

**PHASE II
ENVIRONMENTAL SITE ASSESSMENT
20 CITYVIEW DRIVE NORTH
CITY OF GUELPH
COUNTY OF WELLINGTON**

**GAMSBY AND MANNEROW LIMITED
CONSULTING PROFESSIONAL ENGINEERS
GUELPH – OWEN SOUND – LISTOWEL – KITCHENER – EXETER**

May 2011
Our File: 410085

TABLE OF CONTENTS

1.0	INTRODUCTION & BACKGROUND INFORMATION	1
2.0	APPLICABLE SOIL/GROUNDWATER CRITERIA – REGULATORY SETTING.....	2
2.1	Sampling Methodology.....	2
2.2	Fill Background Information	3
3.0	INITIAL TESTHOLE INVESTIGATION	3
3.1	Initial Testhole Investigation – Findings	4
4.0	CONFIRMATION OF SUSPECT FILL REMOVAL	4
5.0	QUALITY ASSURANCE/QUALITY CONTROL	5
6.0	CONCLUSIONS & RECOMEDATIONS.....	6
7.0	STATEMENT OF LIMITATIONS	7

LIST OF TABLES

Table 1	Concentration of Metals in Soil - Testhole Investigation
Table 2	Concentration of PAHs in Soil - Testhole Investigation
Table 3	Concentration of Metals in Soil - Confirmation of Suspect Fill Removal
Table 4	Concentration of PAHs in Soil - Confirmation of Suspect Fill Removal
Table 5	QA/QC Field Duplicate Soil Sample Comparison

LIST OF FIGURES

Figure 1	Site Location Map
Figure 2	Testhole Location Plan
Figure 3	Approximate Excavation and Confirmation Sample Location Plan

LIST OF APPENDICES

Appendix “A”	Site Photographs
Appendix “B”	Laboratory Certificate of Analysis
Appendix “C”	Testhole Summary

PHASE II ENVIRONMENTAL SITE ASSESSMENT
20 CITYVIEW DRIVE NORTH
CITY OF GUELPH
COUNTY OF WELLINGTON
May 4, 2011
Our File: 410085

1.0 INTRODUCTION & BACKGROUND INFORMATION

Gamsby and Mannerow Limited (G&M) was retained by Carson Reid of Carson Reid Homes Ltd. to undertake a Phase II Environmental Site Assessment (ESA) of the property located at 20 Cityview Drive North in the City of Guelph, County of Wellington. The subject property is located on the west side of Cityview Drive North, directly north of a railway line, and currently consists of a residential property. The general location of the site is presented on Figure 1.

The subject property is located in the north-eastern portion of the City of Guelph, an area that generally consists of residential properties. The site occupies approximately 1.1 hectares (2.7 acres) and consists of a residential building, a barn used for storage and a shop, and a storage shed.

It is our understanding that this Phase II ESA is being conducted as a due diligence investigation to support the potential purchase and re-development of this property by Reids Heritage Homes. It is also our understanding that a Record of Site Condition (under Ontario Regulation 153/04 as amended) is not required for the site.

Prior to completion of this Phase II ESA, G&M completed a Phase I ESA entitled “*Phase I Environmental Site Assessment, 20 Cityview Drive North, City of Guelph, County of Wellington*” for the subject property in May 2011.

The Phase I ESA reported that the northerly portion of the subject property was reported to have been filled with approximately 177 loads (6,000 to 9,000 tonnes) of fill material. The fill material was reported to have been supplied to the subject property by Marshall Finamore Construction Ltd. (Finamore). The fill was reported to have originated from residential and road construction activities along Grange Road, in the City of Guelph.

Based on an agreement between the property owner and Finamore, the fill material was reported to be unscreened soil that met the “Table 1” criteria for background concentrations of the *Soil, Groundwater, and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (March 2004)*. However no analytical data was available during the site investigation.

Based on the findings of the Phase I ESAs, further investigation was recommended as part of a Phase II ESA to determine the condition of the subsurface soil associated with the fill material that was brought onto the site by Marshall Finamore Construction to fill the north-eastern portion of the subject property.

Based on the findings of the Phase I ESA, a Phase II ESA work plan was developed, in consultation with the client, to assess the environmental condition of the subsurface soil related to the environmental concerns identified in the Phase I ESA. The Phase II ESA investigation was undertaken to reduce the uncertainty with respect to the environmental condition of the soil at the site.

For additional information regarding the site layout and setting, please refer to the Phase I ESA.

2.0 APPLICABLE SOIL/GROUNDWATER CRITERIA – REGULATORY SETTING

For the purpose of the soils investigation, impacts to the subject property are determined by comparison to the criteria identified in the *Soil, Groundwater, and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act* (March 2004), hereafter referred to as the Standard. In determining the applicable regulatory criteria of the Standard, the property use, groundwater scenario, and soil texture must be selected.

The site is considered a residential property use and is currently serviced by an on-site private well. The subject property would likely be serviced upon development. However, the City of Guelph obtains its water from groundwater and therefore, the Table 2 criteria (i.e., for a potable groundwater condition) for a residential property use was selected as the applicable soil Standard.

As part of the determination of the soil Standards under Regulation 153/04, the soil must be defined as “fine and medium textured” or “coarse textured” based on site conditions. By definition, coarse textured soils contain more than 50 percent by mass of particles greater than or equal to 75 µm in diameter. The soils were observed to be stony silt with concrete and brick debris. A grain size analysis was not conducted; therefore, the more conservative coarse textured criteria have been selected.

In summary, the remediation Standard for the site is Table 2 (potable groundwater) for a residential property use with coarse grained soils.

It is noted that the Standard was updated, July 27, 2009, which comes into force on July 1, 2011 under Ontario Regulation 511/09. Consequently, the analytical results are also compared to the 2009 Standard as this Standard will supersede the 2004 Standard after July 1, 2011.

2.1 SAMPLING METHODOLOGY

Based the nature of the soils observed in the field, selected samples from the testholes were collected and submitted to Maxxam Analytics Inc. (Maxxam) for the analysis of metals and polycyclic aromatic hydrocarbons (PAHs). The samples were placed in the appropriate

laboratory supplied glass containers, packaged in a cooler with ice packs and were submitted under typical chain of custody protocols. The results are summarized in Table 1 and a copy of the laboratory Certificate of Analysis is presented in Appendix “B”.

Photographs of the site conditions were taken during the subsurface investigation. Selected site photographs are presented in Appendix “A”.

2.2 FILL BACKGROUND INFORMATION

As reported in the previously completed Phase I ESA (G&M, December 2010), based on Mr. Bob Smith of Sure Fit Services, it was reported that the fill material was placed in phases from east to west and be comprised of:

1. Topsoil,
2. Native silty and stony soils with concrete debris, and
3. Native silty and stony soil.

The topsoil was reportedly placed furthest to the east and placed directly on the existing topsoil. Subsequently, the central portion and western portion of the fill areas were reported to have been stripped of topsoil. The central portion of the fill area is reported to contain the most concrete and brick, and the western portion is reported to be native silty soils. The fill was reported to have been dumped in windrows and in piles and spread with a dozer. The soil was reportedly placed in approximately 0.6 to 1.3 m lifts and occasionally packed with a vibrating packer. Upon completion of the filling, the fill was graded. The fill was placed to cover a natural slope, such that the thickest portion of fill is to the south, along the base.

In order to confirm the conditions of the fill material, a limited testhole investigation was completed on December 15, 2010 by G&M personnel. The testholes were completed using a rubber tire backhoe to a maximum depth of 3.8 m and were terminated in the native soils. Testholes and an estimated area of fill are presented on Figure 2.

3.0 INITIAL TESTHOLE INVESTIGATION

On December 15, 2010, a total of four investigative testholes, TH-1, TH-2, TH-3, and TH-4 were completed onsite where the fill was inferred to be located, as shown on Figure 2. A summary of the soils encountered is provided in Appendix “C”.

Although the soils were observed to be mixed, no deleterious materials were noted. The only construction materials observed appeared to be concrete and or brick. No asphalt, metal, or other non-inert waste materials were discovered in the fill during the initial testhole investigation.

For screening level purposes, one soil sample from each of the four testholes was collected and provided to Maxxam for analysis of polycyclic aromatic hydrocarbons (PAHs), metals and inorganics.

Based on the results of the initial testholes, additional testing was conducted to provide more certainty regarding the overall fill and topsoil quality. On January 6, 2011 ten additional testholes were excavated in the vicinity of TH-2 (TH-2A, TH-5 to TH-13) and in additional areas within the fill area, as shown on Figure 2. Six additional soil samples from select testholes were collected and provided to Maxxam for analysis of polycyclic aromatic hydrocarbons (PAHs), metals and inorganics.

The soil description summary is provided in Appendix “C”. In the area of TH-2, the soils were observed to be mixed, and a small amount deleterious material including ash, asphalt, and coal were noted. Construction materials observed consisted of concrete and brick.

3.1 INITIAL TESTHOLE INVESTIGATION – FINDINGS

The analytical results indicate that the concentrations for all tested parameters were below Table 2 of the current 2004 Standard. However, the topsoil sample from TH-2, TH-2A, TH-5, TH-7 and TH-13 was reported to have an elevated concentration of lead that exceeds the 2009 Standard. The concentration of benzo(a)pyrene was also reported to exceed the 2009 Standard in testholes TH-2A, TH-5 and TH-7. Testhole TH-2A was also reported to exceed the 2009 Standard for Fluoranthene. Elevated zinc concentrations were also noted, with exceedences of the 2009 Standard in TH-6 and TH-13. The analytical data is summarized on Tables 1 and 2. The Certificates of Analyses are presented in Appendix “B”.

The identified impacts appeared to be within the topsoil fill that had been placed on the property, in the area shown on Figure 2. The topsoil appeared to have been mixed with trace amounts of ash, coal, glass, slag, and very occasional asphalt. Based on the reported analytical results, no impacts were identified in the tan to brown silty fill soils.

4.0 CONFIRMATION OF SUSPECT FILL REMOVAL

Following the testhole investigation completed by G&M, excavation and off-site disposal of the suspect fill material was organized by Mr. Pelligrini (the site owner) and conducted by his contractor. The remediation was reportedly completed through the excavation and haulage of the impacted soils for use at an off-site location. The suspect topsoil was targeted for removal by the contractor. G&M personnel attended the site upon completion of the remedial activities, to investigate and document the soil conditions of the remaining soils.

On February 22, 2011 five soil samples were collected from the walls and floor of the excavation as shown on Figure 3. The soil samples were sent to Maxxam for analysis of metals, inorganics and PAHs. The analytical results are summarized on Tables 3 and 4 and the Laboratory Certificates of Analysis are presented in Appendix “B”. The results reported that soils along the east wall of the excavation did not meet the Table 2 criteria of the 2009 Standard for benzo(a)pyrene or fluoranthene. The soils along the north-west wall in the vicinity of a buried tree stump were reported to exceed the Table 2 criteria of the 2009 Standard for several metals and benzo(a)pyrene. The west floor was also noted to exceed the 2009 Standard for lead and benzo(a)pyrene. All other samples met the 2004 and 2009 Standard for the tested parameters.

Based on the information provided, the property owner retained a contractor to complete additional fill removal. G&M personnel attended the site upon completion of the additional remediation. It was observed that the excavation floor had been extended approximately an additional 0.5 m in depth along the eastern wall. The floor had also been further excavated along the west an approximate 0.5 to 1 m deeper. No suspect topsoil fill material appeared to remain in the identified area.

On March 4, 2011 three additional confirmation soil samples were collected from the areas that were further excavated. As summarized on Tables 3 and 4, the sample concentrations were reported below the Table 2 criteria of both the 2004 and 2009 Standard for all tested parameters with the exception of zinc at sample location E Wall 3. E Wall 3 was reported to have a concentration of 360 ug/g, above the 2009 Table 2 Standard of 340 ug/g. The analytical data is summarized on Tables 1 and 2. The Certificates of Analyses are presented in Appendix "B".

E Wall 3 was a sample of native tan silty soils and was not consistent with the topsoil targeted for removal. The analytical results at E Wall 3 were non-detect for PAH compounds, which were found in trace concentrations in the topsoil. Samples E Floor 1, W Wall 3, W Floor 2, and W Floor 3, are also to noted to be elevated in zinc with reported concentrations 300 to 340 ug/g. It is noted that the native soils in the Guelph area have been documented to have elevated zinc concentrations. Based on the nature of soils and zinc occurrence, the zinc concentrations in the soils are deemed to be naturally occurring and are not considered a concern for the purposes of this investigation.

As shown on Figure 3, the final excavation measured approximately 32 m long by 25 m wide. It was reported by the property owner's contractor that a total of approximately 150 half-loads (or 1000 to 1200 tonnes) of suspect topsoil fill was excavated and hauled off-site. Upon completion of the confirmation sampling program, it was reported that the excavation walls were sloped and the excavation was left open as site development plans have not been finalized.

5.0 QUALITY ASSURANCE/QUALITY CONTROL

Prior to accepting the reported analytical values, the laboratory reports were reviewed to ensure method blanks and spiked samples were within accepted values. Where applicable, surrogate recoveries and laboratory duplicates were also used to determine sample validity. Based on the laboratory reports, the QA/QC protocols indicate the samples are valid.

