October 24, 2023
CO884.00

Ms. Jade Hawkins
595831 Ontario Inc.
650 Eagleson Road
Kanata, Ontario
K2M 1H4

Attention: Ms. Jade Hawkins

Re: Designated Substances Survey
5646 Manotick Main Street, Ottawa, Ontario

Dear Ms. Hawkins:

Further to your request, Terrapex Environmental Ltd. (Terrapex) completed a designated substances survey (DSS) of a building at 5646 Manotick Main Street Ottawa, Ontario (the site). It is understood that the work program is required by 595831 Ontario Inc. (the Client) for municipal Site plan approval in anticipation of demolition of the structure for potential redevelopment of the Site.

The objectives of the DSS were to identify the presence, absence or potential for "Designated Substances" as defined in the Ontario *Occupational Health and Safety Act* (R.S.O. 1990, Chapter O.1) *Designated Substances* regulation (O. Reg. 490/09), and to identify and quantify potential asbestos-containing materials (ACM) as required by O. Reg. 278/05 *Designated Substance — Asbestos on Construction Projects and in Buildings and Repair Operations*. The survey also included identification of other hazardous materials such as polychlorinated biphenyls (PCBs), urea-formaldehyde foam insulation (UFFI), ozone-depleting substances (ODS), and mould.

BUILDING DESCRIPTION

The Site is located on the west side of Manotick Main Street, approximately 250 m south of Eastman Avenue and approximately 30 m north of Mahogany Harbour Lane in Manotick, Ontario. The Site is irregular in shape and occupies a footprint of 2,566 m^2. It is understood that the original building was constructed in 1965. The property is occupied by a two-storey building of that consists of:

- A vacant former commercial space located on the bottom portion of the building;
- Two apartment units (Apartment Units 2 and 3, (there is no Unit 1)) on the second floor; and
- A two-bay car wash that was constructed on the north end of the building.

The main building is a two-storey, rectangular in shape and has an approximate footprint of 204 spare meters (m^2). The building is slab-on grade and cinderblock construction. The siding of the building is composed of tin and a mortar façade. A wooden staircase and deck are located at the rear of the building and provide access to the two second-story apartments.

The interior of the main building contained what appeared to be a former commercial space for the retail fuel outlet/convenience store. At the time of the inspection, the interior of the commercial area was vacant and it appeared that the interior was in the midst of a renovation as no drywall was located on the walls and various building materials were present throughout. It was noted that extensive mould and water damage was present on the ceiling in the southwest corner of the room. It appeared that sewage from one of the upstairs apartments was leaking into the commercial space. The northern portion of the main building was used as a mechanical room for the car wash.

The upstairs of the main building contained two apartments. One of the apartments (Apartment 3) was able to be inspected. The apartment was finished with drywall walls and engineered laminate flooring. The second apartment was inaccessible at the time of the inspection.

A two-car self-serve car wash is attached to the northern side of the main building. The car wash was reportedly constructed in the late 1980s. The car wash extension is approximately two stories tall and is of brick construction and has a footprint of approximately 96 m^2. The mechanical room for the carwash is located in the northern portion of the main building. The equipment in the mechanical room consists of a natural gas water heater, hot water tank, a well pressure tank, various water softeners, water compressors for the spray nozzles and various hoppers for soap and detergent. It was noted that various 20 L pails of detergents and soaps were located in the mechanical room of the warehouse.

A small one-story extension with a footprint of approximately 20 m^2 is located at the rear of the main building. This expansion contained what appeared to be the old furnace room for the store and a bathroom. The exterior of the expansion was covered with roof shingles. The interior of this expansion was covered in drywall and had extensive mould and water damage throughout.

A two-bay carwash garage is attached to the northern side of the building. The carwash is of slab-on-grade and of brick construction. Drains were observed in each of the car wash bays.

The layout of the building is provided in Figure 1 and selected photographs are attached.

SCOPE OF WORK

The building was inspected by Greg Sabourin of Terrapex on March 16, 2022. All areas of the building were accessible and observed during the site inspection, except for the following:

- The attic of the main building; and,
- Apartment number 2, on the second floor.

A follow-up visit on April 21, 2022, was conducted to access the attic of the main building, which was provided through a hole cut through the ceiling in Apartment 3.

Samples of potential asbestos-containing materials (ACM) and potential lead-containing paint were submitted for laboratory analysis to Paracel Laboratories Ltd. (Paracel). Paracel is accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for analysis including but not limited to metals, organics mold and asbestos in various matrices and International Organization for Standardization's ISO/IEC *17025 - General Requirements for the Competence of Testing and Calibration Laboratories* and the ISO 9000 series of Quality Management Standards.

The results of the survey are provided below.

DESIGNATED SUBSTANCES

Acrylonitrile: Acrylonitrile is a colourless to pale yellow liquid with an unpleasant odour. It is primarily used in the industrial production of synthetic fibres, resins, plastics, elastomers, and rubber. Historically, acrylonitrile has also been used in fumigants/pesticides. Because of its use in the manufacturing of many consumer goods, trace amounts of acrylonitrile may be present in materials or equipment in the building. However, O. Reg. 490/09 does not apply to situations where the exposure is limited to contact with manufactured goods.

Acrylonitrile was not observed or suspected to be present (in pure form), produced, used, processed, handled or stored in the building. No concerns regarding the exposure of workers or the public to acrylonitrile are anticipated.

Arsenic: Arsenic is a naturally occurring element. Anthropogenic sources of arsenic include wood preservatives (inorganic arsenic compounds) and pesticides (organic arsenic compounds). O. Reg. 490/09 applies to workplaces where arsenic is produced, processed, used, handled, or stored, where a worker is likely to be exposed.

Arsenic was not observed or suspected to be produced, used, processed, handled, or stored in the building. No concerns regarding the exposure of workers or the public to arsenic are anticipated.

Asbestos: O. Reg. 490/09 does not apply to asbestos exposure in a non-industrial setting. However, any material which contains greater than 0.5% asbestos fibre (by dry weight) is considered to be an asbestos-containing material with respect to the requirements of O. Reg. 278/05, *Designated Substance - Asbestos on Construction Projects and in Buildings and Repair Operations*, and must be identified and managed in accordance with the regulation. ACMs commonly present in commercial buildings include mechanical/piping insulation, wall, floor and ceiling tiles, plaster and drywall compound, gaskets, siding, roofing paper and other materials. O. Reg. 278/05 defines "friable material" as material that when dry can be crumbled, pulverized or powdered by hand pressure, or is crumbled, pulverized or powdered. Friable asbestos is of greater concern with respect to exposure than non-friable asbestos. Disposal of asbestos waste in Ontario is governed by the *General - Waste Management* regulation (R.R.O. 1990, Reg. 347). Based on the age of the building, ACM could be present. Forty-two samples of fourteen potential

ACM, were collected and submitted for laboratory analysis to Paracel. Asbestos (bulk) analysis was conducted utilizing Polarized Light Microscopy (PLM) according to the EPA standard 600/R-93/116 and the test method NIOSH 9002. O. Reg. 278/05 requires between three and seven bulk material samples from each area of homogeneous potential asbestos-containing material, depending on the size of the area. In accordance with the "stop-positive" method of analysis, if one sample in a group of similar samples was determined to be ACM, the remaining samples in the group were not analyzed.

The locations of the potential ACM samples, material descriptions, approximate extent, and condition are summarized in Table 1 (attached). The locations of the samples are also shown on Figure 1 (attached). Laboratory Certificates of Analyses are attached.

The results of the analyses indicated that the following ACM is present in the building:

- The red painted stucco present at the front exterior of the building (sample ACM-1A, non-friable, 2% Chrysotile asbestos, approximately 30 m^2 in area, fair to poor condition);
- Texture coating material on the ceiling of the carwash mechanical room the building, (sample ACM-14A, friable, 1% Chrysotile asbestos, approximately 4 m^2 in area, poor condition and sample ACM-15A, friable, 2% Chrysotile asbestos, approximately 4 m^2 in area, poor condition); and,
- Roofing material in the attic of the main building (sample ACM-26A, non-friable, 1% amosite asbestos, approximately 60 m^2 in area, poor condition).

All other samples are considered to be non-ACM.

Benzene: Benzene is a highly flammable, colourless liquid with a sweet odour. Benzene is found in petroleum products and cigarette smoke. Industrial uses of benzene include the manufacturing of rubbers, lubricants, dyes, detergents, drugs, and pesticides, as well as the manufacturing of other chemicals for the production of plastics, resins, and nylon and other synthetic fibres.

Coke oven emissions: Coke oven emissions are defined as the "benzene soluble fraction of total particulate matter of the substances emitted into the atmosphere from metallurgical coke ovens" (O. Reg. 490/09).

No coke ovens were present at the site and are not suspected to have been present historically. Therefore, no concerns regarding the exposure of workers or the public to coke oven emissions in the building are anticipated.

Ethylene oxide: Ethylene oxide is a man-made chemical that is primarily used in the manufacturing of ethylene glycol (a chemical used in the production of antifreeze and polyester). Small amounts of ethylene oxide (less than 1%) may be used to control insects in some stored agricultural products, as well as during the sterilization of medical equipment and supplies.

Ethylene oxide was not observed or suspected to be present in the building. No concerns

regarding the exposure of workers or the public to ethylene oxide in the building are anticipated.

Isocyanates: Isocyanates are compounds containing the isocyanate group (-NCO) and are typically used in the manufacturing of thermoplastic elastomers, spandex fibres, and polyurethane products (foams, paints, etc.). O. Reg. 490/09 applies to workplaces where isocyanates are produced, used, handled or stored, where a worker is likely to be exposed.

Isocyanates were not observed or suspected to be produced, used, handled or stored in the building, although they could be present in trace amounts in manufactured products. No concerns regarding the exposure of exposure of workers or the public to isocyanates are anticipated.

