






Stantec

Follow-up Environmental Assessment of the CP Weston Yard in Winnipeg, Manitoba

Final Report

Stantec

Prepared for:
Canadian Pacific
2025 McCowan Road
Toronto, ON M1S 5K3

Prepared by:
Stantec Consulting Ltd.
603-386 Broadway,
Winnipeg, MB R3C 3R6

Project No. 111440161

November 18, 2013

Table of Contents

Executive Summary

Stantec Consulting Ltd. (Stantec) was retained by Canadian Pacific (CP) to complete a Follow-Up Environmental Assessment to delineate soil impacts identified in select areas of the Weston Yard in Winnipeg, Manitoba identified during a prior Phase II Environmental Site Assessment (ESA) completed as part of the support for the return of the former lease areas to CP.

The Weston Yard (herein referred to as the "Site") is located in the northwest quadrant of the City of Winnipeg, west of McPhillips Street, at the intersection of McPhillips Street and Jarvis Avenue. The area of investigation consisted of three vacant areas within the western portion of the CP Weston Yard: a Former Large Scrapping Area, a Former Trailer and Chemical Storage Area, and a Smaller Scrapping Area. The Site is neighbored in all directions by commercial and industrial land use and railway operations.

The scope of work developed and implemented for the Follow-Up Environmental Assessment included the following:

- Walk-through inspection of the Site and ground surface with pre-marking of borehole and monitoring well locations.
- Completion of the required utility locates using public and private locators.
- Advancement of 38 boreholes with concurrent sampling of soil during drilling activities.
- Completion of nine of the 38 boreholes as monitoring wells with subsequent well development and sampling of groundwater.
- Development and sampling of groundwater in three previously installed monitoring wells on the Site.
- Collection of three surface soil samples for metals analysis in an area adjacent to the northeast of the Smaller Scrapping Area, which appeared to have discoloured soil and had been reportedly used for scrap metal storage.
- Submission of soil and groundwater samples to Maxxam Analytics Inc. (Maxxam) in Winnipeg, Manitoba for petroleum hydrocarbon (PHC) constituents including benzene, toluene, ethylbenzene, xylenes (BTEX), PHC Fractions 1-4 (F1-F4); polycyclic aromatic hydrocarbons (PAHs), and metals.
- Submission of soil samples to Maxxam in Winnipeg for Toxicity Characteristic Leaching Procedure (TCLP) metals analysis based on the results of samples submitted for metals analysis to obtain a better understanding of the leachability of the detected metals.

- Comparison of the received analytical results with the stipulated regulatory guidelines for an industrial property.

- Preparation of this report detailing the activities completed and resultant findings.

Based on the results of the subsurface intrusive investigation, to the extent that the samples analyzed were representative of the areas investigated, and per our conclusions stated in this report, Stantec concludes that:

- Within the areas investigated during the Follow-up Environmental Assessment (Former Large Scrapping Area, Former Trailer and Chemical Storage Area and Smaller Scrapping Area), lateral and vertical delineation of the soil impacts appears to have been achieved.

- Metal impacts (i.e., concentrations above soil-industrial standards) are present in all three areas investigated (Former Large Scrapping Area, Former Trailer and Chemical Storage Area, and Smaller Scrapping Area) with the highest concentrations in the upper 0.5 metres below ground surface (mbgs) extending in many area to up to 1.5 mbgs and extending in limited areas to 3.0 mbgs.

- Leachable lead with a concentration exceeding the TCLP criterion was identified at only one sampling location (in the upper 0.5 mbgs), for a total of two locations identified overall within the Former Large Scrapping Area.

- Polycyclic aromatic hydrocarbons impacts were identified sporadically in surface soils in all three areas investigated and appeared to be limited to the soil in the upper 1.0 to 1.5 mbgs.

- Petroleum hydrocarbon impacts were identified in surface soils throughout the Former Large Scrapping Area and Former Trailer and Chemical Storage Area (where sampled) and appeared to be limited to the soil in the upper 1.0 to 1.5 mbgs. It is noted that petroleum hydrocarbon impacts were also previously identified at one location in the Smaller Scrapping Area.

- Groundwater impacts (i.e., concentrations above non-potable groundwater standards) were identified at several sampling locations within the three areas.

    - A dissolved cadmium concentration exceeding the MOE Table 3 SCS was identified in the northwest corner of the Smaller Scrapping Area (MW07); however, the detected concentration only marginally exceeded the standard (1.2x).

    - PHC F3 and F4 impacts were identified in the Former Large Scrapping Area (MW04, MW12 and MW13) and the Former Trailer and Chemical Storage Area (MW10 and MW11). It is noted that PHC impacts were identified at previously installed well MW04 located in the Former Large Scrapping Area where impacts had not been previously registered at this sampling location.

1.0 INTRODUCTION

In March 2013, Stantec Consulting Ltd. (Stantec) was retained by Canadian Pacific (CP) to complete a Follow-Up Environmental Assessment at CP's Weston Yard in Winnipeg, Manitoba (herein referred to as the "Site"). The purpose of the assessment was to delineate soil impacts in select former lease areas that had been previously identified during a Phase II Environmental Site Assessment (ESA) completed as part of the support for the lease return back to CP (see Section 1.2).

1.1 SITE DESCRIPTION

The general Site location is shown in **Figure 1** in **Appendix A**.

The Site is located in the northwest quadrant of the City of Winnipeg, west of McPhillips Street, near the intersection of McPhillips Street and Jarvis Avenue. The specific areas of investigation consisted of three currently vacant sections within the western portion of the CP Weston Yard: a Former Large Scrapping Area, a Former Trailer and Chemical Storage Area, and a Smaller Scrapping Area. The Site is neighboured in all directions by commercial and industrial land use and railway operations.

The Site is generally flat and at grade with adjacent properties. Based on an available topographic map[1] and the observed site topography, regional surface drainage (and anticipated shallow groundwater flow direction) appears to be to the east toward the Red River, located approximately 3.5 km from the Site. It should be noted that the direction of the shallow groundwater flow in limited areas can also be influenced by the presence of underground utility corridors and is therefore not necessarily a reflection of regional or local groundwater flow and may not follow the site or area topography.

1.2 BACKGROUND

In January 2013, Stantec was retained by CP to support the return of leased areas within the Weston Yard from Progress Rail (PR) back to CP. Specifically, Stantec reviewed previous available environmental information and reports for the Site, conducted a site tour with CP and PR, and completed a focused subsurface intrusive investigation. The investigation, completed in January 2013, investigated five areas used by PR and/or its third-party subcontractor(s), including a/an:

- Drum storage area.
- Aboveground gasoline and diesel storage tank location.
- Smaller metal scrapping area north of the employee parking area.
- PR Subcontractor office/trailer area at the southwest corner of lease area (chemical storage).

[1] Baracos, A., D.H. Sheilds, B. Kjartanson, 1983: "Geological Engineering Maps & Report for Urban Development of Winnipeg - Plate 1: Surface Topography", Scale 1:50,000, Department of Geological Engineering, The University of Manitoba.

- PR Subcontractor large scrapping operations area.

Additionally one area outside the Site was investigated (used as background).

Impacts to Site soils (i.e., chemical concentrations exceeding the stipulated regulatory guidelines) were found as follows:

- Polycyclic aromatic hydrocarbons (PAHs) in surface soils.
- Petroleum hydrocarbons in near-surface and subsurface soils near the aboveground storage tanks.
- Metal impacts in surface soils in the two metal-scrapping areas and in the drum storage area.

No volatile organic compounds exceeding regulatory guidelines were identified in soils analyzed at the locations investigated and no impacts to groundwater were identified.

Additional testing of five soil samples (specifically Toxicity Characteristic Leaching Procedure or TCLP metals analysis; four samples from the two metal scrapping areas and one sample from the drum storage area) was undertaken to understand the leachability of the detected metals as this affects the risk and remediation options. The sample with the highest total lead concentration of all the samples submitted (BH08 0 to 0.5 metres below the ground surface from the south-central area of the larger metal-scrapping area) was found to contain a leachable lead concentration that exceeded the respective Manitoba leachate quality criterion.

The delineation of metal impacts within the metal scrapping areas was beyond the scope of the environmental work at that time but was recommended to CP by Stantec. CP concurred with this recommendation, which was the basis for this Follow-Up Environmental Assessment.

1.3 SCOPE OF WORK

The scope of work developed and implemented for the Follow-Up Environmental Assessment included the following:

- Walk-through inspection of the Site and ground surface with the pre-marking of borehole and monitoring well locations.
- Completion of the required utility locates through public and private locators.
- Advancement of 38 boreholes with concurrent sampling of soil during drilling activities.
- Completion of nine of the 38 boreholes as monitoring wells with subsequent well development and sampling of groundwater.
- Development and sampling of groundwater in three previously installed monitoring wells.

- Collection of three surface soil samples for metals analysis in an area adjacent to the northeast of the Smaller Scrapping Area, which appeared to have discoloured soil and had been reportedly used for scrap metal storage.

- Submission of soil and groundwater samples to Maxxam Analytics Inc. (Maxxam) in Winnipeg, Manitoba for petroleum hydrocarbon (PHC) constituents including benzene, toluene, ethylbenzene, xylenes (BTEX), PHC Fractions 1-4 (F1-F4); polycyclic aromatic hydrocarbons (PAHs); and metals.

- Submission of soil samples to Maxxam in Winnipeg for Toxicity Characteristic Leaching Procedure (TCLP) metals analysis based on the results of samples submitted for metals analysis to obtain a better understanding of the leachability of the detected metals.

- Comparison of the received analytical results with the stipulated regulatory guidelines for an industrial property.

- Preparation of this report detailing the activities completed and resultant findings.

2.0 INTRUSIVE INVESTIGATION

Stantec supervised drilling activities on July 2 to 4, 2013, with a follow-up groundwater monitoring and sampling program conducted on July 23 and 24, 2013. Field methods were conducted in accordance with the *Canadian Standards Association Phase II ESA Standard Z769-00 (R2012)*, the *Manitoba Conservation Environmental Site Investigations in Manitoba dated June 1998 (Revised May 2002)*, and Stantec's Standard Operating Procedures as described in further detail below.

2.1 SITE PREPARATION

All underground utilities were located by their respective proprietors prior to ground disturbance (i.e., drilling). Additional location by a third party contractor (McCaine Electric) was also conducted to locate any residual private utilities.

Paddock Drilling Ltd. (Paddock) was commissioned directly by Stantec to complete the drilling activities on the Site.

2.2 SAFETY PROCEDURES

Stantec staff associated with the Follow-Up Environmental Assessment wore the following personal protective equipment (PPE) during the course of the fieldwork:

- Hardhat.
- Safety glasses.
- Safety vest.
- Steel toe boots.
- Nitrile gloves.

Prior to commencing the Site work, a safety meeting was also held between Stantec staff and the contracted driller. The safety meeting covered job safety planning checklists, equipment checklists, emergency information and work site hazards outlined in the site-specific Health and Safety Plan (HASP) developed for the Follow-up Environmental Assessment.

2.3 SOIL INVESTIGATION METHODS

Between July 2 and July 4, 2013, 38 boreholes were advanced at accessible locations within the Former Large Scrapping Area, Former Trailer and Chemical Storage Area, and Smaller Scrapping Area (labelled MW01 through MW09 and BH10 through BH38). The boreholes were drilled to a maximum depth of approximately 6.0 m below ground surface (mbgs) using a track-mounted solid-stem auger drilling rig. In addition, three surface (0 to 0.1 mbgs) samples were collected adjacent to the northeast of the Smaller Scrapping Area (labelled SS1 through SS3). The locations of the boreholes are presented on **Figure 2** in **Appendix A**.

The encountered subsurface conditions were logged at the time of the field program. Detailed soil descriptions (including lithology, colour, relative moisture content, and visual or olfactory evidence of odour or staining) and measured vapour readings were recorded in field notebooks. The information was then translated onto the respective log for that borehole as presented in **Appendix B**.

Soil samples were collected from the solid-stem auger flights from ground surface to a depth of 0.50 m, from 0.50 to 1.0 m, from 1.0 to 1.5 m and then at regular 0.75 m depth intervals (or wherever marked changes in soil colour or composition were found) down to a maximum depth of approximately 6.0 mbgs in the boreholes. Soil samples were collected by hand from the auger at the designated intervals using a steel knife and pared by Stantec or the driller's assistant such that soil that had touched the auger or sides of the borehole was discarded. Disposable nitrile gloves were worn during sample collection (a new pair per sample). Each borehole was backfilled to grade with the exception of the nine boreholes that were completed as monitoring wells (see Section 2.4).

The surface samples (SS1-SS3) were manually collected using a shovel and pared by Stantec such that soil that had touched the shovel was discarded. Disposable nitrile gloves were worn during sample collection (a new pair per sample).

Soil samples were analyzed in the field for total organic vapours (TOVs) and combustible gas concentrations using a RKI Eagle 2 portable gas detector, equipped with a photoionization detector calibrated to isobutylene and a combustible gas surveyor calibrated to hexane and operated in methane elimination mode. Excess soil cuttings were left at each borehole location.

Each soil sample was carefully packaged (i.e., jarred in sterile laboratory-issued glass jars) following industry-standard sampling protocol. The samples were stored in a cooler containing ice immediately following collection and were delivered to Maxxam Analytics in Winnipeg on the same day of collection. Of the 226 samples collected, 84 soil samples were submitted to the laboratory for analysis of one or more of the following chemical parameters: BTEX, PHC F1-F4, metals, and PAHs. Samples were selected for analysis based on the soil vapour and gas readings, visual and olfactory factors and/or professional judgment. The remaining 142 samples collected were submitted to the laboratory to "hold" for analysis if warranted based on the results of the initial sample analysis (and allowed by specific parameter "hold times"; see chain-of-custody documentation in **Appendix C**). It is noted that the additional analysis of 13 of these held samples was subsequently requested to support delineation of identified impacts (completed within the recommended hold-time period). From the samples submitted on hold and/or where metals concentrations were particularly elevated, 16 soil samples were submitted for Toxicity Characteristic Leaching Procedure (TCLP) metals analysis. The samples were submitted to obtain a better understanding of the leachability of the detected metals as this affects the risk and remediation options for the Site.

The analytical results received are discussed in Section 4.4.1.

2.4 GROUNDWATER INVESTIGATION

To supplement the existing monitoring well grid across the Site, Paddock completed nine of the 38 boreholes drilled on the Site as monitoring wells under Stantec's direction during the intrusive investigation between July 2 and 4, 2013 (labeled MW05 through MW13[2]; see **Figure 2** in **Appendix A**). Each well was constructed of portions of 50 millimetre (mm) inside diameter (ID) Schedule 40 polyvinyl chloride (PVC) screened and unscreened/solid piping to facilitate groundwater monitoring and sampling. The monitoring well construction details are noted on the borehole logs provided in **Appendix B**.

Sand was added within the annular space around the piping to a height of approximately 0.5 m above the screened PVC portion; followed by bentonite pellets, which were placed on top of the sand, around the solid PVC portion, to create a seal in each well. A flush-with-grade steel cover was then installed to protect the well from tampering and/or accidental damage.

The groundwater levels in the nine newly installed wells (MW05 through MW13) and three wells previously installed by Stantec, (MW01, MW02, and MW04) were established on July 23, 2013. The depth to groundwater and the presence/absence of liquid phase hydrocarbons (LPH) were monitored using a Heron H. Oil oil/water interface probe. The wells were purged and left to recharge prior to sampling on July 24, 2013. The recorded water-level measurements for the wells are noted on the borehole logs provided in **Appendix B**.

A new pair of disposable nitrile gloves was worn for each sample collection and the samples were collected with certified clean, dedicated sampling bailers (i.e., new bailer/well). Samples were field filtered (as appropriate to the analysis being conducted) into sterile laboratory-issued containers following industry-standard sampling protocol. The samples were stored in a cooler containing ice immediately following collection and were delivered to the laboratory (Maxxam) on the day of collection.

The analytical results received are discussed in Section 4.4.2.

[2] Boreholes MW01 through MW04 were re-labeled as monitoring wells MW10 through MW13, as noted on the borehole logs provided in **Appendix B**, to accommodate monitoring well labeling for the wells previously installed by Stantec in January 2013.

3.0 REGULATORY FRAMEWORK

3.1 SOIL

The regulatory framework that provided guidance in the determination of soil impacts and the need for site-specific remediation consisted of:

- Canadian Council of Ministers of the Environment (CCME). *Canadian Environmental Quality Guidelines (CEQG) for the Protection of Environmental and Human Health* including the *CEQG for the Protection of Environmental and Human Health for Polycyclic Aromatic Hydrocarbons.* On-line summary table viewed on July 15, 2013.

- Canadian Council of Ministers of the Environment (CCME). 2001. *Canada-Wide Standard for Petroleum Hydrocarbons (PHC) in Soil.* Endorsed by CCME Council of Ministers, April 30-May 1, 2001, Winnipeg (Revised in January 2008).

Based on grain size analytical results completed on three soil samples (see **Table I**) as well as the stratigraphy encountered during the completion of the intrusive investigation (see borehole logs in **Appendix B**), the soils at the Site are predominantly fine grained. As such, the commercial and/or industrial guidelines for fine-grained soils were applied in the evaluation of the soil analytical results.

It is noted that the CCME PAH guidelines for soil include an Index of Additive Cancer Risk (IACR), which assesses the potential threats to potable groundwater quality from leaching of carcinogenic PAH mixtures from soil. Potable water for the area is known to be supplied via a municipal distribution system that obtains its water from Shoal Lake. Therefore, it is assumed that groundwater is not used as a source of potable water on or near the Site and the IACR guidelines would not apply to the Site. It has therefore not been included in the evaluation of the soil analytical results.

3.2 GROUNDWATER

The regulatory framework that provided guidance in the assessment of groundwater at the Site consisted of:

- Ontario Ministry of the Environment (MOE) document *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act.* PIBS #7382e01. March 2004 (Revised April 15, 2011)

The MOE standards were chosen because they contain standards for sites with non-potable water conditions. Manitoba does not currently have its own set of guidelines for non-potable water conditions and accepts the use of environmental quality guidelines generated by out-of province jurisdictions. Priority is given to guidelines developed/adopted by other provinces such as the Ontario standards. As discussed in Section 3.1, it is assumed that groundwater is not used as a source of potable water near the Site. The MOE site condition standards (SCS) for a non-potable water condition were therefore

appropriate for this Site and were applied in the evaluation of the groundwater analytical results. In addition, as discussed in Section 3.1, the soils at the Site are predominantly fine grained. As such, the fine to medium-grained MOE SCS have been applied.

4.0 ASSESSMENT FINDINGS

4.1 STRATIGRAPHY

Geologic information typical of the area of the Site was obtained from the Reconnaissance Soil Survey Report (No. 5) of the Winnipeg and Morris Region[3]. Based on the information provided by this map, the native surficial soils of the Site are described as belonging to the Fort Garry Association. The Fort Garry Association is developed on a clay and silty clay mantle that lies over strongly calcareous silty and fine sandy clay dolomitic sediments. The soil texture is dominantly clay, and the soils are poorly drained.

Actual near surface geology is presented on the borehole records in **Appendix B**. As indicated, the stratigraphic profile observed during the investigation generally consisted of gravel fill underlain by gravel/soil to clay fill to a maximum depth of 1.5 mbgs. Native soil beneath the fill consisted of interbedded layers of silt, silty clay and clay to the extent drilled.

4.2 GROUNDWATER

On July 23, 2013, groundwater levels were measured in MW01, MW02, and MW04 through MW13. No LPH sheen was noted on the surface of the water in these wells during the monitoring program.

4.3 SUBSURFACE VAPOUR READINGS

Soil TOV and combustible gas readings measured in the soil samples recovered during the assessment are presented in the borehole records in **Appendix B**. The soil vapour concentrations measured in all of the boreholes using the RKI Eagle 2 hydrocarbon surveyor ranged from non-detect (0 parts per million by volume [ppm_v]) to a maximum concentration of 2,000 ppm_v. The maximum TOV was measured in soil samples that were collected at MW05, MW07, BH17, BH23 and BH38. Combustible vapour concentrations ranged from non-detect to 1,150 ppm_v. The maximum vapour concentration was measured in soil sampled at BH18. In general, the highest soil vapour readings were encountered in the Former Large Scrapping Area and in the Smaller Scrapping Area.

4.4 LABORATORY ANALYTICAL RESULTS

4.4.1 Soil

The laboratory results for the analysis of PAHs, BTEX, PHC F1-F4, and metals in the submitted soil samples, along with the applicable CCME guidelines, are summarized in **Table I**. Analytical results received from Maxxam are provided in **Appendix C**.

[3] Ehrlich, W.A., E.A. Poyser, L.E. Pratt, J.H. Ellis. 1953. Report of Reconnaissance Soil Survey of Winnipeg and Morris Map Sheet Areas. Scale of 1:126,720, Manitoba Soil Survey.

The concentrations of BTEX, PHCs F1-F4, PAHs, and metals in the submitted soil samples were less than the applicable CCME guidelines, with the exception of the following (see **Figure 2** in **Appendix A** for the sampling locations):

Sample Location	Sample ID	Depth (mbgs)	Parameters Exceeding the CCME Guidelines
SS1	SS1	0.30	Arsenic, chromium (total), cobalt, copper, lead, molybdenum, nickel, selenium, zinc
SS2	SS2	0.30	Arsenic, chromium (total), cobalt, copper, lead, molybdenum, nickel, selenium, zinc
SS3	SS3	0.30	Arsenic, cadmium, chromium (total), cobalt, copper, lead, nickel, selenium, silver, zinc
MW01	MW01 0-0.5	0-0.5	Antimony, copper, lead
	MW01 0.5-1	0.5-1.0	Benzene, ethylbenzene, PHC F2
MW02	MW02 0.5-1	0.5-1.0	Copper
MW03	MW03 0-0.5	0-0.5	Arsenic, copper, lead, nickel, selenium, thallium, zinc
MW04	MW04 0-0.5	0-0.5	Copper, lead, zinc
MW05	MW05 0.5-1	0.5-1.0	Copper, lead, nickel
MW07	MW07 0-0.5	0-0.5	Naphthalene, phenanthrene
	MW07 0.5-1	0.5-1.0	Antimony, arsenic, copper, lead, nickel, thallium, tin, zinc, naphthalene, phenanthrene
MW08	MW08 0-0.5	0-0.5	Antimony, arsenic, chromium (total) copper, lead, nickel, selenium, tin, zinc
BH10	BH10 0.5-1	0.5-1.0	Copper, lead
BH11	BH11 0-0.5	0-0.5	Antimony, arsenic, copper, lead, zinc

Sample Location	Sample ID	Depth (mbgs)	Parameters Exceeding the CCME Guidelines
BH12	BH12 0-0.5	0-0.5	Antimony, arsenic, copper, lead, nickel, zinc
BH13	BH13 0-0.5	0-0.5	Arsenic, copper, lead, nickel, selenium, zinc
BH14	BH14 0.5-1	0.5-1.0	Copper, nickel, zinc
	BH14 1-1.5	1-1.5	Copper, nickel, zinc
BH15	BH15 0-0.5	0-0.5	Antimony, arsenic, copper, lead, nickel, zinc
BH16	BH16 0-0.5	0-0.5	Arsenic, chromium (total), copper, lead, nickel, zinc
	BH16 0.5-1	0.5-1.0	Antimony, arsenic, copper, lead, nickel, zinc
BH17	BH17 0-0.5	0-0.5	Arsenic, chromium (total), copper, lead, mercury, nickel, selenium, zinc, Benzo(a)pyrene Total Potency Equivalents, naphthalene, phenanthrene
BH18	BH18 0-0.5	0-0.5	Benzene, arsenic, copper, lead
	BH18 0.5-1	0.5-1.0	Antimony, arsenic, copper, lead, zinc
BH19	BH19 0-0.5	0-0.5	Arsenic, copper, lead, nickel, zinc
	BH19 1-1.5	1.0-1.5	Copper, lead
BH20	BH20 0-0.5	0-0.5	Arsenic, barium, copper, lead, nickel
	BH20 0.5-1	0.5-1.0	Antimony, arsenic, copper, lead, nickel, tin, zinc
BH21	BH21 0-0.5	0-0.5	Antimony, arsenic, copper, lead, nickel, zinc

Sample Location	Sample ID	Depth (mbgs)	Parameters Exceeding the CCME Guidelines
BH23	BH23 0-0.5	0-0.5	Arsenic, barium, copper, lead, nickel
	BH23 2.25-3	2.25-3.0	Nickel
BH24	BH240-0.5	0-0.5	Arsenic, barium, copper, lead, nickel, zinc
BH26	BH26 0-0.5	0-0.5	Antimony, arsenic, cadmium, chromium (total), copper, lead, nickel, selenium, thallium, zinc
	BH26 0.5-1.0	0.5-1.0	Antimony, arsenic, cadmium, chromium (total), copper, lead, nickel, selenium, thallium, tin, zinc
BH27	BH27 0-0.5	0-0.5	Copper, lead, zinc
	BH27 1-1.5	1.0-1.5	Copper, zinc
BH28	BH28 0-0.5	0-0.5	Antimony, arsenic, copper, lead, mercury, nickel, zinc
	BH28 1-1.5	1.0-1.5	Copper
BH30	BH30 0.5-1	0.5-1.0	Barium, copper, lead, thallium, zinc, naphthalene, phenanthrene
BH32	BH32 0-0.5	0-0.5	Antimony, arsenic, copper, lead, nickel, tin, zinc
	BH32 0.5-1	0.5-1.0	Antimony, arsenic, copper, lead, mercury, nickel, tin, zinc
BH33	BH33 0-0.5	0-0.5	Antimony, arsenic, copper, lead, nickel, selenium, thallium, zinc
BH34	BH34 0-0.5	0-0.5	Antimony, arsenic, copper, lead, mercury, nickel, thallium, tin, zinc

Sample Location	Sample ID	Depth (mbgs)	Parameters Exceeding the CCME Guidelines
BH35	BH35 0-0.5	0-0.5	Antimony, arsenic, copper, lead, nickel, thallium, zinc
	BH35 1-1.5	1.0-1.5	Copper
BH36	BH36 0-0.5	0-0.5	Arsenic, copper
	BH36 0.5-1	0.5-1.0	Arsenic, copper
BH37	BH37 0-0.5	0-0.5	Antimony, arsenic, chromium (total), copper, lead, nickel, selenium, zinc
BH38	BH38 0-0.5	0-0.5	Antimony, arsenic, copper, lead, Benzo(a)pyrene Total Potency Equivalents, naphthalene, phenanthrene
	BH38 0.5-1	0.5-1.0	Antimony, arsenic, copper, lead, nickel, tin, zinc

In all but six of the soil samples tested for pH, the pH measured slightly above the guideline range of 6-8, ranging from 8.04 to 8.87 indicating predominantly alkaline soils at the Site. Alkaline soils are common in Manitoba and are considered endemic to the area. Additionally, in one soil sample tested for pH, the pH measured slightly below the guideline range (5.99) indicating acidic soil. The acidic soil was limited to one sampling location and not prevalent across the Site.

Additional testing of 16 soil samples (specifically TCLP metals analysis) was undertaken to understand the leachability of the detected metals as this affects the risk and remediation options. Similar to the findings in January 2013, the sample with the highest total lead concentration of all the samples submitted (BH26 0 to 0.5 mbgs from the the Former Large Scrapping Area) was found to contain a leachable lead concentration that marginally exceeded the respective Manitoba leachate quality criterion (see Section 5.0). Samples submitted from the boreholes surrounding both BH26 and the formerly identified BH8 did not have concentrations of leachable lead exceeding the respective Manitoba leachate quality criterion.

4.4.2 Groundwater

The laboratory results for the analysis of BTEX, PHCs F1-F4, PAHs, and dissolved metals in the submitted groundwater samples, along with the applicable MOE Table 3 SCS, are summarized in **Table II**. The analytical results received from Maxxam are provided in **Appendix C**.

The concentrations of BTEX, PHCs F1-F4, PAHs, and dissolved metals in the submitted groundwater samples were less than the applicable MOE Table 3 SCS, with the exception of the following (see **Figure 2**, in **Appendix A** for the sampling locations):

- Monitoring well MW04 – PHC F3 (670 µg/L compared with the MOE Table 3 SCS of 500 µg/L).
- Monitoring well MW07 – cadmium (3.29 µg/L compared with the MOE Table 3 SCS of 2.7 µg/L).
- Monitoring well MW10 and Field Dup– PHC F4 (2,000 µg/L and 4,300 µg/L, respectively, compared with the MOE Table 3 SCS of 500 µg/L).
- Monitoring well MW11 – PHC F3 and F4 (730 µg/L and 830 µg/L compared with the MOE Table 3 SCS of 500 µg/L and 500 µg/L, respectively).
- Monitoring well MW12 – PHC F4 (2,000 µg/L compared with the MOE Table 3 SCS of 500 µg/L).
- Monitoring well MW13 – PHC F3 and F4 (720 µg/L and 540 µg/L compared with the MOE Table 3 SCS of 500 µg/L and 500 µg/L, respectively).

4.5 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

A QA/QC program was included as a component of the investigation. Review of sample hold times indicated that the samples were submitted and analyzed within the recommended timeframe. As part of laboratory QA/QC procedures, Maxxam completes in-house duplicate analysis on submitted samples (both soil and groundwater). A laboratory duplicate is a split of a homogenized soil or groundwater sample that is prepared and analyzed following exactly the same procedure as the original sample. The Relative Percent Difference (RPD) is calculated for the results of the pair of samples. The RPD is defined as the absolute value of the variation between a sample and its duplicate when compared to the concentration of the original. The RPD for two data points is equal to the difference divided by the mean multiplied by 100 percent. The RPD is used to evaluate the precision of the laboratory analysis. If the results for RPD of laboratory duplicate samples were greater than the laboratory's acceptance criteria, the results were noted in the attached laboratory certificates. Maxxam indicated that laboratory surrogate standard recoveries were within acceptable limits for all parameters analyzed for soil and groundwater. Laboratory quality control certificates are provided in **Appendix C**.

One groundwater blind field duplicate sample was recovered at MW11 during the July 24, 2013 sampling event and submitted for analyses of BTEX, PHC F1-F4, PAHs, and dissolved metals. These duplicates were utilized to evaluate both laboratory precision and the implemented field sampling and handling procedures. The RPDs for BTEX were not calculated as all concentrations were below the laboratory's reporting detection limits (RDLs). The RPDs for the metal parameters for the groundwater sample and its field duplicate (identified as Field Dup) were calculated and ranged from 0.7% to 20.1%. The RPD calculated for PHC F4 was 135%. The RPD for some PAHs parameters were calculated and ranged from 0% to 72.7%. It is noted that not all PHC and PAH parameters were calculated, as several parameter concentrations were below the laboratory's RDLs.

The decreased precision in the groundwater was not considered to affect the overall interpretation of the results as concentrations in both the parent and duplicate samples were either less than or greater than the MOE SCS, with the exception of PHC F3, which was below the laboratory RDL in the duplicate sample. However, as PHC F4 exceeded the guidelines in both the original and duplicate samples, the calculated RPD does not affect the outcome. In addition, as a measure of conservatism, the higher of the two concentrations was considered representative of the groundwater analyzed.

The analytical results of the original and laboratory and/or field duplicate samples are presented in **Tables I and II**.

5.0 DISCUSSION

Assuming that the soil samples collected and analyzed from the Site are representative of the larger area surrounding the collection locations, the analytical results confirm the presence of environmental impacts (i.e., concentrations above soil-industrial standards) on the Site, as determined in the preliminary investigation completed in January 2013[4]. In terms of policy created by Manitoba Conservation and Water Stewardship, remediation is required if the identified impacts pose "*...a threat to human health, safety, or the environment*" (http://www.gov.mb.ca/conservation/regoperations/database/csra-guide-july-2002.pdf).

The identified contaminants of concern that were delineated in the Former Large Scrapping Area, Former Trailer and Chemical Storage Area, and Smaller Scrapping Area as part of this follow-up investigation include metals, PAHs and PHCs.

Metal concentrations exceeding the CCME guidelines were identified in the three areas investigated (**Figure 3** in **Appendix A**). The metal impacts appear to be predominantly confined to the top 1.5 mbgs. The highest concentrations exceeding the guidelines appear to be situated within the upper 0.5 metres with elevated concentrations in numerous sampling locations extending to 1.5 mbgs. Limited sampling locations identified metal concentrations exceeding the CCME guidelines extending to 3.0 mbgs. Based on the findings, metal impacts were identified in all sampling locations within the Former Trailer and Chemical Storage Area; an area covering approximately 1,340 m^2. Similarly, metal impacts were identified in all sampling locations within the Small Scrapping Area; an area covering approximately 5,010 m^2. Metal impacts were also identified in the three surface soil samples collected north of the Small Scrapping Area. In the Former Large Scrapping Area, metal impacts were identified in all but four sampling locations. The Former Large Scrapping Area covers an area of approximately 17,080 m^2 of which the impacts were identified as covering approximately 14,500 m^2.

Based on the concentrations of several metal parameters (i.e., lead, arsenic, copper, zinc) in the soil in the three areas assessed, as well as the leachable lead concentration in the two collective sampling locations (January 2013 and this assessment) in the surface soil in the Former Large Scrapping Area (above the leachate guidelines), it is unlikely this soil would be accepted by a landfill or typical soil treatment facility.

The PAH impacts (specifically the Benzo[a]pyrene Total Potency Equivalents (B[a]P TPE), naphthalene, and phenanthrene) were identified sporadically within the three areas investigated (**Figure 3** in **Appendix A**). PHC impacts (specifically benzene, toluene, ethylbenzene and PHC F2) were identified sporadically within the Former Large Scrapping Area and the Former Trailer and Chemical Storage Area. PHC impacts were also previously identified at one sampling location in the Smaller Scrapping Area, although no PHC soil impacts were observed in this area in the follow-up investigation. Similar to the metal impacts, both the PAH and PHC impacts appear to be limited to soil in the upper 1.0 to 1.5 mbgs.

[4] Stantec Consulting Ltd. Focused Environmental Assessment of Lease Areas Within the CP Weston Yards in Winnipeg, Manitoba. Prepared for Canadian Pacific. Project No. 111440143. March 27, 2013.

Groundwater impacts were identified at several sampling locations within the three areas. A dissolved cadmium concentration exceeding the MOE Table 3 SCS was identified in the northwest corner of the Smaller Scrapping Area (MW07); however, the detected concentration marginally exceeded the standard (1.2x). PHC F3 and F4 impacts were identified in the Former Large Scrapping Area (MW04, MW12, and MW13), and in the Former Trailer and Chemical Storage Area (MW10 and MW11). It is noted that PHC impacts were identified in existing monitoring well MW04, located in the Former Large Scrapping Area; however, groundwater impacts were not previously identified at this sampling location (no detectable PHCs or exceedances of the MOE Table 3 SCS).

6.0 CONCLUSIONS

Based on the results of the Follow-up Environmental Assessment undertaken as discussed in the preceding sections, to the extent that the samples analyzed were representative of the entire Site, Stantec concludes that:

- Within the areas investigated during the Follow-up Environmental Assessment (Former Large Scrapping Area, Former Trailer and Chemical Storage Area and Smaller Scrapping Area), lateral and vertical delineation of the soil impacts appears to have been achieved.

- Metal impacts (i.e., concentrations above soil-industrial standards) are present in all three areas investigated (Former Large Scrapping Area, Former Trailer and Chemical Storage Area, and Smaller Scrapping Area) with the highest concentrations in the upper 0.5 metres below ground surface (mbgs) extending in many area to up to 1.5 mbgs and extending in limited areas to 3.0 mbgs.

- Leachable lead with a concentration exceeding the TCLP criterion was identified at only one sampling location (in the upper 0.5 mbgs), for a total of two locations identified overall within the Former Large Scrapping Area.

- Polycyclic aromatic hydrocarbons impacts were identified sporadically in surface soils in all three areas investigated and appeared to be limited to the soil in the upper 1.0 to 1.5 mbgs.

- Petroleum hydrocarbon impacts were also identified sporadically in surface soils of the Former Large Scrapping Area and Former Trailer and Chemical Storage Area (where sampled) and appeared to be limited to the soil in the upper 1.0 to 1.5 mbgs. It is noted that petroleum hydrocarbon impacts were also previously identified at one location in the Smaller Scrapping Area.

- Groundwater impacts were identified at several sampling locations within the three areas.

    - A dissolved cadmium concentration exceeding the MOE Table 3 SCS was identified in the northwest corner of the Smaller Scrapping Area (MW07); however, the detected concentration only marginally exceeded the standard (1.2x).

    - PHC F3 and F4 impacts were identified in the Former Large Scrapping Area (MW04, MW12 and MW13), and the Former Trailer and Chemical Storage Area (MW10 and MW11). It is noted that PHC impacts were identified in existing monitoring well MW04 located in the Former Large Scrapping Area; however, groundwater impacts were not previously identified at this sampling location.

7.0 LIMITATIONS

This report documents work that was performed in accordance with generally accepted professional standards at the time and location in which the services were provided. No other representations, warranties or guarantees are made concerning the accuracy or completeness of the data or conclusions contained within this report, including no assurance that this work has uncovered all potential liabilities associated with the identified property.

This report provides an evaluation of selected environmental conditions associated with the identified portion of the property that was assessed at the time the work was conducted and is based on information obtained by and/or provided to Stantec at that time. There are no assurances regarding the accuracy and completeness of this information. All information received from the client or third parties in the preparation of this report has been assumed by Stantec to be correct. Stantec assumes no responsibility for any deficiency or inaccuracy in information received from others.

The opinions in this report can only be relied upon as they relate to the condition of the portion of the identified property that was assessed at the time the work was conducted. Activities at the property subsequent to Stantec's assessment may have significantly altered the property's condition. Stantec cannot comment on other areas of the property that were not assessed.

Conclusions made within this report consist of Stantec's professional opinion as of the time of the writing of this report, and are based solely on the scope of work described in the report, the limited data available and the results of the work. They are not a certification of the property's environmental condition. This report should not be construed as legal advice.

This report has been prepared for the exclusive use of the client identified herein and any use by any third party is prohibited. Stantec assumes no responsibility for losses, damages, liabilities or claims, howsoever arising, from third party use of this report.

This report is limited by the following:

1. Sampling was limited to specific areas.

2. The analytical program was limited to the determination of the specific suite of parameters indicated.

3. Stantec can only comment on the condition of the sampling program at the time of completion and within the areas sampled.

4. Stantec can only make findings or draw conclusions regarding the laboratory analysis completed on the soil and groundwater samples.

The locations of any utilities, buildings and structures, and property boundaries illustrated in or described within this report, if any, including pole lines, conduits, water mains, sewers and other surface or sub-surface utilities and structures are not guaranteed. Before starting work, the exact location of all such utilities and structures should be confirmed and Stantec assumes no liability for damage to them.

The conclusions are based on the site conditions encountered by Stantec at the time the work was performed at the specific testing and/or sampling locations, and conditions may vary among sampling locations. Factors such as areas of potential concern identified in previous studies, site conditions (e.g., utilities) and cost may have constrained the sampling locations used in this assessment. In addition, analysis has been carried out for only a limited number of chemical parameters, and it should not be inferred that other chemical species are not present. Due to the nature of the investigation and the limited data available, Stantec does not warrant against undiscovered environmental liabilities nor that the sampling results are indicative of the condition of the entire site. As the purpose of this report is to identify site conditions which may pose an environmental risk; the identification of non-environmental risks to structures or people on the site is beyond the scope of this assessment.

Should additional information become available which differs significantly from our understanding of conditions presented in this report, Stantec specifically disclaims any responsibility to update the conclusions in this report.

8.0 STANTEC QUALITY MANAGEMENT PROGRAM

This report, entitled **Follow-Up Environmental Assessment of the CP Weston Yard in Winnipeg Manitoba** prepared for Canadian Pacific, dated November 18, 2013, was produced by Stantec Consulting Ltd.

This report was written by the following individual:

Scott Coughtrey, B.Env.Sc., EPt
Environmental Scientist

Signature

This report was reviewed by the following individual:

Grace Ferguson, M.Sc., P.Eng. (Ontario)
Senior Hydrogeologist, Associate

Signature

Approval to transmit to client:

Karen Mathers, M.Sc., P.Geo., PMP
Project Manager, Associate

PROVINCE OF MANITOBA
MATHERS
Member
22692G
REGISTERED PROFESSIONAL GEOSCIENTIST

Signature

FOLLOW-UP ENVIRONMENTAL ASSESSMENT OF THE CP WESTON YARD IN WINNIPEG, MANITOBA

Summary Tables
November 18, 2013

Summary Tables

Stantec

Table I
Summary of Soil Analytical Results
Weston Yards, Winnipeg, Manitoba
Canadian Pacific Railway Co.

Sample Location			SS1	SS2	SS3		MW01			MW02			MW03			MW04		MW05		MW06	
Sample Date			2-July-13	2-July-13	2-July-13	2-July-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13
Sample ID			SS1	SS2	SS3[D]	SS3	MW01 0-0.5	MW01 0.5-1	MW01 1-1.5	MW02 0.5-1	MW02 1.5-2.25	MW02 1.5-2.25	MW03 0-0.5m	MW03 2.25-3	MW03 2.25-3	MW04 0-0.5	MW04 1.5-2.25	MW05 0.5-1	MW05 1-1.5	MW06 0-0.5	MW06 1-1.5
Sample Depth							0-0.5m	0.5-1m	1-1.5m	0.5-1m	1.5-2.25m	1.5-2.25m	0-0.5m	2.25-3m	2.25-3m	0-0.5m	1.5-2.25m	0.5-1m	1-1.5m	0-0.5m	1-1.5m
Sampling Company			STANTEC	STANTEC	STANTEC		STANTEC	STANTEC	STANTEC	STANTEC	STANTEC		STANTEC	STANTEC		STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX
Laboratory Work Order			B385301	B385301	B385301	B385301	B355758	B355758	B355758	B355758	B355758	B355758	B356121	B356121	B35612A	B356121	B356121	B356121	B356121	B356121	B356121
Laboratory Sample ID			GU4565	GU4565	GU4567	GU4567	GU7138	GU7139	GU7140	GU7168	GU7166	GU7166	GU9708	GU9712	GU9712	GU9780	GU9783	GU9718	GU9719	GU9726	GU9728
Sample Type			Soil	Soil	Soil	Lab-Dup	Soil	Soil	Soil	Soil	Soil	Lab-Dup	Soil	Soil	Lab-Dup	Soil	Soil	Soil	Soil	Soil	Soil
General Chemistry																					
Moisture Content	%	n/v	-	-	-	-	-	17	-	-	-	-	-	-	-	-	-	-	18	-	-
pH	S.U.	[redacted]	7.78	7.8	[redacted]	-	[redacted]	-	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Particle Size																					
Sieve-%Coarse (>0.075mm)	none	S.U.	-	-	-	-	-	-	-	-	8.49	-	-	-	-	-	-	-	-	-	-
Grain Size	none	S.U.	-	-	-	-	-	-	-	-	FINE	-	-	-	-	-	-	-	-	-	-
Sieve-%Fine (<0.075mm)	none	S.U.	-	-	-	-	-	-	-	-	91.51	-	-	-	-	-	-	-	-	-	-
TCLP Extraction Procedure																					
Initial pH of Sample	pH Units	n/v	-	-	8.80	8.72	-	-	-	-	-	-	-	-	-	-	-	-	-	9.91	-
pH after HCl	pH Units	n/v	-	-	1.61	1.56	-	-	-	-	-	-	-	-	-	-	-	-	-	1.75	-
Final pH of Leachate	pH Units	n/v	-	-	5.29	5.19	-	-	-	-	-	-	-	-	-	-	-	-	-	8.54	-
pH of Leaching Fluid	pH Units	n/v	-	-	4.86	4.89	-	-	-	-	-	-	-	-	-	-	-	-	-	4.89	-
Petroleum Hydrocarbons																					
PHC F1 (C6-C10 range)	mg/kg	320[AR]	-	-	-	-	-	58	-	-	-	-	-	-	-	-	-	-	-	-	-
PHC F1 (C6-C10 range) minus BTEX	mg/kg	320[AR]	-	-	-	-	-	57	-	-	-	-	-	-	-	-	-	-	-	-	-
PHC F2 (>C10-C16 range)	mg/kg	260[AR]	-	-	-	-	-	[redacted]	-	-	-	-	-	-	-	-	-	-	-	-	-
PHC F3 (>C16-C34 range)	mg/kg	1700[AR]	-	-	-	-	-	770	-	-	-	-	-	-	-	-	-	-	-	-	-
PHC F4 (>C34-C50 range)	mg/kg	3300[AR]	-	-	-	-	-	<20	-	-	-	-	-	-	-	-	-	-	-	-	-
Reached baseline at C50	mg/kg	n/v	-	-	-	-	-	yes	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Metals by ICPMS																					
Aluminum	mg/kg	n/v	3860	3740	2570	-	8600	-	23000	22400	9220	9010	4050	7880	7600	8590	14400	19700	10700	5950	5270
Antimony	mg/kg	40[MN]	25.0	18.8	21.0	-	[redacted]	-	0.83	3.88	0.28	0.26	16.4	0.15	0.14	12.8	0.40	38.3	0.90	3.64	2.14
Arsenic	mg/kg	12[MN]	[redacted]	[redacted]	[redacted]	-	11.2	-	5.12	6.82	2.84	2.85	[redacted]	2.90	2.76	7.33	5.95	[redacted]	4.73	6.23	3.28
Barium	mg/kg	2000[MN]	131	221	84.2	-	486	-	144	82.9	75.7	74.0	286	75.6	74.4	303	152	695	162	704	212
Beryllium	mg/kg	8[MN]	<0.40	<0.40	<4.0	-	0.55	-	1.04	1.03	<0.40	<0.40	<0.40	0.40	<0.40	<0.40	<0.40	0.87	0.84	0.44	<0.40	<0.40
Bismuth	mg/kg	n/v	3.64	1.25	3.0	-	0.44	-	0.20	0.18	<0.10	<0.10	0.86	0.10	0.10	0.19	0.16	0.40	0.10	0.14	0.24
Cadmium	mg/kg	22[MN]	7.42	6.97	[redacted]	-	0.388	-	0.145	0.128	0.109	0.113	11.7	0.128	0.128	3.84	0.270	0.279	0.157	1.72	0.964
Calcium	mg/kg	n/v	76700	88400	18200	-	83400	-	31700	28400	91500	89700	98500	100000	95000	75900	58200	53100	130000	111000	113000
Chromium (Total)	mg/kg	87[MN]	[redacted]	[redacted]	[redacted]	-	21.6	-	40.5	51.5	23.6	23.8	43.8	19.1	18.5	28.0	31.8	45.2	22.3	29.5	15.7
Cobalt	mg/kg	300[MN]	[redacted]	[redacted]	[redacted]	-	6.75	-	12.9	7.82	5.48	5.64	14.7	5.18	5.03	7.20	10.2	12.1	5.22	4.77	3.71
Copper	mg/kg	91[MN]	[redacted]	[redacted]	[redacted]	-	[redacted]	-	40.1	[redacted]	16.0	15.9	[redacted]	21.8 (2)	15.9 (3)	[redacted]	28.9	[redacted]	21.0	[redacted]	[redacted]
Iron	mg/kg	n/v	183000	190000	267000	-	35800	-	25900	27500	12400	12300	108000	11300	10700	23000	19800	49900	14400	15800	12600
Lead	mg/kg	260[M]	[redacted]	[redacted]	[redacted]	-	[redacted]	-	30.8	74.3	7.89	7.55	[redacted]	12.8	12.6	[redacted]	18.4	[redacted]	38.2	[redacted]	[redacted]
Lithium	mg/kg	n/v	7.0	6.9	<50	-	12.2	-	27.2	22.3	18.8	18.5	8.2	16.5	15.0	10.9	28.0	26.1	19.5	10.3	8.4
Magnesium	mg/kg	n/v	36800	41800	7110	-	31500	-	18400	16400	47400	46800	27500	54300	55100	32000	32000	24000	50800	47700	43500
Manganese	mg/kg	n/v	1350	1630	793	-	435	-	342	170	244	248	817	259	255	320	643	385	242	248	200
Mercury	mg/kg	24[M]	1.05	0.881	1.35	-	0.561	-	0.066	0.069	<0.050	<0.050	6.23	<0.050	<0.050	0.115	<0.050	0.197	<0.050	0.324	0.078
Molybdenum	mg/kg	40[MN]	[redacted]	[redacted]	23.1	-	1.56	-	0.42	0.88	0.23	0.25	9.22	0.26	0.28	2.63	1.20	1.27	0.45	3.58	1.40
Nickel	mg/kg	50[MN]	[redacted]	[redacted]	[redacted]	-	25.0	-	36.1	23.1	16.5	16.8	[redacted]	14.4	14.3	34.3	30.7	[redacted]	17.8	40.2	26.3
Phosphorus	mg/kg	n/v	317	273	148	-	387	-	371	312	347	354	1150	339	336	383	503	876	353	365	267
Potassium	mg/kg	n/v	746	532	<1000	-	1260	-	3990	5550	1950	1970	787	1820	1750	1680	2820	4520	2210	1030	1080
Selenium	mg/kg	2.9[MN]	[redacted]	[redacted]	[redacted]	-	0.71	-	<0.50	<0.50	<0.50	<0.50	[redacted]	<0.50	<0.50	1.08	<0.50	0.57	<0.50	<0.50	<0.50
Silver	mg/kg	40[MN]	12.0	8.80	[redacted]	-	0.201	-	0.088	0.082	<0.050	<0.050	3.88	<0.050	<0.050	0.292	0.056	0.319	0.052	0.457	0.361
Sodium	mg/kg	n/v	965	687	<1000	-	544	-	383	444	376	372	839	281	271	450	777	690	286	921	399
Strontium	mg/kg	n/v	171	151	52.5	-	160	-	57.0	48.5	58.7	58.1	239	48.5	43.9	70.2	61.5	130	143	195	104
Thallium	mg/kg	1[MN]	0.376	0.200	0.78	-	0.270	-	0.305	0.298	0.158	0.159	[redacted]	0.125	0.124	0.224	0.253	0.407	0.148	0.192	0.164
Tin	mg/kg	300[MN]	248	119	25.8	-	231	-	3.46	4.05	0.62	0.60	51.8	0.47	0.45	31.9	0.89	65.5	2.58	8.38	6.13
Titanium	mg/kg	n/v	211	237	121	-	173	-	73.5	119	452	459	180	355	353	225	320	229	301	255	198
Uranium	mg/kg	33[M]	1.07	0.878	<0.50	-	1.00	-	0.977	1.38	0.736	0.727	2.59	0.680	0.655	0.853	1.37	1.47	1.71	0.870	0.584
Vanadium	mg/kg	130[MN]	20.8	15.4	<20	-	24.3	-	56.3	58.3	27.8	27.4	15.5	25.3	24.5	21.8	44.2	55.3	32.7	14.4	13.4
Zinc	mg/kg	360[MN]	[redacted]	[redacted]	[redacted]	-	183	-	84.8	76.0	34.8	30.1	[redacted]	35.1	36.3	[redacted]	70.3	191	45.7	[redacted]	[redacted]
Zirconium	mg/kg	n/v	8.50	7.11	8.4	-	6.05	-	10.6	14.8	9.91	10.1	1.73	8.48	8.53	3.70	11.3	8.83	8.32	4.53	3.51

See notes on last page

Table I
Summary of Soil Analytical Results
Weston Yards, Winnipeg, Manitoba
Canadian Pacific Railway Co.

Sample Location			SS1	SS2	SS3		MW01			MW02			MW03			MW04		MW05		MW06	
Sample Date			2-July-13	2-July-13	2-July-13	2-July-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13
Sample ID			SS1	SS2	SS3[D]	SS3	MW01 0-0.5	MW01 0.5-1	MW01 1-1.5	MW02 0.5-1	MW02 1.5-2.25	MW02 1.5-2.25	MW03 0-0.5m	MW03 2.25-3	MW03 2.25-3	MW04 0-0.5	MW04 1.5-2.25	MW05 0.5-1	MW05 1-1.5	MW06 0-0.5	MW06 1-1.5
Sample Depth							0-0.5m	0.5-1m	1-1.5m	0.5-1m	1.5-2.25m	1.5-2.25m	0-0.5m	2.25-3m	2.25-3m	0-0.5m	1.5-2.25m	0.5-1m	1-1.5m	0-0.5m	1-1.5m
Sampling Company			STANTEC	STANTEC	STANTEC		STANTEC	STANTEC	STANTEC	STANTEC	STANTEC		STANTEC	STANTEC		STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX
Laboratory Work Order			B355301	B355301	B355301	B355301	B355758	B355758	B355758	B355758	B355758	B355758	B356121	B356121	B35612A	B356121	B356121	B356121	B356121	B356121	B356121
Laboratory Sample ID			GU4565	GU4566	GU4567	GU4567	GU7138	GU7139	GU7140	GU7158	GU7160	GU7160	GU9708	GU9712	GU9712	GU9780	GU9783	GU9718	GU9719	GU9726	GU9728
Sample Type			Soil	Soil	Soil	Lab-Dup	Soil	Soil	Soil	Soil	Soil	Lab-Dup	Soil	Soil	Lab-Dup	Soil	Soil	Soil	Soil	Soil	Soil
Metals - TCLP																					
Antimony	mg/L	n/v	-	-	<0.10	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-
Arsenic	mg/L	5.0	-	-	<0.10	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-
Barium	mg/L	100.0	-	-	<0.10	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	1.38	-
Beryllium	mg/L	n/v	-	-	<0.10	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-
Boron	mg/L	500.00	-	-	0.33	0.40	-	-	-	-	-	-	-	-	-	-	-	-	-	0.31	-
Cadmium	mg/L	0.5	-	-	0.23	0.22	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-
Chromium (Total)	mg/L	5.0	-	-	<0.10	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-
Cobalt	mg/L	n/v	-	-	18.9	17.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-
Copper	mg/L	n/v	-	-	1.31	1.36	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-
Iron	mg/L	n/v	-	-	1.56	1.24	-	-	-	-	-	-	-	-	-	-	-	-	-	1.06	-
Lead	mg/L	5.0	-	-	0.25	0.26	-	-	-	-	-	-	-	-	-	-	-	-	-	0.54	-
Mercury	mg/L	0.1	-	-	<0.0020	<0.0020	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0020	-
Molybdenum	mg/L	n/v	-	-	<0.10	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-
Nickel	mg/L	n/v	-	-	462	422	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-
Selenium	mg/L	1.0	-	-	0.12	0.11	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-
Silver	mg/L	5.0	-	-	<0.10	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-
Thallium	mg/L	n/v	-	-	<0.10	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-
Uranium	mg/L	2.0	-	-	<0.10	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-
Vanadium	mg/L	n/v	-	-	<0.10	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-
Zinc	mg/L	n/v	-	-	28.5	27.9	-	-	-	-	-	-	-	-	-	-	-	-	-	2.06	-
Zirconium	mg/L	n/v	-	-	<0.10	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-
Polycyclic Aromatic Hydrocarbons																					
Acenaphthene	mg/kg	NC[G] n/v[H] NC[I] CF[M] CF[N]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0050	-	-	-
Acenaphthylene	mg/kg	NC[G] n/v[H] NC[I] CF[M] CF[N]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0050	-	-	-
Anthracene	mg/kg	32[DF,GJ]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0040	-	-	-
Benzo(a)anthracene	mg/kg	1[DF,L]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0020	-	-	-
Benzo(a)pyrene	mg/kg	1.4[L]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0020	-	-	-
Benzo(a)pyrene Total Potency Equiv.	none	0.6/5.3[B,DF,K]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	-	-
Benzo(b)fluoranthene	mg/kg	1[DF,L]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b/j)fluoranthene	mg/kg	1[DF,L]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	-	-	-
Benzo(g,h,i)perylene	mg/kg	NC[G] n/v[H] NC[J]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.050	-	-	-
Benzo(k)fluoranthene	mg/kg	1[DF,L]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	-	-	-
Chrysene	mg/kg	NC[G] n/v[H] NC[I] CF[M] CF[N]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	-	-	-
Dibenzo(a,h)anthracene	mg/kg	1[DF,L]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.050	-	-	-
Fluoranthene	mg/kg	180[DF,GJ]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	-	-	-
Fluorene	mg/kg	NC[G] n/v[H] NC[J] CF[M] CF[N]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	1[DF,L]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.050	-	-	-
Methylnaphthalene, 2-	mg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	-	-	-
Naphthalene	mg/kg	0.013[DF]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	-	-	-
Phenanthrene	mg/kg	0.046[DF]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	-	-	-
Pyrene	mg/kg	100[DF,L]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	-	-	-
Index of Additive Cancer Risk	none	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.31	-	-	-
Low Molecular Weight PAH's	mg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.050	-	-	-
High Molecular Weight PAH's	mg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.050	-	-	-
Total PAH	mg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.050	-	-	-
Volatile Organic Compounds																					
Benzene	mg/kg	0.030[CF,MN]	-	-	-	-	-	0.13[MN]	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.082[CF,MN]	-	-	-	-	-	0.34[MN]	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether (MTBE)	mg/kg	n/v	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	0.37[CF,MN]	-	-	-	-	-	<0.020	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylene, m & p-	mg/kg	n/v	-	-	-	-	-	0.31	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylene, o-	mg/kg	n/v	-	-	-	-	-	<0.020	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes, Total	mg/kg	11[CF,MN]	-	-	-	-	-	0.31	-	-	-	-	-	-	-	-	-	-	-	-	-

See notes on last page

Table I
Summary of Soil Analytical Results
Weston Yards, Winnipeg, Manitoba
Canadian Pacific Railway Co.

Sample Location			MW07					MW08					MW09					BH10		BH11		BH12		BH13	
Sample Date			3-Jul-13	3-Jul-13	3-Jul-13	3-July-13	3-Jul-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	2-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13
Sample ID			MW07 0-0.6	MW07 0.5-1	MW07 1.5-2.25	MW07 3.75-4.6	MW07 3.75-4.25	MW08 0-0.6	MW08 1-1.5	MW08 3.75-4.6	MW09 0-0.6[C]	MW09 1-1.5	MW09 1.5-2.25	MW09 3.75-4.5	BH10 0.5-1	BH10 1-1.5	BH11 0-0.6	BH11 1-1.5	BH12 0-0.6	BH12 1.5-2.25	BH13 0-0.6	BH13 1.5-2.25
Sample Depth			0-0.6m	0.5-1m	1.5-2.25m	3.75-4.6m	3.75-4.25m	0-0.6m	1-1.5m	3.75-4.5	0-0.6m	1-1.5m	1.5-2.25m	3.75-4.5m	0.5-1m	1-1.5m	0-0.6m	1-1.5m	0-0.6m	1.5-2.25m	0-0.6m	1.5-2.25m
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC		STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX
Laboratory Work Order			B355758	B355758	B355758	B355758	B355758	B355415	B355415	B355415	B355415	B355415	B355415	355416	B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758
Laboratory Sample ID			GU7129	GU7130	GU7132	GU7135	GU7135	GU4969	GU4971	GU4975	GU4945	GU4947	GU4948	GU4951	GU7148	GU7149	GU7152	GU7154	GU7166	GU7169	GU7176	GU7179
Sample Type			Soil	Soil	Soil	Soil	Lab-Dup	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
General Chemistry																						
Moisture Content	%	n/v	29	-	-	35	-	-	-	34	-	-	-	-	-	-	-	-	-	-	-	-
pH	S.U.	6-9[MN]	-	8.64[MN]	8.8[MN]	-	-	8.25[MN]	8.18[MN]	-	[MN]	-	[MN]	-	[MN]	[MN]	[MN]	[MN]	[MN]	[MN]	8.24[MN]	8.24[MN]
Particle Size																						
Sieve-%Coarse (>0.075mm)	none	S.U.	-	-	-	0.33	-	-	-	0.89	-	4.21	-	0.36	-	-	-	-	-	-	-	-
Grain Size	none	S.U.	-	-	-	FINE	-	-	-	FINE	-	FINE	-	FINE	-	-	-	-	-	-	-	-
Sieve-%Fine (<0.075mm)	none	S.U.	-	-	-	99.67	-	-	-	99.11	-	95.79	-	99.64	-	-	-	-	-	-	-	-
TCLP Extraction Procedure																						
Initial pH of Sample	pH Units	n/v	10.4	-	-	-	-	-	-	-	-	-	-	-	-	-	9.83		9.57		9.23	-
pH after HCl	pH Units	n/v	3.89	-	-	-	-	-	-	-	-	-	-	-	-	-	1.65		1.89		1.52	-
Final pH of Leachate	pH Units	n/v	8.82	-	-	-	-	-	-	-	-	-	-	-	-	-	7.05		6.15		7.10	-
pH of Leaching Fluid	pH Units	n/v	4.89	-	-	-	-	-	-	-	-	-	-	-	-	-	4.89		4.89		4.89	-
Petroleum Hydrocarbons																						
PHC F1 (C6-C10 range)	mg/kg	320[AB]	-	-	-	<10	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PHC F1 (C6-C10 range) minus BTEX	mg/kg	320[AB]	-	-	-	<10	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PHC F2 (>C10-C16 range)	mg/kg	260[AB]	-	-	-	<20	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PHC F3 (>C16-C34 range)	mg/kg	1700[AB]	-	-	-	44	88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PHC F4 (>C34-C50 range)	mg/kg	3300[AB]	-	-	-	<20	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reached baseline at C50	mg/kg	n/v	-	-	-	yes	yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Metals by ICPMS																						
Aluminum	mg/kg	n/v	-	15300	5410	-	-	15100	17100	-	3630	-	4970	-	18100	28300	7390	9400	22900	9590	14100	7270
Antimony	mg/kg	40[MN]	-	67.9[MN]	7.48	-	-	131[MN]	7.87	-	158[MN]	-	0.41	-	10.5	0.68	85.2[MN]	0.40	70.6[MN]	0.83	7.98	0.46
Arsenic	mg/kg	12[MN]	-	30.8[MN]	2.87	-	-	88.8[MN]	5.93	-	88.4[MN]	-	1.49	-	8.70	6.95	40.1[MN]	3.29	23.6[MN]	3.36	1256[MN]	8.14
Barium	mg/kg	2000[MN]	-	786	64.9	-	-	439	172	-	980	-	44.4	-	368	217	509	103	1270	107	338	80.6
Beryllium	mg/kg	8[MN]	-	0.75	<0.40	-	-	0.86	0.80	-	<4.0	-	<0.40	-	0.88	1.19	0.47	0.42	1.53	<0.40	0.69	<0.40
Bismuth	mg/kg	n/v	-	1.05	0.12	-	-	0.75	0.22	-	2.2	-	<0.10	-	0.28	0.25	0.75	<0.10	0.76	0.11	1.47	<0.10
Cadmium	mg/kg	22[MN]	-	4.08	0.242	-	-	1.18	0.588	-	5.91	-	0.283	-	0.353	0.185	1.73	0.125	3.08	0.157	2.10	0.198
Calcium	mg/kg	n/v	-	26300	98700	-	-	69100	95700	-	13000	-	107000	-	23100	43500	81700	126000	65100	83500	78400	87100
Chromium (Total)	mg/kg	87[MN]	-	60.0	14.5	-	-	40.2	36.2	-	124[MN]	-	13.3	-	37.0	47.6	27.6	19.7	43.1	21.4	34.5	17.8
Cobalt	mg/kg	300[MN]	-	27.5	3.70	-	-	10.7	10.3	-	38.1	-	3.46	-	8.35	14.1	10.5	4.54	10.5	5.50	9.60	4.81
Copper	mg/kg	91[MN]	-	3260[MN]	55.1	-	-	1040[MN]	75.9	-	2260[MN]	-	14.8	-	126[MN]	29.6	455[MN]	14.4	311[MN]	26.7	5370[MN]	27.2
Iron	mg/kg	n/v	-	78000	9640	-	-	49700	23200	-	252000	-	9520	-	28500	29400	101000	11600	68500	13100	40600	11000
Lead	mg/kg	260[M]	-	3750[M]	165	-	-	1550[M]	128	-	3820[M]	-	11.1	-	413[M]	26.4	984[M]	9.21	1880[M]	20.3	2640[M]	13.2
Lithium	mg/kg	n/v	-	17.0	10.9	-	-	18.9	30.5	-	<50	-	10.8	-	20.1	34.1	12.5	17.8	25.3	18.3	26.4	13.9
Magnesium	mg/kg	n/v	-	13000	55800	-	-	18500	33800	-	5450	-	58600	-	14600	13100	20500	54000	18700	49000	29800	50700
Manganese	mg/kg	n/v	-	1980	265	-	-	383	414	-	1860	-	175	-	239	488	557	230	870	275	403	282
Mercury	mg/kg	24[M]	-	3.70	0.403	-	-	7.62	0.304	-	6.10	-	0.050	-	0.082	<0.050	1.37	<0.050	0.463	<0.050	0.160	<0.050
Molybdenum	mg/kg	40[MN]	-	4.57	0.78	-	-	2.73	1.54	-	7.4	-	0.89	-	0.65	0.41	3.64	0.28	7.66	0.79	2.97	0.85
Nickel	mg/kg	50[MN]	-	61.7[MN]	12.8	-	-	48.1	43.1	-	182[MN]	-	14.9	-	27.4	41.1	35.8	14.6	51.6[MN]	17.0	176[MN]	15.1
Phosphorus	mg/kg	n/v	-	603	364	-	-	789	400	-	687	-	321	-	524	370	1040	338	1110	408	569	392
Potassium	mg/kg	n/v	-	3010	1100	-	-	3380	3620	-	<1000	-	1100	-	3620	4850	1440	1980	1300	2010	2310	1560
Selenium	mg/kg	2.9[MN]	-	1.88	<0.50	-	-	1.67	<0.50	-	<5.0[MN]	-	<0.50	-	0.51	<0.50	1.90	<0.50	1.98	<0.50	4.55[MN]	<0.50
Silver	mg/kg	40[MN]	-	0.811	0.068	-	-	0.494	0.137	-	0.98	-	0.063	-	0.166	0.093	0.215	0.053	0.472	<0.050	5.28	0.090
Sodium	mg/kg	n/v	-	425	207	-	-	542	408	-	<1000	-	239	-	756	472	722	266	5790	385	1560	429
Strontium	mg/kg	n/v	-	121	48.6	-	-	334	138	-	94.7	-	43.9	-	87.5	103	400	104	1410	55.8	330	48.0
Thallium	mg/kg	1[MN]	-	1.14[MN]	0.116	-	-	0.318	0.257	-	<0.50	-	0.082	-	0.346	0.338	0.705	0.136	0.526	0.165	0.943	0.135
Tin	mg/kg	300[MN]	-	335[MN]	15.7	-	-	212	20.7	-	418[MN]	-	0.84	-	15.7	9.37	272	1.96	203	1.58	1.94	0.58
Titanium	mg/kg	n/v	-	175	262	-	-	163	441	-	71	-	260	-	91.7	199	155	328	805	387	263	323
Uranium	mg/kg	33[M]	-	1.20	0.810	-	-	2.43	1.47	-	0.88	-	0.598	-	3.81	1.92	1.49	1.07	4.34	0.854	4.21	0.809
Vanadium	mg/kg	130[MN]	-	47.4	18.6	-	-	43.2	52.8	-	38	-	18.7	-	44.8	76.9	25.3	28.8	27.1	29.0	34.1	26.4
Zinc	mg/kg	360[MN]	-	2600[MN]	97.4	-	-	380[MN]	74.6	-	6866[MN]	-	41.7	-	135	79.4	764[MN]	31.5	2530[MN]	45.6	511[MN]	29.4
Zirconium	mg/kg	n/v	-	8.94	8.43	-	-	7.75	15.1	-	<5.0	-	9.12	-	12.4	12.4	3.38	8.38	23.2	11.1	5.97	9.64

See notes on last page

Table I
Summary of Soil Analytical Results
Weston Yards, Winnipeg, Manitoba
Canadian Pacific Railway Co.

