



Preliminary Groundwater Geochemical and Plume Stability Assessment

Plants 2, 3 and 6, Industrial Land
Lansing, Michigan

Revised September 17, 2014



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Geochemical and Plume
Stability Assessment**

Plants 2, 3 and 6, Industrial Land,
Lansing, Michigan

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1.0	Introduction	1
2.0	Geochemical Assessment	3
2.1	Fate and Transport of Metals and Organic Species in Groundwater	3
2.2	Regional and Site-Specific Groundwater Characteristics	4
3.0	Preliminary Plume Stability Assessment	6
3.1	Bedrock	6
3.2	Perched Zone	8
3.3	Deep Overburden and Weathered Bedrock	11
4.0	Conclusions and Recommendations	13
5.0	References	14

Tables

Table 1. Interim Groundwater Sampling Results – 2011 - 2014

Table 2. Complete Mann-Kendall Trend Test Results

Table 3. Summary of Mann-Kendall Trend Test Results for Metals – Bedrock Wells

Table 4. Summary of Mann-Kendall Trend Test Results – Perched Wells

Table 5. Summary of Mann-Kendall Trend Test Results – Deep Overburden and Weathered Bedrock Wells

Figures

Figure 1. Metals Exceedances in Perched Groundwater

Figure 2. Metals Exceedances in Deep Overburden and Weathered Bedrock

Figure 3. Metals Exceedances in Bedrock Groundwater

Figure 4. VOC and 1,4-Dioxane Distribution in Perched Groundwater

Figure 5. Dissolved Iron and Redox Distribution in Perched Groundwater

Figure 6. Dissolved Iron and Redox Distribution in Deep Overburden and Weathered Bedrock

Figure 7. Dissolved Iron and Redox Distribution in Bedrock Groundwater

Figure 8. Metal and VOC Trends in Bedrock Groundwater

Figure 9. 1,4-Dioxane Trends in Perched Groundwater

Figure 10. Metal and VOC Trends in Perched Groundwater

Figure 11. 1,4-Dioxane Trends in Deep Overburden and Weathered Bedrock

Figure 12. Metal and VOC Trends in Deep Overburden and Weathered Bedrock

Appendices

- A Background Occurrence of Metals
- B Fate and Transport of Metals and Organic Species in Groundwater
- C Interim Groundwater Monitoring Activities
- D Mann-Kendall Trend Test
- E Concentration Versus Time Plots (on CD)
- F Interim Groundwater Monitoring Sampling Logs (on CD)

1.0 Introduction

This report has been prepared by ARCADIS on behalf of RACER to present and discuss the results of the geochemical and plume stability assessment, completed at Lansing Plants 2, 3, and 6 (Site) in Lansing, Michigan. This assessment was completed in accordance with the approved Interim Groundwater Sampling Work Plan, dated May 31, 2013.

The Resource Conservation and Recovery Act Facility Investigation (RFI) (ARCADIS, 2013, 2014) completed at the Site identified several areas of groundwater impact including:

- Two areas of light non-aqueous phase liquid (LNAPL) impacts (Plants 2 and 3).
- A 1,4-dioxane plume within the perched zone at Plants 2 and 6.
- A 1,4-dioxane plume within the deep overburden/weathered bedrock zone (Plants 2 and 3).
- Several other areas of volatile organic compound (VOC) impacts within the perched zone at all three plants.
- Metals in excess of Michigan Part 201 Criteria (Natural Resources and Environmental Protection Act 451, 1994, as amended) in groundwater samples collected from the perched zone, including several areas near the property boundaries.
- Metals in excess of Part 201 Criteria in bedrock.

The primary objective of the geochemical and plume stability assessment is to provide a preliminary evaluation of plume stability that can be used to determine the suitability of Monitored Plume Stability as a remedial alternative and inform the Corrective Measure Study (CMS). Specifically, the goals of the assessment are to:

- Address areas identified for further evaluation in the supplemental RFI, in particular areas where constituents of concern (COCs) exceed Part 201 Criteria at, or near, the Site boundaries.
- Assess the range in metals concentrations at the Site (i.e., identify whether elevated metals are representative of a plume or reflect regional metals concentrations) and determine the predominant geochemical conditions that may affect concentration trends.
- Provide a preliminary statistical assessment of concentration trends to evaluate plume stability. Additional monitoring will be completed during the

remainder of 2014 to confirm the findings at select locations. The stability assessment focuses on:

- o Metals concentrations in bedrock
- o 1,4-dioxane, VOC, and metals concentrations in the perched zone.
Note that concentrations of 1,4-dioxane have been evaluated separately from other organic compounds since it is not readily biodegradable and is influenced differently by the geochemical environment than other VOCs.
- o The VOCs and metal concentrations in the weathered bedrock/deep overburden will be the subject of additional evaluation.

2.0 Geochemical Assessment

Concentrations of metals above criteria are detected sporadically across the Site in all groundwater bearing zones (Figures 1 to 3). In order to understand how the geochemical environment, including the distribution of VOCs (Figure 4) is influencing concentrations of these metals, particularly in the bedrock aquifer, a review of the regional and Site-specific geochemical conditions was completed. This geochemical assessment focuses on the VOC and metals concentrations, and does not include 1,4-dioxane, which does not degrade at a rate sufficient to alter the geochemical environment leading to the reducing conditions that mobilize metals.

2.1 Fate and Transport of Metals and Organic Species in Groundwater

Fate and transport of organic compounds and metals is governed by physical processes (e.g., hydraulic conductivity of aquifer materials and hydraulic gradients), biological process, and geochemical conditions, as described in Appendix B. Metals may change oxidation-reduction (redox) state based on geochemical conditions and, as a result, become more or less mobile resulting in a change in groundwater concentrations. Depending on the metal and geochemistry, they may be sequestered via sorption or precipitate in the form of oxide and hydroxide minerals. Organic compounds differ from metals primarily in that they can also be degraded through biological or abiotic reactions that irreversibly transform the organic compound into simple and relatively innocuous compounds (USEPA 2004).