One "blind" field duplicate sample was collected and analyses were completed for Quality Assurance/Quality Control (QA/QC) purposes. W Floor 3 is a field duplicate sample of W Floor 2 and was sent for analysis of metals and PAHs. The field duplicate was utilized to assess whether collection, handling, storage, and transport of samples introduced bias to the analysis results.

The field duplicate was collected in the same manner as confirmation sample. The duplicate sample was submitted to Maxxam for the same analysis as requested for the corresponding confirmation sample. The results were then compared to each other and the relative percent

difference (RPD) was calculated. The RPD was compared to the laboratory standard quality control limit. No comparisons could be made for the analysis of PAHs as all parameters were measured as below the detection limits and thus do not provide a reliable calculation.

As presented on Table 5, minor variation was detected in the measured concentrations of metals. Generally, RPD values above 15% for metals are considered to be outside the tolerable quality control limits and indicate that results should be further reviewed to validate sample results. Exceptions are made when reported values are close to the reported detection limits. Additionally, based on the naturally heterogeneous nature of soils, natural variability can cause varied results, even though mixing is conducted. The minor variations between the confirmation soil sample and the duplicate sample were calculated to have RPD values 5% or less and within tolerable quality control limits.

In summary, the QA/QC protocols conducted indicate that the reported sampling results are valid.

6.0 CONCLUSIONS & RECOMEDATIONS

It is our understanding that this Phase II ESA is being conducted as a due diligence investigation to support the potential purchase and re-development of this property by Reids Heritage Homes. The purpose of the Phase II ESA was to determine with more certainty the environmental condition of the subject property and to investigate the areas of concern identified in the Phase I ESA. Based on the subsurface investigations conducted as part of the Phase II ESA it has been determined that:

- The phase I ESA identified a large area to the northeast of the property that had been filled with approximately 177 loads of fill. The quality of fill was unknown.
- Fourteen (14) testholes were excavated within the fill material in order to have more certainty with regard to the conditions of the fill material placed on site.
- In testholes TH-1, TH-3, TH-4, TH-8, TH-9, TH-10, TH-11, and TH-12 the soils were observed to be silt and clay till with gravel and cobbles. Pieces of inert construction material such as concrete and brick were also observed. Analysis of fill material from these areas was reported to meet the Table 2 criteria of both the 2004 and 2009 Standard for metals and PAHs.
- A pocket of impacted fill appeared consisting of mixed organic topsoil with trace ash, asphalt, ceramics, concrete and brick was observed to be limited to the eastern fill area south of the barn (testholes TH-2, TH-2A, TH-5, TH-6, TH-7 and TH-13). Analysis of the suspect fill for PAHs and metals indicated that the fill in this area met the Table 2 criteria of the 2004 Standard, but did not meet the 2009 Standards for one or more of lead, copper, arsenic, zinc, benzo(a)pyrene and/or fluoranthene.
- Upon discovery of the impacted fill material, the property owner organized the excavation and off-site disposal of suspect fill material by a contractor.

- Following removal of the suspect soils, confirmation soil samples reported concentrations below the Table 2 criteria of both the 2004 and 2009 Standard for the contaminants of concern (metals, inorganics and PAHs). Minor zinc exceedences of the native silty soils, beneath the removed fill are thought to be naturally occurring and are not considered to pose an environmental concern for the subject property.
- The final excavation measured approximately 32 m long by 25 m wide. It was reported that a total of approximately 150 half-loads (or 1000 to 1200 tonnes), of suspect topsoil fill was excavated and hauled off-site. Upon completion of the confirmation sampling program, it was reported that the excavation walls were sloped and the excavation was left open as site development plans have not been finalized.

Based on visual inspection and the final confirmation soil samples collected from the excavation walls and floor, it appears that the suspect topsoil fill material has been removed off-site. No further environmental work is recommended at this time.

Based on the testhole investigation, inert construction materials such as concrete remains within the silt and clay fill material in some locations. While these materials do not pose an environmental concern, the presence of these materials should be considered as part of development planning, as required.

7.0 STATEMENT OF LIMITATIONS

The information in this Phase II ESA is intended for the sole use of Carson Reid Homes Ltd. and their financial institution. Gamsby and Mannerow Limited accept no liability for use of this information by third parties. Any decisions made by third parties on the basis of information provided in this report are made at the sole risk of the third parties.

Gamsby and Mannerow Limited cannot guarantee the accuracy or reliability of information provided by others. Gamsby and Mannerow Limited does not accept liability for unknown, unidentified, undisclosed or unforeseen surface or sub-surface contamination that may be later identified.

The conclusions pertaining to the environmental condition of soils and/or groundwater identified at the site are based on the visual observations at the locations of the investigative boreholes and on the analytical data for the selected soil samples. Gamsby and Mannerow Limited cannot guarantee the environmental condition of soil and/or groundwater that may be encountered at the site in locations that were not specifically investigated.

The investigative sampling completed as part of the Phase II ESA represents the soil and/or groundwater condition in the locations sampled only and does not necessarily represent the environmental condition of all fill or subsurface soils and/or groundwater located on the site. Further classification of the subsurface soil and/or groundwater conditions would require additional sampling and analyses.

This report is believed to provide documentation of site conditions as of March 4, 2011.

All of which is respectfully submitted.

GAMSBY AND MANNEROW LIMITED

Per:



A. L. Eriksen, B.A.S.



M. Nelson M.Sc., P.Eng., P.Geo.

**PHASE II
ENVIRONMENTAL SITE ASSESSMENT
20 CITYVIEW DRIVE NORTH
CITY OF GUELPH
COUNTY OF WELLINGTON**

TABLES

Table 1: Concentration of Metals in Soil - Testhole Investigation

Matrix: Sample ID: Date Sampled	Table 2: Criteria for Potable Groundwater µg/g (2004) ¹		Table 2: Criteria for Potable Groundwater µg/g (2009) ²		Soil									
	13	(25) 20 (1000) 750	8	18 390.0 (5) 4	TH-1 Dec-15-10	TH-2 Dec-15-10	TH-3 Dec-15-10	TH-4 Dec-15-10	TH-2A Jan-6-11	TH-5 Jan-6-11	TH-6 Jan-6-11	TH-7 Jan-6-11	TH-8 Jan-6-11	TH-13 Jan-6-11
	0.5	5 48 0.3	0.5	2 14 <0.2	0.3	4 39 0.3	<0.2	0.3	0.8	0.8	0.3	2.9	<0.2	0.6
Antimony						7		7			5	6	3	5
Arsenic						77		110		93	50	62	34	64
Barium						0.4		0.4		0.3	0.3	0.3	0.2	0.4
Beryllium						0.4		0.4		5	6	6	<5	6
Boron (Hot water soluble)						0.6		0.7		0.7	0.5	1.0	0.3	1.0
Cadmium						13		13		14	10	12	10	13
Chromium						<2		<0.4		-	-	-	-	-
Chromium VI						4.3		4.0		4.2	3.6	4.6	4.2	5.0
Cobalt						27		21		33	18	36	12	33
Copper						140		73		190	88	190	23	130
Lead						0.19		0.06		-	-	-	-	-
Mercury						0.5		0.6		0.6	<0.5	0.5	<0.5	0.7
Molybdenum						10		9.3		10	8.1	11	8.5	12
Nickel						<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Selenium						2.4		2.4		0.2	<0.2	<0.2	<0.2	<0.2
Silver						0.09		0.08		0.12	0.07	<0.05	0.06	<0.05
Thallium						-		-		0.59	0.49	0.43	0.41	0.51
Uranium						21		17		22	19	20	18	22
Vanadium						230		310		250	370	320	110	350
Zinc						270		270		270	270	270	270	270

Notes:

- ¹Criteria are from the Soil, Groundwater, and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, March 2004
- Table 2 - Potable Groundwater Scenario
- ²Criteria are from the Updated Soil, Groundwater and Sediment Standards for use Under Part XV.1 of the Environmental Protection Act, July 2009, Table 2 - Potable Groundwater Scenario which comes into effect on July 1, 2011.
- Concentrations in µg/g (ppm)
- Concentrations shaded exceed the 2004 criteria and concentrations in bold exceed the 2009 criteria
- values in brackets represent medium and fine-grained soils

Table 2: Concentration of PAHs in Soil - Testhole Investigation

Matrix: Sample ID: Date Sampled	Soil													
	Table 2: Criteria for Potable Groundwater µg/g (2004) ¹		Table 2: Criteria for Potable Groundwater µg/g (2009) ²		TH-1	TH-2	TH-3	TH-4	TH-2A	TH-5	TH-6	TH-7	TH-8	TH-13
	Dec-15-10	Dec-15-10	Dec-15-10	Dec-15-10	Dec-15-10	Dec-15-10	Dec-15-10	Dec-15-10	Jan-6-11	Jan-6-11	Jan-6-11	Jan-6-11	Jan-6-11	Jan-6-11
Acenaphthene	15	0.01	(29) 7.9	<0.01	0.02	<0.01	<0.02	0.02	0.01	<0.02	<0.02	<0.02	0.01	<0.02
Acenaphthylene	100	0.008	(0.17) 0.15	<0.005	0.03	<0.005	0.02	0.081	0.061	0.050	0.073	0.073	0.073	0.02
Anthracene	28	0.021	(0.74) 0.67	<0.005	0.07	<0.005	0.02	0.11	0.086	0.057	0.073	0.073	0.18	0.03
Benzo(a)anthracene	6.6	0.06	(0.63) 0.5	0.01	0.30	0.01	0.07	0.41	0.32	0.18	0.25	0.25	0.12	0.08
Benzo(a)pyrene	1.2	0.05	0.3	0.010	0.29	0.010	0.06	0.52	0.42	0.22	0.35	0.35	0.15	0.10
Benzo(b)fluoranthene	12	0.08	0.78	0.01	0.39	0.01	0.09	0.69	0.55	0.27	0.46	0.46	0.25	0.15
Benzo(ghi)perylene	40	0.05	(7.8) 6.6	<0.02	0.24	<0.02	0.06	0.36	0.32	0.13	0.21	0.21	0.10	0.08
Benzo(k)fluoranthene	12	0.03	0.78	<0.01	0.14	<0.01	0.03	0.24	0.19	0.09	0.15	0.15	0.09	0.05
Chrysene	12	0.05	(7.8) 7	<0.01	0.26	<0.01	0.05	0.36	0.29	0.15	0.24	0.24	0.13	0.08
Dibenzo(a,h)anthracene	1.2	<0.02	0.1	<0.02	<0.04	<0.02	<0.04	0.09	0.08	0.03	0.06	0.06	0.02	<0.04
Fluoranthene	40	0.12	0.69	0.020	0.66	0.020	0.10	0.83	0.66	0.38	0.52	0.52	0.44	0.19
Fluorene	340	0.006	(69) 62	<0.005	0.02	<0.005	<0.01	0.015	0.012	0.010	0.010	0.010	0.009	<0.01
Indeno(1,2,3-cd)pyrene	12	0.04	(0.48) 0.38	<0.02	0.24	<0.02	0.05	0.42	0.34	0.16	0.25	0.25	0.11	0.08
1-Methylnaphthalene ³	1.2	<0.005	(3.4) 0.99	<0.005	0.03	<0.005	<0.01	0.047	0.029	<0.01	<0.01	<0.01	<0.01	<0.02
2-Methylnaphthalene ³	4.6	<0.005	(0.75) 0.6	<0.005	0.01	<0.005	<0.01	0.021	0.018	<0.01	0.007	0.007	<0.01	<0.01
Naphthalene	40	0.069	(7.8) 6.2	0.010	0.29	0.010	0.05	0.31	0.22	0.14	0.18	0.18	0.094	0.08
Phenanthrene	250	0.10	78	0.018	0.56	0.018	0.09	0.78	0.61	0.32	0.41	0.41	0.34	0.17

Notes:

¹ Criteria are from the Soil, Groundwater, and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, March 2004

Table 2 - Potable Groundwater Scenario

² Criteria are from the Updated Soil, Groundwater and Sediment Standards for use Under Part XV.1 of the Environmental Protection Act,

July 2009, Table 2 - Potable Groundwater Scenario which comes into effect on July 1, 2011.

³ The sum of 1- and 2- Methylnaphthalene must not exceed the standard.

