PINCHIN ENVIRONMENTAL

MEMBER OF PG THE PINCHIN GROUP

Phase II Environmental Site Assessment
637 Cummings Avenue
Ottawa, Ontario

Jawan Properties Inc.

55 Greatwood Crescent

Ottawa, ON K2G 6T6

Attention: Mr. Raju Bhagrath

February 2014

Pinchin File: 90638.001

EXECUTIVE SUMMARY

Pinchin Environmental Ltd. ("Pinchin") was retained on January 9, 2014 through an Authorization to Proceed signed by Mr. Raju Bhagrath of Jawan Properties Inc. ("Client") to conduct a Phase II Environmental Site Assessment ("ESA") of the property located at 637 Cummings Avenue, Ottawa, Ontario (hereafter referred to as the "Site").

The Site is developed with a two-storey multi-tenant residential building ("Site Building").

Pinchin was advised by the Client that the purpose of the Phase I ESA was to assess potential issues of environmental concern in relation to the potential acquisition and financing of the Site.

The results of a Phase I ESA completed by Pinchin identified the following potential issues of environmental concern:

- Historical databases indicated that the Site Building historically heated by an oil-fired hot water boiler system. The heating oil was reportedly stored in a 1,000 gallon underground storage tank ("UST"). No documentation regarding the removal of the UST was provided to Pinchin. Based on the presence of a former on-Site UST, it is Pinchin's opinion that this UST has the potential to result in subsurface impacts at the Site.

Based on the above-mentioned finding, Pinchin recommended that a Phase II ESA be conducted at the Site in order to assess for the presence of environmental impacts.

The Phase II ESA was completed at the Site by Pinchin on February 7, 2014 and consisted of the advancement of three boreholes, one of which was completed as a groundwater monitoring well.

Select "worst case" soil samples collected during the borehole drilling program were submitted for laboratory analysis of petroleum hydrocarbons ("PHCs") (F_1 to F_4) and benzene, toluene, ethylbenzene and xylenes (collectively referred to as "BTEX"). A groundwater sample was collected from the newly installed monitoring well and was submitted for laboratory analysis of PHC (F_1 to F_4) and BTEX.

Based on Site specific information, the soil and groundwater quality was assessed based on the Ontario Ministry of the Environment ("MOE") *Table 3 Standards* for residential/parkland/institutional land use and coarse-textured soil.

All reported concentrations in the soil and groundwater samples submitted for analysis of PHC (F_1 to F_4) and BTEX satisfied their respective *Table 3 Standards.*

Based on the findings of this Phase II ESA, it is Pinchin's opinion that no further subsurface investigation is required for the Site at this time in relation to the findings of the Phase I ESA.

This Executive Summary is subject to the same standard limitations as contained in the report and must be read in conjunction with the entire report.

TABLE OF CONTENTS

APPENDICES

FIGURES

TABLES

1.0 INTRODUCTION

Pinchin Environmental Ltd. ("Pinchin") was retained on January 9, 2014 through an Authorization to Proceed signed by Mr. Raju Bhagrath of Jawan Properties Inc. ("Client") to conduct a Phase II Environmental Site Assessment ("ESA") of the property located at 637 Cummings Avenue, Ottawa, Ontario (hereafter referred to as the "Site").

The Site is developed with a two-storey multi-tenant residential building ("Site Building").

Pinchin was advised by the Client that the purpose of the Phase I ESA was to assess potential issues of environmental concern in relation to the potential acquisition and financing of the Site.

This Phase II ESA was completed in general accordance with the Canadian Standards Association document entitled "*Phase II Environmental Site Assessment, CSA Standard Z769-00 (R2008)*", dated 2000 and reaffirmed in 2008.

1.1 Background

Pinchin completed a Phase I ESA of the Site for the Client, the findings of which were provided in the report entitled "*Phase I Environmental Site Assessment, 637 Cummings Avenue, Ottawa, Ontario*", dated January 2014. The results of the Phase I ESA completed by Pinchin identified the following potential issue of environmental concern:

- Historical databases indicated that the Site Building historically heated by an oil-fired hot water boiler system. The heating oil was reportedly stored in a 1,000 gallon underground storage tank ("UST"). No documentation regarding the removal of the UST was provided to Pinchin. Based on the presence of a former on-Site UST, it is Pinchin's opinion that this UST has the potential to result in subsurface impacts at the Site.

Based on the above-mentioned finding, it was Pinchin's recommendation that a Phase II ESA be conducted at the Site in order to assess for the presence of environmental impacts.

1.2 Scope of Work

The scope of work completed by Pinchin, as outlined in the Pinchin work plan entitled "*Phase I and II Environmental Site Assessment Workplan and Cost Estimate*" submitted to the Client on January 28, 2014, included the following:

- Advancement of three boreholes following the clearance of underground services, one of which will be instrumented with a monitoring well;
- Submission of select "worst case" soil samples for laboratory analysis of petroleum hydrocarbons ("PHCs") (F_1 to F_4) and benzene, toluene, ethylbenzene and xylenes (collectively referred to as "BTEX");
- Collection of groundwater samples from each of the newly installed monitoring well following well development and purging, for laboratory analysis of PHC (F_1 to F_4) and BTEX;

- Comparison of the soil and groundwater laboratory analytical results to the applicable regulatory criteria; and
- Preparation of a factual report (this report) detailing the findings of the Phase II ESA and recommendations.

2.0 METHODOLOGY

The investigation methodology was conducted in general accordance with the MOE document entitled *"Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario"* dated December 1996 (*"MOE Sampling Guideline*").

2.1 Borehole Investigation

Pinchin retained Strata Soil Sampling Inc. ("Strata") to complete the borehole drilling program at the Site on February 7, 2014 following the clearance of underground services in the vicinity of the work area by public utility locators and a private utility locator retained by Pinchin. Strata is licensed by the MOE in accordance with Ontario Regulation 903 (as amended) to undertake borehole drilling/well installation activities. The boreholes were advanced to a maximum depth of 5.5 mbgs using a Geoprobe 7820 direct push drill rig.

Soil samples were collected at regular intervals using 3.8 centimetre ("cm") inner diameter direct push soil samplers with dedicated single-use sample liners. Discrete soil samples were collected from the single-use liners and containerized in laboratory-supplied glass sampling jars. Subsurface soil conditions were logged on-Site by Pinchin personnel at the time of drilling. Soil samples were examined for visual and olfactory evidence of impacts and a portion of each sample was analyzed in the field for solvent and petroleum-derived vapour concentrations in soil headspace using a photoionization detector ("PID").

The locations of the boreholes are shown on Figure 2 and a description of the subsurface stratigraphy encountered during the drilling program is documented in the borehole logs included in Appendix II.

2.2 Monitoring Well Installation

A groundwater monitoring well was installed in borehole MW-2 to enable groundwater monitoring and sampling. The monitoring wells were constructed with 3.8 cm inner diameter ("ID") flush-threaded Schedule 40 polyvinyl chloride ("PVC") risers, followed by a length of 3.8 cm ID No. 10 slot PVC screen.

Each well screen was sealed at the bottom using a threaded cap and each riser was sealed at the top with a lockable J-plug cap. Silica sand was placed around and above the screened interval to form a filter pack around the well screen. A layer of bentonite was placed above the silica sand

and was extended to the ground surface. A protective aboveground monument casing was installed at the ground surface over each riser pipe and cemented in place.