The oxidation of organic compounds, including anthropogenic VOCs and naturally occurring organic material, changes the groundwater chemistry, starting with depletion of dissolved oxygen resulting in reducing conditions. Under reducing conditions, oxidized metals may be present along with depleted nitrate and sulfate, and generation of methane. Under reducing conditions, metals native to the subsurface bedrock, glacial till, or inherent in site fill may be mobilized. While not all metals are mobilized under these conditions, the most prevalent metals observed at the Site, including arsenic, copper, cobalt, lead, nickel, vanadium, and zinc (collectively iron-associated metals) and manganese will be mobilized. The primary mechanism for mobilization of these metals is reduction of iron, causing subsequent dissolution and mobilization of iron, along with those metals which are bound to the iron in mineral form. This process is reversible, and iron and manganese-associated metals are often immobilized when exposed to more oxidizing conditions through precipitation and sorption (USEPA 2007).

Evaluation of the presence or absence of a metals plume and its stability must account for known regional metals concentrations, the overall geochemical site setting, and the potential impacts of biodegradable VOCs.

2.2 Regional and Site-Specific Groundwater Characteristics

Site metals concentrations in groundwater are within the ranges observed in a state-wide groundwater study (Cummings 1989, Michigan Department of Environmental Quality [MDEQ] 2013, MDEQ 2014). Where concentrations of metals in Site groundwater were observed outside the range observed in state-wide concentrations, on-Site sources have been identified. Comparison between metals observed at the Site with state-wide concentrations is provided in Appendix A along with a discussion of geochemical indicator parameters in Appendix B.

Examination of geochemical indicator parameters (dissolved oxygen, oxidation–reduction potential, nitrate, dissolved and total iron and manganese, sulfate, methane) for groundwater across the Site indicates groundwater at the Site is mildly reducing in all three groundwater bearing zones. The geochemical data was used to identify the dominant redox conditions at each monitoring well sampled during September–August 2013, with the data presented on Figures 5 through 7. Figures 5 through 7 also show the distribution of dissolved iron concentrations at the Site and highlights monitoring wells where metals concentrations greater than criteria were observed during the corresponding sampling event. As previously indicated, reducing conditions tend to mobilize iron and manganese and other metals associated with iron minerals (e.g., arsenic, copper, cobalt, nickel, lead, vanadium, and zinc).

In the perched zone (Figure 5), limited pockets of more strongly reducing conditions associated with areas of elevated VOC (excluding 1,4-dioxane) concentrations are observed. These monitoring wells typically also have dissolved iron concentrations greater than 5 to 10 mg/L. With limited exceptions, locations with concentrations of at least one metal above criteria are associated with reducing conditions and elevated iron concentrations, particularly at the Site boundaries. The geochemistry at monitoring wells without VOC impacts also show mildly reducing conditions and indicate that regional groundwater in the perched zone is mildly reducing, which is conducive to the occurrence of mobile metal species even under ambient conditions.

In the deep overburden and weathered bedrock and bedrock zones (Figures 6 and 7) conditions are generally reducing with dissolved iron concentrations greater than 5 mg/L. These conditions are observed even in the absence of VOC impacts and are likely to represent ambient geochemical conditions. Concentrations of metals above criteria in the deep overburden and weathered bedrock and bedrock zones are sporadic and while geochemical conditions are conducive to mobile metals species, there is no consistent relationship between reducing conditions, dissolved iron and elevated metals.

The pattern and concentrations of metal exceedances at the Site are consistent with slight shifts in the geochemical environment from more to less iron reducing, and vice versa, leading to sporadic and inconsistent exceedances for some or all of these metals which, in the majority of cases, are not linked to specific Site-related sources. Elevated metals that are coincident with more strongly reducing conditions associated with VOC impacts are limited in extent, as are areas of elevated VOCs (excluding 1,4-dioxane).

3.0 Preliminary Plume Stability Assessment

Statistical analysis using the Mann-Kendall slope trend test was performed at monitoring wells to evaluate the concentration trends for individual COCs and provide data representative of current conditions at the Site. The analysis was completed using data collected since 2011 for well/COC pairs meeting the following criteria:

- At least four sampling events have been completed
- At least 65 percent of sampling results were above detection limits
- At least one detection in the dataset exceeded the lowest criteria

Data used for the analysis were collected during six Site-wide interim groundwater monitoring events in October 2011, December 2012, the second, third, and fourth quarters of 2013 and the first quarter of 2014. Details of the monitoring events are included in Appendix C and sampling results are presented in Table 1.

The analysis was completed in accordance with USEPA guidance (USEPA 2009). Correlations were accepted as significant for p-values less than or equal to 0.10 (90 percent confidence level). If no trend was identified, concentrations are likely stable, however it is anticipated additional data will be required at select locations to confirm the results of the analysis. This assessment presents the following information:

- Additional information regarding the Mann-Kendall analysis is provided in Appendix D;
- Comprehensive Mann-Kendall analysis results are presented in Table 2;
- A summary of the results grouped by groundwater bearing zone and COC is provided in Tables 3 through 5;
- Drinking water criteria exceedances during the 2013 and 2014 sampling events are shown on Figures 1 through 4;
- The overall trend results are displayed spatially on Figures 8 through 12; and
- Plots of concentrations over time for all well/COC pairs meeting criteria for trend analysis are presented in Appendix E.

3.1 Bedrock

Metals

Observed metals exceedances in bedrock wells are sporadic and intermittent with few discernible trends and are generally considered stable, with detected exceedances

near drinking water criteria. Two increasing trends in arsenic concentrations and one increasing trend in manganese concentrations were identified at MW-04-02 (3), MW-81-5, and MW-12-13, but current concentrations are within or near known state-wide concentrations (Cummings, 1989). Additionally, arsenic concentrations at MW-91-5, which was identified as an increasing trend, appear to have stabilized since May 2013. The locations of exceedances and the increasing arsenic trends are not co-located with any known metals sources or impacts of VOCs and do not appear to be Site related, rather they are due to natural fluctuations in geochemistry of the bedrock zone.

VOCs

Vinyl chloride was observed in bedrock and included in the trend analysis for two locations (MW-04-02 (3) and MW-91-4). No apparent concentration trends were observed. Vinyl chloride in bedrock and the deep overburden at Plant 3 is likely associated with an off-site source and not discussed further as part of this evaluation. Additional detail regarding the vinyl chloride impacts in the deep overburden and bedrock zones at Plant 3 is provided in the RFI Supplemental Phase 2 Activities Summary Report (ARCADIS, 2014).

