BRUCE A. BROWN ASSOCIATES LIMITED
Consultants in the Environmental and Applied Earth Sciences
101-102Aerodrome Crescent
Toronto, Ontario, Canada M4G 4J4
Tel: (416) 424-3355 Email bruce@brownassociates.ca

Project 20*4676
July 20, 2022

Attn: Mr. Giancarlo Pennino,

City Park Holdings Inc.
950 Nashville Road
Kleinburg, ON
L0J 1C0

Email: gpennino@cityparkhomes.ca

Dear Mr. Zeppa,

Re: Limited Phase 2 Environmental Site Assessment
174 King Street East, City of Mississauga, ON

Introduction

Bruce A. Brown Associates Limited completed a Phase I Environmental Site Assessment for the property located at 174 King Street East, City of Mississauga in December 2020, and an update dated July 19, 2022. One of the purposes of the update was to confirm environmental conditions on a proposed widening of Camilla Road along the west side of the site to satisfy a City condition for acceptance. Because of widespread apple orchard use of the general area and immediately to the south and east of the subdivision lands prior to surrounding residential subdivision development by the early 1960s, and of findings of residual herbicides and pesticides associated with former orchards, there was a concern for surface topsoil quality, notwithstanding there was no history of former orchards directly on the subdivision lands.

Supplementary Soil Investigation

Three hand excavations to 300mm depth were made by the writer on June 16, and channel samples from each were apportioned into two 40 ml containers supplied by BV Laboratories. For

each location, one sample was analyzed for arsenic and lead, and the other for organochlorinated pesticides and herbicides.

On July 4, 2022, BV Laboratories reported findings for analyses of Lead, Arsenic, Organochlorinated Pesticides and Phenoxy Acid Herbicides for two samples on the conveyance lands, and the third near the centre of the subdivision lands. No issues were found for the conveyance lands. An updated Phase 1 environmental site assessment dated July 19, 2022 so reflected this finding, permitting a clearance letter to be issued for the conveyance lands.

A third set of samples was taken from the centre of the subdivision lands, in a sample labelled 4676-B. No exceedances were noted for herbicides, pesticides or arsenic, but reported a marginal lead concentration of 130 µg/g in comparison with Table 3 residential standard of 120 µg/g in O. Reg. 153/04 .

Because of this marginal exceedance, supplementary testing was carried out by the writer on July 7, 2022, advancing four more hand excavations at distances to the north, east, south, and west of the initial exceedance with sampling for arsenic and lead. Once again, glassware was provided by BV Laboratories and samples were direct-driven to the laboratory. Three of these samples reported no exceedances on July 13, 2022; however, the northern sample found a marginal exceedance for lead only, with the same marginal exceedance at 130 µg/g.

Discussion

When such random exceedances occur, one possible remedy is to take several additional samples within a one-meter radius, in which case the findings can be averaged. However, because a possible pattern of more widespread lead distribution is emerging, a preferred approach would be to complete a grid with sufficient samples for lead and arsenic to properly understand conditions across the site. Topsoil must be stripped in any case; most of it surplus to subdivision needs would be removed from the site. Further characterization would determine where this class of material could be used, if any of this onsite material can be retained for landscaping purposes, or where it might be properly disposed, for example as daily cover in a licensed landfill. Topsoil retained and stockpiled for residential needs would need to consistently meet Table 3 residential standards.

Lead arsenate is very insoluble, which is why these elements continue to show up at grade more than six decades after they ceased to be used as a general pesticide in orchards. As a consequence, they remain residual in topsoil and do not migrate at depth into subsoils or groundwater. Any issue with transition metals in soil is therefore likely to be limited to topsoil,

and generally to no deeper than depth of plough, about 325mm maximum. Removal of topsoil is therefore sufficient to resolve any issues with lead and/or arsenic exceedances relative to residential standards.

Closure

Thank you for this opportunity to be of further service. Should any questions arise, please do not hesitate to call.

Yours very truly,

BRUCE A. BROWN ASSOCIATES LIMITED

Bruce A. Brown, Ph.D., RPP, MCIP, P.Eng., QP(ESA)
:

Enclosures:

BV Laboratories Data, Reported July 4, 2022

BV Laboratories Data, Reported July 13, 2022

Test Pit Location Plan.