Sample Location			MW07					MW08			MW09				BH10		BH11		BH12		BH13	
Sample Date			3-Jul-13	3-Jul-13	3-Jul-13	3-July-13	3-Jul-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13
Sample ID			MW07 0-0.5	MW07 0.5-1	MW07 1.5-2.25	MW07 3.75-4.5	MW07 3.75-4.25	MW08 0-0.5	MW08 1-1.5	MW08 3.75-4.5	MW09 0-0.5[D]	MW09 1-1.5	MW09 1.5-2.25	MW09 3.75-4.5	BH10 0.5-1	BH10 1-1.5	BH11 0-0.5	BH11 1-1.5	BH12 0-0.5	BH12 1.5-2.25	BH13 0-0.5	BH13 1.5-2.25
Sample Depth			0-0.5m	0.5-1m	1.5-2.25	3.75-4.5m	3.75-4.5m	0-0.5m	1-1.5m	3.75-4.5	0-0.5m	1-1.5m	1.5-2.25m	3.75-4.5m	0.5-1m	1-1.5m	0-0.5m	1-1.5m	0-0.5m	1.5-2.25m	0-0.5m	1.5-2.25m
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC		STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX
Laboratory Work Order			B355758	B355758	B355758	B355758	B355758	B355415	B355415	B355415	B355415	B355415	B355415	355415	B355758	B355758	B355758	B355758	B366768	B355758	B355758	B355758
Laboratory Sample ID			GU7129	GU7130	GU7132	GU7135	GU7136	GU4969	GU4971	GU4975	GU4945	GU4947	GU4948	GU4951	GU7148	GU7149	GU7152	GU7154	GU7166	GU7169	GU7176	GU7179
Sample Type	Units	CCME	Soil	Soil	Soil	Soil	Lab-Dup	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals - TCLP																						
Antimony	mg/L	n/v	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-	<0.10	-
Arsenic	mg/L	5.0	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-	<0.10	-
Barium	mg/L	100.0	0.35	-	-	-	-	-	-	-	-	-	-	-	-	-	0.79	-	1.04	-	0.37	-
Beryllium	mg/L	n/v	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-	<0.10	-
Boron	mg/L	500.00	0.31	-	-	-	-	-	-	-	-	-	-	-	-	-	0.56	-	0.63	-	0.32	-
Cadmium	mg/L	0.5	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-	<0.10	-
Chromium (Total)	mg/L	5.0	<0.10	--	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-	<0.10	-
Cobalt	mg/L	n/v	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-	<0.10	-
Copper	mg/L	n/v	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	0.42	-	<0.10	-
Iron	mg/L	n/v	<0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	1.28	-	1.10	-	1.12	-
Lead	mg/L	5.0	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	0.12	-	<0.10	-
Mercury	mg/L	0.1	<0.0020	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0020	-	<0.0020	-	<0.0020	-
Molybdenum	mg/L	n/v	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-	<0.10	-
Nickel	mg/L	n/v	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-	<0.10	-
Selenium	mg/L	1.0	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-	<0.10	-
Silver	mg/L	5.0	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-	<0.10	-
Thallium	mg/L	n/v	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-	<0.10	-
Uranium	mg/L	2.0	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-	<0.10	-
Vanadium	mg/L	n/v	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-	<0.10	-
Zinc	mg/L	n/v	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	1.11	-	3.72	-	0.16	-
Zirconium	mg/L	n/v	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-	<0.10	-
Polycyclic Aromatic Hydrocarbons																						
Acenaphthene	mg/kg	NC[C] n/v[H] NC[A] CF[M] CF[A]	0.016	-	-	-	-	-	-	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	NC[C] n/v[H] NC[A] CF[M] CF[A]	<0.041 (4)	-	-	-	-	-	-	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	32[DF,G]	0.072	-	-	-	-	-	-	0.0047	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	10[DF,L]	0.15	-	-	-	-	-	-	<0.020	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	1.4[L]	0.12	-	-	-	-	-	-	<0.20	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene Total Potency Equiv	none	0.8/5.3[a,s,c,DE]	0.21	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	10[DF,L]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b/j)fluoranthene	mg/kg	10[DF,L]	0.28	-	-	-	-	-	-	<0.020	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	NC[C] n/v[H] NC[A]	0.18	-	-	-	-	-	-	<0.050	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	10[DF,L]	0.071	-	-	-	-	-	-	<0.020	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	NC[C] n/v[H] NC[A] CF[M] CF[A]	0.28	-	-	-	-	-	-	<0.020	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzo(a,h)anthracene	mg/kg	10[DF,L]	<0.050	-	-	-	-	-	-	<0.050	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	180[DF,G]	0.31	-	-	-	-	-	-	0.032	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	NC[C] n/v[H] NC[A] CF[M] CF[A]	0.037	-	-	-	-	-	-	<0.020	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	10[DF,L]	0.11	-	-	-	-	-	-	<0.050	-	-	-	-	-	-	-	-	-	-	-	-
Methylnaphthalene, 2-	mg/kg	n/v	0.77	-	-	-	-	-	-	<0.020	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	0.013[a,DF]	0.4[DF]	-	-	-	-	-	-	<0.010	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	0.046[a,DF]	0.58[DF]	-	-	-	-	-	-	0.024	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	100[DF,L]	0.3	-	-	-	-	-	-	0.025	-	-	-	-	-	-	-	-	-	-	-	-
Index of Additive Cancer Risk	none	n/v	3.3	-	-	-	-	-	-	0.31	-	-	-	-	-	-	-	-	-	-	-	-
Low Molecular Weight PAH's	mg/kg	n/v	1.9	-	-	-	-	-	-	<0.050	-	-	-	-	-	-	-	-	-	-	-	-
High Molecular Weight PAH's	mg/kg	n/v	2	-	-	-	-	-	-	0.057	-	-	-	-	-	-	-	-	-	-	-	-
Total PAH	mg/kg	n/v	3.9	-	-	-	-	-	-	0.085	-	-	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds																						
Benzene	mg/kg	0.030[CF,MN]	-	-	-	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.082[CF,MN]	-	-	-	<0.010	<0.010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether (MTBE)	mg/kg	n/v	-	-	-	<0.10	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	0.37[CF,MN]	-	-	-	<0.020	<0.020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylene, m & p-	mg/kg	n/v	-	-	-	<0.040	<0.040	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylene, o-	mg/kg	n/v	-	-	-	<0.020	<0.020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes, Total	mg/kg	11[CF,MN]	-	-	-	<0.040	<0.040	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See notes on last page

Table I
Summary of Soil Analytical Results
Weston Yards, Winnipeg, Manitoba
Canadian Pacific Railway Co.

Sample Location	Units	CCME	BH14				BH15			BH16			BH17		BH18			BH19		
Sample Date			3-Jul-13	3-Jul-13	3-Jul-13	2-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13
Sample ID			BH14 0.5-1	BH14 0.5-1	BH14 1-1.5	BH14 1.5-2.25	BH15 0-0.5	BH15 1-1.5	BH15 1-1.5	BH16 0-0.5	BH16 0.5-1	BH16 1.5-2.25	BH17 0-0.5	BH17 2.25-3	BH18 0-0.5	BH18 0.5-1	BH18 1.5-2.25	BH19 0-0.5	BH19 1-1.5	BH19 2.25-3
Sample Depth			0.5-1m	0.5-1m	1-1.5m	1.5-2.25m	0-0.5m	1-1.5m	1-1.5m	0-0.5m	0.5-1m	1.5-2.25m	0-0.5m	2.25-3m	0-0.5m	0.5-1m	1.5-2.25m	0-0.5m	1-1.5m	2.25-3m
Sampling Company			STANTEC		STANTEC	STANTEC	STANTEC	STANTEC		STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX
Laboratory Work Order			B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758
Laboratory Sample ID			GU7172	GU7172	GU7173	GU7174	GU7186	GU7188	GU7188	GU7181	GU7182	GU7185	GU7198	GU7200	GU7191	GU7192	GU7194	GU7216	GU7218	GU7220
Sample Type	Units	CCME	Soil	Lab-Dup	Soil	Soil	Soil	Soil	Lab-Dup	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
General Chemistry																				
Moisture Content	%	n/v	20	21	-		-	-	-	-	-	-	19	29	13	-	-	-	-	
pH	S.U.	6.8[MN]	7.88	7.88	[illegible]	[illegible]	7.86	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.83	[illegible]	[illegible]	7.88	[illegible]	[illegible]	[illegible]	[illegible]
Particle Size																				
Sieve-%Coarse (>0.075mm)	none	S.U.	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grain Size	none	S.U.	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sieve-%Fine (<0.075mm)	none	S.U.	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP Extraction Procedure																				
Initial pH of Sample	pH Units	n/v	-	-	-	-	-	-	-	8.91	-	-	-	-	9.63	-	-	8.43		-
pH after HCl	pH Units	n/v	-	-	-	-	-	-	-	1.63	-	-	-	-	1.56	-	-	1.79		-
Final pH of Leachate	pH Units	n/v	-	-	-	-	-	-	-	6.84	-	-	-	-	6.96	-	-	6.91		-
pH of Leaching Fluid	pH Units	n/v	-	-	-	-	-	-	-	4.89	-	-	-	-	4.89	-	-	4.89		-
Petroleum Hydrocarbons																				
PHC F1 (C6-C10 range)	mg/kg	320[AB]	15	-	-	-	-	-	-	-	-	-	-	<10	21	-	-	-	-	-
PHC F1 (C6-C10 range) minus BTEX	mg/kg	320[AB]	15	-	-	-	-	-	-	-	-	-	-	<10	20	-	-	-	-	-
PHC F2 (>C10-C16 range)	mg/kg	260[AB]	<20	-	-	-	-	-	-	-	-	-	-	<20	47	-	-	-	-	-
PHC F3 (>C16-C34 range)	mg/kg	1700[AB]	74	-	-	-	-	-	-	-	-	-	-	38	710	-	-	-	-	-
PHC F4 (>C34-C50 range)	mg/kg	3300[AB]	<20	-	-	-	-	-	-	-	-	-	-	<20	180	-	-	-	-	-
Reached baseline at C50	mg/kg	n/v	yes	-	-	-	-	-	-	-	-	-	-	yes	yes	-	-	-	-	-
Total Metals by ICPMS																				
Aluminum	mg/kg	n/v	13000	-	9560	7010	10300	6420	6740	13300	7650	8420	10500	22400	5020	7720	22200	13200	21700	23200
Antimony	mg/kg	40[MN]	2.84	-	0.85	0.18	110	0.34	0.29	22.5	93.1	0.48	20.2	0.87	22.2	43.8	0.63	18.4	18.2	0.62
Arsenic	mg/kg	12[MN]	5.78	-	5.63	2.63	[illegible]	3.91	3.94	[illegible]	[illegible]	3.00	[illegible]	8.66	[illegible]	[illegible]	8.46	[illegible]	8.20	8.35
Barium	mg/kg	2000[MN]	237	-	190	54.4	258	70.7	74.4	515	340	75.7	350	217	195	703	169	594	148	218
Beryllium	mg/kg	8[MN]	0.57	-	<0.40	<0.40	0.57	<0.40	<0.40	0.58	0.41	<0.40	0.58	1.17	<0.40	0.42	1.07	0.73	1.00	1.08
Bismuth	mg/kg	n/v	0.18	-	0.12	<0.10	1.22	<0.10	<0.10	0.63	0.69	0.10	2.88	0.27	0.31	1.32	0.25	0.88	0.52	0.3
Cadmium	mg/kg	22[MN]	9.33	-	2.19	0.390	5.61	0.126	0.143	15.5	2.84	0.386	18.8	0.321	3.58	1.36	0.659	4.74	0.503	0.564
Calcium	mg/kg	n/v	102000	-	128000	78100	13400	108000	106000	34500	47400	89400	84400	29500	51000	45000	39500	63100	29100	18200
Chromium (Total)	mg/kg	87[MN]	28.8	-	18.3	16.9	58.9	15.9	15.6	121	37.2	17.6	109	44.3	48.3	48.7	42.8	65.3	39.0	45.9
Cobalt	mg/kg	300[MN]	84.3	-	14.4	4.88	13.6	3.93	3.97	19.7	9.72	4.85	57.1	15.7	12.7	10.9	12.8	18.1	10.9	16
Copper	mg/kg	91[MN]	470	-	[illegible]	21.8	1270	13.1	12.8	[illegible]	1410	17.9	[illegible]	51.0	679	[illegible]	34.4	815	[illegible]	39.2
Iron	mg/kg	n/v	21600	-	13300	10900	106000	9250	9200	124000	53600	12000	106000	28100	92900	118000	29800	96800	25000	31000
Lead	mg/kg	260[M]	112	-	39.2	7.73	1610	7.95	7.77	2630	1640	15.0	2240	32.7	523	2900	43.7	1240	352	19.9
Lithium	mg/kg	n/v	18.5	-	17.4	12.6	18.2	12.7	13.7	13.0	11.6	14.1	15.3	38.5	7.7	9.4	28.8	17.1	19.5	32.5
Magnesium	mg/kg	n/v	31500	-	51900	45800	6220	58800	54700	14300	14500	46900	25500	18000	17200	7400	21000	25200	11700	15000
Manganese	mg/kg	n/v	585	-	270	284	2930	202	198	1060	656	283	962	512	802	654	458	1300	213	458
Mercury	mg/kg	24[M]	0.050	-	<0.050	<0.050	1.55	<0.050	<0.050	1.24	0.426	<0.050	24.8	0.098	0.378	0.221	<0.050	0.343	0.058	<0.050
Molybdenum	mg/kg	40[MN]	0.95	-	0.38	0.48	2.93	0.24	0.20	19.7	4.68	0.87	18.9	1.51	4.17	2.38	0.41	6.78	0.42	1.85
Nickel	mg/kg	50[MN]	[illegible]	-	202	19.4	[illegible]	11.0	10.9	281	83.6	15.5	1130	46.6	43.7	49.3	38.9	636	45.6	43.7
Phosphorus	mg/kg	n/v	366	-	325	382	586	311	316	946	629	371	636	440	750	708	456	1050	410	476
Potassium	mg/kg	n/v	3230	-	1930	1470	2130	1270	1250	1620	1750	1600	930	4260	1070	2080	4320	2840	4750	4350
Selenium	mg/kg	2.9[MN]	0.58	-	<0.50	<0.50	1.21	<0.50	<0.50	1.73	0.82	<0.50	11.7	<0.50	0.84	0.89	<0.50	1.44	<0.50	<0.50
Silver	mg/kg	40[MN]	0.651	-	0.290	0.102	0.407	<0.050	<0.050	3.49	1.12	0.061	11.0	0.094	0.963	1.02	0.147	1.61	0.634	0.171
Sodium	mg/kg	n/v	580	-	459	471	783	322	338	1980	998	328	3210	485	530	717	398	2420	773	665
Strontium	mg/kg	n/v	96.3	-	112	38.5	90.5	53.0	53.0	275	163	51.4	459	77.2	102	215	54.4	477	87.3	73.4
Thallium	mg/kg	1[MN]	0.177	-	0.139	0.132	0.595	0.096	0.097	0.787	0.810	0.124	0.777	0.312	0.237	0.838	0.307	0.413	0.317	0.336
Tin	mg/kg	300[MN]	4.73	-	1.76	0.38	218	0.80	0.65	148	179	0.89	37.2	3.44	61.0	91.8	1.82	58.1	231	1.91
Titanium	mg/kg	n/v	220	-	338	311	221	279	269	382	168	219	411	49.6	241	200	239	452	115	165
Uranium	mg/kg	33[M]	1.05	-	1.10	0.767	1.29	0.870	0.899	1.86	1.18	0.849	2.56	1.51	0.698	1.08	1.03	1.87	0.914	1.81
Vanadium	mg/kg	130[MN]	32.2	-	30.9	24.2	70.6	27.0	26.7	21.0	25.1	30.3	24.0	66.9	39.8	29.7	65.1	25.4	52.2	66.3
Zinc	mg/kg	360[MN]	2230	-	404	37.9	1490	32.4	31.4	11800	1490	40.0	5230	100	1080	581	90.1	3780	281	94
Zirconium	mg/kg	n/v	6.99	-	6.28	10.2	4.59	6.98	7.71	5.30	2.71	10.3	9.08	11.1	2.67	4.74	14.3	9.37	12.9	14.3

See notes on last page

Table I
Summary of Soil Analytical Results
Weston Yards, Winnipeg, Manitoba
Canadian Pacific Railway Co.

Sample Location			BH14				BH15			BH16			BH17		BH18			BH19		
Sample Date			3-Jul-13	3-Jul-13	3-Jul-13	2-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13
Sample ID			BH14 0.5-1	BH14 0.5-1	BH14 1-1.5	BH14 1.5-2.25	BH15 0-0.5	BH15 1-1.5	BH15 1-1.5	BH16 0-0.5	BH16 0.5-1	BH16 1.5-2.25	BH17 0-0.6	BH17 2.25-3	BH18 0-0.5	BH18 0.5-1	BH18 1.5-2.25	BH19 0-0.5	BH19 1-1.5	BH19 2.25-3
Sample Depth			0.5-1m	0.5-1m	1-1.5m	1.5-2.25m	0-0.5m	1-1.5m	1-1.5m	0-0.5m	0.5-1m	1.5-2.25m	0-0.6m	2.25-3m	0-0.5m	0.5-1m	1.5-2.25m	0-0.5m	1-1.5m	2.25-3m
Sampling Company			STANTEC		STANTEC	STANTEC	STANTEC	STANTEC		STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	MAXX	MAXX	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX
Laboratory Work Order			B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758	B355758
Laboratory Sample ID			GU7172	GU7172	GU7173	GU7174	GU7186	GU7188	GU7188	GU7181	GU7182	GU7185	GU7196	GU7200	GU7191	GU7193	GU7194	GU7216	GU7218	GU7220
Sample Type			Soil	Lab-Dup	Soil	Soil	Soil	Soil	Lab-Dup	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals - TCLP																				
Antimony	mg/L	n/v	-	-	-	-	-	-	-	<0.10	-	-	-	-	<0.10	-	-	<0.10	-	-
Arsenic	mg/L	5.0	-	-	-	-	-	-	-	<0.10	-	-	-	-	<0.10	-	-	<0.10	-	-
Barium	mg/L	100.0	-	-	-	-	-	-	-	0.74	-	-	-	-	0.52	-	-	0.70	-	-
Beryllium	mg/L	n/v	-	-	-	-	-	-	-	<0.10	-	-	-	-	<0.10	-	-	<0.10	-	-
Boron	mg/L	500.00	-	-	-	-	-	-	-	0.52	-	-	-	-	0.35	-	-	1.09	-	-
Cadmium	mg/L	0.5	-	-	-	-	-	-	-	<0.10	-	-	-	-	<0.10	-	-	<0.10	-	-
Chromium (Total)	mg/L	5.0	-	-	-	-	-	-	-	<0.10	-	-	-	-	<0.10	-	-	<0.10	-	-
Cobalt	mg/L	n/v	-	-	-	-	-	-	-	<0.10	-	-	-	-	<0.10	-	-	<0.10	-	-
Copper	mg/L	n/v	-	-	-	-	-	-	-	<0.10	-	-	-	-	0.20	-	-	<0.10	-	-
Iron	mg/L	n/v	-	-	-	-	-	-	-	5.56	-	-	-	-	1.25	-	-	1.18	-	-
Lead	mg/L	5.0	-	-	-	-	-	-	-	<0.10	-	-	-	-	<0.10	-	-	<0.10	-	-
Mercury	mg/L	0.1	-	-	-	-	-	-	-	<0.0020	-	-	-	-	<0.0020	-	-	<0.0020	-	-
Molybdenum	mg/L	n/v	-	-	-	-	-	-	-	<0.10	-	-	-	-	<0.10	-	-	<0.10	-	-
Nickel	mg/L	n/v	-	-	-	-	-	-	-	0.29	-	-	-	-	0.11	-	-	0.42	-	-
Selenium	mg/L	1.0	-	-	-	-	-	-	-	<0.10	-	-	-	-	<0.10	-	-	<0.10	-	-
Silver	mg/L	5.0	-	-	-	-	-	-	-	<0.10	-	-	-	-	<0.10	-	-	<0.10	-	-
Thallium	mg/L	n/v	-	-	-	-	-	-	-	<0.10	-	-	-	-	<0.10	-	-	<0.10	-	-
Uranium	mg/L	2.0	-	-	-	-	-	-	-	<0.10	-	-	-	-	<0.10	-	-	<0.10	-	-
Vanadium	mg/L	n/v	-	-	-	-	-	-	-	<0.10	-	-	-	-	<0.10	-	-	<0.10	-	-
Zinc	mg/L	n/v	-	-	-	-	-	-	-	22.1	-	-	-	-	3.19	-	-	8.91	-	-
Zirconium	mg/L	n/v	-	-	-	-	-	-	-	<0.10	-	-	-	-	<0.10	-	-	<0.10	-	-
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	mg/kg	NC[C] n/v[H] NC[A] CF[M] CF[K]	-	-	-	-	-	-	-	-	-	-	0.42	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	NC[C] n/v[H] NC[A] CF[M] CF[K]	-	-	-	-	-	-	-	-	-	-	<0.13 (4)	-	-	-	-	-	-	-
Anthracene	mg/kg	32[DF,Gl]	-	-	-	-	-	-	-	-	-	-	0.72	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	10[DF,L]	-	-	-	-	-	-	-	-	-	-	1.3	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	1.4[K]	-	-	-	-	-	-	-	-	-	-	0.82	-	-	-	-	-	-	-
Benzo(a)pyrene Total Potency Equiv.	none	0.6/5.3[a,b,c,CE]	-	-	-	-	-	-	-	-	-	-	1.4[CE]	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	10[DF,L]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b/j)fluoranthene	mg/kg	10[DF,L]	-	-	-	-	-	-	-	-	-	-	1.6	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	NC[C] n/v[H] NC[A]	-	-	-	-	-	-	-	-	-	-	0.53	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	10[DF,L]	-	-	-	-	-	-	-	-	-	-	0.43	-	-	-	-	-	-	-
Chrysene	mg/kg	NC[C] n/v[H] NC[A] CF[M] CF[K]	-	-	-	-	-	-	-	-	-	-	1.8	-	-	-	-	-	-	-
Dibenzo(a,h)anthracene	mg/kg	10[DF,L]	-	-	-	-	-	-	-	-	-	-	0.18	-	-	-	-	-	-	-
Fluoranthene	mg/kg	180[DF,Gl]	-	-	-	-	-	-	-	-	-	-	3.1	-	-	-	-	-	-	-
Fluorene	mg/kg	NC[C] n/v[H] NC[A] CF[M] CF[K]	-	-	-	-	-	-	-	-	-	-	0.61	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	10[DF,L]	-	-	-	-	-	-	-	-	-	-	0.44	-	-	-	-	-	-	-
Methylnaphthalene, 2-	mg/kg	n/v	-	-	-	-	-	-	-	-	-	-	3.1	-	-	-	-	-	-	-
Naphthalene	mg/kg	0.013[a,DF]	-	-	-	-	-	-	-	-	-	-	1.6[DF]	-	-	-	-	-	-	-
Phenanthrene	mg/kg	0.046[a,DF]	-	-	-	-	-	-	-	-	-	-	4.5[DF]	-	-	-	-	-	-	-
Pyrene	mg/kg	100[DF,Gl]	-	-	-	-	-	-	-	-	-	-	2.6	-	-	-	-	-	-	-
Index of Additive Cancer Risk	none	n/v	-	-	-	-	-	-	-	-	-	-	20	-	-	-	-	-	-	-
Low Molecular Weight PAH's	mg/kg	n/v	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-
High Molecular Weight PAH's	mg/kg	n/v	-	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-
Total PAH	mg/kg	n/v	-	-	-	-	-	-	-	-	-	-	25	-	-	-	-	-	-	-
Volatile Organic Compounds																				
Benzene	mg/kg	0.030[CP,MN]	<0.0050	-	-	-	-	-	-	-	-	-	-	<0.0050	0.043[CP]	-	-	-	-	-
Ethylbenzene	mg/kg	0.082[CP,MN]	<0.010	-	-	-	-	-	-	-	-	-	-	<0.010	0.039	-	-	-	-	-
Methyl tert-butyl ether (MTBE)	mg/kg	n/v	<0.10	-	-	-	-	-	-	-	-	-	-	<0.10	<0.10	-	-	-	-	-
Toluene	mg/kg	0.37[CP,MN]	0.044	-	-	-	-	-	-	-	-	-	-	<0.020	0.099	-	-	-	-	-
Xylene, m & p-	mg/kg	n/v	<0.040	-	-	-	-	-	-	-	-	-	-	<0.040	0.068	-	-	-	-	-
Xylene, o-	mg/kg	n/v	<0.020	-	-	-	-	-	-	-	-	-	-	<0.020	0.035	-	-	-	-	-
Xylenes, Total	mg/kg	1.[illegible][MN]	<0.040	-	-	-	-	-	-	-	-	-	-	<0.040	0.1	-	-	-	-	-

See notes on last page

Table I
Summary of Soil Analytical Results
Weston Yards, Winnipeg, Manitoba
Canadian Pacific Railway Co.

Sample Location			BH20			BH21		BH22		BH23			BH24		BH25		BH26			
Sample Date			3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13
Sample ID			BH20 0-0.5	BH20 0.5-1	BH20 1.5-2.25	BH21 0-0.5	BH21 2.25-3	BH22 0.5-1	BH22 1.5-2.25	BH23 0-0.5	BH23 1-1.5	BH23 2.25-3	BH24 0-0.5	BH24 1-1.5	BH25 0.5-1	BH25 1.5-2.25	BH26 0-0.5	BH26 0.5-1	BH26 0.5-1	BH26 1.5-2.25
Sample Depth			0-0.5m	0.5-1m	1.5-2.25m	0-0.5m	2.25-3m	0.5-1m	1.5-2.25m	0-0.5m	1-1.5m	2.25-3m	0-0.5m	1-1.5m	0.5-1m	1.5-2.25m	0-0.5m	0.5-1m	0.5-1m	1.5-2.25m
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	MAXX	STANTEC
Laboratory			MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX		MAXX
Laboratory Work Order			B356758	B356758	B356758	B356758	B356758	B356758	B356758	B356121	B356121	B356121	B356121	B356121	B356121	B356121	B356121	B356121	B356121	B356121
Laboratory Sample ID			GU7211	GU7212	GU7214	GU7206	GU7210	GU7202	GU7204	GU9745	GU9747	GU9749	GU9750	GU9752	GU9736	GU9738	GU9740	GU9741	GU9741	GU9743
Sample Type	Units	CCME	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Lab-Dup	Soil
General Chemistry																				
Moisture Content	%	n/v	-	-	-	-	-	-	-	-	26	27	-	-	-	-	-	-	-	-
pH	S.U.	6-8[MIN]	8.49[MIN]	8.7[MIN]	8.46[MIN]	8.18[MIN]	8.12[MIN]	8.33[MIN]	8.51[MIN]	8.54[MIN]	-	8.17[MIN]	8.37[MIN]	8.65[MIN]	8.3[MIN]	8.22[MIN]	8.38[MIN]	8.66[MIN]	8.66[MIN]	8.74[MIN]
Particle Size																				
Sieve-%Coarse (>0.075mm)	none	S.U.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grain Size	none	S.U.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sieve-%Fine (<0.075mm)	none	S.U.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP Extraction Procedure																				
Initial pH of Sample	pH Units	n/v	10.2	-	-	-	-	-	-	10.0	-	-	-	-	-	-	9.42	-	-	-
pH after HCl	pH Units	n/v	2.02	-	-	-	-	-	-	1.52	-	-	-	-	-	-	1.97	-	-	-
Final pH of Leachate	pH Units	n/v	6.89	-	-	-	-	-	-	6.12	-	-	-	-	-	-	6.65	-	-	-
pH of Leaching Fluid	pH Units	n/v	4.89	-	-	-	-	-	-	4.86	-	-	-	-	-	-	4.89	-	-	-
Petroleum Hydrocarbons																				
PHC F1 (C6-C10 range)	mg/kg	320[AB]	-	-	-	-	-	-	-	-	<10	-	-	-	-	-	-	-	-	-
PHC F1 (C6-C10 range) minus BTEX	mg/kg	320[AB]	-	-	-	-	-	-	-	-	<10	-	-	-	-	-	-	-	-	-
PHC F2 (>C10-C16 range)	mg/kg	260[AB]	-	-	-	-	-	-	-	-	<20	-	-	-	-	-	-	-	-	-
PHC F3 (>C16-C34 range)	mg/kg	1700[AB]	-	-	-	-	-	-	-	-	<20	-	-	-	-	-	-	-	-	-
PHC F4 (>C34-C50 range)	mg/kg	3300[AB]	-	-	-	-	-	-	-	-	<20	-	-	-	-	-	-	-	-	-
Reached baseline at C50	mg/kg	n/v	-	-	-	-	-	-	-	-	yes	-	-	-	-	-	-	-	-	-
Total Metals by ICPMS																				
Aluminum	mg/kg	n/v	17500	12000	17500	9690	17300	22900	6630	15100	-	24000	17800	14700	17000	25600	8010	12400	12100	5670
Antimony	mg/kg	40[MIN]	19.1	61.8[MIN]	0.82	48.8[MIN]	0.36	1.08	0.44	8.52	-	0.40	26.3	0.75	2.63	0.41	61.1[MIN]	68.8[MIN]	64.9[MIN]	0.17
Arsenic	mg/kg	12[MIN]	14.8[MIN]	[redacted]	5.25	33.6[MIN]	5.24	8.72	2.76	[redacted]	-	7.08	18[MIN]	5.50	4.34	5.87	58.8[MIN]	43[MIN]	41.9[MIN]	1.60
Barium	mg/kg	2000[MIN]	[redacted][MIN]	433	222	1240	137	194	518	1340	-	219	2880[MIN]	138	183	292	930	447	402	37.1
Beryllium	mg/kg	8[MIN]	1.15	0.87	0.80	0.81	0.85	0.98	<0.40	0.68	-	1.18	2.62	0.63	0.73	0.87	0.48	0.40	0.41	<0.40
Bismuth	mg/kg	n/v	0.38	1.17	0.22	0.81	0.26	0.21	<0.10	0.45	-	0.26	0.60	0.15	0.15	0.22	6.11	8.28	7.67	<0.10
Cadmium	mg/kg	22[MIN]	3.53	3.33	0.528	2.24	0.127	0.384	0.277	4.18	-	0.224	5.75	0.156	0.298	0.213	37.2[MIN]	33.2[MIN]	34.2[MIN]	0.302
Calcium	mg/kg	n/v	79800	18000	58200	34100	59000	80700	117000	80700	-	20100	58900	115000	71700	25500	36900	42300	42600	91000
Chromium (Total)	mg/kg	87[MIN]	43.7	68.4	35.3	42.5	42.0	40.1	22.5	99.8[MIN]	-	54.9	44.3	28.1	44.0	58.2	134[MIN]	173[MIN]	177[MIN]	14.4
Cobalt	mg/kg	300[MIN]	12.2	18.2	12.0	15.4	11.8	12.4	4.05	10.4	-	16.7	16.1	7.07	7.11	16.2	28.5	26.8	25.3	3.20
Copper	mg/kg	91[MIN]	563[MIN]	6710[MIN]	43.4	503[MIN]	25.4	45.5	17.6	2320[MIN]	-	38.3	536[MIN]	18.3	34.8	43.4	1770[MIN]	1780[MIN]	1880[MIN]	10.2
Iron	mg/kg	n/v	47900	118000	24000	117000	23400	24800	11100	50400	-	30100	45100	16800	18500	32600	145000	146000	138000	9620
Lead	mg/kg	260[C]	767[M]	2980[M]	25.1	796[M]	12.7	58.4	21.5	511[M]	-	18.8	843[M]	16.7	93.3	17.1	15500[M]	12300[M]	12100[M]	12.7
Lithium	mg/kg	n/v	33.7	13.9	28.2	17.8	32.7	35.3	13.8	24.0	-	45.4	18.2	21.9	31.1	84.3	8.8	9.3	8.9	10.5
Magnesium	mg/kg	n/v	31200	12600	26100	11600	36900	23400	59800	22500	-	16700	10100	42200	29400	23300	11300	16000	16800	52000
Manganese	mg/kg	n/v	543	1190	471	882	402	397	234	559	-	557	1030	251	243	613	1220	1240	1080	187
Mercury	mg/kg	24[K]	0.632	1.61	<0.050	1.11	0.051	<0.050	<0.050	0.496	-	<0.050	0.197	<0.050	<0.050	<0.050	0.215	0.211	0.204	<0.050
Molybdenum	mg/kg	40[MIN]	8.61	8.97	1.01	10.4	0.50	2.12	0.72	7.63	-	1.18	10.1	0.28	0.73	1.25	29.1	24.9	26.7	0.29
Nickel	mg/kg	50[MIN]	118[MIN]	259[MIN]	38.8	86.5[MIN]	31.5	38.0	13.3	87.8[MIN]	-	60.2[MIN]	306[MIN]	21.1	24.5	49.5	580[MIN]	479[MIN]	467[MIN]	10.0
Phosphorus	mg/kg	n/v	898	570	417	577	422	438	327	798	-	526	1710	351	568	609	3200	1060	994	383
Potassium	mg/kg	n/v	1580	2690	3420	1220	5780	5100	1450	2520	-	5320	1470	3110	4820	6780	3270	4330	4320	3980
Selenium	mg/kg	2.9[MIN]	1.04	1.18	<0.50	0.80	<0.50	<0.50	<0.50	2.70	-	<0.50	1.18	<0.50	0.58	<0.50	3.84[MIN]	5.36[MIN]	5.87[MIN]	<0.50
Silver	mg/kg	40[MIN]	0.659	1.17	0.123	0.459	0.087	0.092	0.050	0.828	-	0.080	0.943	0.083	0.110	0.077	12.2	11.8	10.0	0.055
Sodium	mg/kg	n/v	5250	1450	781	2150	587	1420	532	3030	-	837	3110	390	754	1260	3540	2810	2730	828
Strontium	mg/kg	n/v	846	159	80.2	416	50.3	146	77.8	522	-	72.4	1770	95.0	145	74.1	250	164	150	36.8
Thallium	mg/kg	1[MIN]	0.291	0.924	0.278	0.355	0.267	0.286	0.104	0.341	-	0.351	0.204	0.183	0.192	0.440	3.28[MIN]	2.87[MIN]	2.48[MIN]	0.085
Tin	mg/kg	300[MIN]	45.5	[redacted][MIN]	3.14	258	1.39	2.86	0.88	187	-	1.55	28.3	1.39	3.57	1.26	247	437[MIN]	454[MIN]	0.42
Titanium	mg/kg	n/v	586	101	179	378	490	192	353	402	-	391	852	336	187	1130	413	456	399	348
Uranium	mg/kg	33[K]	3.81	0.922	1.24	2.34	1.04	1.34	0.832	2.57	-	1.54	2.79	0.905	4.45	1.94	1.33	1.29	1.25	0.578
Vanadium	mg/kg	130[MIN]	31.2	35.6	52.3	20.5	50.4	72.4	22.0	31.1	-	75.3	25.8	43.0	43.5	68.0	23.2	24.2	25.9	19.1
Zinc	mg/kg	360[MIN]	[redacted]	1670[MIN]	76.8	1060[MIN]	65.4	165	92.7	433[MIN]	-	91.3	1420[MIN]	42.6	77.4	67.5	[redacted][MIN]	9610[MIN]	9180[MIN]	35.2
Zirconium	mg/kg	n/v	18.8	8.58	12.0	10.0	18.7	13.6	6.85	14.7	-	15.5	22.4	8.29	8.94	20.6	2.46	2.88	2.82	9.19

See notes on last page

Table I
Summary of Soil Analytical Results
Weston Yards, Winnipeg, Manitoba
Canadian Pacific Railway Co.

Sample Location			BH20			BH21		BH22		BH23			BH24		BH25		BH26			
Sample Date			3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13
Sample ID			BH20 0-0.6	BH20 0.6-1	BH20 1.5-2.25	BH21 0-0.5	BH21 2.25-3	BH22 0.5-1	BH22 1.5-2.25	BH23 0-0.6	BH23 1-1.5	BH23 2.25-3	BH24 0-0.5	BH24 1-1.5	BH25 0.5-1	BH25 1.5-2.25	BH26 0-0.5	BH26 0.5-1	BH26 0.5-1	BH26 1.5-2.25
Sample Depth			0 0.5m	0.5-1m	1.5-2.25m	0-0.5m	2.25-3m	0.5-1m	1.5-2.25m	0-0.6m	1-1.5m	2.25-3m	0-0.5m	1-1.5m	0.5-1m	1.5-2.25m	0-0.5m	0.5-1m	0.5-1m	1.5-2.25m
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC		STANTEC
Laboratory			MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX
Laboratory Work Order			B355758	B355758	B355758	B355758	B355758	B355758	B355758	B356121	B356121	B356121	B356121	B356121	B356121	B356121	B356121	B356121	B356121	B356121
Laboratory Sample ID			GU7211	GU7212	GU7214	GU7206	GU7210	GU7202	GU7204	GU9745	GU9747	GU9748	GU9750	GU9752	GU9736	GU9738	GU9740	GU9741	GU9741	GU9743
Sample Type		Units	CCME	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Lab-Dup	Soil
Metals - TCLP																				
Antimony		mg/L	n/v	<0.10	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	<0.10	-	-
Arsenic		mg/L	5.0	<0.10	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	<0.10	-	-
Barium		mg/L	100.0	1.29	-	-	-	-	-	-	0.80	-	-	-	-	-	-	0.58	-	-
Beryllium		mg/L	n/v	<0.10	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	<0.10	-	-
Boron		mg/L	500.00	1.03	-	-	-	-	-	-	0.92	-	-	-	-	-	-	1.16	-	-
Cadmium		mg/L	0.5	<0.10	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	0.15	-	-
Chromium (Total)		mg/L	5.0	<0.10	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	<0.10	-	-
Cobalt		mg/L	n/v	<0.10	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	<0.10	-	-
Copper		mg/L	n/v	<0.10	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	0.76	-	-
Iron		mg/L	n/v	1.28	-	-	-	-	-	-	1.35	-	-	-	-	-	-	0.88	-	-
Lead		mg/L	5.0	<0.10	-	-	-	-	-	-	0.28	-	-	-	-	-	-	8.28	-	-
Mercury		mg/L	0.1	<0.0020	-	-	-	-	-	-	<0.0020	-	-	-	-	-	-	<0.0020	-	-
Molybdenum		mg/L	n/v	<0.10	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	<0.10	-	-
Nickel		mg/L	n/v	<0.10	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	1.08	-	-
Selenium		mg/L	1.0	<0.10	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	<0.10	-	-
Silver		mg/L	5.0	<0.10	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	<0.10	-	-
Thallium		mg/L	n/v	<0.10	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	<0.10	-	-
Uranium		mg/L	2.0	<0.10	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	<0.10	-	-
Vanadium		mg/L	n/v	<0.10	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	<0.10	-	-
Zinc		mg/L	n/v	7.57	-	-	-	-	-	-	0.61	-	-	-	-	-	-	43.6	-	-
Zirconium		mg/L	n/v	<0.10	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	<0.10	-	-
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene		mg/kg	NC^{G} n/v^{H} NC^{A} CF^{M} CF^{N}	-	-	-	-	-	-	-	-	-	<0.0050	-	-	-	-	-	-	-
Acenaphthylene		mg/kg	NC^{G} n/v^{H} NC^{A} CF^{M} CF^{N}	-	-	-	-	-	-	-	-	-	<0.0050	-	-	-	-	-	-	-
Anthracene		mg/kg	$32^{DF,CU}$	-	-	-	-	-	-	-	-	-	<0.0040	-	-	-	-	-	-	-
Benzo(a)anthracene		mg/kg	$10^{DF,L}$	-	-	-	-	-	-	-	-	-	<0.0020	-	-	-	-	-	-	-
Benzo(a)pyrene		mg/kg	1.4^{A}	-	-	-	-	-	-	-	-	-	<0.0020	-	-	-	-	-	-	-
Benzo(a)pyrene Total Potency Equiv.		none	$0.6/5.3_{a,e,c}^{CE}$	-	-	-	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-
Benzo(b)fluoranthene		mg/kg	$10^{DF,L}$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b,j)fluoranthene		mg/kg	$10^{DF,L}$	-	-	-	-	-	-	-	-	-	<0.020	-	-	-	-	-	-	-
Benzo(g,h,i)perylene		mg/kg	NC^{G} n/v^{H} NC^{AC}	-	-	-	-	-	-	-	-	-	<0.050	-	-	-	-	-	-	-
Benzo(k)fluoranthene		mg/kg	$10^{DF,L}$	-	-	-	-	-	-	-	-	-	<0.020	-	-	-	-	-	-	-
Chrysene		mg/kg	NC^{G} n/v^{H} NC^{A} CF^{M} CF^{N}	-	-	-	-	-	-	-	-	-	<0.020	-	-	-	-	-	-	-
Dibenzo(a,h)anthracene		mg/kg	$10^{DF,L}$	-	-	-	-	-	-	-	-	-	<0.050	-	-	-	-	-	-	-
Fluoranthene		mg/kg	$180^{DF,CU}$	-	-	-	-	-	-	-	-	-	<0.020	-	-	-	-	-	-	-
Fluorene		mg/kg	NC^{G} n/v^{H} NC^{A} CF^{M} CF^{N}	-	-	-	-	-	-	-	-	-	<0.020	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene		mg/kg	$10^{DF,L}$	-	-	-	-	-	-	-	-	-	<0.050	-	-	-	-	-	-	-
Methylnaphthalene, 2-		mg/kg	n/v	-	-	-	-	-	-	-	-	-	<0.020	-	-	-	-	-	-	-
Naphthalene		mg/kg	0.013_{a}^{DF}	-	-	-	-	-	-	-	-	-	<0.010	-	-	-	-	-	-	-
Phenanthrene		mg/kg	0.046_{a}^{DF}	-	-	-	-	-	-	-	-	-	<0.020	-	-	-	-	-	-	-
Pyrene		mg/kg	$100^{DF,L}$	-	-	-	-	-	-	-	-	-	<0.020	-	-	-	-	-	-	-
Index of Additive Cancer Risk		none	n/v	-	-	-	-	-	-	-	-	-	0.31	-	-	-	-	-	-	-
Low Molecular Weight PAH s		mg/kg	n/v	-	-	-	-	-	-	-	-	-	<0.050	-	-	-	-	-	-	-
High Molecular Weight PAHs		mg/kg	n/v	-	-	-	-	-	-	-	-	-	<0.050	-	-	-	-	-	-	-
Total PAH		mg/kg	n/v	-	-	-	-	-	-	-	-	-	<0.050	-	-	-	-	-	-	-
Volatile Organic Compounds																				
Benzene		mg/kg	0.030_{CI}^{MN}	-	-	-	-	-	-	-	<0.0050	-	-	-	-	-	-	-	-	-
Ethylbenzene		mg/kg	0.082_{CI}^{MN}	-	-	-	-	-	-	-	<0.010	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether (MTBE)		mg/kg	n/v	-	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	-	-
Toluene		mg/kg	0.37_{CI}^{MN}	-	-	-	-	-	-	-	<0.020	-	-	-	-	-	-	-	-	-
Xylene, m & p-		mg/kg	n/v	-	-	-	-	-	-	-	<0.040	-	-	-	-	-	-	-	-	-
Xylene, o-		mg/kg	n/v	-	-	-	-	-	-	-	<0.020	-	-	-	-	-	-	-	-	-
Xylenes, Total		mg/kg	11_{CI}^{MN}	-	-	-	-	-	-	-	<0.040	-	-	-	-	-	-	-	-	-

See notes on last page

Table I
Summary of Soil Analytical Results
Weston Yards, Winnipeg, Manitoba
Canadian Pacific Railway Co.

Sample Location			BH27			BH28			BH29		BH30			BH31		BH32			BH33		BH34	
Sample Date			4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13
Sample ID			BH27 0-0.5	BH27 1-1.5	BH27 2.25-3	BH28 0-0.5	BH28 1-1.5	BH28 1.5-2.25	BH29 0.5-1	BH29 1-1.5	BH30 0-0.5	BH30 0.5-1	BH30 1.5-2.25	BH31 0-0.5	BH31 1-1.5	BH32 0-0.5[C]	BH32 0.5-1[C]	BH32 1.5-2.25	BH33 0-0.5[C]	BH33 1-1.5	BH34 0-0.5	BH34 1-1.5
Sample Depth			0-0.5m	1-1.5m	2.25-3m	0-0.5m	1-1.5m	1.5-2.25m	0.5-1m	1-1.5m	0-0.5m	0.5-1m	1.5-2.25m	0-0.5m	1-1.5m	0 - 0.5 m	0.5 - 1 m	1.5-2.25m	0-0.5m	1-1.5m	0-0.5	1 - 1.5 m
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX
Laboratory Work Order			B356121	B356121	B356121	B356121	B356121	B35616	B35616	B35616	B356121	B356121	B356121	B356121	B356121	B355416	B355416	B355415	B355416	B355415	B355416	B355415
Laboratory Sample ID			GU9765	GU9767	GU9769	GU9760	GU9763	GU9764	GU9766	GU9767	GU9770	GU9771	GU9773	GU9776	GU9777	GU4983	GU4984	GU4986	GU4978	GU4980	GU4936	GU4937
Sample Type	Units	CCME	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
General Chemistry																						
Moisture Content	%	n/v	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-	-	-	-	-
pH	S.U.	$6\text{-}8^{MN}$	8.63^{MN}	8.51^{MN}	8.22^{MN}	8.31^{MN}	8.24^{MN}	8.75^{MN}	8.14^{MN}	8.67^{MN}	-	8.88^{MN}	8.18^{MN}	8.18^{MN}	8.33^{MN}	8.33^{MN}	8.14^{MN}	8.87^{MN}	8.16^{MN}	[illegible]	8.37^{MN}	8.60^{MN}
Particle Size																						
Sieve-%Coarse (>0.075mm)	none	S.U.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84.08	-
Grain Size	none	S.U.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	COARSE	-
Sieve-%Fine (<0.075mm)	none	S.U.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.92	-
TCLP Extraction Procedure																						
Initial pH of Sample	pH Units	n/v	10.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.68	-	9.78	-
pH after HCl	pH Units	n/v	3.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.34	-	1.86	-
Final pH of Leachate	pH Units	n/v	7.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.08	-	6.45	-
pH of Leaching Fluid	pH Units	n/v	4.89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.89	-	4.89	-
Petroleum Hydrocarbons																						
PHC F1 (C6-C10 range)	mg/kg	320^{AB}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PHC F1 (C6-C10 range) minus BTEX	mg/kg	320^{AB}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PHC F2 (>C10-C16 range)	mg/kg	260^{AB}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PHC F3 (>C16-C34 range)	mg/kg	1700^{AB}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PHC F4 (>C34-C50 range)	mg/kg	3300^{AB}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reached baseline at C50	mg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Metals by ICPMS																						
Aluminum	mg/kg	n/v	26900	22400	15500	8720	24100	10300	10500	16700	-	9900	21200	12600	5290	13500	6400	8210	5880	11700	4750	12100
Antimony	mg/kg	40^{MN}	2.73	2.39	0.19	88.8^{MN}	5.47	0.30	0.38	0.26	-	10.2	0.41	0.37	0.11	2040^{MN}	788^{MN}	1.38	118^{MN}	3.58	138^{MN}	4.51
Arsenic	mg/kg	12^{MN}	5.85	7.51	2.41	18.8^{MN}	9.11	2.94	3.52	6.35	-	10.7	8.61	3.50	2.34	66.2^{MN}	68.8^{MN}	3.09	88.1^{MN}	4.56	[illegible]	4.24
Barium	mg/kg	2000^{MN}	999	1290	88.1	1170	253	91.2	58.4	161	-	[illegible]^{MN}	274	460	57.0	1540	820	80.5	518	130	1100	197
Beryllium	mg/kg	8^{MN}	1.85	1.41	<0.40	0.90	1.10	<0.40	0.41	0.74	-	1.16	1.18	0.61	<0.40	<4.0	<4.0	<0.40	<4.0	0.54	0.55	0.53
Bismuth	mg/kg	n/v	0.40	0.18	<0.10	0.57	0.29	0.11	<0.10	0.18	-	2.58	0.27	0.11	<0.10	6.0	4.0	0.11	1.2	0.14	1.94	0.14
Cadmium	mg/kg	22^{MN}	2.16	1.30	0.20	1.98	0.235	0.320	0.085	0.128	-	0.589	0.262	0.321	0.093	2.41	2.73	0.457	2.66	0.449	10.8	0.562
Calcium	mg/kg	n/v	52600	70400	2660	32300	38200	80200	83300	106000	-	52300	19200	107000	105000	62700	41000	82000	116000	125000	22700	142000
Chromium (Total)	mg/kg	87^{MN}	29.1	34.3	23.5	38.5	44.3	22.4	21.0	33.6	-	32.7	42.8	25.8	13.5	51	52	19.1	26	22.9	59.0	43.9
Cobalt	mg/kg	300^{MN}	4.96	8.02	7.67	8.66	13.2	5.96	5.73	8.75	-	6.55	15.2	6.17	3.28	11.6	18.5	5.27	13.4	6.11	23.6	6.61
Copper	mg/kg	91^{MN}	167^{MN}	102^{MN}	19.1	817^{MN}	145^{MN}	17.3	13.5	18.7	-	135^{MN}	35.5	26.1	7.97	3540^{MN}	6200^{MN}	36.0	976^{MN}	74.4	9020^{MN}	81.2
Iron	mg/kg	n/v	23200	25200	18900	44600	28600	13700	14000	19100	-	29300	27600	13600	7880	77400	134000	12900	115000	20500	218000	25700
Lead	mg/kg	260^{M}	745^{M}	164	3.72	3880^{M}	210	14.8	10.1	9.27	-	[illegible]^{M}	24.0	22.4	5.13	12600^{M}	7480^{M}	25.5	[illegible]^{M}	203	4660^{M}	165
Lithium	mg/kg	n/v	39.8	43.1	7.2	11.8	32.5	17.8	15.2	33.4	-	14.7	34.1	17.2	10.3	<50	<50	14.7	<50	17.9	7.5	17.4
Magnesium	mg/kg	n/v	13800	30600	4550	9680	16400	46000	36100	39900	-	16300	13500	36700	54800	15100	13200	41900	32300	38700	7420	35700
Manganese	mg/kg	n/v	280	310	326	339	352	257	181	334	-	352	519	452	199	815	864	273	917	266	1320	355
Mercury	mg/kg	24^{M}	0.055	0.074	<0.050	26.7^{MN}	1.41	0.162	<0.050	<0.050	-	0.221	<0.050	0.057	<0.050	18.9	27.2^{MN}	0.114	6.81	0.366	80.6^{MN}	1.88
Molybdenum	mg/kg	40^{MN}	6.70	3.82	0.55	4.74	0.65	0.57	0.52	0.68	-	3.03	1.64	0.65	0.15	4.4	4.2	0.55	3.7	0.36	7.13	0.75
Nickel	mg/kg	50^{MN}	28.7	37.7	14.6	79.6^{MN}	40.2	18.7	16.3	27.2	-	20.0	39.6	20.2	9.52	81.8^{MN}	127^{MN}	18.6	130^{MN}	22.0	89.2^{MN}	24.6
Phosphorus	mg/kg	n/v	701	580	414	938	456	416	373	392	-	745	478	700	364	1230	1090	393	3310	424	781	383
Potassium	mg/kg	n/v	1570	6090	613	782	4850	2100	2420	3480	-	1550	3960	3040	1230	1050	<1000	1560	<1000	2510	874	2560
Selenium	mg/kg	2.9^{MN}	0.70	0.56	<0.50	1.45	<0.50	<0.50	<0.50	<0.50	-	0.70	0.60	<0.50	<0.50	<5.0	<5.0	<0.50	15^{MN}	<0.50	1.15	<0.50
Silver	mg/kg	40^{MN}	0.273	0.198	<0.050	0.523	0.123	0.052	<0.050	0.053	-	0.720	0.077	0.062	<0.050	1.86	2.90	0.085	<0.50	0.107	2.45	0.301
Sodium	mg/kg	n/v	8560	4300	722	1350	548	383	413	376	-	1250	657	583	506	3130	<1000	265	<1000	247	989	369
Strontium	mg/kg	n/v	1580	711	26.1	385	80.6	53.9	54.5	107	-	371	74.4	170	52.5	906	319	58.6	374	138	168	167
Thallium	mg/kg	1^{MN}	0.179	0.182	0.054	0.785	0.318	0.153	0.137	0.222	-	1.85^{MN}	0.276	0.132	0.084	<0.50	<0.50	0.149	1.89^{MN}	0.193	1.4	0.170
Tin	mg/kg	300^{MN}	16.4	11.8	0.24	174	22.3	0.90	0.53	0.68	-	20.6	1.13	1.02	0.30	1970^{MN}	1610^{MN}	2.98	98.2	7.59	704	13.3
Titanium	mg/kg	n/v	1050	648	814	323	283	337	176	391	-	282	112	213	285	435	211	299	180	227	137	187
Uranium	mg/kg	33^{M}	6.14	3.64	0.397	1.54	1.02	0.923	0.652	1.53	-	1.28	1.67	0.767	0.543	3.84	2.63	1.04	3.80	1.89	0.898	3.43
Vanadium	mg/kg	130^{MN}	22.3	38.4	49.1	17.5	66.8	32.4	29.2	52.4	-	27.8	63.3	29.8	19.6	31	35	28.9	34	29.9	17.5	33.1
Zinc	mg/kg	360^{MN}	846^{MN}	748^{MN}	35.1	577^{MN}	100	39.3	38.5	45.0	-	870^{MN}	90.8	87.7	18.1	1060^{MN}	1490^{MN}	38.7	1280^{MN}	68.0	5900^{MN}	143
Zirconium	mg/kg	n/v	41.6	26.7	5.68	8.40	11.6	11.3	2.26	10.2	-	7.61	10.4	2.31	5.17	14.3	<5.0	10.6	<5.0	6.21	3.27	7.12

See notes on last page

Table I
Summary of Soil Analytical Results
Weston Yards, Winnipeg, Manitoba
Canadian Pacific Railway Co.

Sample Location			BH27			BH28			BH29		BH30			BH31		BH32			BH33		BH34	
Sample Date			4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	4-Jul-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13
Sample ID			BH27 0-0.5	BH27 1-1.5	BH27 2.25-3	BH28 0-0.5	BH28 1-1.5	BH28 1.5-2.25	BH29 0.5-1	BH29 1-1.5	BH30 0-0.5	BH30 0.5-1	BH30 1.5-2.25	BH31 0-0.5	BH31 1-1.5	BH32 0-0.5[C]	BH32 0.5-1[C]	BH32 1.5-2.25	BH33 0-0.5[C]	BH33 1-1.5	BH34 0-0.5	BH34 1-1.5
Sample Depth			0-0.5m	1-1.5m	2.25-3m	0-0.5m	1-1.5m	1.5-2.25m	0.5-1m	1-1.5m	0-0.5m	0.5-1m	1.5-2.25m	0-0.5m	1-1.5m	0 - 0.5 m	0.5 - 1 m	1.5-2.25m	0-0.5m	1-1.5m	0-0.5	1 - 1.5 m
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX
Laboratory Work Order			B356121	B356121	B356121	B356121	B356121	B356616	B356616	B356616	B356121	B356121	B356121	B356121	B356121	B355416	B355416	B355416	B355415	B355415	B355416	B355415
Laboratory Sample ID			GU9755	GU9757	GU9759	GU9760	GU9763	GU9764	GU9766	GU9767	GU9770	GU9771	GU9773	GU9775	GU9777	GU4983	GU4984	GU4986	GU4978	GU4980	GU4935	GU4937
Sample Type			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals - TCLP																						
Antimony	mg/L	n/v	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-
Arsenic	mg/L	5.0	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-
Barium	mg/L	100.0	0.29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.34	-	0.95	-
Beryllium	mg/L	n/v	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-
Boron	mg/L	500.00	10.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.44	-	0.47	-
Cadmium	mg/L	0.5	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-
Chromium (Total)	mg/L	5.0	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-
Cobalt	mg/L	n/v	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-
Copper	mg/L	n/v	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-
Iron	mg/L	n/v	1.33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.36	-	0.89	-
Lead	mg/L	5.0	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.36	-	2.29	-
Mercury	mg/L	0.1	<0.0020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0020	-	<0.0020	-
Molybdenum	mg/L	n/v	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-
Nickel	mg/L	n/v	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	0.31	-
Selenium	mg/L	1.0	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-
Silver	mg/L	5.0	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-
Thallium	mg/L	n/v	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-
Uranium	mg/L	2.0	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-
Vanadium	mg/L	n/v	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-
Zinc	mg/L	n/v	0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.27	-	29.4	-
Zirconium	mg/L	n/v	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	-
Polycyclic Aromatic Hydrocarbons																						
Acenaphthene	mg/kg	NC[G] n/v[W] NC[A] CF[H] CF[N]	-	-	-	-	-	-	-	-	0.041	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	NC[G] n/v[W] NC[A] CF[H] CF[N]	-	-	-	-	-	-	-	-	0.064	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	$32^{CF,CL}$	-	-	-	-	-	-	-	-	0.047	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	$10^{CF,L}$	-	-	-	-	-	-	-	-	0.12	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	1.4[E]	-	-	-	-	-	-	-	-	0.078	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene Total Potency Equiv.	none	$0.6/5.3_{BAP}$[E]	-	-	-	-	-	-	-	-	0.14	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	$10^{CF,L}$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(bj)fluoranthene	mg/kg	$10^{CF,L}$	-	-	-	-	-	-	-	-	0.18	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	NC[G] n/v[W] NC[A]	-	-	-	-	-	-	-	-	<0.050	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	$10^{CF,L}$	-	-	-	-	-	-	-	-	0.051	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	NC[G] n/v[W] NC[A] CF[H] CF[N]	-	-	-	-	-	-	-	-	0.18	-	-	-	-	-	-	-	-	-	-	-
Dibenzo(a,h)anthracene	mg/kg	$10^{CF,L}$	-	-	-	-	-	-	-	-	<0.050	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	$150^{CF,CL}$	-	-	-	-	-	-	-	-	0.41	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	NC[G] n/v[W] NC[A] CF[H] CF[N]	-	-	-	-	-	-	-	-	0.034	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	$10^{CF,L}$	-	-	-	-	-	-	-	-	<0.050	-	-	-	-	-	-	-	-	-	-	-
Methylnaphthalene, 2-	mg/kg	n/v	-	-	-	-	-	-	-	-	0.064	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	0.013_{A}[CF]	-	-	-	-	-	-	-	-	**0.082**[CF]	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	0.046_{A}[CF]	-	-	-	-	-	-	-	-	**0.34**[CF]	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	$100^{CF,L}$	-	-	-	-	-	-	-	-	0.32	-	-	-	-	-	-	-	-	-	-	-
Index of Additive Cancer Risk	none	n/v	-	-	-	-	-	-	-	-	2.2	-	-	-	-	-	-	-	-	-	-	-
Low Molecular Weight PAH's	mg/kg	n/v	-	-	-	-	-	-	-	-	0.84	-	-	-	-	-	-	-	-	-	-	-
High Molecular Weight PAH s	mg/kg	n/v	-	-	-	-	-	-	-	-	1.5	-	-	-	-	-	-	-	-	-	-	-
Total PAH	mg/kg	n/v	-	-	-	-	-	-	-	-	2.1	-	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds																						
Benzene	mg/kg	0.030_{CP}[MN]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.082_{CP}[MN]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether (MTBE)	mg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	0.37_{CP}[MN]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylene, m & p-	mg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylene, o-	mg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes, Total	mg/kg	11_{CP}[MN]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See notes on last page

Table I
Summary of Soil Analytical Results
Weston Yards, Winnipeg, Manitoba
Canadian Pacific Railway Co.

Sample Location			BH35			BH36			BH37			BH38		
Sample Date			2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	2-Jul-13
Sample ID			BH35 0-0.6	BH35 1-1.5	BH35 1.5-2.25	BH36 0-0.6	BH36 0.6-1	BH36 1-1.5	BH37 0-0.6	BH37 1.5-2.25	BH37 1.5-2.25	BH38 0-0.6	BH38 0.5-1.0	BH38 1.5-2.25
Sample Depth			0 - 0.6 m	1-1.5m	1.5-2.25m	0-0.6m	0.6-1m	1-1.5m	0-0.6m	1.5-2.25m	1.5-2.25m	0-0.6	0.5-1.0	1.5-2.25m
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC		STANTEC	STANTEC	STANTEC
Laboratory			MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX
Laboratory Work Order			B355415	B355415	B355415	B355415	B355415	B355415	B355415	B355415	B355415	B355415	B355415	B355415
Laboratory Sample ID			GU4964	GU4966	GU4967	GU4959	GU4960	GU4961	GU4954	GU4957	GU4957	GU4940	GU4941	GU4943
Sample Type	Units	CCME	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Lab-Dup	Soil	Soil	Soil
General Chemistry														
Moisture Content	%	n/v	-	-	-	-	-	-	-	-	-	26	27	-
pH	S.U.	5-9[MN]	[redacted]	[redacted]	[redacted]	[redacted]	8.37[MN]	8.09[MN]	7.98	8.78[MN]	8.72[MN]	8.59[MN]	8.15[MN]	8.68[MN]
Particle Size														
Sieve-%Coarse (>0.075mm)	none	S.U.	-	-	-	-	-	-	-	-	-	-	21.74	-
Grain Size	none	S.U.	-	-	-	-	-	-	-	-	-	-	FINE	-
Sieve-%Fine (<0.075mm)	none	S.U.	-	-	-	-	-	-	-	-	-	-	78.26	-
TCLP Extraction Procedure														
Initial pH of Sample	pH Units	n/v	-	-	-	-	-	-	-	-	-	-	-	-
pH after HCl	pH Units	n/v	-	-	-	-	-	-	-	-	-	-	-	-
Final pH of Leachate	pH Units	n/v	-	-	-	-	-	-	-	-	-	-	-	-
pH of Leaching Fluid	pH Units	n/v	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons														
PHC F1 (C6-C10 range)	mg/kg	320[AB]	-	-	-	-	-	-	-	-	-	-	<10	-
PHC F1 (C6-C10 range) minus BTEX	mg/kg	320[AB]	-	-	-	-	-	-	-	-	-	-	<10	-
PHC F2 (>C10-C16 range)	mg/kg	260[AB]	-	-	-	-	-	-	-	-	-	-	<20	-
PHC F3 (>C16-C34 range)	mg/kg	1700[AB]	-	-	-	-	-	-	-	-	-	-	82	-
PHC F4 (>C34-C50 range)	mg/kg	3300[AB]	-	-	-	-	-	-	-	-	-	-	<20	-
Reached baseline at C50	mg/kg	n/v	-	-	-	-	-	-	-	-	-	-	yes	-
Total Metals by ICPMS														
Aluminum	mg/kg	n/v	6420	25400	5900	4110	3830	18100	5320	11000	12200	7050	22900	11500
Antimony	mg/kg	40[MN]	[redacted]	8.27	0.31	20.3	11.2	0.83	[redacted]	2.70 (1)	2.84	[redacted]	[redacted]	0.61
Arsenic	mg/kg	12[MN]	[redacted]	6.25	2.08	[redacted]	[redacted]	6.58	[redacted]	4.25	5.04	[redacted]	[redacted]	2.46
Barium	mg/kg	2000[MN]	692	232	47.4	366	225	171	581	102	111	337	365	97.1
Beryllium	mg/kg	8[MN]	0.51	1.03	<0.40	0.55	0.58	0.89	<4.0	0.50	0.83	0.45	0.97	0.53
Bismuth	mg/kg	n/v	1.02	0.28	<0.10	0.21	0.16	0.17	5.8	0.17	0.18	0.58	2.57	0.12
Cadmium	mg/kg	22[MN]	2.16	0.569	0.333	0.390	0.372	0.563	2.04	0.404	0.473	0.787	1.48	0.480
Calcium	mg/kg	n/v	85600	27300	86800	23400	15200	103000	22700	70200	84100	48900	23300	76000
Chromium (Total)	mg/kg	87[MN]	36.1	44.9	14.1	28.1	15.2	34.8	[redacted]	23.2	24.9	30.4	65.6	26.8
Cobalt	mg/kg	300[MN]	10.0	14.3	3.92	12.2	11.6	8.61	38.4	7.21	8.12	7.79	13.3	7.51
Copper	mg/kg	91[MN]	[redacted]	[redacted]	14.4	[redacted]	[redacted]	26.9	[redacted]	26.3	27.2	[redacted]	[redacted]	20.0
Iron	mg/kg	n/v	69500	30300	9600	108000	83300	22000	308000	18100	19100	61000	87600	16400
Lead	mg/kg	260[M]	[redacted]	148	10.5	[redacted]	228	13.2	[redacted]	30.2	33.5	[redacted]	[redacted]	10.1
Lithium	mg/kg	n/v	10.1	28.5	11.2	8.2	7.5	35.8	<50	18.9	18.3	7.9	27.4	22.5
Magnesium	mg/kg	n/v	21900	16800	48100	5780	4900	35000	7880	39200	38300	10000	14000	44700
Manganese	mg/kg	n/v	760	618	234	562	356	269	1390	383	406	834	421	312
Mercury	mg/kg	24[M]	[redacted]	1.08	0.051	10.9	4.30	0.117	12.7	0.148	0.148	3.67	20.0	<0.050
Molybdenum	mg/kg	40[MN]	3.33	0.78	0.45	4.11	2.75	1.27	9.2	1.54	1.52	2.49	1.87	0.54
Nickel	mg/kg	50[MN]	[redacted]	43.9	12.7	42.9	29.7	28.5	[redacted]	28.8	28.1	33.5	[redacted]	21.3
Phosphorus	mg/kg	n/v	987	366	371	756	437	385	947	406	426	783	757	420
Potassium	mg/kg	n/v	1020	5250	1160	437	708	3610	<1000	2080	2270	754	4590	2660
Selenium	mg/kg	2.9[MN]	1.57	<0.50	<0.50	1.05	0.79	<0.50	[redacted]	<0.50	<0.50	1.20	1.27	<0.50
Silver	mg/kg	40[MN]	0.627	0.194	0.059	0.268	0.194	0.121	1.29	0.087	0.099	0.334	2.12	0.073
Sodium	mg/kg	n/v	571	266	263	295	369	358	<1000	348	377	512	393	513
Strontium	mg/kg	n/v	312	70.9	41.8	209	117	197	153	49.3	50.8	144	104	49.7
Thallium	mg/kg	1[MN]	0.318	0.342	0.107	0.176	0.097	0.243	0.58	0.182	0.202	0.214	0.424	0.206
Tin	mg/kg	300[MN]	[redacted]	18.0	0.51	[redacted]	[redacted]	0.99	[redacted]	7.15	[redacted]	188	[redacted]	2.17
Titanium	mg/kg	n/v	184	193	277	137	78.6	361	122	151	136	255	145	519
Uranium	mg/kg	33[M]	2.01	1.15	0.750	1.20	0.751	1.92	1.06	1.02	1.08	0.891	1.80	0.934
Vanadium	mg/kg	130[MN]	23.0	61.7	21.7	18.1	17.3	57.4	31	35.9	38.6	37.5	61.0	34.4
Zinc	mg/kg	360[MN]	[redacted]	159	24.8	128	123	51.9	[redacted]	48.4	53.7	288	[redacted]	42.7
Zirconium	mg/kg	n/v	3.31	12.5	8.78	4.17	1.93	12.1	<5.0	9.33	9.00	4.18	10.3	13.8

See notes on last page

Table I
Summary of Soil Analytical Results
Weston Yards, Winnipeg, Manitoba
Canadian Pacific Railway Co.