Lead: The *Surface Coating Materials Regulation* under the *Federal Hazardous Products Act* limits the amount of lead permissible in new interior paint to 0.009% or 90 ppm. While this limit does not apply to paints already applied, it generally accepted in Canada as the level over which a paint is considered to be "lead-containing". In structures constructed prior to approximately 1980, lead may also be present in solder on water lines, or in lead drainage pipes.

Based upon the age of the building, lead may be present on painted surfaces and in piping. Twelve samples of paint (P-1 to P-7 and P-9 to P-13) from the building were collected and submitted for laboratory analysis of lead content. Lead in paint analysis was conducted using Inductively Coupled Plasma Mass Spectroscopy (ICP/MS) according to EPA method 6020.The sample locations, paint descriptions, approximate extent of the painted surfaces, and condition of the paint are summarized in Table 2 (attached). The locations of the paint samples are shown on Figure 2. Laboratory Certificates of Analyses are attached.

The results of the analyses indicated that the following paint containing elevated levels of lead is present in the building:

- the white paint (P-4) located on the exterior at the southern and western sides of the exterior;
- beige-brown paint (P-5) located on the first floor of the building;
- grey paint (P-6) located on first floor
- green paint (P-7) located on first floor
- yellow-green paint (P-9) located on first floor
- white paint (P-11) located on wood siding on exterior of building.

Paint located on the gutters, the carwash columns and front red and white siding of the building were not considered lead containing.

Mercury: Mercury is a naturally occurring element that can occur in several forms. Metallic mercury is a shiny, silver-white coloured, odourless liquid. Metallic mercury is commonly found in thermometers, dental amalgams, batteries, fluorescent lamps, high intensity discharge (HID) lamps and related products.

Mercury may also be present in surface coatings such as paint. The current *Surface Coating Materials Regulation* limits the permissible mercury content in many surface coating materials, including interior paints, to 0.001% or 10 ppm. While this limit does not apply to paints already applied, it is generally accepted as the level over which a paint is considered “mercury-containing”.

Twelve samples of paint (P-1 to P-7 and P-9 to P-13) from the building were collected and submitted for laboratory analysis of mercury content. Mercury in paint analysis was conducted utilizing Cold Vapour Atomic Absorption Spectroscopy (CVAAS) according to EPA standard 7471B. The sample locations, paint descriptions, approximate extent of the painted surfaces, and condition of the paint are summarized in Table 2. The paint sample locations are shown on Figure 2. Laboratory Certificates of Analysis are attached.

As shown on Table 2, the results of the analyses indicated none of the paint samples submitted contained elevated levels of mercury. Small volumes of mercury are likely present in thermostat controllers in the building, as well as the vapours within fluorescent light bulbs.

Silica: Silica, also called “silica sand” or “quartz sand”, refers to sands, gravels, and other soil and rock products with a high silicon dioxide (SiO_2) content. Designated substance requirements under the *Occupational Health and Safety Act* only apply to crystalline silica present in a respirable form.

Silica will be naturally present in soil and bedrock as well as many construction materials including cement, concrete, brick, and mortars.

Vinyl chloride: Vinyl chloride is a colourless gas with a mild, sweet odour that is primarily used in the manufacturing of polyvinyl chloride (PVC) plastic and vinyl products such as piping, wire, cable coatings, and packaging materials. As a result, trace amounts of vinyl chloride may be found in some building materials at the site. No concerns regarding the exposure of workers or the public to vinyl chloride are anticipated.

POLYCHLORINATED BIPHENYLS (PCBs)

Historically, PCBs have been used in electrical equipment such as transformers, fluorescent light ballasts and capacitors. The use of PCBs was banned in heat transfer and electrical equipment installed after 1977, and in transformers and capacitors installed after 1980. These bans did not initially apply to existing equipment, however, as of December 31, 2009, all equipment containing PCBs at a concentration equal to or greater than 500 mg/kg had to be removed, and as of December 31, 2025 (earlier for equipment close to sensitive locations), all equipment containing PCBs at a concentration less than 500 mg/kg (including light ballasts and pole-top transformers) must be removed under the Federal PCB regulations (SOR/2008 273).

Four fluorescent light fixtures were observed within the building. The light ballasts appeared to be in good condition with no evidence of damage or leaks. Ballasts were not accessible on any of the fluorescent light fixtures and the equipment would have to be dismantled to inspect the ballast date codes and determine whether they contain PCBs.

The meter room was observed to contain electrical panels and controls. Based on the age of the building it is possible that electrical switches and capacitors in the control panels may contain PCBs. No other electrical equipment suspected to contain PCBs was observed in the building.

UREA-FORMALDEHYDE FOAM INSULATION (UFFI)

UFFI is an insulating foam plastic typically - but not exclusively - used to insulate existing wood-framed residential homes. Most installations occurred between 1977 and 1980, after which it was banned in Canada. UFFI is produced by mixing urea-formaldehyde resin, a foaming agent, and compressed air, and injecting it into installation areas (e.g. void spaces).

No evidence of UFFI, or of UFFI installation, was observed within the building.

OZONE-DEPLETING SUBSTANCES (ODS)

ODS include chlorofluorocarbons (CFCs), chlorofluorocarbons (HCFCs), halons, carbon tetrachloride, and methyl chloroform. Most ODS in industrial/commercial settings are found in refrigeration equipment (including air-conditioning units) and in older halon fire suppression systems for areas containing computers or other sensitive electronics.

A drink cooler was observed to be located on the first floor of the building. No other ODSs or appliances potentially containing ODSs were observed.

MOULD

Mould is a general term for microscopic fungi that are highly adapted to grow and reproduce rapidly, producing spores and mycelia. Mould may grow indoors when provided with moisture and nutrients. Under wet or damp conditions, mould may grow on building materials such as wallpaper, ceiling tiles, carpets, insulation material and drywall.

It was observed that extensive mould and water damage was present on the ceiling on the main floor of the vacant commercial space. As the building is expected to be demolished in the short term this is not expected to be a concern. Mould was not observed in other areas.

OTHER DEMOLITION / WASTE MANAGEMENT CONCERNS

Hazardous Materials/Potentially Hazardous Materials: With the exception of the jerry cans containing fuel, as well as small quantities of soaps and detergents and consumer chemicals, no hazardous materials were observed to be stored or generated at the site. The chemical containers were observed to be properly capped and placed neatly on shelves in the lobby. No evidence of spillage or staining was observed around paint and chemical storage in the lobby.

Miscellaneous wastes: No miscellaneous waste was observed at the Site.

CONCLUSIONS

The results of this DSS indicated the following designated or controlled substances associated with the site:

- ACM within the following building materials:
    - The red painted stucco present at the front exterior of the building (sample ACM-1A, non-friable, 2% Chrysotile asbestos, approximately 30 m^2 in area, fair to poor condition);
    - Texture coating material on the ceiling of the carwash mechanical room the building, (sample ACM-14A, friable, 1% Chrysotile asbestos, approximately 4 m^2 in area, poor condition, and sample ACM-15A, friable, 2% Chrysotile asbestos, approximately 4 m^2 in area, poor condition); and,
    - Roofing material in the attic of the main building (sample ACM-26A, non-friable, 1% amosite asbestos, approximately 60 m^2 in area, poor condition);
- the potential for PCBs in fluorescent light ballasts and capacitors/switches within electrical panels / controls;
- lead containing paints, generally in fair condition but with some flaking;
- the potential for mercury in fluorescent light bulbs and thermostat;
- potential ODSs in the cooler located in building;
- silica in building materials.

RECOMMENDATIONS

As asbestos-containing materials have been identified in the facility, an Asbestos Management Plan is required under O. Reg. 278/05 if the building is to not be demolished. The owner of the facility is responsible for establishing and implementing the plan, which must consist of the following elements:

- preparing and maintaining on the premises a record containing the location of all the ACM, and, in the case of spray-on fireproofing, the type of ACM;
- providing any other person who is an occupier of the building written notice of any information in the record that relates to the area occupied by the person;
- providing any employer with whom the owner arranges or contracts for work that may involve material mentioned in the record, or may be carried on in close proximity to such material and may disturb it, written notice of the information in the record, such as this report and any update reports;
- advising the workers employed by the owner who work in the building of the information in the record, if the workers may do work that involves material mentioned in the record, or is to be carried on in close proximity to such material and may disturb it;

- establishing and maintaining for the training and instruction of every worker employed by the owner who works in the building and may do work described above;
- inspecting the material mentioned in the record at reasonable intervals (at least once per year) in order to determine its condition.

If any demolition, alteration or repair work that may result in disturbing ACM or potential ACM areas, a qualified asbestos abatement contractor should be retained for asbestos removal prior to undertaking the work. O. Reg. 278/05 defines three types of asbestos removal operations, which require different levels of protection, isolation and decontamination. Type 1 operations involve the lowest level of risk and include the removal of non-friable materials where the material is not damaged, or can be wetted and cut without power tools. Type 3 operations involve the highest level of risk, including removal of most types of friable materials, and require full enclosure of the area and construction of a decontamination area for workers and equipment, among other things.

During any future renovation or demolition activities, it should be verified whether PCBs are present. Once de-energized, ballasts may be evaluated using the *Identification of Light Ballasts Containing PCBs*, Environment Canada, 1991 and the *Handbook on PCBs in Electrical Equipment*, Environment Canada, 1988. If date codes or PCB label information are not evident, sampling by a qualified contractor may be necessary, otherwise, equipment should be considered PCB-containing. Any PCB-containing equipment must be disposed in accordance with the requirements of the *Waste Management - PCBs* regulation (R.R.O. 1990, Reg. 362).

Care should be taken to avoid worker and public exposure to mercury during any renovation or demolition activities by removing and appropriately disposing of thermostat controls and fluorescent light bulbs prior to removal of building roofs, walls, supports, etc. by heavy equipment.