Implications for Remediation

The supplemental RFI for the Site identified sporadic exceedances of arsenic in bedrock across the Site, and particularly at MW-04-04R and MW-04-06R located in central Plant 6, as an area requiring further examination. These two wells were installed as replacement wells in mid-2013, resulting in a limited data set (e.g. three sampling events), which is insufficient for full evaluation of trends. Additional sampling will be completed at these wells in 2014 to better characterize trends.

Overall, concentrations of metals in bedrock at the Site are limited in extent, sporadic and consistent with natural variability in regional geochemistry. No evidence of a metals or VOC plume in bedrock was found, and intermittent concentrations of arsenic and other metals above criteria are consistent with regional concentrations and not considered Site related. Concentrations of 1,4-dioxane above criteria are not present in consolidated bedrock at the Site. The 1,4-dioxane impacts present within the weathered bedrock zone are discussed in Section 3.3.

3.2 Perched Zone

1,4-Dioxane

No trends were identified in 1,4-dioxane concentrations at the seven (7) perched monitoring wells that met the criteria for inclusion in the statistical assessment. In addition, 1,4-dioxane has not been detected in monitoring wells installed around the perimeter of the perched plume indicating the footprint of the plume has not changed significantly since 2012 (Figure 9). Where concentrations of 1,4-dioxane are above the potential/proposed drinking water criteria (8.5 µg/L) were observed in the perched zone, they are central to the Site and monitoring wells with concentrations below detection exist between these wells and the Site boundary. Based on the existing dataset, the 1,4-dioxane plume appears stable in the perched zone. Additional monitoring will be completed at select monitoring wells (both interior to the plume and at the perimeter) to confirm these trends.

VOCs

Concentrations of VOCs in the perched zone were sporadic, and a large plume footprint was not observed, rather, VOC concentrations in groundwater above criteria are limited to discrete areas and areas immediately surrounding light non-aqueous phase liquid (LNAPL) (Figure 7). Review of the VOC data found the criteria for statistical assessment was met at two locations only, P6-SB-32 in Area 6, for which VOC source removal and excavation is considered as part of the CMS, and MW-03-06, where no trend was observed, and concentrations are considered stable.

Metals

The overwhelming majority of statistical analyses run on perched zone metals were determined to be decreasing or exhibit no trend (116 out of 130), suggesting stability. The majority of identified exceedances are close to drinking water criteria. In general, few trends were identified, particularly at or near the Site boundary and these are discussed in more detail below. The few increasing trends identified generally occur in discrete areas in, or adjacent to, areas where VOC impacts are sufficient to cause a shift in geochemical conditions. Because VOCs impacts are spatially limited, metals impacts are as well. Additionally, the low concentrations of the majority of the VOC-impacted areas (e.g., failure to meet criteria for inclusion in this analysis) are unlikely to be a long term driver of reducing conditions, and a geochemical shift toward slightly

more oxidizing conditions, where metal species are less mobile, is anticipated. Near the Site boundary, the following increasing trends were observed:

- Manganese at UNK-09 (Area 17), where the maximum concentration was 0.052 milligrams per liter (mg/L), 0.002 mg/L greater than the aesthetic drinking water criteria Manganese is not believed to be site-related, and concentrations observed are consistent with regional concentrations.
- Arsenic in MW-03(2), where the maximum concentration was 0.012 mg/L, only slightly above the drinking water criteria of 0.01 mg/L.
- Nickel in MW-12-12, where the maximum concentration was 1.15 mg/L. This location is free of VOC impacts and does not have a known nickel source. Filtered samples collected concurrently with the above sample had nickel concentrations of 0.209 mg/L, approximately five times lower, indicating this sample result was significantly impacted by the nickel content of suspended solids. Excluding this sample, the maximum concentration at this well was 0.268 mg/L. Monitoring at this location will continue.

Implications for Remediation

Areas of the perched zone identified for further examination in the Supplemental RFI include:

- Metal exceedances at the property boundary in Area 16 at Plant 3;
- Vanadium slightly above drinking water criteria at the property boundary in Area 5-8 at Plant 6; and
- Vanadium and arsenic slightly above drinking water criteria in Area 7 at Plant 6.

The trend analysis did not include wells in Area 16 for metals exceedances due to an insufficient number of sampling events (three). The current dataset suggests metals concentrations are likely stable in this area, with the possible exception of nickel concentrations at MW-13-32. Monitoring will continue at the relevant monitoring wells until more certain conclusions can be drawn.

Two monitoring wells in Area 5-8 have been sampled a sufficient number of times and had enough vanadium detections to be included in the trend analysis for vanadium, PB-SB-18 and PB-SB-35; no trends were identified at these locations (Figure 10). Vanadium concentrations at many monitoring wells are below detection and only nine other wells were identified that met the criteria for trend analyses. A decreasing trend

was identified at one well and no trends were identified at the other eight wells. Vanadium concentrations in the perched zone above criteria are sporadic and intermittent, and likely linked to geochemical factors and are not Site-related. No identified vanadium plume exists at the Site, and vanadium concentrations at monitoring well MW-12-13, at the Site boundary in Area 5-8 were consistently below criteria.

At Area 7 in Plant 6, and more importantly, off-Site just south of the plant, vanadium and arsenic concentrations exhibited no trend and are likely stable at all wells where sufficient data existed to complete the analysis. These metals are only slightly elevated, exceeding drinking water criteria by a maximum of 0.005 mg/L during the most recent sampling event. This is likely resulting from the presence of VOCs in portions of Area 7. The VOC-impacted portions of Area 7 were recommended for excavation in the draft CMS. Both vanadium and arsenic concentrations are anticipated to decrease in this area and in off-Site wells once the VOC impacts are removed.

An understanding of overall plume stability in the perched zone is a key requirement to assess Monitored Plume Stability as a remedial strategy in the CMS. Site-wide, COC concentrations generally exhibit no trends, with this preliminary assessment supporting that overall concentrations of COCs at the Site are stable, with additional monitoring to confirm plume stability. The data collected to date indicate the 1,4-dioxane plume is likely stable, and this finding will be confirmed through additional monitoring at select locations. In addition, the 1,4-dioxane plume in the perched zone is defined in extent with numerous perimeter monitoring wells between the plume and Site boundary which have concentrations below criteria or detection. No identifiable metals plume exists in the perched zone, rather sporadic and intermittent exceedances of metals, that for the most part, and particularly for arsenic, vanadium, and manganese, are not Site-related. Increases in Site metals concentrations are the result of slight fluctuations in geochemistry. At monitoring wells internal to the Site these fluctuations may be locally induced by discrete areas of limited VOC impacts. At the Site boundaries VOCs are not present at sufficient concentrations to drive geochemical changes and fluctuations are considered natural.