Sample Location			BH35			BH36			BH37			BH38		
Sample Date			2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	2-July-13	2-Jul-13
Sample ID			BH35 0-0.5	BH35 1-1.5	BH35 1.5-2.25	BH36 0-0.5	BH36 0.5-1	BH36 1-1.5	BH37 0-0.5[Q]	BH37 1.5-2.25	BH37 1.5-2.25	BH38 0-0.5	BH38 0.5-1.0	BH38 1.5-2.25
Sample Depth			0 - 0.5 m	1-1.5m	1.5-2.25m	0-0.5m	0.5-1m	1-1.5m	0-0.5m	1.5-2.25m	1.5-2.25m	0-0.5	0.5-1.0	1.5-2.25m
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC		STANTEC	STANTEC	STANTEC
Laboratory			MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX
Laboratory Work Order			B355415	B355415	B2355415	B355415	B355415	B355415	B355415	B355415	B355415	B355415	B355415	B355415
Laboratory Sample ID			GU4964	GU4966	GU4967	GU4959	GU4960	GU4961	GU4954	GU4957	GU4957	GU4940	GU4941	GU4943
Sample Type	Units	CCME	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Lab-Dup	Soil	Soil	Soil
Metals - TCLP														
Antimony	mg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	5.0	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	100.0	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-
Boron	mg/L	500.00	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Chromium (Total)	mg/L	5.0	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	5.0	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.1	-	-	-	-	-	-	-	-	-	-	-	-
Molybdenum	mg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	1.0	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	5.0	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-
Uranium	mg/L	2.0	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-
Zirconium	mg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-
Polycyclic Aromatic Hydrocarbons														
Acenaphthene	mg/kg	NC[C] n/v[I] NC[A] CF[M] CF[A]	-	-	-	-	-	-	-	-	0.077	-	-	-
Acenaphthylene	mg/kg	NC[C] n/v[I] NC[A] CF[M] CF[A]	-	-	-	-	-	-	-	-	0.12	-	-	-
Anthracene	mg/kg	32[CF GL]	-	-	-	-	-	-	-	-	0.26	-	-	-
Benzo(a)anthracene	mg/kg	10[CF IL]	-	-	-	-	-	-	-	-	0.82	-	-	-
Benzo(a)pyrene	mg/kg	1.4[L]	-	-	-	-	-	-	-	-	0.82	-	-	-
Benzo(a)pyrene Total Potency Equiv	none	0.6/5.3 $_{B[a]P}$[CE]	-	-	-	-	-	-	-	-	1.1[CE]	-	-	-
Benzo(b)fluoranthene	mg/kg	10[CF IL]	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b/j)fluoranthene	mg/kg	10[CF IL]	-	-	-	-	-	-	-	-	1.5	-	-	-
Benzo(g,h,i)perylene	mg/kg	NC[C] n/v[I] NC[A]	-	-	-	-	-	-	-	-	0.88	-	-	-
Benzo(k)fluoranthene	mg/kg	10[CF IL]	-	-	-	-	-	-	-	-	0.40	-	-	-
Chrysene	mg/kg	NC[C] n/v[I] NC[A] CF[M] CF[A]	-	-	-	-	-	-	-	-	0.84	-	-	-
Dibenzo(a,h)anthracene	mg/kg	10[CF IL]	-	-	-	-	-	-	-	-	0.17	-	-	-
Fluoranthene	mg/kg	180[CF GL]	-	-	-	-	-	-	-	-	1.1	-	-	-
Fluorene	mg/kg	NC[C] n/v[I] NC[A] CF[M] CF[A]	-	-	-	-	-	-	-	-	0.14	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	10[CF IL]	-	-	-	-	-	-	-	-	0.71	-	-	-
Methylnaphthalene, 2-	mg/kg	n/v	-	-	-	-	-	-	-	-	1.7	-	-	-
Naphthalene	mg/kg	0.013 $_{a}$[CF]	-	-	-	-	-	-	-	-	0.99[CF]	-	-	-
Phenanthrene	mg/kg	0.048 $_{a}$[CF]	-	-	-	-	-	-	-	-	1.2[CF]	-	-	-
Pyrene	mg/kg	100[CF IL]	-	-	-	-	-	-	-	-	1.1	-	-	-
Index of Additive Cancer Risk	none	n/v	-	-	-	-	-	-	-	-	17	-	-	-
Low Molecular Weight PAH's	mg/kg	n/v	-	-	-	-	-	-	-	-	4.5	-	-	-
High Molecular Weight PAH's	mg/kg	n/v	-	-	-	-	-	-	-	-	8.8	-	-	-
Total PAH	mg/kg	n/v	-	-	-	-	-	-	-	-	13	-	-	-
Volatile Organic Compounds														
Benzene	mg/kg	0.030 $_{CS}$[MN]	-	-	-	-	-	-	-	-	-	<0.0050	-	-
Ethylbenzene	mg/kg	0.082 $_{CS}$[MN]	-	-	-	-	-	-	-	-	-	<0.010	-	-
Methyl tert-butyl ether (MTBE)	mg/kg	n/v	-	-	-	-	-	-	-	-	-	<0.10	-	-
Toluene	mg/kg	0.37 $_{CS}$[MN]	-	-	-	-	-	-	-	-	-	<0.020	-	-
Xylene, m & p-	mg/kg	n/v	-	-	-	-	-	-	-	-	-	<0.040	-	-
Xylene, o-	mg/kg	n/v	-	-	-	-	-	-	-	-	-	<0.020	-	-
Xylenes, Total	mg/kg	11 $_{CS}$[MN]	-	-	-	-	-	-	-	-	-	<0.040	-	-

See notes on last page

Table I
Summary of Soil Analytical Results
Weston Yards, Winnipeg, Manitoba
Canadian Pacific

Notes:

CCME	Canadian Council of Ministers of the Environment
A	Canada Wide Standards for PHC in Soil - Commercial land use - Fine-grained, Surface Soil, Tier 1 (Revised Jan 2008, Table 2), lowest guideline of all pathways
B	Canada Wide Standards for PHC in Soil - Industrial land use - Fine-grained, Surface Soil, Tier 1 (Revised Jan 2008, Table 2), lowest guideline of all pathways
C	Canadian Soil Quality Guideline for the Protection of Environmental and Human Health, PAH, 2008, revised 2010, for a Commercial land use (Table 1 - Direct contact)
D	Canadian Soil Quality Guideline for the Protection of Environmental and Human Health, PAH, 2008, revised 2010, for a Commercial land use (Table 1 - Environmental health guidelines based on non-carcinogenic effects of PAHs)
E	Canadian Soil Quality Guideline for the Protection of Environmental and Human Health, PAH, 2008, revised 2010, for an Industrial land use (Table 1 - Direct contact)
F	Canadian Soil Quality Guideline for the Protection of Environmental and Human Health, PAH, 2008, revised 2010, for an Industrial land use (Table 1 - Environmental health guidelines based on non-carcinogenic effects of PAHs)
G	Canadian Soil Quality Guideline for the Protection of Environmental and Human Health, PAH, 2008, revised 2010, for a Commercial land use (Table 2 - Soil Quality Guideline for Soil Contact)
H	Canadian Soil Quality Guideline for the Protection of Environmental and Human Health, PAH, 2008, revised 2010, for a Commercial land use (Table 2 - Soil Quality Guideline for Soil and food ingestion)
I	Canadian Soil Quality Guideline for the Protection of Environmental and Human Health, PAH, 2008, revised 2010, for a Commercial land use (Table 2 - Interim/Provisional Soil Quality Critera, CCME 1991)
J	Canadian Soil Quality Guideline for the Protection of Environmental and Human Health, PAH, 2008, revised 2010, for an Industrial land use (Table 2 - Soil Quality Guideline for Soil Contact)
K	Canadian Soil Quality Guideline for the Protection of Environmental and Human Health, PAH, 2008, revised 2010, for an Industrial land use (Table 2 - Soil Quality Guideline for Soil and food ingestion)
L	Canadian Soil Quality Guideline for the Protection of Environmental and Human Health, PAH, 2008, revised 2010, for an Industrial land use (Table 2 - Interim/Provisional Soil Quality Critera, CCME 1991)
M	Canadian Environmental Quality Guidelines, Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health, on-line summary table viewed on date, for a commercial land use and fine grained soil
N	Canadian Environmental Quality Guidelines, Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health, on-line summary table viewed on date, for an industrial land use and fine grained soil
6.5[A]	Concentration exceeds the indicated standard.
15.2	Concentration was detected but did not exceed applicable standards.
< 0.50	Laboratory estimated quantitation limit exceeded standard.
< 0.03	The analyte was not detected above the laboratory estimated quantitation limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
CF[MN]	Consult Factsheet
NC[GJ]	Not calculated.
a b c[CE]	SQG based on an incremental lifetime cancer risk (ILCR) of 1 in 1,000,000 (10e-6) or 1 in 100,000 (10e-5). B[a]P TPE = Benzo[a]pyrene Total Potency Equivalents, which is the sum of estimated cancer potency relative to B[a]P for all potentially carcinogenic unsubstituted PAHs. The B[a]P TPE for a soil sample is calculated by multiplying the concentration of each PAH in the sample by its B[a]P Potency Equivalence Factor (PEF), given below, and summing the products: Benz[a]anthracene = 0.1, Benzo[a]pyrene = 1, Benzo[b+j+k]fluoranthene = 0.1, Benzo[g,h,i]perylene = 0.01, Chrysene = 0.01, Dibenz[a,h]anthracene =1, Indeno[1,2,3-cd]pyrene = 0.1.
e[DF]	This value is the Soil Quality Guideline for the Protection of Freshwater Life. Users may wish to consider the application, on a site-specific basis, of this value where potential impacts to nearby surface waters are a concern (the value may be less than the common limit of detection in some jurisdictions; and the 1991 Interim Soil Quality Criteria for phenanthrene.
o	Elements by ICPMS (total): Detection Limits raised due to sample matrix interference
(1)	Matrix Spike for antimony exceeds acceptance criteria. 10% of analytes failure in multi-element scan is allowed.
(2)	Duplicate exceeds acceptance criteria for Cu. 10% of analytes failure in multielement scan is allowed.
(3)	Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.
(4)	RDL raised due to sample matrix interference.

Table II
Summary of Groundwater Analytical Results
CP Weston
Canadian Pacific

Sample Location			MW01			MW02		MW04		MW05	MW06	MW07	MW08	MW09	MW10	MW11	Field Dup	MW12	MW13
Sample Date			11-Jan-13	24-July-2013	24-July-2013	11-Jan-13	24-July-2013	11-Jan-13	24-July-2013	24-July-2013	24-July-2013	24-July-2013	24-July-2013	24-July-2013	24-July-2013	24-July-2013	24-July-2013	24-July-2013	24-July-2013
Sample ID			MW01	MW01	MW01	MW02	MW02	MW04	MW04	MW05	MW06	MW07	MW08	MW09	MW010	MW11	-	MW12	MW13
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX
Laboratory Work Order			B302638	B363703	B363703	B302638	B363703	B302638	B363703	B363703	B363703	B363703	B363703	B363703	B363703	B363703	B363703	B363703	B363703
Laboratory Sample ID		Amended	FJ0573	GZ8735	GZ8735	FJ0559	GZ8736	FJ0574	GZ8738	GZ8739	GZ8740	GZ6841	GZ8742	GZ8743	GZ8744	GZ8745	GZ8747	GZ8746	GZ8746
Sample Type	Units	O.Reg 153/04			Lab Dup												Field Dup		
Calculated Parameters																			
Filter and HNO3 Preservation	none	n/v	FIELD	Field	-	FIELD	Field	FIELD	Field	Field	Field	Field	Field	Field	Field	Field	Field	Field	Field
Hardness (as CaCO3)	µg/L	n/v	2340000	1700000	-	3170000	2050000	1010000	643000	1730000	786000	1480000	1880000	1290000	1110000	1650000	1630000	2790000	4620000
BTEX and Petroleum Hydrocarbons																			
PHC F1 (C6-C10 range)	µg/L	750_{87}[A]	< 300	<300	-	< 300	<300	< 300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300
PHC F1 (C6-C10 range) minus BTEX	µg/L	750_{87}[A]	< 300	<300	-	< 300	<300	< 300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300
PHC F2 (>C10-C16 range)	µg/L	150_{416}[A]	< 150	<150	-	< 150	<150	< 150	<150	<150	<150	<150	<150	<150	<150	<150	<150	<150	<150
PHC F3 (>C16-C34 range)	µg/L	500_{all}[A]	< 150	<150	-	< 150	280	< 150	**670**[A]	<150	<150	410	<150	460	<150	**730**[A]	<150	220	**720**[A]
PHC F4 (>C34-C50 range)	µg/L	500_{all0}[A]	< 150	<150	-	< 150	<150	< 150	440	<150	<150	<150	<150	240	**2000**[A]	**830**[A]	**4300**[A]	**2000**[A]	**Ma**[a]
Metals																			
Aluminum	µg/L	n/v	42.1	8.5	-	< 12	6.9	< 3.0	6.3	4.3	8.0	5.8	6.5	11.0	7.2	5.8	5.7	4.6	8.7
Antimony	µg/L	20000[A]	< 0.50	<0.50	-	< 2.0	2.15	1.29	1.10	0.58	<0.50	36.9	28.9	1.45	<0.50	<0.50	0.53	<0.50	13.2
Arsenic	µg/L	1900[A]	0.51	0.58	-	1.33	0.96	0.51	0.68	0.52	1.50	0.71	0.98	0.50	2.16	1.76	1.81	0.87	1.34
Barium	µg/L	29000[A]	14.9	20.3	-	31.3	26.8	22.3	35.9	22.0	71.2	58.4	34.6	37.0	49.6	25.5	25.2	19.5	49.1
Beryllium	µg/L	67[A]	< 0.10	<0.10	-	< 0.40	<0.10	< 0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.20
Bismuth	µg/L	n/v	< 1.0	<1.0	-	< 4.0	<1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0
Boron	µg/L	45000[A]	328	828	-	325	877	1290	3830	496	2010	3090	2930	1520	234	2170	2220	230	7250
Cadmium	µg/L	2.7[A]	0.053 IF	0.075	-	0.112	0.025	0.473	0.184	0.090	0.015	**3.29**[A]	0.183	0.115	0.020	0.037	0.039	0.118	1.18
Calcium	µg/L	n/v	276000	204	-	317000	196	135000	105	202	107	260	294	262	120	190	188	401	544
Chromium (Total)	µg/L	810[A]	< 1.0	<1.0	-	< 4.0	<1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0
Cobalt	µg/L	66[A]	< 0.50	<0.50	-	< 2.0	1.8	< 0.50	<0.50	0.67	1.21	2.49	<0.50	4.37	2.51	1.44	1.59	2.58	1.7
Copper	µg/L	87[A]	2.18	5.02	-	5.53	1.6	61.4	18.5	2.88	0.74	82.0	29.7	6.01	1.14	3.00	3.02	2.65	33.9
Iron	µg/L	n/v	58.8	5.1	-	< 20	88.8	14.3	5.4	7.2	265	41.8	15.3	11.3	47.4	15.6	15.1	6.3	14
Lead	µg/L	25[A]	0.64	0.29	-	0.93	0.42	0.41	1.11	<0.20	0.34	11.8	0.54	0.56	0.57	0.32	0.37	1.25	1.70
Lithium	µg/L	n/v	313	253	-	392	269	276	194	263	130	198	255	258	174	199	210	238	493
Magnesium	µg/L	n/v	401000	290	-	578000	378	162000	92.5	296	126	203	277	155	198	286	282	434	793
Manganese	µg/L	n/v	93.7	99.5	-	366	269	39.2	32.7	249	443	729	45.9	517	1210	324	313	958	501
Mercury	µg/L	2.8[A]	< 0.010	<0.010	<0.010	< 0.010	<0.010	0.011	<0.010	<0.010	<0.010	0.069	0.035	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Molybdenum	µg/L	9200[A]	6.2	9.1	-	< 4.0	8.7	3.6	11.2	6.8	10.8	3.2	8.8	8.2	3.2	4.1	4.3	6.2	8.9
Nickel	µg/L	490[A]	6.1	6.4	-	5.3	5.4	12.9	6.3	7.8	5.5	24.7	10.8	20.4	9.3	8.5	9.3	21.5	26.7
Potassium	µg/L	n/v	5420	6.97	-	11600	27	35000	54.7	14.6	35.8	46.8	32.7	14.9	1.68	18.2	17.1	5.55	203
Selenium	µg/L	63[A]	< 0.10	0.22	-	< 0.40	0.29	3.61	2.44	<0.10	<0.10	1.06	2.47	0.46	<0.10	<0.10	0.16	0.11	1.47
Silicon	µg/L	n/v	9100	9060	-	7900	3990	4150	3390	7940	4240	9110	10100	7490	5940	11900	11500	8820	9180
Silver	µg/L	1.5[A]	< 0.020	0.049	-	< 0.080	0.046	< 0.020	0.032	0.024	0.028	0.029	0.021	<0.020	<0.020	<0.020	<0.020	<0.020	0.059
Sodium	µg/L	2300000[A]	279000	244	-	350000	280	294000	286	228	222	203	225	185	190	285	280	276	1350
Strontium	µg/L	n/v	1980	1510	-	2330	1390	1010	1220	1610	1570	1870	2520	1130	952	1410	1370	1930	5150
Sulfur	µg/L	n/v	630000	444	-	932000	608	241000	258	391	190	288	531	307	139	423	388	672	1460
Thallium	µg/L	510[A]	< 0.050	<0.050	-	< 0.20	<0.050	< 0.050	<0.050	<0.050	<0.050	0.224	0.138	<0.050	<0.050	<0.050	<0.050	<0.050	0.24
Tin	µg/L	n/v	< 5.0	<5.0	-	< 20	<5.0	< 5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10
Titanium	µg/L	n/v	< 5.0	<5.0	-	< 20	<5.0	< 5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10
Uranium	µg/L	420[A]	55.2	40.9	-	113	68.7	32.4	20.8	41.6	3.45	8.85	30.3	20.0	17.3	25.7	25.3	21.5	32.2
Vanadium	µg/L	250[A]	< 5.0	<5.0	-	< 20	<5.0	< 5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10
Zinc	µg/L	1100[A]	14.3	474	-	25	44.1	181	517	17.0	16.2	603	68.9	54.3	35.1	88.8	92.6	40.8	211
Zirconium	µg/L	n/v	1.33	0.71	-	< 2.0	1.33	0.71	<0.50	1.14	<0.50	<0.50	1.26	1.01	1.63	1.25	1.53	1.67	2.2

See notes on last page

Table II
Summary of Groundwater Analytical Results
CP Weston
Canadian Pacific

Sample Location			MW01			MW02		MW04		MW05	MW06	MW07	MW08	MW09	MW10	MW11	Field Dup	MW12	MW13
Sample Date			11-Jan-13	24-July-2013	24-July-2013	11-Jan-13	24-July-2013	11-Jan-13	24-July-2013	24-July-2013	24-July-2013	24-July-2013	24-July-2013	24-July-2013	24-July-2013	24-July-2013	24-July-2013	24-July-2013	24-July-2013
Sample ID			MW01	MW01	MW01	MW02	MW02	MW04	MW04	MW05	MW06	MW07	MW08	MW09	MW010	MW11	-	MW12	MW13
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX	MAXX
Laboratory Work Order			B302638	B363703	B363703	B302638	B363703	B302638	B363703	B363703	B363703	B363703	B363703	B363703	B363703	B363703	B363703	B363703	B363703
Laboratory Sample ID		Amended	FJ0573	GZ8735	GZ8735	FJ0559	GZ8736	FJ0574	GZ8738	GZ8739	GZ8740	GZ5841	GZ8742	GZ8743	GZ8744	GZ8745	GZ8747	GZ8745	GZ8746
Sample Type	Units	O.Reg 153/04			Lab Dup												Field Dup		
Polycyclic Aromatic Hydrocarbons																			
Acenaphthene	µg/L	1700[A]	< 0.050	<0.050	-	< 0.050	<0.050	< 0.050	<0.050	<0.050	0.068	0.14	<0.050	<0.050	0.079	<0.050	<0.050	<0.050	<0.050
Acenaphthylene	µg/L	1.8[A]	< 0.050	<0.050	-	< 0.050	<0.050	< 0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Acridine	µg/L	n/v	< 0.050	<0.050	-	< 0.050	<0.050	< 0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Anthracene	µg/L	2.4[A]	0.014	<0.010	-	0.088	0.013	< 0.010	<0.010	<0.010	0.049	0.039	<0.010	0.010	0.079	0.030	0.014	<0.010	<0.010
Benzo(a)anthracene	µg/L	4.7[A]	< 0.010	<0.010	-	< 0.010	<0.010	< 0.010	<0.010	<0.010	0.032	<0.010	<0.010	0.021	0.068	0.016	0.015	<0.010	<0.010
Benzo(a)pyrene	µg/L	0.81[A]	< 0.0090	<0.0090	-	< 0.0090	<0.0090	< 0.0090	<0.0090	<0.0090	0.030	<0.0090	<0.0090	0.018	<0.50	0.011	0.014	<0.0090	<0.0090
Benzo(b)pyridine (Quinoline)	µg/L	n/v	< 0.50	<0.50	-	< 0.50	<0.50	< 0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.071	<0.50	<0.50	<0.50	<0.50
Benzo(b&j)fluoranthene	µg/L	0.75_{42}[A]	< 0.050	<0.050	-	< 0.050	<0.050	< 0.050	<0.050	<0.050	0.051	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(g,h,i)perylene	µg/L	0.2[A]	< 0.050	<0.050	-	< 0.050	<0.050	< 0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(k)fluoranthene	µg/L	0.4[A]	< 0.050	<0.050	-	< 0.050	<0.050	< 0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Chrysene	µg/L	1[A]	< 0.050	<0.050	-	< 0.050	<0.050	< 0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.081	<0.050	<0.050	<0.050	<0.050
Dibenzo(a,h)anthracene	µg/L	0.52[A]	< 0.050	<0.050	-	< 0.050	<0.050	< 0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoranthene	µg/L	130[A]	0.053	<0.020	-	0.037	0.027	< 0.020	<0.020	<0.020	0.17	0.081	0.023	0.062	0.25	0.11	0.10	<0.020	<0.020
Fluorene	µg/L	400[A]	< 0.050	<0.050	-	< 0.050	<0.050	< 0.050	<0.050	<0.050	0.089	0.10	<0.050	<0.050	0.12	<0.050	<0.050	<0.050	<0.050
Indeno(1,2,3-cd)pyrene	µg/L	0.2[A]	< 0.050	<0.050	-	< 0.050	<0.050	< 0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Methylnaphthalene, 2-	µg/L	$_{83}$[A]	< 0.10	<0.10	-	0.10	<0.10	< 0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Naphthalene	µg/L	6400[A]	< 0.10	<0.10	-	< 0.10	<0.10	< 0.10	<0.10	<0.10	<0.10	0.46	0.11	<0.10	0.35	<0.10	<0.10	<0.10	<0.10
Phenanthrene	µg/L	580[A]	0.079	<0.050	-	0.098	<0.050	< 0.050	<0.050	<0.050	0.10	0.20	0.056	0.053	0.28	0.096	0.084	<0.050	<0.050
Pyrene	µg/L	68[A]	0.048	<0.020	-	0.030	<0.020	< 0.020	<0.020	<0.020	0.17	0.066	0.020	0.060	0.22	0.079	0.080	<0.020	<0.020
Low Molecular Weight PAH's	µg/L	n/v	< 0.50	<0.50	-	< 0.50	<0.50	< 0.50	<0.50	<0.50	<0.50	0.93	<0.50	<0.50	0.91	<0.50	<0.50	<0.50	<0.50
High Molecular Weight PAH's	µg/L	n/v	0.10	<0.050	-	0.066	<0.050	< 0.050	<0.050	<0.050	0.45	0.15	<0.050	0.16	0.75	0.21	0.21	<0.050	<0.050
Total PAH	µg/L	n/v	< 0.50	<0.50	-	< 0.50	<0.50	< 0.50	<0.50	<0.50	0.76	1.1	<0.50	<0.50	1.7	<0.50	<0.50	<0.50	<0.50
Volatile Organic Compounds																			
Benzene	µg/L	430[A]	<0.4	< 0.4	-	< 0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Ethylbenzene	µg/L	2300[A]	<0.4	< 0.4	-	< 0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Methyl tert-butyl ether (MTBE)	µg/L	1400[A]	<4	< 4	-	< 4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Toluene	µg/L	18000[A]	<0.4	< 0.4	-	< 0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Xylene, m & p-	µg/L	$_{81}$[A]	<0.8	< 0.8	-	< 0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Xylene, o-	µg/L	$_{81}$[A]	<0.4	< 0.4	-	< 0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Xylenes, Total	µg/L	4200_{81}[A]	<0.8	< 0.8	-	< 0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8

See notes on last page

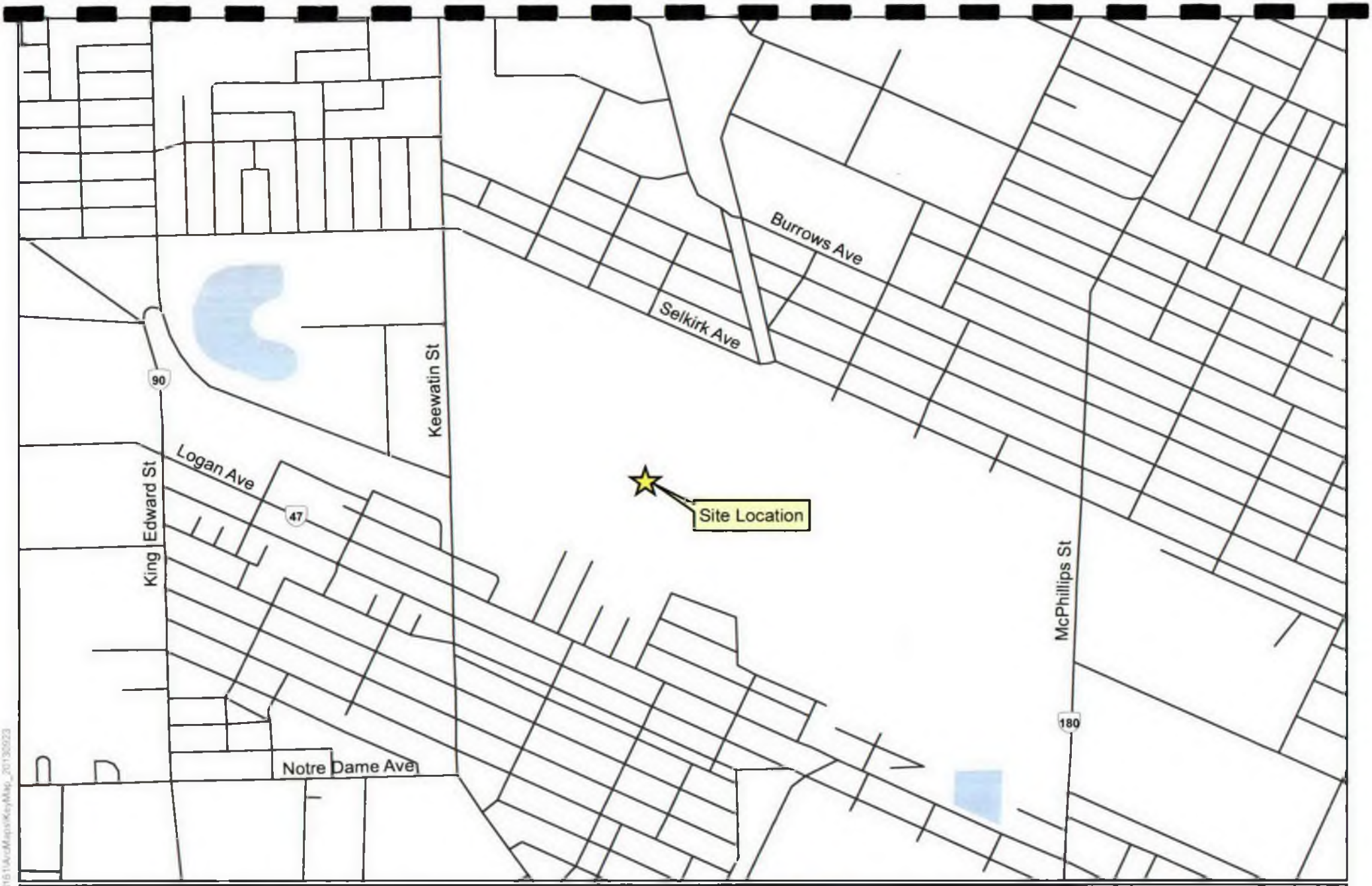
Table II
Summary of Groundwater Analytical Results
CP Weston
Canadian Pacific Railway Co.

Notes:

Amended O.Reg 153/04	Province of Ontario "Soil, Ground Water and Sediment Standards for use under Part XV.I of the Environmental Protection Act" Amended (April 15, 2011) Site Condition Standards
A	MOE Table 3 - All Types of Property Use - Medium Fine Textured Soils
6.5[A]	Concentration exceeds the indicated standard.
15.2	Concentration was detected but did not exceed applicable standards.
< 0.50	Laboratory estimated quantitation limit exceeded standard.
< 0.03	The analyte was not detected above the laboratory estimated quantitation limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
a1	The criterion is applicable to total xylenes, and m & p-xylenes and o-xylenes should be summed for comparison.
a2	The criterion is for benzo(b)fluoranthene; however, the analytical laboratory can not distinguish between benzo(b)fluoranthene and benzo(j)fluoranthene and therefore the result is a combination of the two isomers, against which the criterion has been compared.
a3	The methyl naphthalene standards are applicable to both 1-methyl naphthalene and 2-methyl naphthalene, with the provision that if both are detected the sum of the two must not exceed the standard.
a7	Criterion is applicable to PHC in the F1 range minus any BTEX.
a8	Criterion is applicable to PHC in the F3, minus any PAHs (other than naphthalene). If PAHs have not been measured, the criterion is applied to F3.
a10	If baseline is not reached during F4 analysis, then Gravimetric Heavy Hydrocarbon analysis is to be performed, and the criterion applied to the higher of the two results.
a11	The criterion is applicable to 1,3-Dichloropropene, and the individual isomers (cis + trans) should be added for comparison.
a15	Criterion is applicable to PHC in the F2 range minus any naphthalene. If naphthalene is not analyzed for, the criterion is applied to F2.
IF	Detection limits raised due to sample matrix interference.

Appendix A
Figures and Selected Photographs

Stantec



CP Weston Yard

Site Map

N

0 100 200 400
Meters

Acknowledgements
Original Drawing by Stantec Consulting Ltd.
Base Data by MLI, NTS.

Stantec

MAP SCALE	DATA SCALE
1: 15,000	NA
DATE: September 23, 2013	PROJECT: 1114 40161
FIGURE NO: 1	

DRAWN	CHECKED	APPROVED
AC	SC	KM

G:_GIS_Projects_Folder\1114\40161\ArcMaps\KeyMap_20130923

Stantec

Legend

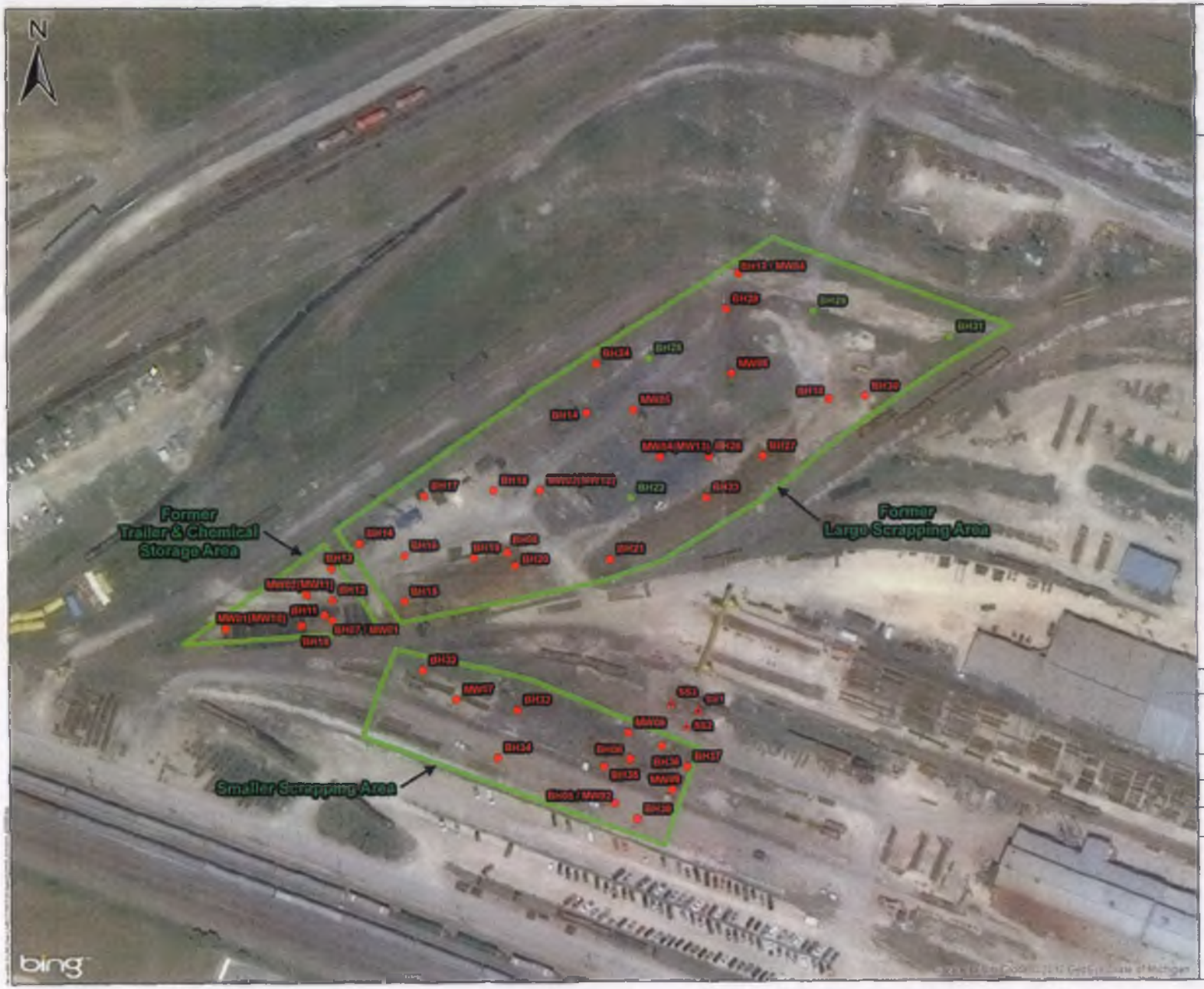
- Borehole Location (Winter 2013)
- Monitoring Well Location (Winter 2013)
- Borehole Location (Summer 2013)
- Monitoring Well Location (Summer 2013)
- Surface Soil Sample Location (Summer 2013)

NTS, MLI, Stantec Consulting Ltd. Imagery Provided by Bing		
Stantec Consulting Ltd.		
UTM Zone 14N NAD83	07-JAN-13	25-OCT-13
0 50 100 Metres 1:1,450	1.0	ANSI A

Borehole/Monitoring Well Location Plan

CP Weston Yard in Winnipeg, MB

Figure 2



Stantec

Legend

- Soil Exceedance
- No Soil Exceedance
- Surface Soil Exceedance

111460161

Stantec Consulting Ltd.

UTM Zone 14N NAD83 | 01-JAN-13 | 25-OCT-13 | 1:1,400 | 1.0

Identified Soil Impacts (Metals, Petroleum Hydrocarbons or PAHs): January and July 2013

CP Weston Yard in Winnipeg, MB

Figure 3

View of surface sampling collection area looking east.

View of the surface sample location area looking south.

View of surface sample location SS1 looking east.

Sampling of MW01(MW10) looking northwest.

View of MW04(MW13) looking west.

View of the installation of MW07 looking northeast.

View of MW09 looking northwest.

View of BH10 looking west.

View of BH13 looking north.

View of BH16 looking east.

View of BH29 looking southeast.

View of BH32 looking east.

View of BH34 looking south.

View of BH38 looking east.

Appendix B
Borehole Logs

Monitoring Well: MW01(MW10)

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	03-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	629889
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531703

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL / ppm (Comb / TOV)	Diagram / Description
			Ground Surface						
1–2	0.5		Sand and Gravel Fill black coarse grained fill, moist - hydrocarbon odour 0.4 to 1 mbgs, increasing to wet	0.00	0-0.5	AS	Metals	Comb 105; TOV 760	Flushmount protective cover
2–3	1.0				0.5-1	AS	BTEX, PHC F1-F4	Comb 135; TOV 740	Groundwater Level: 0.36 m BGS 24-Jul-13
3–4	1.0		Clay Fill black/gray, no stones, oxidation or salt deposits present, moist	0.90	1-1.5	AS	Metals	Comb 25; TOV 460	50 mm ID PVC pipe with bentonite backfill
4–5	1.5		- colour changing to brown, with inclusions of angular stones 0 to 3 mm diameter, no salts or oxidation present, moist						
6–7	2.0		Silt brown, no stones, oxidation or salt deposits, moist	1.80	1.5-2.25	AS		Comb 9; TOV 440	
8–9	2.5		Clay brown, no stones or salt deposits present, oxidation at 2.45 to 3.2 mbgs, moist	2.45	2.25-3	AS		Comb 7; TOV 490	
10–11	3.0		- colour changing to gray, no stones or oxidation, moist						
11–12	3.5		- salt deposits at 3.4 to 4.5 mbgs		3-3.75	AS		Comb 6; TOV 330	
13–14	4.0				3.75-4.5	AS		Comb 6; TOV 410	50 mm ID slotted PVC pipe with silica sand backfill
14–15	4.5								
15–16	5.0				4.5-5.25	AS		Comb 2; TOV 490	
17–18	5.5				5.25-6	AS		Comb 4; TOV 480	
19–20	6.0		End of Borehole	6.00					
21–22	6.5								

Screen Interval: 1.50 - 5.95 m BGS
Sand Pack Interval: 1.20 - 6.00 m BGS
Well Seal Interval: 0.23 - 1.20 m BGS

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Monitoring Well: MW02(MW11)

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	03-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	629920
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531716

Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL / ppm (Comb, TOV)	Diagram	Description
			Ground Surface							
1-3	0.5		Sand and Gravel Fill black coarse grained fill, moist	0.00	0-0.5	AS		280		Flushmount protective cover
3-4	1.0		Clay Fill black/gray, no stones, salts or oxidation, moist	0.80	0.5-1	AS	Metals			Groundwater Level: 0.32 m BGS 24-Jul-13
4-5	1.5		Silt brown, no stones, oxidation or salt deposits present, wet	1.40	1-1.5	AS		0		50 mm ID PVC pipe with bentonite backfill
5-9	2.0				1.5-2.25	AS	Metals, PSA	210		
8-9	2.5				2.25-3	AS	Metals	0		
9-10	3.0		Clay gray, no stones present, moist - salt deposits at 2.8 to 5.7 mbgs - oxidation at 3.1 to 4.5 mbgs	2.70						
11-12	3.5				3-3.75	AS		155		
12-13	4.0				3.75-4.5	AS		85		50 mm ID slotted PVC pipe with silica sand backfill
14-16	4.5				4.5-5.25	AS		60		
16-18	5.0				5.25-6	AS		165		
18-20	5.5									
20	6.0		End of Borehole	6.00						
21-22	6.5									

Screen Interval: 1.50 - 5.95 m BGS
Sand Pack Interval: 1.20 - 6.00 m BGS
Well Seal Interval: 0.23 - 1.20 m BGS

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Monitoring Well: MW03(MW12)

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	04-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	SR	**Easting:**	630011
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531756

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL / ppm (TOV)	Diagram / Description
			Ground Surface						
1–2	0.5		Gravel Fill black coarse grained fill, moist	0.00	0-0.5	AS	Metals	440	Flushmount protective cover
			- woody debris						
2–3	1.0		Clay Fill black/gray , no stones or oxidation present, salt deposits at 0.8 to 1.1 m, moist	0.70	0.5-1	AS		370	Groundwater Level: 0.57 m BGS 24-Jul-13
4–5	1.5		Clay brown, no stones present, salt deposits at 1.3 to 1.4 m, moist	1.20	1-1.5	AS		320	50 mm ID PVC pipe with bentonite backfill
6–7	2.0		- oxidation from 2 - 2.5 m		1.5-2.25	AS		230	
8–9	2.5		Silt brown, no stones present, oxidation at 2.7 m, salt deposits at 2.7 m, wet	2.50	2.25-3	AS	Metals	150	
10–11	3.0				3-3.75	AS		165	
12–13	3.5		Clay brown, no oxidation or salt deposits present, moist	3.60	3.75-4.5	AS		180	50 mm ID slotted PVC pipe with silica sand backfill
14–15	4.0								
16–17	4.5		- angular stones 0 to 4 mm diameter at 4.8 to 5.2 mbgs		4.5-5.25	AS		140	
18–19	5.0		- colour changing to brown/gray at 5 mbgs						
20–21	5.5				5.25-6	AS		140	
22	6.0		End of Borehole	6.00					
	6.5								

Screen Interval: 1.50 - 5.85 m BGS
Sand Pack Interval: 1.20 - 6.00 m BGS
Well Seal Interval: 0.23 - 1.20 m BGS

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Monitoring Well: MW04(MW13)

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	04-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	SR	**Easting:**	630057
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531769

Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL / ppm (Comb / TOV)	Diagram	Description
			Ground Surface							
1	0.5		Gravel Fill black coarse gravel, moist	0.00	0-0.5	AS	Metals	55 / 14		Flushmount protective cover
2			- oxidation at 0.6 mbgs		0.5-1	AS		55 / 14		Groundwater Level: 0.38 m BGS 24-Jul-13
3	1.0		Clay black, no stones, oxidation or salt deposits present, moist	0.80						50 mm ID PVC pipe with bentonite backfill
4			Silty Clay light gray/brown, trace angular stones 0-3 mm diameter, no oxidation or salt deposits present, moist	1.10	1-1.5	AS		65 / 14		
5	1.5									
6			Clay gray/brown clay, no stones present, moist	1.70	1.5-2.25	AS	Metals	55 / 14		
7	2.0		- oxidation from 2.1 to 2.2 mbgs							
8					2.25-3	AS		90 / 14		
9	2.5									
10										
11	3.0				3-3.75	AS		40 / 14		
12	3.5									50 mm ID slotted PVC pipe with silica sand backfill
13										
14	4.0		- oxidation from 4.1 to 4.4 mbgs, 4.8 to 4.9 and 5.8 m		3.75-4.5	AS		330 / 17		
15	4.5		- salt deposits from 4.5 to 4.6 mbgs							
16			- oxidation from 4.8 to 4.9 and 5.8 m		4.5-5.25	AS		260 / 15		
17	5.0									
18	5.5		salt deposits from 5.4 to 6 mbgs		5.25-6	AS		270 / 14		
19			- oxidation from 5.8 to 6.0 mbgs							
20	6.0		End of Borehole	6.00						
21	6.5									
22										

Screen Interval: 1.50 - 5.95 m BGS
Sand Pack Interval: 1.20 - 6.00 m BGS
Well Seal Interval: 0.23 - 1.20 m BGS

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

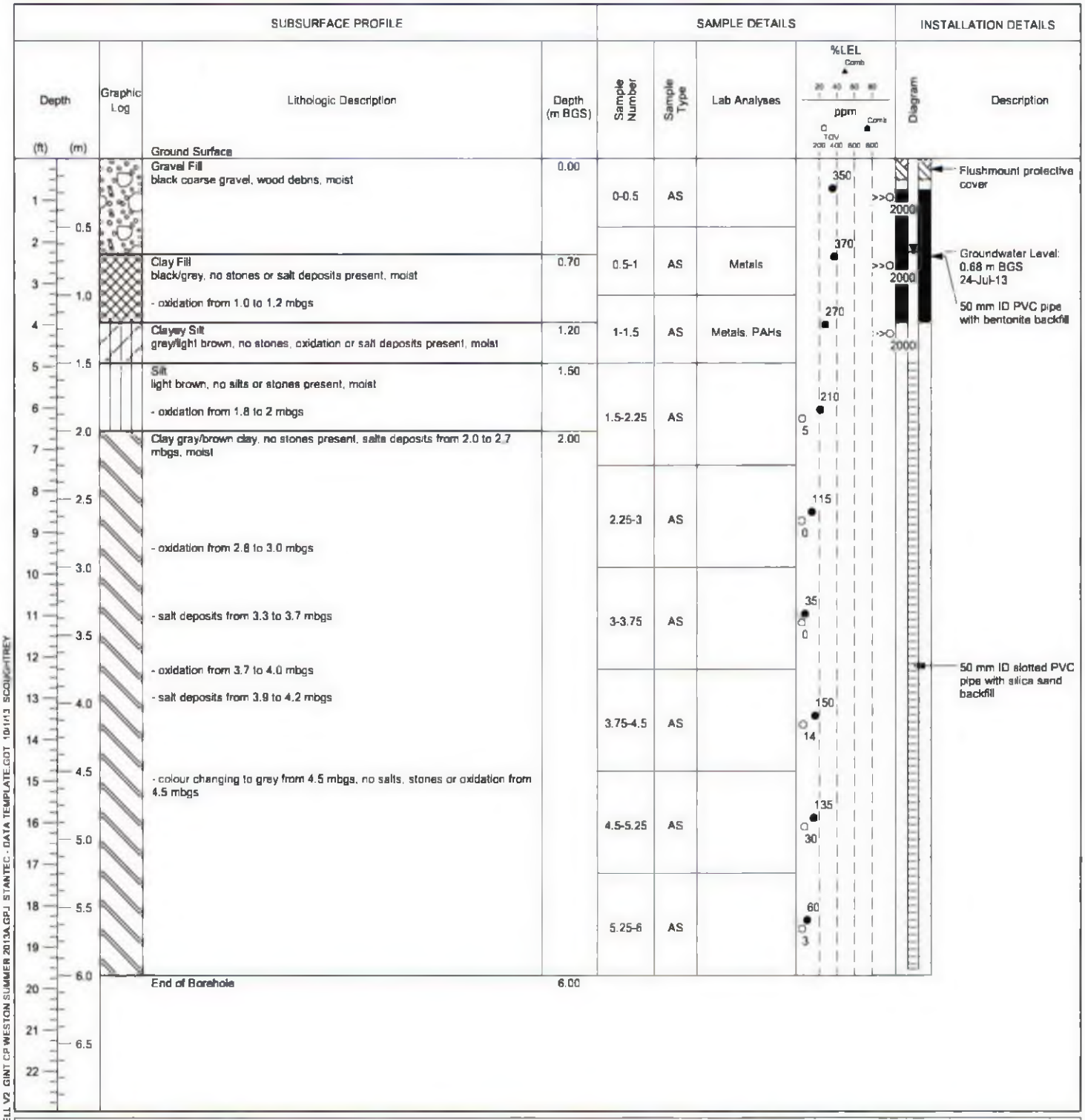
TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Monitoring Well: MW05

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	04-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	SR	**Easting:**	630047
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531787



Screen Interval: 1.50 - 5.95 m BGS
Sand Pack Interval: 1.20 - 6.00 m BGS
Well Seal Interval: 0.23 - 1.20 m BGS

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Sheet 1 of 1

STANTEC BOREHOLE AND WELL V2 GINT CP WESTON SUMMER 2013A.GPJ STANTEC - DATA TEMPLATE.GDT 10/1/13 SCOUGHTREY

Monitoring Well: MW06

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	04-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	630085
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531801

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL Comb 20 40 60 80 / ppm TOV 200 400 600 800 Comb	Diagram / Description
			Ground Surface						
1	0.5		Gravel Fill brown coarse gravel, wet	0.00	0-0.5	AS	Metals, TCLP	540	Flushmount protective cover
2					0.5-1	AS		550	Groundwater Level: 0.34 m BGS 24-Jul-13
3	1.0								50 mm ID PVC pipe with bentonite backfill
4					1-1.5	AS	Metals	630	
5	1.5		- wood debris from 1.5 to 1.7 mbgs						
6					1.5-2.25	AS		690	
7	2.0								
8	2.5		Clay brown, no stones, oxidation or salt deposits present, moist	2.30					
9			Silty Clay - brown, no stones, oxidation or salt deposits present, moist	2.50	2.25-3	AS		420	
10	3.0		Clay brown, oxidation and salt deposits to 6.0 mbgs, no stones, moist	2.70					50 mm ID slotted PVC pipe with silica sand backfill
11					3-3.75	AS		470	
12	3.5								
13	4.0				3.75-4.5	AS		540	
14									
15	4.5				4.5-5.25	AS		450	
16	5.0								
17									
18	5.5				5.25-6	AS		500	Slough at bottom of hole
19									
20	6.0		End of Borehole	6.00					
21	6.5								
22									

Screen Interval: 1.50 - 4.45 m BGS
Sand Pack Interval: 1.20 - 4.50 m BGS
Well Seal Interval: 0.23 - 1.20 m BGS

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

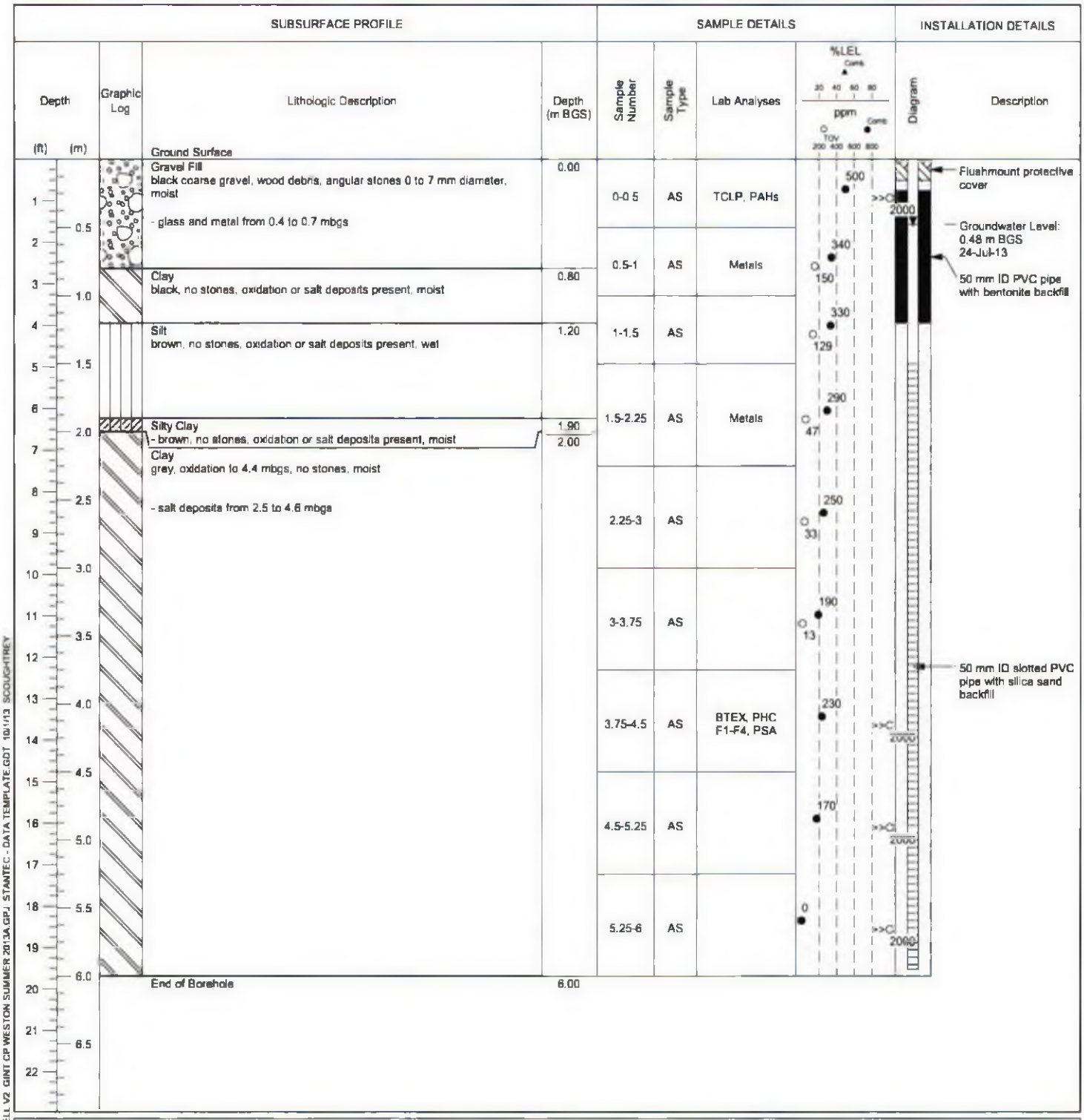
TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Monitoring Well: MW07

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	03-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	630004
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531676



Screen Interval: 1.50 - 5.95 m BGS
Sand Pack Interval: 1.20 - 6.00 m BGS
Well Seal Interval: 0.23 - 1.20 m BGS

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Sheet 1 of 1

STANTEC BOREHOLE AND WELL V2 GINT CP WESTON SUMMER 2013A.GPJ STANTEC - DATA TEMPLATE.GDT 10/1/13 SCOUGHTREY

Monitoring Well: MW08

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	02-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	630048
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531666

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL Comb / ppm Comb / TOV	Diagram / Description
			Ground Surface						
			Gravel Fill brown/black coarse gravel, angular stones 0 to 13 mm diameter, wet	0.00	0-0.5	AS	Metals	1050 (>>)	Flushmount protective cover
			Clay black, no stones, oxidation or salt deposits present, moist - colour changing to brown from 0.8 mbgs	0.60	0.5-1	AS		820	Groundwater Level: 0.44 m BGS 24-Jul-13 50 mm ID PVC pipe with bentonite backfill
			Silt brown, no stones, oxidation or salt deposits present, wet	1.30	1-1.5	AS	Metals	980	
					1.5-2.25	AS		720	
					2.25-3	AS		620	
			Clay grey, no stones, moist - oxidation from 3.4 to 6 mbgs - salt deposits from 3.5 to 6 mbgs	3.00	3-3.75	AS		590	
					3.75-4.5	AS	PAHs, PSA	1100 (>>)	50 mm ID slotted PVC pipe with silica sand backfill
					4.5-5.25	AS		760	
					5.25-6	AS		700	
			End of Borehole	6.00					

Screen Interval:	1.50 - 5.95 m BGS
Sand Pack Interval:	1.20 - 6.00 m BGS
Well Seal Interval:	0.23 - 1.20 m BGS

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Monitoring Well: MW09

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	02-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	630061
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531640

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL / ppm (Comb, TOV)	Diagram / Description
			Ground Surface						
1			**Gravel Fill** brown/black coarse gravel, angular stones 0 to 12 mm diameter, wet	0.00	0-0.5	AS	Metals	0 2	Flushmount protective cover
2	0.5		**Silty Clay** black, no stones, oxidation or salt deposits present, moist - colour changing to brown from 0.85 mbgs	0.70	0.5-1	AS		740 0	Groundwater Level: 0.48 m BGS 24-Jul-13
3	1.0								50 mm ID PVC pipe with bentonite backfill
4					1-1.5	AS	PSA	730 0	
5	1.5		**Silt** brown, no stones, oxidation or salt deposits present, wet	1.50					
6	2.0				1.5-2.25	AS	Metals	670 0	
7			**Clay** brown, no stones, oxidation or salt deposits present, moist	2.10					
8	2.5		**Silt** brown, no stones, oxidation or salt deposits present, wet	2.20	2.25-3	AS		650 1	
9									
10	3.0		**Silty Clay** brown, no stones, oxidation or salt deposits present, moist	3.10					
11			**Clay** grey, no stones, moist - salt deposits from 3.5 to 5.6 mbgs - oxidation from 3.6 to 4.4 mbgs	3.40	3-3.75	AS		600 1	
12	3.5								50 mm ID slotted PVC pipe with silica sand backfill
13	4.0				3.75-4.5	AS	PSA	560 1	
14									
15	4.5				4.5-5.25	AS		540 0	
16									
17	5.0								
18	5.5				5.25-6	AS		490 1	
19									
20	6.0		End of Borehole	6.00					
21									
22	6.5								

Screen Interval: 1.50 - 5.85 m BGS
Sand Pack Interval: 1.20 - 6.00 m BGS
Well Seal Interval: 0.23 - 1.20 m BGS

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Borehole: BH10

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	03-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	629918
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531704

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL / ppm (TOV)	Diagram / Description
0	0		Ground Surface						
0.5			Gravel Fill brown coarse gravel, angular stones 0 to 12 mm diameter, moist - colour changing to black from 0.1 mbgs	0.00	0-0.5	AS		TOV 9	Bentonite Backfill
1.5	0.5		Clay brown/grey, no stones, oxidation or salt deposits present, moist	0.40	0.5-1	AS	Metals	TOV 5	
3.5	1.0		- colour changing to brown from 1.2 mbgs		1-1.5	AS	Metals	TOV 2	
5.0	1.5		Silt brown, no stones, oxidation or salt deposits present, wet	1.50	1.5-2.25	AS		TOV 4	Drill cuttings and bentonite backfill
8.0	2.5		Clay brown, no stones, oxidation or salt deposits present, moist	2.40	2.25-3	AS		TOV 1	Bentonite backfill
10.0	3.0		End of Borehole	3.00					
13.0	4.0								
14.5	4.5								
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Sheet 1 of 1

STANTEC BOREHOLE AND WELL V2 GINT CP WESTON SUMMER 2013A.GPJ STANTEC - DATA TEMPLATE.GDT 10/1/13 SCOUGHTREY

Borehole: BH11

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	03-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field Investigator:	BE	**Easting:**	629927
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531708

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL Comb / ppm TOV / Comb	Diagram / Description
			Ground Surface						
0.5			Gravel Fill black coarse gravel, angular stones 0 to 12 mm diameter, moist	0.00	0-0.5	AS	Metals, TCLP	480	Bentonite Backfill
1.5	0.5								
2.5			Clay black, no stones, oxidation or salt deposits present, moist	0.80	0.5-1	AS		560	
3.5	1.0		- colour changing to grey/brown from 1.0 mbgs						
4.5			Silt brown, no stones, oxidation or salt deposits present, wet	1.10	1-1.5	AS	Metals	340	Drill cuttings and bentonite backfill
5.5	1.5								
6.5	2.0				1.5-2.25	AS		290	
7.5									
8.5	2.5				2.25-3	AS		210	
9.5			Clay grey, no stones, oxidation or salt deposits present, moist	2.70					Bentonite backfill
10.5	3.0		End of Borehole	3.00					
11.5	3.5								
12.5									
13.5	4.0								
14.5									
15.5	4.5								
16.5									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

STANTEC BOREHOLE AND WELL V2 GINT CP WESTON SUMMER 2013A.GPJ STANTEC - DATA TEMPLATE.GDT 10/1/13 SCOUGHTREY

Borehole: BH12

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	03-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	629930
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531714

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL / ppm (TOV, Comb)	Diagram / Description
			Ground Surface						
0.5			Gravel Fill black coarse gravel, angular stones 0 to 12 mm diameter, moist	0.00	0-0.5	AS	Metals, TCLP	TOV 40, Comb 3	Bentonite Backfill
2.5	0.5		Clay black/grey, no stones, oxidation or salt deposits present, moist	0.80	0.5-1	AS		TOV 0, Comb 4	
4.0	1.0		Silt brown, no stones, oxidation or salt deposits present, wet	1.10	1-1.5	AS		TOV 0, Comb 6	
5.6	1.5		Clay Grey, no stones, oxidation or salt deposits present, moist	1.60					Drill cuttings and bentonite backfill
6.0			Silt brown, no stones, oxidation or salt deposits present, wet	1.70	1.5-2.25	AS	Metals	TOV 110, Comb 7	
8.5	2.5		Clay grey, oxidation from 2.6 to 2.8 mbgs, no stones or salt deposits present, moist	2.60	2.25-3	AS		TOV 165, Comb 7	Bentonite backfill
10.0	3.0		End of Borehole	3.00					
11.5	3.5								
13.0	4.0								
14.5	4.5								
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Sheet 1 of 1

STANTEC BOREHOLE AND WELL V2 GINT CP WESTON SUMMER 2013A.GPJ STANTEC_DATA TEMPLATE.GDT 10/1/13 SCOUGHTREY

Borehole: BH13

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	03-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field Investigator:	BE	**Easting:**	629930
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531728

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL Comb / ppm Comb / TOV	Diagram / Description
			Ground Surface						
			Gravel Fill black coarse gravel, angular stones 0 to 12 mm diameter, moist	0.00	0-0.5	AS	Metals, TCLP	850	Bentonite Backfill
			Silty Clay grey, no stones, oxidation or salt deposits present, faint hydrocarbon odour, moist	0.75	0.5-1	AS		760	
			Silt brown, no stones, oxidation or salt deposits present, wet	0.90	1-1.5	AS		670	Drill cuttings and bentonite backfill
					1.5-2.25	AS	Metals	340	
			Clay grey, oxidation from 2.6 to 2.8 mbgs, no stones or salt deposits present, moist	2.60	2.25-3	AS		414	Bentonite backfill
			End of Borehole	3.00					

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Borehole: BH14

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	03-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	629935
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531732

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL / ppm (TOV, Comb)	Diagram / Description
			Ground Surface						
0.5			Gravel Fill black coarse gravel, angular stones 0 to 12 mm diameter, moist	0.00	0-0.5	AS		140	Bentonite Backfill
2.5	0.5		Clay black/light grey, no stones, oxidation or salt deposits present, faint hydrocarbon odour, moist	0.80	0.5-1	AS	Metals, BTEX, PHC F1-F4	150	
4.0	1.0		Silt brown, no stones, oxidation or salt deposits present, wet	1.20	1-1.5	AS	Metals	10	
6.5	1.5				1.5-2.25	AS	Metals	350	Drill cuttings and bentonite backfill
8.0	2.5		Clay grey, no stones, oxidation or salt deposits present, moist	2.60	2.25-3	AS		10	Bentonite backfill
10.0	3.0		End of Borehole	3.00					
13.0	4.0								
15.0	4.5								
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Borehole: BH15

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	03-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field Investigator:	BE	**Easting:**	629948
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531717

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL / ppm (TOV, Comb)	Diagram / Description
			Ground Surface						
0.5			**Gravel Fill** black coarse gravel, angular stones 0 to 12 mm diameter, moist	0.00	0-0.5	AS	Metals	670	Bentonite Backfill
1.5	0.5		**Clay** black/grey, no stones, oxidation or salt deposits present, moist	0.50	0.5-1	AS		520	
3.0	1.0		**Silt** brown, no stones, oxidation or salt deposits present, wet	0.80	1-1.5	AS	Metals	330	Drill cuttings and bentonite backfill
6.0	1.5				1.5-2.25	AS		125	
7.5	2.0		**Clay** grey, oxidation and salt deposits from 2.4 to 3 mbgs, no stones present, moist	2.30	2.25-3	AS		510	Bentonite backfill
10.0	3.0		End of Borehole	3.00					
11.5	3.5								
13.0	4.0								
14.5	4.5								
15.0									
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Sheet 1 of 1

STANTEC BOREHOLE AND WELL V2 GINT CP WESTON SUMMER 2013A.GPJ STANTEC - DATA TEMPLATE.GDT 10/1/13 SCOUGHTREY

Borehole: BH16

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	03-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	629958
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531731

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL / ppm (TOV, Comb)	Diagram / Description
			Ground Surface						
0.5			Gravel Fill black coarse gravel, angular stones 0 to 12 mm diameter, moist	0.00	0-0.5	AS	Metals, TCLP	420	Bentonite Backfill
1.0	0.5								
1.5					0.5-1	AS	Metals	200	
2.0	1.0								
2.5			Clay black/grey, no stones, oxidation or salt deposits present, moist	1.10	1-1.5	AS		0	
3.0			Silty Clay light grey, no stones, oxidation or salt deposits present, wet - colour changing to brown from 1.5 mbgs	1.30					Drill cuttings and bentonite backfill
3.5	1.5								
4.0					1.5-2.25	AS	Metals	0	
4.5									
5.0									
5.5									
6.0									
6.5	2.0								
7.0									
7.5			Clay grey, oxidation and salt deposits from 2.4 to 3 mbgs, no stones present, moist	2.30					
8.0									
8.5	2.5				2.25-3	AS		240	
9.0									
9.5									
10.0	3.0		End of Borehole	3.00					Bentonite backfill
10.5									
11.0									
11.5	3.5								
12.0									
12.5									
13.0	4.0								
13.5									
14.0									
14.5	4.5								
15.0									
15.5									
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Borehole: BH17

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	03-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field Investigator:	BE	**Easting:**	629966
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531754