Demolition and renovation contractors should ensure the use of appropriate personal protective equipment and proper dust control measures to protect themselves and the public from potential exposure by inhalation of silica dust or paint dust or chips.

The presence of ODS in the refrigeration equipment is not considered a significant environmental concern (UNLESS THE ODS IS PHASED OUT), however disposal and/or servicing of ODS-containing devices must be completed by a licensed technician to ensure that these substances are managed in accordance with the requirements of R.R.O. 1990, Reg. 347, *Waste Management - General,* and O. Reg. 463/10, *Ozone Depleting Substances and Other Halocarbons.*

Disposal of hazardous materials, including asbestos, if required, should be completed in accordance with Reg. 347.

CLOSURE

This report has been completed in accordance with the terms of reference for this project as agreed upon by 595831 Ontario Inc. (the Client) and Terrapex Environmental Ltd. (Terrapex) and generally accepted engineering or environmental consulting practices in this area.

Terrapex has exercised due care, diligence, and judgement in the performance of this assessment, however, studies of this nature have inherent limitations. This report is intended to provide only a general assessment of substances of concern that may be present within the building(s) at the site. By necessity, the findings and observations regarding actual or potential presence of such substances are based solely on the extent of observations and information gathered during the assessment, and subsequent investigations of differing scope may reveal conflicting results. In particular, it should be noted that the assessment was limited to accessible areas; inspection and/or testing of materials behind walls, ceilings, etc., except where explicitly noted, was not completed as part of this work program. The assessment was also limited to a study of those materials specifically addressed in this report therefore, the contractor is advised that any accessible areas may contain designated substances and is therefore advised to take all appropriate precautions.

Terrapex has relied in good faith on information and representations obtained from the Client and third parties and, except where specifically identified, has made no attempt to verify such information. Terrapex accepts no responsibility for any deficiency or inaccuracy in this report as a result of any misstatement, omission, misrepresentation, or fraudulent act of those providing information. Terrapex shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time of the study.

This report has been prepared for the sole use of 595831 Ontario Inc.. Terrapex accepts no liability for claims arising from the use of this report, or from actions taken or decisions made as a result of this report, by parties other than 595831 Ontario Inc..

Sincerely,
TERRAPEX ENVIRONMENTAL LTD.

LICENSED PROFESSIONAL ENGINEER
G. D. SABOURIN
100765530
October 24, 2023
PROVINCE OF ONTARIO

Greg Sabourin, P.Eng.
Project Manager

Rod Rose, P.Geo (Limited)
Senior Reviewer

Attach.
Table 1 Summary of Potential ACM and Results of Laboratory Analysis
Table 2 Summary of Paint Samples and Results of Laboratory Analysis
Figure 1 Asbestos Sampling Location Plan
Figure 2 Paint Sampling Location Plan
Photographs
Laboratory Certificates of Analysis

TABLE 1 SUMMARY OF POTENTIAL ACM AND RESULTS OF LABORATORY ANALYSIS
5646 Manotick Main, Ottawa, Ontario

Sample ID	Location	Description	Approximate Extent	Condition	Friable/Non-Friable	Laboratory Analysis Results
ACM-1A ACM-1B ACM-1C	Front of building	Red painted stucco façade.	Representative of front of building (approximately 30m^2)	Fair	Non-friable	**2% (Chrysotile)** SP SP
ACM-3A ACM-3B ACM-3C	Side and rear of building	White concrete masonry façade	Representative of the lower half of the side and rear of the building	Fair	Non-friable	<0.5% <0.5% <0.5%
ACM-4A ACM-4B ACM-4C	Floor Tile throughout main floor of building and black mastic	Beige vinyl floor tile	In bathroom and back rear extension of building	Poor	Non-friable	<0.5% <0.5% <0.5%
ACM-5A ACM-5B ACM-5C	Parging located on interior of the building	Parge coat located on cinderblock throughout interior, White layer. Grey layer was unable to be analysed.	Intermittent throughout interior of first floor of building	Poor	Non-friable	<0.5% <0.5% <0.5%
ACM-7A ACM-7B ACM-7C	On extension at back of building	Tar paper	Throughout exterior of extension	Fair	Non-friable	<0.5% <0.5% <0.5%
ACM-8A ACM-8B ACM-8C	On extension at back of building	Grey Shingles	Throughout exterior of extension	Fair	Non-friable	<0.5% <0.5% <0.5%
ACM-9A ACM-9B ACM-9C	Interior and exterior on first floor of the building	Parging	Interior and exterior on first floor of the building	Fair	Non-friable	<0.5% <0.5% <0.5%
ACM-11A ACM-11B ACM-11C	Drywall joint compound in apartment	Drywall joint compound	Second floor apartments	Good	Non-friable	<0.5% <0.5% <0.5%
ACM-13A ACM-13B ACM-13C	Roof of Building	Shingles	Across roof of main building	Fair	Non-friable	<0.5% <0.5% <0.5%
ACM-14A ACM-14B ACM-14C	Mechanical room of garage	Ceiling texture coating	Mechanical room	poor	Friable	**1% (Chrysotile)** SP SP

Sample ID	Location	Description	Approximate Extent	Condition	Friable/Non-Friable	Laboratory Analysis Results
ACM-15A ACM-15B ACM-15C	Mechanical room of garage	Ceiling texture coating	Mechanical room	poor	Friable	**2% (Chrysotile)** SP SP
ACM-25A ACM-25B ACM-25C	Across the roof of the building	Tar paper/insulation	Across the extent of the roof of the main building	poor	Friable	<0.5% <0.5% <0.5%
ACM-26A ACM-26B ACM-26C	Across the roof of the building	Tar roofing material (black and brown layer)	Across the extent of the roof of the main building	poor	Friable	**1% (Amosite)** SP SP
ACM-26A ACM-26B ACM-26C	Across the roof of the building	Tar roofing material (black layer)	Across the extent of the roof of the main building	poor	Friable	<0.5% <0.5% <0.5%

Ph Phase or layers
SP Stop Positive
BOLD Reported asbestos content exceeds 0.5%

TABLE 2 SUMMARY OF PAINT SAMPLES AND LABORATORY ANALYSES
5646 Manotick Main Street, Ottawa, Ontario

Sample ID	Area	Description	Approximate Extent	Condition	Lead Content (ppm)	Mercury Content (ppm)
P-1	Carwash opening	Brown and Black paint	Represents paint on the three steel columns on the entrance to the car wash	Poor (extensive flaking)	<5	<2
P-2	Gutter on building	Brown over green	Represents all paint on gutters on main building	Poor (extensive flaking)	<13	<5
P-3	On front exterior of building	White	White paint on front exterior of building	Good	7	<2
P-4	White paint on sides of building	White	Lower half of southern and rear exterior of the building.	Poor	**5030**	9
P-5	Interior of first floor	Beige-brown	Interior of building	Fair (flaking)	**1300**	<2
P-6	Interior of first floor	Grey	Interior of main floor. Located on grey sparging on cement	Fair	**1200**	7
P-7	Interior cladding on cinderblock	Green	Interior of the first floor in the main building	Fair	**923**	<2
P-9	Cladding on column in interior of building	Yellow-green	Interior of the first floor in the main building	Fair	**78500**	<2
P-10	Bollard located in the parking lot	Red	On the bollard in the parking lot	Poor (extensive flaking)	34	<2
P-11	Second story exterior paint	White	Exterior second story (underneath brown siding)	Good	**132**	<2
P-12	Second story exterior paint	Brown	Exterior second story	Fair	11	<2
P-13	Red paint on exterior of building	red	Represents red paint on front of building	Good	49	<2

BOLD Reported lead content exceeds 90 ppm, or mercury content exceeds 10 ppm.

