C-P2-grey	ug/g	20	<20
1806434-46	South Mech-W-P1-tan	ug/g	20	30

Laboratory Internal QA/QC

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Matrix Blank									
Lead	**ND**	**20**	**ug/g**						
Matrix Duplicate									
Lead	**ND**	**20**	**ug/g**	**ND**			**0.0**	**30**	
Matrix Spike									
Lead	206		ug/L	ND	82.4	70-130			

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Paracel ID: 1806434

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№ 114839

Page 1 of 6

Client Name: GHD Ltd.	Project Reference: 11140575-E5	**Turnaround Time:**
Contact Name: Scott Wallis	Quote #	☐ 1 Day ☐ 3 Day
Address: 1225 Gardiners Rd, Unit 104 Kingston, ON K7P 0G3	PO # TBD	☐ 2 Day ☑ Regular
Telephone: (613-389-9812	Email Address: scott.wallis@ghd.com	Date Required:

Criteria: ☐ O. Reg. 153/04 (As Amended) Table __ ☐ RSC Filing ☐ O. Reg. 558/00 ☐ PWQO ☐ CCME ☐ SUB (Storm) ☐ SUB (Sanitary) Municipality: ☐ Other:

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)

Required Analyses

Paracel Order Number: 1806434

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken Date	Sample Taken Time	PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)	Lead						
1	38-K-Wall-P1	P			31-January-2018									X						
2	277-LR-Wall-P1 (Orange)													X						
3	277-LR-Ceiling-P2 (white)													X						
4	277-2-BSW-Wall-P3													X						
5	279-LR-Wall-P1													X						
6	279-2-BNW-Wall-P2													X						
7	279-2-BSW-Wall-P3													X						
8	281-2-BNW-Wall-P2													X						
9	283-LR-Wall-P1													X						
10	283-2-BSW-Wall-P2													X						

Comments:

Method of Delivery: Drop Box

Relinquished By (Sign):	Received by Driver/Depot:	Received at Lab:	Verified By:
Relinquished By (Print): SWALLIS	Date/Time: Feb 9/18 8:30	Date/Time: Feb 10/18 11:45	Date/Time: Feb 10/18 11:45
Date/Time: 2030 / 8 Feb 2018	Temperature: °C	Temperature: °C	pH Verified [ ] By:

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Paracel ID: 1806434

Chain of Custody
(Lab Use Only)
№ 114840

Page 2 of 6.

Client Name: GHD Ltd.	Project Reference: 11140575-E5	**Turnaround Time:**
Contact Name: Scott Wallis	Quote #	☐ 1 Day ☐ 3 Day
Address: 1225 Gardiners Rd. Unit 104 Kingston, ON K7P 0G3	PO # TBD	☐ 2 Day ☒ Regular
Telephone: 613-389-9812	Email Address: scott.wallis@ghd.com.	Date Required:

Criteria: ☐ O. Reg. 153/04 (As Amended) Table __ ☐ RSC Filing ☐ O. Reg. 558/00 ☐ PWQO ☐ CCME ☐ SUB (Storm) ☐ SUB (Sanitary) Municipality: ☐ Other:

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)

Required Analyses

	Paracel Order Number: / Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken: Date	Sample Taken: Time	PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)	Lead
1	283-2-BNW-Wall-P3	P			Feb 8/18									X
2	285-LR-Ceiling-P1	P			Feb 8/18									X
3	285-2-BSE-Wall-P2	P			Feb 8/18									X
4	285-2-BSW-Wall-P3	P			Feb 8/18									X
5														
6														
7														
8														
9														
10														

Comments:

Method of Delivery: Drop Box

Relinquished By (Sign): SWall	Received by Driver/Depot: Melissa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): S Wallis	Date/Time: Feb 9/18	Date/Time: Feb 10/18 11:45	Date/Time: Feb 10/18 11:45
Date/Time: 2030/8 Feb 2018	Temperature: °C	Temperature: °C	pH Verified [ ] By:

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Paracel ID: 1806434

Chain of Custody (Lab Use Only) № 114841

Page 3 of 6

Client Name: GHD Ltd.	Project Reference: 11140575-E5	**Turnaround Time:**
Contact Name: Scott Wallis	Quote #	☐ 1 Day ☐ 3 Day
Address: 1225 Gardiners Rd, Unit 104 Kingston, ON K7P0G3	PO # TBD	☐ 2 Day ☒ Regular
Telephone: 613-389-9812	Email Address: Scott.Wallis@ghd.com	Date Required:

Criteria: ☐ O. Reg. 153/04 (As Amended) Table __ ☐ RSC Filing ☐ O. Reg. 558/00 ☐ PWQO ☐ CCME ☐ SUB (Storm) ☐ SUB (Sanitary) Municipality: ☐ Other:

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)

Required Analyses

	Paracel Order Number: / Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken: Date	Sample Taken: Time	PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)	Lead
1	22-2-BNE-Wall-P2	P			January - 2018									X
2	22-2-BNE-Ceiling-P3	P												X
3	24(UR)-Ceiling-P1 (white)	P												X
4	24-2-BNE-Wall-P1 (blue)	P												X
5	24-2-BNW-Wall-P1 (Aqua)	P												X
6	30(UR)-Wall-P1 (white)	P												X
7	30-1-entrance-Wall-P1 (Green)	P												X
8	30(LR)-Wall-P1 (orange)	P												X
9	32-2-BNE-W-P1	P												X
10	34-2-BNW-C-P2	P												X

Comments:

Method of Delivery: D.B

Relinquished By (Sign): S Wall	Received by Driver/Depot: Alyssa Fraser	Received at Lab: [signature]	Verified By: [signature]
Relinquished By (Print): S WALLIS	Date/Time: Feb 9/18	Date/Time: Feb 10/18 1545	Date/Time: Feb 10/18 15:45
Date/Time: 2030/Feb 2018	Temperature: °C	Temperature: °C	pH Verified [ ] By:

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Paracel ID: 1806434

Chain of Custody (Lab Use Only)

№ 114842

Client Name: GHD Ltd.	Project Reference: 1140575-E5
Contact Name: Scott Wallis	Quote #
Address: 1225 Gardiners Rd, Unit 104 Kingston, ON K7P 0G3	PO # TBD
Telephone: 613-389-9812	Email Address: Scott.Wallis@ghd.com

Turnaround Time: ☐ 1 Day ☐ 3 Day ☐ 2 Day ☑ Regular

Date Required:

Criteria: ☐ O. Reg. 153/04 (As Amended) Table __ ☐ RSC Filing ☐ O. Reg. 558/00 ☐ PWQO ☐ CCME ☐ SUB (Storm) ☐ SUB (Sanitary) Municipality: ______ ☐ Other: ______

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) (P (Paint)) A (Air) O (Other)

Paracel Order Number:

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken Date	Sample Taken Time	PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)	Lead
1	34-L-BNE-W-P1	P			31-Jan 2018									X
2	Mech Room #1-Floor-P1	P			31-Jan 2018									X
3	Mech Room #1-Wall-P2	P			31-Jan 2018									X
4	Mech Room #1-Ceiling-P3	P			31-Jan 2018									X
5														
6														
7														
8														
9														
10														

Comments:

Method of Delivery: D.B

Relinquished By (Sign): SWalli	Received by Driver/Depot: [signature]	Received at Lab: [signature]	Verified By: [signature]
Relinquished By (Print): S WALLIS	Date/Time: Feb 9/18	Date/Time: Feb 9/18 11:45	Date/Time: Feb 9/18 11:45
Date/Time: 2030/8 Feb 2018	Temperature: °C	Temperature: °C	pH Verified [ ] By:

PARACEL LABORATORIES LTD.