Your Project #: 20*4676
Site Location: KING-CAMILLA, MISSISSAUGA
Your C.O.C. #: 842965-06-01

Attention: Bruce Brown

Bruce A. Brown Associates Limited
101-102 Aerodrome Cr
Toronto, ON
CANADA M4G 4J4

Report Date: 2022/07/04
Report #: R7196213
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C2G6717
Received: 2022/06/16, 12:57

Sample Matrix: Soil
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acid Extractable Metals by ICPMS	3	2022/06/22	2022/06/23	CAM SOP-00447	EPA 6020B m
Moisture	3	N/A	2022/06/18	CAM SOP-00445	Carter 2nd ed 51.2 m
OC Pesticides (Selected) & PCB (1)	3	2022/06/23	2022/06/24	CAM SOP-00307	SW846 8081, 8082
OC Pesticides Summed Parameters	3	N/A	2022/06/20	CAM SOP-00307	EPA 8081/8082 m
Phenoxy Acid Herbicides	3	2022/06/26	2022/06/27	CAM SOP-00330	EPA 8270 m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Your Project #: 20*4676
Site Location: KING-CAMILLA, MISSISSAUGA
Your C.O.C. #: 842965-06-01

Attention: Bruce Brown

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Toronto, ON
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Report Date: 2022/07/04
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CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C2G6717
Received: 2022/06/16, 12:57

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ronklin Gracian, Project Manager
Email: Ronklin.Gracian@bureauveritas.com
Phone# (905)817-5752
==========
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.
For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Job #: C2G6717
Report Date: 2022/07/04

Bruce A. Brown Associates Limited
Client Project #: 20*4676
Site Location: KING-CAMILLA, MISSISSAUGA
Sampler Initials: BB

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		SXP820	SXP822	SXP824		
Sampling Date		2022/06/16 11:05	2022/06/16 11:10	2022/06/16 11:15		
COC Number		842965-06-01	842965-06-01	842965-06-01		
	UNITS	**20X4676 A1**	**20X4676 B1**	**20X4676 C1**	**RDL**	**QC Batch**
Inorganics						
Moisture	%	6.4	9.8	6.0	1.0	8061218

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Bureau Veritas Job #: C2G6717
Report Date: 2022/07/04

Bruce A. Brown Associates Limited
Client Project #: 20*4676
Site Location: KING-CAMILLA, MISSISSAUGA
Sampler Initials: BB

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Bureau Veritas ID			SXP820	SXP822	SXP824		
Sampling Date			2022/06/16 11:05	2022/06/16 11:10	2022/06/16 11:15		
COC Number			842965-06-01	842965-06-01	842965-06-01		
	UNITS	Criteria	20X4676 A1	20X4676 B1	20X4676 C1	RDL	QC Batch
Metals							
Acid Extractable Arsenic (As)	ug/g	18	9.9	7.2	3.0	1.0	8067528
Acid Extractable Lead (Pb)	ug/g	120	97	**130**	42	1.0	8067528

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Industrial/Commercial/Community - Coarse Textured Soil

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Bruce A. Brown Associates Limited
Client Project #: 20*4676
Site Location: KING-CAMILLA, MISSISSAUGA
Sampler Initials: BB

PHENOXY ACID HERBICIDES BY GC-MS (SOIL)

Bureau Veritas ID		SXP820	SXP822	SXP824	SXP824		
Sampling Date		2022/06/16 11:05	2022/06/16 11:10	2022/06/16 11:15	2022/06/16 11:15		
COC Number		842965-06-01	842965-06-01	842965-06-01	842965-06-01		
	UNITS	20X4676 A1	20X4676 B1	20X4676 C1	20X4676 C1 Lab-Dup	RDL	QC Batch
Pesticides & Herbicides							
2,4,5-T	ug/g	ND	ND	ND	ND	0.10	8075906
2,4,5-TP (Silvex)	ug/g	ND	ND	ND	ND	0.10	8075906
2,4-D	ug/g	ND	ND	ND	ND	0.10	8075906
2,4-D (BEE)	ug/g	ND	ND	ND	ND	0.20	8075906
2,4-DB	ug/g	ND	ND	ND	ND	0.10	8075906
2,4-DP (Dichlorprop)	ug/g	ND	ND	ND	ND	0.10	8075906
Dicamba	ug/g	ND	ND	ND	ND	0.20	8075906
MCPA	ug/g	ND	ND	ND	ND	0.20	8075906
MCPP	ug/g	ND	ND	ND	ND	0.20	8075906
Picloram	ug/g	ND	ND	ND	ND	0.20	8075906
Surrogate Recovery (%)							
2,4-Dichlorophenyl Acetic Acid	%	100	110	111	103		8075906
2,5-Dibromobenzoic Acid	%	106	112	115	107		8075906
4,4-Dibromobiphenyl	%	98	98	111	107		8075906

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
ND = Not Detected at a concentration equal or greater than the indicated Detection Limit.