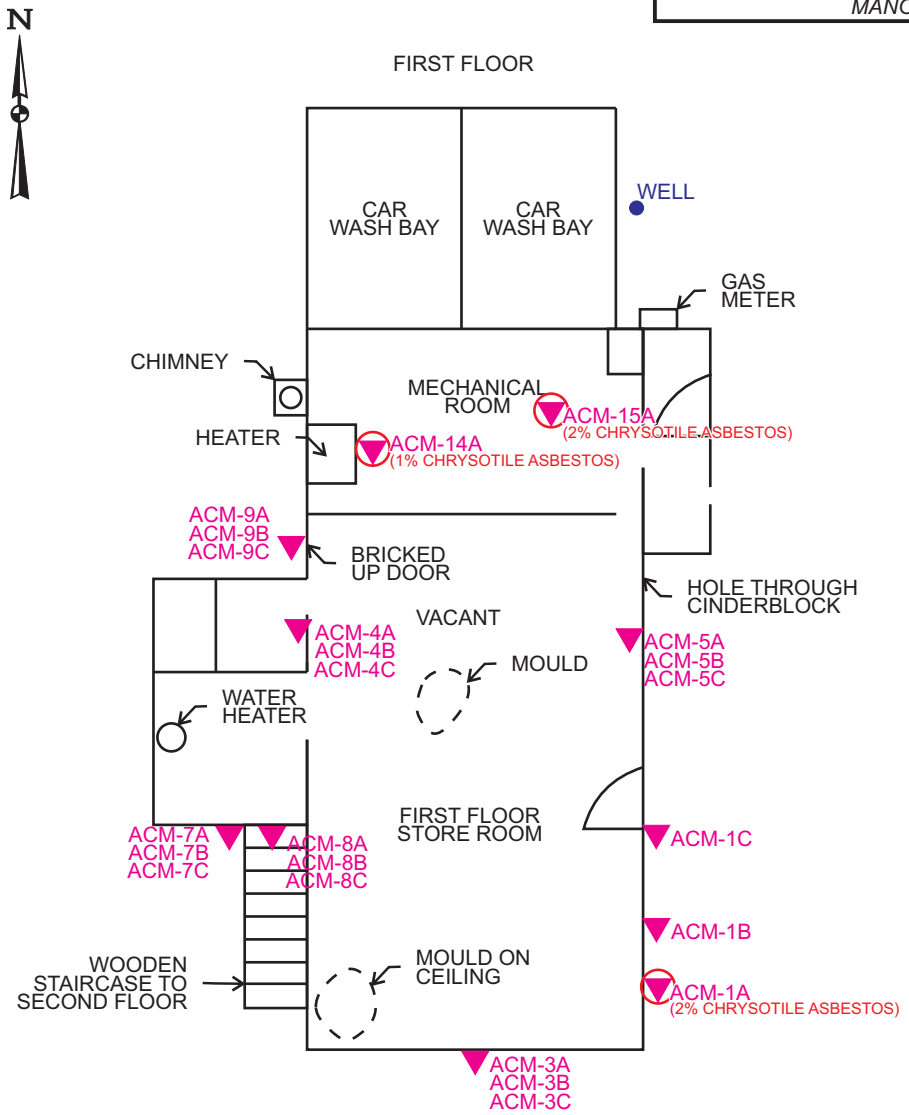
TERRAPEX

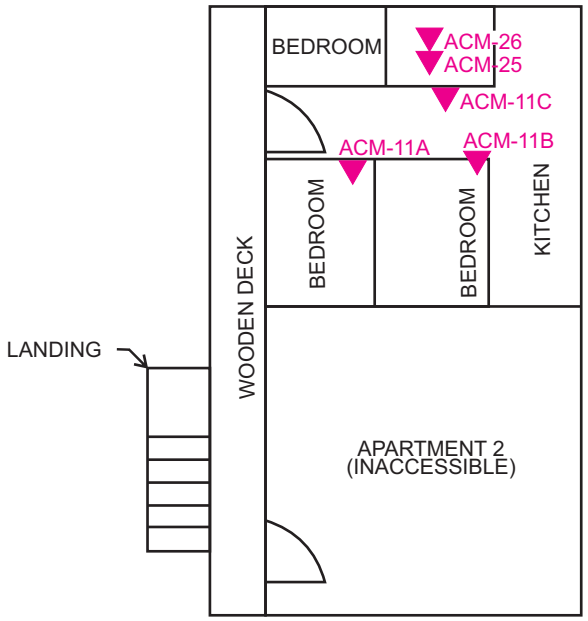
ASBESTOS SAMPLING LOCATION PLAN

5646 MANOTICK MAIN STREET
MANOTICK, ONTARIO

CLIENT

595831 ONTARIO INC.





LEGEND

- ASBESTOS CONTAINING MATERIAL SAMPLE LOCATION
- CONFIRMED ACM

PROJECT #	CO884.00
SCALE	NOT TO SCALE
DATE	MARCH 2022
DRAWN	AB/SW
CHECKED	GS
DRAWING #	FIGURE 1

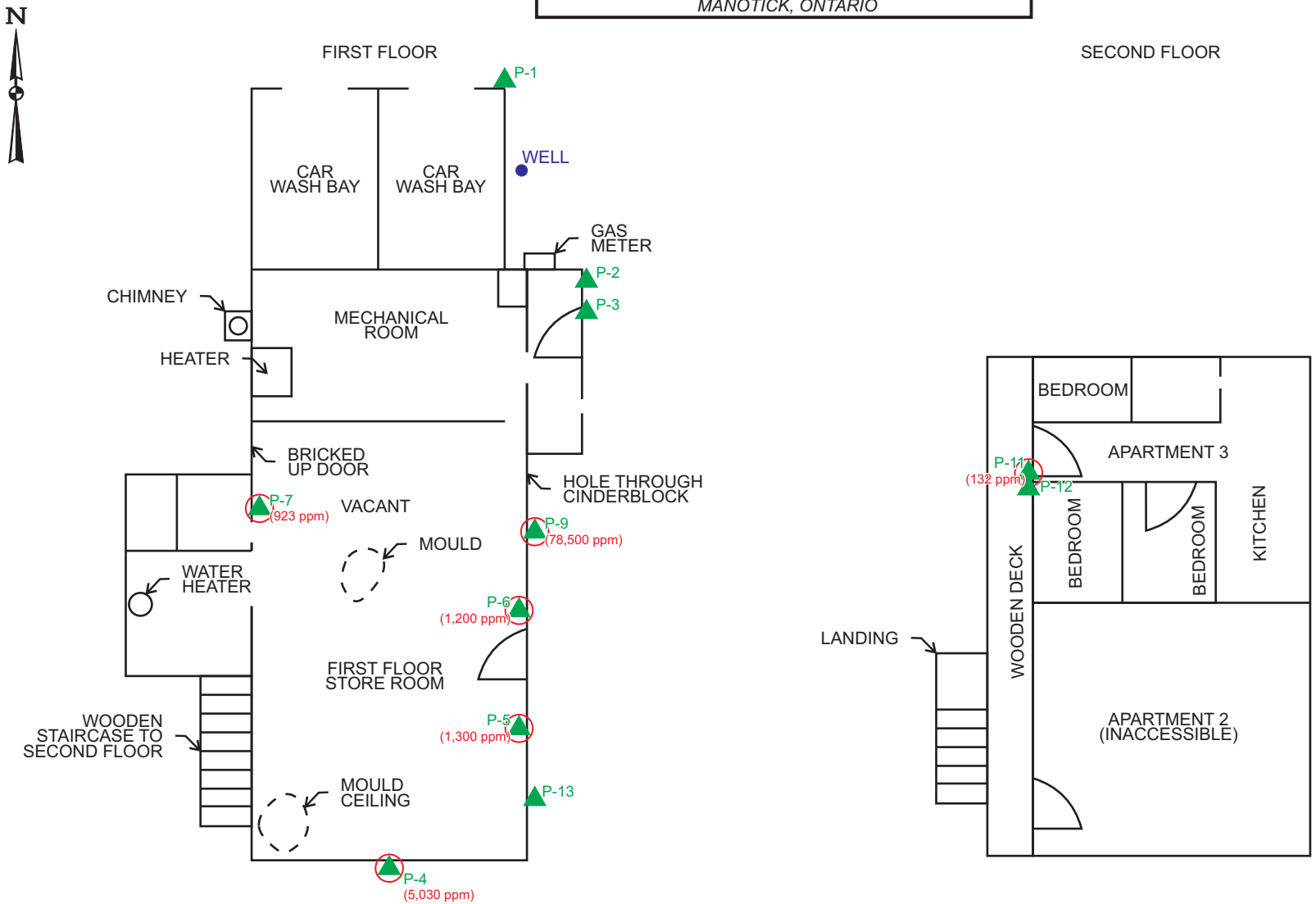
TERRAPEX

PAINT SAMPLING LOCATION PLAN

5646 MANOTICK MAIN STREET
MANOTICK, ONTARIO

CLIENT

595831 ONTARIO INC.



LEGEND

- PAINT SAMPLE LOCATION
- CONFIRMED LEAD CONTAINING PAINT SAMPLE

PROJECT #	CO884.00
SCALE	NOT TO SCALE
DATE	MARCH 2022
DRAWN	AB/SW
CHECKED	GS
DRAWING #	FIGURE 2

Client: 595831 Ontario Inc.	**Site Location**:	5646 Manotick Main Street, Ottawa ON	**Project No**: CO884.00

Photo No: 1
Date: March 16, 2022
Viewing Direction: west
Description: A view of the Site from the eastern side of Manotick Main Street.

Photo No: 2
Date: March 16, 2022
Viewing Direction: South
Description: View of the Site from the northeastern portion of the Site. The two-bay car wash is visible is the foreground.

TERRAPEX

PHOTOGRAPHIC LOG

Client: 595831 Ontario Inc.	**Site Location**:	5646 Manotick Main Street, Ottawa ON	**Project No**: CO884.00

Photo No: 3

Date: March 16, 2022

Viewing Direction:
East

Description:

View of rear portion of the building from the southwestern portion of the Site.

The access to the two upstairs apartments are provided by the wooden staircase.

Photo No: 4

Date: March 16, 2022

Viewing Direction:
North

Description:

View of the stucco on the exterior of the building that was confirmed to be 2% chrysotile (AMCM-1A).

Client: 595831 Ontario Inc.	**Site Location**:	5646 Manotick Main Street, Ottawa ON	**Project No**: CO884.00

Photo No: 5
Date: March 16, 2022
Viewing Direction: East
Description: A view of the texture coating of the ceiling in the mechanical room of the carwash (AMC-14A & ACM-15A).