3.3 Deep Overburden and Weathered Bedrock

1,4-Dioxane

The majority of monitoring wells in the deep overburden and weathered bedrock used to monitor 1,4-dioxane concentrations were installed recently, and only two sample points exist, however, sufficient data was present to analyze 1,4-dioxane concentrations at four wells in the deep overburden and weathered bedrock; one well exhibited an increasing trend and three wells exhibited no trend. These monitoring wells are located in the likely source area on Plant 3. Additional analysis of 1,4-dioxane concentrations in the deep overburden and weathered bedrock will be completed following additional sampling.

VOCs

Sufficient VOC data to complete an assessment of VOC trends was present only for two monitoring wells in the deep overburden and weathered bedrock, MW-04-03 (3) and MW-04-04 (3). No trend was observed in vinyl chloride concentrations at these locations, and the vinyl chloride present is not believed to be Site-related. Additional detail regarding the vinyl chloride impacts in the deep overburden and bedrock zones at Plant 3 is provided in the RFI Supplemental Phase 2 Activities Summary Report (ARCADIS ,2014).

Sporadic concentrations of benzene and acetone have also been detected above criteria in the weathered bedrock zone in general association with the lower 1,4-dioxane plume. As noted above, limited sampling of these wells has been completed to date and these detections will be further evaluated with additional monitoring.

Metals

In general, no trends were identified in metals concentrations and concentrations of metals appear stable. No metals plume could be identified in the deep overburden and weathered bedrock, and concentrations of metals above criteria were present at discrete locations only. Spatially limited increasing trends in arsenic and manganese concentrations near Area 11 and Area 14 were observed, but can be attributed to minor shifts in geochemistry, are generally within the range of state-wide levels (Cummings, 1989) and are not Site-related (i.e., not related to the presence of any VOCs or any known metal source). The majority of identified exceedances are close to the drinking water criteria.

Implications for Remediation

Further investigation is required to better understand the 1,4-dioxane plume in the deep overburden and weathered bedrock. A passive flux meter (PFM) and transducer study is underway to address this data need and additional monitoring will be completed to better assess plume stability. The initial scope of work for the PFM and transducer study was presented to the MDEQ via email on February 7, 2014. Additional changes to the scope were made based on conversations with the MDEQ and the Lansing Board of Water and Light. The results of the study will be available for review in May 2014. There are no discernable metals or VOC plumes within the deep overburden and weathered bedrock. Where concentrations of metals greater than criteria are present, they are at discrete locations, and are likely linked to regional concentrations and non-Site related geochemistry.

4.0 Conclusions and Recommendations

The data and analysis presented above provide supporting evidence for inclusion of Monitored Plume Stability as a component of the recommended corrective measures for the Site. Longer-term datasets are required to confirm overall plume stability, and will be obtained for an appropriate subset of COCs and monitoring wells.

Elevated concentrations of metals at the Site in the majority of cases do not appear to be linked to Site-related sources, and there is no discernable metals plume in the perched zone, deep overburden, weathered bedrock or bedrock zones. Metals impacts in all water bearing units are spatially limited and with few exceptions, which will be the subject of ongoing assessment, are below criteria at the property boundary. Elevated concentrations of metals appear to be a result of minor shifts in Site geochemistry and have largely been noted as a regional issue, particularly in the case of arsenic and manganese. Monitoring will continue at the relevant monitoring wells to confirm these preliminary findings.

Concentrations of VOCs in the perched zone are spatially limited, or associated with identified LNAPL. Concentrations trends for VOCs in the perched zone are typically decreasing or do not exhibit a trend. The only apparently increasing VOC concentrations in the perched zone are BTEX at P6-SB-32, and excavation has been proposed for soil in this area. The data collected to date suggests VOC concentrations in the perched zone are stable and ongoing monitoring will confirm VOC plume stability in areas where elevated VOC concentrations are observed. Sporadic concentrations of benzene and acetone have been detected above criteria in the weathered bedrock zone. These detections will be further evaluated with additional sampling.

Concentrations of 1,4-dioxane in the perched zone are considered stable based on analysis of the existing dataset and 1,4-dioxane has not been detected in monitoring wells installed around the perimeter of the perched plume. The data supports inclusion of Monitored Plume Stability as a component of the recommended corrective measures for the Site, however, concentrations of 1,4-dioxane in the perched zone will continue to be monitored at wells both interior to the plume and at the site perimeter to confirm these preliminary findings. Concentrations of 1,4-dioxane in the deep overburden and weathered bedrock will also be further evaluated.