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Bureau Veritas Job #: C2G6717
Report Date: 2022/07/04

Bruce A. Brown Associates Limited
Client Project #: 20*4676
Site Location: KING-CAMILLA, MISSISSAUGA
Sampler Initials: BB

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Bureau Veritas ID			SXP820		SXP822		SXP824		
Sampling Date			2022/06/16 11:05		2022/06/16 11:10		2022/06/16 11:15		
COC Number			842965-06-01		842965-06-01		842965-06-01		
	UNITS	Criteria	20X4676 A1	RDL	20X4676 B1	RDL	20X4676 C1	RDL	QC Batch
Calculated Parameters									
Chlordane (Total)	ug/g	0.05	ND	0.0020	ND	0.050	ND	0.0020	8058588
o,p-DDD + p,p-DDD	ug/g	4.6	ND	0.0020	ND	0.020	ND	0.0020	8058588
o,p-DDE + p,p-DDE	ug/g	0.52	0.14	0.020	0.30	0.020	0.033	0.010	8058588
o,p-DDT + p,p-DDT	ug/g	1.4	0.038	0.020	0.085	0.020	0.0076	0.0020	8058588
Total Endosulfan	ug/g	0.3	ND	0.0020	ND	0.020	ND	0.0020	8058588
Total PCB	ug/g	1.1	ND	0.015	ND	0.040	ND	0.015	8058588
Pesticides & Herbicides									
Aldrin	ug/g	0.088	ND	0.0020	ND	0.0020	ND	0.0020	8070066
a-Chlordane	ug/g	-	ND	0.0020	ND	0.050	ND	0.0020	8070066
g-Chlordane	ug/g	-	ND	0.0020	0.030	0.020	ND	0.0020	8070066
o,p-DDD	ug/g	-	ND	0.0020	ND	0.0050	ND	0.0020	8070066
p,p-DDD	ug/g	-	ND	0.0020	ND	0.020	ND	0.0020	8070066
o,p-DDE	ug/g	-	ND	0.0020	ND	0.0020	ND	0.0020	8070066
p,p-DDE	ug/g	-	0.14	0.020	0.30	0.020	0.033	0.010	8070066
o,p-DDT	ug/g	-	0.0034	0.0020	ND	0.020	ND	0.0020	8070066
p,p-DDT	ug/g	-	0.035	0.020	0.085	0.020	0.0076	0.0020	8070066
Dieldrin	ug/g	0.088	ND	0.0020	0.0027	0.0020	ND	0.0020	8070066
Lindane	ug/g	0.056	ND	0.0020	ND	0.0020	ND	0.0020	8070066
Endosulfan I (alpha)	ug/g	-	ND	0.0020	ND	0.020	ND	0.0020	8070066
Endosulfan II (beta)	ug/g	-	ND	0.0020	ND	0.0020	ND	0.0020	8070066
Endrin	ug/g	0.04	ND	0.0020	ND	0.0020	ND	0.0020	8070066
Heptachlor	ug/g	0.19	ND	0.0020	ND	0.0020	ND	0.0020	8070066
Heptachlor epoxide	ug/g	0.05	ND	0.0020	0.025	0.020	ND	0.0020	8070066
Hexachlorobenzene	ug/g	0.66	ND	0.0020	ND	0.0020	ND	0.0020	8070066
Hexachlorobutadiene	ug/g	0.031	ND	0.0020	ND	0.0020	ND	0.0020	8070066
Hexachloroethane	ug/g	0.21	ND	0.0020	ND	0.0020	ND	0.0020	8070066
Methoxychlor	ug/g	1.6	ND	0.0050	ND	0.0050	ND	0.0050	8070066

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Industrial/Commercial/Community - Coarse Textured Soil
ND = Not Detected at a concentration equal or greater than the indicated Detection Limit.

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Bureau Veritas Job #: C2G6717
Report Date: 2022/07/04

Bruce A. Brown Associates Limited
Client Project #: 20*4676
Site Location: KING-CAMILLA, MISSISSAUGA
Sampler Initials: BB

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Bureau Veritas ID			SXP820		SXP822		SXP824		
Sampling Date			2022/06/16 11:05		2022/06/16 11:10		2022/06/16 11:15		
COC Number			842965-06-01		842965-06-01		842965-06-01		
	UNITS	Criteria	20X4676 A1	RDL	20X4676 B1	RDL	20X4676 C1	RDL	QC Batch
Aroclor 1242	ug/g	-	ND	0.015	ND	0.040	ND	0.015	8070066
Aroclor 1248	ug/g	-	ND	0.015	ND	0.040	ND	0.015	8070066
Aroclor 1254	ug/g	-	ND	0.015	ND	0.040	ND	0.015	8070066
Aroclor 1260	ug/g	-	ND	0.015	ND	0.040	ND	0.015	8070066
Surrogate Recovery (%)									
2,4,5,6-Tetrachloro-m-xylene	%	-	80		81		81		8070066
Decachlorobiphenyl	%	-	90		82		83		8070066