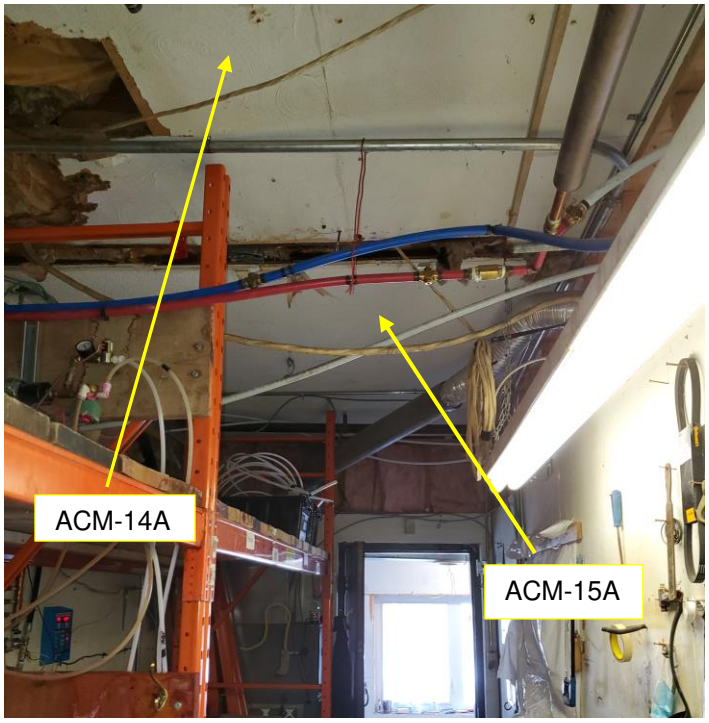
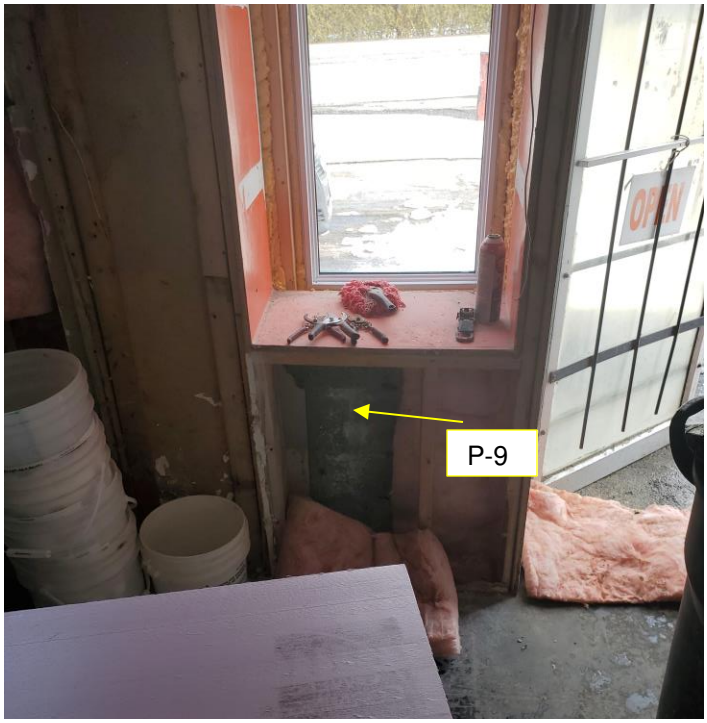


Photo No: 6
Date: March 16, 2022
Viewing Direction: North
Description: A view yellow-green paint (P-9) collected from the interior column of the first floor of the building.



TERRAPEX	PHOTOGRAPHIC LOG		Page 4 of 6
Client: 595831 Ontario Inc.	**Site Location**:	5646 Manotick Main Street, Ottawa ON	**Project No**: CO884.00

Photo No: 7 **Date:** March 16, 2021 **Viewing Direction:** East **Description:** A view of exterior and side of the building. The white paint is where paint sample P-4 was collected.	

Photo No: 8 **Date:** March 16, 2022 **Viewing Direction:** South **Description:** A view of the green paint (P-7) located in the first floor of the building.	

TERRAPEX	PHOTOGRAPHIC LOG		Page 5 of 6
Client: 595831 Ontario Inc.	**Site Location**:	5646 Manotick Main Street, Ottawa ON	**Project No**: CO884.00

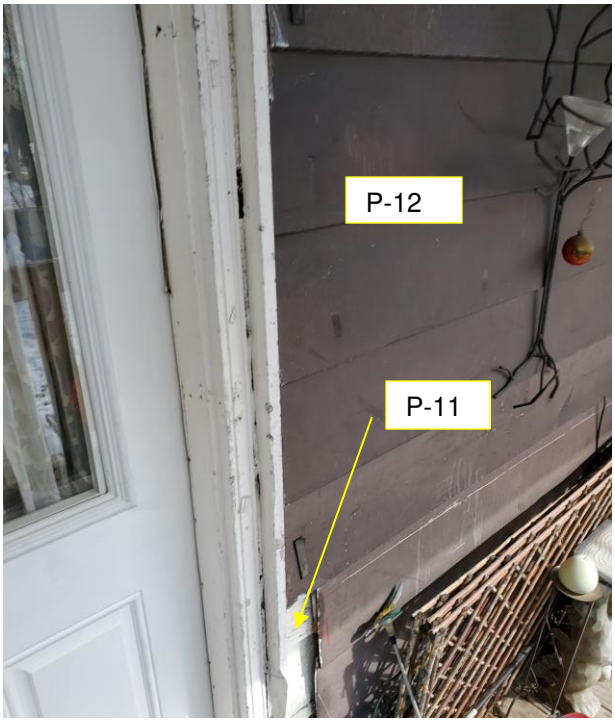
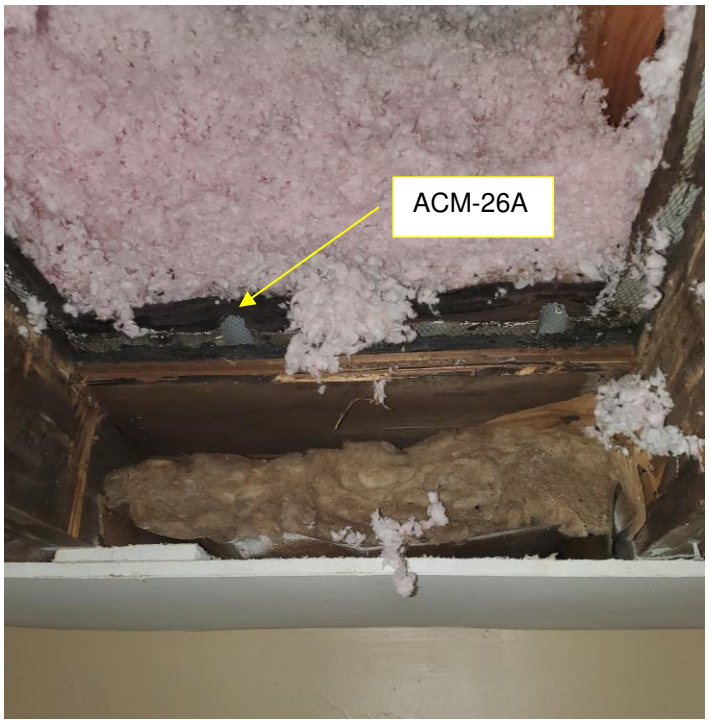
Photo No: 9 **Date:** March 16, 2022 **Viewing Direction:** North **Description:** A view of white paint (P-11) and brown paint (P-12) collected from the exterior of the second story of the building.	

Photo No: 10 **Date:** March 16, 2022 **Viewing Direction:** East **Description:** A view of beige-brown paint (P-5) collected from the interior of the building.	

Client: 595831 Ontario Inc.	**Site Location**:	5646 Manotick Main Street, Ottawa ON	**Project No**: CO884.00

Photo No: 11	
Date: April 21, 2022	
Viewing Direction: N/A	
Description: A view of insulation material in the attic of the main building.	

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Certificate of Analysis

Terrapex Environmental Ltd. (Ottawa)

20 Gurdwara Rd. Unit #1
Ottawa, ON K2E 8B3
Attn: Greg Sabourin

Client PO:
Project: C0884.00
Custody:

Report Date: 29-Mar-2022
Order Date: 18-Mar-2022

Order #: 2212528

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

Paracel ID	Client ID
2212528-01	ACM-1A
2212528-02	ACM-1B
2212528-03	ACM-1C
2212528-04	ACM-1A
2212528-05	ACM-1B
2212528-06	ACM-1C
2212528-07	ACM-3A
2212528-08	ACM-3B
2212528-09	ACM-3C
2212528-10	ACM-3A
2212528-11	ACM-3B
2212528-12	ACM-3C
2212528-13	ACM-4A
2212528-14	ACM-4B
2212528-15	ACM-4C
2212528-16	ACM-4A
2212528-17	ACM-4B
2212528-18	ACM-4C
2212528-19	ACM-5A
2212528-20	ACM-5B
2212528-21	ACM-5C
2212528-22	ACM-5A
2212528-23	ACM-5B
2212528-24	ACM-5C
2212528-25	ACM-7A
2212528-26	ACM-7B

Approved By:

Emma Diaz
Senior Analyst

2212528-27	ACM-7C
2212528-28	ACM-8A
2212528-29	ACM-8B
2212528-30	ACM-8C
2212528-31	ACM-9A
2212528-32	ACM-9B
2212528-33	ACM-9C
2212528-34	ACM-11A
2212528-35	ACM-11B
2212528-36	ACM-11C
2212528-37	ACM-13A
2212528-38	ACM-13B
2212528-39	ACM-13C
2212528-40	ACM-14A
2212528-41	ACM-14B
2212528-42	ACM-14C
2212528-43	ACM-15A
2212528-44	ACM-15B
2212528-45	ACM-15C

Certificate of Analysis

Client: **Terrapex Environmental Ltd. (Ottawa)**

Client PO:

Report Date: 29-Mar-2022

Order Date: 18-Mar-2022

Project Description: C0884.00

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2212528-01	16-Mar-22	White	Stucco	**Yes**	**Client ID: ACM-1A**	
					Chrysotile	2
					Non-Fibers	98
2212528-02	16-Mar-22	White	Stucco		**Client ID: ACM-1B**	
					not analyzed, positive stop	
2212528-03	16-Mar-22	White	Stucco		**Client ID: ACM-1C**	
					not analyzed, positive stop	
2212528-04	16-Mar-22	Grey	Stucco	No	**Client ID: ACM-1A**	
					Non-Fibers	100
2212528-05	16-Mar-22	Grey	Stucco	No	**Client ID: ACM-1B**	
					Non-Fibers	100
2212528-06	16-Mar-22	Grey	Stucco	No	**Client ID: ACM-1C**	
					Non-Fibers	100
2212528-07	16-Mar-22	Beige	Texture Coat	No	**Client ID: ACM-3A**	
					Non-Fibers	100
2212528-08	16-Mar-22	Beige	Texture Coat	No	**Client ID: ACM-3B**	
					Non-Fibers	100
2212528-09	16-Mar-22	Beige	Texture Coat	No	**Client ID: ACM-3C**	
					Non-Fibers	100
2212528-10	16-Mar-22	Grey	Cement	No	**Client ID: ACM-3A**	
					Non-Fibers	100
2212528-11	16-Mar-22	Grey	Cement	No	**Client ID: ACM-3B**	
					Non-Fibers	100
2212528-12	16-Mar-22	Grey	Cement	No	**Client ID: ACM-3C**	
					Non-Fibers	100