The locations of the monitoring wells are shown on Figure 2. The monitoring well construction details are shown on the borehole logs included in Appendix II.

2.3 Sampling and Laboratory Analysis

2.3.1 Soil

One most apparent "worst case" soil sample, based on vapour concentrations as well as visual and/or olfactory considerations, recovered from each borehole was submitted for laboratory analysis of PHC (F_1 to F_4) and BTEX.

In addition, representative soil samples were submitted for pH analysis and grain size distribution analysis to confirm the Site Condition Standards applicable to the Site as provided in the MOE document entitled, "*Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*" dated April 15, 2011 ("*MOE Standards*").

The borehole locations are shown on Figure 2.

2.3.2 Groundwater

On February 7, 2014, newly installed groundwater monitoring well MW-2 was purged prior to sampling by removing three to five well casing volumes, or was purged until dry, in accordance with Pinchin's standard field procedures. Upon groundwater recovery, groundwater samples were collected from these monitoring wells and submitted for laboratory analysis of PHC (F_1 to F_4) and BTEX.

All monitoring well development, purging and sampling activities were conducted using dedicated inertial pumps comprised of Waterra™ polyethylene tubing and foot valves and/or dedicated, disposable PVC bailers to draw groundwater to the surface.

The monitoring well locations are shown on Figure 2.

2.3.3 Analytical Laboratory

All collected soil and groundwater samples were delivered to Paracel Laboratories Ltd. ("Paracel") in Ottawa, Ontario for analysis. Paracel is an independent laboratory accredited by the Canadian Association for Laboratory Accreditation. Formal chain of custody records of the sample submissions were maintained between Pinchin and the staff at Paracel.

2.4 QA/QC Protocols

Various quality assurance/quality control ("QA/QC") protocols were followed during the Phase II ESA to ensure that representative samples were obtained and that representative analytical data were reported by the laboratory.

Field QA/QC protocols that were employed by Pinchin included the following:

- Soil samples were extracted from the interior of the sampling device (where possible), rather than from areas in contact with the sampler walls to minimize the potential for cross-contamination;
- Soil and groundwater samples were placed in laboratory-supplied glass sample jars;
- The monitoring wells were developed following installation and were purged to remove stagnant water prior to sample collection so that representative groundwater samples could be obtained. Dedicated purging and sampling equipment was used for monitoring well development, purging and sampling to minimize the potential for cross-contamination;
- All soil and groundwater samples were placed in coolers on ice immediately upon collection, with appropriate sample temperatures maintained prior submission to the laboratory;
- Dedicated and disposable Nitrile™ gloves were used for all sample handling; and
- Sample collection and handling procedures were performed in general accordance with the *MOE Sampling Guideline*.

Paracel's internal laboratory QA/QC consisted of the analysis of laboratory duplicate, method blank, matrix spike and spiked blank samples, an evaluation of relative percent difference calculations for laboratory duplicate samples, and an evaluation of surrogate recoveries for the method blank, matrix spike and spiked blank samples.

2.5 Ontario Water Well Records

Ontario Regulation 903 (as amended) requires that all wells installed to depths greater than 3.0 mbgs have a water well record completed by a licensed well technician. The owner of the monitoring well must keep the water well record on file for a period of two years and the monitoring wells must be decommissioned as per Ontario Regulation 903 (as amended) if monitoring wells are no longer in use. Strata is a licensed well driller under Ontario Regulation 903 (as amended), and submitted a water well record to the MOE and the Client to fulfill the requirements of Ontario Regulation 903 (as amended).

2.6 Site Condition Standards

The Site is a residential property located within the City of Ottawa. It is Pinchin's understanding that potable water for the Site and surrounding area is supplied by municipal services with Ottawa River serving as the water source.

Ontario Regulation 153/04 (as amended) states that a Site is classified as an "environmentally sensitive area" if the pH of the surface soil (less than 1.5 mbgs) is less than 5 or greater than 9, the pH of the subsurface soil (greater than 1.5 mbgs) is less than 5 or greater than 11, or if the Site is an area of natural significance or is adjacent to or contains land within 30 metres of an area of natural significance. Two representative soil samples collected from the boreholes advanced at the Site were submitted for pH analysis. The pH values measured in the submitted soil samples were within the limits for non-sensitive sites. The Site is also not an area of natural significance and it is not adjacent to, nor does it contain land within 30 metres of, an area of natural significance. As such, the Site is not an environmentally sensitive area.

One representative soil samples collected from the boreholes advanced at the Site were submitted for 75 micron single-sieve grain size analysis. Based on the results of this analysis, the soil at the Site is interpreted to be coarse-textured for the purpose of selecting the appropriate *MOE Standards.*

Based on the above, the appropriate Site Condition Standards for the Site are:

- *"Table 3: Full Depth Generic Site Condition Standards for Use in a Non-Potable Ground Water Condition",* provided in the *MOE Standards ("Table 3 Standards")* for:
  - Coarse-textured; and
  - Residential/Parkland/Institutional property use.

As such, all analytical results have been compared to these *Table 3 Standards.*

3.0 RESULTS

3.1 Site Geology and Hydrogeology

Based on the soil samples recovered during the borehole drilling program, the soil stratigraphy at the drilling locations below the grass and topsoil surface was observed to generally consist of sand gravel fill and sand throughout that extended to a maximum depth of 5.5 mbgs where inferred bedrock was encountered. Moist or wet soil conditions were observed within MW-2 at a depth of approximately 3.6 mbgs.

A detailed description of the subsurface stratigraphy encountered during borehole advancement is documented in the borehole logs located in Appendix II.

3.2 Soil Vapour Concentrations

Vapour concentrations measured in the soil samples collected during the drilling investigation are presented on the borehole logs in Appendix II and did not range above 0.0 parts per million by volume ("ppm_v") in any of the completed boreholes.

3.3 Field Observations

No odours or staining were observed in the soil samples collected during the borehole drilling program.

No odours or evidence of NAPL were observed during groundwater monitoring and sampling.

3.4 Analytical

3.4.1 Soil

The summary of the soil analytical results for PHC (F_1 to F_4) and BTEX, along with the applicable *Table 3 Standards* can be found in Table 1 within Appendix III. The laboratory Certificates of Analysis are provided in Appendix IV.

All reported concentrations in the soil samples submitted for analysis of VOCs satisfied their respective *Table 3 Standards.*

3.4.2 Groundwater

The summary of the groundwater analytical results for PHC (F_1 to F_4) and BTEX, along with the applicable *Table 3 Standards* can be found in Table 2 within Appendix III. The laboratory Certificates of Analysis are provided in Appendix IV.

All reported concentrations in the groundwater samples submitted for analysis of PHC (F_1 to F_4) and BTEX s satisfied their respective *Table 3 Standards*.