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
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GENERAL COMMENTS

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

Package 1	15.3°C

OC Pesticide Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8067528	DT1	Matrix Spike	Acid Extractable Arsenic (As)	2022/06/23		99	%	75 - 125
			Acid Extractable Lead (Pb)	2022/06/23		102	%	75 - 125
8067528	DT1	Spiked Blank	Acid Extractable Arsenic (As)	2022/06/23		104	%	80 - 120
			Acid Extractable Lead (Pb)	2022/06/23		106	%	80 - 120
8067528	DT1	Method Blank	Acid Extractable Arsenic (As)	2022/06/23	ND, RDL=1.0		ug/g	
			Acid Extractable Lead (Pb)	2022/06/23	ND, RDL=1.0		ug/g	
8067528	DT1	RPD	Acid Extractable Arsenic (As)	2022/06/23	3.2		%	30
			Acid Extractable Lead (Pb)	2022/06/23	0.20		%	30
8070066	LPG	Matrix Spike	2,4,5,6-Tetrachloro-m-xylene	2022/06/24		88	%	50 - 130
			Decachlorobiphenyl	2022/06/24		97	%	50 - 130
			Aldrin	2022/06/24		72	%	50 - 130
			a-Chlordane	2022/06/24		92	%	50 - 130
			g-Chlordane	2022/06/24		92	%	50 - 130
			o,p-DDD	2022/06/24		106	%	50 - 130
			p,p-DDD	2022/06/24		108	%	50 - 130
			o,p-DDE	2022/06/24		104	%	50 - 130
			p,p-DDE	2022/06/24		129	%	50 - 130
			o,p-DDT	2022/06/24		101	%	50 - 130
			p,p-DDT	2022/06/24		115	%	50 - 130
			Dieldrin	2022/06/24		111	%	50 - 130
			Lindane	2022/06/24		99	%	50 - 130
			Endosulfan I (alpha)	2022/06/24		114	%	50 - 130
			Endosulfan II (beta)	2022/06/24		100	%	50 - 130
			Endrin	2022/06/24		109	%	50 - 130
			Heptachlor	2022/06/24		81	%	50 - 130
			Heptachlor epoxide	2022/06/24		93	%	50 - 130
			Hexachlorobenzene	2022/06/24		79	%	50 - 130
			Hexachlorobutadiene	2022/06/24		85	%	50 - 130
			Hexachloroethane	2022/06/24		64	%	50 - 130
			Methoxychlor	2022/06/24		133 (1)	%	50 - 130
8070066	LPG	Spiked Blank	2,4,5,6-Tetrachloro-m-xylene	2022/06/24		70	%	50 - 130
			Decachlorobiphenyl	2022/06/24		83	%	50 - 130
			Aldrin	2022/06/24		65	%	50 - 130
			a-Chlordane	2022/06/24		92	%	50 - 130
			g-Chlordane	2022/06/24		81	%	50 - 130
			o,p-DDD	2022/06/24		96	%	50 - 130
			p,p-DDD	2022/06/24		102	%	50 - 130
			o,p-DDE	2022/06/24		84	%	50 - 130
			p,p-DDE	2022/06/24		92	%	50 - 130
			o,p-DDT	2022/06/24		85	%	50 - 130
			p,p-DDT	2022/06/24		97	%	50 - 130
			Dieldrin	2022/06/24		107	%	50 - 130
			Lindane	2022/06/24		92	%	50 - 130
			Endosulfan I (alpha)	2022/06/24		100	%	50 - 130
			Endosulfan II (beta)	2022/06/24		92	%	50 - 130
			Endrin	2022/06/24		102	%	50 - 130
			Heptachlor	2022/06/24		69	%	50 - 130
			Heptachlor epoxide	2022/06/24		87	%	50 - 130
			Hexachlorobenzene	2022/06/24		75	%	50 - 130