Certificate of Analysis

Client: **Terrapex Environmental Ltd. (Ottawa)**

Client PO:

Report Date: 29-Mar-2022

Order Date: 18-Mar-2022

Project Description: C0884.00

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2212528-13	16-Mar-22	Black	Mastic	No	**Client ID: ACM-4A**	
					Non-Fibers	100
2212528-14	16-Mar-22	Black	Mastic	No	**Client ID: ACM-4B**	
					Non-Fibers	100
2212528-15	16-Mar-22	Black	Mastic	No	**Client ID: ACM-4C**	
					Non-Fibers	100
2212528-16	16-Mar-22	Beige	Tile	No	**Client ID: ACM-4A**	
					Non-Fibers	100
2212528-17	16-Mar-22	Beige	Tile	No	**Client ID: ACM-4B**	
					Non-Fibers	100
2212528-18	16-Mar-22	Beige	Tile	No	**Client ID: ACM-4C**	
					Non-Fibers	100
2212528-19	16-Mar-22	White	Plaster	No	**Client ID: ACM-5A**	
					Non-Fibers	100
2212528-20	16-Mar-22	White	Plaster	No	**Client ID: ACM-5B**	
					Non-Fibers	100
2212528-21	16-Mar-22	White	Plaster	No	**Client ID: ACM-5C**	
					Non-Fibers	100
2212528-22	16-Mar-22	Grey	Plaster		**Client ID: ACM-5A**	[Z-01]
					not analyzed	
2212528-23	16-Mar-22	Grey	Plaster		**Client ID: ACM-5B**	[Z-01]
					not analyzed	
2212528-24	16-Mar-22	Grey	Plaster	No	**Client ID: ACM-5C**	
					Non-Fibers	99
					Other fibers	1

Certificate of Analysis

Client: **Terrapex Environmental Ltd. (Ottawa)**

Client PO:

Report Date: 29-Mar-2022

Order Date: 18-Mar-2022

Project Description: C0884.00

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2212528-25	16-Mar-22	Brown/Black	Sweat Wrap	No	**Client ID: ACM-7A** [AS-PRE]	
					Cellulose	90
					Non-Fibers	10
2212528-26	16-Mar-22	Brown/Black	Sweat Wrap	No	**Client ID: ACM-7B** [AS-PRE]	
					Cellulose	90
					Non-Fibers	10
2212528-27	16-Mar-22	Brown/Black	Sweat Wrap	No	**Client ID: ACM-7C** [AS-PRE]	
					Cellulose	90
					Non-Fibers	10
2212528-28	16-Mar-22	Black	Shingle	No	**Client ID: ACM-8A** [AS-PRE]	
					Cellulose	25
					Non-Fibers	75
2212528-29	16-Mar-22	Black	Shingle	No	**Client ID: ACM-8B** [AS-PRE]	
					Cellulose	25
					Non-Fibers	75
2212528-30	16-Mar-22	Black	Shingle	No	**Client ID: ACM-8C** [AS-PRE]	
					Cellulose	25
					Non-Fibers	75
2212528-31	16-Mar-22	Grey	Parging	No	**Client ID: ACM-9A**	
					Non-Fibers	100
2212528-32	16-Mar-22	Grey	Parging	No	**Client ID: ACM-9B**	
					Non-Fibers	100
2212528-33	16-Mar-22	Grey	Parging	No	**Client ID: ACM-9C**	
					Non-Fibers	100
2212528-34	16-Mar-22	White	Drywall Joint Compound	No	**Client ID: ACM-11A**	
					Non-Fibers	100

Certificate of Analysis

Client: **Terrapex Environmental Ltd. (Ottawa)**

Client PO:

Report Date: 29-Mar-2022

Order Date: 18-Mar-2022

Project Description: C0884.00

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2212528-35	16-Mar-22	White	Drywall Joint Compound	No	**Client ID: ACM-11B**	
					Non-Fibers	100
2212528-36	16-Mar-22	White	Drywall Joint Compound	No	**Client ID: ACM-11C**	
					Non-Fibers	100
2212528-37	16-Mar-22	Black	Roofing Material	No	**Client ID: ACM-13A** [AS-PRE]	
					Cellulose	15
					Non-Fibers	85
2212528-38	16-Mar-22	Black	Roofing Material	No	**Client ID: ACM-13B** [AS-PRE]	
					Cellulose	15
					Non-Fibers	85
2212528-39	16-Mar-22	Black	Roofing Material	No	**Client ID: ACM-13C** [AS-PRE]	
					Cellulose	15
					Non-Fibers	85
2212528-40	16-Mar-22	Off-white	Texture Coating	**Yes**	**Client ID: ACM-14A** [AS-PRE]	
					Chrysotile	1
					Non-Fibers	99
2212528-41	16-Mar-22	Off-white	Texture Coating		**Client ID: ACM-14B**	
					not analyzed, positive stop	
2212528-42	16-Mar-22	Off-white	Texture Coating		**Client ID: ACM-14C**	
					not analyzed, positive stop	
2212528-43	16-Mar-22	Off-white	Texture Coating	**Yes**	**Client ID: ACM-15A**	
					Chrysotile	2
					Non-Fibers	98
2212528-44	16-Mar-22	Off-white	Texture Coating		**Client ID: ACM-15B**	
					not analyzed, positive stop	

Certificate of Analysis

Client: Terrapex Environmental Ltd. (Ottawa)

Client PO:

Report Date: 29-Mar-2022

Order Date: 18-Mar-2022

Project Description: C0884.00

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2212528-45	16-Mar-22	Off-white	Texture Coating		**Client ID: ACM-15C**	
					not analyzed, positive stop	

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

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	Lab Accreditation	Analysis Date
Asbestos, PLM Visual Estimation	AppE to SubE of 40CFR Part753 and EPA/600/R-93/116	2 - Ottawa West	CALA 1262	29-Mar-22

Ottawa West Lab: 25 Northside Rd, Unit C Nepean, Ontario K2H 8S1

Qualifier Notes

Sample Qualifiers :

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

Z-01: Insufficient sample.

Work Order Revisions | Comments

None

Paracel ID: 2212528

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Chain of Custody
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Client Name: Terrapex Environmental Ltd.	Project Reference: C0884.00
Contact Name: Greg Sabourin / Rod Rose	Quote #:
Address: 20 Gordonia Road Ottawa ON K2E 8B3	PO #:
Telephone: 613-558-7571	Email Address: R.Rose@Terrapex.com G.Sabourin@Terrapex.com

Turnaround Time:

- ☐ Immediate
- ☐ 4 Hour
- ☐ 8 Hour
- ☐ 1 Day
- ☐ 2 Day
- ☐ 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: 2212528

	Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed (if not specified, all materials identified will be analyzed) *	Positive Stop?
1	ACM-1A	March 16	-	PLM	Both layers Group	☑
2	ACM-1B		-	PLM		☑
3	ACM-1C		-	PLM		☑
4	ACM-3A		-	PLM	2 layers	☑
5	ACM-3B		-	PLM	Group	☑
6	ACM-3C		-	PLM		☑
7	ACM-4A		-	PLM	mastic + tile	☑
8	ACM-4B		-	PLM	Group	☑
9	ACM-4C		-	PLM		☑
10	ACM-5A		-	PLM	Both layers Group	☑
11	ACM-5B		-	PLM		☑
12	ACM-5C		-	PLM		☐

* If left blank, all distinct materials identified in the samples will be analyzed and reported separately as per EPA 600/R-93/116. Additional charges will apply.

Comments:

Method of Delivery: walk

Relinquished By (Sign):	Received at Depot:	Received at Lab:	Verified By:
Relinquished By (Print): Greg Sabourin			
Date/Time: March 18, 2022 8:40	Date/Time:	Date/Time: Mar 18/22 14:49	Date/Time: Mar 18/22

Paracel ID: 2212528

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Chain of Custody
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Page 2 of 3

Client Name: Terrapex Environmental Ltd	Project Reference: C0884.00
Contact Name: Greg Sabourin	Quote #:
Address: 20 Guedenoc Road Ottawa	PO #:
Telephone: 613-558-7571	Email Address: RoRose@Terrapex.com G.Sabourin@Terrapex.com

Turnaround Time:

- ☐ Immediate
- ☐ 4 Hour
- ☐ 8 Hour
- ☐ 1 Day
- ☐ 2 Day
- ☐ 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: 2212528

	Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed (if not specified, all materials identified will be analyzed) *	Positive Stop?
1	ACM-7A	March 16	-	PLM	Group	☑
2	ACM-7B	March 16	-	PLM		☑
3	ACM-7C	March 16	-	PLM		☑
4	ACM-8A	March 16	-	PLM	Group	☑
5	ACM-8B	March 16	-	PLM		☑
6	ACM-8C	March 16	-	PLM		☑
7	ACM-9A	March 16	-	PLM	Group	☑
8	ACM-9B	March 16	-	PLM		☑
9	ACM-9C	March 16	-	PLM		☑
10	ACM-11A	March 16	-	PLM	Group	☑
11	ACM-11B	March 16	-	PLM		☑
12	ACM-11C	March 16	-	PLM		☑

* If left blank, all distinct materials identified in the samples will be analyzed and reported separately as per EPA 600/R-93/116. Additional charges will apply.

Comments:

Method of Delivery: walk

Relinquished By (Sign):	Received at Depot:	Received at Lab:	Verified By:
Relinquished By (Print): Greg Sabourin			
Date/Time: March 18, 2022 8:40	Date/Time:	Date/Time: Mar 18/22 14:49	Date/Time: Mar 18/22

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Paracel ID: 2212528

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Chain of Custody
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Page 3 of 3.