- Concentrations in µg/g (ppm)

- Concentrations shaded exceed the 2004 criteria and concentrations in bold exceed the 2009 criteria

- values in brackets represent medium and fine-grained soils

Table 3: Concentration of Metals in Soil - Confirmation of Suspect Fill Removal

Matrix: Soil Sample ID: Date Sampled	Table 2: Criteria for Potable Groundwater µg/g (2004) ¹		Table 2: Criteria for Potable Groundwater µg/g (2009) ²		Investigative			Confirmatory							
	13 (25) 20 (1000) 750		8 18 390.0 (5) 4		E Wall 1	W Floor 1	W Wall 1	N Wall 1	E Floor 1	S Wall 2	W Wall 1	W Wall 3	W Floor 2	W Floor 3 ³	E Wall 3
	1.5 1.2 (1000) 750		1.5 1.2 (10) 8 (50) 40		Feb-22-11	Feb-22-11	Feb-22-11	Feb-22-11	Feb-22-11	Feb-22-11	Feb-22-11	Mar-04-11	Mar-04-11	Mar-04-11	Mar-04-11
Antimony	13		8		<0.2	1.1	6	0.3	<0.2	<0.2	0.2	0.4	<0.2	<0.2	<0.2
Arsenic	25) 20		18		4	6	21	4	4	3	4	7	2	2	3
Barium	(1000) 750		390.0		38	60	130	43	35	30	40	87	19	20	33
Beryllium	1.2		(5) 4		0.3	0.3	0.2	0.3	0.5	0.3	0.3	0.3	<0.2	<0.2	0.4
Boron (Hot water soluble)	1.5		1.5		0.92	1.5	1.9	0.97	0.44	0.37	0.78	0.83	0.4	0.4	0.23
Cadmium	1.2		1.2		0.5	1	2.1	0.6	0.7	0.5	0.5	0.8	6	6	0.7
Chromium	(1000) 750		160		10	14	29	11	11	10	12	11	2.6	2.7	31
Chromium VI	(10) 8		(10) 8		<0.2	<0.2	<0.2	<0.2	0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cobalt	(50) 40		22		4.0	5	3.8	4.2	4.6	3.8	3.7	5.0	2.6	2.7	6.0
Copper	(300) 225		(180) 140		12	41	250	16	11	14	21	29	8.2	8.6	18
Lead	200		120		46	130	380	51	63	48	61	100	43	45	46
Mercury	10		(1.8) 0.27		<0.05	0.21	0.09	0.05	<0.05	<0.05	<0.05	0.14	<0.05	<0.05	<0.05
Molybdenum	40		6.9		<0.5	0.6	1.7	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	<0.5
Nickel	(200) 150		(130) 100		7.5	13	34	10	11	8.0	8.1	12	6.1	6.3	15
Selenium	10		2.4		<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Silver	(25) 20		(25) 20		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	4.1		1		0.07	0.07	<0.05	0.08	0.09	0.07	0.07	0.10	0.06	0.06	0.09
Uranium	-		23		0.36	0.39	0.35	0.49	0.48	0.46	0.42	0.43	0.40	0.40	0.37
Vanadium	(250) 200		86		22	20	17	22	22	22	20	19	12	12	40
Zinc	(800) 600		340		170	310	680	190	340	220	190	340	300	310	360

Notes:

¹ Criteria are from the Soil, Groundwater, and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, March 2004

Table 2 - Potable Groundwater Scenario

² Criteria are from the Updated Soil, Groundwater and Sediment Standards for use Under Part XV.1 of the Environmental Protection Act, July 2009, Table 2 - Potable Groundwater Scenario which comes into effect on July 1, 2011.

³ W Floor 3 was collected as a field duplicate sample of W Floor 2.

- Concentrations in µg/g (ppm)

- Concentrations shaded exceed the 2004 criteria and concentrations in bold exceed the 2009 criteria

- values in brackets represent medium and fine-grained soils

Table 4: Concentration of PAHs in Soil - Confirmation of Suspect Fill Removal

Matrix: Soil Sample ID: Date Sampled	Table 2: Criteria for Potable Groundwater µg/g (2004) ¹		Table 2: Criteria for Potable Groundwater µg/g (2009) ²		Investigative								Confirmatory								
	15	(29) 7.9	W Wall 2	W Floor 1	E Wall 1	N Wall 1	W Wall 1	S Wall 2	E Floor 1	W Wall 3	W Floor 2	W Floor 3 ³	E Wall 3	W Wall 3	E Floor 1	S Wall 2	W Wall 1	W Floor 2	W Floor 3 ³	E Wall 3	
	100	(0.17) 0.15	Feb-22-11	Feb-22-11	Feb-22-11	Feb-22-11	Feb-22-11	Feb-22-11	Feb-22-11	Feb-22-11	Feb-22-11	Mar-04-11	Mar-04-11	Mar-04-11	Feb-22-11	Feb-22-11	Feb-22-11	Mar-04-11	Mar-04-11	Mar-04-11	Mar-04-11
Acenaphthene			<0.02	<0.01	0.06	<0.02	0.02	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	ND	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	100	(0.17) 0.15	0.08	0.025	ND	<0.01	0.03	0.03	<0.005	<0.005	<0.005	<0.005	0.007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Anthracene	28	(0.74) 0.67	0.15	0.14	0.081	0.03	0.07	0.07	<0.005	<0.005	<0.005	<0.005	0.009	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Benzo(a)anthracene	6.6	(0.63) 0.5	0.41	0.36	0.30	0.12	0.20	0.20	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(a)pyrene	1.2	0.3	0.45	0.39	0.36	0.12	0.27	0.39	0.009	0.029	<0.005	<0.005	0.029	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Benzo(b)fluoranthene	12	0.78	0.62	0.49	0.46	0.16	0.33	0.49	0.01	0.04	<0.01	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(k)fluoranthene	40	(7.8) 6.6	0.27	0.21	0.22	0.08	0.15	0.22	<0.02	0.03	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo(ghi)perylene	12	0.78	0.2	0.16	0.15	0.05	0.10	0.15	<0.01	0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	12	(7.8) 7	0.39	0.35	0.31	0.10	0.16	0.31	<0.01	0.03	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenz(a,h)anthracene	1.2	0.1	0.07	0.06	0.05	<0.04	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	40	0.69	0.84	0.95	1.4	0.29	0.40	0.95	0.17	0.058	0.40	0.40	0.058	0.008	0.008	0.017	0.058	<0.005	<0.005	<0.005	<0.005
Fluorene	340	(69) 62	0.01	0.012	0.054	0.02	0.03	0.012	<0.005	0.033	0.02	0.02	0.033	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Indeno(1,2,3-cd)pyrene	12	(0.48) 0.38	0.32	0.26	0.25	0.08	0.16	0.26	<0.02	0.03	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1-Methylnaphthalene ⁴	1.2	(3.4) 0.99	0.01	<0.005	0.013	<0.001	0.03	<0.005	<0.005	0.013	<0.001	0.03	<0.005	<0.005	<0.005	<0.005	0.012	<0.005	<0.005	<0.005	<0.005
2-Methylnaphthalene ⁴	4.6	(0.75) 0.6	0.02	<0.005	0.033	<0.001	0.02	<0.005	<0.005	0.033	<0.001	0.02	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.005
Naphthalene	40	(7.8) 6.2	0.22	0.34	0.68	0.17	0.20	0.34	0.007	0.036	0.20	0.20	0.036	<0.005	<0.005	0.007	0.036	<0.005	<0.005	<0.005	<0.005
Phenanthrene	250	78	0.71	0.73	0.99	0.23	0.35	0.73	0.014	0.048	0.23	0.35	0.048	0.007	0.007	0.014	0.048	<0.005	<0.005	<0.005	<0.005

Notes:

¹ Criteria are from the Soil, Groundwater, and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, March 2004

Table 2 - Potable Groundwater Scenario

² Criteria are from the Updated Soil, Groundwater and Sediment Standards for use Under Part XV.1 of the Environmental Protection Act, July 2009, Table 2 - Potable Groundwater Scenario which comes into effect on July 1, 2011.

³ W Floor 3 was collected as a field duplicate sample of W Floor 2.

⁴ The sum of 1- and 2- Methyl-naphthalene must not exceed the standard.

- Concentrations in µg/g (ppm)

- Concentrations shaded exceed the 2004 criteria and concentrations in bold exceed the 2009 criteria

- values in brackets represent medium and fine-grained soils

Table 5: QA/QC Field Duplicate Soil Sample Comparison

Sample ID:	W Floor 2	W Floor 3	Relative Difference (%)
Date Sampled:	Mar-04-11	Mar-04-11	
Antimony	<0.2	<0.2	NC
Arsenic	2	2	0
Barium	19	20	5
Beryllium	<0.2	<0.2	NC
Boron (Hot water soluble)	0.4	0.4	0
Cadmium	6	6	0
Chromium	2.6	2.7	4
Chromium VI	<0.2	<0.2	NC
Cobalt	2.6	2.7	4
Copper	8.2	8.6	5
Lead	43	45	5
Mercury	<0.05	<0.05	NC
Molybdenum	<0.5	<0.5	NC
Nickel	6.1	6.3	3
Selenium	<0.5	<0.5	NC
Silver	<0.2	<0.2	NC
Thallium	0.06	0.06	0
Uranium	0.40	0.40	0
Vanadium	12	12	0
Zinc	300	310	3

Notes:

- NC - Relative Percent Difference not calculated because the concentrations detected in the samples were below the Laboratory detection limit and thus do not permit a reliable calculation
- Concentrations in µg/g (ppm)
- Relative percent difference equals the difference between the two analyses for the same parameter divided by the average and multiplied by 100

**PHASE II
ENVIRONMENTAL SITE ASSESSMENT
20 CITYVIEW DRIVE NORTH
CITY OF GUELPH
COUNTY OF WELLINGTON**

FIGURES

410085
Phase II ESA



SCALE = N.T.S.
MAY 2011

**SITE LOCATION
MAP**

**20 Cityview Drive North
Guelph, ON
County of Wellington**

Figure No. 1






**Gamsby and Mannerow
ENGINEERS**

410085
Phase II ESA



LEGEND

-  SAMPLE COLLECTED FOR LABORATORY ANALYSIS
-  APPROXIMATE TESTHOLE LOCATION
-  SAMPLE EXCEEDS TABLE 2 CRITERIA OF THE 2009 STANDARD WHICH COMES INTO EFFECT ON JULY 1, 2011

LEAD = 120 ug/g
ZINC = 340 ug/g
BENZO (A) PYRENE = 0.3 ug/g
FLUORANTHENE = 0.69 ug/g

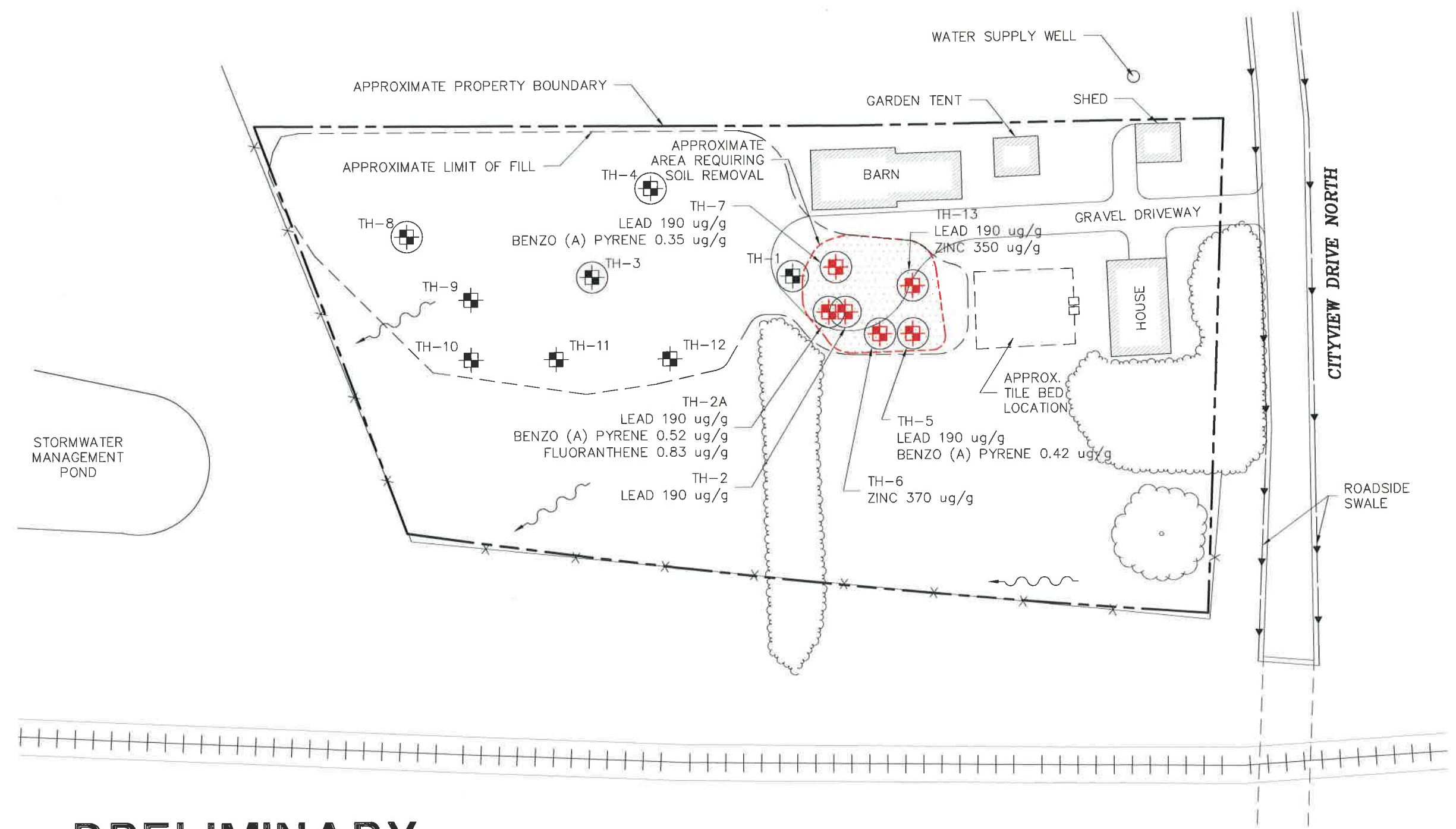
NOTE:
ALL SAMPLES FROM ALL TESTHOLES MEET THE CURRENT TABLE 2 CRITERIA OF THE 2004 STANDARD