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Hexachlorobutadiene	2022/06/24		87	%	50 - 130
			Hexachloroethane	2022/06/24		92	%	50 - 130
			Methoxychlor	2022/06/24		114	%	50 - 130
8070066	LPG	RPD	Aldrin	2022/06/24	1.4		%	40
			a-Chlordane	2022/06/24	21		%	40
			g-Chlordane	2022/06/24	5.1		%	40
			o,p-DDD	2022/06/24	4.2		%	40
			p,p-DDD	2022/06/24	4.4		%	40
			o,p-DDE	2022/06/24	3.7		%	40
			p,p-DDE	2022/06/24	8.7		%	40
			o,p-DDT	2022/06/24	1.1		%	40
			p,p-DDT	2022/06/24	5.1		%	40
			Dieldrin	2022/06/24	4.2		%	40
			Lindane	2022/06/24	3.6		%	40
			Endosulfan I (alpha)	2022/06/24	7.6		%	40
			Endosulfan II (beta)	2022/06/24	7.4		%	40
			Endrin	2022/06/24	1.9		%	40
			Heptachlor	2022/06/24	5.4		%	40
			Heptachlor epoxide	2022/06/24	3.6		%	40
			Hexachlorobenzene	2022/06/24	5.9		%	40
			Hexachlorobutadiene	2022/06/24	9.4		%	40
			Hexachloroethane	2022/06/24	43 (2)		%	40
			Methoxychlor	2022/06/24	3.4		%	40
			Aldrin	2022/06/24	NC		%	40
			a-Chlordane	2022/06/24	NC		%	40
			g-Chlordane	2022/06/24	NC		%	40
			o,p-DDD	2022/06/24	NC		%	40
			p,p-DDD	2022/06/24	NC		%	40
			o,p-DDE	2022/06/24	NC		%	40
			p,p-DDE	2022/06/24	NC		%	40
			o,p-DDT	2022/06/24	NC		%	40
			p,p-DDT	2022/06/24	NC		%	40
			Dieldrin	2022/06/24	NC		%	40
			Lindane	2022/06/24	NC		%	40
			Endosulfan I (alpha)	2022/06/24	NC		%	40
			Endosulfan II (beta)	2022/06/24	NC		%	40
			Endrin	2022/06/24	NC		%	40
			Heptachlor	2022/06/24	NC		%	40
			Heptachlor epoxide	2022/06/24	NC		%	40
			Hexachlorobenzene	2022/06/24	NC		%	40
			Hexachlorobutadiene	2022/06/24	NC		%	40
			Hexachloroethane	2022/06/24	NC		%	40
			Methoxychlor	2022/06/24	NC		%	40
			Aroclor 1242	2022/06/24	NC		%	40
			Aroclor 1248	2022/06/24	NC		%	40
			Aroclor 1254	2022/06/24	NC		%	40
			Aroclor 1260	2022/06/24	NC		%	40
8070066	LPG	Method Blank	2,4,5,6-Tetrachloro-m-xylene	2022/06/24		86	%	50 - 130
			Decachlorobiphenyl	2022/06/24		105	%	50 - 130
			Aldrin	2022/06/24	ND, RDL=0.0020		ug/g	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			a-Chlordane	2022/06/24	ND, RDL=0.0020		ug/g	
			g-Chlordane	2022/06/24	ND, RDL=0.0020		ug/g	
			o,p-DDD	2022/06/24	ND, RDL=0.0020		ug/g	
			p,p-DDD	2022/06/24	ND, RDL=0.0020		ug/g	
			o,p-DDE	2022/06/24	ND, RDL=0.0020		ug/g	
			p,p-DDE	2022/06/24	ND, RDL=0.0020		ug/g	
			o,p-DDT	2022/06/24	ND, RDL=0.0020		ug/g	
			p,p-DDT	2022/06/24	ND, RDL=0.0020		ug/g	
			Dieldrin	2022/06/24	ND, RDL=0.0020		ug/g	
			Lindane	2022/06/24	ND, RDL=0.0020		ug/g	
			Endosulfan I (alpha)	2022/06/24	ND, RDL=0.0020		ug/g	
			Endosulfan II (beta)	2022/06/24	ND, RDL=0.0020		ug/g	
			Endrin	2022/06/24	ND, RDL=0.0020		ug/g	
			Heptachlor	2022/06/24	ND, RDL=0.0020		ug/g	
			Heptachlor epoxide	2022/06/24	ND, RDL=0.0020		ug/g	
			Hexachlorobenzene	2022/06/24	ND, RDL=0.0020		ug/g	
			Hexachlorobutadiene	2022/06/24	ND, RDL=0.0020		ug/g	
			Hexachloroethane	2022/06/24	ND, RDL=0.0020		ug/g	
			Methoxychlor	2022/06/24	ND, RDL=0.0050		ug/g	
			Aroclor 1242	2022/06/24	ND, RDL=0.015		ug/g	
			Aroclor 1248	2022/06/24	ND, RDL=0.015		ug/g	
			Aroclor 1254	2022/06/24	ND, RDL=0.015		ug/g	
			Aroclor 1260	2022/06/24	ND, RDL=0.015		ug/g	
8075906	MYI	Matrix Spike [SXP824-01]	2,4,5-T	2022/06/27		114	%	10 - 130
			2,4,5-TP (Silvex)	2022/06/27		110	%	10 - 130
			2,4-D	2022/06/27		101	%	10 - 130
			2,4-D (BEE)	2022/06/27		118	%	10 - 130
			2,4-DB	2022/06/27		106	%	10 - 130
			2,4-Dichlorophenyl Acetic Acid	2022/06/27		106	%	10 - 130