5.0 References

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Tables

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MI GW (DEQ2013) RES DW	MI GW (DEQ2013) GSI	MI GW (DEQ2013) NON- RES GVIIC	MI GW (DEQ2013) RES GVIIC	MI GW (DEQ2013) WATER SOLUBILITY	MI GW (DEQ2013) FLAMMABILITY AND EXPLOSIVITY	MI GW (DEQ2012) Non-Res GWVI	B-BP-16 7-12 Plant 6 10/13/11	B-BP-16 7-12 Plant 6 12/20/12	B-BP-16 7-12 Plant 6 06/10/13	B-BP-16 7-12 Plant 6 08/23/13	B-BP-16 7-12 Plant 6 11/12/13	B-BP-16 7-12 Plant 6 02/19/14	CH-14-RO 7-12 Plant 3 08/22/11	CH-14-RO 7 - 12 Plant 3 01/03/13	CH-14-RO 7-12 Plant 3 06/13/13	CH-14-RO 7-12 Plant 3 08/22/13	CH-14-RO 7-12 Plant 3 11/13/13	CH-14-RO 7-12 Plant 3 02/12/14	MW-01(2) 10-20 Plant 2 10/18/11	
Volatile Organics																						
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.2	--	1,200	220	1,230	--	280	<0.05	<1	<5 X	<1	<1	<1	<1 [<1] [<0.05]	<1 [<1]	<1	<1	<1	<1	<0.05	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.05	5.7	15,000	2,400	4,200,000	--	11	<0.02	<1	<5 X	<1	<1	<1	<0.02 [<0.02] [<1]	<1 [<1]	<1	<1	<1	<1	<0.02	
1,2-Dichlorobenzene	ug/L	600	13	160,000	160,000	156,000	--	32,000	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
1,4-Dichlorobenzene	ug/L	75	17	74,000	16,000	73,800	--	250	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
1,4-Dioxane	ug/L	85	2,800	--	--	900,000,000	140,000,000	--	<5	<5	<5	<5	<5	<5	<5 [<5]	<5 [<5]	<5	<5	<5	<5	<5	
1,1,1-Trichloroethane	ug/L	200	89	1,300,000	660,000	1,330,000	--	12,000	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
2-Hexanone	ug/L	1,000	--	8,700,000	4,200,000	16,000,000	--	87,000	<10	<10	<50 X	<10	<10	<10	<10 [<10]	<10 [<10]	<10	<10	<10	<10	<10	
1,1,2,2-Tetrachloroethane	ug/L	8.5	78	77,000	12,000	2,970,000	--	200	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
Acetone	ug/L	730	1,700	1,000,000,000	1,000,000,000	1,000,000,000	15,000,000	34,000,000	17	<10	<50 X	<10	<10	<10	<10 [<10]	<10 [<10]	<10	<10	<10	<10	<10	
1,1,2-Trichloroethane	ug/L	5	330	110,000	17,000	4,420,000	--	320	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
Bromodichloromethane	ug/L	80	--	37,000	4,800	6,740,000	--	110	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
1,1-Dichloroethane	ug/L	880	740	2,300,000	1,000,000	5,060,000	380,000	18,000	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
Bromoform	ug/L	80	--	3,100,000	470,000	3,100,000	--	7,200	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
1,1-Dichloroethene	ug/L	7	130	1,300	200	2,250,000	97,000	1,600	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
Bromomethane (Methyl bromide)	ug/L	10	35	9,000	4,000	14,500,000	--	140	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
1,2-Dichloroethane	ug/L	5	360	59,000	9,600	8,520,000	2,500,000	140	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
Carbon disulfide	ug/L	800	--	550,000	250,000	1,190,000	13,000	9,900	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
Carbon tetrachloride	ug/L	5	45	2,400	370	793,000	--	26	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
cis-1,2-Dichloroethene	ug/L	70	620	210,000	93,000	3,500,000	530,000	1,700	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
Chlorobenzene	ug/L	100	25	470,000	210,000	472,000	160,000	4,600	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
trans-1,2-Dichloroethene	ug/L	100	1,500	200,000	85,000	6,300,000	230,000	1,500	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
Chloroform (Trichloromethane)	ug/L	80	350	180,000	28,000	7,920,000	--	480	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
Trichloroethene	ug/L	5	200	4,900	2,200	1,100,000	--	41	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
Chloromethane (Methyl chloride)	ug/L	260	--	45,000	8,600	6,340,000	36,000	750	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
Tetrachloroethene	ug/L	5	60	170,000	25,000	200,000	--	460	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
cis-1,3-Dichloropropene	ug/L	--	--	--	--	--	--	300	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
Vinyl chloride	ug/L	2	13	13,000	1,100	2,760,000	33,000	35	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
Chloroethane	ug/L	430	1,100	5,700,000	5,700,000	5,740,000	110,000	180,000	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
Dichlorodifluoromethane (CFC-12)	ug/L	1,700	--	300,000	220,000	300,000	--	29,000	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
Benzene	ug/L	5	200	35,000	5,600	1,750,000	68,000	92	67 ^a	4	<5 X	<1	2	5	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
Methyl acetate	ug/L	--	--	--	--	--	--	--	<10	<10	<50 X	<10	<10	<10	<10 [<10]	<10 [<10]	<10	<10	<10	<10	<10	
Ethylbenzene	ug/L	74	18	170,000	110,000	169,000	43,000	1,700	2	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
Methylene chloride	ug/L	5	1,500	1,400,000	220,000	17,000,000	--	2,800	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
Styrene	ug/L	100	80	310,000	170,000	310,000	140,000	2,700	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
Toluene	ug/L	790	270	530,000	530,000	526,000	61,000	150,000	4	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
trans-1,3-Dichloropropene	ug/L	--	--	--	--	--	--	300	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
Methyl tert butyl ether (MTBE)	ug/L	40	7,100	47,000,000	47,000,000	46,800,000	--	1,000,000	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	12	
Trichlorofluoromethane (CFC-11)	ug/L	2,600	--	1,100,000	1,100,000	1,100,000	--	120,000	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
Naphthalene	ug/L	520	11	31,000	31,000	31,000	--	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Trifluorotrichloroethane (Freon 113)	ug/L	170,000	32	170,000	170,000	170,000	--	30,000	<1	<1	<5 X	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	13,000	2,200	240,000,000	240,000,000	240,000,000	--	18,000,000	<10	<10	<50 X	<10	<10	<10	<10 [<10]	<10 [<10]	<10	<10	<10	<10	<10	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	1,800	--	20,000,000	20,000,000	20,000,000	--	4,400,000	<10	<10	<50 X	<10	<10	<10	<10 [<10]	<10 [&						