4.0 FINDINGS AND CONCLUSIONS

Based on the work completed, the following is a summary of the activities and findings of this Phase II ESA:

- Pinchin retained Strata Soil Sampling Inc. to advance three boreholes on February 7, 2014. One borehole was completed as a groundwater monitoring well to enable groundwater sampling at the Site. The boreholes were advanced to a maximum depth of 5.5 mbgs using a Geoprobe 7820 direct push drill rig;
- Data collected during the borehole drilling program indicates that the soil stratigraphy at the drilling locations below the gravel surface was observed to generally consist of sand gravel fill and sand throughout, that extended to a maximum depth of 5.5 mbgs where inferred bedrock was encountered;
- Based on Site specific information, the soil and groundwater quality was assessed based on the MOE *Table 3 Standards* for residential/parkland/institutional property land use and coarse-textured soils; and
- All reported concentrations in the soil and groundwater samples submitted for analysis of PHC (F_1 to F_4) and BTEX satisfied their respective Table 3 Standards.

Based on the findings of this Phase II ESA, it is Pinchin's opinion that no further subsurface investigation is required for the Site at this time in relation to the findings of the Phase I ESA.

5.0 DISCLAIMER

This Phase II ESA was performed for Jawan Properties Inc. ("Client") in order to investigate potential environmental impacts at 637 Cummings Avenue, Ottawa, Ontario ("Site"). The term recognized environmental condition means the presence or likely presence of any hazardous substance on a property under conditions that indicate an existing release, past release, or a material threat of a release of a hazardous substance into structures on the property or into the ground, groundwater, or surface water of the property. This Phase II ESA does not quantify the extent of the current and/or recognized environmental condition or the cost of any remediation.

Conclusions derived are specific to the immediate area of study and cannot be extrapolated extensively away from sample locations. Samples have been analyzed for a limited number of contaminants that are expected to be present at the Site, and the absence of information relating to a specific contaminant does not indicate that it is not present.

No environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions on a property. Performance of this Phase II ESA to the standards established by Pinchin is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions on the Site, and recognizes reasonable limits on time and cost.

This Phase II ESA was performed in general compliance with currently acceptable practices for environmental site investigations, and specific Client requests, as applicable to this Site. The scope of work completed by Pinchin, as part of this Phase II ESA, is not sufficient (in and of itself) to meet the reporting requirements for the submission of a Record of Site Condition ("RSC") in accordance with Ontario Regulation 153/04 (as amended). If an RSC is an intended end product of work conducted at the Site, further consultation and/or work will be required.

This report was prepared for the exclusive use of the Client, subject to the conditions and limitations contained within the duly authorized work plan. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of the third parties. If additional parties require reliance on this report, written authorization from Pinchin will be required. Pinchin disclaims responsibility of consequential financial effects on transactions or property values, or requirements for follow-up actions and costs. No other warranties are implied or expressed. Furthermore, this report should not be construed as legal advice.

Pinchin will not be responsible for any consequential or indirect damages. Pinchin will only be held liable for damages resulting from the negligence of Pinchin. Pinchin will not be liable for

any losses or damage if the Client has failed, within a period of two years following the date upon which the claim is discovered within the meaning of the Limitations Act, 2002 (Ontario), to commence legal proceedings against Pinchin to recover such losses or damage.

Pinchin makes no other representations whatsoever, including those concerning the legal significance of its findings, or as to other legal matters touched on in this report, including, but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issues, regulatory statutes are subject to interpretation and these interpretations may change over time.

6.0 SIGNATURE PAGE

We trust that the foregoing information is satisfactory for your present requirements.

Should you have any questions about the report or require additional information, please contact the undersigned.

Yours truly,

PINCHIN ENVIRONMENTAL LTD.

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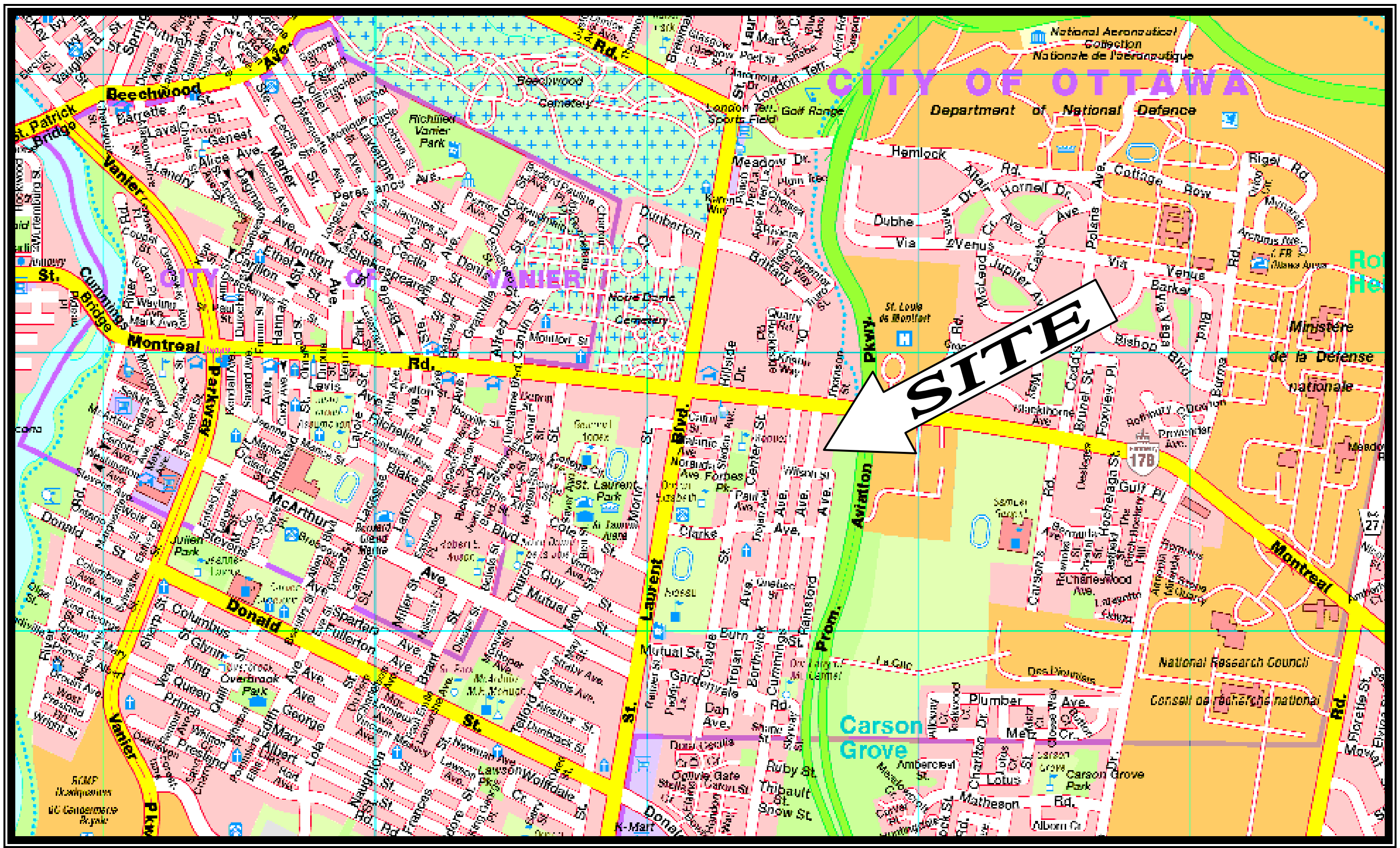
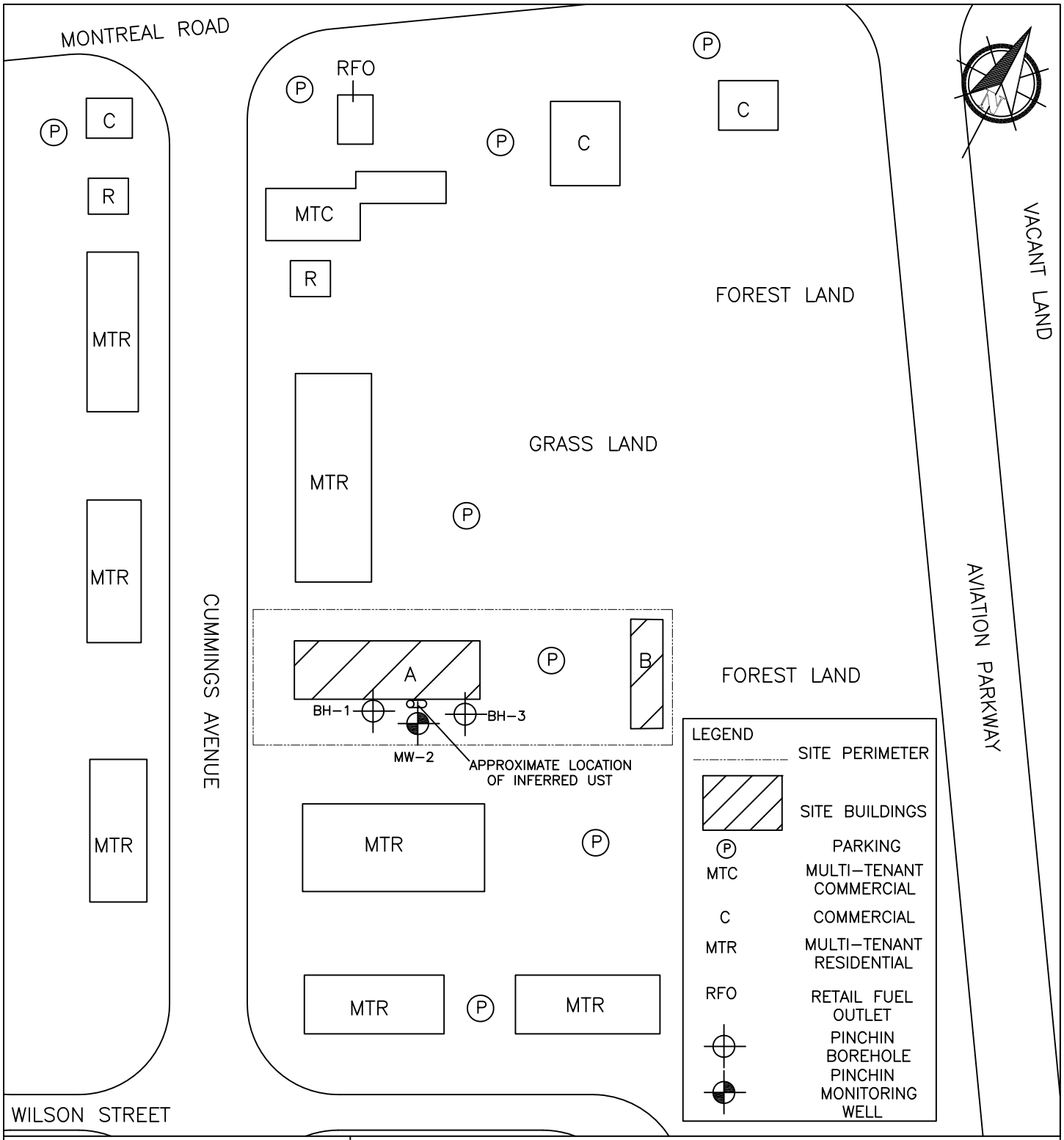
APPENDIX I
FIGURES