Client Name: Terapex Environmental Ltd	Project Reference: C0884.00
Contact Name: Greg Sabourin / Rod Rose.	Quote #:
Address: 20 Gurdwara Road Ottawa K2E 8B3	PO #:
Telephone: 613-558-7571	Email Address: R.Rose@Terapex.com G.Sabourin@Terapex.com

Turnaround Time:
- ☐ Immediate
- ☐ 4 Hour
- ☐ 8 Hour
- ☐ 1 Day
- ☐ 2 Day
- ☐ 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: 2212528

	Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed (if not specified, all materials identified will be analyzed) *	Positive Stop?
1	~~ACM-13A~~ ACM-13A	March 6	-	PLM	Group 1	☑
2	~~ACM-13B~~ ACM13-B		-	PLM		☑
3	~~ACM-13C~~ ACM13-C		-	PLM		☑
4	ACMMM.-14A		-	PLM	Group 2 — texture coating layer	☑
5	ACM - 14B		-	PLM		☑
6	ACM-14C		-	PLM		☐
7	ACM - 15A		-	PLM	Group 3 — texture coating layer	☐
8	ACM - 15B		-	PLM		☐
9	ACM - 15C		-	PLM		☐
10						☐
11						☐
12						☐

* If left blank, all distinct materials identified in the samples will be analyzed and reported separately as per EPA 600/R-93/116. Additional charges will apply.

Comments: Postive Stop as per Groupings

Method of Delivery: Walk

Relinquished By (Sign):	Received at Depot:	Received at Lab:	Verified By:
Relinquished By (Print): Greg Sabourin			
Date/Time: March 18, 2022 8:40	Date/Time:	Date/Time: Mar 18/22 8:40	Date/Time: Mar 18/22 14:49

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Certificate of Analysis

Terrapex Environmental Ltd. (Ottawa)

20 Gurdwara Rd. Unit #1
Ottawa, ON K2E 8B3
Attn: Greg Sabourin

Client PO:
Project: C0884.00
Custody:

Report Date: 4-Apr-2022
Order Date: 18-Mar-2022

Revised Report

Order #: 2212508

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

Paracel ID	Client ID
2212508-01	P-1
2212508-02	P-2
2212508-03	P-3
2212508-04	P-4
2212508-05	P-5
2212508-06	P-6
2212508-07	P-7
2212508-08	P-9
2212508-09	P-10
2212508-10	P-11
2212508-11	P-12
2212508-12	P-13

Approved By:

Dale Robertson, BSc
Laboratory Director

Certificate of Analysis

Report Date: 04-Apr-2022

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 18-Mar-2022

Client PO:

Project Description: C0884.00

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Mercury by CVAA	EPA 7471B - CVAA, digestion	22-Mar-22	23-Mar-22
Metals, ICP-MS	EPA 6020 - Digestion - ICP-MS	21-Mar-22	21-Mar-22

PARACEL LABORATORIES LTD.

Order #: 2212508

Certificate of Analysis

DRAFT

Report Date: 04-Apr-2022

Client: **Terrapex Environmental Ltd. (Ottawa)**

Order Date: 18-Mar-2022

Client PO:

Project Description: C0884.00

	Client ID:	P-1	P-2	P-3	P-4
	Sample Date:	16-Mar-22 09:00	16-Mar-22 09:00	16-Mar-22 09:00	16-Mar-22 09:00
	Sample ID:	2212508-01	2212508-02	2212508-03	2212508-04
	MDL/Units	Paint	Paint	Paint	Paint
Metals					
Lead	5 ug/g	<5 [2]	<13 [1]	7	5030 [2]
Mercury	2 ug/g	<2 [2]	<5 [1]	<2	9 [2]

	Client ID:	P-5	P-6	P-7	P-9
	Sample Date:	16-Mar-22 09:00	16-Mar-22 09:00	16-Mar-22 09:00	16-Mar-22 09:00
	Sample ID:	2212508-05	2212508-06	2212508-07	2212508-08
	MDL/Units	Paint	Paint	Paint	Paint
Metals					
Lead	5 ug/g	1300	1200 [2]	923 [2]	78500 [2]
Mercury	2 ug/g	<2	7 [2]	<2 [2]	<2 [2]

	Client ID:	P-10	P-11	P-12	P-13
	Sample Date:	16-Mar-22 09:00	16-Mar-22 09:00	16-Mar-22 09:00	16-Mar-22 09:00
	Sample ID:	2212508-09	2212508-10	2212508-11	2212508-12
	MDL/Units	Paint	Paint	Paint	Paint
Metals					
Lead	5 ug/g	34	132 [2]	11 [2]	49
Mercury	2 ug/g	<2	<2 [2]	<2 [2]	<2

Certificate of Analysis

Report Date: 04-Apr-2022

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 18-Mar-2022

Client PO:

Project Description: C0884.00

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Metals									
Lead	ND	5	ug/g						
Mercury	ND	2	ug/g						

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Certificate of Analysis

Terrapex Environmental Ltd. (Ottawa)

20 Gurdwara Rd. Unit #1
Ottawa, ON K2E 8B3
Attn: Greg Sabourin

Client PO:
Project: C0884.00
Custody:

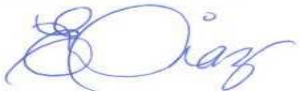
Report Date: 29-Apr-2022
Order Date: 22-Apr-2022

Order #: 2218074

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

Paracel ID	Client ID
2218074-01	ACM-25A
2218074-02	ACM-25B
2218074-03	ACM-25C
2218074-04	ACM-26A
2218074-05	ACM-26B
2218074-06	ACM-26C
2218074-07	ACM-26A
2218074-08	ACM-26B
2218074-09	ACM-26C

Approved By:



Emma Diaz

Senior Analyst

Certificate of Analysis

Client: **Terrapex Environmental Ltd. (Ottawa)**

Client PO:

Report Date: 29-Apr-2022

Order Date: 22-Apr-2022

Project Description: C0884.00

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2218074-01	21-Apr-22	Brown/Black/ Grey	Tar Paper/Insulation	No	**Client ID: ACM-25A** [AS-PRE, Z-01]	
					Cellulose	30
					MMVF	10
					Non-Fibers	60
2218074-02	21-Apr-22	Black/Brown/ Grey	Tar Paper/Insulation	No	**Client ID: ACM-25B** [AS-PRE, Z-01]	
					Cellulose	30
					MMVF	10
					Non-Fibers	60
2218074-03	21-Apr-22	Black/Brown/ Grey	Tar Paper/Insulation	No	**Client ID: ACM-25C** [AS-PRE, Z-01]	
					Cellulose	30
					MMVF	10
					Non-Fibers	60
2218074-04	21-Apr-22	Black/Brown	Rooing Material	**Yes**	**Client ID: ACM-26A** [AS-PRE]	
					Amosite	1
				[ASTrc]	**Chrysotile**	<MDL
					Cellulose	25
					MMVF	10
					Non-Fibers	64
2218074-05	21-Apr-22	Black/Brown	Roofing Material		**Client ID: ACM-26B**	
					not analyzed, positive stop	
2218074-06	21-Apr-22	Black/Brown	Roofing Material		**Client ID: ACM-26C**	
					not analyzed, positive stop	
2218074-07	21-Apr-22	Black	Roofing Material	No	**Client ID: ACM-26A** [AS-PRE, Z-01a]	
					Cellulose	20
					MMVF	<MDL
					Non-Fibers	80

PARACEL LABORATORIES LTD.

Order #: 2218074

DRAFT

Certificate of Analysis

Report Date: 29-Apr-2022

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 22-Apr-2022

Client PO:

Project Description: C0884.00

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2218074-08	21-Apr-22	Black	Roofing Material	No	**Client ID: ACM-26B** [AS-PRE, Z-01a]	
					Cellulose	20
					MMVF	<MDL
					Non-Fibers	80
2218074-09	21-Apr-22	Black	Roofing Material	No	**Client ID: ACM-26C** [AS-PRE, Z-01a]	
					Cellulose	20
					MMVF	<MDL
					Non-Fibers	80

* 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	Lab Accreditation	Analysis Date
Asbestos, PLM Visual Estimation	AppE to SubE of 40CFR Part753 and EPA/600/R-93/116	2 - Ottawa West	CALA 1262	29-Apr-22

Ottawa West Lab: 25 Northside Rd, Unit C Nepean, Ontario K2H 8S1

Qualifier Notes

Sample Qualifiers :

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

ASTrc: Trace asbestos was observed below the noted detection limit but could not be accurately quantified.

Z-01: Layers inseperable.

Z-01a: Thicker layer.

Work Order Revisions | Comments

None

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2218074

Chain of Custody
(Lab Use Only)

Page 1 of 1

Client Name: Terrapex Environmental Ltd	Project Reference: C0884.00
Contact Name: Greg Sabourin	Quote #:
Address: 20 Gardiner Road Ottawa ON	PO #:
Telephone: 613-558-7571	Email Address: GSabourin@Terrapex.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: 2218074

	Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed (if not specified, all materials identified will be analyzed) *	Positive Stop?
1	ACM-25A	April 21	-	PLM		☑
2	ACM-25B	April 21	-	PLM	Group	☑
3	ACM-25C	April 21	-	PLM		☑
4	ACM-26A	April 21	-	PCM	Both layers Group	☑
5	ACM-26B	April 21	-	PLM		☑
6	ACM-26C	April 21	-	PCM		☑
7						☐
8						☐
9						☐
10						☐
11						☐
12						☐

* If left blank, all distinct materials identified in the samples will be analyzed and reported separately as per EPA 600/R-93/116. Additional charges will apply.