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL / ppm (TOV, Comb)	Diagram / Description
			Ground Surface						
0.5			Gravel Fill black coarse gravel, angular stones 0 to 12 mm diameter, wet	0.00	0-0.5	AS	Metals, PAHs	280	Bentonite Backfill
1.0									
1.5	0.5				0.5-1	AS		570	
2.0									
2.5									
3.0	1.0				1-1.5	AS		640	
3.5									
4.0			Clay black, no stones, oxidation or salt deposits present, moist	1.20					
4.5									
5.0	1.5		- colour changing to grey from 1.5 to 2.1 mbgs		1.5-2.25	AS		950	Drill cuttings and bentonite backfill
5.5									
6.0									
6.5	2.0								
7.0			- colour changing to brown from 2.1 mbgs - oxidation from 2.1 to 2.7 mbgs - salt deposits from 2.2 to 2.8 mbgs						
7.5									
8.0	2.5				2.25-3	AS	Metals, BTEX, PHC F1-F4	1000	Bentonite backfill
8.5									
9.0									
9.5	3.0								
10.0			End of Borehole	3.00					
10.5									
11.0									
11.5	3.5								
12.0									
12.5									
13.0	4.0								
13.5									
14.0									
14.5	4.5								
15.0									
15.5									
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Sheet 1 of 1

STANTEC BOREHOLE AND WELL V2 GINT CP WESTON SUMMER 2013A.GPJ STANTEC - DATA TEMPLATE.GDT 10/1/13 SCOUGHTREY

Borehole: BH18

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	03-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	629993
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531756

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL Comb / ppm TOV / Comb	Diagram / Description
			Ground Surface						
0.5			Gravel Fill black coarse gravel, angular stones 0 to 12 mm diameter, wet	0.00	0-0.5	AS	BTEX, PHC F1-F4, Metals, TCLP	1150 (>>), TOV 4.3	Bentonite Backfill
1.0					0.5-1	AS	Metals	950, TOV 2	
1.5	0.5				1-1.5	AS		500, TOV 0	
2.0			Clay grey, no stones present, moist	1.30					Drill cuttings and bentonite backfill
2.5	1.0		- colour changing to brown from 1.7 to 2.5 mbgs		1.5-2.25	AS	Metals	820, TOV 0	
3.0			- oxidation from 2 to 2.8 mbgs - salt deposits from 2 to 2.6 mbgs						
3.5	1.5				2.25-3	AS		850, TOV 0	
4.0			Silty Clay brown, no stones present, moist	2.50					Bentonite backfill
4.5	2.0								
5.0									
5.5									
6.0									
6.5	2.5								
7.0									
7.5									
8.0									
8.5	3.0								
9.0									
9.5									
10.0			End of Borehole	3.00					
10.5									
11.0									
11.5	3.5								
12.0									
12.5									
13.0	4.0								
13.5									
14.0									
14.5									
15.0	4.5								
15.5									
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Sheet 1 of 1

STANTEC BOREHOLE AND WELL V2 GINT CP WESTON SUMMER 2013A.GPJ STANTEC - DATA TEMPLATE.GDT 10/1/13 SCOUGHTREY

Borehole: BH19

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	03-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field Investigator:	BE	**Easting:**	629985
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531730

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL / ppm (TOV, Comb)	Diagram / Description
			Ground Surface						
0.5			Gravel Fill black coarse gravel, angular stones 0 to 12 mm diameter, moist	0.00	0-0.5	AS	Metals, TCLP	0 960	Bentonite Backfill
1.5	0.5		- wood, metal and glass debris at 0.4 mbgs		0.5-1	AS		0 800	
3.0	1.0		Clay black, no stones, oxidation or salt deposits present, moist	0.80	1-1.5	AS	Metals	0 800	Drill cuttings and bentonite backfill
5.0	1.5								
6.5	2.0				1.5-2.25	AS		1 400	
7.0			Silty Clay grey/brown, no stones present or salt deposits present, moist	2.10					
8.5	2.5		- oxidation from 2.6 to 3 mbgs		2.25-3	AS	Metals	0 580	Bentonite backfill
10.0	3.0		End of Borehole	3.00					
11.5	3.5								
13.0	4.0								
14.5	4.5								
15.0									
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Borehole: BH20

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	03-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	630001
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531727

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL Comb / ppm TOV / Comb	Diagram / Description
			Ground Surface						
0.5			Gravel Fill black coarse gravel, angular stones 0 to 12 mm diameter, moist	0.00	0-0.5	AS	Metals, TCLP, PAHs	1050	Bentonite Backfill
1.5	0.5		- wood debris		0.5-1	AS	Metals	950	
3.0	1.0		Clay black, no stones, oxidation or salt deposits present, moist	0.80	1-1.5	AS		710	
5.0	1.5		Silty brown, no stones, oxidation or salt deposits present, moist	1.50					Drill cuttings and bentonite backfill
6.0			Clay brown/grey, no stones present, moist	1.70	1.5-2.25	AS	Metals	720	
8.0	2.5		- oxidation and salt deposits from 2.5 to 2.7 mbgs		2.25-3	AS		230	Bentonite backfill
10.0	3.0		End of Borehole	3.00					
11.5	3.5								
13.0	4.0								
14.5	4.5								
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Sheet 1 of 1

STANTEC BOREHOLE AND WELL V2 GINT CP WESTON SUMMER 2013A.GPJ STANTEC - DATA TEMPLATE GDT 10/1/13 SCOUGHTREY

Borehole: BH21

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	03-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field Investigator:	BE	**Easting:**	630035
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531734

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL Comb / ppm TOV / Comb	Diagram / Description
			Ground Surface						
0.5			Gravel Fill black coarse gravel, angular stones 0 to 12 mm diameter, moist	0.00	0-0.5	AS	Metals	0 0 720	Bentonite Backfill
1.5	0.5		- oxidation at 0.5 mbgs						
2.0			Clay black, no stones or salt deposits present, moist	0.80	0.5-1	AS		0 0 640	
2.5			- colour changing to grey/black from 0.7 mbgs						
3.0	1.0								
3.5			- slight oxidation from 1 to 1.3 mbgs						
4.0					1-1.5	AS		0 0 670	
4.5									
5.0	1.5								Drill cuttings and bentonite backfill
5.5									
6.0									
6.5	2.0				1.5-2.25	AS		0 0 370	
7.0			- colour changing to light grey from 2.0 mbgs						
7.5			- silt pockets, oxidation and salt deposits from 2.0 to 2.4 mbgs						
8.0	2.5		Silt brown, no stones, oxidation or salt deposits present, moist	2.40	2.25-3	AS	Metals	0 0 350	Bentonite backfill
8.5									
9.0									
9.5									
10.0	3.0		End of Borehole	3.00					
10.5									
11.0									
11.5	3.5								
12.0									
12.5									
13.0	4.0								
13.5									
14.0									
14.5	4.5								
15.0									
15.5									
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Borehole: BH22

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	03-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	SR	**Easting:**	630046
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531753

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL Comb / ppm TOV / Comb	Diagram / Description
			Ground Surface						
0.5			Gravel Fill black coarse gravel, angular stones 0 to 12 mm diameter, moist	0.00	0-0.5	AS		580	Bentonite Backfill
1.5	0.5		Clay grey, no stones or salt deposits present, moist	0.50	0.5-1	AS	Metals	760	
2.5			- oxidation from 0.8 to 1.2 mbgs		1-1.5	AS		660	
3.5	1.0								
4.5									
5.0	1.5		Silt light brown, no stones or salt deposits present, moist	1.50	1.5-2.25	AS	Metals	0	Drill cuttings and bentonite backfill
6.5	2.0		- salt deposits from 2.3 to 2.5 mbgs						
8.0	2.5		Clay brown, no stones, oxidation or salt deposits present, moist	2.50	2.25-3	AS		100	Bentonite backfill
9.0			Silt light brown, no stones, oxidation or salt deposits present, moist	2.70					
10.0	3.0		End of Borehole	3.00					
11.5	3.5								
13.0	4.0								
14.5									
15.0	4.5								
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Borehole: BH23

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	04-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	630075
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531753

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL / ppm	Diagram / Description
			Ground Surface						
0.5			Gravel Fill brown coarse gravel, angular stones 0 to 12 mm diameter, moist	0.00	0-0.5	AS	Metals, TCLP	730	Bentonite Backfill
1.0									
1.5	0.5		- colour changing to black		0.5-1	AS		570	
2.0									
2.5									
3.0	1.0		Clay grey/black, no stones, oxidation or salt deposits present, moist	0.90	1-1.5	AS	BTEX, PHC F1-F4	520	
3.5									
4.0									
4.5									
5.0	1.5		Silt light brown, no stones, oxidation or salt deposits present, moist	1.40					Drill cuttings and bentonite backfill
5.5			Clay brown, no stones present, oxidation from 1.8 to 2.4 mbgs, salt deposits from 1.6 to 2.1 mbgs, moist	1.60					
6.0									
6.5	2.0				1.5-2.25	AS		350	
7.0									
7.5									
8.0	2.5								
8.5					2.25-3	AS	Metals, PAHs	330	
9.0									
9.5									
10.0	3.0		End of Borehole	3.00					Bentonite backfill
10.5									
11.0									
11.5	3.5								
12.0									
12.5									
13.0	4.0								
13.5									
14.0									
14.5	4.5								
15.0									
15.5									
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Sheet 1 of 1

STANTEC BOREHOLE AND WELL V2 GINT CP WESTON SUMMER 2013A.GPJ STANTEC - DATA TEMPLATE.GDT 10/1/13 SCOUGHTREY

Borehole: BH24

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	04-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	630033
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531805

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL Comb / ppm TOV / Comb	Diagram / Description
			Ground Surface						
0.5			Gravel Fill brown/black coarse gravel, angular stones 0 to 12 mm diameter, moist	0.00	0-0.5	AS	Metals	300	Bentonite Backfill
1.5	0.5		- wood debris		0.5-1	AS		540	
3.0	1.0		Clay grey/black, no stones, oxidation or salt deposits present, moist	0.80					
4.0			Silty Clay light brown, no stones, oxidation or salt deposits present, moist	1.10	1-1.5	AS	Metals	320	
5.0	1.5		- increasing to wet from 1.5 mbgs						Drill cuttings and bentonite backfill
6.0			Clay brown, no stones present, oxidation from 1.9 to 2.4 mbgs, moist	1.80	1.5-2.25	AS		230	
6.5	2.0		- salt deposits present from 2 to 2.6 mbgs						
8.0	2.5				2.25-3	AS		280	Bentonite backfill
9.5	3.0		End of Borehole	3.00					
11.5	3.5								
13.0	4.0								
14.5	4.5								
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Sheet 1 of 1

STANTEC BOREHOLE AND WELL V2 GINT CP WESTON SUMMER 2013A.GPJ STANTEC - DATA TEMPLATE.GDT 10/1/13 SCOUGHTREY

Borehole: BH25

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	04-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field Investigator:	BE	**Easting:**	630053
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531807

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL / ppm (TOV)	Diagram / Description
			Ground Surface						
0.5			**Gravel Fill** brown/black coarse gravel, angular stones 0 to 12 mm diameter, wet	0.00	0-0.5	AS		300	Bentonite Backfill
1.5	0.5		**Clay** grey/black, no stones, oxidation or salt deposits present, moist	0.50					
2.0			**Silt** brown/grey, no stones, oxidation or salt deposits present, wet	0.70	0.5-1	AS	Metals	145	
3.0	1.0		**Clay** brown, no stones, oxidation or salt deposits present, moist	0.90					
3.5					1-1.5	AS		145	
4.5			**Silt** brown, no stones, oxidation or salt deposits present, wet	1.30					Drill cuttings and bentonite backfill
5.0	1.5		**Clay** brown, not stones present, oxidation from 1.7 to 2.3 mbgs moist	1.60					
6.0					1.5-2.25	AS	Metals	270	
6.5	2.0		- salt deposits present from 2.1 to 3 mbgs						
7.5									
8.0	2.5				2.25-3	AS		150	Bentonite backfill
8.5									
9.5									
10.0	3.0		End of Borehole	3.00					
10.5									
11.0									
11.5	3.5								
12.0									
12.5									
13.0	4.0								
13.5									
14.0									
14.5	4.5								
15.0									
15.5									
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Sheet 1 of 1

STANTEC BOREHOLE AND WELL V2 GINT CP WESTON SUMMER 2013A.GPJ STANTEC - DATA TEMPLATE.GDT 10/1/13 SCOUGHTREY

Borehole: BH26

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	04-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	630076
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531769

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL / ppm (TOV, Comb)	Diagram / Description
			Ground Surface						
0.5			Gravel Fill brown/black coarse gravel, angular stones 0 to 12 mm diameter, wood debris and glass fragments from 0.1 to 0.4 mbgs, wet	0.00	0-0.5	AS	Metals, TCLP	TOV 0; Comb 520	Bentonite Backfill
1.0									
1.5	0.5								
2.0					0.5-1	AS	Metals	TOV 0; Comb 550	
2.5									
3.0			Clay grey/black, no stones, oxidation or salt deposits present, moist	0.80					
3.5	1.0				1-1.5	AS		TOV 45; Comb 550	
4.0									
4.5									
5.0	1.5		Silt brown, no stones, oxidation or salt deposits present, moist	1.50					Drill cuttings and bentonite backfill
5.5									
6.0					1.5-2.25	AS	Metals	TOV 1; Comb 200	
6.5	2.0		Clay brown, no stones or oxidation present, moist - salt deposits from 2.1 to 2.4 mbgs	1.90					
7.0									
7.5									
8.0	2.5								
8.5					2.25-3	AS		TOV 85; Comb 420	
9.0									
9.5									
10.0	3.0		End of Borehole	3.00					Bentonite backfill
10.5									
11.0									
11.5	3.5								
12.0									
12.5									
13.0	4.0								
13.5									
14.0									
14.5	4.5								
15.0									
15.5									
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Sheet 1 of 1

STANTEC BOREHOLE AND WELL V2 GINT CP WESTON SUMMER 2013A.GPJ STANTEC_DATA TEMPLATE.GDT 10/1/13 SCOUGHTREY

Borehole: BH27

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	04-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	630097
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531769

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL Comb / ppm TOV Comb	Diagram / Description
			Ground Surface						
0.5			Gravel Fill brown/black coarse gravel, angular stones 0 to 12 mm diameter, moist	0.00	0-0.5	AS	Metals, TCLP	185	Bentonite Backfill
1.5	0.5				0.5-1	AS		105	
3.5	1.0		Silty Clay grey/black, no stones, oxidation or salt deposits present, moist	1.10	1-1.5	AS	Metals	230	
5.0	1.5		Silt brown, no stones, oxidation or salt deposits present, moist	1.50	1.5-2.25	AS		670	Drill cuttings and bentonite backfill
6.5	2.0		Clay brown, no stones, oxidation or salt deposits present, moist	1.90					
7.0			Silty Clay brown, no stones, oxidation or salt deposits present, moist	2.00					
8.0	2.5		Clay brown, no stones present, moist - oxidation from 2.6 to 3 mbgs - salt deposits from 2.7 to 3 mbgs	2.30	2.25-3	AS	Metals	800	Bentonite backfill
10.0	3.0		End of Borehole	3.00					
11.5	3.5								
13.0	4.0								
14.5	4.5								
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Sheet 1 of 1

STANTEC BOREHOLE AND WELL V2 GINT CP WESTON SUMMER 2013A.GPJ STANTEC - DATA TEMPLATE.GDT 10/1/13 SCOUGHTREY

Borehole: BH28

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	04-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	630083
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531826

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL Comb / ppm TOV / Comb	Diagram / Description
			Ground Surface						
0.5			Gravel Fill brown/black coarse gravel, angular stones 0 to 12 mm diameter, moist	0.00	0-0.5	AS	Metals	750	Bentonite Backfill
1.5	0.5								
2.0					0.5-1	AS		600	
2.5									
3.0	1.0		Silty Clay black, no stones, oxidation or salt deposits present, moist	0.85					
3.5			Silty Clay light grey/brown, no stones, oxidation or salt deposits present, moist	1.00					
4.0					1-1.5	AS	Metals	810	
4.5			Silt brown, no stones, oxidation or salt deposits present, wet	1.30					Drill cuttings and bentonite backfill
5.0	1.5								
5.5									
6.0			Clay brown, no stones or salt deposits present, moist	1.80	1.5-2.25	AS	Metals	470	
6.5	2.0		- oxidation from 2 to 2.8 mbgs						
7.0									
7.5									
8.0	2.5		- salt deposits from 2.5 to 2.8 mbgs		2.25-3	AS		540	
8.5									
9.0									Bentonite backfill
9.5			Silty Clay brown, no stones present, moist	2.80					
10.0	3.0		- oxidation and salt deposits present form 2.8 to 2.9 mbgs	2.90					
10.5			Clay brown, no stones present, moist - oxidation and salt deposits present from 2.9 to 3 mbgs	3.00					
11.0			End of Borehole						
11.5	3.5								
12.0									
12.5									
13.0	4.0								
13.5									
14.0									
14.5									
15.0	4.5								
15.5									
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Borehole: BH29

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	04-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field Investigator:	BE	**Easting:**	630117
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531825

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL Comb / ppm O TOV Comb	Diagram / Description
			Ground Surface						
0.5			Gravel Fill black coarse gravel, angular stones 0 to 12 mm diameter, moist - colour changing to brown from 0.2 mbgs	0.00	0-0.5	AS		260	Bentonite Backfill
1.5	0.5		Clay black/grey, no stones, oxidation or salt deposits present, moist	0.60	0.5-1	AS	Metals	115	
2.0			Silty Clay light grey/brown, no stones, oxidation or salt deposits present, moist	0.80					
3.5	1.0		- colour changing to brown		1-1.5	AS	Metals	550	
5.0	1.5		Clay brown, no stones or salt deposits present, moist - oxidation from 1.8 to 2.5 mbgs	1.70	1.5-2.25	AS		520	Drill cuttings and bentonite backfill
6.5	2.0		Silty Clay brown, no stones or salt deposits present, moist - oxidation from 2.5 to 2.6 mbgs	2.50	2.25-3	AS		300	Bentonite backfill
8.5	2.5		Clay brown, no stones present, moist - oxidation and salt deposits present from 2.6 to 3 mbgs	2.60					
10.0	3.0		End of Borehole	3.00					
11.5	3.5								
13.0	4.0								
14.5	4.5								
16.0									

Screen Interval: n/a
Sand Pack Interval n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By S. Coughtrey/ K. Mathers

STANTEC BOREHOLE AND WELL V2 GINT CP WESTON SUMMER 2013A.GPJ STANTEC - DATA TEMPLATE.GDT 10/1/13 SCOUGHTREY

Borehole: BH30

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	04-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	630137
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531792

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL Comb / ppm TOV / Comb	Diagram / Description
			Ground Surface						
0.5			Gravel Fill black coarse gravel, angular stones 0 to 12 mm diameter, moist - colour changing to brown from 0.2 mbgs	0.00					
1.0					0-0.5	AS	PAHs	TOV 150, Comb 750	Bentonite Backfill
1.5	0.5								
2.0			Clay black/grey, no stones, oxidation or salt deposits present, moist	0.60					
2.5					0.5-1	AS	Metals	TOV 11, Comb 560	
3.0	1.0		Silty Clay light grey/brown, no stones, oxidation or salt deposits present, moist	0.80					
3.5									
4.0			- colour changing to brown		1-1.5	AS		TOV 2, Comb 360	
4.5									
5.0	1.5								Drill cuttings and bentonite backfill
5.5			Clay brown, no stonesor salt deposits present, moist - oxidation from 1.8 to 2.5 mbgs	1.70					
6.0									
6.5	2.0				1.5-2.25	AS	Metals	TOV 0, Comb 760	
7.0									
7.5									
8.0	2.5								
8.5			Silty Clay brown, no stones or salt deposits present, moist - oxidation from 2.5 to 2.6 mbgs	2.50 2.60					
9.0			Clay brown, no stones present, moist - oxidation and salt deposits present from 2.6 to 3 mbgs		2.25-3	AS		TOV 0, Comb 730	Bentonite backfill
9.5	3.0								
10.0			End of Borehole	3.00					
10.5									
11.0									
11.5	3.5								
12.0									
12.5									
13.0	4.0								
13.5									
14.0									
14.5	4.5								
15.0									
15.5									
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Sheet 1 of 1

STANTEC BOREHOLE AND WELL V2 GINT CP WESTON SUMMER 2013A.GPJ STANTEC_DATA TEMPLATE.GDT 10/1/13 SCOUGHTREY

Borehole: BH31

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	04-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field Investigator:	BE	**Easting:**	630170
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531815

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL Comb / ppm TOV / Comb	Diagram / Description
			Ground Surface						
0.5			Gravel Fill black coarse gravel, angular stones 0 to 12 mm diameter, moist	0.00	0-0.5	AS	Metals	610	Bentonite Backfill
1.0			Clay black, no stones, oxidation or salt deposits present, moist	0.30					
1.5	0.5								
2.0			Silty Clay brown, no stones, oxidation or salt deposits present, moist	0.60	0.5-1	AS		730	
2.5									
3.0	1.0		Silt brown, no stones, oxidation or salt deposits present, wet	0.90	1-1.5	AS	Metals	416	Drill cuttings and bentonite backfill
3.5									
4.0									
4.5									
5.0	1.5								
5.5									
6.0					1.5-2.25	AS		600	
6.5	2.0		Clay brown, no stones present, moist - oxidation and salt deposits present from 1.9 to 3 mbgs	1.90					
7.0									
7.5									
8.0									
8.5	2.5				2.25-3	AS		370	
9.0									
9.5									
10.0	3.0		End of Borehole	3.00					Bentonite backfill
10.5									
11.0									
11.5	3.5								
12.0									
12.5									
13.0	4.0								
13.5									
14.0									
14.5	4.5								
15.0									
15.5									
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Borehole: BH32

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	02-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	630001
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531681

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL Comb ppm C TOV Comb	Diagram / Description
			Ground Surface						
0.5			Gravel Fill black coarse gravel, angular stones 0 to 12 mm diameter, wet	0.00	0-0.5	AS	Metals	500	Bentonite Backfill
2.0	0.5				0.5-1	AS	Metals	400	
3.0			Clay black, no stones, moist	0.90					
3.5	1.0				1-1.5	AS		500	
4.0			- colour changing to light grey						
4.5									
5.0	1.5		- colour changing to brown						Drill cuttings and bentonite backfill
5.5									
6.0					1.5-2.25	AS	Metals	145	
6.5	2.0								
7.0			- colour changing to brown - salt deposits from 2.1 to 3 mbgs - oxidation from 2.2 to 3 mbgs						
7.5									
8.0									
8.5	2.5				2.25-3	AS		105	
9.0									
9.5									Bentonite backfill
10.0	3.0		End of Borehole	3.00					
10.5									
11.0									
11.5	3.5								
12.0									
12.5									
13.0	4.0								
13.5									
14.0									
14.5									
15.0	4.5								
15.5									
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Borehole: BH33

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	02-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field Investigator:	BE	**Easting:**	630025
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531666

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL / ppm (TOV, Comb)	Diagram / Description
			Ground Surface						
0.5			Gravel Fill black coarse gravel, angular stones 0 to 12 mm diameter, wet	0.00	0-0.5	AS	Metals, TCLP	TOV 6; Comb 940	Bentonite Backfill
1.5	0.5		- wood debris						
2.5			Clay black, no stones, oxidation or salt deposits present, moist	0.75	0.5-1	AS		TOV 11; Comb 960	
3.5	1.0		Silty Clay brown, no stones, oxidation or salt deposits present, moist	1.00					
4.5			Silt brown, no stones, oxidation or salt deposits present, wet	1.20	1-1.5	AS	Metals	TOV 2; Comb 230	Drill cuttings and bentonite backfill
5.5	1.5								
6.5			Clay brown, no stones present, moist - salt deposits present from 1.9 to 3 mbgs	1.90	1.5-2.25	AS		TOV 3; Comb 550	
7.5	2.0		- oxidation from 2.2 to 3 mbgs						
8.5					2.25-3	AS		TOV 2; Comb 340	Bentonite backfill
9.5	2.5								
10.0	3.0		End of Borehole	3.00					
11.5	3.5								
13.0	4.0								
14.5	4.5								
15.0									
18.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

STANTEC BOREHOLE AND WELL V2 GINT CP WESTON SUMMER 2013A.GPJ STANTEC - DATA TEMPLATE.GDT 10/1/13 SCOUGHTREY

Borehole: BH34

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	02-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	630016
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531644

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL Comb / ppm TOV / Comb	Diagram / Description
			Ground Surface						
0.5			Gravel Fill black coarse gravel, angular stones 0 to 10 mm diameter, wet	0.00	0-0.5	AS	Metals, TCLP, PSA	780	Bentonite Backfill
1.0									
1.5	0.5								
2.0					0.5-1	AS		790	
2.5									
3.0									
3.5	1.0		Clay black, no stones, oxidation or salt deposits present, moist	0.95					
4.0			Silt grey/black, no stones, oxidation or salt deposits present, moist	1.10	1-1.5	AS	Metals	730	
4.5									
5.0	1.5		- colour changing to brown and increasing to wet						Drill cuttings and bentonite backfill
5.5									
6.0			Clay brown, no stones, oxidation or salt deposits present, moist	1.75				730	
6.5	2.0				1.5-2.25	AS			
7.0									
7.5									
8.0	2.5								
8.5					2.25-3	AS		600	
9.0									Bentonite backfill
9.5									
10.0	3.0		End of Borehole	3.00					
10.5									
11.0									
11.5	3.5								
12.0									
12.5									
13.0	4.0								
13.5									
14.0									
14.5									
15.0	4.5								
15.5									
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Sheet 1 of 1

STANTEC BOREHOLE AND WELL V2 GINT CP WESTON SUMMER 2013A.GPJ STANTEC - DATA TEMPLATE.GDT 10/1/13 SCOUGHTREY

Borehole: BH35

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	02-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	630043
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531648

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL Comb / ppm TOV / Comb	Diagram / Description
			Ground Surface						
0.5			**Gravel Fill** black coarse gravel, angular stones 0 to 11 mm diameter, wet	0.00	0-0.5	AS	Metals	0 TOV; 92 Comb	Bentonite Backfill
1.0			- wood debris						
1.5	0.5								
2.0			**Clay** black, no stones, oxidation or salt deposits present, moist	0.70	0.5-1	AS		2 TOV; 370 Comb	
2.5									
3.0	1.0								
3.5					1-1.5	AS	Metals	1 TOV; 770 Comb	
4.0									
4.5			**Silt** brown, no stones, oxidation or salt deposits present, wet	1.40					Drill cuttings and bentonite backfill
5.0	1.5								
5.5									
6.0					1.5-2.25	AS	Metals	2 TOV; 440 Comb	
6.5	2.0								
7.0									
7.5			**Clay** brown, no stones, oxidation or salt deposits present, moist	2.20					
8.0									
8.5	2.5				2.25-3	AS		3 TOV; 320 Comb	Bentonite backfill
9.0									
9.5									
10.0	3.0		End of Borehole	3.00					
10.5									
11.0									
11.5	3.5								
12.0									
12.5									
13.0	4.0								
13.5									
14.0									
14.5	4.5								
15.0									
15.5									
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Borehole: BH36

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	02-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	630057
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531657

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL Comb / ppm TOV Comb	Diagram / Description
			Ground Surface						
0.5			Gravel Fill black coarse gravel, angular stones 0 to 11 mm diameter, wet	0.00	0-0.5	AS	Metals	0 / 1000	Bentonite Backfill
1.0									
1.5	0.5								
2.0					0.5-1	AS	Metals	0 / 980	
2.5									
3.0			Clay black/grey, no stones, oxidation or salt deposits present, moist	0.90					
3.5	1.0								
4.0					1-1.5	AS	Metals	0 / 750	
4.5			Silt brown, no stones, oxidation or salt deposits present, wet	1.30				1	
5.0	1.5								Drill cuttings and bentonite backfill
5.5									
6.0									
6.5	2.0				1.5-2.25	AS		0 / 740	
7.0								1	
7.5			Silty Clay brown, no stones, oxidation or salt deposits present, moist	2.20					
8.0	2.5		Silt brown, no stones, oxidation or salt deposits present, moist	2.30 2.40					
8.5			Clay brown, no stones, oxidation or salt deposits present, moist	2.50					
9.0			Silt brown, no stones, oxidation or salt deposits present, moist		2.25-3	AS		0 / 680	
9.5	3.0							1	Bentonite backfill
10.0			End of Borehole	3.00					
10.5									
11.0									
11.5	3.5								
12.0									
12.5									
13.0	4.0								
13.5									
14.0									
14.5									
15.0	4.5								
15.5									
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Borehole: BH37

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	02-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	630067
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531649

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL Comb / ppm C TOV / Comb	Diagram / Description
			Ground Surface						
0.5			Gravel Fill black coarse gravel, angular stones 0 to 11 mm diameter, wet	0.00	0-0.5	AS	Metals	750	Bentonite Backfill
2.0	0.5		Silty Clay black, no stones, oxidation or salt deposits present, moist	0.60	0.5-1	AS		630	
3.5	1.0		- colour changing to brown		1-1.5	AS		580	
5.0	1.5		Silt brown, no stones, oxidation or salt deposits present, wet	1.40	1.5-2.25	AS	Metals	600	Drill cuttings and bentonite backfill
7.0			Clay brown, no stones or oxidation present, moist - salt deposits from 2.1 to 2.3 mbgs	2.10					
7.5			Silt brown, no stones, oxidation or salt deposits present, moist	2.30 2.40					
8.0	2.5		Clay brown, no stones present, moist - salt deposits from 2.4 to 3 mbgs - oxidation from 2.5 to 3 mbgs		2.25-3	AS		640	Bentonite backfill
10.0	3.0		End of Borehole	3.00					
11.5	3.5								
13.0	4.0								
14.5	4.5								
16.0									

Screen Interval:	n/a
Sand Pack Interval:	n/a
Well Seal Interval:	n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Sheet 1 of 1

STANTEC BOREHOLE AND WELL V2 GINT CP WESTON SUMMER 2013A.GPJ STANTEC - DATA TEMPLATE.GDT 10/1/13 SCOUGHTREY

Borehole: BH38

Project:	Follow-Up Environmental Assessment	**Drilling method:**	Solid Stem Auger
Client:	Canadian Pacific	**Date started/completed:**	02-Jul-2013
Location:	Weston Yard, Winnipeg, Manitoba	**Ground surface elevation:**	n/a
Number:	111440161	**Top of casing elevation:**	n/a
Field investigator:	BE	**Easting:**	630048
Contractor:	Paddock Drilling Ltd.	**Northing:**	5531625

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL Comb / ppm TOV / Comb	Diagram / Description
			Ground Surface						
0.5			Gravel Fill black coarse gravel, angular stones 0 to 11 mm diameter, moist - cinders present	0.00	0-0.5	AS	Metals, PAHs	830	Bentonite Backfill
1.5	0.5							2000	
2.0					0.5-1	AS	BTEX, PHC F1-F4, Metals, PSA	850	
2.5								2000	
3.0	1.0		Clay black/grey, no stones, oxidation or salt deposits present, moist - faint hydrocarbon odour from 0.8 to 1.2 mbgs	0.80					
3.5									
4.0					1-1.5	AS		350	
4.5								65	
5.0	1.5		Silt brown, no stones, oxidation or salt deposits present, saturated	1.50					Drill cuttings and bentonite backfill
5.5									
6.0					1.5-2.25	AS	Metals	170	
6.5	2.0							0	
7.0									
7.5									
8.0	2.5								
8.5								25	
9.0			Silty Clay brown, no stones, oxidation or salt deposits present, wet	2.80	2.25-3	AS		0	Bentonite backfill
9.5	3.0								
10.0			End of Borehole	3.00					
10.5									
11.0									
11.5	3.5								
12.0									
12.5									
13.0	4.0								
13.5									
14.0									
14.5	4.5								
15.0									
15.5									
16.0									

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m BGS - metres below ground surface
AS - auger sample
ppm - parts per million by volume
n/a - not available

TOV - Reading from photoionization detector
Comb - Combustible gas reading
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1-F4 - Petroleum hydrocarbon fractions F1 to F4
PAHs - Polycyclic aromatic hydrocarbons
TCLP - Toxicity Characteristic Leaching Procedure
PSA - Particle size analysis

Stantec

Drawn By/Checked By: S. Coughtrey/ K. Mathers

Sheet 1 of 1

Appendix C
Copies of Chain-of-Custody, Original Lab Results and QA/QC Documentation

Stantec

Maxxam

Your Project #: 111440161
Site Location: CP WESTON
Your C.O.C. #: 40335208

Attention: SCOTT COUGHTREY
STANTEC CONSULTING
603-386 BROADWAY AVENUE
WINNIPEG, MB
CANADA R3C 3R6

Report Date: 2013/08/26
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B355758
Received: 2013/07/03, 15:55

Sample Matrix: Soil
Samples Received: 40

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/F1 by HS GC-MS/FID (MeOH extract) (2)	5	2013/07/05	2013/07/08	WINSOP-00054 WINSOP-00055	EPA8260C/CCME PHCC'
CCME Hydrocarbons (F2-F4 in soil) (3)	5	2013/07/05	2013/07/09	WINSOP-00056	CCME PHC-CWS
Elements by ICPMS (total) (1)	5	2013/07/06	2013/07/09	BBY7SOP-00004	BCMOE-SALM
Elements by ICPMS (total) (1)	25	2013/07/06	2013/07/10	BBY7SOP-00004	BCMOE-SALM
Elements by ICPMS (total) (1)	2	2013/07/07	2013/07/09	BBY7SOP-00004	BCMOE-SALM
Elements by ICPMS (total) (1)	4	2013/07/31	2013/07/31	BBY7SOP-00004	BCMOE-SALM
Elements by ICPMS (total) (1)	1	2013/08/23	2013/08/23	BBY7SOP-00004	BCMOE-SALM
Metals - TCLP (1)	8	2013/07/31	2013/08/01	BBY7SOP-00001	EPA 6020A
Moisture (1)	2	N/A	2013/07/06	BBY8SOP-00017	Ont MOE -E 3139
Moisture	5	N/A	2013/07/08	WIN SOP-00060	Carter Method 51.2
PAH in Soil by GC/MS (SIM) - CCME (1)	2	2013/07/05	2013/07/12	BBY8SOP-00022	EPA 8270D
Benzo[a]pyrene Equivalency (1)	2	N/A	2013/07/12	BBY WI-00033	CCME Guidelines
Total LMW, HMW, Total PAH Calc (1)	2	N/A	2013/07/12	BBY WI-00033	BC MOE Lab Method
pH (2:1 DI Water Extract) (1)	32	2013/07/08	2013/07/08	BBY6SOP-00028	Carter, SSMA 16.2
pH (2:1 DI Water Extract) (1)	4	2013/07/31	2013/07/31	BBY6SOP-00028	Carter, SSMA 16.2
pH (2:1 DI Water Extract) (1)	1	2013/08/23	2013/08/23	BBY6SOP-00028	Carter, SSMA 16.2
TCLP pH Measurements (1)	8	N/A	2013/08/01	BBY7SOP-00005	EPA 1311
PSA Coarse/Fine (75 micron)	2	N/A	2013/07/04		
Grain Size (Coarse/Fine)	2	N/A	2013/07/08		

* Results relate only to the items tested.

(1) This test was performed by Maxxam Vancouver
(2) This method complies with the reference method for the CWS PHC and is validated for use in the laboratory.
Applicable only to F1 and/or LH - nC6 and nC10 response factors are within 30% of the toluene response factor.
The hydrocarbon results are expressed as a dry weight basis.
(3) This method complies with the reference method for the CWS PHC and is validated for use in the laboratory.
The hydrocarbon results are expressed as a dry weight basis.

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Encryption Key

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

Janelle Kochan, B.Sc., Project Manager,
Email: JKochan@maxxam.ca
Phone# (204) 772-7276 Ext:2209

==========

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: 2

Maxxam

Success Through Sciences

Maxxam Job #: B355758
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

BTEX/F1-F4 IN SOIL (SOIL)

Maxxam ID		GU7135	GU7135	GU7139	GU7172	GU7172	GU7191	GU7200		
Sampling Date		2013/07/03	2013/07/03	2013/07/03	2013/07/03	2013/07/03	2013/07/03	2013/07/03		
	UNITS	MW07 3.75-4.5	MW07 3.75-4.5 Lab-Dup	MW01 0.5-1	BH14 0.5-1	BH14 0.5-1 Lab-Dup	BH18 0-0.5	BH17 2.25-3	RDL	QC Batch
Physical Properties										
Moisture	%	35		17	20	21	13	29	0.3	6957204
Ext. Pet. Hydrocarbon										
F2 (C10-C16 Hydrocarbons)	mg/kg	<20	<20	1800	<20		47	<20	20	6957200
F3 (C16-C34 Hydrocarbons)	mg/kg	44	86	770	74		710	38	20	6957200
F4 (C34-C50 Hydrocarbons)	mg/kg	<20	<20	<20	<20		180	<20	20	6957200
Reached Baseline at C50	mg/kg	YES	YES	YES	YES		YES	YES		6957200
Surrogate Recovery (%)										
O-TERPHENYL (sur.)	%	81	80	93	91		92	85		6957200
Volatiles										
Benzene	mg/kg	<0.0050	<0.0050	0.13	<0.0050		0.043	<0.0050	0.0050	6957198
Toluene	mg/kg	<0.020	<0.020	<0.020	0.044		0.099	<0.020	0.020	6957198
Ethylbenzene	mg/kg	<0.010	<0.010	0.34	<0.010		0.039	<0.010	0.010	6957198
Xylenes (Total)	mg/kg	<0.040	<0.040	0.31	<0.040		0.10	<0.040	0.040	6957198
m & p-Xylene	mg/kg	<0.040	<0.040	0.31	<0.040		0.066	<0.040	0.040	6957198
o-Xylene	mg/kg	<0.020	<0.020	<0.020	<0.020		0.035	<0.020	0.020	6957198
Methyl-tert-butylether (MTBE)	mg/kg	<0.10	<0.10	<0.10	<0.10		<0.10	<0.10	0.10	6957198
F1 (C6-C10) - BTEX	mg/kg	<10	<10	57	15		20	<10	10	6957198
(C6-C10)	mg/kg	<10	<10	58	15		21	<10	10	6957198
Surrogate Recovery (%)										
4-BROMOFLUOROBENZENE (sur.)	%	100	100	95	98		100	101		6957198
D10-ETHYLBENZENE (sur.)	%	108	111	103	109		106	107		6957198
D4-1,2-DICHLOROETHANE (sur.)	%	94	96	99	98		93	97		6957198
D8-TOLUENE (sur.)	%	99	99	95	99		100	98		6957198

PHYSICAL TESTING (SOIL)

Maxxam ID		GU7129	GU7196		
Sampling Date		2013/07/03	2013/07/03		
	UNITS	MW07 0-0.5	BH17 0-0.5	RDL	QC Batch
Physical Properties					
Moisture	%	29	19	0.30	6957017

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B355758
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

CUSTOM PARTICLE SIZE DISTRIBUTION (SOIL)

Maxxam ID		GU7135	GU7160		
Sampling Date		2013/07/03	2013/07/03		
	UNITS	MW07 3.75-4.5	MW02 1.5-2.25	RDL	QC Batch
Particle Size					
Sieve-%Coarse (>0.075mm)	%	0.33	8.49	0.01	6960934
Grain Size	N/A	FINE	FINE		6952575
Sieve-%Fine (<0.075mm)	%	99.67	91.51	0.01	6960934

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		GU7129	GU7152	GU7166	GU7176	GU7181	GU7191	GU7211	GU7216		
Sampling Date		2013/07/03	2013/07/03	2013/07/03	2013/07/03	2013/07/03	2013/07/03	2013/07/03	2013/07/03		
	UNITS	MW07 0-0.5	BH11 0-0.5	BH12 0-0.5	BH13 0-0.5	BH16 0-0.5	BH18 0-0.5	BH20 0-0.5	BH19 0-0.5	RDL	QC Batch
TCLP Extraction Procedure											
Initial pH of Sample	pH Units	10.4	9.63	9.57	9.23	8.91	9.63	10.2	9.43	N/A	7036432
pH after HCl	pH Units	3.89	1.65	1.89	1.52	1.63	1.56	2.02	1.79	N/A	7036432
Final pH of Leachate	pH Units	8.82	7.05	6.15	7.10	6.84	6.96	6.89	6.91	N/A	7036432
pH of Leaching Fluid	pH Units	4.89	4.89	4.89	4.89	4.89	4.89	4.89	4.89	N/A	7036432

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Success Through Sciences

Maxxam Job #: B355758
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		GU7130	GU7132	GU7138	GU7140	GU7148	GU7149	GU7152	GU7154	GU7158		
Sampling Date		2013/07/03	2013/07/03	2013/07/03	2013/07/03	2013/07/03	2013/07/03	2013/07/03	2013/07/03	2013/07/03		
	UNITS	MW07 0.5-1	MW07 1.5-2.25	MW01 0-0.5	MW01 1-1.5	BH10 0.5-1	BH10 1-1.5	BH11 0-0.5	BH11 1-1.5	MW02 0.5-1	RDL	QC Batch
Physical Properties												
Soluble (2:1) pH	pH Units	8.84	8.80	8.37	8.60	8.18	8.47	8.46	8.59	8.42	0.010	6959751
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	15300	5410	6900	23000	19100	28300	7390	9400	22400	100	6959750
Total Antimony (Sb)	mg/kg	67.9	7.49	40.5	0.93	10.5	0.68	55.7	0.40	3.88	0.10	6959750
Total Arsenic (As)	mg/kg	30.8	2.97	11.2	5.12	8.70	6.95	40.1	3.29	6.92	0.50	6959750
Total Barium (Ba)	mg/kg	786	64.9	486	144	368	217	509	103	82.9	0.10	6959750
Total Beryllium (Be)	mg/kg	0.75	<0.40	0.55	1.04	0.89	1.19	0.47	0.42	1.03	0.40	6959750
Total Bismuth (Bi)	mg/kg	1.05	0.12	0.44	0.20	0.28	0.25	0.75	<0.10	0.18	0.10	6959750
Total Cadmium (Cd)	mg/kg	4.08	0.242	0.369	0.145	0.353	0.185	1.73	0.125	0.129	0.050	6959750
Total Calcium (Ca)	mg/kg	26300	96700	83400	31700	23100	43500	81700	126000	28400	100	6959750
Total Chromium (Cr)	mg/kg	60.0	14.5	21.6	40.5	37.0	47.6	27.6	19.7	51.5	1.0	6959750
Total Cobalt (Co)	mg/kg	27.5	3.70	6.75	12.9	8.35	14.1	10.5	4.54	7.82	0.30	6959750
Total Copper (Cu)	mg/kg	3250	55.1	488	40.1	125	29.6	465	14.4	94.5	0.50	6959750
Total Iron (Fe)	mg/kg	78000	9640	35800	25900	28500	29400	101000	11600	27500	100	6959750
Total Lead (Pb)	mg/kg	3750	165	374	30.6	413	26.4	984	9.21	74.3	0.10	6959750
Total Lithium (Li)	mg/kg	17.0	10.9	12.2	27.2	20.1	34.1	12.5	17.8	22.3	5.0	6959750
Total Magnesium (Mg)	mg/kg	13000	55800	31500	18400	14600	13100	20500	54000	16400	100	6959750
Total Manganese (Mn)	mg/kg	1960	265	435	342	239	488	557	230	170	0.20	6959750
Total Mercury (Hg)	mg/kg	3.70	0.403	0.561	0.066	0.082	<0.050	1.37	<0.050	0.069	0.050	6959750
Total Molybdenum (Mo)	mg/kg	4.57	0.78	1.56	0.42	0.65	0.41	3.84	0.28	0.68	0.10	6959750
Total Nickel (Ni)	mg/kg	61.7	12.8	25.0	36.1	27.4	41.1	35.8	14.6	23.1	0.80	6959750
Total Phosphorus (P)	mg/kg	603	364	397	371	524	370	1040	338	312	10	6959750
Total Potassium (K)	mg/kg	3010	1100	1290	3990	3620	4850	1440	1990	5550	100	6959750
Total Selenium (Se)	mg/kg	1.69	<0.50	0.71	<0.50	0.51	<0.50	1.90	<0.50	<0.50	0.50	6959750
Total Silver (Ag)	mg/kg	0.811	0.068	0.201	0.088	0.166	0.093	0.215	0.053	0.082	0.050	6959750
Total Sodium (Na)	mg/kg	425	207	544	383	799	472	722	266	444	100	6959750
Total Strontium (Sr)	mg/kg	121	46.6	160	57.0	87.5	103	400	104	48.5	0.10	6959750
Total Thallium (Tl)	mg/kg	1.14	0.116	0.270	0.305	0.346	0.339	0.705	0.136	0.296	0.050	6959750
Total Tin (Sn)	mg/kg	335	15.7	231	3.49	15.7	9.37	272	1.96	4.05	0.10	6959750
Total Titanium (Ti)	mg/kg	175	262	173	73.5	91.7	199	155	328	119	1.0	6959750
Total Uranium (U)	mg/kg	1.20	0.810	1.00	0.977	3.81	1.92	1.49	1.07	1.38	0.050	6959750
Total Vanadium (V)	mg/kg	47.4	18.6	24.3	56.3	44.8	76.9	25.3	28.8	59.3	2.0	6959750
Total Zinc (Zn)	mg/kg	2600	97.4	183	84.8	135	79.4	764	31.5	76.0	1.0	6959750
Total Zirconium (Zr)	mg/kg	6.94	6.43	6.05	10.6	12.4	12.4	3.38	8.38	14.6	0.50	6959750

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B355758
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		GU7160	GU7160		GU7166		GU7169		GU7172	GU7173		
Sampling Date		2013/07/03	2013/07/03		2013/07/03		2013/07/03		2013/07/03	2013/07/03		
	UNITS	MW02 1.5-2.25	MW02 1.5-2.25 Lab-Dup	QC Batch	BH12 0-0.5	QC Batch	BH12 1.5-2.25	QC Batch	BH14 0.5-1	BH14 1-1.5	RDL	QC Batch
Physical Properties												
Soluble (2:1) pH	pH Units	8.57	8.57	6959751	8.32	6959396	8.63	6959974	7.88	8.27	0.010	6959396
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	9220	9010	6959750	22900	6959395	9590	6959972	13000	9560	100	6959395
Total Antimony (Sb)	mg/kg	0.26	0.26	6959750	70.6	6959395	0.83	6959972	2.84	0.95	0.10	6959395
Total Arsenic (As)	mg/kg	2.94	2.85	6959750	23.6	6959395	3.36	6959972	5.76	5.63	0.50	6959395
Total Barium (Ba)	mg/kg	75.7	74.0	6959750	1270	6959395	107	6959972	237	190	0.10	6959395
Total Beryllium (Be)	mg/kg	<0.40	<0.40	6959750	1.53	6959395	<0.40	6959972	0.57	<0.40	0.40	6959395
Total Bismuth (Bi)	mg/kg	<0.10	<0.10	6959750	0.76	6959395	0.11	6959972	0.18	0.12	0.10	6959395
Total Cadmium (Cd)	mg/kg	0.109	0.113	6959750	3.06	6959395	0.157	6959972	9.33	2.19	0.050	6959395
Total Calcium (Ca)	mg/kg	91500	89700	6959750	65100	6959395	83500	6959972	102000	128000	100	6959395
Total Chromium (Cr)	mg/kg	23.6	23.8	6959750	43.1	6959395	21.4	6959972	26.8	19.3	1.0	6959395
Total Cobalt (Co)	mg/kg	5.48	5.64	6959750	10.5	6959395	5.50	6959972	84.3	14.4	0.30	6959395
Total Copper (Cu)	mg/kg	16.0	15.9	6959750	3110	6959395	26.7	6959972	470	180	0.50	6959395
Total Iron (Fe)	mg/kg	12400	12300	6959750	68500	6959395	13100	6959972	21600	13300	100	6959395
Total Lead (Pb)	mg/kg	7.69	7.55	6959750	1880	6959395	20.3	6959972	112	39.2	0.10	6959395
Total Lithium (Li)	mg/kg	18.8	18.5	6959750	25.3	6959395	18.3	6959972	16.5	17.4	5.0	6959395
Total Magnesium (Mg)	mg/kg	47400	48800	6959750	16700	6959395	49000	6959972	31500	51900	100	6959395
Total Manganese (Mn)	mg/kg	244	248	6959750	670	6959395	275	6959972	565	270	0.20	6959395
Total Mercury (Hg)	mg/kg	<0.050	<0.050	6959750	0.463	6959395	<0.050	6959972	0.050	<0.050	0.050	6959395
Total Molybdenum (Mo)	mg/kg	0.23	0.25	6959750	7.88	6959395	0.79	6959972	0.95	0.38	0.10	6959395
Total Nickel (Ni)	mg/kg	16.5	16.8	6959750	51.6	6959395	17.0	6959972	1260	202	0.80	6959395
Total Phosphorus (P)	mg/kg	347	354	6959750	1110	6959395	408	6959972	366	325	10	6959395
Total Potassium (K)	mg/kg	1950	1970	6959750	1300	6959395	2010	6959972	3230	1930	100	6959395
Total Selenium (Se)	mg/kg	<0.50	<0.50	6959750	1.99	6959395	<0.50	6959972	0.58	<0.50	0.50	6959395
Total Silver (Ag)	mg/kg	<0.050	<0.050	6959750	0.472	6959395	<0.050	6959972	0.651	0.290	0.050	6959395
Total Sodium (Na)	mg/kg	379	372	6959750	5790	6959395	385	6959972	580	459	100	6959395
Total Strontium (Sr)	mg/kg	56.7	56.1	6959750	1410	6959395	55.8	6959972	96.3	112	0.10	6959395
Total Thallium (Tl)	mg/kg	0.158	0.159	6959750	0.526	6959395	0.165	6959972	0.177	0.139	0.050	6959395
Total Tin (Sn)	mg/kg	0.62	0.60	6959750	203	6959395	1.58	6959972	4.73	1.76	0.10	6959395
Total Titanium (Ti)	mg/kg	452	459	6959750	805	6959395	397	6959972	220	339	1.0	6959395
Total Uranium (U)	mg/kg	0.739	0.727	6959750	4.34	6959395	0.854	6959972	1.05	1.10	0.050	6959395
Total Vanadium (V)	mg/kg	27.6	27.4	6959750	27.1	6959395	29.0	6959972	32.2	30.9	2.0	6959395
Total Zinc (Zn)	mg/kg	34.8	30.1	6959750	2530	6959395	45.6	6959972	2230	404	1.0	6959395
Total Zirconium (Zr)	mg/kg	9.91	10.1	6959750	23.2	6959395	11.1	6959972	6.99	8.28	0.50	6959395

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Success Through Science®

Maxxam Job #: B355758
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		GU7174		GU7176		GU7179	GU7181	GU7182		GU7184		
Sampling Date		2013/07/03		2013/07/03		2013/07/03	2013/07/03	2013/07/03		2013/07/03		
	UNITS	BH14 1.5-2.25	QC Batch	BH13 0-0.5	QC Batch	BH13 1.5-2.25	BH16 0-0.5	BH16 0.5-1	QC Batch	BH16 1.5-2.25	RDL	QC Batch
Physical Properties												
Soluble (2:1) pH	pH Units	8.50	7035532	8.41	6959974	8.72	8.47	8.43	6959396	8.53	0.010	7035532
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	7010	7035518	14100	6959972	7270	13300	7850	6959395	8420	100	7035518
Total Antimony (Sb)	mg/kg	0.18	7035518	7.98	6959972	0.46	22.5	93.1	6959395	0.48	0.10	7035518
Total Arsenic (As)	mg/kg	2.63	7035518	1290	6959972	6.14	30.4	26.1	6959395	3.00	0.50	7035518
Total Barium (Ba)	mg/kg	54.4	7035518	338	6959972	80.6	515	340	6959395	75.7	0.10	7035518
Total Beryllium (Be)	mg/kg	<0.40	7035518	0.69	6959972	<0.40	0.56	0.41	6959395	<0.40	0.40	7035518
Total Bismuth (Bi)	mg/kg	<0.10	7035518	1.47	6959972	<0.10	0.83	0.69	6959395	0.10	0.10	7035518
Total Cadmium (Cd)	mg/kg	0.390	7035518	2.10	6959972	0.196	15.5	2.84	6959395	0.386	0.050	7035518
Total Calcium (Ca)	mg/kg	78100	7035518	78400	6959972	87100	34500	47400	6959395	89400	100	7035518
Total Chromium (Cr)	mg/kg	16.9	7035518	34.5	6959972	17.9	121	37.2	6959395	17.6	1.0	7035518
Total Cobalt (Co)	mg/kg	4.88	7035518	9.60	6959972	4.91	19.7	9.72	6959395	4.85	0.30	7035518
Total Copper (Cu)	mg/kg	21.8	7035518	5370	6959972	27.2	1880	1410	6959395	17.9	0.50	7035518
Total Iron (Fe)	mg/kg	10900	7035518	40600	6959972	11000	124000	53800	6959395	12000	100	7035518
Total Lead (Pb)	mg/kg	7.73	7035518	2640	6959972	13.2	2630	1640	6959395	15.0	0.10	7035518
Total Lithium (Li)	mg/kg	12.6	7035518	26.4	6959972	13.9	13.0	11.6	6959395	14.1	5.0	7035518
Total Magnesium (Mg)	mg/kg	45800	7035518	29800	6959972	50700	14300	14500	6959395	46900	100	7035518
Total Manganese (Mn)	mg/kg	284	7035518	403	6959972	282	1060	656	6959395	283	0.20	7035518
Total Mercury (Hg)	mg/kg	<0.050	7035518	0.160	6959972	<0.050	1.24	0.426	6959395	<0.050	0.050	7035518
Total Molybdenum (Mo)	mg/kg	0.48	7035518	2.97	6959972	0.85	19.7	4.66	6959395	0.67	0.10	7035518
Total Nickel (Ni)	mg/kg	19.4	7035518	176	6959972	15.1	261	63.8	6959395	15.5	0.80	7035518
Total Phosphorus (P)	mg/kg	362	7035518	569	6959972	392	946	629	6959395	371	10	7035518
Total Potassium (K)	mg/kg	1470	7035518	2310	6959972	1560	1620	1750	6959395	1600	100	7035518
Total Selenium (Se)	mg/kg	<0.50	7035518	4.55	6959972	<0.50	1.73	0.82	6959395	<0.50	0.50	7035518
Total Silver (Ag)	mg/kg	0.102	7035518	5.28	6959972	0.090	3.49	1.12	6959395	0.061	0.050	7035518
Total Sodium (Na)	mg/kg	471	7035518	1560	6959972	429	1980	998	6959395	328	100	7035518
Total Strontium (Sr)	mg/kg	38.5	7035518	330	6959972	48.0	275	163	6959395	51.4	0.10	7035518
Total Thallium (Tl)	mg/kg	0.132	7035518	0.943	6959972	0.135	0.787	0.610	6959395	0.124	0.050	7035518
Total Tin (Sn)	mg/kg	0.36	7035518	1.94	6959972	0.56	146	179	6959395	0.89	0.10	7035518
Total Titanium (Ti)	mg/kg	311	7035518	263	6959972	323	382	166	6959395	219	1.0	7035518
Total Uranium (U)	mg/kg	0.767	7035518	4.21	6959972	0.909	1.86	1.18	6959395	0.849	0.050	7035518
Total Vanadium (V)	mg/kg	24.2	7035518	34.1	6959972	26.4	21.0	25.1	6959395	30.3	2.0	7035518
Total Zinc (Zn)	mg/kg	37.9	7035518	511	6959972	29.4	11600	1490	6959395	40.0	1.0	7035518
Total Zirconium (Zr)	mg/kg	10.2	7035518	5.97	6959972	9.64	5.30	2.71	6959395	10.3	0.50	7035518

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B355758
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		GU7186	GU7188	GU7188	GU7191	GU7192		GU7194		GU7196	GU7200		
Sampling Date		2013/07/03	2013/07/03	2013/07/03	2013/07/03	2013/07/03		2013/07/03		2013/07/03	2013/07/03		
	UNITS	BH15 0-0.5	BH15 1-1.5	BH15 1-1.5 Lab-Dup	BH18 0-0.5	BH18 0.5-1	QC Batch	BH18 1.5-2.25	QC Batch	BH17 0-0.5	BH17 2.25-3	RDL	QC Batch
Physical Properties													
Soluble (2:1) pH	pH Units	7.86	8.54	8.58	8.12	7.86	6959396	8.13	7035532	7.93	8.18	0.010	6959396
Total Metals by ICPMS													
Total Aluminum (Al)	mg/kg	10300	6420	6740	5020	7720	6959395	22200	7035518	10500	22400	100	6959395
Total Antimony (Sb)	mg/kg	110	0.34	0.29	22.2	43.6	6959395	0.63	7035518	20.2	0.87	0.10	6959395
Total Arsenic (As)	mg/kg	23.5	3.91	3.94	28.6	23.1	6959395	8.46	7035518	41.5	8.66	0.50	6959395
Total Barium (Ba)	mg/kg	256	70.7	74.4	195	703	6959395	169	7035518	350	217	0.10	6959395
Total Beryllium (Be)	mg/kg	0.57	<0.40	<0.40	<0.40	0.42	6959395	1.07	7035518	0.58	1.17	0.40	6959395
Total Bismuth (Bi)	mg/kg	1.22	<0.10	<0.10	0.31	1.32	6959395	0.25	7035518	2.86	0.27	0.10	6959395
Total Cadmium (Cd)	mg/kg	5.61	0.126	0.143	3.56	1.36	6959395	0.659	7035518	18.8	0.321	0.050	6959395
Total Calcium (Ca)	mg/kg	13400	108000	106000	51000	45000	6959395	39500	7035518	64400	29500	100	6959395
Total Chromium (Cr)	mg/kg	58.9	15.9	15.6	46.3	48.7	6959395	42.8	7035518	109	44.3	1.0	6959395
Total Cobalt (Co)	mg/kg	13.6	3.93	3.97	12.7	10.9	6959395	12.8	7035518	57.1	15.7	0.30	6959395
Total Copper (Cu)	mg/kg	1270	13.1	12.8	679	705	6959395	34.4	7035518	3150	51.0	0.50	6959395
Total Iron (Fe)	mg/kg	106000	9250	9200	92900	118000	6959395	29600	7035518	106000	28100	100	6959395
Total Lead (Pb)	mg/kg	1610	7.95	7.77	523	2900	6959395	43.7	7035518	2240	32.7	0.10	6959395
Total Lithium (Li)	mg/kg	16.2	12.7	13.7	7.7	9.4	6959395	28.8	7035518	15.3	38.5	5.0	6959395
Total Magnesium (Mg)	mg/kg	8220	58600	54700	17200	7400	6959395	21000	7035518	25500	16000	100	6959395
Total Manganese (Mn)	mg/kg	2930	202	198	802	654	6959395	458	7035518	962	512	0.20	6959395
Total Mercury (Hg)	mg/kg	1.55	<0.050	<0.050	0.376	0.221	6959395	<0.050	7035518	24.5	0.098	0.050	6959395
Total Molybdenum (Mo)	mg/kg	2.93	0.24	0.20	4.17	2.38	6959395	0.41	7035518	18.9	1.51	0.10	6959395
Total Nickel (Ni)	mg/kg	69.4	11.0	10.9	43.7	49.3	6959395	38.9	7035518	1130	46.6	0.80	6959395
Total Phosphorus (P)	mg/kg	586	311	316	750	708	6959395	456	7035518	636	440	10	6959395
Total Potassium (K)	mg/kg	2130	1270	1250	1070	2060	6959395	4320	7035518	930	4260	100	6959395
Total Selenium (Se)	mg/kg	1.21	<0.50	<0.50	0.84	0.69	6959395	<0.50	7035518	11.7	<0.50	0.50	6959395
Total Silver (Ag)	mg/kg	0.407	<0.050	<0.050	0.963	1.02	6959395	0.147	7035518	11.0	0.094	0.050	6959395
Total Sodium (Na)	mg/kg	783	322	336	530	717	6959395	396	7035518	3210	485	100	6959395
Total Strontium (Sr)	mg/kg	90.5	53.0	53.0	102	215	6959395	54.4	7035518	459	77.2	0.10	6959395
Total Thallium (Tl)	mg/kg	0.595	0.096	0.097	0.237	0.838	6959395	0.307	7035518	0.777	0.312	0.050	6959395
Total Tin (Sn)	mg/kg	218	0.80	0.65	61.0	91.8	6959395	1.82	7035518	37.2	3.44	0.10	6959395
Total Titanium (Ti)	mg/kg	221	279	289	241	200	6959395	239	7035518	411	49.6	1.0	6959395
Total Uranium (U)	mg/kg	1.29	0.870	0.899	0.698	1.06	6959395	1.03	7035518	2.56	1.51	0.050	6959395
Total Vanadium (V)	mg/kg	70.6	27.0	26.7	39.8	29.7	6959395	65.1	7035518	24.0	66.9	2.0	6959395
Total Zinc (Zn)	mg/kg	1490	32.4	31.4	1080	581	6959395	90.1	7035518	5230	100	1.0	6959395
Total Zirconium (Zr)	mg/kg	4.59	6.98	7.71	2.67	4.74	6959395	14.3	7035518	9.06	11.1	0.50	6959395

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam Job #: B355758
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		GU7202	GU7204	GU7206	GU7210	GU7211	GU7212		
Sampling Date		2013/07/03	2013/07/03	2013/07/03	2013/07/03	2013/07/03	2013/07/03		
	UNITS	**BH22 0.5-1**	**BH22 1.5-2.25**	**BH21 0-0.5**	**BH21 2.25-3**	**BH20 0-0.5**	**BH20 0.5-1**	**RDL**	**QC Batch**
Physical Properties									
Soluble (2:1) pH	pH Units	8.33	8.51	8.18	8.12	8.49	8.70	0.010	6959396
Total Metals by ICPMS									
Total Aluminum (Al)	mg/kg	22900	6630	9690	17300	17500	12000	100	6959395
Total Antimony (Sb)	mg/kg	1.08	0.44	48.8	0.39	19.1	81.7	0.10	6959395
Total Arsenic (As)	mg/kg	8.72	2.76	33.6	5.24	14.6	30.5	0.50	6959395
Total Barium (Ba)	mg/kg	194	518	1240	137	2070	433	0.10	6959395
Total Beryllium (Be)	mg/kg	0.96	<0.40	0.81	0.85	1.15	0.67	0.40	6959395
Total Bismuth (Bi)	mg/kg	0.21	<0.10	0.81	0.20	0.36	1.17	0.10	6959395
Total Cadmium (Cd)	mg/kg	0.364	0.277	2.24	0.127	3.53	3.33	0.050	6959395
Total Calcium (Ca)	mg/kg	80700	117000	34100	59000	79800	18000	100	6959395
Total Chromium (Cr)	mg/kg	40.1	22.5	42.5	42.0	43.7	68.4	1.0	6959395
Total Cobalt (Co)	mg/kg	12.4	4.05	15.4	11.8	12.2	18.2	0.30	6959395
Total Copper (Cu)	mg/kg	45.5	17.6	503	25.4	563	6710	0.50	6959395
Total Iron (Fe)	mg/kg	24800	11100	117000	23400	47900	118000	100	6959395
Total Lead (Pb)	mg/kg	58.4	21.5	796	12.7	757	2980	0.10	6959395
Total Lithium (Li)	mg/kg	35.3	13.6	17.8	32.7	33.7	13.9	5.0	6959395
Total Magnesium (Mg)	mg/kg	23400	59600	11600	36900	31200	12600	100	6959395
Total Manganese (Mn)	mg/kg	397	234	862	402	543	1190	0.20	6959395
Total Mercury (Hg)	mg/kg	<0.050	<0.050	1.11	0.051	0.932	1.61	0.050	6959395
Total Molybdenum (Mo)	mg/kg	2.12	0.72	10.4	0.50	8.61	6.97	0.10	6959395
Total Nickel (Ni)	mg/kg	38.0	13.3	66.5	31.5	118	259	0.80	6959395
Total Phosphorus (P)	mg/kg	436	327	577	422	696	570	10	6959395
Total Potassium (K)	mg/kg	5100	1450	1220	5780	1580	2690	100	6959395
Total Selenium (Se)	mg/kg	<0.50	<0.50	0.80	<0.50	1.04	1.18	0.50	6959395
Total Silver (Ag)	mg/kg	0.092	0.060	0.459	0.087	0.659	1.17	0.050	6959395
Total Sodium (Na)	mg/kg	1420	532	2150	587	5250	1450	100	6959395
Total Strontium (Sr)	mg/kg	146	77.8	416	50.3	846	159	0.10	6959395
Total Thallium (Tl)	mg/kg	0.286	0.104	0.355	0.267	0.291	0.924	0.050	6959395
Total Tin (Sn)	mg/kg	2.66	0.88	258	1.39	45.5	667	0.10	6959395
Total Titanium (Ti)	mg/kg	192	353	378	490	586	101	1.0	6959395
Total Uranium (U)	mg/kg	1.34	0.932	2.34	1.04	3.81	0.922	0.050	6959395
Total Vanadium (V)	mg/kg	72.4	22.0	20.5	50.4	31.2	35.6	2.0	6959395
Total Zinc (Zn)	mg/kg	165	92.7	1060	65.4	1640	1570	1.0	6959395
Total Zirconium (Zr)	mg/kg	13.6	9.85	10.0	18.7	18.6	8.58	0.50	6959395

RDL = Reportable Detection Limit

Maxxam

Maxxam Job #: B355758
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		GU7214		GU7216	GU7218		GU7220		
Sampling Date		2013/07/03		2013/07/03	2013/07/03		2013/07/03		
	UNITS	BH20 1.5-2.25	QC Batch	BH19 0-0.5	BH19 1-1.5	QC Batch	BH19 2.25-3	RDL	QC Batch
Physical Properties									
Soluble (2:1) pH	pH Units	8.46	7035532	8.51	8.63	6959396	8.09	0.010	7108074
Total Metals by ICPMS									
Total Aluminum (Al)	mg/kg	17500	7035518	13200	21700	6959395	23200	100	7108058
Total Antimony (Sb)	mg/kg	0.82	7035518	18.4	16.2	6959395	0.62	0.10	7108058
Total Arsenic (As)	mg/kg	5.25	7035518	18.5	8.20	6959395	8.35	0.50	7108058
Total Barium (Ba)	mg/kg	222	7035518	594	146	6959395	216	0.10	7108058
Total Beryllium (Be)	mg/kg	0.80	7035518	0.73	1.00	6959395	1.08	0.40	7108058
Total Bismuth (Bi)	mg/kg	0.22	7035518	0.66	0.52	6959395	0.30	0.10	7108058
Total Cadmium (Cd)	mg/kg	0.528	7035518	4.74	0.503	6959395	0.564	0.050	7108058
Total Calcium (Ca)	mg/kg	56200	7035518	63100	29100	6959395	18200	100	7108058
Total Chromium (Cr)	mg/kg	35.3	7035518	65.3	39.0	6959395	45.9	1.0	7108058
Total Cobalt (Co)	mg/kg	12.0	7035518	19.1	10.9	6959395	16.0	0.30	7108058
Total Copper (Cu)	mg/kg	43.4	7035518	815	1700	6959395	39.2	0.50	7108058
Total Iron (Fe)	mg/kg	24000	7035518	96800	25000	6959395	31000	100	7108058
Total Lead (Pb)	mg/kg	25.1	7035518	1240	352	6959395	19.9	0.10	7108058
Total Lithium (Li)	mg/kg	26.2	7035518	17.1	19.5	6959395	32.5	5.0	7108058
Total Magnesium (Mg)	mg/kg	26100	7035518	25200	11700	6959395	15000	100	7108058
Total Manganese (Mn)	mg/kg	471	7035518	1300	213	6959395	458	0.20	7108058
Total Mercury (Hg)	mg/kg	<0.050	7035518	0.343	0.056	6959395	<0.050	0.050	7108058
Total Molybdenum (Mo)	mg/kg	1.01	7035518	6.78	0.42	6959395	1.85	0.10	7108058
Total Nickel (Ni)	mg/kg	38.8	7035518	536	45.6	6959395	43.7	0.80	7108058
Total Phosphorus (P)	mg/kg	417	7035518	1050	410	6959395	476	10	7108058
Total Potassium (K)	mg/kg	3420	7035518	2840	4750	6959395	4350	100	7108058
Total Selenium (Se)	mg/kg	<0.50	7035518	1.44	<0.50	6959395	<0.50	0.50	7108058
Total Silver (Ag)	mg/kg	0.123	7035518	1.61	0.634	6959395	0.171	0.050	7108058
Total Sodium (Na)	mg/kg	781	7035518	2420	773	6959395	665	100	7108058
Total Strontium (Sr)	mg/kg	80.2	7035518	477	67.3	6959395	73.4	0.10	7108058
Total Thallium (Tl)	mg/kg	0.276	7035518	0.413	0.317	6959395	0.336	0.050	7108058
Total Tin (Sn)	mg/kg	3.14	7035518	56.1	231	6959395	1.91	0.10	7108058
Total Titanium (Ti)	mg/kg	179	7035518	452	115	6959395	165	1.0	7108058
Total Uranium (U)	mg/kg	1.24	7035518	1.87	0.914	6959395	1.61	0.050	7108058
Total Vanadium (V)	mg/kg	52.3	7035518	25.4	52.2	6959395	66.3	2.0	7108058
Total Zinc (Zn)	mg/kg	76.6	7035518	3760	261	6959395	94.0	1.0	7108058
Total Zirconium (Zr)	mg/kg	12.0	7035518	9.37	12.9	6959395	14.3	0.50	7108058

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Success Through Science®

Maxxam Job #: B355758
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

TCLP METALS (SOIL)

Maxxam ID		GU7129	GU7152	GU7166	GU7176	GU7181	GU7191	GU7211	GU7216		
Sampling Date		2013/07/03	2013/07/03	2013/07/03	2013/07/03	2013/07/03	2013/07/03	2013/07/03	2013/07/03		
	UNITS	MW07 0-0.5	BH11 0-0.5	BH12 0-0.5	BH13 0-0.5	BH16 0-0.5	BH18 0-0.5	BH20 0-0.5	BH19 0-0.5	RDL	QC Batch
Metals											
LEACHATE Antimony (Sb)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Arsenic (As)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Barium (Ba)	mg/L	0.35	0.79	1.04	0.37	0.74	0.52	1.29	0.70	0.10	7039492
LEACHATE Beryllium (Be)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Boron (B)	mg/L	0.31	0.56	0.63	0.32	0.52	0.35	1.03	1.09	0.10	7039492
LEACHATE Cadmium (Cd)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Chromium (Cr)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Cobalt (Co)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Copper (Cu)	mg/L	<0.10	<0.10	0.42	<0.10	<0.10	0.20	<0.10	<0.10	0.10	7039492
LEACHATE Iron (Fe)	mg/L	<0.50	1.28	1.10	1.12	5.56	1.25	1.29	1.16	0.50	7039492
LEACHATE Lead (Pb)	mg/L	<0.10	<0.10	0.12	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Mercury (Hg)	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	7039492
LEACHATE Molybdenum (Mo)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Nickel (Ni)	mg/L	<0.10	<0.10	<0.10	<0.10	0.29	0.11	<0.10	0.42	0.10	7039492
LEACHATE Selenium (Se)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Silver (Ag)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Thallium (Tl)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Uranium (U)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Vanadium (V)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Zinc (Zn)	mg/L	<0.10	1.11	3.72	0.16	22.1	3.19	7.57	8.91	0.10	7039492
LEACHATE Zirconium (Zr)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7039492

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B355758
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

CCME PAH IN SOIL BY GC-MS (SOIL)

Maxxam ID		GU7129		GU7196		
Sampling Date		2013/07/03		2013/07/03		
	UNITS	MW07 0-0.5	RDL	BH17 0-0.5	RDL	QC Batch
Calculated Parameters						
Index of Additive Cancer Risk(IARC)	N/A	3.3	0.10	20	0.10	6952572
Benzo[a]pyrene equivalency	N/A	0.21	0.10	1.4	0.10	6952572
Polycyclic Aromatics						
Naphthalene	mg/kg	0.41	0.010	1.6	0.010	6975140
2-Methylnaphthalene	mg/kg	0.77	0.020	3.1	0.020	6975140
Acenaphthylene	mg/kg	<0.041(1)	0.041	<0.13(1)	0.13	6975140
Acenaphthene	mg/kg	0.016	0.0050	0.42	0.0050	6975140
Fluorene	mg/kg	0.037	0.020	0.61	0.020	6975140
Phenanthrene	mg/kg	0.58	0.020	4.5	0.020	6975140
Anthracene	mg/kg	0.072	0.0040	0.72	0.0040	6975140
Fluoranthene	mg/kg	0.31	0.020	3.1	0.020	6975140
Pyrene	mg/kg	0.30	0.020	2.6	0.020	6975140
Benzo(a)anthracene	mg/kg	0.15	0.020	1.3	0.020	6975140
Chrysene	mg/kg	0.28	0.020	1.6	0.020	6975140
Benzo(b&j)fluoranthene	mg/kg	0.28	0.020	1.6	0.020	6975140
Benzo(k)fluoranthene	mg/kg	0.071	0.020	0.43	0.020	6975140
Benzo(a)pyrene	mg/kg	0.12	0.020	0.82	0.020	6975140
Indeno(1,2,3-cd)pyrene	mg/kg	0.11	0.050	0.44	0.050	6975140
Dibenz(a,h)anthracene	mg/kg	<0.050	0.050	0.16	0.050	6975140
Benzo(g,h,i)perylene	mg/kg	0.16	0.050	0.53	0.050	6975140
Low Molecular Weight PAH's	mg/kg	1.9	0.050	11	0.13	6952331
High Molecular Weight PAH's	mg/kg	2.0	0.050	14	0.050	6952331
Total PAH	mg/kg	3.9	0.050	25	0.13	6952331
Surrogate Recovery (%)						
D10-ANTHRACENE (sur.)	%	78		71		6975140
D8-ACENAPHTHYLENE (sur.)	%	101		88		6975140
D8-NAPHTHALENE (sur.)	%	96		89		6975140
TERPHENYL-D14 (sur.)	%	85		76		6975140

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - RDL raised due to sample matrix interference.