SCALE 1:750
MAY 2011

TESTHOLE LOCATION PLAN

20 Cityview Drive North
Guelph, ON
County of Wellington

Figure No. 2



PRELIMINARY
NOT FOR CONSTRUCTION



410085
Phase II ESA



LEGEND

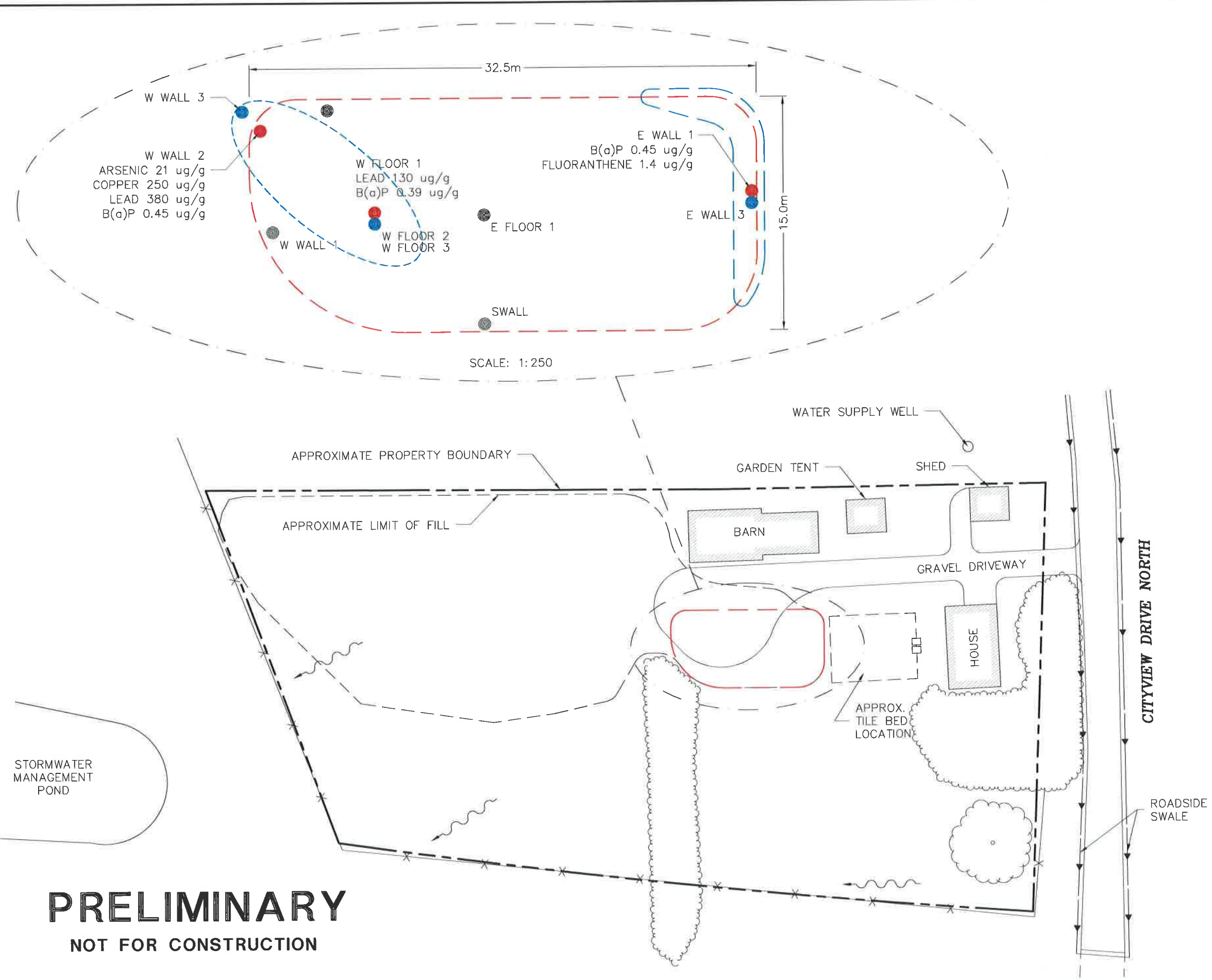
- E WALL 1 INVESTIGATIVE SAMPLE COLLECTED FEB. 22, 2011
- S WALL 2 CONFIRMATORY SAMPLE COLLECTED FEB. 22, 2011
- E WALL 3 CONFIRMATORY SAMPLE COLLECTED MARCH 4, 2011
- LIMIT OF EXCAVATION COMPLETED ON FEB. 22, 2011
- FURTHER EXCAVATION COMPLETED ON MARCH 3&4, 2011

SCALE 1:750
MAY 2011

APPROXIMATE EXCAVATION & CONFIRMATION SAMPLE LOCATION PLAN

20 Cityview Drive North
Guelph, ON
County of Wellington

Figure No. 3



PRELIMINARY
NOT FOR CONSTRUCTION

**PHASE II
ENVIRONMENTAL SITE ASSESSMENT
20 CITYVIEW DRIVE NORTH
CITY OF GUELPH
COUNTY OF WELLINGTON**

**APPENDIX "A"
SITE PHOTOGRAPHS**

**PHASE II ESA - 20 CITYVIEW DRIVE NORTH
GUELPH, ON**



Photo 1 - Excavating testhole TH-10.



Photo 2 - Testhole TH-10.

**PHASE II ESA - 20 CITYVIEW DRIVE NORTH
GUELPH, ON**



Photo 3 - Silt and clay fill material.



Photo 4 - Buried concrete in TH-12.

**PHASE II ESA - 20 CITYVIEW DRIVE NORTH
GUELPH, ON**



Photo 5 - Mixed topsoil in testhole TH-2. (Later Excavated and removed off-site).



Photo 6 - Mixed topsoil in testhole TH-2. (Later Excavated and removed off-site).

**PHASE II ESA - 20 CITYVIEW DRIVE NORTH
GUELPH, ON**



Photo 7 - Native silt till along east of excavation.



Photo 8 - Northeast area of excavation. Note bricks and debris.

**PHASE II ESA - 20 CITYVIEW DRIVE NORTH
GUELPH, ON**



Photo 9 - West side wall of the excavation.



Photo 10 - Northwest wall of excavation.

**PHASE II
20 CITYVIEW DRIVE NORTH
CITY OF GUELPH
COUNTY OF WELLINGTON**

**APPENDIX "B"
LABORATORY CERTIFICATE OF ANALYSIS**

Your Project #: 410085
 Site: CITYVIEW DR
 Your C.O.C. #: 00605426

Attention: Matt Nelson
 Gamsby & Mannerow Ltd
 1260 - 2nd Ave E
 Unit 1
 Owen Sound, ON
 N4K 2J3

Report Date: 2010/12/23

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B01204
Received: 2010/12/15, 16:44

Sample Matrix: Soil
 # Samples Received: 4

Analyses	Quantity	Date		Laboratory Method	Method Reference
		Extracted	Analyzed		
Hot Water Extractable Boron	4	2010/12/22	2010/12/22	CAM SOP-00408	R153 Ana. Prot. 2004
Free Cyanide	4	N/A	2010/12/21	CAM SOP-00457	SM 4500CN-I
Conductivity	4	N/A	2010/12/22	CAM SOP-00414	APHA 2510
Hexavalent Chromium in Soil by IC Ⓢ	4	N/A	2010/12/23	CAM SOP-00436	EPA SW846-3060/7199
Acid Extr. Metals (aqua regia) by ICPMS	4	2010/12/21	2010/12/21	CAM SOP-00447	EPA 6020
Moisture	4	N/A	2010/12/18	CAM SOP-00445	McKeague 2nd ed 1978
PAH Compounds in Soil by GC/MS (SIM)	4	2010/12/18	2010/12/20	CAM SOP - 00318	EPA 8270
pH CaCl2 EXTRACT	4	2010/12/22	2010/12/22	CAM SOP-00413	SM 4500 H
Sodium Adsorption Ratio (SAR)	4	2010/12/16	2010/12/22	CAM SOP-00102	EPA 6010

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
 * Results relate only to the items tested.

(1) Soils are reported on a dry weight basis unless otherwise specified.

Encryption Key

Andrea Riehl

23 Dec 2010 13:28:05 -05:00

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

SEAN CONACHER, Project Manager
 Email: SConacher@maxxam.ca
 Phone# (905) 817-5700 Ext:5806

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

Total cover pages: 1



Maxxam Job #: B011204
Report Date: 2010/12/23

Success Through Science™

Gamsby & Mannerow Ltd
Client Project #: 410085
Project name: CITYVIEW DR
Sampler Initials: MN

O'REG 153 METALS & INORGANICS COMPLETE (SOIL)

Maxxam ID	IE2810 2010/12/15	IE2811 2010/12/15	IE2812 2010/12/15	IE2813 2010/12/15	QC Batch	RDL	TH-1	TH-2	TH-3	TH-4	RDL	QC Batch
Calculated Parameters												
Sodium Adsorption Ratio	N/A	0.79	2360735	0.40	2360735	5.8	1.3					2360735
Inorganics												
Chromium (VI)	ug/g	ND	2365189	ND	2365189	ND	ND	ND	ND	ND	0.4	2365189
Conductivity	mS/cm	0.36	2366239	0.21	2366239	0.26	0.32	0.002	0.26	0.32	0.002	2366239
Free Cyanide	ug/g	0.01	2365100	0.01	2365100	ND	ND	0.01	ND	ND	0.01	2365100
Moisture	%	17	2363542	16	2363542	10	10	1	10	10	1	2363542
Available [CaCl2] pH	pH	7.52	2366233	7.32	2366233	7.81	7.64					2366259
Metals												
Hot Water Ext. Boron (B)	ug/g	1.2	2366151	0.43	2366151	0.18	1.3	0.05	0.18	1.3	0.05	2366151
Acid Extractable Antimony (Sb)	ug/g	0.5	2365086	0.8	2365086	ND	0.3	0.2	ND	0.3	0.2	2365068
Acid Extractable Arsenic (As)	ug/g	5	2365086	7	2365068	2	4	1	2	4	1	2365068
Acid Extractable Barium (Ba)	ug/g	48	2365086	77	2365068	14	39	0.5	14	39	0.5	2365068
Acid Extractable Beryllium (Be)	ug/g	0.3	2365086	0.4	2365068	ND	0.3	0.2	ND	0.3	0.2	2365068
Acid Extractable Cadmium (Cd)	ug/g	0.8	2365086	0.6	2365068	0.3	0.8	0.1	0.3	0.8	0.1	2365068
Acid Extractable Chromium (Cr)	ug/g	12	2365086	13	2365068	4	10	1	4	10	1	2365068
Acid Extractable Cobalt (Co)	ug/g	4.2	2365086	4.3	2365068	1.6	4.0	0.1	1.6	4.0	0.1	2365068
Acid Extractable Copper (Cu)	ug/g	32	2365086	27	2365068	7.2	21	0.5	7.2	21	0.5	2365068
Acid Extractable Lead (Pb)	ug/g	87	2365086	140	2365068	27	73	1	27	73	1	2365068
Acid Extractable Molybdenum (Mo)	ug/g	0.6	2365086	0.5	2365068	ND	0.6	0.5	ND	0.6	0.5	2365068
Acid Extractable Nickel (Ni)	ug/g	9.9	2365086	10	2365068	3.6	9.3	0.5	3.6	9.3	0.5	2365068
Acid Extractable Selenium (Se)	ug/g	ND	2365086	ND	2365068	ND	ND	0.5	ND	ND	0.5	2365068
Acid Extractable Silver (Ag)	ug/g	ND	2365086	ND	2365068	ND	ND	0.2	ND	ND	0.2	2365068
Acid Extractable Thallium (Tl)	ug/g	0.08	2365086	0.09	2365068	ND	0.08	0.05	ND	0.08	0.05	2365068
Acid Extractable Vanadium (V)	ug/g	19	2365086	21	2365068	9	17	5	9	17	5	2365068
Acid Extractable Zinc (Zn)	ug/g	270	2365086	230	2365068	140	310	5	140	310	5	2365068
Acid Extractable Mercury (Hg)	ug/g	ND	2365086	0.19	2365068	ND	0.06	0.05	ND	0.06	0.05	2365068

N/A = Not Applicable
ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

GENERAL COMMENTS

PAH Analysis: Due to the sample matrix, some of the samples required dilution. Detection limits were adjusted accordingly.

Hexavalent chromium: Due to the sample matrix, some samples required dilution. Detection limits were adjusted accordingly.