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Paracel ID: 1806434

Chain of Custody (Lab Use Only)
№ 114843

Page 5 of 6

Client Name: GHD	Project Reference: 11 14 05 75 ES	**Turnaround Time:**
Contact Name: Scott Wallis	Quote #	☐ 1 Day ☐ 3 Day
Address: 104-1225 Gardiners Rd Kingston ON	PO # TBD	☐ 2 Day ☒ Regular
Telephone: 613 389 9812	Email Address: scott.wallis@ghd.com	Date Required:

Criteria: ☐ O. Reg. 153/04 (As Amended) Table __ ☐ RSC Filing ☐ O. Reg. 558/00 ☐ PWQO ☐ CCME ☐ SUB (Storm) ☐ SUB (Sanitary) Municipality: ☐ Other:

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)

Required Analyses

	Paracel Order Number: / Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken: Date	Sample Taken: Time	PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)	LEAD
1	811-1-KIT-W-P1-beige			1										X
2	813-2-BSW-C-P2-grey			1										X
3	813-1-LR-W-P1-beige			1	9									X
4	819-2-BSW-C-P2-tan/white			1	2									X
5	819-1-LR-W-P1-beige			1	7									X
6	821-2-BSE-W-P3-white	A		1	7									X
7	821-1-LR-W-P1-white			1	1									X
8	823-1-LR-W-P1-white			1	M									X
9	823-2-BSE-W-P2-cream			1										X
10	823-2-BSW-W-P3-cream			1										X

Comments:

Method of Delivery: D.B

Relinquished By (Sign): Swall.	Received by Driver/Depot: Alyssa Forster	Received at Lab:	Verified By:
Relinquished By (Print): S Wallis	Date/Time: Feb 9/18	Date/Time: Feb 10/18 11:45	Date/Time: Feb 10/18 11:45
Date/Time: 2030/8 Feb 2018	Temperature: °C	Temperature: °C	pH Verified ☐ By:

PARACEL LABORATORIES LTD.

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Paracel ID: 1806434

Chain of Custody (Lab Use Only)

№ 114844

Page 6 of 6

Client Name: GHD	Project Reference: 11 14 05 75 65	**Turnaround Time:**	
Contact Name: Scott Wallis	Quote #	☐ 1 Day	☐ 3 Day
Address: 104-1225 Gardiners Rd Kingston ON	PO # TBD	☐ 2 Day	☒ Regular
Telephone: 613 389 9812	Email Address: scott.wallis@ghd.com	Date Required:	

Criteria: ☐ O. Reg. 153/04 (As Amended) Table __ ☐ RSC Filing ☐ O. Reg. 558/00 ☐ PWQO ☐ CCME ☐ SUB (Storm) ☐ SUB (Sanitary) Municipality: _____ ☐ Other: _____

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)

Required Analyses

Paracel Order Number:

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken: Date	Sample Taken: Time	PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)	LEAD
1	827-2-BNW-W-P1-beige	S		1	Feb 8									X
2	827-2-BSE-W-P2-grey	S		1	Feb 8									X
3	829-2-BSW-C-P1-white	S		1	Feb 8									X
4	829-2-BSE-C-P2-white	S		1	Feb 8									X
5	829-1-LR-W-P3-tan	S		1	Feb 8									X
6	289-2-BNW-W-P3-~~beige~~ grey.	S		1	Feb 8									X
7	289-2-BNE-C-P2-grey	S		1										X
8	South Mech-W-P1-tan.	S		1										X
9														
10														

Comments:

Method of Delivery: D.B

Relinquished By (Sign): JWall	Received by Driver/Depot: Alyssa Fraser	Received at Lab:	Verified By:
Relinquished By (Print): JWALLIS	Date/Time: Feb 9/18	Date/Time: Feb 10/18 11:45	Date/Time: Feb 10/18 11:45
Date/Time: 2030/8 Feb 2018	Temperature: °C	Temperature: °C	pH Verified [ ] By:

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