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam Job #: B355758
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

Package 1	26.5°C

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

General Comments

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B355758
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6957017	Moisture	2013/07/06					<0.30	%	1.8	20		
6957198	4-BROMOFLUOROBENZENE (sur.)	2013/07/08	93	60 - 140	100	60 - 140	100	%				
6957198	D10-ETHYLBENZENE (sur.)	2013/07/08	108	50 - 130	104	50 - 130	103	%				
6957198	D4-1,2-DICHLOROETHANE (sur.)	2013/07/08	97	60 - 140	98	60 - 140	95	%				
6957198	D8-TOLUENE (sur.)	2013/07/08	99	60 - 140	98	60 - 140	98	%				
6957198	Benzene	2013/07/08	79	60 - 140	80	60 - 140	<0.0050	mg/kg	NC	50		
6957198	Toluene	2013/07/08	83	60 - 140	81	60 - 140	<0.020	mg/kg	NC	50		
6957198	Ethylbenzene	2013/07/08	89	60 - 140	86	60 - 140	<0.010	mg/kg	NC	50		
6957198	m & p-Xylene	2013/07/08	87	60 - 140	85	60 - 140	<0.040	mg/kg	NC	50		
6957198	o-Xylene	2013/07/08	92	60 - 140	89	60 - 140	<0.020	mg/kg	NC	50		
6957198	Methyl-tert-butylether(MTBE)	2013/07/08	93	60 - 140	92	60 - 140	<0.10	mg/kg	NC	N/A		
6957198	(C6-C10)	2013/07/08	76	60 - 140	130	60 - 140	<10	mg/kg	NC	50		
6957198	Xylenes (Total)	2013/07/08					<0.040	mg/kg	NC	50		
6957198	F1 (C6-C10) - BTEX	2013/07/08					<10	mg/kg	NC	50		
6957200	O-TERPHENYL (sur.)	2013/07/09	96	50 - 130	92	50 - 130	95	%				
6957200	F2 (C10-C16 Hydrocarbons)	2013/07/09	NC	50 - 130	102	70 - 130	<20	mg/kg	NC	50		
6957200	F3 (C16-C34 Hydrocarbons)	2013/07/09	NC	50 - 130	103	70 - 730	<20	mg/kg	NC	50		
6957200	F4 (C34-C50 Hydrocarbons)	2013/07/09	95	50 - 130	94	70 - 130	<20	mg/kg	NC	50		
6957204	Moisture	2013/07/08					<0.3	%	4.4	20		
6959395	Total Antimony (Sb)	2013/07/09	86	75 - 125	97	75 - 125	<0.10	mg/kg	NC	30	89	70 - 130
6959395	Total Arsenic (As)	2013/07/09	92	75 - 125	99	75 - 125	<0.50	mg/kg	0.7	30	94	70 - 130
6959395	Total Barium (Ba)	2013/07/09	NC	75 - 125	102	75 - 125	<0.10	mg/kg	5.0	35	103	70 - 130
6959395	Total Beryllium (Be)	2013/07/09	107	75 - 125	109	75 - 125	<0.40	mg/kg	NC	30		
6959395	Total Cadmium (Cd)	2013/07/09	95	75 - 125	101	75 - 125	<0.050	mg/kg	NC	30	89	70 - 130
6959395	Total Chromium (Cr)	2013/07/09	94	75 - 125	101	75 - 125	<1.0	mg/kg	1.9	30	107	70 - 130
6959395	Total Cobalt (Co)	2013/07/09	94	75 - 125	103	75 - 125	<0.30	mg/kg	1.0	30	93	70 - 130
6959395	Total Copper (Cu)	2013/07/09	92	75 - 125	104	75 - 125	<0.50	mg/kg	1.9	30	89	70 - 130
6959395	Total Lead (Pb)	2013/07/09	95	75 - 125	101	75 - 125	<0.10	mg/kg	2.3	35	98	70 - 130
6959395	Total Lithium (Li)	2013/07/09	122	75 - 125	119	75 - 125	<5.0	mg/kg	NC	30		
6959395	Total Manganese (Mn)	2013/07/09	NC	75 - 125	101	75 - 125	<0.20	mg/kg	1.8	30	99	70 - 130
6959395	Total Mercury (Hg)	2013/07/09	96	75 - 125	101	75 - 125	<0.050	mg/kg	NC	35	105	70 - 130
6959395	Total Molybdenum (Mo)	2013/07/09	102	75 - 125	100	75 - 125	<0.10	mg/kg	NC	35	103	70 - 130
6959395	Total Nickel (Ni)	2013/07/09	92	75 - 125	103	75 - 125	<0.80	mg/kg	0.9	30	91	70 - 130
6959395	Total Selenium (Se)	2013/07/09	94	75 - 125	105	75 - 125	<0.50	mg/kg	NC	30		
6959395	Total Silver (Ag)	2013/07/09	88	75 - 125	90	75 - 125	<0.050	mg/kg	NC	35		
6959395	Total Strontium (Sr)	2013/07/09	NC	75 - 125	95	75 - 125	<0.10	mg/kg	0.08	35	93	70 - 130
6959395	Total Thallium (Tl)	2013/07/09	91	75 - 125	95	75 - 125	<0.050	mg/kg	NC	30	100	70 - 130
6959395	Total Tin (Sn)	2013/07/09	93	75 - 125	98	75 - 125	<0.10	mg/kg	20.4	35		
6959395	Total Titanium (Ti)	2013/07/09	NC	75 - 125	98	75 - 125	<1.0	mg/kg	3.6	35	105	70 - 130
6959395	Total Uranium (U)	2013/07/09	98	75 - 125	103	75 - 125	<0.050	mg/kg	3.4	30	92	70 - 130

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam Job #: B355758
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6959395	Total Vanadium (V)	2013/07/09	NC	75 - 125	100	75 - 125	<2.0	mg/kg	1	30	103	70 - 130
6959395	Total Zinc (Zn)	2013/07/09	NC	75 - 125	104	75 - 125	<1.0	mg/kg	3.2	30	88	70 - 130
6959395	Total Aluminum (Al)	2013/07/09					<100	mg/kg	5.0	35	101	70 - 130
6959395	Total Calcium (Ca)	2013/07/09					<100	mg/kg	1.1	30	91	70 - 130
6959395	Total Iron (Fe)	2013/07/09					<100	mg/kg	0.5	30	90	70 - 130
6959395	Total Magnesium (Mg)	2013/07/09					<100	mg/kg	6.9	30	89	70 - 130
6959395	Total Phosphorus (P)	2013/07/09					<10	mg/kg	1.5	30	87	70 - 130
6959395	Total Bismuth (Bi)	2013/07/09					<0.10	mg/kg	NC	30		
6959395	Total Potassium (K)	2013/07/09					<100	mg/kg	1.3	35		
6959395	Total Sodium (Na)	2013/07/09					<100	mg/kg	NC	35		
6959395	Total Zirconium (Zr)	2013/07/09					<0.50	mg/kg	10.0	30		
6959398	Soluble (2:1) pH	2013/07/08			99	97 - 103			0.5	20		
6959750	Total Antimony (Sb)	2013/07/10	84	75 - 125	97	75 - 125	<0.10	mg/kg	NC	30	91	70 - 130
6959750	Total Arsenic (As)	2013/07/10	93	75 - 125	97	75 - 125	<0.50	mg/kg	3.2	30	96	70 - 130
6959750	Total Barium (Ba)	2013/07/10	NC	75 - 125	102	75 - 125	<0.10	mg/kg	2.3	35	111	70 - 130
6959750	Total Beryllium (Be)	2013/07/10	104	75 - 125	108	75 - 125	<0.40	mg/kg	NC	30		
6959750	Total Cadmium (Cd)	2013/07/10	94	75 - 125	100	75 - 125	<0.050	mg/kg	NC	30	93	70 - 130
6959750	Total Chromium (Cr)	2013/07/10	93	75 - 125	102	75 - 125	<1.0	mg/kg	1.1	30	107	70 - 130
6959750	Total Cobalt (Co)	2013/07/10	94	75 - 125	102	75 - 125	<0.30	mg/kg	2.9	30	95	70 - 130
6959750	Total Copper (Cu)	2013/07/10	88	75 - 125	104	75 - 125	<0.50	mg/kg	0.9	30	102	70 - 130
6959750	Total Lead (Pb)	2013/07/10	95	75 - 125	98	75 - 125	<0.10	mg/kg	1.8	35	100	70 - 130
6959750	Total Lithium (Li)	2013/07/10	110	75 - 125	107	75 - 125	<5.0	mg/kg	NC	30		
6959750	Total Manganese (Mn)	2013/07/10	NC	75 - 125	101	75 - 125	<0.20	mg/kg	1.3	30	99	70 - 130
6959750	Total Mercury (Hg)	2013/07/10	100	75 - 125	104	75 - 125	<0.050	mg/kg	NC	35	101	70 - 130
6959750	Total Molybdenum (Mo)	2013/07/10	102	75 - 125	100	75 - 125	<0.10	mg/kg	NC	35	103	70 - 130
6959750	Total Nickel (Ni)	2013/07/10	90	75 - 125	103	75 - 125	<0.80	mg/kg	1.9	30	103	70 - 130
6959750	Total Selenium (Se)	2013/07/10	93	75 - 125	107	75 - 125	<0.50	mg/kg	NC	30		
6959750	Total Silver (Ag)	2013/07/10	86	75 - 125	91	75 - 125	<0.050	mg/kg	NC	35		
6959750	Total Strontium (Sr)	2013/07/10	NC	75 - 125	97	75 - 125	<0.10	mg/kg	1.1	35	94	70 - 130
6959750	Total Thallium (Tl)	2013/07/10	92	75 - 125	94	75 - 125	<0.050	mg/kg	NC	30	100	70 - 130
6959750	Total Tin (Sn)	2013/07/10	90	75 - 125	97	75 - 125	<0.10	mg/kg	3.5	35		
6959750	Total Titanium (Ti)	2013/07/10	NC	75 - 125	101	75 - 125	<1.0	mg/kg	1.6	35	103	70 - 130
6959750	Total Uranium (U)	2013/07/10	99	75 - 125	103	75 - 125	<0.050	mg/kg	1.7	30	94	70 - 130
6959750	Total Vanadium (V)	2013/07/10	NC	75 - 125	101	75 - 125	<2.0	mg/kg	1	30	102	70 - 130
6959750	Total Zinc (Zn)	2013/07/10	NC	75 - 125	108	75 - 125	<1.0	mg/kg	14.5	30	89	70 - 130
6959750	Total Aluminum (Al)	2013/07/10					<100	mg/kg	2.3	35	106	70 - 130
6959750	Total Calcium (Ca)	2013/07/10					<100	mg/kg	2.0	30	97	70 - 130
6959750	Total Iron (Fe)	2013/07/10					<100	mg/kg	0.8	30	95	70 - 130
6959750	Total Magnesium (Mg)	2013/07/10					<100	mg/kg	3.0	30	92	70 - 130
6959750	Total Phosphorus (P)	2013/07/10					<10	mg/kg	2.0	30	88	70 - 130

Maxxam

Maxxam Job #: B355758
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6959750	Total Bismuth (Bi)	2013/07/10					<0.10	mg/kg	NC	30		
6959750	Total Potassium (K)	2013/07/10					<100	mg/kg	0.9	35		
6959750	Total Sodium (Na)	2013/07/10					<100	mg/kg	NC	35		
6959750	Total Zirconium (Zr)	2013/07/10					<0.50	mg/kg	1.9	30		
6959751	Soluble (2:1) pH	2013/07/08			100	97 - 103			0	20		
6959972	Total Antimony (Sb)	2013/07/09	88	75 - 125	93	75 - 125	<0.10	mg/kg			96	70 - 130
6959972	Total Arsenic (As)	2013/07/09	93	75 - 125	96	75 - 125	<0.50	mg/kg	NC	30	101	70 - 130
6959972	Total Barium (Ba)	2013/07/09	NC	75 - 125	99	75 - 125	<0.10	mg/kg	0.6	35	105	70 - 130
6959972	Total Beryllium (Be)	2013/07/09	102	75 - 125	104	75 - 125	<0.40	mg/kg				
6959972	Total Cadmium (Cd)	2013/07/09	98	75 - 125	99	75 - 125	<0.050	mg/kg			97	70 - 130
6959972	Total Chromium (Cr)	2013/07/09	96	75 - 125	96	75 - 125	<1.0	mg/kg	1.1	30	102	70 - 130
6959972	Total Cobalt (Co)	2013/07/09	97	75 - 125	98	75 - 125	<0.30	mg/kg			95	70 - 130
6959972	Total Copper (Cu)	2013/07/09	97	75 - 125	100	75 - 125	<0.50	mg/kg	3.6	30	89	70 - 130
6959972	Total Lead (Pb)	2013/07/09	100	75 - 125	98	75 - 125	<0.10	mg/kg	1.6	35	101	70 - 130
6959972	Total Lithium (Li)	2013/07/09	106	75 - 125	109	75 - 125	<5.0	mg/kg				
6959972	Total Manganese (Mn)	2013/07/09	NC	75 - 125	99	75 - 125	<0.20	mg/kg			98	70 - 130
6959972	Total Mercury (Hg)	2013/07/09	104	75 - 125	98	75 - 125	<0.050	mg/kg			92	70 - 130
6959972	Total Molybdenum (Mo)	2013/07/09	97	75 - 125	99	75 - 125	<0.10	mg/kg			101	70 - 130
6959972	Total Nickel (Ni)	2013/07/09	97	75 - 125	98	75 - 125	<0.80	mg/kg			91	70 - 130
6959972	Total Selenium (Se)	2013/07/09	97	75 - 125	106	75 - 125	<0.50	mg/kg				
6959972	Total Silver (Ag)	2013/07/09	94	75 - 125	92	75 - 125	<0.050	mg/kg				
6959972	Total Strontium (Sr)	2013/07/09	NC	75 - 125	97	75 - 125	<0.10	mg/kg			98	70 - 130
6959972	Total Thallium (Tl)	2013/07/09	97	75 - 125	91	75 - 125	<0.050	mg/kg			94	70 - 130
6959972	Total Tin (Sn)	2013/07/09	95	75 - 125	97	75 - 125	<0.10	mg/kg				
6959972	Total Titanium (Ti)	2013/07/09	NC	75 - 125	95	75 - 125	<1.0	mg/kg			98	70 - 130
6959972	Total Uranium (U)	2013/07/09	104	75 - 125	99	75 - 125	<0.050	mg/kg			96	70 - 130
6959972	Total Vanadium (V)	2013/07/09	NC	75 - 125	97	75 - 125	<2.0	mg/kg			98	70 - 130
6959972	Total Zinc (Zn)	2013/07/09	NC	75 - 125	102	75 - 125	<1.0	mg/kg	2.1	30	93	70 - 130
6959972	Total Aluminum (Al)	2013/07/09					<100	mg/kg			105	70 - 130
6959972	Total Calcium (Ca)	2013/07/09					<100	mg/kg			96	70 - 130
6959972	Total Iron (Fe)	2013/07/09					<100	mg/kg			92	70 - 130
6959972	Total Magnesium (Mg)	2013/07/09					<100	mg/kg			95	70 - 130
6959972	Total Phosphorus (P)	2013/07/09					<10	mg/kg			94	70 - 130
6959972	Total Bismuth (Bi)	2013/07/09					<0.10	mg/kg				
6959972	Total Potassium (K)	2013/07/09					<100	mg/kg				
6959972	Total Sodium (Na)	2013/07/09					<100	mg/kg				
6959972	Total Zirconium (Zr)	2013/07/09					<0.50	mg/kg				
6959974	Soluble (2:1) pH	2013/07/08			101	97 - 103			0.8	20		
6975140	D10-ANTHRACENE (sur.)	2013/07/11	84	60 - 130	102	60 - 130	102	%				
6975140	D8-ACENAPHTHYLENE (sur.)	2013/07/11	98	50 - 130	100	50 - 130	95	%				

Maxxam Job #: B355758
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6975140	D8-NAPHTHALENE (sur.)	2013/07/11	92	50 - 130	100	50 - 130	96	%				
6975140	TERPHENYL-D14 (sur.)	2013/07/11	88	60 - 130	99	60 - 130	98	%				
6975140	Naphthalene	2013/07/12	87	50 - 130	91	50 - 130	<0.010	mg/kg	NC	50		
6975140	2-Methylnaphthalene	2013/07/12	93	50 - 130	102	50 - 130	<0.020	mg/kg	NC	50		
6975140	Acenaphthylene	2013/07/12	94	50 - 130	91	50 - 130	<0.0050	mg/kg	NC	50		
6975140	Acenaphthene	2013/07/12	92	50 - 130	92	50 - 130	<0.0050	mg/kg	NC	50		
6975140	Fluorene	2013/07/12	95	50 - 130	96	50 - 130	<0.020	mg/kg	NC	50		
6975140	Phenanthrene	2013/07/12	90	60 - 130	91	60 - 130	<0.020	mg/kg	NC	50		
6975140	Anthracene	2013/07/12	85	60 - 130	92	60 - 130	<0.0040	mg/kg	NC	50		
6975140	Fluoranthene	2013/07/12	87	60 - 130	94	60 - 130	<0.020	mg/kg	NC	50		
6975140	Pyrene	2013/07/12	91	60 - 130	94	60 - 130	<0.020	mg/kg	NC	50		
6975140	Benzo(a)anthracene	2013/07/12	88	60 - 130	98	60 - 130	<0.020	mg/kg	NC	50		
6975140	Chrysene	2013/07/12	91	60 - 130	100	60 - 130	<0.020	mg/kg	NC	50		
6975140	Benzo(b&j)fluoranthene	2013/07/12	101	60 - 130	87	60 - 130	<0.020	mg/kg	NC	50		
6975140	Benzo(k)fluoranthene	2013/07/12	87	60 - 130	107	60 - 130	<0.020	mg/kg	NC	50		
6975140	Benzo(a)pyrene	2013/07/12	94	60 - 130	94	60 - 130	<0.020	mg/kg	NC	50		
6975140	Indeno(1,2,3-cd)pyrene	2013/07/12	104	60 - 130	75	60 - 130	<0.050	mg/kg	NC	50		
6975140	Dibenz(a,h)anthracene	2013/07/12	99	60 - 130	73	60 - 130	<0.050	mg/kg	NC	50		
6975140	Benzo(g,h,i)perylene	2013/07/12	100	60 - 130	69	60 - 130	<0.050	mg/kg	NC	50		
7035518	Total Antimony (Sb)	2013/07/31	97	75 - 125	102	75 - 125	<0.10	mg/kg			91	70 - 130
7035518	Total Arsenic (As)	2013/07/31	108	75 - 125	102	75 - 125	<0.50	mg/kg			95	70 - 130
7035518	Total Barium (Ba)	2013/07/31	108	75 - 125	105	75 - 125	<0.10	mg/kg			97	70 - 130
7035518	Total Beryllium (Be)	2013/07/31	108	75 - 125	111	75 - 125	<0.40	mg/kg				
7035518	Total Cadmium (Cd)	2013/07/31	101	75 - 125	106	75 - 125	<0.050	mg/kg			100	70 - 130
7035518	Total Chromium (Cr)	2013/07/31	96	75 - 125	105	75 - 125	<1.0	mg/kg			100	70 - 130
7035518	Total Cobalt (Co)	2013/07/31	97	75 - 125	106	75 - 125	<0.30	mg/kg			88	70 - 130
7035518	Total Copper (Cu)	2013/07/31	103	75 - 125	109	75 - 125	<0.50	mg/kg			91	70 - 130
7035518	Total Lead (Pb)	2013/07/31	100	75 - 125	107	75 - 125	<0.10	mg/kg	6.0	35	95	70 - 130
7035518	Total Lithium (Li)	2013/07/31	107	75 - 125	107	75 - 125	<5.0	mg/kg				
7035518	Total Manganese (Mn)	2013/07/31	NC	75 - 125	107	75 - 125	<0.20	mg/kg			96	70 - 130
7035518	Total Mercury (Hg)	2013/07/31	98	75 - 125	103	75 - 125	<0.050	mg/kg			91	70 - 130
7035518	Total Molybdenum (Mo)	2013/07/31	112	75 - 125	100	75 - 125	<0.10	mg/kg			99	70 - 130
7035518	Total Nickel (Ni)	2013/07/31	100	75 - 125	104	75 - 125	<0.80	mg/kg			90	70 - 130
7035518	Total Selenium (Se)	2013/07/31	108	75 - 125	106	75 - 125	<0.50	mg/kg				
7035518	Total Silver (Ag)	2013/07/31	96	75 - 125	98	75 - 125	<0.050	mg/kg				
7035518	Total Strontium (Sr)	2013/07/31	NC	75 - 125	101	75 - 125	<0.10	mg/kg			93	70 - 130
7035518	Total Thallium (Tl)	2013/07/31	95	75 - 125	107	75 - 125	<0.050	mg/kg			90	70 - 130
7035518	Total Tin (Sn)	2013/07/31	98	75 - 125	101	75 - 125	<0.10	mg/kg				
7035518	Total Titanium (Ti)	2013/07/31	NC	75 - 125	99	75 - 125	<1.0	mg/kg			98	70 - 130
7035518	Total Uranium (U)	2013/07/31	102	75 - 125	108	75 - 125	<0.050	mg/kg			97	70 - 130

Maxxam

Maxxam Job #: B355758
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7035518	Total Vanadium (V)	2013/07/31	105	75 - 125	104	75 - 125	<2.0	mg/kg			98	70 - 130
7035518	Total Zinc (Zn)	2013/07/31	95	75 - 125	112	75 - 125	<1.0	mg/kg			92	70 - 130
7035518	Total Aluminum (Al)	2013/07/31					<100	mg/kg			100	70 - 130
7035518	Total Calcium (Ca)	2013/07/31					<100	mg/kg			98	70 - 130
7035518	Total Iron (Fe)	2013/07/31					<100	mg/kg			98	70 - 130
7035518	Total Magnesium (Mg)	2013/07/31					<100	mg/kg			93	70 - 130
7035518	Total Phosphorus (P)	2013/07/31					<10	mg/kg			88	70 - 130
7035518	Total Bismuth (Bi)	2013/07/31					<0.10	mg/kg				
7035518	Total Potassium (K)	2013/07/31					<100	mg/kg				
7035518	Total Sodium (Na)	2013/07/31					<100	mg/kg				
7035518	Total Zirconium (Zr)	2013/07/31					<0.50	mg/kg				
7035532	Soluble (2:1) pH	2013/07/31			101	97 - 103			0	20		
7036432	Initial pH of Sample	2013/08/01					4.89, RDL=N/A	pH Units	1.2	20		
7036432	Final pH of Leachate	2013/08/01					4.89, RDL=N/A	pH Units	1.9	20		
7036432	pH of Leaching Fluid	2013/08/01					4.89, RDL=N/A	pH Units	0	20		
7036432	pH after HCl	2013/08/01							3.2	20		
7039492	LEACHATE Arsenic (As)	2013/08/01	109	75 - 125	104	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Beryllium (Be)	2013/08/01	101	75 - 125	99	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Cadmium (Cd)	2013/08/01	103	75 - 125	103	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Chromium (Cr)	2013/08/01	99	75 - 125	97	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Cobalt (Co)	2013/08/01	N/C*******	75 - 125	96	75 - 125	<0.10	mg/L	9.7	35		
7039492	LEACHATE Copper (Cu)	2013/08/01	97	75 - 125	99	75 - 125	<0.10	mg/L	4.1	35		
7039492	LEACHATE Lead (Pb)	2013/08/01	98	75 - 125	98	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Nickel (Ni)	2013/08/01	N/C*******	75 - 125	87	75 - 125	<0.10	mg/L	9.0	35		
7039492	LEACHATE Selenium (Se)	2013/08/01	114	75 - 125	110	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Uranium (U)	2013/08/01	99	75 - 125	97	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Vanadium (V)	2013/08/01	102	75 - 125	98	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Zinc (Zn)	2013/08/01	N/C*******	75 - 125	106	75 - 125	<0.10	mg/L	5.7	35		
7039492	LEACHATE Antimony (Sb)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Barium (Ba)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Boron (B)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Iron (Fe)	2013/08/01					<0.50	mg/L	NC	35		
7039492	LEACHATE Mercury (Hg)	2013/08/01					<0.0020	mg/L	NC	35		
7039492	LEACHATE Molybdenum (Mo)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Silver (Ag)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Thallium (Tl)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Zirconium (Zr)	2013/08/01					<0.10	mg/L	NC	35		
7108058	Total Antimony (Sb)	2013/08/23	82	75 - 125	96	75 - 125	<0.10	mg/kg	NC	30	103	70 - 130
7108058	Total Arsenic (As)	2013/08/23	90	75 - 125	92	75 - 125	<0.50	mg/kg	NC	30	95	70 - 130
7108058	Total Barium (Ba)	2013/08/23	NC	75 - 125	95	75 - 125	<0.10	mg/kg	8.5	35	106	70 - 130

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Success Through Science®

Maxxam Job #: B355758
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7108058	Total Beryllium (Be)	2013/08/23	93	75 - 125	93	75 - 125	<0.40	mg/kg	NC	30		
7108058	Total Cadmium (Cd)	2013/08/23	95	75 - 125	98	75 - 125	<0.050	mg/kg	NC	30	117	70 - 130
7108058	Total Chromium (Cr)	2013/08/23	90	75 - 125	95	75 - 125	<1.0	mg/kg	NC	30	107	70 - 130
7108058	Total Cobalt (Co)	2013/08/23	94	75 - 125	98	75 - 125	<0.30	mg/kg	2.6	30	100	70 - 130
7108058	Total Copper (Cu)	2013/08/23	85	75 - 125	100	75 - 125	<0.50	mg/kg	32.7 (1)	30	102	70 - 130
7108058	Total Lead (Pb)	2013/08/23	98	75 - 125	102	75 - 125	<0.10	mg/kg	1.4	35	112	70 - 130
7108058	Total Lithium (Li)	2013/08/23	96	75 - 125	97	75 - 125	<5.0	mg/kg				
7108058	Total Manganese (Mn)	2013/08/23	NC	75 - 125	98	75 - 125	0.23, RDL=0.20	mg/kg	1.0	30	106	70 - 130
7108058	Total Mercury (Hg)	2013/08/23	92	75 - 125	96	75 - 125	<0.050	mg/kg	NC	35	81	70 - 130
7108058	Total Molybdenum (Mo)	2013/08/23	95	75 - 125	98	75 - 125	<0.10	mg/kg	14.1	35	108	70 - 130
7108058	Total Nickel (Ni)	2013/08/23	92	75 - 125	97	75 - 125	<0.80	mg/kg	NC	30	101	70 - 130
7108058	Total Selenium (Se)	2013/08/23	93	75 - 125	95	75 - 125	<0.50	mg/kg	NC	30		
7108058	Total Silver (Ag)	2013/08/23	97	75 - 125	97	75 - 125	<0.050	mg/kg	NC	35		
7108058	Total Strontium (Sr)	2013/08/23	NC	75 - 125	95	75 - 125	<0.10	mg/kg	10.1	35	113	70 - 130
7108058	Total Thallium (Tl)	2013/08/23	97	75 - 125	97	75 - 125	<0.050	mg/kg	NC	30	97	70 - 130
7108058	Total Tin (Sn)	2013/08/23	90	75 - 125	95	75 - 125	<0.10	mg/kg	NC	35		
7108058	Total Titanium (Ti)	2013/08/23	NC	75 - 125	97	75 - 125	<1.0	mg/kg	8.3	35	103	70 - 130
7108058	Total Uranium (U)	2013/08/23	97	75 - 125	98	75 - 125	<0.050	mg/kg			105	70 - 130
7108058	Total Vanadium (V)	2013/08/23	87	75 - 125	93	75 - 125	<2.0	mg/kg	5.6	30	105	70 - 130
7108058	Total Zinc (Zn)	2013/08/23	NC	75 - 125	97	75 - 125	<1.0	mg/kg	6.9	30	97	70 - 130
7108058	Total Aluminum (Al)	2013/08/23					<100	mg/kg	5.5	35	105	70 - 130
7108058	Total Calcium (Ca)	2013/08/23					<100	mg/kg	2.3	30	98	70 - 130
7108058	Total Iron (Fe)	2013/08/23					<100	mg/kg	0.8	30	97	70 - 130
7108058	Total Magnesium (Mg)	2013/08/23					<100	mg/kg	1.3	30	98	70 - 130
7108058	Total Phosphorus (P)	2013/08/23					<10	mg/kg	0.7	30	90	70 - 130
7108058	Total Bismuth (Bi)	2013/08/23					<0.10	mg/kg	NC	30		
7108058	Total Potassium (K)	2013/08/23					<100	mg/kg	NC	35		
7108058	Total Sodium (Na)	2013/08/23					<100	mg/kg	NC	35		

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B355758
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7108058	Total Zirconium (Zr)	2013/08/23					<0.50	mg/kg	NC	30		
7108074	Soluble (2:1) pH	2013/08/23			99	97 - 103			0.1	20		

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 sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.
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 (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.

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam — Maxxam Analytics International Corporation o/a Maxxam Analytics

D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel:(204) 772-7276 Toll-Free:(800) 665-8566 Fax:(204) 772-2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#26732 STANTEC CONSULTING	Quotation #:	B30065	MAXXAM JOB #:	BOTTLE ORDER #:
Contact Name:	Della Berwanger	Contact Name:	SCOTT COUGHTREY	P.O. #:		B355758	
Address:	2025 McCowan Road 2nd Floor, General Yard Office	Address:	603-386 BROADWAY AVENUE	Project #:	111440161		
	Scarborough ON M1S 5K3		WINNIPEG MB R3C 3R8	Project Name:	CP Weston	CHAIN OF CUSTODY #:	PROJECT MANAGER:
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Site #:		C#103352-39-01	Janelle Kochan
Email:	della_berwanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Sampled By:	BS,SR		

REGULATORY CRITERIA:

all coolers had ice present attempt to cool

SPECIAL INSTRUCTIONS

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

ANALYSIS REQUESTED (Please be specific):

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: (will be applied if Rush TAT is not specified) — X

Standard TAT = 5-7 Working days for most tests

Please note: Standard TAT for certain tests such as BOD and DissolvedFungus are > 5 days - contact your Project Manager for details

Job Specific Rush TAT (if applies to entire submission)

Date Required: _____ Time Required: _____

Rush Confirmation Number: _____ (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water? (Y/N)	Metals Field Filtered? (Y/N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	Hold				# of Bottles	Comments
1	Gu7129	MW07	0-0.5	13/07/08	AM	S			✓								3	
2	Gu7130	MW07	0.5-1	"	"	"				✓							3	
3	Gu7131	MW07	1-1.5	"	"	"							✓				3	
4	Gu7132	MW07	1.5-2.25	"	"	"				✓							3	
5	Gu7133	MW07	2.25-3	"	"	"							✓				3	
6	Gu7134	MW07	3-3.75	"	"	"							✓				3	
7	Gu7135	MW07	3.75-4.5	"	"	"		✓			✓						3	
8	Gu7136	MW07	4.5-5.25	"	"	"							✓				3	
9	Gu7137	MW07	5.25-6	"	"	"							✓				3	
10	Gu7138	MW01	0-0.5	"	"	"				✓							3	

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
B Sprad / B. Dzyd	13/07/03	15:55		20/07/03	15:55		☐	21.2 28.4 30.0	☐ Yes ☐ No

Maxxam

Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel:(204) 772-7276 Toll-Free:(800) 063 6566 Fax:(204) 772 2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#28732 STANTEC CONSULTING	Quotation #:	B30065	MAXXAM JOB #:	BOTTLE ORDER #:
Contact Name:	Della Berwanger	Contact Name:	SCOTT COUGHTREY	P.O. #:		B355758	
Address:	2025 McCowan Road 2nd Floor, General Yard Offic	Address:	603-386 BROADWAY AVENUE	Project #:	111440161	CHAIN OF CUSTODY #:	PROJECT MANAGER:
	Scarborough ON M1S 5K3		WINNIPEG MB R3C 3R8	Project Name:	CPWinnipeg	C1403352-22-01	Janelle Kachan
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Site #:			
Email:	della_berwanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Sampled By:	BS, SR		

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS:

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

ANALYSIS REQUESTED (Please be specific):

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: (will be applied if Rush TAT is not specified) — X

Standard TAT = 5-7 Working days for most tests

Please note: Standard TAT for certain tests such as BOD and Organics/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)

Date Required: _____ Time Required: _____

Rush Confirmation Number: _____ (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y/N)	Metals Field Filtered ? (Y/N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Comm/Fine (75 micron)	TCLP Metals	Hold	# of Bottles	Comments
1	GU7139	MW01 0.5-1	13/07/03	AM	S			✓					SR	3	
2	GU7140	MW01 1-1.5	"	"	"					✓				3	
3	GU7141	MW01 1.5-2.25	"	"	"								✓	3	
4	GU7142	MW01 2.25-3	"	"	"								✓	3	
5	GU7143	MW01 3-3.75	"	"	"								✓	3	
6	GU7144	MW01 3.75-4.5	"	"	"								✓	3	
7	GU7145	MW01 4.5-5.25	"	"	"								✓	3	
8	GU7146	MW01 5.25-6	"	"	"								✓	3	
9	GU7147	BH10 0-0.5	"	"	"								✓	3	
10	GU7148	BH10 0.5-1	"	"	"					✓				3	

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
B Lynn/D. Ezzard	13/07/03	15:55		03/07/13	15:55		☐	21, 21, 4.3°C	☐ Yes ☐ No

Maxxam

Maxxam Analytics International Corporation o/a Maxxam Analytics

D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel (204) 772-7355 Toll-free (800) 665 8566 Fax (204) 772 2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#26732 STANTEC CONSULTING	Quotation #:	B30065	MAXXAM JOB #:	BOTTLE ORDER #:
Contact Name:	Della Berwanger	Contact Name:	SCOTT COUGHTREY	P.O. #:		B355758	
Address:	2025 McCowan Road 2nd Floor, General Yard Offic	Address:	603-386 BROADWAY AVENUE	Project #:	111440181		
	Scarborough ON M1S 5K3		WINNIPEG MB R3C 3R6	Project Name:	CP Weston	CHAIN OF CUSTODY #:	PROJECT MANAGER:
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Site #:		CH00353-23-01	Jessica Kachan
Email:	della_berwanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Sampled By:	BE, SR		

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS:

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

ANALYSIS REQUESTED (Please be specific):

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details
X

Job Specific Rush TAT (if applies to entire submission)
Date Required: _____ Time Required: _____
Rush Confirmation Number: _____ (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y/N)	Metals Field Filtered ? (Y/N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	Hold				# of Bottles	Comments
1	GU7149	BH10 1-1.5	13/07/03	AM	S					✓							3	
2	GU7150	BH10 1.5-2.25	"	"	"								✓				3	
3	GU7151	BH10 2.25-3	"	"	"								✓				3	
4	GU7152	BH11 0-0.5	"	"	"					✓							3	
5	GU7153	BH11 0.5-1	"	"	"								✓				3	
6	GU7154	BH11 1-1.5	"	"	"					✓							3	
7	GU7155	BH11 1.5-2.25	"	"	"								✓				3	
8	GU7156	BH11 2.25-3	"	"	"								✓				3	
9	GU7157	MW02 0-0.5	"	"	"								✓				3	
10	GU7158	MW02 0.5-1	"	"	"					✓							3	

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
B Lippert/BE Ward	13/07/03	15:55		13/07/03	15:55		☐	21.2, 28.9, 30.0	☐ Yes ☐ No

Maxxam

Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel (204) 772-2385 Toll-free (800) 665-4566 Fax (204) 772-2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#26732 STANTEC CONSULTING	Quotation #:	930065	MAXXAM JOB #: B355758	BOTTLE ORDER #:
Contact Name:	Della Berwanger	Contact Name:	SCOTT COUGHTREY	P.O. #:			
Address:	2025 McCowan Road 2nd Floor, General Yard Offic	Address:	603-386 BROADWAY AVENUE	Project #:	111440181	CHAIN OF CUSTODY #:	PROJECT MANAGER:
	Scarborough ON M1S 5K3		WINNIPEG MB R3C 3R6	Project Name:	CP Weston		Janelle Kochan
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Site #:		C#402352-21-01	
Email:	della_berwanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Sampled By:	BE SR		

REGULATORY CRITERIA:	SPECIAL INSTRUCTIONS

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

ANALYSIS REQUESTED (Please be specific):

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water? (Y/N)	Metals Field Filtered? (Y/N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	Hold				# of Bottles	Comments
1	GU7159	MW02 1-1.5	13/07/03	AM	S								✓				3	
2	GU7160	MW02 1.5-2.25	"	"	"					✓	✓						3	
3	GU7161	MW03 2.25-3											✓				3	
4	GU7162	MW03 3-3.75											✓				3	
5	GU7163	MW03 3.75-4.5											✓				3	
6	GU7164	MW03 4.5-5.25											✓				3	
7	GU7165	MW03 5.25-6											✓				3	
8	GU7166	BH03 0-0.5								✓							3	
9	GU7167	BH03 0.5-1											✓				3	
10	GU7168	BH03 1-1.5											✓				3	

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: ☑
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: _____ Time Required: _____ ☐
Rush Confirmation Number: _____ (call lab for #)

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
B Lloyd / B. Lloyd	13/07/03	15:53	[illegible]	03/07/03	15:55		☐	7.2, 2.4, 3.0	☐ Yes ☐ No

Maxxam

Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel (204) 772-7276 Toll-Free (800) 665-8566 Fax (204) 772-2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#26732 STANTEC CONSULTING	Quotation #:	B30065	MAXXAM JOB #:	BOTTLE ORDER #:
Contact Name:	Delta Berwanger	Contact Name:	SCOTT COUGHTREY	P.O. #:		B355758	453362
Address:	2025 McCowan Road 2nd Floor, General Yard Offic	Address:	603-386 BROADWAY AVENUE	Project #:	111440181	CHAIN OF CUSTODY #:	PROJECT MANAGER:
	Scarborough ON M1S 5K3		WINNIPEG MB R3C 3R8	Project Name:	CP Weston		Janelle Kachan
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Site #:		C#033357-25-01	
Email:	delta_berwanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Sampled By:	RE, SR		

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS:

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

ANALYSIS REQUESTED (Please be specific):

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: (will be applied if Rush TAT is not specified) ☒
Standard TAT = 5-7 Working days for most tests
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) ☐
Date Required: _____ Time Required: _____
Rush Confirmation Number: _____ (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water? (Y/N)	Metals Field Filtered? (Y/N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	Hold				# of Bottles	Comments
1	GU7169	BH12 1.5-2.25	13/07/03	AM	S					✓							3	
2	GU7170	BH12 2.25-3	"	"	"								✓				3	
3	GU7171	BH14 0-0.5		PM									✓				3	
4	GU7172	BH14 0.5-1						✓		✓							3	
5	GU7173	BH14 1-1.5								✓							3	
6	GU7174	BH14 1.5-2.25											✓				3	
7	GU7175	BH14 2.25-3											✓				3	
8	GU7176	BH13 0-0.5								✓							3	
9	GU7177	BH13 0.5-1											✓				3	
10	GU7178	BH13 1-1.5											✓				3	

*RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
B. Appel/B. Ezzard	13/07/03	15:55		2003/07/03	15:55		☐	2, 2, 4, 3.0	☐ Yes ☐ No

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#28732 STANTEC CONSULTING	Quotation #:	B30065
Contact Name:	Della Berwanger	Contact Name:	SCOTT COUGHTREY	P.O. #:	
Address:	2025 McCowan Road 2nd Floor, General Yard Offic	Address:	603-386 BROADWAY AVENUE	Project #:	111440181
	Scarborough ON M1S 5K3		WINNIPEG MB R3C 3R6	Project Name:	CP Weston
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Site #:	
Email:	della_berwanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Sampled By:	RB SR

Laboratory Use Only:

MAXXAM JOB #:	BOTTLE ORDER #:
B355758	
CHAIN OF CUSTODY #:	PROJECT MANAGER:
C#433E-25-01	Janelle Kochan

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS:

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

ANALYSIS REQUESTED (Please be specific):

#	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y / N)	Metals Field Filtered ? (Y / N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	Hold				# of Bottles	Comments
1	GU7179	BH13 1.5-2.25	13/07/03	PM	S					✓							3	
2	GU7180	BH13 2.25-3	↓	↓	↓								✓				3	
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: [X]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details

Job Specific Rush TAT (if applies to entire submission) [ ]
Date Required: ____ Time Required: ____
Rush Confirmation Number: ____ (call lab for #)

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted
B Ozzard / B Ozzard	13/07/03	15:15		2013/07/03	15:55	

Laboratory Use Only

Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
[ ]	2/2, 2/4, 3/3	[ ] Yes [ ] No

Maxxam

Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel: (204) 772-2386 Toll-free (800) 665-8566 Fax: (204) 772-2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:

Company Name: #10774 CANADIAN PACIFIC RAILWAY
Contact Name: Delta Berwanger
Address: 2025 McCowan Road 2nd Floor, General Yard Offic
Scarborough ON M1S 5K3
Phone: (416)297-3044 Fax: (416)297-3103
Email: delta_berwanger@cpr.ca

REPORT INFORMATION (if differs from invoice):

Company Name: #28732 STANTEC CONSULTING
Contact Name: SCOTT COUGHTREY
Address: 603-386 BROADWAY AVENUE
WINNIPEG MB R3C 3R6
Phone: Fax:
Email: scott.coughtrey@stantec.com

PROJECT INFORMATION:

Quotation #: B30065
P.O. #:
Project #: 111440161
Project Name: CP Weston
Site #:
Sampled By: BE, SR

Laboratory Use Only:

MAXXAM JOB #: B355758
BOTTLE ORDER #: 403262
CHAIN OF CUSTODY #: CA10053-12-01
PROJECT MANAGER: Janelle Kocsan

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS

Note: For regulated drinking water samples - please see the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: Time Required:
Rush Confirmation Number: (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water? (Y / N)	Metals Field Filtered? (Y / N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	Hold				# of Bottles	Comments
1	GU7181	BH16 0-0.5	13/07/03	PM	S					✓							3	
2	GU7182	BH16 0.5-1	"	"	"					✓							3	
3	GU7183	BH16 1-1.5	"	"	"								✓				3	
4	GU7184	BH16 1.5-2.25	"	"	"								✓				3	
5	GU7185	BH16 2.25-3	"	"	"								✓				3	
6	GU7186	BH15 0-0.5	"	"	"					✓							3	
7	GU7187	BH15 0.5-1	"	"	"								✓				3	
8	GU7188	BH15 1-1.5	"	"	"					✓							3	
9	GU7189	BH15 1.5-2.25	"	"	"								✓				3	
10	GU7190	BH15 2.25-3	"	"	"								✓				3	

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted
S.Reid S.Reid	03/07/03	17:15		03/07/03	15:55	

Laboratory Use Only: Time Sensitive ☐ | Temperature (°C) on Receipt: 21.2, 21.4, 20.0 | Custody Seal Intact on Cooler? ☐ Yes ☐ No

Maxxam

Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel:(204) 772-7276 Toll-free:(800) 665-8566 Fax:(204) 772-2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#29732 STANTEC CONSULTING	Quotation #:	B30065	MAXXAM JOB #: B355758	BOTTLE ORDER #:
Contact Name:	Della Berwanger	Contact Name:	SCOTT COUGHTREY	P.O. #:			
Address:	2025 McCowan Road 2nd Floor, General Yard Offic	Address:	603-386 BROADWAY AVENUE	Project #:	111440161	CHAIN OF CUSTODY #:	PROJECT MANAGER:
	Scarborough ON M1S 5K3		WINNIPEG MB R3C 3R8	Project Name:	CP Weston		Janelle Kocsan
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Site #:		C#155353-11-01	
Email:	della_berwanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Sampled By:	SR BE		

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: _____ Time Required: _____

Rush Confirmation Number: _____ (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	(Regulated Drinking Water ? (Y/N))	Metals Field Filtered ? (Y/N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	HD 1d					# of Bottles	Comments
1	GU7191	BH18 0-0.5	13/07/03	PM	S			✓	✓	✓								3	
2	GU7192	BH18 0.5-1	"	"	"				✓	✓			✓					3	
3	GU7193	BH18 1-1.5	"	"	"								✓					3	
4	GU7194	BH18 1.5-2.25	"	"	"								✓					3	
5	GU7195	BH18 2.25-3	"	"	"			✓		✓			✓					3	
6	GU7196	BH17 0-0.5	"	"	"				✓	✓								3	
7	GU7197	BH17 0.5-1	"	"	"								✓					3	
8	GU7198	BH17 1-1.5	"	"	"								✓					3	
9	GU7199	BH17 1.5-2.25	"	"	"								✓					3	
10	GU7200	BH17 2.25-3	"	"	"			✓		✓								3	

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
Signed & Paid	13/07/03	15:55	[signature]	03/07/03	15:55		☐	21.2, 21.4, 3.0	☐ Yes ☐ No

Maxxam — Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel:(204) 772-7276 Toll-free:(800) 665 8566 Fax:(204) 772-2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#28732 STANTEC CONSULTING	Quotation #:	B30065	MAXXAM JOB #:	BOTTLE ORDER #:
Contact Name:	Delta Berwanger	Contact Name:	SCOTT COUGHTREY	P.O. #:		B355758	
Address:	2025 McCowan Road 2nd Floor, General Yard Offic	Address:	603-386 BROADWAY AVENUE	Project #:	111440181		
	Scarborough ON M1S 5K3		WINNIPEG MB R3C 3R6	Project Name:	CP Weston	CHAIN OF CUSTODY #:	PROJECT MANAGER:
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Site #:		C#403353-09-01	Jenelle Kochan
Email:	delta_berwanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Sampled By:	BE SR		

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

ANALYSIS REQUESTED (Please be specific):

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: _____ Time Required: _____

Rush Confirmation Number: _____ (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water? (Y/N)	Metals Field Filtered? (Y/N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	Hold				# of Bottles	Comments
1	GU7201	BH220-0.5	13/07/03	PM	S					·			✓				3	
2	GU7202	BH220.5-1	"	"	"					✓							3	
3	GU7203	BH22 1-1.5	"	"	"								✓				3	
4	GU7204	BH22 1.5-2.25	"	"	"					✓							3	
5	GU7205	BH22 2.25-3	"	"	"								✓				3	
6	GU7206	BH210-0.5	"	"	"					✓							3	
7	GU7207	BH210.5-1	"	"	"								✓				3	
8	GU7208	BH211-1.5	"	"	"								✓				3	
9	GU7209	BH211.5-2.25	"	"	"								✓				3	
10	GU7210	BH212.25-3	"	"	"					✓							3	

*RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
Shaid S. Reid	13/07/03	15:55		03/07/03	15:55		☐	21.2, 28.4, 20	☐ Yes ☐ No

Maxxam

Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel (204) 772-7276 Toll-free (800) 665 6566 Fax (204) 772 2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION

Company Name: #10774 CANADIAN PACIFIC RAILWAY
Contact Name: Della Benwanger
Address: 2025 McCowan Road 2nd Floor, General Yard Offic
Scarborough ON M1S 5K3
Phone: (416)297-3044 Fax: (416)297-3103
Email: della_benwanger@cpr.ca

REPORT INFORMATION (if differs from invoice):

Company Name: #28732 STANTEC CONSULTING
Contact Name: SCOTT COUGHTREY
Address: 603-386 BROADWAY AVENUE
WINNIPEG MB R3C 3R6
Phone: Fax:
Email: scott.coughtrey@stantec.com

PROJECT INFORMATION:

Quotation #: B30065
P.O. #:
Project #: 111440161
Project Name: CP Weston
Site #:
Sampled By: BE, SR

Laboratory Use Only:

MAXXAM JOB #: B355758
BOTTLE ORDER #:
CHAIN OF CUSTODY #: CA-03052-10-01
PROJECT MANAGER: Jennifer Kochan

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

TURNAROUND TIME (TAT) REQUIRED

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests
Please note: Standard TAT for certain tests such as BOD and DioxinsFurans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: Time Required:
Rush Confirmation Number: (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y/N)	Metals Field Filtered ? (Y/N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	Hold				# of Bottles	Comments
1	GU7211	BH20 0-0.5	13/01/03	PM	S					✓							3	
2	GU7212	BH20 0.5-1	"	"	"					✓							3	
3	GU7213	BH20 1-1.5	"	"	"								✓				3	
4	GU7214	BH20 1.5-2.25	"	"	"								✓				3	
5	GU7215	BH20 2.25-3	"	"	"								✓				3	
6	GU7216	BH19 0-0.5	"	"	"					✓							3	
7	GU7217	BH19 0.5-1	"	"	"								✓				3	
8	GU7218	BH19 1-1.5	"	"	"					✓							3	
9	GU7219	BH19 1.5-2.25	"	"	"								✓				3	
10	~~GU7220~~ GU7220 01-04-03	BH19 2.25-3	"	"	"								✓				3	

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted
S Reid S Reid	13/01/03	15:55		03/01/03	15:55	

Laboratory Use Only: Time Sensitive ☐ | Temperature (°C) on Receipt: 7, 2, 2.8, 4, 3.0 | Custody Seal Intact on Cooler? ☐ Yes ☐ No

Maxxam

Your Project #: 111440161
Site Location: CP WESTON
Your C.O.C. #: 403352

Attention: SCOTT COUGHTREY
STANTEC CONSULTING
603-386 BROADWAY AVENUE
WINNIPEG, MB
CANADA R3C 3R6

Report Date: 2013/08/26
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B356121
Received: 2013/07/04, 13:50

Sample Matrix: Soil
Samples Received: 32

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/F1 by HS GC-MS/FID (MeOH extract) (2)	1	2013/07/05	2013/07/08	WINSOP-00054 WINSOP-00055	EPA8260C/CCME PHCC
CCME Hydrocarbons (F2-F4 in soil) (3)	1	2013/07/05	2013/07/09	WINSOP-00056	CCME PHC-CWS
Elements by ICPMS (total) (1)	26	2013/07/08	2013/07/10	BBY7SOP-00004	BCMOE-SALM
Elements by ICPMS (total) (1)	2	2013/08/01	2013/08/01	BBY7SOP-00004	BCMOE-SALM
Elements by ICPMS (total) (1)	1	2013/08/23	2013/08/23	BBY7SOP-00004	BCMOE-SALM
Metals - TCLP (1)	4	2013/07/31	2013/08/01	BBY7SOP-00001	EPA 6020A
Moisture (1)	3	N/A	2013/07/08	BBY8SOP-00017	Ont MOE -E 3139
Moisture	1	N/A	2013/07/08	WIN SOP-00060	Carter Method 51.2
PAH in Soil by GC/MS (SIM) - CCME (1)	3	2013/07/07	2013/07/12	BBY8SOP-00022	EPA 8270D
Benzo[a]pyrene Equivalency (1)	3	N/A	2013/07/12	BBY WI-00033	CCME Guidelines
Total LMW, HMW, Total PAH Calc (1)	3	N/A	2013/07/12	BBY WI-00033	BC MOE Lab Method
pH (2:1 DI Water Extract) (1)	6	2013/07/08	2013/07/08	BBY6SOP-00028	Carter, SSMA 16.2
pH (2:1 DI Water Extract) (1)	20	2013/07/09	2013/07/09	BBY6SOP-00028	Carter, SSMA 16.2
pH (2:1 DI Water Extract) (1)	1	2013/08/01	2013/08/01	BBY6SOP-00028	Carter, SSMA 16.2
pH (2:1 DI Water Extract) (1)	1	2013/08/02	2013/08/02	BBY6SOP-00028	Carter, SSMA 16.2
pH (2:1 DI Water Extract) (1)	1	2013/08/23	2013/08/23	BBY6SOP-00028	Carter, SSMA 16.2
TCLP pH Measurements (1)	4	N/A	2013/08/01	BBY7SOP-00005	EPA 1311
PSA Coarse/Fine (75 micron)	2	N/A	2013/07/05		
Grain Size (Coarse/Fine)	2	N/A	2013/07/10		

* Results relate only to the items tested.

(1) This test was performed by Maxxam Vancouver
(2) This method complies with the reference method for the CWS PHC and is validated for use in the laboratory.
Applicable only to F1 and/or LH - nC6 and nC10 response factors are within 30% of the toluene response factor.
The hydrocarbon results are expressed as a dry weight basis.
(3) This method complies with the reference method for the CWS PHC and is validated for use in the laboratory.
The hydrocarbon results are expressed as a dry weight basis.