Gamsby & Mannerow Ltd
 Client Project #: 410085
 Project name: CITYVIEW DR
 Sampler Initials: MN

Maxxam Job #: B011204
 Report Date: 2010/12/23

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
2363460	D10-Anthracene	2010/12/20	102	30 - 130	100	30 - 130	105	%				
2363460	D14-Terphenyl (FS)	2010/12/20	90	30 - 130	95	30 - 130	97	%				
2363460	D7-Quinoline	2010/12/20	90	30 - 130	85	30 - 130	82	%				
2363460	D8-Acenaphthylene	2010/12/20	88	30 - 130	86	30 - 130	83	%				
2363460	Acenaphthene	2010/12/20	94	30 - 130	94	30 - 130	ND, RDL=0.01	ug/g	NC	50		
2363460	Acenaphthylene	2010/12/20	92	30 - 130	90	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2363460	Anthracene	2010/12/20	87	30 - 130	91	30 - 130	ND, RDL=0.005	ug/g	2.1	50		
2363460	Benzo(a)anthracene	2010/12/20	93	30 - 130	88	30 - 130	ND, RDL=0.01	ug/g	11.5	50		
2363460	Benzo(a)pyrene	2010/12/20	83	30 - 130	80	30 - 130	ND, RDL=0.005	ug/g	6.6	50		
2363460	Benzo(b)fluoranthene	2010/12/20	81	30 - 130	80	30 - 130	ND, RDL=0.01	ug/g	11.5	50		
2363460	Benzo(g,h,i)perylene	2010/12/20	82	30 - 130	80	30 - 130	ND, RDL=0.02	ug/g	2.3	50		
2363460	Benzo(k)fluoranthene	2010/12/20	76	30 - 130	89	30 - 130	ND, RDL=0.01	ug/g	5.2	50		
2363460	Chrysene	2010/12/20	86	30 - 130	91	30 - 130	ND, RDL=0.01	ug/g	9.7	50		
2363460	Dibenz(a,h)anthracene	2010/12/20	81	30 - 130	75	30 - 130	ND, RDL=0.02	ug/g	NC	50		
2363460	Fluoranthene	2010/12/20	97	30 - 130	93	30 - 130	ND, RDL=0.005	ug/g	9.8	50		
2363460	Fluorene	2010/12/20	100	30 - 130	99	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2363460	Indeno(1,2,3-cd)pyrene	2010/12/20	75	30 - 130	61	30 - 130	ND, RDL=0.02	ug/g	3.7	50		
2363460	1-Methylnaphthalene	2010/12/20	93	30 - 130	99	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2363460	2-Methylnaphthalene	2010/12/20	93	30 - 130	93	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2363460	Naphthalene	2010/12/20	89	30 - 130	89	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2363460	Phenanthrene	2010/12/20	92	30 - 130	97	30 - 130	ND, RDL=0.005	ug/g	9.3	50		
2363460	Pyrene	2010/12/20	97	30 - 130	94	30 - 130	ND, RDL=0.005	ug/g	5.9	50		
2363542	Moisture	2010/12/18							2.7	20		
2365068	Acid Extractable Antimony (Sb)	2010/12/21	107	75 - 125			ND, RDL=0.2	ug/g	NC	35	105	75 - 125
2365068	Acid Extractable Arsenic (As)	2010/12/21	103	75 - 125			ND, RDL=1	ug/g	NC	35	97	75 - 125
2365068	Acid Extractable Barium (Ba)	2010/12/21	NC	75 - 125			ND, RDL=0.5	ug/g	1.6	35	98	75 - 125
2365068	Acid Extractable Beryllium (Be)	2010/12/21	108	75 - 125			ND, RDL=0.2	ug/g	NC	35	98	75 - 125
2365068	Acid Extractable Cadmium (Cd)	2010/12/21	112	75 - 125			ND, RDL=0.1	ug/g	NC	35	109	75 - 125
2365068	Acid Extractable Chromium (Cr)	2010/12/21	104	75 - 125			ND, RDL=1	ug/g	0.6	35	96	75 - 125
2365068	Acid Extractable Cobalt (Co)	2010/12/21	99	75 - 125			ND, RDL=0.1	ug/g	2.4	35	95	75 - 125
2365068	Acid Extractable Copper (Cu)	2010/12/21	102	75 - 125			ND, RDL=0.5	ug/g	1.2	35	97	75 - 125
2365068	Acid Extractable Lead (Pb)	2010/12/21	106	75 - 125			ND, RDL=1	ug/g	0.5	35	105	75 - 125
2365068	Acid Extractable Molybdenum (Mo)	2010/12/21	103	75 - 125			ND, RDL=0.5	ug/g	NC	35	98	75 - 125
2365068	Acid Extractable Nickel (Ni)	2010/12/21	101	75 - 125			ND, RDL=0.5	ug/g	0.7	35	96	75 - 125
2365068	Acid Extractable Selenium (Se)	2010/12/21	109	75 - 125			ND, RDL=0.5	ug/g	NC	35	102	75 - 125
2365068	Acid Extractable Silver (Ag)	2010/12/21	107	75 - 125			ND, RDL=0.2	ug/g	NC	35	100	75 - 125
2365068	Acid Extractable Thallium (Tl)	2010/12/21	105	75 - 125			ND, RDL=0.05	ug/g	NC	35	98	75 - 125
2365068	Acid Extractable Vanadium (V)	2010/12/21	106	75 - 125			ND, RDL=5	ug/g	NC	35	94	75 - 125
2365068	Acid Extractable Zinc (Zn)	2010/12/21	NC	75 - 125			ND, RDL=5	ug/g	3.7	35	102	75 - 125
2365068	Acid Extractable Mercury (Hg)	2010/12/21	99	75 - 125			ND, RDL=0.05	ug/g	NC	35	88	75 - 125

Gamsby & Mannerow Ltd
 Client Project #: 410085
 Project name: CITYVIEW DR
 Sampler Initials: MN

Maxxam Job #: B011204
 Report Date: 2010/12/23

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
2365086	Acid Extractable Antimony (Sb)	2010/12/21	99	75 - 125			ND, RDL=0.2	ug/g	NC	35	106	75 - 125
2365086	Acid Extractable Arsenic (As)	2010/12/21	103	75 - 125			ND, RDL=1	ug/g	NC	35	102	75 - 125
2365086	Acid Extractable Barium (Ba)	2010/12/21	NC	75 - 125			ND, RDL=0.5	ug/g	16.6	35	102	75 - 125
2365086	Acid Extractable Beryllium (Be)	2010/12/21	103	75 - 125			ND, RDL=0.2	ug/g	NC	35	104	75 - 125
2365086	Acid Extractable Cadmium (Cd)	2010/12/21	102	75 - 125			ND, RDL=0.1	ug/g	NC	35	106	75 - 125
2365086	Acid Extractable Chromium (Cr)	2010/12/21	103	75 - 125			ND, RDL=1	ug/g	7.4	35	102	75 - 125
2365086	Acid Extractable Cobalt (Co)	2010/12/21	100	75 - 125			ND, RDL=0.1	ug/g	6.5	35	103	75 - 125
2365086	Acid Extractable Copper (Cu)	2010/12/21	102	75 - 125			ND, RDL=0.5	ug/g	10.8	35	102	75 - 125
2365086	Acid Extractable Lead (Pb)	2010/12/21	NC	75 - 125			ND, RDL=1	ug/g	5.9	35	105	75 - 125
2365086	Acid Extractable Molybdenum (Mo)	2010/12/21	100	75 - 125			ND, RDL=0.5	ug/g	NC	35	104	75 - 125
2365086	Acid Extractable Nickel (Ni)	2010/12/21	101	75 - 125			ND, RDL=0.5	ug/g	11.2	35	105	75 - 125
2365086	Acid Extractable Selenium (Se)	2010/12/21	101	75 - 125			ND, RDL=0.5	ug/g	NC	35	101	75 - 125
2365086	Acid Extractable Silver (Ag)	2010/12/21	100	75 - 125			ND, RDL=0.2	ug/g	NC	35	105	75 - 125
2365086	Acid Extractable Thallium (Tl)	2010/12/21	96	75 - 125			ND, RDL=0.05	ug/g	NC	35	104	75 - 125
2365086	Acid Extractable Vanadium (V)	2010/12/21	107	75 - 125			ND, RDL=5	ug/g	NC	35	105	75 - 125
2365086	Acid Extractable Zinc (Zn)	2010/12/21	NC	75 - 125			ND, RDL=5	ug/g	13.4	35	103	75 - 125
2365086	Acid Extractable Mercury (Hg)	2010/12/21	88	75 - 125			ND, RDL=0.05	ug/g	NC	35	89	75 - 125
2365100	Free Cyanide	2010/12/21	94	75 - 125	100	75 - 125	ND, RDL=0.01	ug/g	NC	35		
2365189	Chromium (VI)	2010/12/23	95	75 - 125	103	80 - 120	ND, RDL=0.2	ug/g	NC	25	99	80 - 120
2366151	Hot Water Ext. Boron (B)	2010/12/22					ND, RDL=0.05	ug/g			102	85 - 115
2366239	Conductivity	2010/12/22					ND, RDL=0.002	mS/cm	0.8	35	100	75 - 125

N/A = Not Applicable

RDL = Reportable Detection Limit

RPD = Relative Percent Difference

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.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

Maxxam Job #: B011204

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




EWA PRANJIC, M.Sc., Chem, Scientific Specialist



FLOYD MAYEDE, Senior Analyst

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

Your Project #: 410085
 Site: CITYVIEW DR. GUELPH
 Your C.O.C. #: 00605428

Attention: Matt Nelson
 Gamsby & Mannerow Ltd
 1260 - 2nd Ave E
 Unit 1
 Owen Sound, ON
 N4K 2J3

Report Date: 2011/01/13

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B101737
Received: 2011/01/06, 16:06

Sample Matrix: Soil
 # Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Acid Extr. Metals (aqua regia) by ICPMS	7	2011/01/12	2011/01/12	CAM SOP-00447	EPA 6020
Moisture	7	N/A	2011/01/12	CAM SOP-00445	McKeague 2nd ed 1978
PAH Compounds in Soil by GC/MS (SIM)	7	2011/01/07	2011/01/10	CAM SOP - 00318	EPA 8270

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
 * Results relate only to the items tested.

Encryption Key

Sean Conacher



14 Jan 2011 10:30:59 -05:00

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

SEAN CONACHER, Project Manager
 Email: SConacher@maxxam.ca
 Phone# (905) 817-5700 Ext:5806

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

Total cover pages: 1

Page 1 of 7



Success Through Science

Maxxam Job #: B101737
Report Date: 2011/01/13

Gamsby & Mannerow Ltd
Client Project #: 410085
Project name: CITYVIEW DR. GUELPH

O'REG 153 METALS BY ICPMS (SOIL)

Maxxam ID	IH9078	IH9079	IH9080	IH9081	IH9082	IH9083	IH9083	IH9084		
Sampling Date	2011/01/06 08:30	2011/01/06 08:45	2011/01/06 10:00	2011/01/06 10:15	2011/01/06 10:30	2011/01/06 10:45	2011/01/06 10:45	2011/01/06 11:30		
Units	TH2A-1.0	TH5-0.5	TH6-1.0	THD	TH7-1.5	TH8-2.5	TH8-2.5	TH13-0.5	RDL QC Batch	
Metals										
Acid Extractable Antimony (Sb)	0.8	0.8	0.3	0.3	2.9	ND	ND	0.6	0.2	2378424
Acid Extractable Arsenic (As)	7	7	5	5	6	3	3	5	1	2378424
Acid Extractable Barium (Ba)	110	93	50	50	62	34	34	64	0.5	2378424
Acid Extractable Beryllium (Be)	0.4	0.3	0.3	0.2	0.3	0.2	0.3	0.4	0.2	2378424
Acid Extractable Boron (B)	6	5	6	ND	6	ND	ND	6	5	2378424
Acid Extractable Cadmium (Cd)	0.7	0.7	0.5	0.5	1.0	0.3	0.3	1.0	0.1	2378424
Acid Extractable Chromium (Cr)	13	14	10	10	12	10	10	13	1	2378424
Acid Extractable Cobalt (Co)	4.1	4.2	3.6	3.6	4.6	4.2	4.1	5.0	0.1	2378424
Acid Extractable Copper (Cu)	38	33	18	18	36	12	11	33	0.5	2378424
Acid Extractable Lead (Pb)	190	190	88	91	190	23	22	130	1	2378424
Acid Extractable Molybdenum (Mo)	0.6	0.6	ND	ND	0.5	ND	ND	0.7	0.5	2378424
Acid Extractable Nickel (Ni)	10	11	8.1	8.0	11	8.5	7.9	12	0.5	2378424
Acid Extractable Selenium (Se)	ND	ND	ND	ND	ND	ND	ND	ND	0.5	2378424
Acid Extractable Silver (Ag)	0.3	0.2	ND	ND	ND	ND	ND	ND	0.2	2378424
Acid Extractable Thallium (Tl)	0.12	0.12	0.07	0.05	ND	0.06	0.06	ND	0.05	2378424
Acid Extractable Uranium (U)	0.59	0.65	0.49	0.50	0.43	0.41	0.40	0.51	0.05	2378424
Acid Extractable Vanadium (V)	21	22	19	19	20	18	18	22	5	2378424
Acid Extractable Zinc (Zn)	230	250	370	410	320	110	110	350	5	2378424