PINCHIN ENVIRONMENTAL

PROJECT NAME		
PHASE II ENVIRONMENTAL SITE ASSESSMENT		
CLIENT NAME: JAWAN PROPERTIES INC.		
PROJECT LOCATION: 637 CUMMINGS AVENUE, OTTAWA, ONTARIO		
DRAWING NAME: KEY MAP		DRAWING NO.: FIG. 1
SCALE: NTS	PROJECT NO.: 90638.001	DATE: FEBRUARY 2014



PINCHIN ENVIRONMENTAL

PROJECT NAME	PHASE II ENVIRONMENTAL SITE ASSESSMENT
CLIENT NAME	JAWAN PROPERTIES INC.
PROJECT LOCATION	637 CUMMINGS AVENUE, OTTAWA, ONTARIO
DRAWING NAME	GENERALIZED BOREHOLE / MONITORING WELL LOCATION PLAN
DRAWING NO.	FIG. 2
SCALE	NTS
PROJECT NO.	90638.001
DATE	FEBRUARY 2014

APPENDIX II

BOREHOLE LOGS

Stratigraphic and Instrumentation Log: BH-1

Pinchin Environmental
555 Legget Drive, Suite 1001
Kanata, Ontario

Project No.: 90638.001 | **Logged By:** RML
Project: Phase II ESA | **Entered By:** RML
Client: Jawan Properties Inc. | **Project Manager:** MJR
Location: 637 Cummings Ave, Ottawa, ON | **Drill Date:** February 7, 2014

SUBSURFACE PROFILE

Depth (ft)	Depth (m)	Symbol	Description	Depth (m)
0	0		Ground Surface	
0			***GRASS and TOPSOIL***	0.0
1			***SANDY GRAVEL FILL***	
			Brown, moist, no odour	0.5
2			***SAND***	
			Brown, moist, no odour	
3	1			
4				
5				
6	2			
7				
8				
9				
10	3			
11				
12				
13	4			
14			Turning wet	
15				
16	5		***SHALE***	4.9
17			Grey, wet, no odour	
18				5.5
19			End of Borehole	
20	6		Refusal on Inferred Bedrock	
21				
22				

SAMPLE

Number	Type	Sample	N-Value	Recovery (%)
1	SS		NA	40
2	SS		NA	40
3	SS		NA	60
4	SS		NA	60
5	SS		NA	70
6	SS		NA	70
7	SS		NA	60

Well Completion Details: NO MONITORING WELL INSTALLED

Vapour Data
(% LEL): 20 40 60 80
(ppm): 250 750 1250

Depth (ft)	Vapour Data
0	0
2	0
6	0
10	0
12	0
14	0
16	0

Drilled By: Strata Soil Sampling Inc.
Drill Method: Geo-Probe
Vapour Instrument: Photo-Ionization Detector
Well Casing Size: 38mm

Datum: NA
Casing Elevation: NA
Ground Elevation: NA
Sheet: 1 of 1

Stratigraphic and Instrumentation Log: BH-3

Pinchin Environmental
555 Legget Drive, Suite 1001
Kanata, Ontario

Project No.: 90638.001 | ***Logged By:*** RML
Project: Phase II ESA | ***Entered By:*** RML
Client: Jawan Properties Inc. | ***Project Manager:*** MJR
Location: 637 Cummings Ave, Ottawa, ON | ***Drill Date:*** February 7, 2014