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Encryption Key

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

Janelle Kochan, B.Sc., Project Manager,
Email: JKochan@maxxam.ca
Phone# (204) 772-7276 Ext:2209

==========

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: 2

Maxxam

Success Through Sciences

Maxxam Job #: B356121
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

BTEX/F1-F4 IN SOIL (SOIL)

Maxxam ID		GU9747		
Sampling Date		2013/07/04 08:00		
	UNITS	BH23 1-1.5	RDL	QC Batch
Physical Properties				
Moisture	%	26	0.3	6957204
Ext. Pet. Hydrocarbon				
F2 (C10-C16 Hydrocarbons)	mg/kg	<20	20	6957200
F3 (C16-C34 Hydrocarbons)	mg/kg	<20	20	6957200
F4 (C34-C50 Hydrocarbons)	mg/kg	<20	20	6957200
Reached Baseline at C50	mg/kg	YES		6957200
Surrogate Recovery (%)				
O-TERPHENYL (sur.)	%	89		6957200
Volatiles				
Benzene	mg/kg	<0.0050	0.0050	6957198
Toluene	mg/kg	<0.020	0.020	6957198
Ethylbenzene	mg/kg	<0.010	0.010	6957198
Xylenes (Total)	mg/kg	<0.040	0.040	6957198
m & p-Xylene	mg/kg	<0.040	0.040	6957198
o-Xylene	mg/kg	<0.020	0.020	6957198
Methyl-tert-butylether (MTBE)	mg/kg	<0.10	0.10	6957198
F1 (C6-C10) - BTEX	mg/kg	<10	10	6957198
(C6-C10)	mg/kg	<10	10	6957198
Surrogate Recovery (%)				
4-BROMOFLUOROBENZENE (sur.)	%	100		6957198
D10-ETHYLBENZENE (sur.)	%	106		6957198
D4-1,2-DICHLOROETHANE (sur.)	%	98		6957198
D8-TOLUENE (sur.)	%	96		6957198

PHYSICAL TESTING (SOIL)

Maxxam ID		GU9719	GU9749	GU9770		
Sampling Date		2013/07/04 08:00	2013/07/04 08:00	2013/07/04 08:00		
	UNITS	MW05 1-1.5	BH23 2.25-3	BH30 0-0.5	RDL	QC Batch
Physical Properties						
Moisture	%	18	27	16	0.30	6959931

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B356121
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

CUSTOM PARTICLE SIZE DISTRIBUTION (SOIL)

Maxxam ID		GU9719	GU9732		
Sampling Date		2013/07/04 08:00	2013/07/04 08:00		
	UNITS	MW05 1-1.5	MW06 3.75-4.5	RDL	QC Batch
Particle Size					
Sieve-%Coarse (>0.075mm)	%	5.09	1.26	0.01	6970427
Grain Size	N/A	FINE	FINE		6952575
Sieve-%Fine (<0.075mm)	%	94.91	98.74	0.01	6970427

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		GU9726	GU9740	GU9745	GU9755		
Sampling Date		2013/07/04 08:00	2013/07/04 08:00	2013/07/04 08:00	2013/07/04 08:00		
	UNITS	MW06 0-0.5	BH26 0-0.5	BH23 0-0.5	BH27 0-0.5	RDL	QC Batch
TCLP Extraction Procedure							
Initial pH of Sample	pH Units	9.91	9.42	10.0	10.6	N/A	7036432
pH after HCl	pH Units	1.75	1.97	1.52	3.49	N/A	7036432
Final pH of Leachate	pH Units	6.54	6.65	6.12	7.16	N/A	7036432
pH of Leaching Fluid	pH Units	4.89	4.89	4.89	4.89	N/A	7036432

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Success Through Science®

Maxxam Job #: B356121
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		GU9708		GU9712	GU9712		GU9718	GU9719	GU9726	GU9728	GU9736		
Sampling Date		2013/07/04 08:00		2013/07/04 08:00	2013/07/04 08:00		2013/07/04 08:00	2013/07/04 08:00	2013/07/04 08:00	2013/07/04 08:00	2013/07/04 08:00		
	UNITS	MW03 0-0.5	QC Batch	MW03 2.25-3	MW03 2.25-3 Lab-Dup	QC Batch	MW05 0.5-1	MW05 1-1.5	MW06 0-0.5	MW06 1-1.5	BH25 0.5-1	RDL	QC Batch
Physical Properties													
Soluble (2:1) pH	pH Units	8.06	6960806	8.43	8.38	6960857	8.50	8.74	8.59	8.60	8.30	0.010	6960806
Total Metals by ICPMS													
Total Aluminum (Al)	mg/kg	4050	6960801	7880	7600	6960854	19700	10700	5950	5270	17000	100	6960801
Total Antimony (Sb)	mg/kg	18.4	6960801	0.15	0.14	6960854	38.3	0.90	3.84	2.14	2.63	0.10	6960801
Total Arsenic (As)	mg/kg	56.7	6960801	2.90	2.79	6960854	16.3	4.73	6.23	3.28	4.34	0.50	6960801
Total Barium (Ba)	mg/kg	286	6960801	75.6	74.4	6960854	695	162	704	212	163	0.10	6960801
Total Beryllium (Be)	mg/kg	<0.40	6960801	0.40	<0.40	6960854	0.84	0.44	<0.40	<0.40	0.73	0.40	6960801
Total Bismuth (Bi)	mg/kg	0.86	6960801	0.10	0.10	6960854	0.40	0.10	0.14	0.24	0.15	0.10	6960801
Total Cadmium (Cd)	mg/kg	11.7	6960801	0.128	0.129	6960854	0.279	0.157	1.72	0.964	0.298	0.050	6960801
Total Calcium (Ca)	mg/kg	98500	6960801	100000	95000	6960854	53100	130000	111000	113000	71700	100	6960801
Total Chromium (Cr)	mg/kg	43.9	6960801	19.1	18.5	6960854	45.2	22.3	29.5	15.7	44.0	1.0	6960801
Total Cobalt (Co)	mg/kg	14.7	6960801	5.18	5.03	6960854	12.1	5.22	4.77	3.71	7.11	0.30	6960801
Total Copper (Cu)	mg/kg	1160	6960801	21.8(1)	15.9(2)	6960854	188	21.0	195	167	34.8	0.50	6960801
Total Iron (Fe)	mg/kg	108000	6960801	11300	10700	6960854	49900	14400	18800	12600	18500	100	6960801
Total Lead (Pb)	mg/kg	1750	6960801	12.8	12.6	6960854	800	38.2	608	498	93.3	0.10	6960801
Total Lithium (Li)	mg/kg	9.2	6960801	16.5	15.0	6960854	26.1	19.5	10.3	8.4	31.1	5.0	6960801
Total Magnesium (Mg)	mg/kg	27500	6960801	54300	55100	6960854	24000	50800	47700	43500	29400	100	6960801
Total Manganese (Mn)	mg/kg	617	6960801	259	255	6960854	385	242	248	200	243	0.20	6960801
Total Mercury (Hg)	mg/kg	6.23	6960801	<0.050	<0.050	6960854	0.197	<0.050	0.324	0.078	<0.050	0.050	6960801
Total Molybdenum (Mo)	mg/kg	9.22	6960801	0.26	0.28	6960854	1.27	0.45	3.58	1.40	0.73	0.10	6960801
Total Nickel (Ni)	mg/kg	89.4	6960801	14.4	14.3	6960854	51.0	17.8	40.2	26.3	24.5	0.80	6960801
Total Phosphorus (P)	mg/kg	1150	6960801	339	336	6960854	676	353	365	267	568	10	6960801
Total Potassium (K)	mg/kg	787	6960801	1820	1750	6960854	4520	2210	1030	1080	4820	100	6960801
Total Selenium (Se)	mg/kg	11.5	6960801	<0.50	<0.50	6960854	0.57	<0.50	<0.50	<0.50	0.58	0.50	6960801
Total Silver (Ag)	mg/kg	3.88	6960801	<0.050	<0.050	6960854	0.319	0.052	0.457	0.361	0.110	0.050	6960801
Total Sodium (Na)	mg/kg	839	6960801	281	271	6960854	690	266	921	399	754	100	6960801
Total Strontium (Sr)	mg/kg	239	6960801	46.5	43.9	6960854	130	143	195	104	145	0.10	6960801
Total Thallium (Tl)	mg/kg	1.47	6960801	0.125	0.124	6960854	0.407	0.148	0.192	0.164	0.192	0.050	6960801
Total Tin (Sn)	mg/kg	51.8	6960801	0.47	0.45	6960854	65.5	2.58	8.38	6.13	3.57	0.10	6960801
Total Titanium (Ti)	mg/kg	180	6960801	355	353	6960854	229	301	255	198	187	1.0	6960801
Total Uranium (U)	mg/kg	2.59	6960801	0.680	0.655	6960854	1.47	1.71	0.970	0.584	4.45	0.050	6960801
Total Vanadium (V)	mg/kg	15.5	6960801	25.3	24.5	6960854	55.3	32.7	14.4	13.4	43.5	2.0	6960801

RDL = Reportable Detection Limit
(1) - Duplicate exceeds acceptance criteria for Cu. 10% of analytes failure in multielement scan is allowed.
(2) - Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B356121
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		GU9708		GU9712	GU9712		GU9718	GU9719	GU9726	GU9728	GU9736		
Sampling Date		2013/07/04 08:00		2013/07/04 08:00	2013/07/04 08:00		2013/07/04 08:00	2013/07/04 08:00	2013/07/04 08:00	2013/07/04 08:00	2013/07/04 08:00		
	UNITS	MW03 0-0.5	QC Batch	MW03 2.25-3	MW03 2.25-3 Lab-Dup	QC Batch	MW05 0.5-1	MW05 1-1.5	MW06 0-0.5	MW06 1-1.5	BH25 0.5-1	RDL	QC Batch
Total Zinc (Zn)	mg/kg	3310	6960801	35.1	36.3	6960854	191	45.7	772	472	77.4	1.0	6960801
Total Zirconium (Zr)	mg/kg	1.73	6960801	8.48	8.53	6960854	8.93	6.32	4.93	3.51	6.94	0.50	6960801

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam Job #: B356121
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		GU9738		GU9740	GU9741	GU9741		GU9743		GU9745		
Sampling Date		2013/07/04 08:00		2013/07/04 08:00	2013/07/04 08:00	2013/07/04 08:00		2013/07/04 08:00		2013/07/04 08:00		
	UNITS	BH25 1.5-2.25	QC Batch	BH26 0-0.5	BH26 0.5-1	BH26 0.5-1 Lab-Dup	QC Batch	BH26 1.5-2.25	QC Batch	BH23 0-0.5	RDL	QC Batch
Physical Properties												
Soluble (2:1) pH	pH Units	8.22	6960857	8.38	8.66	8.66	6960806	8.74	7039885	8.54	0.010	6960857
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	25600	6960854	9010	12400	12100	6960801	5670	7039865	15100	100	6960854
Total Antimony (Sb)	mg/kg	0.41	6960854	61.1	50.5	44.2	6960801	0.17	7039865	8.52	0.10	6960854
Total Arsenic (As)	mg/kg	5.87	6960854	58.5	43.0	41.6	6960801	1.60	7039865	15.3	0.50	6960854
Total Barium (Ba)	mg/kg	292	6960854	930	447	402	6960801	37.1	7039865	1340	0.10	6960854
Total Beryllium (Be)	mg/kg	0.87	6960854	0.48	0.40	0.41	6960801	<0.40	7039865	0.98	0.40	6960854
Total Bismuth (Bi)	mg/kg	0.22	6960854	6.11	8.28	7.67	6960801	<0.10	7039865	0.45	0.10	6960854
Total Cadmium (Cd)	mg/kg	0.213	6960854	27.2	33.7	31.7	6960801	0.302	7039865	4.16	0.050	6960854
Total Calcium (Ca)	mg/kg	25500	6960854	36900	42300	42600	6960801	91000	7039865	60700	100	6960854
Total Chromium (Cr)	mg/kg	58.2	6960854	134	173	177	6960801	14.4	7039865	99.8	1.0	6960854
Total Cobalt (Co)	mg/kg	16.2	6960854	28.5	26.8	25.3	6960801	3.20	7039865	10.4	0.30	6960854
Total Copper (Cu)	mg/kg	43.4	6960854	1770	1780	1650	6960801	10.2	7039865	2320	0.50	6960854
Total Iron (Fe)	mg/kg	32600	6960854	145000	146000	139000	6960801	9620	7039865	50400	100	6960854
Total Lead (Pb)	mg/kg	17.1	6960854	15500	12300	12100	6960801	12.7	7039865	511	0.10	6960854
Total Lithium (Li)	mg/kg	64.3	6960854	8.8	9.3	8.9	6960801	10.5	7039865	24.0	5.0	6960854
Total Magnesium (Mg)	mg/kg	23300	6960854	11300	16000	16600	6960801	52000	7039865	22500	100	6960854
Total Manganese (Mn)	mg/kg	613	6960854	1220	1240	1080	6960801	187	7039865	559	0.20	6960854
Total Mercury (Hg)	mg/kg	<0.050	6960854	0.215	0.211	0.204	6960801	<0.050	7039865	0.499	0.050	6960854
Total Molybdenum (Mo)	mg/kg	1.25	6960854	29.1	24.9	26.7	6960801	0.29	7039865	7.63	0.10	6960854
Total Nickel (Ni)	mg/kg	49.5	6960854	580	479	457	6960801	10.0	7039865	57.3	0.80	6960854
Total Phosphorus (P)	mg/kg	609	6960854	3200	1060	994	6960801	363	7039865	796	10	6960854
Total Potassium (K)	mg/kg	6780	6960854	3270	4330	4320	6960801	3980	7039865	2520	100	6960854
Total Selenium (Se)	mg/kg	<0.50	6960854	3.54	8.36	6.67	6960801	<0.50	7039865	2.70	0.50	6960854
Total Silver (Ag)	mg/kg	0.077	6960854	12.2	11.6	10.0	6960801	0.055	7039865	0.628	0.050	6960854
Total Sodium (Na)	mg/kg	1260	6960854	3540	2610	2730	6960801	628	7039865	3030	100	6960854
Total Strontium (Sr)	mg/kg	74.1	6960854	250	164	150	6960801	36.9	7039865	522	0.10	6960854
Total Thallium (Tl)	mg/kg	0.440	6960854	3.28	2.67	2.48	6960801	0.085	7039865	0.341	0.050	6960854
Total Tin (Sn)	mg/kg	1.26	6960854	247	437	454	6960801	0.42	7039865	187	0.10	6960854
Total Titanium (Ti)	mg/kg	1130	6960854	413	456	399	6960801	349	7039865	402	1.0	6960854
Total Uranium (U)	mg/kg	1.94	6960854	1.33	1.29	1.25	6960801	0.576	7039865	2.57	0.050	6960854
Total Vanadium (V)	mg/kg	68.0	6960854	23.2	24.2	25.9	6960801	19.1	7039865	31.1	2.0	6960854
Total Zinc (Zn)	mg/kg	97.5	6960854	11500	9510	9180	6960801	35.2	7039865	433	1.0	6960854
Total Zirconium (Zr)	mg/kg	20.6	6960854	2.46	2.88	2.62	6960801	9.19	7039865	14.7	0.50	6960854

RDL = Reportable Detection Limit

Maxxam

Maxxam Job #: B356121
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		GU9749	GU9750		GU9752		GU9755	GU9757		GU9759		
Sampling Date		2013/07/04 08:00	2013/07/04 08:00		2013/07/04 08:00		2013/07/04 08:00	2013/07/04 08:00		2013/07/04 08:00		
	UNITS	BH23 2.25-3	BH24 0-0.5	QC Batch	BH24 1-1.5	QC Batch	BH27 0-0.5	BH27 1-1.5	QC Batch	BH27 2.25-3	RDL	QC Batch
Physical Properties												
Soluble (2:1) pH	pH Units	8.17	8.37	6960806	8.55	6960857	8.83	8.51	6960806	8.22	0.010	7108074
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	24000	17800	6960801	14700	6960854	26900	22400	6960801	15500	100	7108058
Total Antimony (Sb)	mg/kg	0.40	26.3	6960801	0.75	6960854	2.73	2.39	6960801	0.19	0.10	7108058
Total Arsenic (As)	mg/kg	7.08	15.0	6960801	5.50	6960854	5.85	7.51	6960801	2.41	0.50	7108058
Total Barium (Ba)	mg/kg	219	2550	6960801	138	6960854	999	1290	6960801	88.1	0.10	7108058
Total Beryllium (Be)	mg/kg	1.19	2.62	6960801	0.63	6960854	1.85	1.41	6960801	<0.40	0.40	7108058
Total Bismuth (Bi)	mg/kg	0.26	0.60	6960801	0.15	6960854	0.40	0.18	6960801	<0.10	0.10	7108058
Total Cadmium (Cd)	mg/kg	0.224	5.75	6960801	0.156	6960854	2.16	1.30	6960801	0.198	0.050	7108058
Total Calcium (Ca)	mg/kg	20100	58900	6960801	115000	6960854	52800	70400	6960801	2680	100	7108058
Total Chromium (Cr)	mg/kg	54.9	44.3	6960801	28.1	6960854	29.1	34.3	6960801	23.5	1.0	7108058
Total Cobalt (Co)	mg/kg	16.7	16.1	6960801	7.07	6960854	4.98	8.02	6960801	7.67	0.30	7108058
Total Copper (Cu)	mg/kg	36.3	535	6960801	18.3	6960854	167	102	6960801	19.1	0.50	7108058
Total Iron (Fe)	mg/kg	30100	45100	6960801	16800	6960854	23200	25200	6960801	18900	100	7108058
Total Lead (Pb)	mg/kg	16.8	843	6960801	16.7	6960854	745	164	6960801	3.72	0.10	7108058
Total Lithium (Li)	mg/kg	45.4	18.2	6960801	21.9	6960854	39.8	43.1	6960801	7.2	5.0	7108058
Total Magnesium (Mg)	mg/kg	16700	10100	6960801	42200	6960854	13800	30600	6960801	4550	100	7108058
Total Manganese (Mn)	mg/kg	557	1030	6960801	251	6960854	280	310	6960801	326	0.20	7108058
Total Mercury (Hg)	mg/kg	<0.050	0.197	6960801	<0.050	6960854	0.055	0.074	6960801	<0.050	0.050	7108058
Total Molybdenum (Mo)	mg/kg	1.18	10.1	6960801	0.26	6960854	6.70	3.82	6960801	0.55	0.10	7108058
Total Nickel (Ni)	mg/kg	50.2	305	6960801	21.1	6960854	28.7	37.7	6960801	14.6	0.80	7108058
Total Phosphorus (P)	mg/kg	526	1710	6960801	351	6960854	701	580	6960801	414	10	7108058
Total Potassium (K)	mg/kg	5320	1470	6960801	3110	6960854	1570	6090	6960801	613	100	7108058
Total Selenium (Se)	mg/kg	<0.50	1.18	6960801	<0.50	6960854	0.70	0.56	6960801	<0.50	0.50	7108058
Total Silver (Ag)	mg/kg	0.080	0.943	6960801	0.063	6960854	0.273	0.198	6960801	<0.050	0.050	7108058
Total Sodium (Na)	mg/kg	837	3110	6960801	390	6960854	8560	4300	6960801	722	100	7108058
Total Strontium (Sr)	mg/kg	72.4	1770	6960801	95.0	6960854	1580	711	6960801	26.1	0.10	7108058
Total Thallium (Tl)	mg/kg	0.351	0.204	6960801	0.183	6960854	0.179	0.182	6960801	0.054	0.050	7108058
Total Tin (Sn)	mg/kg	1.55	28.3	6960801	1.39	6960854	16.4	11.8	6960801	0.24	0.10	7108058
Total Titanium (Ti)	mg/kg	391	652	6960801	336	6960854	1050	648	6960801	814	1.0	7108058
Total Uranium (U)	mg/kg	1.54	2.79	6960801	0.905	6960854	6.14	3.64	6960801	0.397	0.050	7108058
Total Vanadium (V)	mg/kg	75.3	25.6	6960801	43.0	6960854	22.3	38.4	6960801	49.1	2.0	7108058
Total Zinc (Zn)	mg/kg	91.3	1420	6960801	42.6	6960854	846	748	6960801	35.1	1.0	7108058
Total Zirconium (Zr)	mg/kg	15.5	22.4	6960801	8.29	6960854	41.6	26.7	6960801	5.68	0.50	7108058

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Success Through Science®

Maxxam Job #: B356121
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		GU9760		GU9762		GU9763		GU9766	GU9767	GU9771		
Sampling Date		2013/07/04 08:00		2013/07/04 08:00		2013/07/04 08:00		2013/07/04 08:00	2013/07/04 08:00	2013/07/04 08:00		
	UNITS	BH28 0-0.5	QC Batch	BH28 1-1.5	QC Batch	BH28 1.5-2.25	QC Batch	BH29 0.5-1	BH29 1-1.5	BH30 0.5-1	RDL	QC Batch
Physical Properties												
Soluble (2:1) pH	pH Units	8.31	6960806	8.24	6960857	8.75	7039734	8.74	8.67	8.53	0.010	6960806
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	8720	6960801	24100	6960854	10300	7039693	10500	16700	9900	100	6960801
Total Antimony (Sb)	mg/kg	52.3	6960801	5.47	6960854	0.30	7039693	0.38	0.26	10.2	0.10	6960801
Total Arsenic (As)	mg/kg	16.9	6960801	9.11	6960854	2.94	7039693	3.52	6.35	10.7	0.50	6960801
Total Barium (Ba)	mg/kg	1170	6960801	253	6960854	91.2	7039693	59.4	161	2230	0.10	6960801
Total Beryllium (Be)	mg/kg	0.90	6960801	1.10	6960854	<0.40	7039693	0.41	0.74	1.16	0.40	6960801
Total Bismuth (Bi)	mg/kg	0.57	6960801	0.29	6960854	0.11	7039693	<0.10	0.16	2.58	0.10	6960801
Total Cadmium (Cd)	mg/kg	1.98	6960801	0.235	6960854	0.320	7039693	0.085	0.128	0.589	0.050	6960801
Total Calcium (Ca)	mg/kg	32300	6960801	38200	6960854	80200	7039693	83300	106000	52300	100	6960801
Total Chromium (Cr)	mg/kg	38.5	6960801	44.3	6960854	22.4	7039693	21.0	33.6	32.7	1.0	6960801
Total Cobalt (Co)	mg/kg	8.86	6960801	13.2	6960854	5.99	7039693	5.73	8.75	6.55	0.30	6960801
Total Copper (Cu)	mg/kg	817	6960801	145	6960854	17.3	7039693	13.5	19.7	135	0.50	6960801
Total Iron (Fe)	mg/kg	44800	6960801	28600	6960854	13700	7039693	14000	19100	29300	100	6960801
Total Lead (Pb)	mg/kg	3580	6960801	210	6960854	14.8	7039693	10.1	9.27	8550	0.10	6960801
Total Lithium (Li)	mg/kg	11.8	6960801	32.5	6960854	17.8	7039693	15.2	33.4	14.7	5.0	6960801
Total Magnesium (Mg)	mg/kg	9680	6960801	18400	6960854	46000	7039693	36100	39900	18300	100	6960801
Total Manganese (Mn)	mg/kg	339	6960801	352	6960854	257	7039693	161	334	352	0.20	6960801
Total Mercury (Hg)	mg/kg	25.7	6960801	1.41	6960854	0.162	7039693	<0.050	<0.050	0.221	0.050	6960801
Total Molybdenum (Mo)	mg/kg	4.74	6960801	0.65	6960854	0.57	7039693	0.52	0.68	3.03	0.10	6960801
Total Nickel (Ni)	mg/kg	79.5	6960801	40.2	6960854	18.7	7039693	16.3	27.2	20.0	0.80	6960801
Total Phosphorus (P)	mg/kg	938	6960801	456	6960854	416	7039693	373	392	745	10	6960801
Total Potassium (K)	mg/kg	762	6960801	4850	6960854	2100	7039693	2420	3480	1550	100	6960801
Total Selenium (Se)	mg/kg	1.45	6960801	<0.50	6960854	<0.50	7039693	<0.50	<0.50	0.70	0.50	6960801
Total Silver (Ag)	mg/kg	0.523	6960801	0.123	6960854	0.052	7039693	<0.050	0.053	0.720	0.050	6960801
Total Sodium (Na)	mg/kg	1350	6960801	548	6960854	383	7039693	413	376	1250	100	6960801
Total Strontium (Sr)	mg/kg	385	6960801	90.6	6960854	53.9	7039693	54.5	107	371	0.10	6960801
Total Thallium (Tl)	mg/kg	0.785	6960801	0.318	6960854	0.153	7039693	0.137	0.222	1.65	0.050	6960801
Total Tin (Sn)	mg/kg	174	6960801	22.3	6960854	0.90	7039693	0.53	0.68	20.6	0.10	6960801
Total Titanium (Ti)	mg/kg	323	6960801	283	6960854	337	7039693	176	391	282	1.0	6960801
Total Uranium (U)	mg/kg	1.54	6960801	1.02	6960854	0.923	7039693	0.652	1.53	1.28	0.050	6960801
Total Vanadium (V)	mg/kg	17.5	6960801	66.8	6960854	32.4	7039693	29.2	52.4	27.8	2.0	6960801
Total Zinc (Zn)	mg/kg	577	6960801	100	6960854	39.3	7039693	38.5	45.0	570	1.0	6960801
Total Zirconium (Zr)	mg/kg	8.40	6960801	11.6	6960854	11.3	7039693	2.26	10.2	7.61	0.50	6960801

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B356121
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		GU9773		GU9775	GU9777	GU9780	GU9783		
Sampling Date		2013/07/04 08:00		2013/07/04 08:00	2013/07/04 08:00	2013/07/04 08:00	2013/07/04 08:00		
	UNITS	BH30 1.5-2.25	QC Batch	BH31 0-0.5	BH31 1-1.5	MW04 0-0.5	MW04 1.5-2.25	RDL	QC Batch
Physical Properties									
Soluble (2:1) pH	pH Units	8.18	6960857	8.18	8.22	8.43	8.18	0.010	6960806
Total Metals by ICPMS									
Total Aluminum (Al)	mg/kg	21200	6960854	12600	5290	6590	14400	100	6960801
Total Antimony (Sb)	mg/kg	0.41	6960854	0.37	0.11	12.8	0.40	0.10	6960801
Total Arsenic (As)	mg/kg	8.61	6960854	3.50	2.34	7.33	5.95	0.50	6960801
Total Barium (Ba)	mg/kg	274	6960854	460	57.0	303	152	0.10	6960801
Total Beryllium (Be)	mg/kg	1.18	6960854	0.61	<0.40	<0.40	0.67	0.40	6960801
Total Bismuth (Bi)	mg/kg	0.27	6960854	0.11	<0.10	0.19	0.16	0.10	6960801
Total Cadmium (Cd)	mg/kg	0.262	6960854	0.321	0.093	3.84	0.270	0.050	6960801
Total Calcium (Ca)	mg/kg	19200	6960854	107000	105000	75900	58200	100	6960801
Total Chromium (Cr)	mg/kg	42.8	6960854	25.8	13.5	29.0	31.8	1.0	6960801
Total Cobalt (Co)	mg/kg	15.2	6960854	6.17	3.28	7.20	10.2	0.30	6960801
Total Copper (Cu)	mg/kg	35.5	6960854	26.1	7.97	287	28.9	0.50	6960801
Total Iron (Fe)	mg/kg	27600	6960854	13600	7880	23000	19900	100	6960801
Total Lead (Pb)	mg/kg	24.0	6960854	22.4	5.13	551	18.4	0.10	6960801
Total Lithium (Li)	mg/kg	34.1	6960854	17.2	10.3	10.9	28.0	5.0	6960801
Total Magnesium (Mg)	mg/kg	13500	6960854	36700	54600	32000	32000	100	6960801
Total Manganese (Mn)	mg/kg	519	6960854	452	199	320	643	0.20	6960801
Total Mercury (Hg)	mg/kg	<0.050	6960854	0.057	<0.050	0.115	<0.050	0.050	6960801
Total Molybdenum (Mo)	mg/kg	1.64	6960854	0.65	0.15	2.63	1.20	0.10	6960801
Total Nickel (Ni)	mg/kg	39.6	6960854	20.2	9.52	34.3	30.7	0.80	6960801
Total Phosphorus (P)	mg/kg	478	6960854	700	364	383	503	10	6960801
Total Potassium (K)	mg/kg	3960	6960854	3040	1230	1680	2820	100	6960801
Total Selenium (Se)	mg/kg	0.60	6960854	<0.50	<0.50	1.08	<0.50	0.50	6960801
Total Silver (Ag)	mg/kg	0.077	6960854	0.062	<0.050	0.292	0.056	0.050	6960801
Total Sodium (Na)	mg/kg	657	6960854	563	506	450	777	100	6960801
Total Strontium (Sr)	mg/kg	74.4	6960854	170	52.5	70.2	61.5	0.10	6960801
Total Thallium (Tl)	mg/kg	0.279	6960854	0.132	0.084	0.224	0.253	0.050	6960801
Total Tin (Sn)	mg/kg	1.13	6960854	1.02	0.30	31.9	0.89	0.10	6960801
Total Titanium (Ti)	mg/kg	112	6960854	213	285	225	320	1.0	6960801
Total Uranium (U)	mg/kg	1.67	6960854	0.767	0.543	0.853	1.37	0.050	6960801
Total Vanadium (V)	mg/kg	63.3	6960854	29.8	19.6	21.8	44.2	2.0	6960801
Total Zinc (Zn)	mg/kg	90.8	6960854	67.7	18.1	1120	70.3	1.0	6960801
Total Zirconium (Zr)	mg/kg	10.4	6960854	2.31	5.17	3.70	11.3	0.50	6960801

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam Job #: B356121
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

TCLP METALS (SOIL)

Maxxam ID		GU9726	GU9740	GU9745	GU9755		
Sampling Date		2013/07/04 08:00	2013/07/04 08:00	2013/07/04 08:00	2013/07/04 08:00		
	UNITS	MW06 0-0.5	BH26 0-0.5	BH23 0-0.5	BH27 0-0.5	RDL	QC Batch
Metals							
LEACHATE Antimony (Sb)	mg/L	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Arsenic (As)	mg/L	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Barium (Ba)	mg/L	1.38	0.58	0.80	0.29	0.10	7039492
LEACHATE Beryllium (Be)	mg/L	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Boron (B)	mg/L	0.31	1.16	0.92	10.8	0.10	7039492
LEACHATE Cadmium (Cd)	mg/L	<0.10	0.15	<0.10	<0.10	0.10	7039492
LEACHATE Chromium (Cr)	mg/L	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Cobalt (Co)	mg/L	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Copper (Cu)	mg/L	<0.10	0.76	<0.10	<0.10	0.10	7039492
LEACHATE Iron (Fe)	mg/L	1.06	0.86	1.35	1.33	0.50	7039492
LEACHATE Lead (Pb)	mg/L	0.54	5.28	0.28	<0.10	0.10	7039492
LEACHATE Mercury (Hg)	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	7039492
LEACHATE Molybdenum (Mo)	mg/L	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Nickel (Ni)	mg/L	<0.10	1.08	<0.10	<0.10	0.10	7039492
LEACHATE Selenium (Se)	mg/L	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Silver (Ag)	mg/L	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Thallium (Tl)	mg/L	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Uranium (U)	mg/L	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Vanadium (V)	mg/L	<0.10	<0.10	<0.10	<0.10	0.10	7039492
LEACHATE Zinc (Zn)	mg/L	2.06	43.6	0.61	0.15	0.10	7039492
LEACHATE Zirconium (Zr)	mg/L	<0.10	<0.10	<0.10	<0.10	0.10	7039492

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B356121
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

CCME PAH IN SOIL BY GC-MS (SOIL)

Maxxam ID		GU9719	GU9749	GU9770		
Sampling Date		2013/07/04 08:00	2013/07/04 08:00	2013/07/04 08:00		
	UNITS	MW05 1-1.5	BH23 2.25-3	BH30 0-0.5	RDL	QC Batch
Calculated Parameters						
Index of Additive Cancer Risk(IARC)	N/A	0.31	0.31	2.2	0.10	6952572
Benzo[a]pyrene equivalency	N/A	<0.10	<0.10	0.14	0.10	6952572
Polycyclic Aromatics						
Naphthalene	mg/kg	<0.010	<0.010	0.092	0.010	6975140
2-Methylnaphthalene	mg/kg	<0.020	<0.020	0.064	0.020	6975140
Acenaphthylene	mg/kg	<0.0050	<0.0050	0.027	0.0050	6975140
Acenaphthene	mg/kg	<0.0050	<0.0050	0.041	0.0050	6975140
Fluorene	mg/kg	<0.020	<0.020	0.034	0.020	6975140
Phenanthrene	mg/kg	<0.020	<0.020	0.34	0.020	6975140
Anthracene	mg/kg	<0.0040	<0.0040	0.047	0.0040	6975140
Fluoranthene	mg/kg	<0.020	<0.020	0.41	0.020	6975140
Pyrene	mg/kg	<0.020	<0.020	0.32	0.020	6975140
Benzo(a)anthracene	mg/kg	<0.020	<0.020	0.12	0.020	6975140
Chrysene	mg/kg	<0.020	<0.020	0.16	0.020	6975140
Benzo(b&j)fluoranthene	mg/kg	<0.020	<0.020	0.18	0.020	6975140
Benzo(k)fluoranthene	mg/kg	<0.020	<0.020	0.051	0.020	6975140
Benzo(a)pyrene	mg/kg	<0.020	<0.020	0.078	0.020	6975140
Indeno(1,2,3-cd)pyrene	mg/kg	<0.050	<0.050	<0.050	0.050	6975140
Dibenz(a,h)anthracene	mg/kg	<0.050	<0.050	<0.050	0.050	6975140
Benzo(g,h,i)perylene	mg/kg	<0.050	<0.050	<0.050	0.050	6975140
Low Molecular Weight PAH`s	mg/kg	<0.050	<0.050	0.64	0.050	6952331
High Molecular Weight PAH`s	mg/kg	<0.050	<0.050	1.5	0.050	6952331
Total PAH	mg/kg	<0.050	<0.050	2.1	0.050	6952331
Surrogate Recovery (%)						
D10-ANTHRACENE (sur.)	%	71	98	46(1)		6975140
D8-ACENAPHTHYLENE (sur.)	%	85	88	76		6975140
D8-NAPHTHALENE (sur.)	%	89	90	83		6975140
TERPHENYL-D14 (sur.)	%	91	96	64		6975140

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - Surrogate recovery below control limit - Matrix interference

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam Job #: B356121
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

Package 1	10.3°C

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

General Comments

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B356121
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6957198	4-BROMOFLUOROBENZENE (sur.)	2013/07/08	93	60 - 140	100	60 - 140	100	%				
6957198	D10-ETHYLBENZENE (sur.)	2013/07/08	108	50 - 130	104	50 - 130	103	%				
6957198	D4-1,2-DICHLOROETHANE (sur.)	2013/07/08	97	60 - 140	98	60 - 140	95	%				
6957198	D8-TOLUENE (sur.)	2013/07/08	99	60 - 140	98	60 - 140	98	%				
6957198	Benzene	2013/07/08	79	60 - 140	80	60 - 140	<0.0050	mg/kg	NC	50		
6957198	Toluene	2013/07/08	83	60 - 140	81	60 - 140	<0.020	mg/kg	NC	50		
6957198	Ethylbenzene	2013/07/08	89	60 - 140	86	60 - 140	<0.010	mg/kg	NC	50		
6957198	m & p-Xylene	2013/07/08	87	60 - 140	85	60 - 140	<0.040	mg/kg	NC	50		
6957198	o-Xylene	2013/07/08	92	60 - 140	89	60 - 140	<0.020	mg/kg	NC	50		
6957198	Methyl-tert-butylether(MTBE)	2013/07/08	93	60 - 140	92	60 - 140	<0.10	mg/kg	NC	N/A		
6957198	(C6-C10)	2013/07/08	76	60 - 140	130	60 - 140	<10	mg/kg	NC	50		
6957198	Xylenes (Total)	2013/07/08					<0.040	mg/kg	NC	50		
6957198	F1 (C6-C10) - BTEX	2013/07/08					<10	mg/kg	NC	50		
6957200	O-TERPHENYL (sur.)	2013/07/09	96	50 - 130	92	50 - 130	95	%				
6957200	F2 (C10-C16 Hydrocarbons)	2013/07/09	NC	50 - 130	102	70 - 130	<20	mg/kg	NC	50		
6957200	F3 (C16-C34 Hydrocarbons)	2013/07/09	NC	50 - 130	103	70 - 730	<20	mg/kg	NC	50		
6957200	F4 (C34-C50 Hydrocarbons)	2013/07/09	95	50 - 130	94	70 - 130	<20	mg/kg	NC	50		
6957204	Moisture	2013/07/08					<0.3	%	4.4	20		
6959931	Moisture	2013/07/08					<0.30	%	4.5	20		
6960801	Total Antimony (Sb)	2013/07/10	NC	75 - 125	96	75 - 125	<0.10	mg/kg	13.3	30	89	70 - 130
6960801	Total Arsenic (As)	2013/07/10	NC	75 - 125	97	75 - 125	<0.50	mg/kg	3.4	30	99	70 - 130
6960801	Total Barium (Ba)	2013/07/10	NC	75 - 125	98	75 - 125	<0.10	mg/kg	10.5	35	112	70 - 130
6960801	Total Beryllium (Be)	2013/07/10	105	75 - 125	107	75 - 125	<0.40	mg/kg	NC	30		
6960801	Total Cadmium (Cd)	2013/07/10	NC	75 - 125	100	75 - 125	<0.050	mg/kg	6.2	30	93	70 - 130
6960801	Total Chromium (Cr)	2013/07/10	NC	75 - 125	100	75 - 125	<1.0	mg/kg	2.4	30	106	70 - 130
6960801	Total Cobalt (Co)	2013/07/10	NC	75 - 125	99	75 - 125	<0.30	mg/kg	5.8	30	94	70 - 130
6960801	Total Copper (Cu)	2013/07/10	NC	75 - 125	102	75 - 125	<0.50	mg/kg	7.5	30	91	70 - 130
6960801	Total Lead (Pb)	2013/07/10	NC	75 - 125	96	75 - 125	<0.10	mg/kg	1.5	35	98	70 - 130
6960801	Total Lithium (Li)	2013/07/10	108	75 - 125	113	75 - 125	<5.0	mg/kg	NC	30		
6960801	Total Manganese (Mn)	2013/07/10	NC	75 - 125	99	75 - 125	<0.20	mg/kg	14.2	30	98	70 - 130
6960801	Total Mercury (Hg)	2013/07/10	92	75 - 125	102	75 - 125	<0.050	mg/kg	NC	35	82	70 - 130
6960801	Total Molybdenum (Mo)	2013/07/10	NC	75 - 125	99	75 - 125	<0.10	mg/kg	7.3	35	101	70 - 130
6960801	Total Nickel (Ni)	2013/07/10	NC	75 - 125	100	75 - 125	<0.80	mg/kg	4.6	30	91	70 - 130
6960801	Total Selenium (Se)	2013/07/10	91	75 - 125	112	75 - 125	<0.50	mg/kg	22.5	30		
6960801	Total Silver (Ag)	2013/07/10	NC	75 - 125	86	75 - 125	<0.050	mg/kg	15.0	35		
6960801	Total Strontium (Sr)	2013/07/10	NC	75 - 125	93	75 - 125	<0.10	mg/kg	8.7	35	96	70 - 130
6960801	Total Thallium (Tl)	2013/07/10	NC	75 - 125	88	75 - 125	<0.050	mg/kg	7.6	30	96	70 - 130
6960801	Total Tin (Sn)	2013/07/10	NC	75 - 125	95	75 - 125	<0.10	mg/kg	3.8	35		
6960801	Total Titanium (Ti)	2013/07/10	NC	75 - 125	100	75 - 125	<1.0	mg/kg	13.2	35	104	70 - 130
6960801	Total Uranium (U)	2013/07/10	102	75 - 125	96	75 - 125	<0.050	mg/kg	3.6	30	91	70 - 130

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Success Through Sciences

Maxxam Job #: B356121
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6960801	Total Vanadium (V)	2013/07/10	94	75 - 125	100	75 - 125	<2.0	mg/kg	6.9	30	103	70 - 130
6960801	Total Zinc (Zn)	2013/07/10	NC	75 - 125	104	75 - 125	<1.0	mg/kg	3.6	30	90	70 - 130
6960801	Total Aluminum (Al)	2013/07/10					<100	mg/kg	3.0	35	102	70 - 130
6960801	Total Calcium (Ca)	2013/07/10					<100	mg/kg	0.5	30	90	70 - 130
6960801	Total Iron (Fe)	2013/07/10					<100	mg/kg	5.2	30	90	70 - 130
6960801	Total Magnesium (Mg)	2013/07/10					<100	mg/kg	3.7	30	91	70 - 130
6960801	Total Phosphorus (P)	2013/07/10					<10	mg/kg	6.1	30	89	70 - 130
6960801	Total Bismuth (Bi)	2013/07/10					<0.10	mg/kg	7.6	30		
6960801	Total Potassium (K)	2013/07/10					<100	mg/kg	0.3	35		
6960801	Total Sodium (Na)	2013/07/10					<100	mg/kg	4.5	35		
6960801	Total Zirconium (Zr)	2013/07/10					<0.50	mg/kg	9.6	30		
6960806	Soluble (2:1) pH	2013/07/09			101	97 - 103			0	20		
6960854	Total Antimony (Sb)	2013/07/10	84	75 - 125	96	75 - 125	<0.10	mg/kg	NC	30	88	70 - 130
6960854	Total Arsenic (As)	2013/07/10	96	75 - 125	100	75 - 125	<0.50	mg/kg	3.9	30	99	70 - 130
6960854	Total Barium (Ba)	2013/07/10	NC	75 - 125	99	75 - 125	<0.10	mg/kg	1.6	35	111	70 - 130
6960854	Total Beryllium (Be)	2013/07/10	107	75 - 125	107	75 - 125	<0.40	mg/kg	NC	30		
6960854	Total Cadmium (Cd)	2013/07/10	94	75 - 125	100	75 - 125	<0.050	mg/kg	NC	30	93	70 - 130
6960854	Total Chromium (Cr)	2013/07/10	93	75 - 125	99	75 - 125	<1.0	mg/kg	3.3	30	106	70 - 130
6960854	Total Cobalt (Co)	2013/07/10	95	75 - 125	101	75 - 125	<0.30	mg/kg	2.9	30	94	70 - 130
6960854	Total Copper (Cu)	2013/07/10	79	75 - 125	101	75 - 125	<0.50	mg/kg	31.7(1)	30	91	70 - 130
6960854	Total Lead (Pb)	2013/07/10	97	75 - 125	99	75 - 125	<0.10	mg/kg	1.5	35	98	70 - 130
6960854	Total Lithium (Li)	2013/07/10	116	75 - 125	113	75 - 125	<5.0	mg/kg	NC	30		
6960854	Total Manganese (Mn)	2013/07/10	NC	75 - 125	99	75 - 125	<0.20	mg/kg	1.4	30	98	70 - 130
6960854	Total Mercury (Hg)	2013/07/10	101	75 - 125	105	75 - 125	<0.050	mg/kg	NC	35	106	70 - 130
6960854	Total Molybdenum (Mo)	2013/07/10	100	75 - 125	97	75 - 125	<0.10	mg/kg	NC	35	104	70 - 130
6960854	Total Nickel (Ni)	2013/07/10	93	75 - 125	101	75 - 125	<0.80	mg/kg	0.5	30	93	70 - 130
6960854	Total Selenium (Se)	2013/07/10	95	75 - 125	119	75 - 125	<0.50	mg/kg	NC	30		
6960854	Total Silver (Ag)	2013/07/10	82	75 - 125	86	75 - 125	<0.050	mg/kg	NC	35		
6960854	Total Strontium (Sr)	2013/07/10	NC	75 - 125	100	75 - 125	<0.10	mg/kg	5.6	35	96	70 - 130
6960854	Total Thallium (Tl)	2013/07/10	88	75 - 125	91	75 - 125	<0.050	mg/kg	NC	30	94	70 - 130
6960854	Total Tin (Sn)	2013/07/10	90	75 - 125	95	75 - 125	<0.10	mg/kg	NC	35		
6960854	Total Titanium (Ti)	2013/07/10	NC	75 - 125	98	75 - 125	<1.0	mg/kg	0.5	35	103	70 - 130
6960854	Total Uranium (U)	2013/07/10	99	75 - 125	99	75 - 125	<0.050	mg/kg	3.8	30	92	70 - 130
6960854	Total Vanadium (V)	2013/07/10	NC	75 - 125	99	75 - 125	<2.0	mg/kg	3.4	30	99	70 - 130
6960854	Total Zinc (Zn)	2013/07/10	NC	75 - 125	105	75 - 125	<1.0	mg/kg	3.3	30	92	70 - 130
6960854	Total Aluminum (Al)	2013/07/10					<100	mg/kg	3.6	35	103	70 - 130
6960854	Total Calcium (Ca)	2013/07/10					<100	mg/kg	5.4	30	88	70 - 130
6960854	Total Iron (Fe)	2013/07/10					<100	mg/kg	5.2	30	90	70 - 130
6960854	Total Magnesium (Mg)	2013/07/10					<100	mg/kg	1.5	30	90	70 - 130
6960854	Total Phosphorus (P)	2013/07/10					<10	mg/kg	0.6	30	92	70 - 130

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B356121
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6960854	Total Bismuth (Bi)	2013/07/10					<0.10	mg/kg	NC	30		
6960854	Total Potassium (K)	2013/07/10					<100	mg/kg	3.6	35		
6960854	Total Sodium (Na)	2013/07/10					<100	mg/kg	NC	35		
6960854	Total Zirconium (Zr)	2013/07/10					<0.50	mg/kg	0.6	30		
6960857	Soluble (2:1) pH	2013/07/08			100	97 - 103			0.6	20		
6975140	D10-ANTHRACENE (sur.)	2013/07/11	84	60 - 130	102	60 - 130	102	%				
6975140	D8-ACENAPHTHYLENE (sur.)	2013/07/11	98	50 - 130	100	50 - 130	95	%				
6975140	D8-NAPHTHALENE (sur.)	2013/07/11	92	50 - 130	100	50 - 130	96	%				
6975140	TERPHENYL-D14 (sur.)	2013/07/11	88	60 - 130	99	60 - 130	98	%				
6975140	Naphthalene	2013/07/12	87	50 - 130	91	50 - 130	<0.010	mg/kg	NC	50		
6975140	2-Methylnaphthalene	2013/07/12	93	50 - 130	102	50 - 130	<0.020	mg/kg	NC	50		
6975140	Acenaphthylene	2013/07/12	94	50 - 130	91	50 - 130	<0.0050	mg/kg	NC	50		
6975140	Acenaphthene	2013/07/12	92	50 - 130	92	50 - 130	<0.0050	mg/kg	NC	50		
6975140	Fluorene	2013/07/12	95	50 - 130	96	50 - 130	<0.020	mg/kg	NC	50		
6975140	Phenanthrene	2013/07/12	90	60 - 130	91	60 - 130	<0.020	mg/kg	NC	50		
6975140	Anthracene	2013/07/12	85	60 - 130	92	60 - 130	<0.0040	mg/kg	NC	50		
6975140	Fluoranthene	2013/07/12	87	60 - 130	94	60 - 130	<0.020	mg/kg	NC	50		
6975140	Pyrene	2013/07/12	91	60 - 130	94	60 - 130	<0.020	mg/kg	NC	50		
6975140	Benzo(a)anthracene	2013/07/12	88	60 - 130	98	60 - 130	<0.020	mg/kg	NC	50		
6975140	Chrysene	2013/07/12	91	60 - 130	100	60 - 130	<0.020	mg/kg	NC	50		
6975140	Benzo(b&j)fluoranthene	2013/07/12	101	60 - 130	87	60 - 130	<0.020	mg/kg	NC	50		
6975140	Benzo(k)fluoranthene	2013/07/12	87	60 - 130	107	60 - 130	<0.020	mg/kg	NC	50		
6975140	Benzo(a)pyrene	2013/07/12	94	60 - 130	94	60 - 130	<0.020	mg/kg	NC	50		
6975140	Indeno(1,2,3-cd)pyrene	2013/07/12	104	60 - 130	75	60 - 130	<0.050	mg/kg	NC	50		
6975140	Dibenz(a,h)anthracene	2013/07/12	99	60 - 130	73	60 - 130	<0.050	mg/kg	NC	50		
6975140	Benzo(g,h,i)perylene	2013/07/12	100	60 - 130	69	60 - 130	<0.050	mg/kg	NC	50		
7036432	Initial pH of Sample	2013/08/01					4.89, RDL=N/A	pH Units	1.2	20		
7036432	Final pH of Leachate	2013/08/01					4.89, RDL=N/A	pH Units	1.9	20		
7036432	pH of Leaching Fluid	2013/08/01					4.89, RDL=N/A	pH Units	0	20		
7036432	pH after HCl	2013/08/01							3.2	20		
7039492	LEACHATE Arsenic (As)	2013/08/01	109	75 - 125	104	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Beryllium (Be)	2013/08/01	101	75 - 125	99	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Cadmium (Cd)	2013/08/01	103	75 - 125	103	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Chromium (Cr)	2013/08/01	99	75 - 125	97	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Cobalt (Co)	2013/08/01	N/C*******	75 - 125	96	75 - 125	<0.10	mg/L	9.7	35		
7039492	LEACHATE Copper (Cu)	2013/08/01	97	75 - 125	99	75 - 125	<0.10	mg/L	4.1	35		
7039492	LEACHATE Lead (Pb)	2013/08/01	98	75 - 125	98	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Nickel (Ni)	2013/08/01	N/C*******	75 - 125	87	75 - 125	<0.10	mg/L	9.0	35		
7039492	LEACHATE Selenium (Se)	2013/08/01	114	75 - 125	110	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Uranium (U)	2013/08/01	99	75 - 125	97	75 - 125	<0.10	mg/L	NC	35		

Maxxam

Success Through Science®

Maxxam Job #: B356121
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7039492	LEACHATE Vanadium (V)	2013/08/01	102	75 - 125	98	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Zinc (Zn)	2013/08/01	N/C*******	75 - 125	106	75 - 125	<0.10	mg/L	5.7	35		
7039492	LEACHATE Antimony (Sb)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Barium (Ba)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Boron (B)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Iron (Fe)	2013/08/01					<0.50	mg/L	NC	35		
7039492	LEACHATE Mercury (Hg)	2013/08/01					<0.0020	mg/L	NC	35		
7039492	LEACHATE Molybdenum (Mo)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Silver (Ag)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Thallium (Tl)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Zirconium (Zr)	2013/08/01					<0.10	mg/L	NC	35		
7039693	Total Antimony (Sb)	2013/08/01	103	75 - 125	99	75 - 125	<0.10	mg/kg	NC	30	100	70 - 130
7039693	Total Arsenic (As)	2013/08/01	104	75 - 125	103	75 - 125	<0.50	mg/kg	NC	30	94	70 - 130
7039693	Total Barium (Ba)	2013/08/01	NC	75 - 125	105	75 - 125	<0.10	mg/kg	10.7	35	98	70 - 130
7039693	Total Beryllium (Be)	2013/08/01	109	75 - 125	104	75 - 125	<0.40	mg/kg	NC	30		
7039693	Total Cadmium (Cd)	2013/08/01	110	75 - 125	109	75 - 125	<0.050	mg/kg	NC	30	100	70 - 130
7039693	Total Chromium (Cr)	2013/08/01	NC	75 - 125	103	75 - 125	<1.0	mg/kg	7.0	30	99	70 - 130
7039693	Total Cobalt (Co)	2013/08/01	104	75 - 125	104	75 - 125	<0.30	mg/kg	2.3	30	91	70 - 130
7039693	Total Copper (Cu)	2013/08/01	NC	75 - 125	104	75 - 125	<0.50	mg/kg	2.3	30	90	70 - 130
7039693	Total Lead (Pb)	2013/08/01	106	75 - 125	105	75 - 125	<0.10	mg/kg	21.4	35	97	70 - 130
7039693	Total Lithium (Li)	2013/08/01	107	75 - 125	107	75 - 125	<5.0	mg/kg				
7039693	Total Manganese (Mn)	2013/08/01	NC	75 - 125	104	75 - 125	<0.20	mg/kg	4.0	30	97	70 - 130
7039693	Total Mercury (Hg)	2013/08/01	102	75 - 125	105	75 - 125	<0.050	mg/kg	NC	35	83	70 - 130
7039693	Total Molybdenum (Mo)	2013/08/01	104	75 - 125	102	75 - 125	<0.10	mg/kg	27.5	35	101	70 - 130
7039693	Total Nickel (Ni)	2013/08/01	NC	75 - 125	105	75 - 125	<0.80	mg/kg	22.6	30	93	70 - 130
7039693	Total Selenium (Se)	2013/08/01	112	75 - 125	109	75 - 125	<0.50	mg/kg	NC	30		
7039693	Total Silver (Ag)	2013/08/01	101	75 - 125	98	75 - 125	<0.050	mg/kg	NC	35		
7039693	Total Strontium (Sr)	2013/08/01	NC	75 - 125	102	75 - 125	<0.10	mg/kg	3.3	35	101	70 - 130
7039693	Total Thallium (Tl)	2013/08/01	106	75 - 125	104	75 - 125	<0.050	mg/kg	NC	30	88	70 - 130
7039693	Total Tin (Sn)	2013/08/01	114	75 - 125	101	75 - 125	<0.10	mg/kg	1.2	35		
7039693	Total Titanium (Ti)	2013/08/01	NC	75 - 125	97	75 - 125	<1.0	mg/kg	1.9	35	99	70 - 130
7039693	Total Uranium (U)	2013/08/01	104	75 - 125	106	75 - 125	<0.050	mg/kg			95	70 - 130
7039693	Total Vanadium (V)	2013/08/01	NC	75 - 125	103	75 - 125	<2.0	mg/kg	2.4	30	99	70 - 130
7039693	Total Zinc (Zn)	2013/08/01	NC	75 - 125	106	75 - 125	<1.0	mg/kg	5.2	30	94	70 - 130
7039693	Total Aluminum (Al)	2013/08/01					<100	mg/kg	0.6	35	103	70 - 130
7039693	Total Calcium (Ca)	2013/08/01					<100	mg/kg	1.4	30	93	70 - 130
7039693	Total Iron (Fe)	2013/08/01					<100	mg/kg	1.9	30	93	70 - 130
7039693	Total Magnesium (Mg)	2013/08/01					<100	mg/kg	3.9	30	90	70 - 130
7039693	Total Phosphorus (P)	2013/08/01					<10	mg/kg	3.0	30	89	70 - 130
7039693	Total Bismuth (Bi)	2013/08/01					<0.10	mg/kg	NC	30		

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B356121
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7039693	Total Potassium (K)	2013/08/01					<100	mg/kg	0.6	35		
7039693	Total Sodium (Na)	2013/08/01					<100	mg/kg	NC	35		
7039693	Total Zirconium (Zr)	2013/08/01					<0.50	mg/kg	NC(2)	30		
7039734	Soluble (2:1) pH	2013/08/01			100	97 - 103			0.5	20		
7039865	Total Antimony (Sb)	2013/08/01	102	75 - 125	101	75 - 125	<0.10	mg/kg	NC	30	106	70 - 130
7039865	Total Arsenic (As)	2013/08/01	103	75 - 125	103	75 - 125	<0.50	mg/kg	2.3	30	101	70 - 130
7039865	Total Barium (Ba)	2013/08/01	NC	75 - 125	103	75 - 125	<0.10	mg/kg	8.7	35	107	70 - 130
7039865	Total Beryllium (Be)	2013/08/01	108	75 - 125	107	75 - 125	<0.40	mg/kg	NC	30		
7039865	Total Cadmium (Cd)	2013/08/01	109	75 - 125	111	75 - 125	<0.050	mg/kg	NC	30	108	70 - 130
7039865	Total Chromium (Cr)	2013/08/01	100	75 - 125	102	75 - 125	<1.0	mg/kg	1.0	30	110	70 - 130
7039865	Total Cobalt (Co)	2013/08/01	102	75 - 125	104	75 - 125	<0.30	mg/kg	5.0	30	99	70 - 130
7039865	Total Copper (Cu)	2013/08/01	99	75 - 125	105	75 - 125	<0.50	mg/kg	0.3	30	96	70 - 130
7039865	Total Lead (Pb)	2013/08/01	106	75 - 125	103	75 - 125	<0.10	mg/kg	2.7	35	104	70 - 130
7039865	Total Lithium (Li)	2013/08/01	104	75 - 125	105	75 - 125	<5.0	mg/kg	NC	30		
7039865	Total Manganese (Mn)	2013/08/01	NC	75 - 125	104	75 - 125	<0.20	mg/kg	0.6	30	105	70 - 130
7039865	Total Mercury (Hg)	2013/08/01	103	75 - 125	99	75 - 125	<0.050	mg/kg	NC	35	102	70 - 130
7039865	Total Molybdenum (Mo)	2013/08/01	105	75 - 125	102	75 - 125	<0.10	mg/kg	NC	35	121	70 - 130
7039865	Total Nickel (Ni)	2013/08/01	NC	75 - 125	103	75 - 125	<0.80	mg/kg	2.7	30	102	70 - 130
7039865	Total Selenium (Se)	2013/08/01	113	75 - 125	113	75 - 125	<0.50	mg/kg	NC	30		
7039865	Total Silver (Ag)	2013/08/01	95	75 - 125	96	75 - 125	<0.050	mg/kg	NC	35		
7039865	Total Strontium (Sr)	2013/08/01	109	75 - 125	105	75 - 125	<0.10	mg/kg	9.6	35	105	70 - 130
7039865	Total Thallium (Tl)	2013/08/01	104	75 - 125	100	75 - 125	<0.050	mg/kg	NC	30	99	70 - 130
7039865	Total Tin (Sn)	2013/08/01	99	75 - 125	99	75 - 125	<0.10	mg/kg	NC	35		
7039865	Total Titanium (Ti)	2013/08/01	NC	75 - 125	96	75 - 125	<1.0	mg/kg	0.01	35	115	70 - 130
7039865	Total Uranium (U)	2013/08/01	105	75 - 125	100	75 - 125	<0.050	mg/kg	NC	30	100	70 - 130
7039865	Total Vanadium (V)	2013/08/01	NC	75 - 125	101	75 - 125	<2.0	mg/kg	1.1	30	110	70 - 130
7039865	Total Zinc (Zn)	2013/08/01	NC	75 - 125	113	75 - 125	<1.0	mg/kg	5.0	30	100	70 - 130
7039865	Total Aluminum (Al)	2013/08/01					<100	mg/kg	0.09	35	109	70 - 130
7039865	Total Calcium (Ca)	2013/08/01					<100	mg/kg	3.5	30	97	70 - 130
7039865	Total Iron (Fe)	2013/08/01					<100	mg/kg	1.8	30	100	70 - 130
7039865	Total Magnesium (Mg)	2013/08/01					<100	mg/kg	2.6	30	95	70 - 130
7039865	Total Phosphorus (P)	2013/08/01					<10	mg/kg	2.7	30	95	70 - 130
7039865	Total Bismuth (Bi)	2013/08/01					<0.10	mg/kg	NC	30		
7039865	Total Potassium (K)	2013/08/01					<100	mg/kg	0.4	35		
7039865	Total Sodium (Na)	2013/08/01					<100	mg/kg	NC	35		
7039865	Total Zirconium (Zr)	2013/08/01					<0.50	mg/kg	3.3	30		
7039885	Soluble (2:1) pH	2013/08/02			100	97 - 103			2.4	20		
7108058	Total Antimony (Sb)	2013/08/23	82	75 - 125	96	75 - 125	<0.10	mg/kg	NC	30	103	70 - 130
7108058	Total Arsenic (As)	2013/08/23	90	75 - 125	92	75 - 125	<0.50	mg/kg	NC	30	95	70 - 130
7108058	Total Barium (Ba)	2013/08/23	NC	75 - 125	95	75 - 125	<0.10	mg/kg	8.5	35	106	70 - 130

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam Job #: B356121
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7108058	Total Beryllium (Be)	2013/08/23	93	75 - 125	93	75 - 125	<0.40	mg/kg	NC	30		
7108058	Total Cadmium (Cd)	2013/08/23	95	75 - 125	98	75 - 125	<0.050	mg/kg	NC	30	117	70 - 130
7108058	Total Chromium (Cr)	2013/08/23	90	75 - 125	95	75 - 125	<1.0	mg/kg	NC	30	107	70 - 130
7108058	Total Cobalt (Co)	2013/08/23	94	75 - 125	98	75 - 125	<0.30	mg/kg	2.6	30	100	70 - 130
7108058	Total Copper (Cu)	2013/08/23	85	75 - 125	100	75 - 125	<0.50	mg/kg	32.7 (1)	30	102	70 - 130
7108058	Total Lead (Pb)	2013/08/23	98	75 - 125	102	75 - 125	<0.10	mg/kg	1.4	35	112	70 - 130
7108058	Total Lithium (Li)	2013/08/23	96	75 - 125	97	75 - 125	<5.0	mg/kg				
7108058	Total Manganese (Mn)	2013/08/23	NC	75 - 125	98	75 - 125	0.23, RDL=0.20	mg/kg	1.0	30	106	70 - 130
7108058	Total Mercury (Hg)	2013/08/23	92	75 - 125	96	75 - 125	<0.050	mg/kg	NC	35	81	70 - 130
7108058	Total Molybdenum (Mo)	2013/08/23	95	75 - 125	98	75 - 125	<0.10	mg/kg	14.1	35	108	70 - 130
7108058	Total Nickel (Ni)	2013/08/23	92	75 - 125	97	75 - 125	<0.80	mg/kg	NC	30	101	70 - 130
7108058	Total Selenium (Se)	2013/08/23	93	75 - 125	95	75 - 125	<0.50	mg/kg	NC	30		
7108058	Total Silver (Ag)	2013/08/23	97	75 - 125	97	75 - 125	<0.050	mg/kg	NC	35		
7108058	Total Strontium (Sr)	2013/08/23	NC	75 - 125	95	75 - 125	<0.10	mg/kg	10.1	35	113	70 - 130
7108058	Total Thallium (Tl)	2013/08/23	97	75 - 125	97	75 - 125	<0.050	mg/kg	NC	30	97	70 - 130
7108058	Total Tin (Sn)	2013/08/23	90	75 - 125	95	75 - 125	<0.10	mg/kg	NC	35		
7108058	Total Titanium (Ti)	2013/08/23	NC	75 - 125	97	75 - 125	<1.0	mg/kg	8.3	35	103	70 - 130
7108058	Total Uranium (U)	2013/08/23	97	75 - 125	98	75 - 125	<0.050	mg/kg			105	70 - 130
7108058	Total Vanadium (V)	2013/08/23	87	75 - 125	93	75 - 125	<2.0	mg/kg	5.6	30	105	70 - 130
7108058	Total Zinc (Zn)	2013/08/23	NC	75 - 125	97	75 - 125	<1.0	mg/kg	6.9	30	97	70 - 130
7108058	Total Aluminum (Al)	2013/08/23					<100	mg/kg	5.5	35	105	70 - 130
7108058	Total Calcium (Ca)	2013/08/23					<100	mg/kg	2.3	30	98	70 - 130
7108058	Total Iron (Fe)	2013/08/23					<100	mg/kg	0.8	30	97	70 - 130
7108058	Total Magnesium (Mg)	2013/08/23					<100	mg/kg	1.3	30	98	70 - 130
7108058	Total Phosphorus (P)	2013/08/23					<10	mg/kg	0.7	30	90	70 - 130
7108058	Total Bismuth (Bi)	2013/08/23					<0.10	mg/kg	NC	30		
7108058	Total Potassium (K)	2013/08/23					<100	mg/kg	NC	35		
7108058	Total Sodium (Na)	2013/08/23					<100	mg/kg	NC	35		

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B356121
Report Date: 2013/08/26

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7108058	Total Zirconium (Zr)	2013/08/23					<0.50	mg/kg	NC	30		
7108074	Soluble (2:1) pH	2013/08/23			99	97 - 103			0.1	20		

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 sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.
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 (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) - Duplicate exceeds acceptance criteria for Zr. 10% of analytes failure in multielement scan is allowed.

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel:(204) 772-2386 Toll-free:(800) 665 8566 Fax:(204) 772 2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page | of

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#26732 STANTEC CONSULTING	Quotation #:	B30065	MAXXAM JOB #:	BOTTLE ORDER #:
Contact Name:	Della Berwanger	Contact Name:	SCOTT COUGHTREY	P.O. #:		B356121	403352
Address:	2025 McCowan Road 2nd Floor, General Yard Offic	Address:	603-386 BROADWAY AVENUE	Project #:	111440161	CHAIN OF CUSTODY #:	PROJECT MANAGER:
	Scarborough ON M1S 5K3		WINNIPEG MB R3C 3R6	Project Name:	CP Weston	C#403352-14-01	Janelle Kochan
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Site #:			
Email:	della_berwanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Sampled By:	BE SR		

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

ANALYSIS REQUESTED (Please be specific):

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: (will be applied if Rush TAT is not specified): ☒
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: _____ Time Required: _____ ☐
Rush Confirmation Number: _____ (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y/N)	Metals Field Filtered ? (Y/N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	Hold				# of Bottles	Comments
1	GU 9708	MW03 0-0.5	13/07/04	AM	S					✓							3	
2	09	MW03 0.5-1											✓				3	
3	10	MW03 1-1.5											✓				3	
4	11	MW03 1.5-2.25											✓				3	
5	12	MW03 2.25-3								✓							3	
6	13	MW03 3-3.75											✓				3	
7	14	MW03 3.75-4.5											✓				3	
8	15	MW03 4.5-5.25											✓				3	
9	16	MW03 5.25-6											✓				3	
10																		

*RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted
B Lloyd / B. Ezzard	13/07/04	1350	A Mandski	13/07/04	1350	

Laboratory Use Only

Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
☐	10.0/9.8/11.2	☐ Yes ☐ No

White Maxxam Yellow Client

attempted to cool.

Maxxam

Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel:(204) 772-2386 Toll-free:(800) 665 8566 Fax:(204) 772 2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#26732 STANTEC CONSULTING	Quotation #:	B30065	MAXXAM JOB #:	BOTTLE ORDER #:
Contact Name:	Della Berwanger	Contact Name:	SCOTT COUGHTREY	P.O. #:		B356121	403352
Address:	2025 McCowan Road 2nd Floor, General Yard Offic	Address:	603-386 BROADWAY AVENUE	Project #:	111440161	CHAIN OF CUSTODY #:	PROJECT MANAGER:
	Scarborough ON M1S 5K3		WINNIPEG MB R3C 3R6	Project Name:	CP Weston	C#403352-17-01	Janelle Kochan
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Site #:			
Email:	della_berwanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Sampled By:	BE, SR		

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10 C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

ANALYSIS REQUESTED (Please be specific):

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

☒

Job Specific Rush TAT (If applies to entire submission)
Date Required: _____ Time Required: _____ ☐
Rush Confirmation Number: _____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y/N)	Metals Field Filtered ? (Y/N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	Hold				# of Bottles	Comments
1	GW 9717	MW05 0-0.5	13/07/04	AM	S								✓				3	
2	18	MW05 0.5-1								✓							3	
3	19	MW05 1-1.5							✓	✓	✓						3	
4	20	MW05 1.5-2.25											✓				3	
5	21	MW05 2.25-3											✓				3	
6	22	MW05 3-3.75											✓				3	
7	23	MW05 3.75-4.5											✓				3	
8	24	MW05 4.5-5.25											✓				3	
9	25	MW05 5.25-6											✓				3	
10																		

*RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted
B Eppel/B. Ezzad	13/07/04	1350	Amanda	13/07/04	1350	

Laboratory Use Only

Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
☐	10.0/9.8/11.2	☐ Yes ☐ No

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel:(204) 772-2386 Toll-free:(800) 665 8566 Fax:(204) 772 2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#26732 STANTEC CONSULTING	Quotation #:	B30065	MAXXAM JOB #: B356121	BOTTLE ORDER #: 403352
Contact Name:	Della Berwanger	Contact Name:	SCOTT COUGHTREY	P.O. #:			
Address:	2025 McCowan Road 2nd Floor, General Yard Offic	Address:	603-386 BROADWAY AVENUE	Project #:	111440161	CHAIN OF CUSTODY #: C#403352-19-01	PROJECT MANAGER: Janelle Kochan
	Scarborough ON M1S 5K3		WINNIPEG MB R3C 3R6	Project Name:	CP Weston		
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Site #:			
Email:	della_berwanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Sampled By:	BE SR		

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (0 - 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: (will be applied if Rush TAT is not specified): X
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: _____ Time Required: _____
Rush Confirmation Number: _____ (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y/N)	Metals Field Filtered ? (Y/N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	F1-F4 in Soil				# of Bottles	Comments
1	GU 9726	MW06 0-0.5	13/07/04	AM	S					✓							3	
2	27	MW06 0.5-1	1										✓				3	
3	28	MW06 1-1.5								✓							3	
4	29	MW06 1.5-2.25											✓				3	
5	30	MW06 2.25-3											✓				3	
6	31	MW06 3-3.75											✓				3	
7	32	MW06 3.75-4.5									✓						3	
8	33	MW06 4.5-5.25											✓				3	
9	34	MW06 5.25-6	↓	↓	↓								✓				3	
10																		

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted
B Lloyd / B Ezzard	13/07/04	1350	Amanda	13/07/04	1350	

Laboratory Use Only: Time Sensitive ☐ | Temperature (°C) on Receipt: 10.0 / 9.8 / 11.2 | Custody Seal Intact on Cooler? ☐ Yes ☐ No

Maxxam

Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel:(204) 772-2388 Toll-free:(800) 665 8566 Fax:(204) 772 2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#26732 STANTEC CONSULTING	Quotation #:	B30065	MAXXAM JOB #:	BOTTLE ORDER #:
Contact Name:	Della Berwanger	Contact Name:	SCOTT COUGHTREY	P.O. #:		B356121	403352
Address:	2025 McCowan Road 2nd Floor, General Yard Offic	Address:	603-386 BROADWAY AVENUE	Project #:	111440161	CHAIN OF CUSTODY #:	PROJECT MANAGER:
	Scarborough ON M1S 5K3		WINNIPEG MB R3C 3R6	Project Name:	CP Weston	C#403352-15-01	Janelle Kochan
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Site #:			
Email:	della_berwanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Sampled By:	BE, SR		

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

ANALYSIS REQUESTED (Please be specific):

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.
☒

Job Specific Rush TAT (if applies to entire submission)
Date Required: _____ Time Required: _____ ☐
Rush Confirmation Number: _____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y/N)	Metals Field Filtered ? (Y/N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	Hold				# of Bottles	Comments
1	BH 9735	BH26 0-0.5	13/07/04	AM	S								✓				3	
2	36	BH25 0.5-1.0								✓							3	
3	37	BH25 1.0-1.5											✓				3	
4	38	BH25 1.5-2.25								✓							3	
5	39	BH25 2.25-3											✓				3	
6	40	BH26 0-0.5								✓							3	
7	41	BH26 0.5-1.0								✓							3	
8	42	BH26 1.0-1.5											✓				3	
9	43	BH26 1.5-2.25											✓				3	
10	44	BH26 2.25-3.											✓				3	

*RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
S. Reid Stephanie Reid	13/07/04	1350	Amanda	13/07/04	1350.		☐	10.0/9.8/11.2	☐ Yes ☐ No

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel:(204) 772-2386 Toll-free:(800) 665 8566 Fax:(204) 772 2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#26732 STANTEC CONSULTING	Quotation #:	B30065	MAXXAM JOB #: B356121	BOTTLE ORDER #: 403352
Contact Name:	Della Berwanger	Contact Name:	SCOTT COUGHTREY	P.O. #:			
Address:	2025 McCowan Road 2nd Floor, General Yard Offic	Address:	603-386 BROADWAY AVENUE	Project #:	111440161	CHAIN OF CUSTODY #: C#403352-13-01	PROJECT MANAGER: Janelle Kochan
	Scarborough ON M1S 5K3		WINNIPEG MB R3C 3R6	Project Name:	CP Weston		
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Site #:			
Email:	della_berwanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Sampled By:	BE, SR.		

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

ANALYSIS REQUESTED (Please be specific):

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.
☒

Job Specific Rush TAT (if applies to entire submission)
Date Required: _____ Time Required: _____ ☐
Rush Confirmation Number: _____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y/N)	Metals Field Filtered ? (Y/N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	Hold.				# of Bottles	Comments
1	GW 9745	BH23 0-0.5	13/07/04	AM	S					✓							3	
2	46	BH23 0.5-1.0											✓				3	
3	47	BH23 1.0-1.5						✓									3	
4	48	BH23 1.5-2.25											✓				3	
5	49	BH23 2.25-3							✓	✓							3	
6	50	BH24 0-0.5								✓							3	
7	51	BH24 0.5-1.0											✓				3	
8	52	BH24 1.0-1.5								✓							3	
9	53	BH24 1.5-2.25											✓				3	
10	54	BH24 2.25-3											✓				3	

*RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
S.Reid Steph Reid	13/07/04	1350.	Amanda	13/07/04	1350		☐	10.0/9.8/11.2.	☐ Yes ☐ No

Maxxam

Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel:(204) 772-2386 Toll-free:(800) 665 8566 Fax:(204) 772 2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#26732 STANTEC CONSULTING	Quotation #:	B30065	MAXXAM JOB #: B356121	BOTTLE ORDER #: 403352
Contact Name:	Della Berwanger	Contact Name:	SCOTT COUGHTREY	P.O. #:			
Address:	2025 McCowan Road 2nd Floor, General Yard Offic Scarborough ON M1S 5K3	Address:	603-386 BROADWAY AVENUE WINNIPEG MB R3C 3R6	Project #:	111440161	CHAIN OF CUSTODY #: C#403352-18-01	PROJECT MANAGER: Janelle Kochan
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Project Name:	CPWeston		
Email:	della_berwanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Site #:			
				Sampled By:	BE, SR.		