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: B101737
Report Date: 2011/01/13

Gamsby & Mannerow Ltd
Client Project #: 410085
Project name: CITYVIEW DR. GUELPH

O'REG 153 POLYAROMATIC HYDROCARBONS (SOIL)

Maxxam ID	IH9078	IH9079	IH9080	IH9081	IH9082	IH9083	IH9084
Sampling Date	2011/01/06 08:30	2011/01/06 08:45	2011/01/06 10:00	2011/01/06 10:15	2011/01/06 10:30	2011/01/06 10:45	2011/01/06 11:30
Units	TH2A-1.0	TH5-0.5	TH6-1.0	THD	TH7-1.5	TH8-2.5	TH13-0.5
RDL							
QC Batch							
Inorganics							
Moisture	%	15	15	16	15	12	15
Polyaromatic Hydrocarbons							
Acenaphthene	ug/g	0.02	0.01	ND	ND	0.01	ND
Acenaphthylene	ug/g	0.081	0.061	0.050	0.062	0.073	0.02
Anthracene	ug/g	0.11	0.086	0.057	0.066	0.073	0.01
Benzo(a)anthracene	ug/g	0.41	0.32	0.18	0.22	0.12	0.03
Benzo(a)pyrene	ug/g	0.52	0.42	0.22	0.25	0.15	0.08
Benzo(b)fluoranthene	ug/g	0.69	0.55	0.27	0.32	0.25	0.10
Benzo(g,h,i)perylene	ug/g	0.36	0.32	0.13	0.15	0.10	0.15
Benzo(k)fluoranthene	ug/g	0.24	0.19	0.09	0.12	0.09	0.08
Chrysene	ug/g	0.36	0.29	0.15	0.18	0.13	0.05
Dibenz(a,h)anthracene	ug/g	0.09	0.08	0.03	0.04	0.02	0.02
Fluoranthene	ug/g	0.83	0.66	0.38	0.45	0.44	ND
Fluorene	ug/g	0.015	0.012	0.010	0.011	0.009	0.19
Indeno(1,2,3-cd)pyrene	ug/g	0.42	0.34	0.16	0.18	0.11	ND
1-Methylnaphthalene	ug/g	0.022	0.013	ND	ND	ND	0.08
2-Methylnaphthalene	ug/g	0.025	0.016	ND	ND	ND	0.04
Naphthalene	ug/g	0.021	0.018	ND	0.006	ND	0.01
Phenanthrene	ug/g	0.31	0.22	0.14	0.16	0.094	0.08
Pyrene	ug/g	0.78	0.61	0.32	0.40	0.34	0.01
Surrogate Recovery (%)							
D10-Anthracene	%	106	107	85	88	94	126
D14-Terphenyl (FS)	%	114	107	88	90	100	112
D7-Quinoline	%	108	116	87	100	98	111
D8-Acenaphthylene	%	110	116	82	91	89	126

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: B101737
Report Date: 2011/01/13

Gamsby & Mannerow Ltd
Client Project #: 410085
Project name: CITYVIEW DR. GUELPH

GENERAL COMMENTS

Sample IH9084-01: PAH Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Gamsby & Mannerow Ltd
 Client Project #: 410085
 Project name: CITYVIEW DR. GUELPH

Maxxam Job #: B101737
 Report Date: 2011/01/13

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
2375577	D10-Anthracene	2011/01/07	91	30 - 130	93	30 - 130	103	%				
2375577	D14-Terphenyl (FS)	2011/01/07	87	30 - 130	90	30 - 130	98	%				
2375577	D7-Quinoline	2011/01/07	84	30 - 130	85	30 - 130	87	%				
2375577	D8-Acenaphthylene	2011/01/07	88	30 - 130	88	30 - 130	92	%				
2375577	Acenaphthene	2011/01/08	94	30 - 130	95	30 - 130	ND, RDL=0.01	ug/g	NC	50		
2375577	Acenaphthylene	2011/01/08	93	30 - 130	94	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2375577	Benzo(a)anthracene	2011/01/08	94	30 - 130	95	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2375577	Benzo(a)pyrene	2011/01/08	95	30 - 130	94	30 - 130	ND, RDL=0.01	ug/g	NC	50		
2375577	Benzo(k)fluoranthene	2011/01/08	84	30 - 130	86	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2375577	Benzo(b)fluoranthene	2011/01/08	84	30 - 130	86	30 - 130	ND, RDL=0.01	ug/g	NC	50		
2375577	Benzo(g,h,i)perylene	2011/01/08	83	30 - 130	80	30 - 130	ND, RDL=0.02	ug/g	NC	50		
2375577	Benzo(k)fluoranthene	2011/01/08	85	30 - 130	91	30 - 130	ND, RDL=0.01	ug/g	NC	50		
2375577	Chrysene	2011/01/08	91	30 - 130	93	30 - 130	ND, RDL=0.01	ug/g	NC	50		
2375577	Dibenz(a,h)anthracene	2011/01/08	83	30 - 130	80	30 - 130	ND, RDL=0.02	ug/g	NC	50		
2375577	Fluoranthene	2011/01/08	89	30 - 130	92	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2375577	Fluorene	2011/01/08	100	30 - 130	101	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2375577	Indeno(1,2,3-cd)pyrene	2011/01/08	73	30 - 130	94	30 - 130	ND, RDL=0.02	ug/g	NC	50		
2375577	1-Methylnaphthalene	2011/01/08	96	30 - 130	99	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2375577	2-Methylnaphthalene	2011/01/08	91	30 - 130	95	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2375577	Naphthalene	2011/01/08	84	30 - 130	90	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2375577	Phenanthrene	2011/01/08	95	30 - 130	97	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2375577	Pyrene	2011/01/08	89	30 - 130	92	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2377594	Moisture	2011/01/12							0	20		
2378424	Acid Extractable Antimony (Sb)	2011/01/12	98	75 - 125			ND, RDL=0.2	ug/g	NC	35	100	75 - 125
2378424	Acid Extractable Arsenic (As)	2011/01/12	101	75 - 125			ND, RDL=1	ug/g	NC	35	102	75 - 125
2378424	Acid Extractable Barium (Ba)	2011/01/12	NC	75 - 125			ND, RDL=0.5	ug/g	0.8	35	98	75 - 125
2378424	Acid Extractable Beryllium (Be)	2011/01/12	95	75 - 125			ND, RDL=0.2	ug/g	NC	35	100	75 - 125
2378424	Acid Extractable Boron (B)	2011/01/12	85	75 - 125			ND, RDL=5	ug/g	NC	35	95	75 - 125
2378424	Acid Extractable Cadmium (Cd)	2011/01/12	102	75 - 125			ND, RDL=0.1	ug/g	NC	35	101	75 - 125
2378424	Acid Extractable Chromium (Cr)	2011/01/12	102	75 - 125			ND, RDL=1	ug/g	0.5	35	99	75 - 125
2378424	Acid Extractable Cobalt (Co)	2011/01/12	101	75 - 125			ND, RDL=0.1	ug/g	3.0	35	100	75 - 125
2378424	Acid Extractable Copper (Cu)	2011/01/12	99	75 - 125			ND, RDL=0.5	ug/g	3.1	35	103	75 - 125
2378424	Acid Extractable Lead (Pb)	2011/01/12	101	75 - 125			ND, RDL=1	ug/g	1.6	35	102	75 - 125
2378424	Acid Extractable Molybdenum (Mo)	2011/01/12	102	75 - 125			ND, RDL=0.5	ug/g	NC	35	100	75 - 125
2378424	Acid Extractable Nickel (Ni)	2011/01/12	100	75 - 125			ND, RDL=0.5	ug/g	6.4	35	100	75 - 125
2378424	Acid Extractable Selenium (Se)	2011/01/12	98	75 - 125			ND, RDL=0.5	ug/g	NC	35	100	75 - 125
2378424	Acid Extractable Silver (Ag)	2011/01/12	100	75 - 125			ND, RDL=0.2	ug/g	NC	35	102	75 - 125
2378424	Acid Extractable Thallium (Tl)	2011/01/12	97	75 - 125			ND, RDL=0.05	ug/g	NC	35	100	75 - 125
2378424	Acid Extractable Uranium (U)	2011/01/12	105	75 - 125			ND, RDL=0.05	ug/g	2.0	25	106	75 - 125

Maxxam Job #: B101737
 Report Date: 2011/01/13

Gamsby & Mannerow Ltd
 Client Project #: 410085
 Project name: CITYVIEW DR. GUELPH

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
2378424	Acid Extractable Vanadium (V)	2011/01/12	108	75 - 125			ND, RDL=5	ug/g	NC	35	99	75 - 125
2378424	Acid Extractable Zinc (Zn)	2011/01/12	NC	75 - 125			ND, RDL=5	ug/g	2.0	35	103	75 - 125

N/A = Not Applicable

RDL = Reportable Detection Limit

RPD = Relative Percent Difference

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.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

Maxxam Job #: B101737

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



CRISTINA CARRIERE, Scientific Services



FLOYD MAYEDE, Senior Analyst

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

Your Project #: 410-085
 Site: CITYVIEW
 Your C.O.C. #: 610423

Attention: Abby Spielmacher
 Gamsby & Mannerow Ltd
 650 Woodlawn Rd W
 Block C, Unit 2
 Guelph, ON
 N1K 1B8

Report Date: 2011/03/02

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B124333
 Received: 2011/02/23, 16:52

Sample Matrix: Soil
 # Samples Received: 5

Analyses	Quantity	Date		Laboratory Method	Method Reference
		Extracted	Analyzed		
Hot Water Extractable Boron	5	2011/03/01	2011/03/01	CAM SOP-00408	R153 Ana. Prot. 2004
Hexavalent Chromium in Soil by IC Ø	5	N/A	2011/03/02	CAM SOP-00436	EPA SW846-3060/7199
Acid Extr. Metals (aqua regia) by ICPMS	5	2011/03/02	2011/03/02	CAM SOP-00447	EPA 6020
Moisture	5	N/A	2011/02/28	CAM SOP-00445	McKeague 2nd ed 1978
PAH Compounds in Soil by GC/MS (SIM)	2	2011/02/28	2011/02/28	CAM SOP - 00318	EPA 8270
PAH Compounds in Soil by GC/MS (SIM)	3	2011/02/28	2011/03/01	CAM SOP - 00318	EPA 8270

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
 * Results relate only to the items tested.

(1) Soils are reported on a dry weight basis unless otherwise specified.

Encryption Key

Sean Conacher



03 Mar 2011 10:42:35 -05:00

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

SEAN CONACHER, Project Manager
 Email: SConacher@maxxam.ca
 Phone# (905) 817-5700 Ext:5806

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

Total cover pages: 1

Gamsby & Mannerow Ltd
Client Project #: 410-085
Project name: CITYVIEW
Sampler Initials: AS

O'REG 153 METALS PACKAGE (SOIL)

Maxxam ID	IS5084	IS5085	IS5086	IS5089	IS5090	
Sampling Date	2011/02/22	2011/02/22	2011/02/22	2011/02/22	2011/02/22	
	W WALL 1	N WALL 1	E WALL 1	S WALL 2	E FLOOR 1	
Units	Criteria A					QC Batch
Inorganics						
Chromium (VI)	10	ND	ND	ND	0.3	0.2
Moisture	%	18	16	18	14	1
Metals						
Hot Water Ext. Boron (B)	1.5	0.78	0.97	0.92	0.44	0.05
Acid Extractable Antimony (Sb)	7.5	0.2	0.3	ND	ND	0.2
Acid Extractable Arsenic (As)	18	4	4	4	4	1
Acid Extractable Barium (Ba)	390	40	43	38	30	0.5
Acid Extractable Beryllium (Be)	5	0.3	0.3	0.3	0.5	0.2
Acid Extractable Boron (B)	120	ND	ND	ND	ND	5
Acid Extractable Cadmium (Cd)	1.2	0.5	0.6	0.5	0.7	0.1
Acid Extractable Chromium (Cr)	160	12	11	10	10	1
Acid Extractable Cobalt (Co)	22	3.7	4.2	4.0	3.8	0.1
Acid Extractable Copper (Cu)	180	21	16	12	14	0.5
Acid Extractable Lead (Pb)	120	61	51	46	48	1
Acid Extractable Molybdenum (Mo)	6.9	ND	ND	ND	ND	0.5
Acid Extractable Nickel (Ni)	130	8.1	10	7.5	8.0	0.5
Acid Extractable Selenium (Se)	2.4	ND	ND	ND	ND	0.5
Acid Extractable Silver (Ag)	25	ND	ND	ND	ND	0.2
Acid Extractable Thallium (Tl)	1	0.07	0.08	0.07	0.07	0.05
Acid Extractable Uranium (U)	23	0.42	0.49	0.36	0.46	0.05
Acid Extractable Vanadium (V)	86	20	22	22	22	5
Acid Extractable Zinc (Zn)	340	190	190	170	220	5
Acid Extractable Mercury (Hg)	1.8	ND	0.05	ND	ND	0.05

ND = Not detected

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria A: Ontario Reg. 153/04 (Amended July 27, 2009)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Texture

Maxxam Job #: B124333
Report Date: 2011/03/02

Gamsby & Mannerow Ltd
Client Project #: 410-085
Project name: CITYVIEW
Sampler Initials: AS