SUBSURFACE PROFILE

Depth (ft)	Depth (m)	Symbol	Description	Depth (m)
0	0		Ground Surface	
0	0		***GRASS and TOPSOIL***	0.0
1			***SANDY GRAVEL FILL***	
			Brown, moist, no odour	0.5
2			***SAND***	
			Brown, moist, no odour	
3	1			
4				
5				
6	2			
7				
8				
9				
10	3			
11				
12			Turning wet	
13	4			
14				
15			***SHALE***	4.6
16	5		Grey, wet, no odour	4.9
17			End of Borehole	
			Refusal on Inferred Bedrock	
18				
19				
20	6			
21				
22				

SAMPLE

Number	Type	Sample	N-Value	Recovery (%)
1	SS		NA	50
2	SS		NA	50
3	SS		NA	70
4	SS		NA	70
5	SS		NA	80
6	SS		NA	80

Well Completion Details: NO MONITORING WELL INSTALLED

Vapour Data
(% LEL): 20 40 60 80
(ppm): 250 750 1250

Depth (ft)	Vapour Data
0	0
4	0
6	0
10	0
12	0
14	0

Drilled By: Strata Soil Sampling Inc.
Drill Method: Geo-Probe
Vapour Instrument: Photo-Ionization Detector
Well Casing Size: 38mm

Datum: NA
Casing Elevation: NA
Ground Elevation: NA
Sheet: 1 of 1

Stratigraphic and Instrumentation Log: MW-2

Pinchin Environmental
555 Legget Drive, Suite 1001
Kanata, Ontario

Project No.: 90638.001 | **Logged By:** RML
Project: Phase II ESA | **Entered By:** RML
Client: Jawan Properties Inc. | **Project Manager:** MJR
Location: 637 Cummings Ave, Ottawa, ON | **Drill Date:** February 7, 2014

SUBSURFACE PROFILE

Depth (ft)	Depth (m)	Symbol	Description	Depth (m)
0	0		Ground Surface	
0			***GRASS and TOPSOIL***	0.0
1			***SANDY GRAVEL FILL***	
			Brown, moist, no odour	0.5
2			***SAND***	
3	1		Brown, moist, no odour	
4				
5				
6	2			
7				
8				
9				
10	3			
11				
12			Turning wet	
13	4			
14				
15			***SHALE***	4.6
16	5		Grey, wet, no odour	4.9
17			End of Borehole	
18			Refusal on Inferred Bedrock	
19				
20	6			
21				
22				

SAMPLE

Number	Type	Sample	N-Value	Recovery (%)
1	SS		NA	70
2	SS		NA	70
3	SS		NA	70
4	SS		NA	70
5	SS		NA	90
6	SS		NA	90

Well Completion Details

Vapour Data
(% LEL) 20 40 60 80
(ppm) 250 750 1250

0
0
0
0
0
0

Drilled By: Strata Soil Sampling Inc.
Drill Method: Geo-Probe
Vapour Instrument: Photo-Ionization Detector
Well Casing Size: 38mm

Datum: NA
Casing Elevation: NA
Ground Elevation: NA
Sheet: 1 of 1

APPENDIX III
SUMMARY TABLES

Table 1
Laboratory Analysis for PHC (F1 to F4) and VOC Parameters in Soil
Pinchin Project Number: 90638.001
637 Cummings Avenue, Ottawa, ON

Parameter	Units	MDL	Regulation	Sample					
				BH-1, SS-6	MW-2, SS-6	BH-3, SS-6	BH-1, SS-2	BH-1, SS-4	BH-1, G.S.
Sample Date (d/m/y)			**Reg 153/04 (2011)-Table 3 Residential, coarse**	**02/07/2014**	**02/07/2014**	**02/07/2014**	**02/07/2014**	**02/07/2014**	**02/07/2014**
Physical Characteristics									
% Solids	% by Wt.	0.1		92.1	89.3	88.8	95.3	96.3	95.4
>0.075 mm	%	0.1		N/A	N/A	N/A	N/A	N/A	96.7
<0.075 mm	%	0.1		N/A	N/A	N/A	N/A	N/A	3.3
Texture	%	0.1		N/A	N/A	N/A	N/A	N/A	Coarse
General Inorganics									
pH	pH Units	0.05		N/A	N/A	N/A	8.03	8.09	N/A
Volatiles									
Benzene	ug/g dry	0.02	0.21 ug/g dry	ND (0.02)	ND (0.02)	ND (0.02)	N/A	N/A	N/A
Ethylbenzene	ug/g dry	0.05	2 ug/g dry	ND (0.05)	ND (0.05)	ND (0.05)	N/A	N/A	N/A
Toluene	ug/g dry	0.05	2.3 ug/g dry	ND (0.05)	ND (0.05)	ND (0.05)	N/A	N/A	N/A
m/p-Xylene	ug/g dry	0.05		ND (0.05)	ND (0.05)	ND (0.05)	N/A	N/A	N/A
o-Xylene	ug/g dry	0.05		ND (0.05)	ND (0.05)	ND (0.05)	N/A	N/A	N/A
Xylenes, total	ug/g dry	0.05	3.1 ug/g dry	ND (0.05)	ND (0.05)	ND (0.05)	N/A	N/A	N/A
Hydrocarbons									
F1 PHCs (C6-C10)	ug/g dry	7	55 ug/g dry	ND (7)	ND (7)	ND (7)	N/A	N/A	N/A
F2 PHCs (C10-C16)	ug/g dry	4	98 ug/g dry	ND (4)	ND (4)	ND (4)	N/A	N/A	N/A
F3 PHCs (C16-C34)	ug/g dry	8	300 ug/g dry	ND (8)	ND (8)	ND (8)	N/A	N/A	N/A
F4 PHCs (C34-C50)	ug/g dry	6	2800 ug/g dry	ND (6)	ND (6)	ND (6)	N/A	N/A	N/A

All units in ug/g (parts per million)
NV= no value defined in applicable Standards
ND (0.5) = Reported Concentration Below Method Detection Limit (Non-Detect)
500 Parameter Concentration Exceeds O.Reg 153/04 - Table 3 Standards

Table 2

Laboratory Analysis for PHC (F1 to F4) and VOC Parameters in Groundwater

Pinchin Project Number: 90638.001

637 Cummings Avenue, Ottawa, ON

Parameter	Units	MDL	Regulation	Sample MW-2 1407017-01
Sample Date (d/m/y)			**Reg 153/04 (2011)-Table 3 Non-Potable Groundwater, coarse**	**02/07/2014**
Volatiles				
Benzene	ug/L	0.5	44 ug/L	ND (0.5)
Ethylbenzene	ug/L	0.5	2300 ug/L	ND (0.5)
Toluene	ug/L	0.5	18000 ug/L	ND (0.5)
m/p-Xylene	ug/L	0.5		ND (0.5)
o-Xylene	ug/L	0.5		ND (0.5)
Xylenes, total	ug/L	0.5	4200 ug/L	ND (0.5)
Hydrocarbons				
F1 PHCs (C6-C10)	ug/L	25	750 ug/L	ND (25)
F2 PHCs (C10-C16)	ug/L	100	150 ug/L	ND (100)
F3 PHCs (C16-C34)	ug/L	100	500 ug/L	ND (100)
F4 PHCs (C34-C50)	ug/L	100	500 ug/L	ND (100)
F1 + F2 PHCs	ug/L	125		ND (125)
F3 + F4 PHCs	ug/L	200		ND (200)