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: (will be applied if Rush TAT is not specified): [X]
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: _____ Time Required: _____ [ ]
Rush Confirmation Number: _____ (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y/N)	Metals Field Filtered ? (Y/N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	Hold.				# of Bottles	Comments
1	GW 9755	BH27 0-0.5	13/07/04	AM	S					✓							3	
2	56	BH27 0.5-1.0								BE ✓			✓				3	
3	57	BH27 1.0-1.5								✓							3	
4	58	BH27 1.5-2.25								BE ✓			✓				3	
5	59	BH27 2.25-3											✓				3	
6	60	BH28 0-0.5								✓							3	
7	61	BH28 0.5-1.0											✓				3	
8	62	BH28 1.0-1.5								✓							3	
9	63	BH28 1.5-2.25											✓				3	
10	64	BH28 2.25-3	↓	↓	↓								✓				3	

*RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
S. Reid S. Reid	13/07/04	1350	Amanda	13/07/04	1350		[ ]	10.0/9.8/11.2	[ ] Yes [ ] No

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel:(204) 772-2386 Toll-free:(800) 665 8566 Fax:(204) 772 2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#28732 STANTEC CONSULTING	Quotation #:	B30065	MAXXAM JOB #:	BOTTLE ORDER #:
Contact Name:	Della Berwanger	Contact Name:	SCOTT COUGHTREY	P.O. #:		B356121	403352
Address:	2025 McCowan Road 2nd Floor, General Yard Offic	Address:	603-386 BROADWAY AVENUE	Project #:	111440161	CHAIN OF CUSTODY #:	PROJECT MANAGER:
	Scarborough ON M1S 5K3		WINNIPEG MB R3C 3R6	Project Name:	CP Weston	C#403352-20-01	Janelle Kochan
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Site #:			
Email:	della_berwanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Sampled By:	BE, SR		

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

ANALYSIS REQUESTED (Please be specific):

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: ☑
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) ☐
Date Required: _____ Time Required: _____
Rush Confirmation Number: _____ (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y/N)	Metals Field Filtered ? (Y/N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	Hold	# of Bottles	Comments
1	GU 9765	BH29 0-0.5	13/07/04	AM	S								✓	3	
2	66	BH29 0.5-1.0								✓				3	
3	67	BH29 1.0-1.5								✓				3	
4	68	BH29 1.5-2.25											✓	3	
5	69	BH29 2.25-3.0											✓	3	
6	70	BH30 0-0.5							✓					3	
7	71	BH30 0.5-1.0								✓				3	
8	72	BH30 1.0-1.5											✓	3	
9	73	BH30 1.5-2.25								✓				3	
10	74	BH30 2.25-3.0											✓	3	

*RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
S. Reid Stephanie	13/07/04	1350	Amanda	13/07/04	1350		☐	10.0/9.8/11.2	☐ Yes ☐ No

Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel:(204) 772-2386 Toll-free:(800) 665 8566 Fax:(204) 772 2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#26732 STANTEC CONSULTING	Quotation #:	B30065	MAXXAM JOB #: B356171	BOTTLE ORDER #: 403352
Contact Name:	Della Berwanger	Contact Name:	SCOTT COUGHTREY	P.O. #:			
Address:	2025 McCowan Road 2nd Floor, General Yard Offic Scarborough ON M1S 5K3	Address:	603-386 BROADWAY AVENUE WINNIPEG MB R3C 3R6	Project #:	111440161	CHAIN OF CUSTODY #: C#403352-21-01	PROJECT MANAGER: Janelle Kochan
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Project Name:	CP Weston		
Email:	della_berwanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Site #:			
				Sampled By:	BE, SR		

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

ANALYSIS REQUESTED (Please be specific):

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: *(will be applied if Rush TAT is not specified)* [X]
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: _____ Time Required: _____ [ ]
Rush Confirmation Number: _____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y/N)	Metals Field Filtered ? (Y/N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	Hold	# of Bottles	Comments
1	GU975	BH31 0-0.5	13/07/04	AM	S				BE	✓				3	
2	76	BH31 0.5-1.0								BE			✓	3	
3	77	BH31 1.0-1.5								BE ✓				3	
4	78	BH31 1.5-2.25											✓	3	
5	79	BH31 2.25-3.											✓	3	
6															
7															
8															
9															
10															

*RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
S. Reid Steph Reid	13/07/04	1350	[illegible] AMaMc	13/07/04	1350.		[ ]	10.0/9.8/11.2	[ ] Yes [ ] No

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam

Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel:(204) 772-2385 Toll-free (500) 665 8566 Fax:(204) 772 2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#26732 STANTEC CONSULTING	Quotation #:	B30065	MAXXAM JOB #:	BOTTLE ORDER #:
Contact Name:	Della Berwanger	Contact Name:	SCOTT COUGHTREY	P.O. #:		B356121	403352
Address:	2025 McCowan Road 2nd Floor, General Yard Offic	Address:	603-386 BROADWAY AVENUE	Project #:	111440161	CHAIN OF CUSTODY #:	PROJECT MANAGER:
	Scarborough ON M1S 5K3		WINNIPEG MB R3C 3R6	Project Name:	CP Weston	C#403352-16-01	Janelle Kochan
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Site #:			
Email:	della_berwanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Sampled By:	RE, SR		

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.
[X]

Job Specific Rush TAT (if applies to entire submission)
Date Required: _____ Time Required: _____ [ ]
Rush Confirmation Number: _____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y/N)	Metals Field Filtered ? (Y/N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	2016				# of Bottles	Comments
1	GU97 80	MW04 0-0.5	13/07/04	AM	S					✓							3	
2	81	MW04 0.5-1											✓				3	
3	82	MW04 1-1.5											✓				3	
4	83	MW04 1.5-2.25								✓							3	
5	84	MW04 2.25-3											✓				3	
6	85	MW04 3-3.75											✓				3	
7	86	MW04 3.75-4.5											✓				3	
8	87	MW04 4.5-5.25											✓				3	
9	88	MW04 5.25-6											✓				3	
10																		

*RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted
B Lynd B Ezzat	13/07/04	1350	Amanda	13/07/04	1350	

Laboratory Use Only

Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
[ ]	10.0/9.8/11.2.	[ ] Yes [ ] No

Maxxam

Your Project #: 111440161
Site Location: CP WESTON
Your C.O.C. #: 40335207

Attention: SCOTT COUGHTREY
STANTEC CONSULTING
603-386 BROADWAY AVENUE
WINNIPEG, MB
CANADA R3C 3R6

Report Date: 2013/08/02
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B355301
Received: 2013/07/02, 16:15

Sample Matrix: Soil
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Elements by ICPMS (total) (1)	3	2013/07/05	2013/07/05	BBY7SOP-00004	BCMOE-SALM
Metals - TCLP (1)	1	2013/07/31	2013/08/01	BBY7SOP-00001	EPA 6020A
pH (2:1 DI Water Extract) (1)	3	2013/07/05	2013/07/05	BBY6SOP-00028	Carter, SSMA 16.2
TCLP pH Measurements (1)	1	N/A	2013/08/01	BBY7SOP-00005	EPA 1311

* Results relate only to the items tested.

(1) This test was performed by Maxxam Vancouver

Encryption Key

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

Janelle Kochan, B.Sc., Project Manager,
Email: JKochan@maxxam.ca
Phone# (204) 772-7276 Ext:2209

==========

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

Success Through Sciences

Maxxam Job #: B355301
Report Date: 2013/08/02

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: SR

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		GU4567	GU4567		
Sampling Date		2013/07/02	2013/07/02		
	UNITS	**SS3**	**SS3 Lab-Dup**	**RDL**	**QC Batch**
TCLP Extraction Procedure					
Initial pH of Sample	pH Units	6.80	6.72	N/A	7036432
pH after HCl	pH Units	1.61	1.56	N/A	7036432
Final pH of Leachate	pH Units	5.29	5.19	N/A	7036432
pH of Leaching Fluid	pH Units	4.89	4.89	N/A	7036432

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B355301
Report Date: 2013/08/02

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: SR

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		GU4565	GU4566		GU4567		
Sampling Date		2013/07/02	2013/07/02		2013/07/02		
	UNITS	SS1	SS2	RDL	SS3	RDL	QC Batch
Physical Properties							
Soluble (2:1) pH	pH Units	7.76	7.80	0.010	5.99	0.010	6956069
Total Metals by ICPMS							
Total Aluminum (Al)	mg/kg	3860	3740	100	2570	1000	6956064
Total Antimony (Sb)	mg/kg	25.0	18.8	0.10	21.0	1.0	6956064
Total Arsenic (As)	mg/kg	128	21.5	0.50	431	5.0	6956064
Total Barium (Ba)	mg/kg	131	221	0.10	84.2	1.0	6956064
Total Beryllium (Be)	mg/kg	<0.40	<0.40	0.40	<4.0	4.0	6956064
Total Bismuth (Bi)	mg/kg	3.64	1.25	0.10	3.0	1.0	6956064
Total Cadmium (Cd)	mg/kg	7.42	6.97	0.050	69.5	0.50	6956064
Total Calcium (Ca)	mg/kg	76700	89400	100	18200	1000	6956064
Total Chromium (Cr)	mg/kg	165	258	1.0	132	10	6956064
Total Cobalt (Co)	mg/kg	1130	1390	0.30	3460	3.0	6956064
Total Copper (Cu)	mg/kg	21500	4130	0.50	31800	5.0	6956064
Total Iron (Fe)	mg/kg	183000	190000	100	267000	1000	6956064
Total Lead (Pb)	mg/kg	1140	1510	0.10	949	1.0	6956064
Total Lithium (Li)	mg/kg	7.0	6.9	5.0	<50	50	6956064
Total Magnesium (Mg)	mg/kg	36600	41600	100	7110	1000	6956064
Total Manganese (Mn)	mg/kg	1350	1630	0.20	793	2.0	6956064
Total Mercury (Hg)	mg/kg	1.05	0.681	0.050	1.35	0.50	6956064
Total Molybdenum (Mo)	mg/kg	52.7	44.2	0.10	23.1	1.0	6956064
Total Nickel (Ni)	mg/kg	25200	29800	0.80	78400	8.0	6956064
Total Phosphorus (P)	mg/kg	317	273	10	148	100	6956064
Total Potassium (K)	mg/kg	746	532	100	<1000	1000	6956064
Total Selenium (Se)	mg/kg	16.1	11.3	0.50	64.8	5.0	6956064
Total Silver (Ag)	mg/kg	12.0	8.80	0.050	42.5	0.50	6956064
Total Sodium (Na)	mg/kg	965	687	100	<1000	1000	6956064
Total Strontium (Sr)	mg/kg	171	151	0.10	52.5	1.0	6956064
Total Thallium (Tl)	mg/kg	0.376	0.200	0.050	0.78	0.50	6956064
Total Tin (Sn)	mg/kg	248	119	0.10	25.8	1.0	6956064
Total Titanium (Ti)	mg/kg	211	237	1.0	121	10	6956064
Total Uranium (U)	mg/kg	1.07	0.878	0.050	<0.50	0.50	6956064
Total Vanadium (V)	mg/kg	20.6	15.4	2.0	<20	20	6956064
Total Zinc (Zn)	mg/kg	1140	904	1.0	17700	10	6956064
Total Zirconium (Zr)	mg/kg	6.50	7.11	0.50	6.4	5.0	6956064

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Success Through Science®

Maxxam Job #: B355301
Report Date: 2013/08/02

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: SR

TCLP METALS (SOIL)

Maxxam ID		GU4567	GU4567		
Sampling Date		2013/07/02	2013/07/02		
	UNITS	SS3	SS3 Lab-Dup	RDL	QC Batch
Metals					
LEACHATE Antimony (Sb)	mg/L	<0.10	<0.10	0.10	7039492
LEACHATE Arsenic (As)	mg/L	<0.10	<0.10	0.10	7039492
LEACHATE Barium (Ba)	mg/L	<0.10	<0.10	0.10	7039492
LEACHATE Beryllium (Be)	mg/L	<0.10	<0.10	0.10	7039492
LEACHATE Boron (B)	mg/L	0.33	0.40	0.10	7039492
LEACHATE Cadmium (Cd)	mg/L	0.23	0.22	0.10	7039492
LEACHATE Chromium (Cr)	mg/L	<0.10	<0.10	0.10	7039492
LEACHATE Cobalt (Co)	mg/L	18.9	17.1	0.10	7039492
LEACHATE Copper (Cu)	mg/L	1.31	1.36	0.10	7039492
LEACHATE Iron (Fe)	mg/L	1.56	1.24	0.50	7039492
LEACHATE Lead (Pb)	mg/L	0.25	0.26	0.10	7039492
LEACHATE Mercury (Hg)	mg/L	<0.0020	<0.0020	0.0020	7039492
LEACHATE Molybdenum (Mo)	mg/L	<0.10	<0.10	0.10	7039492
LEACHATE Nickel (Ni)	mg/L	462	422	0.10	7039492
LEACHATE Selenium (Se)	mg/L	0.12	0.11	0.10	7039492
LEACHATE Silver (Ag)	mg/L	<0.10	<0.10	0.10	7039492
LEACHATE Thallium (Tl)	mg/L	<0.10	<0.10	0.10	7039492
LEACHATE Uranium (U)	mg/L	<0.10	<0.10	0.10	7039492
LEACHATE Vanadium (V)	mg/L	<0.10	<0.10	0.10	7039492
LEACHATE Zinc (Zn)	mg/L	29.5	27.9	0.10	7039492
LEACHATE Zirconium (Zr)	mg/L	<0.10	<0.10	0.10	7039492

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B355301
Report Date: 2013/08/02

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: SR

Package 1	24.7°C

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

CSR/CCME METALS IN SOIL (SOIL) Comments

Sample GU4567-01 Elements by ICPMS (total): Detection Limits raised due to sample matrix interference.

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Success Through Sciences

Maxxam Job #: B355301
Report Date: 2013/08/02

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: SR

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6956064	Total Antimony (Sb)	2013/07/05	99	75 - 125	101	75 - 125	<0.10	mg/kg	NC	30	91	70 - 130
6956064	Total Arsenic (As)	2013/07/05	96	75 - 125	95	75 - 125	<0.50	mg/kg	3.4	30	91	70 - 130
6956064	Total Barium (Ba)	2013/07/05	NC	75 - 125	99	75 - 125	<0.10	mg/kg	6.9	35	97	70 - 130
6956064	Total Beryllium (Be)	2013/07/05	103	75 - 125	102	75 - 125	<0.40	mg/kg	NC	30		
6956064	Total Cadmium (Cd)	2013/07/05	100	75 - 125	100	75 - 125	<0.050	mg/kg	NC	30	100	70 - 130
6956064	Total Chromium (Cr)	2013/07/05	NC	75 - 125	99	75 - 125	<1.0	mg/kg	0.5	30	101	70 - 130
6956064	Total Cobalt (Co)	2013/07/05	97	75 - 125	100	75 - 125	<0.30	mg/kg	1.4	30	90	70 - 130
6956064	Total Copper (Cu)	2013/07/05	97	75 - 125	101	75 - 125	<0.50	mg/kg	0.5	30	90	70 - 130
6956064	Total Lead (Pb)	2013/07/05	98	75 - 125	99	75 - 125	<0.10	mg/kg	0.6	35	96	70 - 130
6956064	Total Lithium (Li)	2013/07/05	98	75 - 125	98	75 - 125	<5.0	mg/kg	NC	30		
6956064	Total Manganese (Mn)	2013/07/05	NC	75 - 125	101	75 - 125	<0.20	mg/kg	1	30	95	70 - 130
6956064	Total Mercury (Hg)	2013/07/05	99	75 - 125	97	75 - 125	<0.050	mg/kg	NC	35	81	70 - 130
6956064	Total Molybdenum (Mo)	2013/07/05	103	75 - 125	100	75 - 125	<0.10	mg/kg	NC	35	102	70 - 130
6956064	Total Nickel (Ni)	2013/07/05	NC	75 - 125	101	75 - 125	<0.80	mg/kg	0.4	30	94	70 - 130
6956064	Total Selenium (Se)	2013/07/05	99	75 - 125	99	75 - 125	<0.50	mg/kg	NC	30		
6956064	Total Silver (Ag)	2013/07/05	97	75 - 125	98	75 - 125	<0.050	mg/kg	NC	35		
6956064	Total Strontium (Sr)	2013/07/05	96	75 - 125	95	75 - 125	<0.10	mg/kg	0.9	35	96	70 - 130
6956064	Total Thallium (Tl)	2013/07/05	98	75 - 125	97	75 - 125	<0.050	mg/kg	NC	30	86	70 - 130
6956064	Total Tin (Sn)	2013/07/05	95	75 - 125	97	75 - 125	<0.10	mg/kg	NC	35		
6956064	Total Titanium (Ti)	2013/07/05	NC	75 - 125	99	75 - 125	<1.0	mg/kg	1.6	35	101	70 - 130
6956064	Total Uranium (U)	2013/07/05	98	75 - 125	100	75 - 125	<0.050	mg/kg	8.9	30	99	70 - 130
6956064	Total Vanadium (V)	2013/07/05	NC	75 - 125	98	75 - 125	<2.0	mg/kg	1.9	30	99	70 - 130
6956064	Total Zinc (Zn)	2013/07/05	NC	75 - 125	104	75 - 125	<1.0	mg/kg	1.1	30	89	70 - 130
6956064	Total Aluminum (Al)	2013/07/05					<100	mg/kg	0.5	35	97	70 - 130
6956064	Total Calcium (Ca)	2013/07/05					<100	mg/kg	3.3	30	94	70 - 130
6956064	Total Iron (Fe)	2013/07/05					<100	mg/kg	1.2	30	93	70 - 130
6956064	Total Magnesium (Mg)	2013/07/05					<100	mg/kg	0.5	30	89	70 - 130
6956064	Total Phosphorus (P)	2013/07/05					<10	mg/kg	1.7	30	89	70 - 130
6956064	Total Bismuth (Bi)	2013/07/05					<0.10	mg/kg	NC	30		
6956064	Total Potassium (K)	2013/07/05					<100	mg/kg	NC	35		
6956064	Total Sodium (Na)	2013/07/05					<100	mg/kg	NC	35		
6956064	Total Zirconium (Zr)	2013/07/05					<0.50	mg/kg	3.0	30		
6956069	Soluble (2:1) pH	2013/07/05			101	97 - 103			0	20		
7036432	Initial pH of Sample	2013/08/01					4.89, RDL=N/A	pH Units	1.2	20		
7036432	Final pH of Leachate	2013/08/01					4.89, RDL=N/A	pH Units	1.9	20		
7036432	pH of Leaching Fluid	2013/08/01					4.89, RDL=N/A	pH Units	0	20		
7036432	pH after HCl	2013/08/01							3.2	20		
7039492	LEACHATE Arsenic (As)	2013/08/01	109	75 - 125	104	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Beryllium (Be)	2013/08/01	101	75 - 125	99	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Cadmium (Cd)	2013/08/01	103	75 - 125	103	75 - 125	<0.10	mg/L	NC	35		

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B355301
Report Date: 2013/08/02

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: SR

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7039492	LEACHATE Chromium (Cr)	2013/08/01	99	75 - 125	97	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Cobalt (Co)	2013/08/01	N/C*******	75 - 125	96	75 - 125	<0.10	mg/L	9.7	35		
7039492	LEACHATE Copper (Cu)	2013/08/01	97	75 - 125	99	75 - 125	<0.10	mg/L	4.1	35		
7039492	LEACHATE Lead (Pb)	2013/08/01	98	75 - 125	98	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Nickel (Ni)	2013/08/01	N/C*******	75 - 125	87	75 - 125	<0.10	mg/L	9.0	35		
7039492	LEACHATE Selenium (Se)	2013/08/01	114	75 - 125	110	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Uranium (U)	2013/08/01	99	75 - 125	97	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Vanadium (V)	2013/08/01	102	75 - 125	98	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Zinc (Zn)	2013/08/01	N/C*******	75 - 125	106	75 - 125	<0.10	mg/L	5.7	35		
7039492	LEACHATE Antimony (Sb)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Barium (Ba)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Boron (B)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Iron (Fe)	2013/08/01					<0.50	mg/L	NC	35		
7039492	LEACHATE Mercury (Hg)	2013/08/01					<0.0020	mg/L	NC	35		
7039492	LEACHATE Molybdenum (Mo)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Silver (Ag)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Thallium (Tl)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Zirconium (Zr)	2013/08/01					<0.10	mg/L	NC	35		

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 sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.
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.
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.

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel (204) 772-7276 Toll-free (800) 665 8566 Fax (204) 772 2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#28732 STANTEC CONSULTING	Quotation #:	B30065	MAXXAM JOB #: B355301	BOTTLE ORDER #:
Contact Name:	Della Berwanger	Contact Name:	SCOTT COUGHTREY	P.O. #:			
Address:	2025 McCowan Road 2nd Floor, General Yard Offic	Address:	603-386 BROADWAY AVENUE	Project #:	111440161	CHAIN OF CUSTODY #:	PROJECT MANAGER:
	Scarborough ON M1S 5K3		WINNIPEG MB R3C 3R8	Project Name:	CP Weston		Janelle Kachan
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Site #:		C#403352-07-01	
Email:	della_berwanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Sampled By:	SK		

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS:

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

ANALYSIS REQUESTED (Please be specific):

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: (will be applied if Rush TAT is not specified) ☒

Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) ☐

Date Required: _____ Time Required: _____

Rush Confirmation Number: _____ (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water? (Y/N)	Metals Field Filtered? (Y/N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	# of Bottles	Comments
1	GU4565	SS1	13/07/09	PM	S					✓			3	
2	GU4566	SS2	〃	〃	〃					✓			3	
3	GU4567	SS3	〃	〃	〃					✓			3	
4														
5														
6														
7														
8														
9														
10														

*RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted	Laboratory Use Only: Time Sensitive ☐	Temperature (°C) on Receipt: 17.4, 24.0, 25.6	Custody Seal Intact on Cooler? ☐ Yes ☐ No
B Lloyd / B. Eggert	13/07/09	1615	LMC Graeck	13/07/10	1615				

Maxxam

Your Project #: 111440161
Site Location: CP WESTON
Your C.O.C. #: 40335201

Attention: SCOTT COUGHTREY
STANTEC CONSULTING
603-386 BROADWAY AVENUE
WINNIPEG, MB
CANADA R3C 3R6

Report Date: 2013/08/02
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B355415
Received: 2013/07/02, 16:15

Sample Matrix: Soil
Samples Received: 25

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/F1 by HS GC-MS/FID (MeOH extract) (2)	1	2013/07/04	2013/07/09	WINSOP-00054 WINSOP-00055	EPA8260C/CCME PHCC'
CCME Hydrocarbons (F2-F4 in soil) (3)	1	2013/07/04	2013/07/05	WINSOP-00056	CCME PHC-CWS
Elements by ICPMS (total) (1)	17	2013/07/05	2013/07/05	BBY7SOP-00004	BCMOE-SALM
Elements by ICPMS (total) (1)	1	2013/07/06	2013/07/09	BBY7SOP-00004	BCMOE-SALM
Elements by ICPMS (total) (1)	4	2013/07/31	2013/07/31	BBY7SOP-00004	BCMOE-SALM
Metals - TCLP (1)	2	2013/07/31	2013/08/01	BBY7SOP-00001	EPA 6020A
Moisture (1)	2	N/A	2013/07/05	BBY8SOP-00017	Ont MOE -E 3139
Moisture	1	N/A	2013/07/05	WIN SOP-00060	Carter Method 51.2
PAH in Soil by GC/MS (SIM) - CCME (1)	2	2013/07/04	2013/07/05	BBY8SOP-00022	EPA 8270D
Benzo[a]pyrene Equivalency (1)	2	N/A	2013/07/06	BBY WI-00033	CCME Guidelines
Total LMW, HMW, Total PAH Calc (1)	2	N/A	2013/07/06	BBY WI-00033	BC MOE Lab Method
pH (2:1 DI Water Extract) (1)	17	2013/07/05	2013/07/05	BBY6SOP-00028	Carter, SSMA 16.2
pH (2:1 DI Water Extract) (1)	1	2013/07/08	2013/07/08	BBY6SOP-00028	Carter, SSMA 16.2
pH (2:1 DI Water Extract) (1)	4	2013/07/31	2013/07/31	BBY6SOP-00028	Carter, SSMA 16.2
TCLP pH Measurements (1)	2	N/A	2013/08/01	BBY7SOP-00005	EPA 1311
PSA Coarse/Fine (75 micron)	5	N/A	2013/07/04		
Grain Size (Coarse/Fine)	5	N/A	2013/07/08		

* Results relate only to the items tested.

(1) This test was performed by Maxxam Vancouver
(2) This method complies with the reference method for the CWS PHC and is validated for use in the laboratory.
Applicable only to F1 and/or LH - nC6 and nC10 response factors are within 30% of the toluene response factor.
The hydrocarbon results are expressed as a dry weight basis.
(3) This method complies with the reference method for the CWS PHC and is validated for use in the laboratory.
The hydrocarbon results are expressed as a dry weight basis.

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Encryption Key

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

Janelle Kochan, B.Sc., Project Manager,
Email: JKochan@maxxam.ca
Phone# (204) 772-7276 Ext:2209

==========

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: 2

Maxxam Job #: B355415
Report Date: 2013/08/02

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

BTEX/F1-F4 IN SOIL (SOIL)

Maxxam ID		GU4941		
Sampling Date		2013/07/02		
	UNITS	BH38 0.5-1	RDL	QC Batch
Physical Properties				
Moisture	%	27	0.3	6952160
Ext. Pet. Hydrocarbon				
F2 (C10-C16 Hydrocarbons)	mg/kg	<20	20	6952159
F3 (C16-C34 Hydrocarbons)	mg/kg	82	20	6952159
F4 (C34-C50 Hydrocarbons)	mg/kg	<20	20	6952159
Reached Baseline at C50	mg/kg	YES		6952159
Surrogate Recovery (%)				
O-TERPHENYL (sur.)	%	90		6952159
Volatiles				
Benzene	mg/kg	<0.0050	0.0050	6952140
Toluene	mg/kg	<0.020	0.020	6952140
Ethylbenzene	mg/kg	<0.010	0.010	6952140
Xylenes (Total)	mg/kg	<0.040	0.040	6952140
m & p-Xylene	mg/kg	<0.040	0.040	6952140
o-Xylene	mg/kg	<0.020	0.020	6952140
Methyl-tert-butylether (MTBE)	mg/kg	<0.10	0.10	6952140
F1 (C6-C10) - BTEX	mg/kg	<10	10	6952140
(C6-C10)	mg/kg	<10	10	6952140
Surrogate Recovery (%)				
4-BROMOFLUOROBENZENE (sur.)	%	103		6952140
D10-ETHYLBENZENE (sur.)	%	105		6952140
D4-1,2-DICHLOROETHANE (sur.)	%	110		6952140
D8-TOLUENE (sur.)	%	98		6952140

PHYSICAL TESTING (SOIL)

Maxxam ID		GU4940	GU4975		
Sampling Date		2013/07/02	2013/07/02		
	UNITS	BH38 0-0.5	MW08 3.75-4.5	RDL	QC Batch
Physical Properties					
Moisture	%	26	34	0.30	6954481

RDL = Reportable Detection Limit

Maxxam

Maxxam Job #: B355415
Report Date: 2013/08/02

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

CUSTOM PARTICLE SIZE DISTRIBUTION (SOIL)

Maxxam ID		GU4935	GU4941	GU4947	GU4951	GU4975		
Sampling Date		2013/07/02	2013/07/02	2013/07/02	2013/07/02	2013/07/02		
	UNITS	BH34 0-0.5	BH38 0.5-1	MW09 1-1.5	MW09 3.75-4.5	MW08 3.75-4.5	RDL	QC Batch
Particle Size								
Sieve-%Coarse (>0.075mm)	%	84.08	21.74	4.21	0.36	0.89	0.01	6960934
Grain Size	N/A	COARSE	FINE	FINE	FINE	FINE		6952162
Sieve-%Fine (<0.075mm)	%	15.92	78.26	95.79	99.64	99.11	0.01	6960934

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		GU4935	GU4978		
Sampling Date		2013/07/02	2013/07/02		
	UNITS	BH34 0-0.5	BH33 0-0.5	RDL	QC Batch
TCLP Extraction Procedure					
Initial pH of Sample	pH Units	9.78	9.68	N/A	7036432
pH after HCl	pH Units	1.86	2.34	N/A	7036432
Final pH of Leachate	pH Units	6.45	7.08	N/A	7036432
pH of Leaching Fluid	pH Units	4.89	4.89	N/A	7036432

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Success Through Sciences

Maxxam Job #: B355415
Report Date: 2013/08/02

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		GU4935		GU4937	GU4940	GU4941		GU4943			GU4945		
Sampling Date		2013/07/02		2013/07/02	2013/07/02	2013/07/02		2013/07/02			2013/07/02		
	UNITS	BH34 0-0.5	QC Batch	BH34 1-1.5	BH38 0-0.5	BH38 0.5-1	QC Batch	BH38 1.5-2.25	RDL	QC Batch	MW09 0-0.5	RDL	QC Batch
Physical Properties													
Soluble (2:1) pH	pH Units	8.37	6959392	8.60	8.50	8.16	6956450	8.68	0.010	7035532	8.04	0.010	6956450
Total Metals by ICPMS													
Total Aluminum (Al)	mg/kg	4750	6959390	12100	7050	22900	6956446	11500	100	7035518	3630	1000	6956446
Total Antimony (Sb)	mg/kg	138	6959390	4.51	170	272	6956446	0.61	0.10	7035518	159	1.0	6956446
Total Arsenic (As)	mg/kg	59.0	6959390	4.24	17.2	27.1	6956446	2.46	0.50	7035518	62.4	5.0	6956446
Total Barium (Ba)	mg/kg	1100	6959390	197	337	365	6956446	97.1	0.10	7035518	980	1.0	6956446
Total Beryllium (Be)	mg/kg	0.55	6959390	0.53	0.45	0.97	6956446	0.53	0.40	7035518	<4.0	4.0	6956446
Total Bismuth (Bi)	mg/kg	1.94	6959390	0.14	0.56	2.57	6956446	0.12	0.10	7035518	2.2	1.0	6956446
Total Cadmium (Cd)	mg/kg	10.8	6959390	0.562	0.787	1.49	6956446	0.480	0.050	7035518	5.91	0.50	6956446
Total Calcium (Ca)	mg/kg	22700	6959390	142000	48900	23300	6956446	76000	100	7035518	13000	1000	6956446
Total Chromium (Cr)	mg/kg	59.0	6959390	43.9	30.4	65.6	6956446	26.8	1.0	7035518	124	10	6956446
Total Cobalt (Co)	mg/kg	23.6	6959390	6.81	7.79	13.3	6956446	7.51	0.30	7035518	38.1	3.0	6956446
Total Copper (Cu)	mg/kg	9020	6959390	81.2	476	5000	6956446	20.0	0.50	7035518	2260	5.0	6956446
Total Iron (Fe)	mg/kg	218000	6959390	25700	61000	67600	6956446	16400	100	7035518	252000	1000	6956446
Total Lead (Pb)	mg/kg	4660	6959390	165	1430	3940	6956446	10.1	0.10	7035518	3820	1.0	6956446
Total Lithium (Li)	mg/kg	7.5	6959390	17.4	7.9	27.4	6956446	22.5	5.0	7035518	<50	50	6956446
Total Magnesium (Mg)	mg/kg	7420	6959390	35700	10000	14000	6956446	44700	100	7035518	5450	1000	6956446
Total Manganese (Mn)	mg/kg	1320	6959390	355	834	421	6956446	312	0.20	7035518	1860	2.0	6956446
Total Mercury (Hg)	mg/kg	80.6	6959390	1.88	3.67	20.0	6956446	<0.050	0.050	7035518	6.10	0.50	6956446
Total Molybdenum (Mo)	mg/kg	7.13	6959390	0.75	2.49	1.67	6956446	0.54	0.10	7035518	7.4	1.0	6956446
Total Nickel (Ni)	mg/kg	89.2	6959390	24.6	33.5	55.0	6956446	21.3	0.80	7035518	182	8.0	6956446
Total Phosphorus (P)	mg/kg	761	6959390	383	763	757	6956446	420	10	7035518	667	100	6956446
Total Potassium (K)	mg/kg	874	6959390	2560	754	4590	6956446	2660	100	7035518	<1000	1000	6956446
Total Selenium (Se)	mg/kg	1.15	6959390	<0.50	1.20	1.27	6956446	<0.50	0.50	7035518	<5.0	5.0	6956446
Total Silver (Ag)	mg/kg	2.45	6959390	0.301	0.334	2.12	6956446	0.073	0.050	7035518	0.98	0.50	6956446
Total Sodium (Na)	mg/kg	989	6959390	369	512	393	6956446	513	100	7035518	<1000	1000	6956446
Total Strontium (Sr)	mg/kg	168	6959390	167	144	104	6956446	49.7	0.10	7035518	94.7	1.0	6956446
Total Thallium (Tl)	mg/kg	1.40	6959390	0.170	0.214	0.424	6956446	0.209	0.050	7035518	<0.50	0.50	6956446
Total Tin (Sn)	mg/kg	704	6959390	13.3	188	787	6956446	2.17	0.10	7035518	418	1.0	6956446
Total Titanium (Ti)	mg/kg	137	6959390	187	255	145	6956446	519	1.0	7035518	71	10	6956446
Total Uranium (U)	mg/kg	0.896	6959390	3.43	0.891	1.90	6956446	0.934	0.050	7035518	0.88	0.50	6956446
Total Vanadium (V)	mg/kg	17.5	6959390	33.1	37.5	61.0	6956446	34.4	2.0	7035518	38	20	6956446
Total Zinc (Zn)	mg/kg	5900	6959390	143	288	521	6956446	42.7	1.0	7035518	6860	10	6956446
Total Zirconium (Zr)	mg/kg	3.27	6959390	7.12	4.18	10.3	6956446	13.8	0.50	7035518	<5.0	5.0	6956446

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B355415
Report Date: 2013/08/02

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		GU4948			GU4954		GU4957	GU4957	GU4959	GU4960		
Sampling Date		2013/07/02			2013/07/02		2013/07/02	2013/07/02	2013/07/02	2013/07/02		
	UNITS	MW09 1.5-2.25	RDL	QC Batch	BH37 0-0.5	RDL	BH37 1.5-2.25	BH37 1.5-2.25 Lab-Dup	BH36 0-0.5	BH36 0.5-1	RDL	QC Batch
Physical Properties												
Soluble (2:1) pH	pH Units	8.67	0.010	6956069	7.98	0.010	8.78	8.72	8.21	8.37	0.010	6956450
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	4970	100	6956064	5320	1000	11000	12200	4110	3630	100	6956446
Total Antimony (Sb)	mg/kg	0.41	0.10	6956064	1330	1.0	2.70(1)	2.64	20.3	11.2	0.10	6956446
Total Arsenic (As)	mg/kg	1.49	0.50	6956064	100	5.0	4.25	5.04	22.0	14.8	0.50	6956446
Total Barium (Ba)	mg/kg	44.4	0.10	6956064	581	1.0	102	111	366	225	0.10	6956446
Total Beryllium (Be)	mg/kg	<0.40	0.40	6956064	<4.0	4.0	0.50	0.63	0.55	0.56	0.40	6956446
Total Bismuth (Bi)	mg/kg	<0.10	0.10	6956064	5.6	1.0	0.17	0.18	0.21	0.16	0.10	6956446
Total Cadmium (Cd)	mg/kg	0.293	0.050	6956064	2.04	0.50	0.404	0.473	0.390	0.372	0.050	6956446
Total Calcium (Ca)	mg/kg	107000	100	6956064	22700	1000	70200	64100	23400	15200	100	6956446
Total Chromium (Cr)	mg/kg	13.3	1.0	6956064	101	10	23.2	24.9	26.1	15.2	1.0	6956446
Total Cobalt (Co)	mg/kg	3.46	0.30	6956064	38.4	3.0	7.21	8.12	12.2	11.6	0.30	6956446
Total Copper (Cu)	mg/kg	14.8	0.50	6956064	1900	5.0	26.3	27.2	737	190	0.50	6956446
Total Iron (Fe)	mg/kg	9520	100	6956064	306000	1000	18100	19100	108000	63300	100	6956446
Total Lead (Pb)	mg/kg	11.1	0.10	6956064	10500	1.0	30.2	33.5	459	228	0.10	6956446
Total Lithium (Li)	mg/kg	10.8	5.0	6956064	<50	50	16.9	18.3	6.2	7.5	5.0	6956446
Total Magnesium (Mg)	mg/kg	58600	100	6956064	7860	1000	39200	36300	5790	4900	100	6956446
Total Manganese (Mn)	mg/kg	175	0.20	6956064	1390	2.0	393	406	562	359	0.20	6956446
Total Mercury (Hg)	mg/kg	0.050	0.050	6956064	12.7	0.50	0.146	0.148	10.9	4.30	0.050	6956446
Total Molybdenum (Mo)	mg/kg	0.89	0.10	6956064	9.2	1.0	1.54	1.52	4.11	2.75	0.10	6956446
Total Nickel (Ni)	mg/kg	14.9	0.80	6956064	217	8.0	26.8	28.1	42.9	29.7	0.80	6956446
Total Phosphorus (P)	mg/kg	321	10	6956064	947	100	406	426	756	437	10	6956446
Total Potassium (K)	mg/kg	1100	100	6956064	<1000	1000	2060	2270	437	706	100	6956446
Total Selenium (Se)	mg/kg	<0.50	0.50	6956064	<5.0	5.0	<0.50	<0.50	1.05	0.79	0.50	6956446
Total Silver (Ag)	mg/kg	0.063	0.050	6956064	1.29	0.50	0.087	0.099	0.268	0.194	0.050	6956446
Total Sodium (Na)	mg/kg	239	100	6956064	<1000	1000	348	377	295	369	100	6956446
Total Strontium (Sr)	mg/kg	43.9	0.10	6956064	153	1.0	49.3	50.9	209	117	0.10	6956446
Total Thallium (Tl)	mg/kg	0.082	0.050	6956064	0.58	0.50	0.182	0.202	0.176	0.097	0.050	6956446
Total Tin (Sn)	mg/kg	0.84	0.10	6956064	1560	1.0	7.15	6.82	42.4	21.6	0.10	6956446
Total Titanium (Ti)	mg/kg	290	1.0	6956064	122	10	151	136	137	79.6	1.0	6956446
Total Uranium (U)	mg/kg	0.596	0.050	6956064	1.06	0.50	1.02	1.08	1.20	0.751	0.050	6956446
Total Vanadium (V)	mg/kg	18.7	2.0	6956064	31	20	35.9	38.6	18.1	17.3	2.0	6956446
Total Zinc (Zn)	mg/kg	41.7	1.0	6956064	954	10	48.4	53.7	128	123	1.0	6956446
Total Zirconium (Zr)	mg/kg	9.12	0.50	6956064	<5.0	5.0	9.33	9.00	4.17	1.93	0.50	6956446

RDL = Reportable Detection Limit
(1) - Matrix Spike for antimony exceeds acceptance criteria. 10% of analytes failure in multi-element scan is allowed.

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Success Through Science®

Maxxam Job #: B355415
Report Date: 2013/08/02

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		GU4961		GU4964	GU4966		GU4967		GU4969		GU4971		
Sampling Date		2013/07/02		2013/07/02	2013/07/02		2013/07/02		2013/07/02		2013/07/02		
	UNITS	BH36 1-1.5	QC Batch	BH35 0-0.5	BH35 1-1.5	QC Batch	BH35 1.5-2.25	QC Batch	MW08 0-0.5	QC Batch	MW08 1-1.5	RDL	QC Batch
Physical Properties													
Soluble (2:1) pH	pH Units	8.09	7035532	8.10	8.75	6956450	8.64	7035532	8.25	6956450	8.18	0.010	6956069
Total Metals by ICPMS													
Total Aluminum (Al)	mg/kg	18100	7035518	6420	25400	6956446	5900	7035518	15100	6956446	17100	100	6956064
Total Antimony (Sb)	mg/kg	0.63	7035518	152	6.27	6956446	0.31	7035518	131	6956446	7.87	0.10	6956064
Total Arsenic (As)	mg/kg	6.58	7035518	25.0	6.25	6956446	2.08	7035518	19.9	6956446	5.93	0.50	6956064
Total Barium (Ba)	mg/kg	171	7035518	692	232	6956446	47.4	7035518	439	6956446	172	0.10	6956064
Total Beryllium (Be)	mg/kg	0.69	7035518	0.51	1.03	6956446	<0.40	7035518	0.86	6956446	0.80	0.40	6956064
Total Bismuth (Bi)	mg/kg	0.17	7035518	1.02	0.28	6956446	<0.10	7035518	0.75	6956446	0.22	0.10	6956064
Total Cadmium (Cd)	mg/kg	0.563	7035518	2.16	0.589	6956446	0.333	7035518	1.18	6956446	0.589	0.050	6956064
Total Calcium (Ca)	mg/kg	103000	7035518	85600	27300	6956446	86800	7035518	69100	6956446	95700	100	6956064
Total Chromium (Cr)	mg/kg	34.8	7035518	36.1	44.9	6956446	14.1	7035518	40.2	6956446	36.2	1.0	6956064
Total Cobalt (Co)	mg/kg	8.61	7035518	10.0	14.3	6956446	3.92	7035518	10.7	6956446	10.3	0.30	6956064
Total Copper (Cu)	mg/kg	26.9	7035518	1250	119	6956446	14.4	7035518	1040	6956446	75.9	0.50	6956064
Total Iron (Fe)	mg/kg	22000	7035518	69500	30300	6956446	9600	7035518	49700	6956446	23200	100	6956064
Total Lead (Pb)	mg/kg	13.2	7035518	2530	148	6956446	10.5	7035518	1550	6956446	128	0.10	6956064
Total Lithium (Li)	mg/kg	35.8	7035518	10.1	29.5	6956446	11.2	7035518	18.9	6956446	30.5	5.0	6956064
Total Magnesium (Mg)	mg/kg	35000	7035518	21900	16800	6956446	48100	7035518	18500	6956446	33800	100	6956064
Total Manganese (Mn)	mg/kg	269	7035518	760	618	6956446	234	7035518	383	6956446	414	0.20	6956064
Total Mercury (Hg)	mg/kg	0.117	7035518	26.2	1.09	6956446	0.051	7035518	7.62	6956446	0.304	0.050	6956064
Total Molybdenum (Mo)	mg/kg	1.27	7035518	3.33	0.78	6956446	0.45	7035518	2.73	6956446	1.54	0.10	6956064
Total Nickel (Ni)	mg/kg	28.5	7035518	56.8	43.9	6956446	12.7	7035518	48.1	6956446	43.1	0.80	6956064
Total Phosphorus (P)	mg/kg	385	7035518	987	366	6956446	371	7035518	789	6956446	400	10	6956064
Total Potassium (K)	mg/kg	3610	7035518	1020	5250	6956446	1160	7035518	3360	6956446	3620	100	6956064
Total Selenium (Se)	mg/kg	<0.50	7035518	1.57	<0.50	6956446	<0.50	7035518	1.67	6956446	<0.50	0.50	6956064
Total Silver (Ag)	mg/kg	0.121	7035518	0.627	0.194	6956446	0.059	7035518	0.494	6956446	0.137	0.050	6956064
Total Sodium (Na)	mg/kg	358	7035518	571	266	6956446	263	7035518	542	6956446	408	100	6956064
Total Strontium (Sr)	mg/kg	197	7035518	312	70.9	6956446	41.9	7035518	334	6956446	138	0.10	6956064
Total Thallium (Tl)	mg/kg	0.243	7035518	0.316	0.342	6956446	0.107	7035518	0.318	6956446	0.257	0.050	6956064
Total Tin (Sn)	mg/kg	0.99	7035518	425	16.0	6956446	0.51	7035518	212	6956446	20.7	0.10	6956064
Total Titanium (Ti)	mg/kg	361	7035518	184	193	6956446	277	7035518	163	6956446	441	1.0	6956064
Total Uranium (U)	mg/kg	1.92	7035518	2.01	1.15	6956446	0.750	7035518	2.43	6956446	1.47	0.050	6956064
Total Vanadium (V)	mg/kg	57.4	7035518	23.0	61.7	6956446	21.7	7035518	43.2	6956446	52.8	2.0	6956064
Total Zinc (Zn)	mg/kg	51.9	7035518	1120	159	6956446	24.8	7035518	380	6956446	74.6	1.0	6956064
Total Zirconium (Zr)	mg/kg	12.1	7035518	3.31	12.5	6956446	8.78	7035518	7.75	6956446	15.1	0.50	6956064

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B355415
Report Date: 2013/08/02

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		GU4978		GU4980		GU4983		GU4984			GU4986		
Sampling Date		2013/07/02		2013/07/02		2013/07/02		2013/07/02			2013/07/02		
	UNITS	BH33 0-0.5	RDL	BH33 1-1.5	RDL	BH32 0-0.5	QC Batch	BH32 0.5-1	RDL	QC Batch	BH32 1.5-2.25	RDL	QC Batch
Physical Properties													
Soluble (2:1) pH	pH Units	8.14	0.010	8.39	0.010	8.33	6956450	8.14	0.010	6956069	8.87	0.010	7035532
Total Metals by ICPMS													
Total Aluminum (Al)	mg/kg	5880	1000	11700	100	13500	6956446	6400	1000	6956064	8210	100	7035518
Total Antimony (Sb)	mg/kg	110	1.0	3.58	0.10	2040	6956446	755	1.0	6956064	1.38	0.10	7035518
Total Arsenic (As)	mg/kg	96.3	5.0	4.56	0.50	60.3	6956446	60.8	5.0	6956064	3.09	0.50	7035518
Total Barium (Ba)	mg/kg	518	1.0	130	0.10	1540	6956446	820	1.0	6956064	80.5	0.10	7035518
Total Beryllium (Be)	mg/kg	<4.0	4.0	0.54	0.40	<4.0	6956446	<4.0	4.0	6956064	<0.40	0.40	7035518
Total Bismuth (Bi)	mg/kg	1.2	1.0	0.14	0.10	6.0	6956446	4.0	1.0	6956064	0.11	0.10	7035518
Total Cadmium (Cd)	mg/kg	2.86	0.50	0.449	0.050	2.41	6956446	2.73	0.50	6956064	0.457	0.050	7035518
Total Calcium (Ca)	mg/kg	118000	1000	125000	100	62700	6956446	41000	1000	6956064	82000	100	7035518
Total Chromium (Cr)	mg/kg	26	10	22.9	1.0	51	6956446	52	10	6956064	19.1	1.0	7035518
Total Cobalt (Co)	mg/kg	13.4	3.0	6.11	0.30	11.6	6956446	18.5	3.0	6956064	5.27	0.30	7035518
Total Copper (Cu)	mg/kg	975	5.0	74.4	0.50	3540	6956446	6200	5.0	6956064	36.0	0.50	7035518
Total Iron (Fe)	mg/kg	115000	1000	20500	100	77400	6956446	134000	1000	6956064	12900	100	7035518
Total Lead (Pb)	mg/kg	12700	1.0	203	0.10	12600	6956446	7480	1.0	6956064	25.5	0.10	7035518
Total Lithium (Li)	mg/kg	<50	50	17.9	5.0	<50	6956446	<50	50	6956064	14.7	5.0	7035518
Total Magnesium (Mg)	mg/kg	32300	1000	38700	100	15100	6956446	13200	1000	6956064	41900	100	7035518
Total Manganese (Mn)	mg/kg	917	2.0	266	0.20	615	6956446	864	2.0	6956064	273	0.20	7035518
Total Mercury (Hg)	mg/kg	6.81	0.50	0.366	0.050	16.9	6956446	27.2	0.50	6956064	0.114	0.050	7035518
Total Molybdenum (Mo)	mg/kg	3.7	1.0	0.36	0.10	4.4	6956446	4.2	1.0	6956064	0.55	0.10	7035518
Total Nickel (Ni)	mg/kg	130	8.0	22.0	0.80	91.8	6956446	127	8.0	6956064	18.6	0.80	7035518
Total Phosphorus (P)	mg/kg	3310	100	424	10	1230	6956446	1090	100	6956064	393	10	7035518
Total Potassium (K)	mg/kg	<1000	1000	2510	100	1050	6956446	<1000	1000	6956064	1560	100	7035518
Total Selenium (Se)	mg/kg	15.0	5.0	<0.50	0.50	<5.0	6956446	<5.0	5.0	6956064	<0.50	0.50	7035518
Total Silver (Ag)	mg/kg	<0.50	0.50	0.107	0.050	1.86	6956446	2.90	0.50	6956064	0.085	0.050	7035518
Total Sodium (Na)	mg/kg	<1000	1000	247	100	3130	6956446	<1000	1000	6956064	265	100	7035518
Total Strontium (Sr)	mg/kg	374	1.0	136	0.10	906	6956446	319	1.0	6956064	58.8	0.10	7035518
Total Thallium (Tl)	mg/kg	1.89	0.50	0.193	0.050	<0.50	6956446	<0.50	0.50	6956064	0.149	0.050	7035518
Total Tin (Sn)	mg/kg	98.2	1.0	7.59	0.10	1970	6956446	1610	1.0	6956064	2.98	0.10	7035518
Total Titanium (Ti)	mg/kg	180	10	227	1.0	435	6956446	211	10	6956064	299	1.0	7035518
Total Uranium (U)	mg/kg	3.80	0.50	1.89	0.050	3.84	6956446	2.63	0.50	6956064	1.04	0.050	7035518
Total Vanadium (V)	mg/kg	34	20	29.9	2.0	31	6956446	35	20	6956064	28.9	2.0	7035518
Total Zinc (Zn)	mg/kg	1250	10	88.0	1.0	1060	6956446	1490	10	6956064	38.7	1.0	7035518
Total Zirconium (Zr)	mg/kg	<5.0	5.0	6.21	0.50	14.3	6956446	<5.0	5.0	6956064	10.6	0.50	7035518

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam Job #: B355415
Report Date: 2013/08/02

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

TCLP METALS (SOIL)

Maxxam ID		GU4935	GU4978		
Sampling Date		2013/07/02	2013/07/02		
	UNITS	BH34 0-0.5	BH33 0-0.5	RDL	QC Batch
Metals					
LEACHATE Antimony (Sb)	mg/L	<0.10	<0.10	0.10	7039492
LEACHATE Arsenic (As)	mg/L	<0.10	<0.10	0.10	7039492
LEACHATE Barium (Ba)	mg/L	0.95	0.34	0.10	7039492
LEACHATE Beryllium (Be)	mg/L	<0.10	<0.10	0.10	7039492
LEACHATE Boron (B)	mg/L	0.47	0.44	0.10	7039492
LEACHATE Cadmium (Cd)	mg/L	<0.10	<0.10	0.10	7039492
LEACHATE Chromium (Cr)	mg/L	<0.10	<0.10	0.10	7039492
LEACHATE Cobalt (Co)	mg/L	<0.10	<0.10	0.10	7039492
LEACHATE Copper (Cu)	mg/L	4.45	<0.10	0.10	7039492
LEACHATE Iron (Fe)	mg/L	0.89	1.36	0.50	7039492
LEACHATE Lead (Pb)	mg/L	2.29	0.36	0.10	7039492
LEACHATE Mercury (Hg)	mg/L	<0.0020	<0.0020	0.0020	7039492
LEACHATE Molybdenum (Mo)	mg/L	<0.10	<0.10	0.10	7039492
LEACHATE Nickel (Ni)	mg/L	0.31	<0.10	0.10	7039492
LEACHATE Selenium (Se)	mg/L	<0.10	<0.10	0.10	7039492
LEACHATE Silver (Ag)	mg/L	<0.10	<0.10	0.10	7039492
LEACHATE Thallium (Tl)	mg/L	<0.10	<0.10	0.10	7039492
LEACHATE Uranium (U)	mg/L	<0.10	<0.10	0.10	7039492
LEACHATE Vanadium (V)	mg/L	<0.10	<0.10	0.10	7039492
LEACHATE Zinc (Zn)	mg/L	29.4	0.27	0.10	7039492
LEACHATE Zirconium (Zr)	mg/L	<0.10	<0.10	0.10	7039492

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B355415
Report Date: 2013/08/02

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

CCME PAH IN SOIL BY GC-MS (SOIL)

Maxxam ID		GU4940	GU4975		
Sampling Date		2013/07/02	2013/07/02		
	UNITS	BH38 0-0.5	MW08 3.75-4.5	RDL	QC Batch
Calculated Parameters					
Index of Additive Cancer Risk(IARC)	N/A	17	0.31	0.10	6952158
Benzo[a]pyrene equivalency	N/A	1.1	<0.10	0.10	6952158
Polycyclic Aromatics					
Naphthalene	mg/kg	0.99	<0.010	0.010	6957545
2-Methylnaphthalene	mg/kg	1.7	<0.020	0.020	6957545
Acenaphthylene	mg/kg	0.12	<0.0050	0.0050	6957545
Acenaphthene	mg/kg	0.077	<0.0050	0.0050	6957545
Fluorene	mg/kg	0.14	<0.020	0.020	6957545
Phenanthrene	mg/kg	1.2	0.024	0.020	6957545
Anthracene	mg/kg	0.26	0.0047	0.0040	6957545
Fluoranthene	mg/kg	1.1	0.032	0.020	6957545
Pyrene	mg/kg	1.1	0.025	0.020	6957545
Benzo(a)anthracene	mg/kg	0.62	<0.020	0.020	6957545
Chrysene	mg/kg	0.84	<0.020	0.020	6957545
Benzo(b&j)fluoranthene	mg/kg	1.5	<0.020	0.020	6957545
Benzo(k)fluoranthene	mg/kg	0.40	<0.020	0.020	6957545
Benzo(a)pyrene	mg/kg	0.62	<0.020	0.020	6957545
Indeno(1,2,3-cd)pyrene	mg/kg	0.71	<0.050	0.050	6957545
Dibenz(a,h)anthracene	mg/kg	0.17	<0.050	0.050	6957545
Benzo(g,h,i)perylene	mg/kg	0.88	<0.050	0.050	6957545
Low Molecular Weight PAH's	mg/kg	4.5	<0.050	0.050	6948533
High Molecular Weight PAH's	mg/kg	8.9	0.057	0.050	6948533
Total PAH	mg/kg	13	0.085	0.050	6948533
Surrogate Recovery (%)					
D10-ANTHRACENE (sur.)	%	89	85		6957545
D8-ACENAPHTHYLENE (sur.)	%	95	89		6957545
D8-NAPHTHALENE (sur.)	%	99	93		6957545
TERPHENYL-D14 (sur.)	%	97	99		6957545

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B355415
Report Date: 2013/08/02

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

Package 1	19.0°C

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

CSR/CCME METALS IN SOIL (SOIL) Comments

Sample GU4945-01 Elements by ICPMS (total): Detection Limits raised due to sample matrix interference.

Sample GU4954-01 Elements by ICPMS (total): Detection Limits raised due to sample matrix interference.

Sample GU4978-01 Elements by ICPMS (total): Detection Limits raised due to sample matrix interference.

Sample GU4983-01 Elements by ICPMS (total): Detection Limits raised due to sample matrix interference.

Sample GU4984-01 Elements by ICPMS (total): Detection Limits raised due to sample matrix interference.

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B355415
Report Date: 2013/08/02

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6952140	4-BROMOFLUOROBENZENE (sur.)	2013/07/09	102	60 - 140	101	60 - 140	103	%				
6952140	D10-ETHYLBENZENE (sur.)	2013/07/09	100	50 - 130	101	50 - 130	102	%				
6952140	D4-1,2-DICHLOROETHANE (sur.)	2013/07/09	103	60 - 140	105	60 - 140	102	%				
6952140	D8-TOLUENE (sur.)	2013/07/09	97	60 - 140	98	60 - 140	99	%				
6952140	Benzene	2013/07/09	75	60 - 140	78	60 - 140	<0.0050	mg/kg	NC	50		
6952140	Toluene	2013/07/09	75	60 - 140	78	60 - 140	<0.020	mg/kg	NC	50		
6952140	Ethylbenzene	2013/07/09	79	60 - 140	82	60 - 140	<0.010	mg/kg	NC	50		
6952140	m & p-Xylene	2013/07/09	78	60 - 140	80	60 - 140	<0.040	mg/kg	NC	50		
6952140	o-Xylene	2013/07/09	83	60 - 140	85	60 - 140	<0.020	mg/kg	NC	50		
6952140	Methyl-tert-butylether(MTBE)	2013/07/09	90	60 - 140	93	60 - 140	<0.10	mg/kg	NC	N/A		
6952140	(C6-C10)	2013/07/09	99	60 - 140	110	60 - 140	<10	mg/kg	NC	50		
6952140	Xylenes (Total)	2013/07/09					<0.040	mg/kg	NC	50		
6952140	F1 (C6-C10) - BTEX	2013/07/09					<10	mg/kg	NC	50		
6952159	O-TERPHENYL (sur.)	2013/07/05	86	50 - 130	87	50 - 130	91	%				
6952159	F2 (C10-C16 Hydrocarbons)	2013/07/05	96	50 - 130	94	70 - 130	<20	mg/kg	NC	50		
6952159	F3 (C16-C34 Hydrocarbons)	2013/07/05	99	50 - 130	95	70 - 130	<20	mg/kg	NC	50		
6952159	F4 (C34-C50 Hydrocarbons)	2013/07/05	92	50 - 130	89	70 - 130	<20	mg/kg	NC	50		
6952160	Moisture	2013/07/05					<0.3	%	10.6	20		
6954481	Moisture	2013/07/05					<0.30	%	1.9	20		
6956064	Total Antimony (Sb)	2013/07/05	99	75 - 125	101	75 - 125	<0.10	mg/kg	NC	30	91	70 - 130
6956064	Total Arsenic (As)	2013/07/05	96	75 - 125	95	75 - 125	<0.50	mg/kg	3.4	30	91	70 - 130
6956064	Total Barium (Ba)	2013/07/05	NC	75 - 125	99	75 - 125	<0.10	mg/kg	6.9	35	97	70 - 130
6956064	Total Beryllium (Be)	2013/07/05	103	75 - 125	102	75 - 125	<0.40	mg/kg	NC	30		
6956064	Total Cadmium (Cd)	2013/07/05	100	75 - 125	100	75 - 125	<0.050	mg/kg	NC	30	100	70 - 130
6956064	Total Chromium (Cr)	2013/07/05	NC	75 - 125	99	75 - 125	<1.0	mg/kg	0.5	30	101	70 - 130
6956064	Total Cobalt (Co)	2013/07/05	97	75 - 125	100	75 - 125	<0.30	mg/kg	1.4	30	90	70 - 130
6956064	Total Copper (Cu)	2013/07/05	97	75 - 125	101	75 - 125	<0.50	mg/kg	0.5	30	90	70 - 130
6956064	Total Lead (Pb)	2013/07/05	98	75 - 125	99	75 - 125	<0.10	mg/kg	0.6	35	96	70 - 130
6956064	Total Lithium (Li)	2013/07/05	98	75 - 125	98	75 - 125	<5.0	mg/kg	NC	30		
6956064	Total Manganese (Mn)	2013/07/05	NC	75 - 125	101	75 - 125	<0.20	mg/kg	1	30	95	70 - 130
6956064	Total Mercury (Hg)	2013/07/05	99	75 - 125	97	75 - 125	<0.050	mg/kg	NC	35	81	70 - 130
6956064	Total Molybdenum (Mo)	2013/07/05	103	75 - 125	100	75 - 125	<0.10	mg/kg	NC	35	102	70 - 130
6956064	Total Nickel (Ni)	2013/07/05	NC	75 - 125	101	75 - 125	<0.80	mg/kg	0.4	30	94	70 - 130
6956064	Total Selenium (Se)	2013/07/05	99	75 - 125	99	75 - 125	<0.50	mg/kg	NC	30		
6956064	Total Silver (Ag)	2013/07/05	97	75 - 125	98	75 - 125	<0.050	mg/kg	NC	35		
6956064	Total Strontium (Sr)	2013/07/05	96	75 - 125	95	75 - 125	<0.10	mg/kg	0.9	35	96	70 - 130
6956064	Total Thallium (Tl)	2013/07/05	98	75 - 125	97	75 - 125	<0.050	mg/kg	NC	30	86	70 - 130
6956064	Total Tin (Sn)	2013/07/05	95	75 - 125	97	75 - 125	<0.10	mg/kg	NC	35		
6956064	Total Titanium (Ti)	2013/07/05	NC	75 - 125	99	75 - 125	<1.0	mg/kg	1.6	35	101	70 - 130
6956064	Total Uranium (U)	2013/07/05	98	75 - 125	100	75 - 125	<0.050	mg/kg	8.9	30	99	70 - 130

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Success Through Sciences

Maxxam Job #: B355415
Report Date: 2013/08/02

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6956064	Total Vanadium (V)	2013/07/05	NC	75 - 125	98	75 - 125	<2.0	mg/kg	1.9	30	99	70 - 130
6956064	Total Zinc (Zn)	2013/07/05	NC	75 - 125	104	75 - 125	<1.0	mg/kg	1.1	30	89	70 - 130
6956064	Total Aluminum (Al)	2013/07/05					<100	mg/kg	0.5	35	97	70 - 130
6956064	Total Calcium (Ca)	2013/07/05					<100	mg/kg	3.3	30	94	70 - 130
6956064	Total Iron (Fe)	2013/07/05					<100	mg/kg	1.2	30	93	70 - 130
6956064	Total Magnesium (Mg)	2013/07/05					<100	mg/kg	0.5	30	89	70 - 130
6956064	Total Phosphorus (P)	2013/07/05					<10	mg/kg	1.7	30	89	70 - 130
6956064	Total Bismuth (Bi)	2013/07/05					<0.10	mg/kg	NC	30		
6956064	Total Potassium (K)	2013/07/05					<100	mg/kg	NC	35		
6956064	Total Sodium (Na)	2013/07/05					<100	mg/kg	NC	35		
6956064	Total Zirconium (Zr)	2013/07/05					<0.50	mg/kg	3.0	30		
6956069	Soluble (2:1) pH	2013/07/05			101	97 - 103			0	20		
6956446	Total Antimony (Sb)	2013/07/05	129(1)	75 - 125	98	75 - 125	<0.10	mg/kg	2.1	30	101	70 - 130
6956446	Total Arsenic (As)	2013/07/05	92	75 - 125	95	75 - 125	<0.50	mg/kg	17.1	30	91	70 - 130
6956446	Total Barium (Ba)	2013/07/05	NC	75 - 125	97	75 - 125	<0.10	mg/kg	9.0	35	95	70 - 130
6956446	Total Beryllium (Be)	2013/07/05	94	75 - 125	104	75 - 125	<0.40	mg/kg	NC	30		
6956446	Total Cadmium (Cd)	2013/07/05	95	75 - 125	100	75 - 125	<0.050	mg/kg	15.9	30	101	70 - 130
6956446	Total Chromium (Cr)	2013/07/05	107	75 - 125	95	75 - 125	<1.0	mg/kg	7.0	30	99	70 - 130
6956446	Total Cobalt (Co)	2013/07/05	90	75 - 125	97	75 - 125	<0.30	mg/kg	11.8	30	91	70 - 130
6956446	Total Copper (Cu)	2013/07/05	NC	75 - 125	100	75 - 125	<0.50	mg/kg	3.5	30	87	70 - 130
6956446	Total Lead (Pb)	2013/07/05	NC	75 - 125	99	75 - 125	<0.10	mg/kg	10.1	35	94	70 - 130
6956446	Total Lithium (Li)	2013/07/05	96	75 - 125	100	75 - 125	<5.0	mg/kg	NC	30		
6956446	Total Manganese (Mn)	2013/07/05	NC	75 - 125	97	75 - 125	0.26, RDL=0.20	mg/kg	3.1	30	94	70 - 130
6956446	Total Mercury (Hg)	2013/07/05	94	75 - 125	101	75 - 125	<0.050	mg/kg	NC	35	85	70 - 130
6956446	Total Molybdenum (Mo)	2013/07/05	99	75 - 125	101	75 - 125	<0.10	mg/kg	1.0	35	96	70 - 130
6956446	Total Nickel (Ni)	2013/07/05	NC	75 - 125	100	75 - 125	<0.80	mg/kg	4.7	30	93	70 - 130
6956446	Total Selenium (Se)	2013/07/05	94	75 - 125	99	75 - 125	<0.50	mg/kg	NC	30		
6956446	Total Silver (Ag)	2013/07/05	93	75 - 125	98	75 - 125	<0.050	mg/kg	NC	35		
6956446	Total Strontium (Sr)	2013/07/05	NC	75 - 125	94	75 - 125	<0.10	mg/kg	3.3	35	95	70 - 130
6956446	Total Thallium (Tl)	2013/07/05	92	75 - 125	98	75 - 125	<0.050	mg/kg	NC	30	88	70 - 130
6956446	Total Tin (Sn)	2013/07/05	NC	75 - 125	95	75 - 125	<0.10	mg/kg	4.6	35		
6956446	Total Titanium (Ti)	2013/07/05	NC	75 - 125	95	75 - 125	<1.0	mg/kg	9.8	35	97	70 - 130
6956446	Total Uranium (U)	2013/07/05	97	75 - 125	98	75 - 125	<0.050	mg/kg	5.8	30	93	70 - 130
6956446	Total Vanadium (V)	2013/07/05	NC	75 - 125	94	75 - 125	<2.0	mg/kg	7.3	30	97	70 - 130
6956446	Total Zinc (Zn)	2013/07/05	NC	75 - 125	102	75 - 125	<1.0	mg/kg	10.3	30	89	70 - 130
6956446	Total Aluminum (Al)	2013/07/05					<100	mg/kg	10.2	35	96	70 - 130
6956446	Total Calcium (Ca)	2013/07/05					<100	mg/kg	9.1	30	93	70 - 130
6956446	Total Iron (Fe)	2013/07/05					<100	mg/kg	5.8	30	91	70 - 130
6956446	Total Magnesium (Mg)	2013/07/05					<100	mg/kg	7.8	30	89	70 - 130
6956446	Total Phosphorus (P)	2013/07/05					<10	mg/kg	4.8	30	88	70 - 130