O'REG 153 POLYAROMATIC HYDROCARBONS (SOIL)

Maxxam ID	IS5084	IS5085	IS5086	IS5089	IS5090	
Sampling Date	2011/02/22	2011/02/22	2011/02/22	2011/02/22	2011/02/22	
Units	Criteria A	W WALL 1	E WALL 1	S WALL 2	E FLOOR 1	QC Batch
Polyaromatic Hydrocarbons						
Acenaphthene	29	ND	0.02	ND	ND	0.01
Acenaphthylene	0.17	ND	0.03	ND	ND	0.005
Anthracene	0.74	0.03	0.07	0.081	ND	0.005
Benzo(a)anthracene	0.63	0.20	0.20	0.30	ND	0.01
Benzo(a)pyrene	0.3	0.27	0.12	0.36	0.009	0.005
Benzo(b)fluoranthene		0.33	0.16	0.46	0.01	0.01
Benzo(g,h,i)perylene	7.8	0.15	0.08	0.22	ND	0.02
Benzo(k)fluoranthene	0.78	0.10	0.05	0.15	ND	0.01
Chrysene	7.8	0.16	0.10	0.31	ND	0.01
Dibenz(a,h)anthracene	0.1	ND	ND	0.05	ND	0.02
Fluoranthene	0.69	0.40	0.29	1.4	0.017	0.005
Fluorene	69	0.03	0.02	0.054	ND	0.005
Indeno(1,2,3-cd)pyrene	0.48	0.16	0.08	0.25	ND	0.02
1-Methylnaphthalene	3.4	0.01	ND	0.005	ND	0.005
2-Methylnaphthalene	3.4	0.02	ND	0.008	ND	0.005
Naphthalene	0.75	0.02	ND	0.033	ND	0.005
Phenanthrene	7.8	0.20	0.17	0.68	0.007	0.005
Pyrene	78	0.35	0.23	0.99	0.014	0.005
Surrogate Recovery (%)						
D10-Anthracene		87	85	88	84	86
D14-Terphenyl (FS)		89	85	95	90	92
D7-Quinoline		74	75	58	71	52
D8-Acenaphthylene		78	78	71	68	71

ND = Not detected

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria A: Ontario Reg. 153/04 (Amended July 27, 2009)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Texture

Gamsby & Mannerow Ltd
Client Project #: 410-085
Project name: CITYVIEW
Sampler Initials: AS

GENERAL COMMENTS

Sample IS5084-01: PAH Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample IS5085-01: PAH Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
2416199	D10-Anthracene	2011/02/28	85	30 - 130	85	30 - 130	81	%				
2416199	D14-Terphenyl (FS)	2011/02/28	92	30 - 130	91	30 - 130	89	%				
2416199	D7-Quinoline	2011/02/28	55	30 - 130	83	30 - 130	54	%				
2416199	D8-Acenaphthylene	2011/02/28	68	30 - 130	80	30 - 130	49	%				
2416199	Acenaphthene	2011/02/28	72	30 - 130	86	30 - 130	ND, RDL=0.01	ug/g	NC	50		
2416199	Acenaphthylene	2011/02/28	69	30 - 130	82	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2416199	Anthracene	2011/02/28	86	30 - 130	88	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2416199	Benzo(a)anthracene	2011/02/28	93	30 - 130	89	30 - 130	ND, RDL=0.01	ug/g	NC	50		
2416199	Benzo(a)pyrene	2011/02/28	101	30 - 130	98	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2416199	Benzo(b)fluoranthene	2011/02/28	89	30 - 130	89	30 - 130	ND, RDL=0.01	ug/g	NC	50		
2416199	Benzo(g,h,i)perylene	2011/02/28	91	30 - 130	109	30 - 130	ND, RDL=0.02	ug/g	NC	50		
2416199	Benzo(k)fluoranthene	2011/02/28	86	30 - 130	83	30 - 130	ND, RDL=0.01	ug/g	NC	50		
2416199	Chrysene	2011/02/28	86	30 - 130	86	30 - 130	ND, RDL=0.01	ug/g	NC	50		
2416199	Dibenz(a,h)anthracene	2011/02/28	87	30 - 130	92	30 - 130	ND, RDL=0.02	ug/g	NC	50		
2416199	Fluoranthene	2011/02/28	99	30 - 130	95	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2416199	Fluorene	2011/02/28	82	30 - 130	92	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2416199	Indeno(1,2,3-cd)pyrene	2011/02/28	90	30 - 130	92	30 - 130	ND, RDL=0.02	ug/g	NC	50		
2416199	1-Methylnaphthalene	2011/02/28	67	30 - 130	92	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2416199	2-Methylnaphthalene	2011/02/28	63	30 - 130	89	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2416199	Naphthalene	2011/02/28	59	30 - 130	84	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2416199	Phenanthrene	2011/02/28	84	30 - 130	86	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2416199	Pyrene	2011/02/28	101	30 - 130	96	30 - 130	ND, RDL=0.005	ug/g	NC	50		
2416837	Moisture	2011/02/28							2.2	20		
2417358	Chromium (VI)	2011/03/02	41(1,2)	75 - 125	104	80 - 120	ND, RDL=0.2	ug/g	NC	25	113	75 - 125
2417404	Hot Water Ext. Boron (B)	2011/03/01					ND, RDL=0.05	ug/g	2.1	35	99	85 - 115
2418536	Acid Extractable Antimony (Sb)	2011/03/02	95	75 - 125			ND, RDL=0.2	ug/g	NC	35	96	75 - 125
2418536	Acid Extractable Arsenic (As)	2011/03/02	101	75 - 125			ND, RDL=1	ug/g	NC	35	98	75 - 125
2418536	Acid Extractable Barium (Ba)	2011/03/02	97	75 - 125			ND, RDL=0.5	ug/g	1.6	35	98	75 - 125
2418536	Acid Extractable Beryllium (Be)	2011/03/02	98	75 - 125			ND, RDL=0.2	ug/g	NC	35	99	75 - 125
2418536	Acid Extractable Boron (B)	2011/03/02	96	75 - 125			ND, RDL=5	ug/g	NC	35	95	75 - 125
2418536	Acid Extractable Cadmium (Cd)	2011/03/02	97	75 - 125			ND, RDL=0.1	ug/g	NC	35	96	75 - 125
2418536	Acid Extractable Chromium (Cr)	2011/03/02	100	75 - 125			ND, RDL=1	ug/g	10.9	35	98	75 - 125
2418536	Acid Extractable Cobalt (Co)	2011/03/02	97	75 - 125			ND, RDL=0.1	ug/g	5.6	35	97	75 - 125
2418536	Acid Extractable Copper (Cu)	2011/03/02	96	75 - 125			ND, RDL=0.5	ug/g	5.3	35	99	75 - 125
2418536	Acid Extractable Lead (Pb)	2011/03/02	98	75 - 125			ND, RDL=1	ug/g	NC	35	99	75 - 125
2418536	Acid Extractable Molybdenum (Mo)	2011/03/02	99	75 - 125			ND, RDL=0.5	ug/g	NC	35	98	75 - 125
2418536	Acid Extractable Nickel (Ni)	2011/03/02	97	75 - 125			ND, RDL=0.5	ug/g	8.5	35	100	75 - 125
2418536	Acid Extractable Selenium (Se)	2011/03/02	99	75 - 125			ND, RDL=0.5	ug/g	NC	35	100	75 - 125
2418536	Acid Extractable Silver (Ag)	2011/03/02	96	75 - 125			ND, RDL=0.2	ug/g	NC	35	95	75 - 125
2418536	Acid Extractable Thallium (Tl)	2011/03/02	96	75 - 125			ND, RDL=0.05	ug/g	NC	35	99	75 - 125

Gamsby & Mannerow Ltd
 Client Project #: 410-085
 Project name: CITYVIEW
 Sampler Initials: AS

Maxxam Job #: B124333
 Report Date: 2011/03/02

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
2418536	Acid Extractable Uranium (U)	2011/03/02	102	75 - 125			ND, RDL=0.05	ug/g	3.4	25	103	75 - 125
2418536	Acid Extractable Vanadium (V)	2011/03/02	107	75 - 125			ND, RDL=5	ug/g	NC	35	99	75 - 125
2418536	Acid Extractable Zinc (Zn)	2011/03/02	98	75 - 125			ND, RDL=5	ug/g	NC	35	100	75 - 125
2418536	Acid Extractable Mercury (Hg)	2011/03/02	103	75 - 125			ND, RDL=0.05	ug/g	NC	35	93	75 - 125

N/A = Not Applicable

RDL = Reportable Detection Limit

RPD = Relative Percent Difference

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.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

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 (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

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

(2) - The recovery was below the lower control limit. This may be due in part to the reducing environment of the sample

Validation Signature Page

Maxxam Job #: B124333

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



CRISTINA CARRIERE, Scientific Services



YUAN ZHOU, gc/ms Technician

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

Your Project #: 410-085
 Site: CITYVIEW
 Your C.O.C. #: 00618065

Attention: Abby Spielmacher
 Gamsby & Mannerow Ltd
 650 Woodlawn Rd W
 Block C, Unit 2
 Guelph, ON
 N1K 1B8

Report Date: 2011/03/14

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B129505
Received: 2011/03/05, 09:06

Sample Matrix: Soil
 # Samples Received: 4

Analyses	Quantity	Date		Laboratory Method	Method Reference
		Extracted	Analyzed		
Hot Water Extractable Boron	4	2011/03/11	2011/03/12	CAM SOP-00408	R153 Ana. Prot. 2004
Hexavalent Chromium in Soil by IC (1)	3	N/A	2011/03/10	CAM SOP-00436	EPA SW846-3060/7199
Hexavalent Chromium in Soil by IC (2)	1	N/A	2011/03/11	CAM SOP-00436	EPA SW846-3060/7199
Acid Extr. Metals (aqua regia) by ICPMS	4	2011/03/11	2011/03/11	CAM SOP-00447	EPA 6020
Moisture	4	N/A	2011/03/09	CAM SOP-00445	McKeague 2nd ed 1978
PAH Compounds in Soil by GC/MS (SIM)	4	2011/03/09	2011/03/11	CAM SOP - 00318	EPA 8270

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
 * Results relate only to the items tested.

(1) Soils are reported on a dry weight basis unless otherwise specified.

Encryption Key

Sean Conacher



14 Mar 2011 15:25:21 -04:00

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

SEAN CONACHER, Project Manager
 Email: SConacher@maxxam.ca
 Phone# (905) 817-5700 Ext:5806

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

Total cover pages: 1



Maxxam Job #: B129505
Report Date: 2011/03/14

Gamsby & Mannerow Ltd
Client Project #: 410-085
Project name: CITYVIEW
Sampler Initials: AS

O'REG 153 METALS PACKAGE (SOIL)

Maxxam ID	IU9529	IU9530	IU9531	IU9532	
Sampling Date	2011/03/04 17:00	2011/03/04 17:00	2011/03/04 17:00	2011/03/04 17:00	
Units	Criteria A	W FLOOR2	W FLOOR3	QC Batch	QC Batch
		W WALL3	E WALL3	RDL	RDL
Inorganics					
Chromium (VI)	10	ND	ND	ND	0.2
Moisture	%	13	10	11	1
Metals					
Hot Water Ext. Boron (B)	1.5	0.83	0.12	0.13	0.05
Acid Extractable Antimony (Sb)	7.5	0.4	ND	ND	0.2
Acid Extractable Arsenic (As)	18	7	2	2	1
Acid Extractable Barium (Ba)	390	87	19	20	0.5
Acid Extractable Beryllium (Be)	5	0.3	ND	ND	0.2
Acid Extractable Boron (B)	120	ND	ND	ND	5
Acid Extractable Cadmium (Cd)	1.2	0.8	0.4	0.4	0.1
Acid Extractable Chromium (Cr)	160	11	6	6	1
Acid Extractable Cobalt (Co)	22	5.0	2.6	2.7	0.1
Acid Extractable Copper (Cu)	180	29	8.2	8.6	0.5
Acid Extractable Lead (Pb)	120	100	43	45	1
Acid Extractable Molybdenum (Mo)	6.9	0.9	ND	ND	0.5
Acid Extractable Nickel (Ni)	130	12	6.1	6.3	0.5
Acid Extractable Selenium (Se)	2.4	ND	ND	ND	0.5
Acid Extractable Silver (Ag)	25	ND	ND	ND	0.2
Acid Extractable Thallium (Tl)	1	0.10	0.06	0.06	0.05
Acid Extractable Uranium (U)	23	0.43	0.40	0.40	0.05
Acid Extractable Vanadium (V)	86	19	12	12	5
Acid Extractable Zinc (Zn)	340	340	300	310	5
Acid Extractable Mercury (Hg)	1.8	0.14	ND	ND	0.05

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria A: Ontario Reg. 153/04 (Amended July 27, 2009)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Texture

Maxxam Job #: B129505
Report Date: 2011/03/14

Gamsby & Mannerow Ltd
Client Project #: 410-085
Project name: CITYVIEW
Sampler Initials: AS

O'REG 153 POLYAROMATIC HYDROCARBONS (SOIL)