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			2,4-DP (Dichlorprop)	2022/06/27		104	%	10 - 130
			2,5-Dibromobenzoic Acid	2022/06/27		112	%	10 - 130
			4,4-Dibromobiphenyl	2022/06/27		110	%	10 - 130
			Dicamba	2022/06/27		104	%	10 - 130
			MCPA	2022/06/27		102	%	10 - 130
			MCPP	2022/06/27		111	%	10 - 130
			Picloram	2022/06/27		92	%	10 - 130
8075906	MYI	Spiked Blank	2,4,5-T	2022/06/27		114	%	10 - 130
			2,4,5-TP (Silvex)	2022/06/27		112	%	10 - 130
			2,4-D	2022/06/27		101	%	10 - 130
			2,4-D (BEE)	2022/06/27		118	%	10 - 130
			2,4-DB	2022/06/27		105	%	10 - 130
			2,4-Dichlorophenyl Acetic Acid	2022/06/27		106	%	10 - 130
			2,4-DP (Dichlorprop)	2022/06/27		108	%	10 - 130
			2,5-Dibromobenzoic Acid	2022/06/27		119	%	10 - 130
			4,4-Dibromobiphenyl	2022/06/27		114	%	10 - 130
			Dicamba	2022/06/27		107	%	10 - 130
			MCPA	2022/06/27		103	%	10 - 130
			MCPP	2022/06/27		115	%	10 - 130
			Picloram	2022/06/27		87	%	10 - 130
8075906	MYI	Method Blank	2,4,5-T	2022/06/27	ND, RDL=0.10		ug/g	
			2,4,5-TP (Silvex)	2022/06/27	ND, RDL=0.10		ug/g	
			2,4-D	2022/06/27	ND, RDL=0.10		ug/g	
			2,4-D (BEE)	2022/06/27	ND, RDL=0.20		ug/g	
			2,4-DB	2022/06/27	ND, RDL=0.10		ug/g	
			2,4-Dichlorophenyl Acetic Acid	2022/06/27		97	%	10 - 130
			2,4-DP (Dichlorprop)	2022/06/27	ND, RDL=0.10		ug/g	
			2,5-Dibromobenzoic Acid	2022/06/27		106	%	10 - 130
			4,4-Dibromobiphenyl	2022/06/27		109	%	10 - 130
			Dicamba	2022/06/27	ND, RDL=0.20		ug/g	
			MCPA	2022/06/27	ND, RDL=0.20		ug/g	
			MCPP	2022/06/27	ND, RDL=0.20		ug/g	
			Picloram	2022/06/27	ND, RDL=0.20		ug/g	
8075906	MYI	RPD [SXP824-01]	2,4,5-T	2022/06/27	NC		%	50
			2,4,5-TP (Silvex)	2022/06/27	NC		%	50
			2,4-D	2022/06/27	NC		%	50
			2,4-D (BEE)	2022/06/27	NC		%	50
			2,4-DB	2022/06/27	NC		%	50
			2,4-DP (Dichlorprop)	2022/06/27	NC		%	50
			Dicamba	2022/06/27	NC		%	50
			MCPA	2022/06/27	NC		%	50
			MCPP	2022/06/27	NC		%	50

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Picloram	2022/06/27	NC		%	50

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

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

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

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

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

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) The recovery was above the upper control limit. This may represent a high bias in some results for flagged analytes. For results that were not detected (ND), this potential bias has no impact.