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:		MI GW (DEQ2013) RES DW	MI GW (DEQ2013) GSI	MI GW (DEQ2013) NON- RES GVII C	MI GW (DEQ2013) RES GVII C	MI GW (DEQ2013) WATER SOLUBILITY	MI GW (DEQ2013) FLAMMABILITY AND EXPLOSIVITY	MI GW (DEQ2012) Non-Res GWVI	B-BP-16 7-12 Plant 6 10/13/11	B-BP-16 7-12 Plant 6 12/20/12	B-BP-16 7-12 Plant 6 06/10/13	B-BP-16 7-12 Plant 6 08/23/13	B-BP-16 7-12 Plant 6 11/12/13	B-BP-16 7-12 Plant 6 02/19/14	CH-14-RO 7-12 Plant 3 08/22/11	CH-14-RO 7 - 12 Plant 3 01/03/13	CH-14-RO 7-12 Plant 3 06/13/13	CH-14-RO 7-12 Plant 3 08/22/13	CH-14-RO 7-12 Plant 3 11/13/13	CH-14-RO 7-12 Plant 3 02/12/14	MW-01(2) 10-20 Plant 2 10/18/11
Semivolatile Organics																					
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	ug/L	--	--	--	--	--	--	--	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
2,4,6-Trichlorophenol	ug/L	120	5	--	--	800,000	--	--	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
2,4-Dichlorophenol	ug/L	73	11	--	--	4,500,000	--	--	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol	ug/L	730	--	--	--	1,200,000	--	--	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
2,4-Dimethylphenol	ug/L	370	380	--	--	7,870,000	--	--	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
2,4-Dinitrophenol	ug/L	--	--	--	--	--	--	--	<1	<1	<1	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1
2,4-Dinitrotoluene	ug/L	7.7	--	--	--	270,000	--	--	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
2,6-Dinitrotoluene	ug/L	--	--	--	--	--	--	--	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
2-Chloronaphthalene	ug/L	1,800	--	--	--	6,740	--	--	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
2-Chlorophenol	ug/L	45	18	1,100,000	490,000	22,000,000	--	330,000	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
2-Methylnaphthalene	ug/L	260	19	25,000	25,000	24,600	--	3,900	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
2-Methylphenol	ug/L	--	--	--	--	--	--	--	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
2-Nitroaniline	ug/L	--	--	--	--	--	--	--	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
2-Nitrophenol	ug/L	20	--	--	--	2,500,000	--	--	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
3&4-Methylphenol	ug/L	--	--	--	--	--	--	--	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
3,3'-Dichlorobenzidine	ug/L	1.1	0.3	--	--	3,110	--	--	<0.05	NA	NA	NA	NA	NA	<2 [<2 J] [<0.05]	NA	NA	NA	NA	NA	<0.05
Naphthalene	ug/L	520	11	31,000	31,000	31,000	--	800	<1	<1	<1	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1
3-Nitroaniline	ug/L	--	--	--	--	--	--	--	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
4,6-Dinitro-2-methylphenol	ug/L	--	--	--	--	--	--	--	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
4-Bromophenyl phenyl ether	ug/L	--	--	--	--	--	--	--	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
4-Chloro-3-methylphenol	ug/L	150	7.4	--	--	3,900,000	--	--	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
4-Chloroaniline	ug/L	--	--	--	--	--	--	--	<2	<1	<1	<1	<1	<1	<2 J [<2 J]	<1 [<1]	<1	<1	<1	<1	<2
4-Chlorophenyl phenyl ether	ug/L	--	--	--	--	--	--	--	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
4-Nitroaniline	ug/L	--	--	--	--	--	--	--	<1	<1	<1	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1
4-Nitrophenol	ug/L	--	--	--	--	--	--	--	<1	<1	<1	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1
Anthracene	ug/L	43	--	43	43	43.4	--	3,700,000	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
Acenaphthene	ug/L	1,300	38	4,200	4,200	4,240	--	230,000	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
Acenaphthylene	ug/L	52	--	3,900	3,900	3,930	--	62,000	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
Acetophenone	ug/L	1,500	--	6,100,000	6,100,000	6,100,000	--	9,600,000	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
Atrazine	ug/L	3	7.3	--	--	70,000	--	--	<1	<1	<1	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1
Benzaldehyde	ug/L	--	--	--	--	--	--	--	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
Benzo(a)anthracene	ug/L	2.1	--	--	--	9.4	--	--	<1	<1	<1	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1
Benzo(a)pyrene	ug/L	5	--	--	--	1.62	--	--	<1	<1	<1	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1
Benzo(b)fluoranthene	ug/L	1.5	--	--	--	1.5	--	--	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	ug/L	1	--	--	--	0.26	--	--	<1	<1	<1	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1
Benzo(k)fluoranthene	ug/L	1	--	--	--	0.8	--	--	<1	<1	<1	<1	<1	<1	<1 [<1]	<1 [<1]	<1	<1	<1	<1	<1
Biphenyl (1,1-Biphenyl)	ug/L	--	--	--	--	--	--	--	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
bis(2-Chloroethoxy)methane	ug/L	--	--	--	--	--	--	--	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]	<1	<1	<1	<1	<1
bis(2-Chloroethyl)ether	ug/L	2	1	210,000	38,000	17,200,000	17,000,000	750	<1	<1	<1	<1	<1	<1	<1 J [<1 J]	<1 [<1]					