All units in ug/L (parts per million)

NV= no value defined in applicable Standards

NA = Not Analyzed

ND (0.5) = Reported Concentration Below Method Detection Limit (Non-Detect)

500 Parameter Concentration Exceeds O.Reg 153/04 - Table 3 Standards

APPENDIX IV
LABORATORY CERTIFICATES OF ANALYSIS

TABLE 1		CLIENT: Pinchin Environmental Ltd. (Ottawa)								
PARACEL LABORATORIES LTD.		ATTENTION: Ryan LaRonde								
WORKORDER: 1407016		PROJECT: 90638.001								
REPORT DATE: 02/13/2014		REFERENCE: Preferred Rebate								

Parameter	Units	MDL	Regulation	Sample					
				BH-1, SS-6 1407016-01	MW-2, SS-6 1407016-02	BH-3, SS-6 1407016-03	BH-1, SS-2 1407016-04	BH-1, SS-4 1407016-05	BH-1, G.S. 1407016-06
Sample Date (d/m/y)			Select Reg	02/07/2014	02/07/2014	02/07/2014	02/07/2014	02/07/2014	02/07/2014
Physical Characteristics									
% Solids	% by Wt.	0.1	REGS	92.1	89.3	88.8	95.3	96.3	95.4
>0.075 mm	%	0.1	REGS	N/A	N/A	N/A	N/A	N/A	96.7
<0.075 mm	%	0.1	REGS	N/A	N/A	N/A	N/A	N/A	3.3
Texture	%	0.1	REGS	N/A	N/A	N/A	N/A	N/A	Coarse
General Inorganics									
pH	pH Units	0.05	REGS	N/A	N/A	N/A	8.03	8.09	N/A
Volatiles									
Benzene	ug/g dry	0.02	REGS	ND (0.02)	ND (0.02)	ND (0.02)	N/A	N/A	N/A
Ethylbenzene	ug/g dry	0.05	REGS	ND (0.05)	ND (0.05)	ND (0.05)	N/A	N/A	N/A
Toluene	ug/g dry	0.05	REGS	ND (0.05)	ND (0.05)	ND (0.05)	N/A	N/A	N/A
m/p-Xylene	ug/g dry	0.05	REGS	ND (0.05)	ND (0.05)	ND (0.05)	N/A	N/A	N/A
o-Xylene	ug/g dry	0.05	REGS	ND (0.05)	ND (0.05)	ND (0.05)	N/A	N/A	N/A
Xylenes, total	ug/g dry	0.05	REGS	ND (0.05)	ND (0.05)	ND (0.05)	N/A	N/A	N/A
Hydrocarbons									
F1 PHCs (C6-C10)	ug/g dry	7	REGS	ND (7)	ND (7)	ND (7)	N/A	N/A	N/A
F2 PHCs (C10-C16)	ug/g dry	4	REGS	ND (4)	ND (4)	ND (4)	N/A	N/A	N/A
F3 PHCs (C16-C34)	ug/g dry	8	REGS	ND (8)	ND (8)	ND (8)	N/A	N/A	N/A
F4 PHCs (C34-C50)	ug/g dry	6	REGS	ND (6)	ND (6)	ND (6)	N/A	N/A	N/A

TABLE 1		CLIENT: Pinchin Environmental Ltd. (Ottawa)		
PARACEL LABORATORIES LTD.		ATTENTION: Ryan LaRonde		
WORKORDER: 1407017		PROJECT: 90638.001		
REPORT DATE: 02/12/2014		REFERENCE: Preferred Rebate		
Parameter	**Units**	**MDL**	**Regulation**	**Sample**
				MW-2 1407017-01
Sample Date (d/m/y)			**Select Reg**	**02/07/2014**
Volatiles				
Benzene	ug/L	0.5	REGS	ND (0.5)
Ethylbenzene	ug/L	0.5	REGS	ND (0.5)
Toluene	ug/L	0.5	REGS	ND (0.5)
m/p-Xylene	ug/L	0.5	REGS	ND (0.5)
o-Xylene	ug/L	0.5	REGS	ND (0.5)
Xylenes, total	ug/L	0.5	REGS	ND (0.5)
Hydrocarbons				
F1 PHCs (C6-C10)	ug/L	25	REGS	ND (25)
F2 PHCs (C10-C16)	ug/L	100	REGS	ND (100)
F3 PHCs (C16-C34)	ug/L	100	REGS	ND (100)
F4 PHCs (C34-C50)	ug/L	100	REGS	ND (100)
F1 + F2 PHCs	ug/L	125	REGS	ND (125)
F3 + F4 PHCs	ug/L	200	REGS	ND (200)

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Certificate of Analysis

Pinchin Environmental Ltd. (Ottawa)
555 Legget Dr., Suite 1001, Tower A
Ottawa, ON K2K 2X3
Attn: Ryan LaRonde

Phone: (613) 592-3387
Fax: (613) 592-5897

Client PO: Cummings
Project: 90638.001
Custody: 10053

Report Date: 13-Feb-2014
Order Date: 7-Feb-2014
Order #: 1407016

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

Paracel ID	Client ID
1407016-01	BH-1, SS-6
1407016-02	MW-2, SS-6
1407016-03	BH-3, SS-6
1407016-04	BH-1, SS-2
1407016-05	BH-1, SS-4
1407016-06	BH-1, G.S.

Approved By: Mark Foto

Mark Foto, M.Sc. For Dale Robertson, BSc
Laboratory Director

Certificate of Analysis

Report Date: 13-Feb-2014
Order Date:7-Feb-2014

Client: **Pinchin Environmental Ltd. (Ottawa)**
Client PO: Cummings
Project Description: 90638.001

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
BTEX by P&T GC-MS	EPA 8260 - P&T GC-MS	11-Feb-14	12-Feb-14
pH	EPA 150.1 - pH probe @ 25 °C, CaCl buffered ext.	12-Feb-14	12-Feb-14
PHC F1	CWS Tier 1 - P&T GC-FID	11-Feb-14	12-Feb-14
PHC F2 - F4	CWS Tier 1 - GC-FID, extraction	11-Feb-14	12-Feb-14
Solids, %	Gravimetric, calculation	11-Feb-14	11-Feb-14
Texture - Coarse Med/Fine	Based on ASTM D2487	12-Feb-14	12-Feb-14

PARACEL LABORATORIES LTD.