Maxxam

Maxxam Job #: B355415
Report Date: 2013/08/02

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6956446	Total Bismuth (Bi)	2013/07/05					<0.10	mg/kg	NC	30		
6956446	Total Potassium (K)	2013/07/05					<100	mg/kg	9.5	35		
6956446	Total Sodium (Na)	2013/07/05					<100	mg/kg	NC	35		
6956446	Total Zirconium (Zr)	2013/07/05					<0.50	mg/kg	3.6	30		
6956450	Soluble (2:1) pH	2013/07/05			100	97 - 103			0.7	20		
6957545	D10-ANTHRACENE (sur.)	2013/07/05			93	60 - 130	101	%				
6957545	D8-ACENAPHTHYLENE (sur.)	2013/07/05			91	50 - 130	96	%				
6957545	D8-NAPHTHALENE (sur.)	2013/07/05			91	50 - 130	98	%				
6957545	TERPHENYL-D14 (sur.)	2013/07/05			101	60 - 130	109	%				
6957545	Naphthalene	2013/07/05			90	50 - 130	<0.010	mg/kg				
6957545	2-Methylnaphthalene	2013/07/05			93	50 - 130	<0.020	mg/kg				
6957545	Acenaphthylene	2013/07/05			89	50 - 130	<0.0050	mg/kg				
6957545	Acenaphthene	2013/07/05			90	50 - 130	<0.0050	mg/kg				
6957545	Fluorene	2013/07/05			90	50 - 130	<0.020	mg/kg				
6957545	Phenanthrene	2013/07/05			88	60 - 130	<0.020	mg/kg				
6957545	Anthracene	2013/07/05			94	60 - 130	<0.0040	mg/kg				
6957545	Fluoranthene	2013/07/05			92	60 - 130	<0.020	mg/kg				
6957545	Pyrene	2013/07/05			95	60 - 130	<0.020	mg/kg				
6957545	Benzo(a)anthracene	2013/07/05			88	60 - 130	<0.020	mg/kg				
6957545	Chrysene	2013/07/05			90	60 - 130	<0.020	mg/kg				
6957545	Benzo(b&j)fluoranthene	2013/07/05			88	60 - 130	<0.020	mg/kg				
6957545	Benzo(k)fluoranthene	2013/07/05			92	60 - 130	<0.020	mg/kg				
6957545	Benzo(a)pyrene	2013/07/05			95	60 - 130	<0.020	mg/kg				
6957545	Indeno(1,2,3-cd)pyrene	2013/07/05			91	60 - 130	<0.050	mg/kg				
6957545	Dibenz(a,h)anthracene	2013/07/05			86	60 - 130	<0.050	mg/kg				
6957545	Benzo(g,h,i)perylene	2013/07/05			86	60 - 130	<0.050	mg/kg				
6959390	Total Antimony (Sb)	2013/07/09	89	75 - 125	94	75 - 125	<0.10	mg/kg			88	70 - 130
6959390	Total Arsenic (As)	2013/07/09	94	75 - 125	97	75 - 125	<0.50	mg/kg			95	70 - 130
6959390	Total Barium (Ba)	2013/07/09	NC	75 - 125	102	75 - 125	<0.10	mg/kg			99	70 - 130
6959390	Total Beryllium (Be)	2013/07/09	97	75 - 125	103	75 - 125	<0.40	mg/kg				
6959390	Total Cadmium (Cd)	2013/07/09	96	75 - 125	100	75 - 125	<0.050	mg/kg			89	70 - 130
6959390	Total Chromium (Cr)	2013/07/09	NC	75 - 125	101	75 - 125	<1.0	mg/kg			104	70 - 130
6959390	Total Cobalt (Co)	2013/07/09	97	75 - 125	102	75 - 125	<0.30	mg/kg			89	70 - 130
6959390	Total Copper (Cu)	2013/07/09	101	75 - 125	105	75 - 125	<0.50	mg/kg			87	70 - 130
6959390	Total Lead (Pb)	2013/07/09	104	75 - 125	100	75 - 125	<0.10	mg/kg	0.1	35	96	70 - 130
6959390	Total Lithium (Li)	2013/07/09	98	75 - 125	105	75 - 125	<5.0	mg/kg				
6959390	Total Manganese (Mn)	2013/07/09	NC	75 - 125	102	75 - 125	<0.20	mg/kg			96	70 - 130
6959390	Total Mercury (Hg)	2013/07/09	99	75 - 125	103	75 - 125	<0.050	mg/kg			102	70 - 130
6959390	Total Molybdenum (Mo)	2013/07/09	99	75 - 125	103	75 - 125	<0.10	mg/kg			110	70 - 130
6959390	Total Nickel (Ni)	2013/07/09	NC	75 - 125	103	75 - 125	<0.80	mg/kg			88	70 - 130

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Success Through Sciences

Maxxam Job #: B355415
Report Date: 2013/08/02

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6959390	Total Selenium (Se)	2013/07/09	97	75 - 125	104	75 - 125	<0.50	mg/kg				
6959390	Total Silver (Ag)	2013/07/09	92	75 - 125	96	75 - 125	<0.050	mg/kg				
6959390	Total Strontium (Sr)	2013/07/09	98	75 - 125	99	75 - 125	<0.10	mg/kg			94	70 - 130
6959390	Total Thallium (Tl)	2013/07/09	96	75 - 125	95	75 - 125	<0.050	mg/kg			96	70 - 130
6959390	Total Tin (Sn)	2013/07/09	94	75 - 125	99	75 - 125	<0.10	mg/kg				
6959390	Total Titanium (Ti)	2013/07/09	NC	75 - 125	103	75 - 125	<1.0	mg/kg			98	70 - 130
6959390	Total Uranium (U)	2013/07/09	100	75 - 125	101	75 - 125	<0.050	mg/kg			91	70 - 130
6959390	Total Vanadium (V)	2013/07/09	NC	75 - 125	100	75 - 125	<2.0	mg/kg			95	70 - 130
6959390	Total Zinc (Zn)	2013/07/09	NC	75 - 125	104	75 - 125	<1.0	mg/kg			86	70 - 130
6959390	Total Aluminum (Al)	2013/07/09					<100	mg/kg			104	70 - 130
6959390	Total Calcium (Ca)	2013/07/09					<100	mg/kg			92	70 - 130
6959390	Total Iron (Fe)	2013/07/09					<100	mg/kg			90	70 - 130
6959390	Total Magnesium (Mg)	2013/07/09					<100	mg/kg			94	70 - 130
6959390	Total Phosphorus (P)	2013/07/09					<10	mg/kg			83	70 - 130
6959390	Total Bismuth (Bi)	2013/07/09					<0.10	mg/kg				
6959390	Total Potassium (K)	2013/07/09					<100	mg/kg				
6959390	Total Sodium (Na)	2013/07/09					<100	mg/kg				
6959390	Total Zirconium (Zr)	2013/07/09					<0.50	mg/kg				
6959392	Soluble (2:1) pH	2013/07/08			101	97 - 103			0.1	20		
7035518	Total Antimony (Sb)	2013/07/31	97	75 - 125	102	75 - 125	<0.10	mg/kg			91	70 - 130
7035518	Total Arsenic (As)	2013/07/31	108	75 - 125	102	75 - 125	<0.50	mg/kg			95	70 - 130
7035518	Total Barium (Ba)	2013/07/31	108	75 - 125	105	75 - 125	<0.10	mg/kg			97	70 - 130
7035518	Total Beryllium (Be)	2013/07/31	106	75 - 125	111	75 - 125	<0.40	mg/kg				
7035518	Total Cadmium (Cd)	2013/07/31	101	75 - 125	106	75 - 125	<0.050	mg/kg			100	70 - 130
7035518	Total Chromium (Cr)	2013/07/31	96	75 - 125	105	75 - 125	<1.0	mg/kg			100	70 - 130
7035518	Total Cobalt (Co)	2013/07/31	97	75 - 125	106	75 - 125	<0.30	mg/kg			88	70 - 130
7035518	Total Copper (Cu)	2013/07/31	103	75 - 125	109	75 - 125	<0.50	mg/kg			91	70 - 130
7035518	Total Lead (Pb)	2013/07/31	100	75 - 125	107	75 - 125	<0.10	mg/kg	6.0	35	95	70 - 130
7035518	Total Lithium (Li)	2013/07/31	107	75 - 125	107	75 - 125	<5.0	mg/kg				
7035518	Total Manganese (Mn)	2013/07/31	NC	75 - 125	107	75 - 125	<0.20	mg/kg			96	70 - 130
7035518	Total Mercury (Hg)	2013/07/31	98	75 - 125	103	75 - 125	<0.050	mg/kg			91	70 - 130
7035518	Total Molybdenum (Mo)	2013/07/31	112	75 - 125	100	75 - 125	<0.10	mg/kg			99	70 - 130
7035518	Total Nickel (Ni)	2013/07/31	100	75 - 125	104	75 - 125	<0.80	mg/kg			90	70 - 130
7035518	Total Selenium (Se)	2013/07/31	108	75 - 125	106	75 - 125	<0.50	mg/kg				
7035518	Total Silver (Ag)	2013/07/31	96	75 - 125	98	75 - 125	<0.050	mg/kg				
7035518	Total Strontium (Sr)	2013/07/31	NC	75 - 125	101	75 - 125	<0.10	mg/kg			93	70 - 130
7035518	Total Thallium (Tl)	2013/07/31	95	75 - 125	107	75 - 125	<0.050	mg/kg			90	70 - 130
7035518	Total Tin (Sn)	2013/07/31	98	75 - 125	101	75 - 125	<0.10	mg/kg				
7035518	Total Titanium (Ti)	2013/07/31	NC	75 - 125	99	75 - 125	<1.0	mg/kg			98	70 - 130
7035518	Total Uranium (U)	2013/07/31	102	75 - 125	108	75 - 125	<0.050	mg/kg			97	70 - 130

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B355415
Report Date: 2013/08/02

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7035518	Total Vanadium (V)	2013/07/31	105	75 - 125	104	75 - 125	<2.0	mg/kg			98	70 - 130
7035518	Total Zinc (Zn)	2013/07/31	95	75 - 125	112	75 - 125	<1.0	mg/kg			92	70 - 130
7035518	Total Aluminum (Al)	2013/07/31					<100	mg/kg			100	70 - 130
7035518	Total Calcium (Ca)	2013/07/31					<100	mg/kg			98	70 - 130
7035518	Total Iron (Fe)	2013/07/31					<100	mg/kg			98	70 - 130
7035518	Total Magnesium (Mg)	2013/07/31					<100	mg/kg			93	70 - 130
7035518	Total Phosphorus (P)	2013/07/31					<10	mg/kg			88	70 - 130
7035518	Total Bismuth (Bi)	2013/07/31					<0.10	mg/kg				
7035518	Total Potassium (K)	2013/07/31					<100	mg/kg				
7035518	Total Sodium (Na)	2013/07/31					<100	mg/kg				
7035518	Total Zirconium (Zr)	2013/07/31					<0.50	mg/kg				
7035532	Soluble (2:1) pH	2013/07/31			101	97 - 103			0	20		
7036432	Initial pH of Sample	2013/08/01					4.89, RDL=N/A	pH Units	1.2	20		
7036432	Final pH of Leachate	2013/08/01					4.89, RDL=N/A	pH Units	1.9	20		
7036432	pH of Leaching Fluid	2013/08/01					4.89, RDL=N/A	pH Units	0	20		
7036432	pH after HCl	2013/08/01							3.2	20		
7039492	LEACHATE Arsenic (As)	2013/08/01	109	75 - 125	104	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Beryllium (Be)	2013/08/01	101	75 - 125	99	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Cadmium (Cd)	2013/08/01	103	75 - 125	103	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Chromium (Cr)	2013/08/01	99	75 - 125	97	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Cobalt (Co)	2013/08/01	N/C*******	75 - 125	96	75 - 125	<0.10	mg/L	9.7	35		
7039492	LEACHATE Copper (Cu)	2013/08/01	97	75 - 125	99	75 - 125	<0.10	mg/L	4.1	35		
7039492	LEACHATE Lead (Pb)	2013/08/01	98	75 - 125	98	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Nickel (Ni)	2013/08/01	N/C*******	75 - 125	87	75 - 125	<0.10	mg/L	9.0	35		
7039492	LEACHATE Selenium (Se)	2013/08/01	114	75 - 125	110	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Uranium (U)	2013/08/01	99	75 - 125	97	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Vanadium (V)	2013/08/01	102	75 - 125	98	75 - 125	<0.10	mg/L	NC	35		
7039492	LEACHATE Zinc (Zn)	2013/08/01	N/C*******	75 - 125	106	75 - 125	<0.10	mg/L	5.7	35		
7039492	LEACHATE Antimony (Sb)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Barium (Ba)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Boron (B)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Iron (Fe)	2013/08/01					<0.50	mg/L	NC	35		
7039492	LEACHATE Mercury (Hg)	2013/08/01					<0.0020	mg/L	NC	35		
7039492	LEACHATE Molybdenum (Mo)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Silver (Ag)	2013/08/01					<0.10	mg/L	NC	35		

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Success Through Science®

Maxxam Job #: B355415
Report Date: 2013/08/02

STANTEC CONSULTING
Client Project #: 111440161
Site Location: CP WESTON
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7039492	LEACHATE Thallium (Tl)	2013/08/01					<0.10	mg/L	NC	35		
7039492	LEACHATE Zirconium (Zr)	2013/08/01					<0.10	mg/L	NC	35		

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 sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.
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 (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.

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel (204) 772-7276 Toll-free (800) 565-5565 Fax (204) 772-2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page 1 of 10

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#26732 STANTEC CONSULTING	Quotation #:	B30065	MAXXAM JOB #: 8355415	BOTTLE ORDER #: 433352
Contact Name:	Della Berwanger	Contact Name:	SCOTT COUGHTREY	P.O. #:			
Address:	2025 McCowan Road 2nd Floor, General Yard Offic	Address:	603-386 BROADWAY AVENUE	Project #:	111440161	CHAIN OF CUSTODY #: C#433352-01-01	PROJECT MANAGER: Janelle Kocran
	Scarborough ON M1S 5K3		WINNIPEG MB R3C 3R6	Project Name:	CP Weston		
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Site #:			
Email:	della_berwanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Sampled By:	BE, SR		

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

TURNAROUND TIME (TAT) REQUIRED:
PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: [X]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details

Job Specific Rush TAT (if applies to entire submission) [ ]
Date Required: ______ Time Required: ______
Rush Confirmation Number: ______ (call lab for #)

#	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y / N)	Metals Field Filtered ? (Y / N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	Hold					# of Bottles	Comments
1	GU4935	BH34 0-0.5	13/07/02	AM	S					✓	✓							3	
2	GU4936	BH34 0.5-1	|	|	|								✓					3	
3	GU4937	BH34 1-1.5	|	|	|					✓								3	
4	GU4938	BH34 1.5-2.25	|	|	|								✓					3	
5	GU4939	BH34 2.25-3	|	|	|								✓					3	
6	GU4940	BH38 0-0.5	|	|	|				✓	✓								3	
7	GU4941	BH38 0.5-1	|	|	|			✓		✓	✓							3	
8	GU4942	BH38 1-1.5	|	|	|								✓					3	
9	GU4943	BH38 1.5-2.25	|	|	|								✓					3	
10	GU4944	BH38 2.25-3	|	|	|								✓					3	

*RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
B. Bernard / B. Bernard	13/07/02	16:15	Eric Gracek	13/07/02	16:15		[ ]	17.6, 18.1, 21.4	[ ] Yes [ ] No

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Maxxam Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel (204) 772-7276 Toll-free (800) 665-8566 Fax (204) 772-2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#26732 STANTEC CONSULTING	Quotation #:	B30055	MAXXAM JOB #: B355415	BOTTLE ORDER #:
Contact Name:	Delta Benvanger	Contact Name:	SCOTT COUGHTREY	P.O. #:			
Address:	2025 McCowan Road 2nd Floor, General Yard Office	Address:	600-386 BROADWAY AVENUE	Project #:	111440181	CHAIN OF CUSTODY #: C4H0352-07-01	PROJECT MANAGER: Janella Kocner
	Scarborough ON M1S 5K3		WINNIPEG MB R3C 3R6	Project Name:			
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Site #:			
Email:	delta_benvanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Sampled By:	DS, SR		

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

ANALYSIS REQUESTED (Please be specific):

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: (will be applied if Rush TAT is not specified)* ☒
Standard TAT = 5-7 Working days for most tests
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: _____ Time Required: _____ ☐
Rush Confirmation Number: _____ (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y/N)	Metals Field Filtered ? (Y/N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Comm/Fine (75 micron)	TCLP Metals	Hold				# of Bottles	Comments
1	G44945	MW09 0-0.5	13/07/03	AM	S					✓							3	
2	G44946	MW09 0.5-1	"	"	"								✓				3	
3	G44947	MW09 1-1.5									✓						3	
4	G44948	MW09 1.5-2.25								✓							3	
5	G44949	MW09 2.25-3											✓				3	
6	G44950	MW09 3-3.75											✓				3	
7	G44951	MW09 3.75-4.5									✓						3	
8	G44952	MW09 4.5-5.25											✓				3	
9	G44953	MW09 5.25-6											✓				3	
10	G44954	BH37 0-0.5		PM						✓							3	

*RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted	Laboratory Use Only: Time Sensitive ☐	Temperature (°C) on Receipt: 12.6, 18.1, 21.4	Custody Seal Present on Cooler? ☐ Yes ☐ No
B. Bynd / B. Ezard	13/07/03		LHK Grgak	13/07/03	1615				

Maxxam

Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel (204) 772-7276 Toll-Free (800) 665-8566 Fax (204) 772-2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page 3 of 6

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#26732 STANTEC CONSULTING	Quotation #:	B30065	MAXXAM JOB #: B355415	BOTTLE ORDER #:
Contact Name:	Della Berwanger	Contact Name:	SCOTT COUGHTREY	P.O. #:			
Address:	2025 McCowan Road 2nd Floor, General Yard Offic	Address:	603-386 BROADWAY AVENUE	Project #:	111440181	CHAIN OF CUSTODY #:	PROJECT MANAGER:
	Scarborough ON M1S 5K3		WINNIPEG MB R3C 3R8	Project Name:	CP Watson		Janelle Kasham
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Site #:		C#403362-03-01	
Email:	della_berwanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Sampled By:	BE, SR		

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS:

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: (will be applied if Rush TAT is not specified) [X]
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) [ ]
Date Required: _____ Time Required: _____
Rush Confirmation Number: _____ (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water? (Y/N)	Metals Field Filtered? (Y/N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	Hold					# of Bottles	Comments
1	GU4955	BH37 0.5-1	13/07/02	PM	S								✓					3	
2	GU4956	BH37 1-1.5	"	"	"								✓					3	
3	GU4957	BH37 1.5-2.25	"	"	"					✓								3	
4	GU4958	BH37 2.25-3	"	"	"								✓					3	
5	GU4959	BH36 0-0.5	"	"	"					✓								3	
6	GU4960	BH36 0.5-1	"	"	"					✓								3	
7	GU4961	BH36 1-1.5	"	"	"								✓					3	
8	GU4962	BH36 1.5-2.25	"	"	"								✓					3	
9	GU4963	BH36 2.25-3	"	"	"								✓					3	
10	GU4964	BH35 0-0.5	"	"	"					✓								3	

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
B. Byard / B. Ezard	13/07/02	1615	LMK Crack	13/07/02	1615		[ ]	17.4, 18.1, 14.4	[ ] Yes [ ] No

White Maxxam Yellow Client

Maxxam — CHAIN OF CUSTODY RECORD

Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#26732 STANTEC CONSULTING	Quotation #:	B30065
Contact Name:	Delia Berwanger	Contact Name:	SCOTT COUGHTREY	P.O. #:	
Address:	2025 McCowan Road 2nd Floor, General Yard Offic	Address:	603-386 BROADWAY AVENUE	Project #:	111440181
	Scarborough ON M1S 5K3		WINNIPEG MB R3C 3R6	Project Name:	CP Weston
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Site #:	
Email:	delia_berwanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Sampled By:	BE, SR

Laboratory Use Only:

MAXXAM JOB #:	BOTTLE ORDER #:
B355415	[illegible]
CHAIN OF CUSTODY #:	PROJECT MANAGER:
C#433057-04-01	Janelle Kochan

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: [X]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) [ ]
Date Required: ______ Time Required: ______
Rush Confirmation Number: ______ (call lab for #)

ANALYSIS REQUESTED (Please be specific):

#	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y/N)	Metals Field Filtered ? (Y/N)	BTEX/F1-F4 In Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	Hbc					# of Bottles	Comments
1	GU4965	BH35 0.5-1	13/07/02	PM	S								✓					3	
2	GU4966	BH35 1-1.5								✓								3	
3	GU4967	BH35 1.5-2.25											✓					3	
4	GU4968	BH35 2.25-3											✓					3	
5	GU4969	MW08 0-0.5								✓								3	
6	GU4970	MW08 0.5-1											✓					3	
7	GU4971	MW08 1-1.5								✓								3	
8	GU4972	MW08 1.5-2.25											✓					3	
9	GU4973	MW08 2.25-3											✓					3	
10	GU4974	MW08 3-3.75											✓					3	

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted
B.Ezzard / B.Ezzard	13/07/02	16:15	[signature]	13/07/02	16:15	

Laboratory Use Only

Time Sensitive	Temperature (°C) on Receipt	Custody Seal intact on Cooler?
[ ]	17.6, 18.1, 21.4	[ ] Yes [ ] No

Maxxam Maxxam Analytics International Corporation o/a Maxxam Analytics

D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel:(204) 772-7276 Toll-free:(800) 665-8566 Fax:(204) 772-2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:	
Company Name	#10774 CANADIAN PACIFIC RAILWAY	Company Name	#26732 STANTEC CONSULTING	Quotation #	B30085
Contact Name	Delta Berwanger	Contact Name	SCOTT COUGHTREY	P.O. #	
Address	2025 McCowan Road 2nd Floor, General Yard Offc	Address	603-386 BROADWAY AVENUE	Project #	111440161
	Scarborough ON M1S 5K3		WINNIPEG MB R3C 3R6	Project Name	CP Weston
Phone	(416)297-3044 Fax: (416)297-3103	Phone	Fax	Site #	
Email	delta_berwanger@cpr.ca	Email	scott.coughtrey@stantec.com	Sampled By	SC, SR

Laboratory Use Only:

MAXXAM JOB #:	BOTTLE ORDER #:
B355415	403312
CHAIN OF CUSTODY #:	PROJECT MANAGER:
C#403352-05-01	Janelle Korban

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

ANALYSIS REQUESTED (Please be specific):

#	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y / N)	Metals Field Filtered ? (Y / N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	Hold				# of Bottles	Comments
1	G44975	MW08 3.75-4.5	13/07/02	PM	S				✓		✓						3	
2	G44976	MW08 4.5-5.25	|	|	|								✓				3	
3	G44977	MW08 5.25-6	|	|	|								✓				3	
4		BH34 0-0.5	|	|	|					✓							3	
5		BH34 0.5-1	|	|	|					✓							3	
6		BH34 1-1.5	|	|	|								✓				3	
7		BH34 1.5-2.25	|	|	|								✓				3	
8		BH34 2.25-3	|	|	|								✓				3	
9	G44978	BH33 0-0.5	|	|	|					✓							3	
10	G44979	BH33 0.5-1	|	|	|								✓				3	

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: X

(will be applied if Rush TAT is not specified)

Standard TAT = 5-7 Working days for most tests

Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details

Job Specific Rush TAT (if applies to entire submission) ☐

Date Required: ______ Time Required: ______

Rush Confirmation Number: ______ (call lab for #)

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
B. Eppard / B. Eppard	13/07/02	16:15	Luk Gragk	13/07/02	16:15		☐	17.6/15.1/2.14	☐ Yes ☐ No

Maxxam — Maxxam Analytics International Corporation o/a Maxxam Analytics

D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel:(204) 772-7276 Toll-free:(800) 665 8566 Fax:(204) 772-2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page 6 of 6

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#10774 CANADIAN PACIFIC RAILWAY	Company Name:	#26732 STANTEC CONSULTING	Quotation #:	B30065	MAXXAM JOB #:	BOTTLE ORDER #:
Contact Name:	Delta Berwanger	Contact Name:	SCOTT COUGHTREY	P.O. #:		B355415	
Address:	2025 McCowan Road 2nd Floor, General Yard Offic	Address:	603-386 BROADWAY AVENUE	Project #:	111440181	CHAIN OF CUSTODY #:	PROJECT MANAGER:
	Scarborough ON M1S 5K3		WINNIPEG MB R3C 3R8	Project Name:	CP Kenora		
Phone:	(416)297-3044 Fax: (416)297-3103	Phone:	Fax:	Site #:			Jonathan Kochan
Email:	delta_berwanger@cpr.ca	Email:	scott.coughtrey@stantec.com	Sampled By:	BG SR	CH-03352-06-01	

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS:

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: [X]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) [ ]
Date Required: ______ Time Required: ______
Rush Confirmation Number: ______ (call lab for #)

#	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y/N)	Metals Field Filtered ? (Y/N)	BTEX/F1-F4 in Soil	PAH in Soil by GC-MS	CCME Metals in Soil	PSA Coarse/Fine (75 micron)	TCLP Metals	Hold				# of Bottles	Comments
1	GU4980	BH33 ~~CS~~ 1-1.5	13/07/08	PM	S					✓							3	
2	GU4981	BH33 1.5-2.25	↓	↓	↓								✓				3	
3	GU4982	BH33 2.25-3	↓	↓	↓								✓				3	
4	GU4983	BH32 0-0.5	↓	↓	↓					✓							3	
5	GU4984	BH32 0.5-1	↓	↓	↓					✓							3	
6	GU4985	BH32 1-1.5	↓	↓	↓								✓				3	
7	GU4986	BH32 1.5-2.25	↓	↓	↓								✓				3	
8	GU4987	BH32 2.25-3	↓	↓	↓								✓				3	
9																		
10																		

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted	Laboratory Use Only		
							Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
B Gould R Ezard	13/07/08	16:15	MK Gracek	13/07/08	16:15		[ ]	17.6, 15.1, 21.4	[ ] Yes [ ] No

Maxxam

Success Through Science®

Your P.O. #: 16300R-20
Your Project #: 111440161
Site Location: CP WESTON WATER SAMPLING
Your C.O.C. #: 40549202

Attention: SCOTT COUGHTREY
STANTEC CONSULTING LTD
603-386 BROADWAY AVENUE
WINNIPEG, MB
CANADA R3C 3R6

Report Date: 2013/07/31

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B363703
Received: 2013/07/25, 08:00

Sample Matrix: Water
Samples Received: 13

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/F1 in Water by HS GC/MS	13	N/A	2013/07/25	WINSOP-00054 WINSOP-00055	EPA8260C/CCME PHCC
CCME Hydrocarbons (F2-F4 in water)	13	2013/07/25	2013/07/26	WINSOP-00056	CCME PHC-CWS
Hardness (calculated as CaCO3) (1)	13	N/A	2013/07/30	BBY7SOP-00002	EPA 6020A
Mercury (Dissolved) by CVAF (1)	13	N/A	2013/07/31	BBY7SOP-00015	EPA 245.7
Na, K, Ca, Mg, S by CRC ICPMS (diss.) (1)	13	N/A	2013/07/30	BBY7SOP-00002	EPA 6020A
Elements by CRC ICPMS (dissolved) (1)	10	N/A	2013/07/29	BBY7SOP-00002	EPA 6020A
Elements by CRC ICPMS (dissolved) (1)	3	N/A	2013/07/30	BBY7SOP-00002	EPA 6020A
PAH in Water by GC/MS (SIM) (1)	13	2013/07/26	2013/07/28	BBY8SOP-00021	EPA 8270D
Total LMW, HMW, Total PAH Calc (1)	13	N/A	2013/07/29	BBY WI-00033	BC MOE Lab Method
Filter and HNO3 Preserve for Metals (1)	13	N/A	2013/07/25	BBY6WI-00001	EPA 200.2

* Results relate only to the items tested.

(1) This test was performed by Maxxam Vancouver

Encryption Key

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

Janelle Kochan, B.Sc., Project Manager,
Email: JKochan@maxxam.ca
Phone# (204) 772-7276 Ext:2209

==========

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

Maxxam Job #: B363703
Report Date: 2013/07/31

STANTEC CONSULTING LTD
Client Project #: 111440161
Site Location: CP WESTON WATER SAMPLING
Your P.O. #: 16300R-20
Sampler Initials: BE

BTEX/F1-F4 IN WATER (WATER)

Maxxam ID		GZ8735	GZ8736	GZ8737	GZ8738	GZ8739	GZ8740	GZ8741		
Sampling Date		2013/07/24 16:03	2013/07/24 15:05	2013/07/24 17:40	2013/07/24 15:07	2013/07/24 17:27	2013/07/24 15:25	2013/07/24 14:50		
	UNITS	MW01	MW02	MW04	MW05	MW06	MW07	MW08	RDL	QC Batch
Ext. Pet. Hydrocarbon										
F2 (C10-C16 Hydrocarbons)	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7019992
F3 (C16-C34 Hydrocarbons)	mg/L	<0.15	0.28	0.67	<0.15	<0.15	0.41	<0.15	0.15	7019992
F4 (C34-C50 Hydrocarbons)	mg/L	<0.15	<0.15	0.44	<0.15	<0.15	<0.15	<0.15	0.15	7019992
Surrogate Recovery (%)										
O-TERPHENYL (sur.)	%	96	92	89	92	92	98	104	N/A	7019992
Volatiles										
Benzene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4	7019445
Toluene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4	7019445
Ethylbenzene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4	7019445
o-Xylene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4	7019445
m & p-Xylene	ug/L	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	0.8	7019445
Xylenes (Total)	ug/L	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	0.8	7019445
Methyl-tert-butylether (MTBE)	ug/L	<4	<4	<4	<4	<4	<4	<4	4	7019445
F1 (C6-C10) - BTEX	ug/L	<300	<300	<300	<300	<300	<300	<300	300	7019445
(C6-C10)	ug/L	<300	<300	<300	<300	<300	<300	<300	300	7019445
Surrogate Recovery (%)										
4-BROMOFLUOROBENZENE (sur.)	%	103	104	101	99	104	110	101	N/A	7019445
D4-1,2-DICHLOROETHANE (sur.)	%	107	118	117	112	96	117	118	N/A	7019445
D8-TOLUENE (sur.)	%	103	100	100	101	107	100	100	N/A	7019445

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Success Through Sciences

Maxxam Job #: B363703
Report Date: 2013/07/31

STANTEC CONSULTING LTD
Client Project #: 111440161
Site Location: CP WESTON WATER SAMPLING
Your P.O. #: 16300R-20
Sampler Initials: BE

BTEX/F1-F4 IN WATER (WATER)

Maxxam ID		GZ8742	GZ8743	GZ8744	GZ8745	GZ8746	GZ8747		
Sampling Date		2013/07/24 14:30	2013/07/24 15:52	2013/07/24 16:15	2013/07/24 16:39	2013/07/24 16:49	2013/07/24 16:15		
	UNITS	MW09	MW10	MW11	MW12	MW13	FIELD DUP	RDL	QC Batch
Ext. Pet. Hydrocarbon									
F2 (C10-C16 Hydrocarbons)	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7019992
F3 (C16-C34 Hydrocarbons)	mg/L	0.46	<0.15	0.73	0.22	0.72	<0.15	0.15	7019992
F4 (C34-C50 Hydrocarbons)	mg/L	0.24	2.0	0.83	2.0	0.54	4.3	0.15	7019992
Surrogate Recovery (%)									
O-TERPHENYL (sur.)	%	100	103	96	96	95	95	N/A	7019992
Volatiles									
Benzene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4	7019445
Toluene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4	7019445
Ethylbenzene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4	7019445
o-Xylene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4	7019445
m & p-Xylene	ug/L	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	0.8	7019445
Xylenes (Total)	ug/L	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	0.8	7019445
Methyl-tert-butylether (MTBE)	ug/L	<4	<4	<4	<4	<4	<4	4	7019445
F1 (C6-C10) - BTEX	ug/L	<300	<300	<300	<300	<300	<300	300	7019445
(C6-C10)	ug/L	<300	<300	<300	<300	<300	<300	300	7019445
Surrogate Recovery (%)									
4-BROMOFLUOROBENZENE (sur.)	%	108	97	102	111	105	93	N/A	7019445
D4-1,2-DICHLOROETHANE (sur.)	%	123	119	123	119	120	113	N/A	7019445
D8-TOLUENE (sur.)	%	100	100	99	101	101	104	N/A	7019445

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		GZ8735	GZ8736	GZ8737	GZ8738	GZ8739	GZ8740	GZ8741		
Sampling Date		2013/07/24 16:03	2013/07/24 15:05	2013/07/24 17:40	2013/07/24 15:07	2013/07/24 17:27	2013/07/24 15:25	2013/07/24 14:50		
	UNITS	MW01	MW02	MW04	MW05	MW06	MW07	MW08	RDL	QC Batch
Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD	FIELD	FIELD	FIELD	FIELD	FIELD	FIELD	N/A	ONSITE

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B363703
Report Date: 2013/07/31

STANTEC CONSULTING LTD
Client Project #: 111440161
Site Location: CP WESTON WATER SAMPLING
Your P.O. #: 16300R-20
Sampler Initials: BE

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		GZ8742	GZ8743	GZ8744	GZ8745	GZ8746	GZ8747		
Sampling Date		2013/07/24 14:30	2013/07/24 15:52	2013/07/24 16:15	2013/07/24 16:39	2013/07/24 16:49	2013/07/24 16:15		
	UNITS	**MW09**	**MW10**	**MW11**	**MW12**	**MW13**	**FIELD DUP**	**RDL**	**QC Batch**
Calculated Parameters									
Filter and HNO3 Preservation	N/A	FIELD	FIELD	FIELD	FIELD	FIELD	FIELD	N/A	ONSITE

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Success Through Science®

Maxxam Job #: B363703
Report Date: 2013/07/31

STANTEC CONSULTING LTD
Client Project #: 111440161
Site Location: CP WESTON WATER SAMPLING
Your P.O. #: 16300R-20
Sampler Initials: BE

CCME DISSOLVED METALS IN WATER (WATER)

Maxxam ID		GZ8735	GZ8735	GZ8736	GZ8737	GZ8738	GZ8739	GZ8740	GZ8741	GZ8742		
Sampling Date		2013/07/24 16:03	2013/07/24 16:03	2013/07/24 15:05	2013/07/24 17:40	2013/07/24 15:07	2013/07/24 17:27	2013/07/24 15:25	2013/07/24 14:50	2013/07/24 14:30		
	UNITS	**MW01**	**MW01 Lab-Dup**	**MW02**	**MW04**	**MW05**	**MW06**	**MW07**	**MW08**	**MW09**	**RDL**	**QC Batch**
Misc. Inorganics												
Dissolved Hardness (CaCO3)	mg/L	1700	N/A	2050	643	1730	786	1480	1880	1290	0.50	7019712
Elements												
Dissolved Mercury (Hg)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.069	0.035	<0.010	0.010	7035633

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B363703
Report Date: 2013/07/31

STANTEC CONSULTING LTD
Client Project #: 111440161
Site Location: CP WESTON WATER SAMPLING
Your P.O. #: 16300R-20
Sampler Initials: BE

CCME DISSOLVED METALS IN WATER (WATER)

Maxxam ID		GZ8735	GZ8735	GZ8736	GZ8737	GZ8738	GZ8739	GZ8740	GZ8741	GZ8742		
Sampling Date		2013/07/24 16:03	2013/07/24 16:03	2013/07/24 15:05	2013/07/24 17:40	2013/07/24 15:07	2013/07/24 17:27	2013/07/24 15:25	2013/07/24 14:50	2013/07/24 14:30		
	UNITS	MW01	MW01 Lab-Dup	MW02	MW04	MW05	MW06	MW07	MW08	MW09	RDL	QC Batch
Dissolved Metals by ICPMS												
Dissolved Aluminum (Al)	ug/L	8.5	N/A	6.9	6.3	4.3	8.0	5.8	6.5	11.0	3.0	7032188
Dissolved Antimony (Sb)	ug/L	<0.50	N/A	2.15	1.10	0.58	<0.50	36.9	28.9	1.45	0.50	7032188
Dissolved Arsenic (As)	ug/L	0.58	N/A	0.96	0.68	0.52	1.50	0.71	0.98	0.50	0.10	7032188
Dissolved Barium (Ba)	ug/L	20.3	N/A	26.8	35.9	22.0	71.2	58.4	34.6	37.0	1.0	7032188
Dissolved Beryllium (Be)	ug/L	<0.10	N/A	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7032188
Dissolved Bismuth (Bi)	ug/L	<1.0	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7032188
Dissolved Boron (B)	ug/L	828	N/A	877	3830	496	2010	3090	2930	1520	50	7032188
Dissolved Cadmium (Cd)	ug/L	0.075	N/A	0.025	0.184	0.090	0.015	3.29	0.183	0.115	0.010	7032188
Dissolved Chromium (Cr)	ug/L	<1.0	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7032188
Dissolved Cobalt (Co)	ug/L	<0.50	N/A	1.80	<0.50	0.67	1.21	2.49	<0.50	4.37	0.50	7032188
Dissolved Copper (Cu)	ug/L	5.02	N/A	1.60	18.5	2.88	0.74	82.0	29.7	6.01	0.20	7032188
Dissolved Iron (Fe)	ug/L	5.1	N/A	88.8	5.4	7.2	265	41.8	15.3	11.3	5.0	7032188
Dissolved Lead (Pb)	ug/L	0.29	N/A	0.42	1.11	<0.20	0.34	11.8	0.54	0.56	0.20	7032188
Dissolved Lithium (Li)	ug/L	253	N/A	269	194	263	130	198	255	258	5.0	7032188
Dissolved Manganese (Mn)	ug/L	99.5	N/A	269	32.7	249	443	729	45.9	517	1.0	7032188
Dissolved Molybdenum (Mo)	ug/L	9.1	N/A	8.7	11.2	6.8	10.8	3.2	8.8	8.2	1.0	7032188
Dissolved Nickel (Ni)	ug/L	6.4	N/A	5.4	6.3	7.8	5.5	24.7	10.8	20.4	1.0	7032188
Dissolved Selenium (Se)	ug/L	0.22	N/A	0.29	2.44	<0.10	<0.10	1.06	2.47	0.46	0.10	7032188
Dissolved Silicon (Si)	ug/L	9060	N/A	3990	3390	7940	4240	9110	10100	7490	100	7032188
Dissolved Silver (Ag)	ug/L	0.049	N/A	0.046	0.032	0.024	0.028	0.029	0.021	<0.020	0.020	7032188
Dissolved Strontium (Sr)	ug/L	1510	N/A	1390	1220	1610	1570	1870	2520	1130	1.0	7032188
Dissolved Thallium (Tl)	ug/L	<0.050	N/A	<0.050	<0.050	<0.050	<0.050	0.224	0.138	<0.050	0.050	7032188
Dissolved Tin (Sn)	ug/L	<5.0	N/A	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	7032188
Dissolved Titanium (Ti)	ug/L	<5.0	N/A	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	7032188
Dissolved Uranium (U)	ug/L	40.9	N/A	68.7	20.8	41.6	3.45	8.85	30.3	20.0	0.10	7032188
Dissolved Vanadium (V)	ug/L	<5.0	N/A	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	7032188
Dissolved Zinc (Zn)	ug/L	474	N/A	44.1	517	17.0	16.2	603	68.9	54.3	5.0	7032188
Dissolved Zirconium (Zr)	ug/L	0.71	N/A	1.33	<0.50	1.14	<0.50	<0.50	1.26	1.01	0.50	7032188
Dissolved Calcium (Ca)	mg/L	204	N/A	196	105	202	107	260	294	262	0.050	7019713
Dissolved Magnesium (Mg)	mg/L	290	N/A	378	92.5	296	126	203	277	155	0.050	7019713
Dissolved Potassium (K)	mg/L	6.97	N/A	27.0	54.7	14.6	35.8	46.8	32.7	14.9	0.050	7019713
Dissolved Sodium (Na)	mg/L	244	N/A	280	286	228	222	203	225	185	0.050	7019713
Dissolved Sulphur (S)	mg/L	444	N/A	608	258	391	190	288	531	307	3.0	7019713

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam Job #: B363703
Report Date: 2013/07/31

STANTEC CONSULTING LTD
Client Project #: 111440161
Site Location: CP WESTON WATER SAMPLING
Your P.O. #: 16300R-20
Sampler Initials: BE

CCME DISSOLVED METALS IN WATER (WATER)

Maxxam ID		GZ8743	GZ8744	GZ8745		GZ8746		GZ8747		
Sampling Date		2013/07/24 15:52	2013/07/24 16:15	2013/07/24 16:39		2013/07/24 16:49		2013/07/24 16:15		
	UNITS	MW10	MW11	MW12	RDL	MW13	RDL	FIELD DUP	RDL	QC Batch
Misc. Inorganics										
Dissolved Hardness (CaCO3)	mg/L	1110	1650	2790	0.50	4620	0.50	1630	0.50	7019712
Elements										
Dissolved Mercury (Hg)	ug/L	<0.010	<0.010	<0.010	0.010	<0.010	0.010	<0.010	0.010	7035633

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B363703
Report Date: 2013/07/31

STANTEC CONSULTING LTD
Client Project #: 111440161
Site Location: CP WESTON WATER SAMPLING
Your P.O. #: 16300R-20
Sampler Initials: BE

CCME DISSOLVED METALS IN WATER (WATER)

Maxxam ID		GZ8743	GZ8744	GZ8745		GZ8746		GZ8747		
Sampling Date		2013/07/24 15:52	2013/07/24 16:15	2013/07/24 16:39		2013/07/24 16:49		2013/07/24 16:15		
	UNITS	MW10	MW11	MW12	RDL	MW13	RDL	FIELD DUP	RDL	QC Batch
Dissolved Metals by ICPMS										
Dissolved Aluminum (Al)	ug/L	7.2	5.8	4.6	3.0	8.7	6.0	5.7	3.0	7032188
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	<0.50	0.50	13.2	1.0	0.53	0.50	7032188
Dissolved Arsenic (As)	ug/L	2.16	1.76	0.87	0.10	1.34	0.20	1.81	0.10	7032188
Dissolved Barium (Ba)	ug/L	49.6	25.5	19.5	1.0	49.1	2.0	25.2	1.0	7032188
Dissolved Beryllium (Be)	ug/L	<0.10	<0.10	<0.10	0.10	<0.20	0.20	<0.10	0.10	7032188
Dissolved Bismuth (Bi)	ug/L	<1.0	<1.0	<1.0	1.0	<2.0	2.0	<1.0	1.0	7032188
Dissolved Boron (B)	ug/L	234	2170	230	50	7250	100	2220	50	7032188
Dissolved Cadmium (Cd)	ug/L	0.020	0.037	0.118	0.010	1.18	0.020	0.039	0.010	7032188
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	1.0	<2.0	2.0	<1.0	1.0	7032188
Dissolved Cobalt (Co)	ug/L	2.51	1.44	2.58	0.50	1.7	1.0	1.59	0.50	7032188
Dissolved Copper (Cu)	ug/L	1.14	3.00	2.65	0.20	33.9	0.40	3.02	0.20	7032188
Dissolved Iron (Fe)	ug/L	47.4	15.6	6.3	5.0	14	10	15.1	5.0	7032188
Dissolved Lead (Pb)	ug/L	0.57	0.32	1.25	0.20	1.70	0.40	0.37	0.20	7032188
Dissolved Lithium (Li)	ug/L	174	199	238	5.0	493	10	210	5.0	7032188
Dissolved Manganese (Mn)	ug/L	1210	324	958	1.0	501	2.0	313	1.0	7032188
Dissolved Molybdenum (Mo)	ug/L	3.2	4.1	6.2	1.0	8.9	2.0	4.3	1.0	7032188
Dissolved Nickel (Ni)	ug/L	9.3	8.5	21.5	1.0	26.7	2.0	9.3	1.0	7032188
Dissolved Selenium (Se)	ug/L	<0.10	<0.10	0.11	0.10	1.47	0.20	0.16	0.10	7032188
Dissolved Silicon (Si)	ug/L	5940	11900	8820	100	9180	200	11500	100	7032188
Dissolved Silver (Ag)	ug/L	<0.020	<0.020	<0.020	0.020	0.059	0.040	<0.020	0.020	7032188
Dissolved Strontium (Sr)	ug/L	952	1410	1930	1.0	5150	2.0	1370	1.0	7032188
Dissolved Thallium (Tl)	ug/L	<0.050	<0.050	<0.050	0.050	0.24	0.10	<0.050	0.050	7032188
Dissolved Tin (Sn)	ug/L	<5.0	<5.0	<5.0	5.0	<10	10	<5.0	5.0	7032188
Dissolved Titanium (Ti)	ug/L	<5.0	<5.0	<5.0	5.0	<10	10	<5.0	5.0	7032188
Dissolved Uranium (U)	ug/L	17.3	25.7	21.5	0.10	32.2	0.20	25.3	0.10	7032188
Dissolved Vanadium (V)	ug/L	<5.0	<5.0	<5.0	5.0	<10	10	<5.0	5.0	7032188
Dissolved Zinc (Zn)	ug/L	35.1	88.8	40.8	5.0	211	10	92.6	5.0	7032188
Dissolved Zirconium (Zr)	ug/L	1.63	1.25	1.67	0.50	2.2	1.0	1.53	0.50	7032188
Dissolved Calcium (Ca)	mg/L	120	190	401	0.050	544	0.10	188	0.050	7019713
Dissolved Magnesium (Mg)	mg/L	198	286	434	0.050	793	0.10	282	0.050	7019713
Dissolved Potassium (K)	mg/L	1.68	18.2	5.55	0.050	203	0.10	17.1	0.050	7019713
Dissolved Sodium (Na)	mg/L	190	285	276	0.050	1350	0.10	280	0.050	7019713
Dissolved Sulphur (S)	mg/L	139	423	672	3.0	1460	6.0	388	3.0	7019713

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam Job #: B363703
Report Date: 2013/07/31

STANTEC CONSULTING LTD
Client Project #: 111440161
Site Location: CP WESTON WATER SAMPLING
Your P.O. #: 16300R-20
Sampler Initials: BE

CCME PAH IN WATER BY GC-MS (WATER)

Maxxam ID		GZ8735	GZ8736	GZ8737	GZ8738	GZ8739	GZ8740	GZ8741		
Sampling Date		2013/07/24 16:03	2013/07/24 15:05	2013/07/24 17:40	2013/07/24 15:07	2013/07/24 17:27	2013/07/24 15:25	2013/07/24 14:50		
	UNITS	MW01	MW02	MW04	MW05	MW06	MW07	MW08	RDL	QC Batch
Polycyclic Aromatics										
Low Molecular Weight PAH's	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.93	<0.50	0.50	7019714
High Molecular Weight PAH's	ug/L	<0.050	<0.050	<0.050	<0.050	0.45	0.15	<0.050	0.050	7019714
Total PAH	ug/L	<0.50	<0.50	<0.50	<0.50	0.76	1.1	<0.50	0.50	7019714
Naphthalene	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.46	0.11	0.10	7027035
2-Methylnaphthalene	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7027035
Quinoline	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7027035
Acenaphthylene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7027035
Acenaphthene	ug/L	<0.050	<0.050	<0.050	<0.050	0.068	0.14	<0.050	0.050	7027035
Fluorene	ug/L	<0.050	<0.050	<0.050	<0.050	0.089	0.10	<0.050	0.050	7027035
Phenanthrene	ug/L	<0.050	<0.050	<0.050	<0.050	0.10	0.20	0.056	0.050	7027035
Anthracene	ug/L	<0.010	0.013	<0.010	<0.010	0.049	0.039	<0.010	0.010	7027035
Acridine	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7027035
Fluoranthene	ug/L	<0.020	0.027	<0.020	<0.020	0.17	0.081	0.023	0.020	7027035
Pyrene	ug/L	<0.020	<0.020	<0.020	<0.020	0.17	0.066	0.020	0.020	7027035
Benzo(a)anthracene	ug/L	<0.010	<0.010	<0.010	<0.010	0.032	<0.010	<0.010	0.010	7027035
Chrysene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7027035
Benzo(b&j)fluoranthene	ug/L	<0.050	<0.050	<0.050	<0.050	0.051	<0.050	<0.050	0.050	7027035
Benzo(k)fluoranthene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7027035
Benzo(a)pyrene	ug/L	<0.0090	<0.0090	<0.0090	<0.0090	0.030	<0.0090	<0.0090	0.0090	7027035
Indeno(1,2,3-cd)pyrene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7027035
Dibenz(a,h)anthracene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7027035
Benzo(g,h,i)perylene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7027035
Surrogate Recovery (%)										
D10-ANTHRACENE (sur.)	%	109	109	114	108	112	104	106	N/A	7027035
D8-ACENAPHTHYLENE (sur.)	%	108	106	111	103	112	106	104	N/A	7027035
D8-NAPHTHALENE (sur.)	%	119	118	111	95	101	113	101	N/A	7027035
D9-Acridine	%	79	76	82	72	67	81	75	N/A	7027035
TERPHENYL-D14 (sur.)	%	88	82	81	91	76	68	70	N/A	7027035

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam

Maxxam Job #: B363703
Report Date: 2013/07/31

STANTEC CONSULTING LTD
Client Project #: 111440161
Site Location: CP WESTON WATER SAMPLING
Your P.O. #: 16300R-20
Sampler Initials: BE

CCME PAH IN WATER BY GC-MS (WATER)

Maxxam ID		GZ8742	GZ8743	GZ8744	GZ8745	GZ8746	GZ8747		
Sampling Date		2013/07/24 14:30	2013/07/24 15:52	2013/07/24 16:15	2013/07/24 16:39	2013/07/24 16:49	2013/07/24 16:15		
	UNITS	MW09	MW10	MW11	MW12	MW13	FIELD DUP	RDL	QC Batch
Polycyclic Aromatics									
Low Molecular Weight PAH's	ug/L	<0.50	0.91	<0.50	<0.50	<0.50	<0.50	0.50	7019714
High Molecular Weight PAH's	ug/L	0.16	0.75	0.21	<0.050	<0.050	0.21	0.050	7019714
Total PAH	ug/L	<0.50	1.7	<0.50	<0.50	<0.50	<0.50	0.50	7019714
Naphthalene	ug/L	<0.10	0.35	<0.10	<0.10	<0.10	<0.10	0.10	7027035
2-Methylnaphthalene	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7027035
Quinoline	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7027035
Acenaphthylene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7027035
Acenaphthene	ug/L	<0.050	0.079	<0.050	<0.050	<0.050	<0.050	0.050	7027035
Fluorene	ug/L	<0.050	0.12	<0.050	<0.050	<0.050	<0.050	0.050	7027035
Phenanthrene	ug/L	0.053	0.28	0.096	<0.050	<0.050	0.084	0.050	7027035
Anthracene	ug/L	0.010	0.079	0.030	<0.010	<0.010	0.014	0.010	7027035
Acridine	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7027035
Fluoranthene	ug/L	0.062	0.25	0.11	<0.020	<0.020	0.10	0.020	7027035
Pyrene	ug/L	0.060	0.22	0.079	<0.020	<0.020	0.080	0.020	7027035
Benzo(a)anthracene	ug/L	0.021	0.068	0.016	<0.010	<0.010	0.015	0.010	7027035
Chrysene	ug/L	<0.050	0.081	<0.050	<0.050	<0.050	<0.050	0.050	7027035
Benzo(b&j)fluoranthene	ug/L	<0.050	0.071	<0.050	<0.050	<0.050	<0.050	0.050	7027035
Benzo(k)fluoranthene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7027035
Benzo(a)pyrene	ug/L	0.018	0.052	0.011	<0.0090	<0.0090	0.014	0.0090	7027035
Indeno(1,2,3-cd)pyrene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7027035
Dibenz(a,h)anthracene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7027035
Benzo(g,h,i)perylene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7027035
Surrogate Recovery (%)									
D10-ANTHRACENE (sur.)	%	103	113	111	107	104	107	N/A	7027035
D8-ACENAPHTHYLENE (sur.)	%	100	110	110	105	106	105	N/A	7027035
D8-NAPHTHALENE (sur.)	%	93	106	105	97	116	107	N/A	7027035
D9-Acridine	%	66	78	76	69	65	74	N/A	7027035
TERPHENYL-D14 (sur.)	%	82	88	93	88	64	83	N/A	7027035

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363703
Report Date: 2013/07/31

STANTEC CONSULTING LTD
Client Project #: 111440161
Site Location: CP WESTON WATER SAMPLING
Your P.O. #: 16300R-20
Sampler Initials: BE

Package 1	6.5°C

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

CCME DISSOLVED METALS IN WATER (WATER) Comments

Sample GZ8746-04 Elements by CRC ICPMS (dissolved): Detection limits raised due to matrix interference.

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Job #: B363703
Report Date: 2013/07/31

STANTEC CONSULTING LTD
Client Project #: 111440161
Site Location: CP WESTON WATER SAMPLING
Your P.O. #: 16300R-20
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7019445	4-BROMOFLUOROBENZENE (sur.)	2013/07/25	96	60 - 140	107	60 - 140	102	%		
7019445	D4-1,2-DICHLOROETHANE (sur.)	2013/07/25	115	60 - 140	106	60 - 140	112	%		
7019445	D8-TOLUENE (sur.)	2013/07/25	100	60 - 140	98	60 - 140	104	%		
7019445	Benzene	2013/07/25	NC	70 - 130	90	70 - 130	<0.4	ug/L	NC	40
7019445	Toluene	2013/07/25	90	70 - 130	89	70 - 130	<0.4	ug/L	NC	40
7019445	Ethylbenzene	2013/07/25	93	70 - 130	97	70 - 130	<0.4	ug/L	NC	40
7019445	o-Xylene	2013/07/25	100	70 - 130	101	70 - 130	<0.4	ug/L	NC	40
7019445	m & p-Xylene	2013/07/25	97	70 - 130	99	70 - 130	<0.8	ug/L	NC	40
7019445	Methyl-tert-butylether(MTBE)	2013/07/25	108	70 - 130	100	70 - 130	<4	ug/L	NC	40
7019445	(C6-C10)	2013/07/25	77	70 - 130	97	70 - 130	<300	ug/L	NC	40
7019445	Xylenes (Total)	2013/07/25					<0.8	ug/L	NC	40
7019445	F1 (C6-C10) - BTEX	2013/07/25					<300	ug/L	NC	40
7019992	O-TERPHENYL (sur.)	2013/07/26	90	50 - 130	89	50 - 130	104	%		
7019992	F2 (C10-C16 Hydrocarbons)	2013/07/26	NC	50 - 130	89	70 - 130	<0.15	mg/L	NC	40
7019992	F3 (C16-C34 Hydrocarbons)	2013/07/26	101	50 - 130	91	70 - 130	<0.15	mg/L	NC	40
7019992	F4 (C34-C50 Hydrocarbons)	2013/07/26	103	50 - 130	91	70 - 130	<0.15	mg/L	NC	40
7027035	D10-ANTHRACENE (sur.)	2013/07/28	120	60 - 130	119	60 - 130	114	%		
7027035	D8-ACENAPHTHYLENE (sur.)	2013/07/28	115	50 - 130	115	50 - 130	109	%		
7027035	D8-NAPHTHALENE (sur.)	2013/07/28	121	50 - 130	128	50 - 130	106	%		
7027035	D9-Acridine	2013/07/28	91	50 - 130	92	50 - 130	85	%		
7027035	TERPHENYL-D14 (sur.)	2013/07/28	88	60 - 130	109	60 - 130	99	%		
7027035	Naphthalene	2013/07/28	101	50 - 130	108	50 - 130	<0.10	ug/L	NC	40
7027035	2-Methylnaphthalene	2013/07/28	127	50 - 130	133(1)	50 - 130	<0.10	ug/L	NC	40
7027035	Quinoline	2013/07/28	131(1)	50 - 130	129	50 - 130	<0.50	ug/L	NC	40
7027035	Acenaphthylene	2013/07/28	103	50 - 130	100	50 - 130	<0.050	ug/L	NC	40
7027035	Acenaphthene	2013/07/28	106	50 - 130	101	50 - 130	<0.050	ug/L	NC	40
7027035	Fluorene	2013/07/28	111	50 - 130	102	50 - 130	<0.050	ug/L	NC	40
7027035	Phenanthrene	2013/07/28	97	60 - 130	95	60 - 130	<0.050	ug/L	NC	40
7027035	Anthracene	2013/07/28	108	60 - 130	102	60 - 130	<0.010	ug/L	NC	40
7027035	Acridine	2013/07/28	105	50 - 130	104	50 - 130	<0.050	ug/L	NC	40
7027035	Fluoranthene	2013/07/28	94	60 - 130	92	60 - 130	<0.020	ug/L	NC	40
7027035	Pyrene	2013/07/28	98	60 - 130	97	60 - 130	<0.020	ug/L	NC	40
7027035	Benzo(a)anthracene	2013/07/28	90	60 - 130	89	60 - 130	<0.010	ug/L	NC	40
7027035	Chrysene	2013/07/28	94	60 - 130	93	60 - 130	<0.050	ug/L	NC	40
7027035	Benzo(b&j)fluoranthene	2013/07/28	97	60 - 130	97	60 - 130	<0.050	ug/L	NC	40
7027035	Benzo(k)fluoranthene	2013/07/28	95	60 - 130	94	60 - 130	<0.050	ug/L	NC	40
7027035	Benzo(a)pyrene	2013/07/28	100	60 - 130	100	60 - 130	<0.0090	ug/L	NC	40
7027035	Indeno(1,2,3-cd)pyrene	2013/07/28	96	60 - 130	97	60 - 130	<0.050	ug/L	NC	40
7027035	Dibenz(a,h)anthracene	2013/07/28	87	60 - 130	88	60 - 130	<0.050	ug/L	NC	40

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Success Through Sciences

Maxxam Job #: B363703
Report Date: 2013/07/31

STANTEC CONSULTING LTD
Client Project #: 111440161
Site Location: CP WESTON WATER SAMPLING
Your P.O. #: 16300R-20
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7027035	Benzo(g,h,i)perylene	2013/07/28	94	60 - 130	94	60 - 130	<0.050	ug/L	NC	40
7032188	Dissolved Aluminum (Al)	2013/07/29	NC	80 - 120	112	80 - 120	<3.0	ug/L	2.4	20
7032188	Dissolved Antimony (Sb)	2013/07/29	99	80 - 120	104	80 - 120	<0.50	ug/L	NC	20
7032188	Dissolved Arsenic (As)	2013/07/29	103	80 - 120	101	80 - 120	<0.10	ug/L	NC	20
7032188	Dissolved Barium (Ba)	2013/07/29	NC	80 - 120	105	80 - 120	<1.0	ug/L	1.2	20
7032188	Dissolved Beryllium (Be)	2013/07/29	98	80 - 120	100	80 - 120	<0.10	ug/L	NC	20
7032188	Dissolved Bismuth (Bi)	2013/07/29	102	80 - 120	112	80 - 120	<1.0	ug/L	NC	20
7032188	Dissolved Cadmium (Cd)	2013/07/29	101	80 - 120	104	80 - 120	<0.010	ug/L	NC	20
7032188	Dissolved Chromium (Cr)	2013/07/29	104	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
7032188	Dissolved Cobalt (Co)	2013/07/29	104	80 - 120	101	80 - 120	<0.50	ug/L	NC	20
7032188	Dissolved Copper (Cu)	2013/07/29	102	80 - 120	98	80 - 120	<0.20	ug/L	4.1	20
7032188	Dissolved Iron (Fe)	2013/07/29	NC	80 - 120	108	80 - 120	<5.0	ug/L	6.5	20
7032188	Dissolved Lead (Pb)	2013/07/29	103	80 - 120	108	80 - 120	<0.20	ug/L	NC	20
7032188	Dissolved Lithium (Li)	2013/07/29	94	80 - 120	100	80 - 120	<5.0	ug/L	NC	20
7032188	Dissolved Manganese (Mn)	2013/07/29	NC	80 - 120	101	80 - 120	<1.0	ug/L	4.9	20
7032188	Dissolved Molybdenum (Mo)	2013/07/29	102	80 - 120	101	80 - 120	<1.0	ug/L	NC	20
7032188	Dissolved Nickel (Ni)	2013/07/29	103	80 - 120	102	80 - 120	<1.0	ug/L	NC	20
7032188	Dissolved Selenium (Se)	2013/07/29	110	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
7032188	Dissolved Silver (Ag)	2013/07/29	87	80 - 120	90	80 - 120	<0.020	ug/L	NC	20
7032188	Dissolved Strontium (Sr)	2013/07/29	NC	80 - 120	100	80 - 120	<1.0	ug/L	3.9	20
7032188	Dissolved Thallium (Tl)	2013/07/29	98	80 - 120	106	80 - 120	<0.050	ug/L	NC	20
7032188	Dissolved Tin (Sn)	2013/07/29	87	80 - 120	106	80 - 120	<5.0	ug/L	NC	20
7032188	Dissolved Titanium (Ti)	2013/07/29	115	80 - 120	109	80 - 120	<5.0	ug/L	NC	20
7032188	Dissolved Uranium (U)	2013/07/29	110	80 - 120	111	80 - 120	<0.10	ug/L	NC	20
7032188	Dissolved Vanadium (V)	2013/07/29	109	80 - 120	102	80 - 120	<5.0	ug/L	NC	20
7032188	Dissolved Zinc (Zn)	2013/07/29	NC	80 - 120	103	80 - 120	<5.0	ug/L	NC	20
7032188	Dissolved Boron (B)	2013/07/29					<50	ug/L	NC	20
7032188	Dissolved Silicon (Si)	2013/07/29					<100	ug/L	7.1	20

Maxxam

Maxxam Job #: B363703
Report Date: 2013/07/31

STANTEC CONSULTING LTD
Client Project #: 111440161
Site Location: CP WESTON WATER SAMPLING
Your P.O. #: 16300R-20
Sampler Initials: BE

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7032188	Dissolved Zirconium (Zr)	2013/07/29					<0.50	ug/L	NC	20
7035633	Dissolved Mercury (Hg)	2013/07/31	92	80 - 120	98	80 - 120	<0.010	ug/L	NC	20

N/A = Not Applicable
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.
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 (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.

Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

Maxxam

Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel:(204) 772-2386 Toll-free:(800) 665 8566 Fax:(204) 772 2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:

Company Name:	#4140 STANTEC CONSULTING LTD
Contact Name:	SCOTT COUGHTREY C/O AP
Address:	603-386 BROADWAY AVENUE
	WINNIPEG MB R3C 3R6
Phone:	(204)475-9966 Fax:
Email:	stantec.accounts.payable.invoices@stantec.com

REPORT INFORMATION (if differs from invoice):

Company Name:	#7087 STANTEC CONSULTING LTD
Contact Name:	SCOTT COUGHTREY
Address:	603-386 BROADWAY AVENUE
	WINNIPEG MB R3C 3R6
Phone:	(204)807-3958 Fax: (204)942-2548
Email:	scott.coughtrey@stantec.com

PROJECT INFORMATION:

Quotation #:	B30328
P.O. #:	
Project #:	111440161
Project Name:	CP Weston Water Sampling
Site #:	
Sampled By:	BE

Laboratory Use Only:

MAXXAM JOB #:	BOTTLE ORDER #:
B363703	405492
CHAIN OF CUSTODY #:	PROJECT MANAGER:
C#405492-02-01	Janelle Kochan

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS: diss. metals field filtered not preserved

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: (will be applied if Rush TAT is not specified): [X]
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) [ ]
Date Required: _____ Time Required: _____
Rush Confirmation Number: _____ (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water? (Y/N)	Metals Field Filtered? (Y/N)	BTEX/F1-F4 in Water	CCME PAH in Water by GC-MS	CCME Dissolved Metals in Water	# of Bottles	Comments
1	GZ8735	MW01	13/07/24	1603	W		✓	✓	✓	✓	8	
2	GZ8736	MW03	"	1505	"		✓	✓	✓	✓	8	
3	GZ8737	MW04	"	1740	"		✓	✓	✓	✓	8	
4	GZ8738	MW05	"	1507	"		✓	✓	✓	✓	8	
5	GZ8739	MW06	"	1727	"		✓	✓	✓	✓	8	
6	GZ8740	MW07	"	1525	"		✓	✓	✓	✓	8	
7	GZ8741	MW08	"	1450	"		✓	✓	✓	✓	8	
8	GZ8742	MW09	"	1430	"		✓	✓	✓	✓	8	
9	GZ8743	~~MW10~~ MW10	"	1552	"		✓	✓	✓	✓	8	
10	GZ8744	MW11	"	1615	"		✓	✓	✓	✓	8	

*RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted
B Lynd/B. Ezzard	13/07/24	1830	A. Amanda	13/07/25	8:00A	

Laboratory Use Only: Time Sensitive [ ] | Temperature (°C) on Receipt: 7.2/6.3/6.1°C ice present | Custody Seal Intact on Cooler? [ ] Yes [ ] No

*Chain of custody may result in analytical TAT delays

White: Maxxam Yellow: Client

Maxxam

Maxxam Analytics International Corporation o/a Maxxam Analytics
D-675 Berry Street, Winnipeg, Manitoba Canada R3H 1A7 Tel:(204) 772-2386 Toll-free:(800) 665 8566 Fax:(204) 772 2386 www.maxxam.ca

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION (if differs from Invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#4140 STANTEC CONSULTING LTD	Company Name:	#7087 STANTEC CONSULTING LTD	Quotation #:	B30328	MAXXAM JOB #: B363703	BOTTLE ORDER #: 405492
Contact Name:	SCOTT COUGHTREY C/O AP	Contact Name:	SCOTT COUGHTREY	P.O. #:			
Address:	603-386 BROADWAY AVENUE WINNIPEG MB R3C 3R6	Address:	603-386 BROADWAY AVENUE WINNIPEG MB R3C 3R6	Project #:	111440161	CHAIN OF CUSTODY #: C#405492-01-01	PROJECT MANAGER: Janelle Kochan
Phone:	(204)475-9966 Fax:	Phone:	(204)807-3958 Fax: (204)942-2548	Project Name:	CP Weston - Water Sampling		
Email:	stantec.accounts.payable.invoices@stantec.com	Email:	scott.coughtrey@stantec.com	Site #:			
				Sampled By:	BB		

REGULATORY CRITERIA:

SPECIAL INSTRUCTIONS

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) ☐
Date Required: _____ Time Required: _____
Rush Confirmation Number: _____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y / N)	Metals Field Filtered ? (Y / N)	BTEX/F1-F4 in Water	CCME PAH in Water by GC-MS	CCME Dissolved Metals in Water	# of Bottles	Comments
1	GZ8745	MW13	13/07/24	1639	W		✓	✓	✓	✓	8	
2	GZ8746	MW13	"	1649	"		"	✓	✓	✓	8	
3	GZ8747	Field Dup	"	1615	"		✓	✓	✓	✓	8	
4												
5												
6												
7												
8												
9												
10												

*RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
B. Appel / B Ezzard	13/07/24	1830	Amanda	13/07/25	8:00A		☐	7.2/6.3/6.1 °C	☐ Yes ☐ No

White: Maxxam Yellow: Client

*: Maxxam Analytics International Corporation o/a Maxxam Analytics, Unit D - 675 Berry Street, Winnipeg, MB, R3H 1A7, Tel: (204) 772-7276, Fax: (204) 772-2386 www.maxxam.ca

One Team. Infinite Solutions.

This cover was printed on 100% postconsumer recycled, *Forest Stewardship Council® (FSC®) certified paper. This FSC® paper was manufactured entirely using wind-generated electricity, and was printed using environmentally friendly vegetable-based inks.

*The FSC® program recognizes paper products that are made with high percentages of postconsumer reclaimed materials.

RECYCLED
Paper made from recycled material
FSC® C101537