(2) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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Bureau Veritas Job #: C2G6717
Report Date: 2022/07/04

Bruce A. Brown Associates Limited
Client Project #: 20*4676
Site Location: KING-CAMILLA, MISSISSAUGA
Sampler Initials: BB

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Anastassia Hamanov, Scientific Specialist

Cristina Carriere, Senior Scientific Specialist

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Bureau Veritas Job #: C2G6717
Report Date: 2022/07/04

Bruce A. Brown Associates Limited
Client Project #: 20*4676
Site Location: KING-CAMILLA, MISSISSAUGA
Sampler Initials: BB

Exceedance Summary Table – Reg153/04 T3-Soil/Ind-C

Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
20X4676 B1	SXP822-01	Acid Extractable Lead (Pb)	120	130	1.0	ug/g

The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Your Project #: 20*4676
Site Location: 174 KING ST E/ CAMILLA RD
Your C.O.C. #: 886686-03-01

Attention: Bruce Brown

Bruce A. Brown Associates Limited
101-102 Aerodrome Cr
Toronto, ON
CANADA M4G 4J4

Report Date: 2022/07/13
Report #: R7208844
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C2I8224
Received: 2022/07/07, 12:22

Sample Matrix: Soil
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acid Extractable Metals by ICPMS	4	2022/07/11	2022/07/11	CAM SOP-00447	EPA 6020B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ronklin Gracian, Project Manager
Email: Ronklin.Gracian@bureauveritas.com
Phone# (905)817-5752

==========

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For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Job #: C2I8224
Report Date: 2022/07/13

Bruce A. Brown Associates Limited
Client Project #: 20*4676
Site Location: 174 KING ST E/ CAMILLA RD
Sampler Initials: BB

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Bureau Veritas ID			TCG843	TCG844	TCG845	TCG846		
Sampling Date			2022/07/07 09:45	2022/07/07 09:50	2022/07/07 09:55	2022/07/07 10:00		
COC Number			886686-03-01	886686-03-01	886686-03-01	886686-03-01		
	UNITS	Criteria	4676.BW	4676.BN	4676.BE	4676.BS	RDL	QC Batch
Metals								
Acid Extractable Arsenic (As)	ug/g	18	4.8	10	5.8	5.6	1.0	8101166
Acid Extractable Lead (Pb)	ug/g	120	56	**130**	42	30	1.0	8101166

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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Bureau Veritas Job #: C2I8224
Report Date: 2022/07/13

Bruce A. Brown Associates Limited
Client Project #: 20*4676
Site Location: 174 KING ST E/ CAMILLA RD
Sampler Initials: BB

GENERAL COMMENTS

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

Package 1	17.3°C

Results relate only to the items tested.

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Bureau Veritas Job #: C2I8224
Report Date: 2022/07/13

Bruce A. Brown Associates Limited
Client Project #: 20*4676
Site Location: 174 KING ST E/ CAMILLA RD
Sampler Initials: BB

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8101166	MEN	Matrix Spike	Acid Extractable Arsenic (As)	2022/07/11		99	%	75 - 125
			Acid Extractable Lead (Pb)	2022/07/11		94	%	75 - 125
8101166	MEN	Spiked Blank	Acid Extractable Arsenic (As)	2022/07/11		102	%	80 - 120
			Acid Extractable Lead (Pb)	2022/07/11		101	%	80 - 120
8101166	MEN	Method Blank	Acid Extractable Arsenic (As)	2022/07/11	ND, RDL=1.0		ug/g	
			Acid Extractable Lead (Pb)	2022/07/11	ND, RDL=1.0		ug/g	
8101166	MEN	RPD	Acid Extractable Arsenic (As)	2022/07/11	3.5		%	30
			Acid Extractable Lead (Pb)	2022/07/11	1.3		%	30

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

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

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

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

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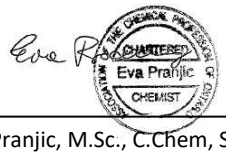
Bureau Veritas Job #: C2I8224
Report Date: 2022/07/13

Bruce A. Brown Associates Limited
Client Project #: 20*4676
Site Location: 174 KING ST E/ CAMILLA RD
Sampler Initials: BB

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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Bureau Veritas Job #: C2I8224
Report Date: 2022/07/13

Bruce A. Brown Associates Limited
Client Project #: 20*4676
Site Location: 174 KING ST E/ CAMILLA RD
Sampler Initials: BB

Exceedance Summary Table – Reg153/04 T3-Soil/Res-C

Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
4676.BN	TCG844-01	Acid Extractable Lead (Pb)	120	130	1.0	ug/g