Order #: 1407016

Certificate of Analysis

Report Date: 13-Feb-2014
Order Date:7-Feb-2014

Client: **Pinchin Environmental Ltd. (Ottawa)**
Client PO: Cummings

Project Description: 90638.001

	Client ID:	BH-1, SS-6	MW-2, SS-6	BH-3, SS-6	BH-1, SS-2
	Sample Date:	07-Feb-14	07-Feb-14	07-Feb-14	07-Feb-14
	Sample ID:	1407016-01	1407016-02	1407016-03	1407016-04
	MDL/Units	Soil	Soil	Soil	Soil
Physical Characteristics					
% Solids	0.1 % by Wt.	92.1	89.3	88.8	95.3
General Inorganics					
pH	0.05 pH Units	-	-	-	8.03
Volatiles					
Benzene	0.02 ug/g dry	<0.02	<0.02	<0.02	-
Ethylbenzene	0.05 ug/g dry	<0.05	<0.05	<0.05	-
Toluene	0.05 ug/g dry	<0.05	<0.05	<0.05	-
m,p-Xylenes	0.05 ug/g dry	<0.05	<0.05	<0.05	-
o-Xylene	0.05 ug/g dry	<0.05	<0.05	<0.05	-
Xylenes, total	0.05 ug/g dry	<0.05	<0.05	<0.05	-
Toluene-d8	Surrogate	94.6%	94.7%	94.3%	-
Hydrocarbons					
F1 PHCs (C6-C10)	7 ug/g dry	<7	<7	<7	-
F2 PHCs (C10-C16)	4 ug/g dry	<4	<4	<4	-
F3 PHCs (C16-C34)	8 ug/g dry	<8	<8	<8	-
F4 PHCs (C34-C50)	6 ug/g dry	<6	<6	<6	-

	Client ID:	BH-1, SS-4	BH-1, G.S.	-	-
	Sample Date:	07-Feb-14	07-Feb-14	-	-
	Sample ID:	1407016-05	1407016-06	-	-
	MDL/Units	Soil	Soil	-	-
Physical Characteristics					
% Solids	0.1 % by Wt.	96.3	95.4	-	-
>75 um	0.1 %	-	96.7	-	-
<75 um	0.1 %	-	3.3	-	-
Texture	0.1 %	-	Coarse	-	-
General Inorganics					
pH	0.05 pH Units	8.09	-	-	-

Certificate of Analysis

Report Date: 13-Feb-2014
Order Date:7-Feb-2014

Client: **Pinchin Environmental Ltd. (Ottawa)**
Client PO: Cummings
Project Description: 90638.001

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	ND	7	ug/g						
F2 PHCs (C10-C16)	ND	4	ug/g						
F3 PHCs (C16-C34)	ND	8	ug/g						
F4 PHCs (C34-C50)	ND	6	ug/g						
Volatiles									
Benzene	ND	0.02	ug/g						
Ethylbenzene	ND	0.05	ug/g						
Toluene	ND	0.05	ug/g						
m,p-Xylenes	ND	0.05	ug/g						
o-Xylene	ND	0.05	ug/g						
Xylenes, total	ND	0.05	ug/g						
Surrogate: Toluene-d8	*8.33*		*ug/g*		*104*	*50-140*			

Certificate of Analysis

Report Date: 13-Feb-2014
Order Date:7-Feb-2014

Client: **Pinchin Environmental Ltd. (Ottawa)**
Client PO: Cummings
Project Description: 90638.001

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	ND	7	ug/g dry	ND				40	
F2 PHCs (C10-C16)	ND	4	ug/g dry	ND				30	
F3 PHCs (C16-C34)	ND	8	ug/g dry	ND				30	
F4 PHCs (C34-C50)	ND	6	ug/g dry	ND				30	
Physical Characteristics									
% Solids	88.4	0.1	% by Wt.	90.1			1.9	25	
Volatiles									
Benzene	ND	0.02	ug/g dry	ND				50	
Ethylbenzene	ND	0.05	ug/g dry	ND				50	
Toluene	ND	0.05	ug/g dry	ND				50	
m,p-Xylenes	ND	0.05	ug/g dry	ND				50	
o-Xylene	ND	0.05	ug/g dry	ND				50	
Surrogate: Toluene-d8	*3.80*		*ug/g dry*	*ND*	*95.0*	*50-140*			

Certificate of Analysis

Report Date: 13-Feb-2014
Order Date:7-Feb-2014

Client: **Pinchin Environmental Ltd. (Ottawa)**
Client PO: Cummings
Project Description: 90638.001

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	195	7	ug/g	ND	97.3	80-120			
F2 PHCs (C10-C16)	120	4	ug/g	ND	120	60-140			
F3 PHCs (C16-C34)	184	8	ug/g	ND	89.2	60-140			
F4 PHCs (C34-C50)	129	6	ug/g	ND	93.5	60-140			
Volatiles									
Benzene	4.14	0.02	ug/g	ND	104	60-130			
Ethylbenzene	3.89	0.05	ug/g	ND	97.3	60-130			
Toluene	3.76	0.05	ug/g	ND	93.9	60-130			
m,p-Xylenes	7.33	0.05	ug/g	ND	91.6	60-130			
o-Xylene	3.57	0.05	ug/g	ND	89.3	60-130			
Surrogate: Toluene-d8	*7.66*		*ug/g*		*95.8*	*50-140*			

Certificate of Analysis

Report Date: 13-Feb-2014
Order Date:7-Feb-2014

Client: **Pinchin Environmental Ltd. (Ottawa)**
Client PO: Cummings Project Description: 90638.001

Qualifier Notes:

Sample Qualifiers :

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.

Soil results are reported on a dry weight basis when the units are denoted with 'dry'.
Where %Solids is reported, moisture loss includes the loss of volatile hydrocarbons.

CCME PHC additional information:

- The method for the analysis of PHCs complies with the Reference Method for the CWS PHC and is validated for use in the laboratory. All prescribed quality criteria identified in the method has been met.
- F1 range corrected for BTEX.
- F2 to F3 ranges corrected for appropriate PAHs where available.
- The gravimetric heavy hydrocarbons (F4G) are not to be added to C6 to C50 hydrocarbons.
- In the case where F4 and F4G are both reported, the greater of the two results is to be used for comparison to CWS PHC criteria.

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№ 10053

Page 1 of 1

Client Name: Pinchin Enviro	Project Reference: 90638.001 Cummings	TAT: [✓] Regular [ ] 3 Day [ ] 2 Day [ ] 1 Day
Contact Name: Ryan / Matt / Christine	Quote #	
Address: 555 Legget Dr, Suite 301 Kanata, ON	PO #	Date Required
Telephone: 613 291-5656	Email Address: Cawbin@pinchin.com	

Criteria: [✓] O. Reg. 153/04 (As Amended) Table 3 [ ] 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: 1407016-soil 1407017-H2O

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken Date	Sample Taken Time	PHC	BTEX	PH	Texture Size								
1	BH-1, SS-6	S		2	Feb 7		X	X				120 mL vial						
2	MW-2, SS-6			2	2014		X	X				↓						
3	BH-3, SS-6			2			X	X				↓						
4	BH-1, SS-2			1					X			60 mL						
5	BH-1, SS-4			1					X			"						
6	BH-1, GS	↓		1						X		250 mL						
7																		
8	MW-2	GW		4	↓		X	X										
9																		
10																		

Comments:

Method of Delivery: walk-in

Relinquished By (Sign):	Received by Driver/Depot: Karen Wrigg	Received at Lab:	Verified By:
Relinquished By (Print): Ryan Larkin	Date/Time: Feb 7/14 1:44	Date/Time: Feb 10/14	Date/Time: Feb 10/14
Date/Time: Feb 7/14 @ 1:40pm	Temperature: 2.6 °C	Temperature: 6.6 °C 11:02a	pH Verified [ ] By: N/A

11:07a

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Pinchin Environmental Ltd. (Ottawa)