Comments:

Method of Delivery: walk-in

Relinquished By (Sign):	Received at Depot:	Received at Lab:	Verified By:
Relinquished By (Print): Greg Sabourin			
Date/Time: April 25, 2022	Date/Time: April 22 22 15:45	Date/Time: 04/25/22 9:20 am	Date/Time: 04/25/22 2:23 pm

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Metals									
Lead	538	5	ug/g	571			6.0	50	
Mercury	ND	2	ug/g	ND			NC	30	

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Metals									
Lead	62.5	5	ug/g	22.8	79.4	70-130			
Mercury	16	2	ug/g	ND	110	70-130			

Qualifier Notes:

Sample Qualifiers :

1 : Elevated Reporting Limits due to limited sample volume.

2 : Complete separation of paint from substrate not possible for this sample and a small amount of substrate has been included in the paint digestion.

Sample Data Revisions

None

Work Order Revisions / Comments:

Revision-1: This report includes an updated sample list and additional lead and mercury in paint analysis as per the client.

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.
NC: Not Calculated

PARACEL LABORATORIES LTD.

Paracel ID: 2212508

DRAFT

Paracel Order Number (Lab Use Only)	Chain Of Custody (Lab Use Only)
2212508	

Client Name: TerraPex & Environmental Ltd.
Contact Name: Greg Sabourin / Rod Rose
Address: 20 Gurdwara Road Ottawa on K2E8B3
Telephone: 613-558-7571

Project Ref: Co884.00
Quote #:
PO #:
E-mail: G.Sabourin@terrapex.com
R.Rose@Terrapex.com

Page 1 of 2

Turnaround Time
☐ 1 day ☐ 3 day
☐ 2 day ☐ Regular
Date Required:

☐ REG 153/04 ☐ REG 406/19

Other Regulation: ☐ REG 558 ☐ PWQO ☐ CCME ☐ MISA ☐ SU - Sani ☐ SU - Storm

☐ Table 1 ☐ Res/Park ☐ Med/Fine
☐ Table 2 ☐ Ind/Comm ☐ Coarse
☐ Table 3 ☐ Agri/Other
☐ Table
For RSC: ☐ Yes ☐ No

Mun:
☑ Other:

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

	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)	Pb	Hg			
1	P-1	P	-	1	March 16	-								X	X			
2	P-2	P	-	1		-								X	X			
3	P-3	P	-	1		-								X	X			
4	P-4	P	-	1		-								X	X			
5	P-5	P	-	1		-								X	X			
6	P-6	P	-	1		-								X	X			
7	P-7	P	-	1		-								X	X			
8	P-9	P	-	1		-								X	X			
9	P-10	P	-	1		-								X	X			
10	P-11	P	-	1	↓	-								X	X			

Comments:

Method of Delivery: Walk

Relinquished By (Sign):	Received By Driver/Depot:	Received at Lab: Soneegam Dolemai	Verified By:
Relinquished By (Print): Greg Sabourin	Date/Time: Mar 18/22	Date/Time: MAR 18, 2022 12.52	Date/Time: March 18, 22 13:40
Date/Time: March 18, 2022 8:30	Temperature: 8:40 °C	Temperature:	pH Verified: ☐ By:

PARACEL LABORATORIES LTD.

Paracel ID: 2212508

DRAFT

Paracel Order Number (Lab Use Only)	Chain Of Custody (Lab Use Only)

Client Name: Terrapex Environmental Ltd
Contact Name: Greg Sabourin / Rod Rose
Address: 200 Dundonald Road Ottawa ON K2E8B3
Telephone:

Project Ref: C0884.00
Quote #:
PO #:
E-mail: G.Sabourin@terrapex.com
RRose@Terrapex.com

Page 2 of 2

Turnaround Time
☐ 1 day ☐ 3 day
☐ 2 day ☑ Regular
Date Required:

☐ REG 153/04 ☐ REG 406/19

☐ Table 1 ☐ Res/Park ☐ Med/Fine
☐ Table 2 ☐ Ind/Comm ☐ Coarse
☐ Table 3 ☐ Agri/Other
☐ Table ___
For RSC: ☐ Yes ☑ No

Other Regulation
☐ REG 558 ☐ PWQO
☐ CCME ☐ MISA
☐ SU - Sani ☐ SU - Storm
Mun:
☑ Other:

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

Required Analysis

	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)	Pb	Hg			
1	P-12	P	-	1	March									X	X			
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

Comments:

Method of Delivery: walk

Relinquished By (Sign):	Received By Driver/Depot:	Received at Lab: Dimeepan Bhamri	Verified By: BF am
Relinquished By (Print): Greg Sabourin	Date/Time: Mar 18/22	Date/Time: Mar 18, 2022 12.52	Date/Time: March 18, 22 13:40
Date/Time: March 18, 2022	Temperature: 8:40 °C	Temperature:	pH Verified: ☐ By:

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Certificate of Analysis

Terrapex Environmental Ltd. (Ottawa)

20 Gurdwara Rd. Unit #1
Ottawa, ON K2E 8B3
Attn: Greg Sabourin

Client PO:
Project: C0884.00
Custody:

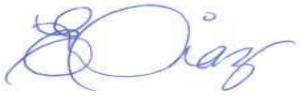
Report Date: 29-Apr-2022
Order Date: 22-Apr-2022

Order #: 2218074

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

Paracel ID	Client ID
2218074-01	ACM-25A
2218074-02	ACM-25B
2218074-03	ACM-25C
2218074-04	ACM-26A
2218074-05	ACM-26B
2218074-06	ACM-26C
2218074-07	ACM-26A
2218074-08	ACM-26B
2218074-09	ACM-26C

Approved By:



Emma Diaz

Senior Analyst

Certificate of Analysis

Client: **Terrapex Environmental Ltd. (Ottawa)**

Client PO:

Report Date: 29-Apr-2022

Order Date: 22-Apr-2022

Project Description: C0884.00

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2218074-01	21-Apr-22	Brown/Black/ Grey	Tar Paper/Insulation	No	**Client ID: ACM-25A** [AS-PRE, Z-01]	
					Cellulose	30
					MMVF	10
					Non-Fibers	60
2218074-02	21-Apr-22	Black/Brown/ Grey	Tar Paper/Insulation	No	**Client ID: ACM-25B** [AS-PRE, Z-01]	
					Cellulose	30
					MMVF	10
					Non-Fibers	60
2218074-03	21-Apr-22	Black/Brown/ Grey	Tar Paper/Insulation	No	**Client ID: ACM-25C** [AS-PRE, Z-01]	
					Cellulose	30
					MMVF	10
					Non-Fibers	60
2218074-04	21-Apr-22	Black/Brown	Rooing Material	**Yes**	**Client ID: ACM-26A** [AS-PRE]	
					Amosite	1
				[ASTrc]	**Chrysotile**	<MDL
					Cellulose	25
					MMVF	10
					Non-Fibers	64
2218074-05	21-Apr-22	Black/Brown	Roofing Material		**Client ID: ACM-26B**	
					not analyzed, positive stop	
2218074-06	21-Apr-22	Black/Brown	Roofing Material		**Client ID: ACM-26C**	
					not analyzed, positive stop	
2218074-07	21-Apr-22	Black	Roofing Material	No	**Client ID: ACM-26A** [AS-PRE, Z-01a]	
					Cellulose	20
					MMVF	<MDL
					Non-Fibers	80

PARACEL LABORATORIES LTD.

Order #: 2218074

DRAFT

Certificate of Analysis

Report Date: 29-Apr-2022

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 22-Apr-2022

Client PO:

Project Description: C0884.00

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2218074-08	21-Apr-22	Black	Roofing Material	No	**Client ID: ACM-26B** [AS-PRE, Z-01a]	
					Cellulose	20
					MMVF	<MDL
					Non-Fibers	80
2218074-09	21-Apr-22	Black	Roofing Material	No	**Client ID: ACM-26C** [AS-PRE, Z-01a]	
					Cellulose	20
					MMVF	<MDL
					Non-Fibers	80

* 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	Lab Accreditation	Analysis Date
Asbestos, PLM Visual Estimation	AppE to SubE of 40CFR Part753 and EPA/600/R-93/116	2 - Ottawa West	CALA 1262	29-Apr-22

Ottawa West Lab: 25 Northside Rd, Unit C Nepean, Ontario K2H 8S1

Qualifier Notes

Sample Qualifiers :

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

ASTrc: Trace asbestos was observed below the noted detection limit but could not be accurately quantified.

Z-01: Layers inseperable.

Z-01a: Thicker layer.

Work Order Revisions | Comments

None

PARACEL LABORATORIES LTD. | TRUSTE RESPON RELIAB

2218074

Chain of Custody
(Lab Use Only)

Page 1 of 1

Client Name: Terrapex Environmental Ltd	Project Reference: C0884.00
Contact Name: Greg Sabourin	Quote #:
Address: 20 Gardiner Road Ottawa ON	PO #:
Telephone: 613-558-7571	Email Address: GSabourin@Terrapex.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: 2218074

	Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed (if not specified, all materials identified will be analyzed) *	Positive Stop?
1	ACM-25A	April 21	-	PLM		☑
2	ACM-25B	April 21	-	PLM	Group	☑
3	ACM-25C	April 21	-	PLM		☑
4	ACM-26A	April 21	-	PCM	Both layers Group	☑
5	ACM-26B	April 21	-	PLM		☑
6	ACM-26C	April 21	-	PCM		☑
7						☐
8						☐
9						☐
10						☐
11						☐
12						☐

* If left blank, all distinct materials identified in the samples will be analyzed and reported separately as per EPA 600/R-93/116. Additional charges will apply.

Comments:

Method of Delivery: walk-in

Relinquished By (Sign):	Received at Depot:	Received at Lab:	Verified By:
Relinquished By (Print): Greg Sabourin			
Date/Time: April 25, 2022	Date/Time: April 22 22 15:45	Date/Time: 04/25/22 9:20 am	Date/Time: 04/25/22 2:23 pm