The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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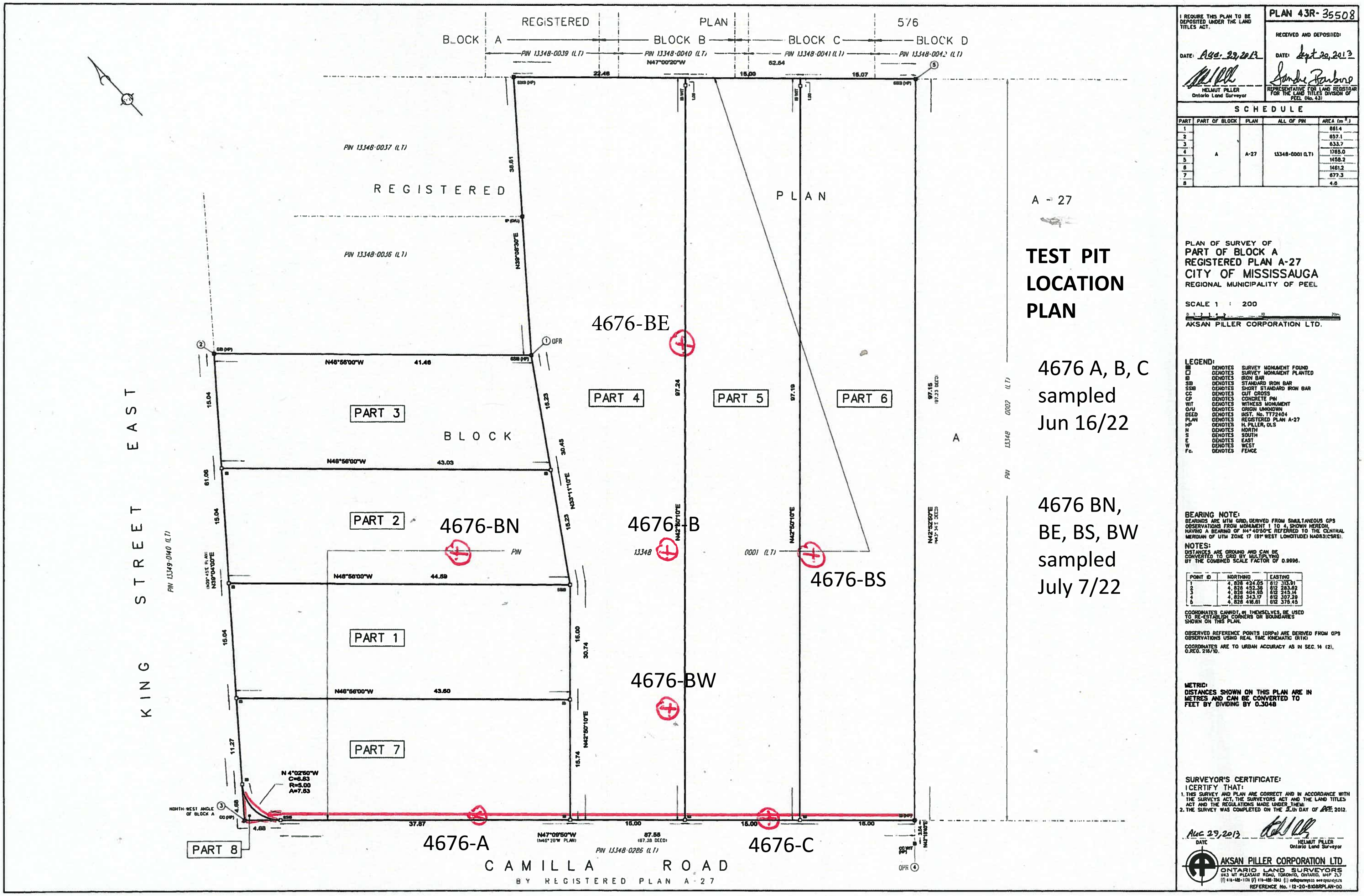
TEST PIT LOCATION PLAN
4676 A, B, C sampled Jun 16/22
4676 BN, BE, BS, BW sampled July 7/22
4676-BE
4676-BN
4676-B
4676-BS
4676-BW
4676-A
4676-C
PLAN 43R-35508
REGISTERED PLAN 576
BLOCK A
BLOCK B
BLOCK C
BLOCK D
PART 1
PART 2
PART 3
PART 4
PART 5
PART 6
PART 7
PART 8
KING STREET EAST
CAMILLA ROAD
BY REGISTERED PLAN A-27
REGISTERED PLAN
BLOCK
A - 27
SCHEDULE
PLAN OF SURVEY OF PART OF BLOCK A REGISTERED PLAN A-27 CITY OF MISSISSAUGA REGIONAL MUNICIPALITY OF PEEL
SCALE 1 : 200
AKSAN PILLER CORPORATION LTD.
LEGEND:
BEARING NOTE:
NOTES:
METRIC:
SURVEYOR'S CERTIFICATE:
AKSAN PILLER CORPORATION LTD
ONTARIO LAND SURVEYORS

→4676