Maxxam ID	Sampling Date	Criteria A	Units	IU9529 2011/03/04 17:00 W WALL3	IU9530 2011/03/04 17:00 W FLOOR2	IU9531 2011/03/04 17:00 W FLOOR3	IU9532 2011/03/04 17:00 E WALL3	RDL	QC Batch
Polyaromatic Hydrocarbons									
Acenaphthene	ug/g	29	ND	ND	ND	ND	ND	0.01	2425931
Acenaphthylene	ug/g	0.17	0.007	0.007	ND	ND	ND	0.005	2425931
Anthracene	ug/g	0.74	0.009	0.009	ND	ND	ND	0.005	2425931
Benzo(a)anthracene	ug/g	0.63	0.03	0.03	ND	ND	ND	0.01	2425931
Benzo(a)pyrene	ug/g	0.3	0.029	0.029	ND	ND	ND	0.005	2425931
Benzo(b)fluoranthene	ug/g		0.04	0.04	ND	ND	ND	0.01	2425931
Benzo(g,h,i)perylene	ug/g	7.8	0.03	0.03	ND	ND	ND	0.02	2425931
Benzo(k)fluoranthene	ug/g	0.78	0.01	0.01	ND	ND	ND	0.01	2425931
Chrysene	ug/g	7.8	0.03	0.03	ND	ND	ND	0.01	2425931
Dibenz(a,h)anthracene	ug/g	0.1	ND	ND	ND	ND	ND	0.02	2425931
Fluoranthene	ug/g	0.69	0.058	0.058	ND	ND	ND	0.005	2425931
Fluorene	ug/g	69	ND	ND	ND	ND	ND	0.005	2425931
Indeno(1,2,3-cd)pyrene	ug/g	0.48	0.03	0.03	ND	ND	ND	0.02	2425931
1-Methylnaphthalene	ug/g	3.4	0.005	0.005	ND	ND	ND	0.005	2425931
2-Methylnaphthalene	ug/g	3.4	0.007	0.007	ND	ND	ND	0.005	2425931
Naphthalene	ug/g	0.75	0.006	0.006	ND	ND	ND	0.005	2425931
Phenanthrene	ug/g	7.8	0.036	0.036	ND	ND	ND	0.005	2425931
Pyrene	ug/g	78	0.048	0.048	ND	ND	ND	0.005	2425931
Surrogate Recovery (%)									
D10-Anthracene	%		96	96	98	98	97		2425931
D14-Terphenyl (FS)	%		89	89	92	92	92		2425931
D7-Quinoline	%		91	91	88	82	81		2425931
D8-Acenaphthylene	%		94	94	89	83	81		2425931

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria A: Ontario Reg. 153/04 (Amended July 27, 2009)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Texture

Gamsby & Mannerow Ltd
 Client Project #: 410-085
 Project name: CITYVIEW
 Sampler Initials: AS

Maxxam Job #: B129505
 Report Date: 2011/03/14

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
2424969	Moisture	2011/03/09								17.1	20	
2425931	D10-Anthracene	2011/03/10	99	30 - 130	99	30 - 130	98	%				
2425931	D14-Terphenyl (FS)	2011/03/10	91	30 - 130	95	30 - 130	96	%				
2425931	D7-Quinoline	2011/03/10	91	30 - 130	92	30 - 130	92	%				
2425931	D8-Acenaphthylene	2011/03/10	98	30 - 130	97	30 - 130	99	%				
2425931	Acenaphthene	2011/03/10	108	30 - 130	110	30 - 130	ND, RDL=0.01	ug/g	NC	50	50	
2425931	Acenaphthylene	2011/03/10	111	30 - 130	108	30 - 130	ND, RDL=0.005	ug/g	NC	50	50	
2425931	Anthracene	2011/03/10	107	30 - 130	96	30 - 130	ND, RDL=0.005	ug/g	NC	50	50	
2425931	Benzo(a)anthracene	2011/03/10	111	30 - 130	88	30 - 130	ND, RDL=0.01	ug/g	NC	50	50	
2425931	Benzofluoranthene	2011/03/10	98	30 - 130	81	30 - 130	ND, RDL=0.005	ug/g	22.5	50	50	
2425931	Benzofluoranthene	2011/03/10	90	30 - 130	81	30 - 130	ND, RDL=0.01	ug/g	NC	50	50	
2425931	Benzofluoranthene	2011/03/10	98	30 - 130	77	30 - 130	ND, RDL=0.02	ug/g	NC	50	50	
2425931	Benzofluoranthene	2011/03/10	87	30 - 130	83	30 - 130	ND, RDL=0.01	ug/g	NC	50	50	
2425931	Chrysene	2011/03/10	119	30 - 130	97	30 - 130	ND, RDL=0.01	ug/g	NC	50	50	
2425931	Dibenz(a,h)anthracene	2011/03/10	90	30 - 130	71	30 - 130	ND, RDL=0.02	ug/g	NC	50	50	
2425931	Fluoranthene	2011/03/10	136(1,2)	30 - 130	87	30 - 130	ND, RDL=0.005	ug/g	22.3	50	50	
2425931	Fluorene	2011/03/10	111	30 - 130	109	30 - 130	ND, RDL=0.005	ug/g	NC	50	50	
2425931	Indeno(1,2,3-cd)pyrene	2011/03/10	99	30 - 130	69	30 - 130	ND, RDL=0.02	ug/g	NC	50	50	
2425931	1-Methylnaphthalene	2011/03/10	96	30 - 130	103	30 - 130	ND, RDL=0.005	ug/g	NC	50	50	
2425931	2-Methylnaphthalene	2011/03/10	94	30 - 130	101	30 - 130	ND, RDL=0.005	ug/g	NC	50	50	
2425931	Naphthalene	2011/03/10	90	30 - 130	103	30 - 130	ND, RDL=0.005	ug/g	NC	50	50	
2425931	Phenanthrene	2011/03/10	131(1)	30 - 130	103	30 - 130	ND, RDL=0.005	ug/g	43.7	50	50	
2425931	Pyrene	2011/03/10	131(1)	30 - 130	89	30 - 130	ND, RDL=0.005	ug/g	21.1	50	50	
2426074	Chromium (VI)	2011/03/10	67(1,3)	75 - 125	100	80 - 120	ND, RDL=0.2	ug/g	NC	25	103	75 - 125
2427208	Hot Water Ext. Boron (B)	2011/03/12					ND, RDL=0.05	ug/g			99	85 - 115
2427214	Chromium (VI)	2011/03/11	92	75 - 125	98	80 - 120	ND, RDL=0.2	ug/g	NC	25	111	75 - 125
2427541	Acid Extractable Antimony (Sb)	2011/03/11	98	75 - 125			ND, RDL=0.2	ug/g	NC	35	102	75 - 125
2427541	Acid Extractable Arsenic (As)	2011/03/11	100	75 - 125			ND, RDL=1	ug/g	NC	35	102	75 - 125
2427541	Acid Extractable Barium (Ba)	2011/03/11	NC	75 - 125			ND, RDL=0.5	ug/g	3.2	35	101	75 - 125
2427541	Acid Extractable Beryllium (Be)	2011/03/11	95	75 - 125			ND, RDL=0.2	ug/g	NC	35	96	75 - 125
2427541	Acid Extractable Boron (B)	2011/03/11	91	75 - 125			ND, RDL=5	ug/g	NC	35	97	75 - 125
2427541	Acid Extractable Cadmium (Cd)	2011/03/11	99	75 - 125			ND, RDL=0.1	ug/g	NC	35	102	75 - 125
2427541	Acid Extractable Chromium (Cr)	2011/03/11	100	75 - 125			ND, RDL=1	ug/g	2.9	35	101	75 - 125
2427541	Acid Extractable Cobalt (Co)	2011/03/11	96	75 - 125			ND, RDL=0.1	ug/g	1.7	35	101	75 - 125
2427541	Acid Extractable Copper (Cu)	2011/03/11	93	75 - 125			ND, RDL=0.5	ug/g	7.5	35	102	75 - 125
2427541	Acid Extractable Lead (Pb)	2011/03/11	95	75 - 125			ND, RDL=1	ug/g	1.5	35	103	75 - 125
2427541	Acid Extractable Molybdenum (Mo)	2011/03/11	98	75 - 125			ND, RDL=0.5	ug/g	NC	35	99	75 - 125
2427541	Acid Extractable Nickel (Ni)	2011/03/11	95	75 - 125			ND, RDL=0.5	ug/g	8.9	35	102	75 - 125
2427541	Acid Extractable Selenium (Se)	2011/03/11	97	75 - 125			ND, RDL=0.5	ug/g	NC	35	101	75 - 125
2427541	Acid Extractable Silver (Ag)	2011/03/11	98	75 - 125			ND, RDL=0.2	ug/g	NC	35	102	75 - 125

Gamsby & Mannerow Ltd
 Client Project #: 410-085
 Project name: CITYVIEW
 Sampler Initials: AS

Maxxam Job #: B129505
 Report Date: 2011/03/14

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
2427541	Acid Extractable Thallium (TI)	2011/03/11	94	75 - 125			ND, RDL=0.05	ug/g	NC	35	101	75 - 125
2427541	Acid Extractable Uranium (U)	2011/03/11	98	75 - 125			ND, RDL=0.05	ug/g	12.5	25	102	75 - 125
2427541	Acid Extractable Vanadium (V)	2011/03/11	104	75 - 125			ND, RDL=5	ug/g	NC	35	102	75 - 125
2427541	Acid Extractable Zinc (Zn)	2011/03/11	NC	75 - 125			ND, RDL=5	ug/g	3.8	35	105	75 - 125
2427541	Acid Extractable Mercury (Hg)	2011/03/11	105	75 - 125			ND, RDL=0.05	ug/g	NC	35	109	75 - 125

N/A = Not Applicable

RDL = Reportable Detection Limit

RPD = Relative Percent Difference

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.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

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

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

(3) - The matrix spike recovery was below the lower control limit. This may be due in part to the reducing environment of the sample.

Validation Signature Page

Maxxam Job #: B129505

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



BRAD NEWMAN, Scientific Specialist



CRISTINA CARRIERE, Scientific Services



YUAN ZHOU, gc/ms Technician

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

**PHASE II
20 CITYVIEW DRIVE NORTH
CITY OF GUELPH
COUNTY OF WELLINGTON**

**APPENDIX "C"
TESTHOLE SUMMARY**

Appendix "C" - Testhole Summary

Testhole ID #	Stratigraphy (m bgs)
TH-1	0-2 m: Mixed fill consisting of topsoil, silt, and gravel and cobbles with some concrete, concrete block, and occasional brick fragment. Large buried tree (no clearing apparent).
TH-2	0-3.2 m: Mixed organic dark brown topsoil. 3.2-3.5 m: Dark brown topsoil with rootlets and decaying vegetation (apparent former topsoil). 3.5-3.8 m: Brown silt and clay till with gravel and cobble (inferred to be native silt till).
TH-3	0-2.8 m: Mixed fill consisting of silt, clay, gravel and cobbles with some concrete and occasional brick.
TH-4	0-2.0 m: Mixed fill consisting of silt, clay, gravel and cobbles with some concrete and occasional brick.
TH-2A	0-2.5 m: Mixed organic dark brown topsoil with occasional asphalt, coal or slag fragment
TH-5	0-1 m: Mixed organic dark brown topsoil. 1-1.7 m: Tan silt, clay with cobbles, ceramic fragments and a slag piece. 1.7-2.2 m: Mixed organic dark brown topsoil. 2.2-2.7 m: Dark brown topsoil with rootlets and decaying vegetation (apparent former topsoil) underlain by Brown silt and clay till with gravel and cobble (inferred to be native silt till).
TH-6	0-2.8 m: Mixed organic dark brown topsoil with occasional ash, asphalt and suspect fill.

Appendix “C” – Testhole Summary

Testhole ID #	Stratigraphy (m bgs)
TH-7	<p>0-0.8 m: Mixed fill consisting of silt, clay, gravel and cobbles with some concrete and occasional brick.</p> <p>0.8-2.8 m: Mixed topsoil with gravel, cobbles and some concrete.</p> <p>2.8-3.0 m: Dark brown topsoil with rootlets and decaying vegetation (apparent former topsoil)</p> <p>3.0-3.1 m : Tan silt and clay till with gravel (inferred to be native)</p>
TH-8	0-2.5 m: Mixed fill silt and clay with gravel and cobbles and concrete pieces
TH-9	0-2.5 m: Brown to grey mixed fill silt and clay with gravel and cobbles and concrete pieces
TH-10	0-2.5 m: Brown to grey mixed fill silt and clay with gravel and cobbles and concrete pieces
TH-11	0-2.2 m: Mixed fill silt and clay with gravel and cobbles and ceramic tile pieces
TH-12	<p>0-1.5 m: Brown topsoil mixed with occasional concrete.</p> <p>1.5-2.0 m: Brown silt and clay with cobbles underlain by tan silt till (inferred to be native)</p>
TH-13	<p>0-1.8 m: Brown mixed topsoil with occasional brick pieces. Rootlets and decaying vegetation (apparent former topsoil) observed at 1.8 m.</p> <p>1.8-2.5 m: Tan silt and clay till (inferred to be native)</p>