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Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MI GW (DEQ2013) RES DW	MI GW (DEQ2013) GSI	MI GW (DEQ2013) NON- RES GVIIC	MI GW (DEQ2013) RES GVIIC	MI GW (DEQ2013) WATER SOLUBILITY	MI GW (DEQ2013) FLAMMABILITY AND EXPLOSIVITY	MI GW (DEQ2012) Non-Res GWVI	B-BP-16 7-12 Plant 6 10/13/11	B-BP-16 7-12 Plant 6 12/20/12	B-BP-16 7-12 Plant 6 06/10/13	B-BP-16 7-12 Plant 6 08/23/13	B-BP-16 7-12 Plant 6 11/12/13	B-BP-16 7-12 Plant 6 02/19/14	CH-14-RO 7-12 Plant 3 08/22/11	CH-14-RO 7 - 12 Plant 3 01/03/13	CH-14-RO 7-12 Plant 3 06/13/13	CH-14-RO 7-12 Plant 3 08/22/13	CH-14-RO 7-12 Plant 3 11/13/13	CH-14-RO 7-12 Plant 3 02/12/14	MW-01(2) 10-20 Plant 2 10/18/11
PCBs																					
Total PCBs	ug/L	0.5	0.2	45	45	44.7	--	25	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.05
Aroclor-1016 (PCB-1016)	ug/L	--	--	--	--	--	--	25	<0.05	<0.05	NA	NA	NA	NA	NA	<0.05 [<0.05]	NA	NA	NA	NA	<0.05
Aroclor-1221 (PCB-1221)	ug/L	--	--	--	--	--	--	25	<0.05	<0.1	NA	NA	NA	NA	NA	<0.1 [<0.1]	NA	NA	NA	NA	<0.05
Aroclor-1232 (PCB-1232)	ug/L	--	--	--	--	--	--	25	<0.05	<0.1	NA	NA	NA	NA	NA	<0.1 [<0.1]	NA	NA	NA	NA	<0.05
Aroclor-1242 (PCB-1242)	ug/L	--	--	--	--	--	--	25	<0.05	<0.1	NA	NA	NA	NA	NA	<0.1 [<0.1]	NA	NA	NA	NA	<0.05
Aroclor-1248 (PCB-1248)	ug/L	--	--	--	--	--	--	25	<0.05	<0.1	NA	NA	NA	NA	NA	<0.1 [<0.1]	NA	NA	NA	NA	<0.05
Aroclor-1254 (PCB-1254)	ug/L	--	--	--	--	--	--	25	<0.05	<0.1	NA	NA	NA	NA	NA	<0.1 [<0.1]	NA	NA	NA	NA	<0.05
Aroclor-1260 (PCB-1260)	ug/L	--	--	--	--	--	--	25	<0.05	<0.05	NA	NA	NA	NA	NA	<0.05 [<0.05]	NA	NA	NA	NA	<0.05
Inorganics																					
Calcium	mg/L	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	0.3	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	400	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	230	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	0.006	0.13	--	--	--	--	--	0.006	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005 [<0.005]	<0.002 [<0.002]	<0.002	<0.005	<0.005	<0.005	<0.002
Arsenic	mg/L	0.01	0.01	--	--	--	--	--	0.037 ^{ab}	0.003	0.004	<0.002	0.009	0.007	0.001 [<0.0005]	<0.002 [<0.002]	0.003	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	2	1.2	--	--	--	--	--	0.156	0.243	0.253	0.185	0.243	0.208	0.084 [0.079]	0.048 [0.044]	0.043	0.047	0.052	0.044	0.337
Beryllium	mg/L	0.004	0.026	--	--	--	--	--	<0.001	NA	NA	NA	NA	NA	0.0006 [0.0006]	NA	NA	NA	NA	NA	<0.001
Boron	mg/L	0.5	7.2	--	--	--	--	--	0.10	0.10	0.08	0.13	0.11	0.09	1.29 [1.32] ^a	0.11 [0.11]	0.08	0.13	0.10	0.11	0.06
Cadmium	mg/L	0.005	0.0045	--	--	--	--	--	0.004	<0.001	<0.0010	0.0011	0.0014	<0.0005	<0.0005 [<0.0005]	<0.001 [<0.001]	<0.0010	<0.0005	<0.0005	<0.0005	<0.001
Chromium	mg/L	--	0.16	--	--	--	--	--	<0.010	<0.010	<0.010	<0.005	0.014	0.005	27.1 [27.4] ^b	21.1 [21.1] ^b	23.4 ^b	21.1 ^b	23.0 ^b	17.0 ^b	<0.010
Chromium VI (hexavalent)	mg/L	0.1	0.011	--	--	--	--	--	NA	NA	NA	NA	NA	NA	28.4 [27.9] ^{ab}	21.3 [21.7] ^{ab}	28.3 ^{ab}	21.1 ^{ab}	23.5 ^{ab}	17.9 ^{ab}	<0.02
Cobalt	mg/L	0.04	0.1	--	--	--	--	--	<0.010	<0.010	<0.010	<0.005	<0.005	<0.005	<0.005 [<0.005]	<0.010 [<0.01]	<0.010	<0.005	<0.005	<0.005	<0.010
Copper	mg/L	1	0.02	--	--	--	--	--	0.004	0.006	<0.002	0.007	0.006	0.008	<0.0025 [<0.0025]	<0.002 [<0.002]	0.009	<0.005	<0.005	0.008	0.032 ^b
Lead	mg/L	0.004	0.044	--	--	--	--	--	<0.002	0.003	<0.002	<0.003	<0.003	0.003	<0.0025 [<0.0025]	<0.002 [<0.002]	<0.002	<0.003	<0.003	<0.003	<0.002
Manganese	mg/L	0.05	4.5	--	--	--	--	--	0.301 ^a	0.485 ^a	0.308 ^a	0.402 ^a	0.302 ^a	0.306 ^a	0.068 [0.064] ^a	<0.010 [<0.01]	0.010	0.007	0.009	0.010	0.074 ^a
Mercury	mg/L	0.002	0.0000013	0.056	0.056	0.056	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	mg/L	0.1	0.12	--	--	--	--	--	<0.010	<0.010	0.034	0.016	0.016	0.009	0.053 [0.054]	0.051 [0.049]	0.063	0.057	0.050	0.042	0.010
Selenium	mg/L	0.05	--	--	--	--	--	--	<0.002	<0.002	0.010	<0.005	<0.005	<0.005	0.033 [0.028]	0.005 [0.005]	<0.005	<0.005	0.005	<0.005	<0.002
Silver	mg/L	0.034	0.0002	--	--	--	--	--	<0.0002 J	<0.0002	0.00070 ^b	<0.0005	<0.0005	<0.0005	<0.0005 [<0.0005]	<0.0002 [<0.0002]	<0.0005	0.0012 ^b	<0.0005	<0.0005	0.0005 ^b
Thallium	mg/L	0.002	0.0037	--	--	--	--	--	<0.002	NA	NA	NA	NA	NA	0.0016 [0.0015]	NA	NA	NA	NA	NA	<0.002
Vanadium	mg/L	0.0045	0.027	--	--	--	--	--	0.008 ^a	0.006 ^a	0.006 ^a	<0.005	0.009 ^a	0.007 ^a	<0.0025 [<0.0025]	<0.002 [<0.002]	<0.002	<0.005	0.252 ^{ab}	<0.004	<0.002
Zinc	mg/L	2.4	0.26	--	--	--	--	--	0.05	0.032	<0.010	0.017	0.026	0.040	<0.005 [<0.005]	<0.010 [<0.01]	<0.010	<0.005	0.005	0.013	0.086
General Chemistry																					
Alkalinity, total (as CaCO3)	mg/L	--	--	--	--	--	--	--	NA	NA	NA	604	NA	NA	NA	NA	NA	377	NA	NA	NA
Carbon dioxide	mg/L	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	251	NA	NA	NA
Nitrate (as N)	mg/L	10	--	--	--	--	--	--	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	27.0 ^a	NA	NA	NA
Sulfate	mg/L	250	--	--	--	--	--	--	NA	NA	NA	308 ^a	NA	NA	NA	NA	NA	224	NA	NA	NA
Field**																					
Conductance, specific	mS/cm	--	--	--	--	--	--	--	NA	NA	5.881	4.890	5.879	5.006	NA	NA	1.448	1.211	1.032	1.325	NA
Dissolved oxygen (DO)	mg/L	--	--	--	--	--	--	--	NA	NA	0.15	0.02	4.99	0.71	NA	NA	4.01	0.22	4.92	0.93	NA
Oxidation reduction potential (ORP), field	millivolts	--	--	--	--	--	--	--	NA	NA	-88.10	-152.40	-68.30	-59.30	NA	NA	121.8	54.0	37.9	131.3	NA
pH	s.u.	--	--	--	--	--	--	--	NA	NA	7.34	7.31	6.81	7.07	NA	NA	6.98	7.05	7.75	6.89	NA
Temperature, field	Deg C	--	--	--	--	--	--	--	NA	NA	21.17	23.65	8.55	9.17	NA	NA	19.68	20.97	10.24	3.84	NA
Turbidity (field)	NTU	--	--	--	--	--	--	--	NA	NA	6	8.98	2.35	31.9	NA	NA	6.17	4.52	9.91	9.98	NA