555 Legget Dr., Suite 1001, Tower A
Ottawa, ON K2K 2X3
Attn: Ryan LaRonde

Phone: (613) 592-3387
Fax: (613) 592-5897

Client PO: Cummings
Project: 90638.001
Custody: 10053

Report Date: 12-Feb-2014
Order Date: 7-Feb-2014

Order #: 1407017

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

Paracel ID	Client ID
1407017-01	MW-2

Approved By: Mark Foto

Mark Foto, M.Sc. For Dale Robertson, BSc
Laboratory Director

Certificate of Analysis

Report Date: 12-Feb-2014
Order Date:7-Feb-2014

Client: **Pinchin Environmental Ltd. (Ottawa)**
Client PO: Cummings
Project Description: 90638.001

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
BTEX by P&T GC-MS	EPA 624 - P&T GC-MS	8-Feb-14	10-Feb-14
PHC F1	CWS Tier 1 - P&T GC-FID	8-Feb-14	10-Feb-14
PHC F2 - F4	CWS Tier 1 - GC-FID, extraction	10-Feb-14	11-Feb-14

Certificate of Analysis

Report Date: 12-Feb-2014
Order Date:7-Feb-2014

Client: **Pinchin Environmental Ltd. (Ottawa)**
Client PO: Cummings

Project Description: 90638.001

	Client ID:	MW-2	-	-	-
	Sample Date:	07-Feb-14	-	-	-
	Sample ID:	1407017-01	-	-	-
	MDL/Units	Water	-	-	-
Volatiles					
Benzene	0.5 ug/L	<0.5	-	-	-
Ethylbenzene	0.5 ug/L	<0.5	-	-	-
Toluene	0.5 ug/L	<0.5	-	-	-
m,p-Xylenes	0.5 ug/L	<0.5	-	-	-
o-Xylene	0.5 ug/L	<0.5	-	-	-
Xylenes, total	0.5 ug/L	<0.5	-	-	-
Toluene-d8	Surrogate	99.1%	-	-	-
Hydrocarbons					
F1 PHCs (C6-C10)	25 ug/L	<25	-	-	-
F2 PHCs (C10-C16)	100 ug/L	<100	-	-	-
F3 PHCs (C16-C34)	100 ug/L	<100	-	-	-
F4 PHCs (C34-C50)	100 ug/L	<100	-	-	-
F1 + F2 PHCs	125 ug/L	<125	-	-	-
F3 + F4 PHCs	200 ug/L	<200	-	-	-

Certificate of Analysis

Report Date: 12-Feb-2014
Order Date:7-Feb-2014

Client: **Pinchin Environmental Ltd. (Ottawa)**
Client PO: Cummings
Project Description: 90638.001

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	ND	25	ug/L						
F2 PHCs (C10-C16)	ND	100	ug/L						
F3 PHCs (C16-C34)	ND	100	ug/L						
F4 PHCs (C34-C50)	ND	100	ug/L						
Volatiles									
Benzene	ND	0.5	ug/L						
Ethylbenzene	ND	0.5	ug/L						
Toluene	ND	0.5	ug/L						
m,p-Xylenes	ND	0.5	ug/L						
o-Xylene	ND	0.5	ug/L						
Xylenes, total	ND	0.5	ug/L						
Surrogate: Toluene-d8	*35.2*		*ug/L*		*110*	*50-140*			

Certificate of Analysis

Report Date: 12-Feb-2014
Order Date:7-Feb-2014

Client: **Pinchin Environmental Ltd. (Ottawa)**
Client PO: Cummings
Project Description: 90638.001

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	ND	25	ug/L	ND				30	
Volatiles									
Benzene	ND	0.5	ug/L	ND				30	
Ethylbenzene	ND	0.5	ug/L	ND				30	
Toluene	ND	0.5	ug/L	ND				30	
m,p-Xylenes	ND	0.5	ug/L	ND				30	
o-Xylene	ND	0.5	ug/L	ND				30	
Surrogate: Toluene-d8	*31.7*		*ug/L*	*ND*	*99.0*	*50-140*			

Certificate of Analysis

Report Date: 12-Feb-2014
Order Date:7-Feb-2014

Client: **Pinchin Environmental Ltd. (Ottawa)**
Client PO: Cummings
Project Description: 90638.001

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	1980	25	ug/L	ND	99.0	68-117			
F2 PHCs (C10-C16)	1790	100	ug/L	ND	99.5	60-140			
F3 PHCs (C16-C34)	3610	100	ug/L	ND	97.0	60-140			
F4 PHCs (C34-C50)	2400	100	ug/L	ND	96.8	60-140			
Volatiles									
Benzene	33.9	0.5	ug/L	ND	84.6	50-140			
Ethylbenzene	31.4	0.5	ug/L	ND	78.6	50-140			
Toluene	32.3	0.5	ug/L	ND	80.8	50-140			
m,p-Xylenes	67.6	0.5	ug/L	ND	84.5	50-140			
o-Xylene	34.0	0.5	ug/L	ND	85.0	50-140			
Surrogate: Toluene-d8	*29.1*		*ug/L*		*90.9*	*50-140*			

Certificate of Analysis

Report Date: 12-Feb-2014
Order Date:7-Feb-2014

Client: **Pinchin Environmental Ltd. (Ottawa)**
Client PO: Cummings Project Description: 90638.001

Qualifier Notes:

None

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.

CCME PHC additional information:

- The method for the analysis of PHCs complies with the Reference Method for the CWS PHC and is validated for use in the laboratory. All prescribed quality criteria identified in the method has been met.
- F1 range corrected for BTEX.
- F2 to F3 ranges corrected for appropriate PAHs where available.
- The gravimetric heavy hydrocarbons (F4G) are not to be added to C6 to C50 hydrocarbons.
- In the case where F4 and F4G are both reported, the greater of the two results is to be used for comparison to CWS PHC criteria.

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Page 1 of 1

Client Name: Pinchin Enviro	Project Reference: 90638.001 Cummings	TAT: [✓] Regular [ ] 3 Day	
Contact Name: Ryan / Matt / Christine	Quote #	[ ] 2 Day [ ] 1 Day	
Address: 555 Legget Dr, Suite 300 Kanata, ON	PO #		
Telephone: 613 291-5656	Email Address: Caubin@pinchin.com	Date Required	

Criteria: [✓] O. Reg. 153/04 (As Amended) Table 3 [ ] 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: 1407016 - soil, 1407017 - H2O

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken Date	Sample Taken Time	PHC	BTEX	PH	Texture Size							
1	BH-1, SS-6	S		2	Feb 7		x	x				120 vial					
2	MW-2, SS-6			2	2014		x	x				↓					
3	BH-3, SS-6			2			x	x									
4	BH-1, SS-2			1					x			60 mL					
5	BH-1, SS-4			1					x			"					
6	BH-1, GS			1						x		250 mL					
7																	
8	MW-2	GW		4			x	x									
9																	
10																	

Comments:

Method of Delivery: walk-in

Relinquished By (Sign):	Received by Driver/Depot: Kevin Wright	Received at Lab:	Verified By:
Relinquished By (Print): Ryan Lakatos	Date/Time: Feb 7/14 1:44	Date/Time: Feb 10/14	Date/Time: Feb 10/14
Date/Time: Feb 7/14 @ 1:40p	Temperature: 2.6 °C	Temperature: 6.6 °C 11:02a	pH Verified [ ] By: N/A

11:07a