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-01(2) 10-20 Plant 2 12/20/12	MW-01(2) 10-20 Plant 2 05/22/13	MW-01(2) 10-20 Plant 2 08/19/13	MW-01(2) 10-20 Plant 2 11/11/13	MW-01(2) 10-20 Plant 2 02/13/14	MW-01(3) 55-65 Plant 3 10/19/11	MW-01(3) 55-65 Plant 3 12/20/12	MW-01(3) 55-65 Plant 3 06/03/13	MW-01(3) 55-65 Plant 3 08/21/13	MW-01(3) 55-65 Plant 3 11/14/13	MW-01(3) 55-65 Plant 3 02/11/14	MW-02 (UNK-12) 11-16 Plant 3 10/19/11	MW-02 (UNK-12) 11-16 Plant 3 01/03/13	MW-02 (UNK-12) 11-16 Plant 3 06/04/13	MW-02 (UNK-12) 11-16 Plant 3 11/13/13	MW-02 (UNK-12) 11-16 Plant 3 02/13/14	MW-02(2) 12-22 Plant 2 10/18/11	MW-02(2) 12-22 Plant 2 12/20/12	MW-02(2) 12-22 Plant 2 05/22/13
Volatile Organics																				
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<1	<1	<1	<1	<1	<0.05	<1	<1	<1	<1	<1 [<1]	<0.05	<1	<1	<1 [<1]	<1	<0.05	<1	<1
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<1	<1	<1	<1	<1	<0.02	<1	<1	<1	<1	<1 [<1]	<0.02	<1	<1	<1 [<1]	<1	<0.02	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
1,4-Dioxane	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5 [<5]	<5	<5	<5	<5 [<5]	<5	<5	<5	<5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	4	<1	<1	<1 [<1]	1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10 [<10]	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10 [<10]	<10 J	<10	<10	<10 [<10]	<10	<10	<10	<10
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	2	1	1	1 [1]	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Bromomethane (Methyl bromide)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Chloroform (Trichloromethane)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Chloromethane (Methyl chloride)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Dichlorodifluoromethane (CFC-12)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Methyl acetate	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10 [<10]	<10	<10	<10	<10
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Methyl tert butyl ether (MTBE)	ug/L	10	8	13	17	5	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Trichlorofluoromethane (CFC-11)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trifluorotrichloroethane (Freon 113)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10 [<10]	<10	<10	<10	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10 [<10]	<10	<10	<10	<10
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Cyclohexane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Methyl cyclohexane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
Isopropyl benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
m&p-Xylene	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2 [<2]	<2	<2	<2	<2 [<2]	<2	<2	<2	<2

Preliminary Groundwater Geochemical Assessment RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Table 1 - Complete Data Table_final.xlsx

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:		MW-01(2) 10-20 Plant 2 12/20/12	MW-01(2) 10-20 Plant 2 05/22/13	MW-01(2) 10-20 Plant 2 08/19/13	MW-01(2) 10-20 Plant 2 11/11/13	MW-01(2) 10-20 Plant 2 02/13/14	MW-01(3) 55-65 Plant 3 10/19/11	MW-01(3) 55-65 Plant 3 12/20/12	MW-01(3) 55-65 Plant 3 06/03/13	MW-01(3) 55-65 Plant 3 08/21/13	MW-01(3) 55-65 Plant 3 11/14/13	MW-01(3) 55-65 Plant 3 02/11/14	MW-02 (UNK-12) 11-16 Plant 3 10/19/11	MW-02 (UNK-12) 11-16 Plant 3 01/03/13	MW-02 (UNK-12) 11-16 Plant 3 06/04/13	MW-02 (UNK-12) 11-16 Plant 3 11/13/13	MW-02 (UNK-12) 11-16 Plant 3 02/13/14	MW-02(2) 12-22 Plant 2 10/18/11	MW-02(2) 12-22 Plant 2 12/20/12	MW-02(2) 12-22 Plant 2 05/22/13
PCBs																				
Total PCBs	ug/L	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	<0.05	<0.05	NA
Aroclor-1221 (PCB-1221)	ug/L	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	<0.05	<0.1	NA
Aroclor-1232 (PCB-1232)	ug/L	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	<0.05	<0.1	NA
Aroclor-1242 (PCB-1242)	ug/L	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	<0.05	<0.1	NA
Aroclor-1248 (PCB-1248)	ug/L	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	<0.05	<0.1	NA
Aroclor-1254 (PCB-1254)	ug/L	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	<0.05	<0.1	NA
Aroclor-1260 (PCB-1260)	ug/L	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	<0.05	<0.05	NA
Inorganics																				
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005 [<0.005]	<0.002	<0.002	<0.002	<0.005 [<0.005]	<0.005	<0.002	<0.002	<0.002
Arsenic	mg/L	<0.002	<0.002	<0.002	0.007	0.006	0.006	0.005	0.004	0.004	0.006	0.006 [0.006]	0.004	0.011 ^{ab}	0.003	<0.002 [<0.002]	0.005	<0.002	<0.002	<0.002
Barium	mg/L	0.406	0.357	0.404	0.369	0.396	0.075	0.092	0.097	0.097	0.099	0.092 [0.097]	0.102	0.100	0.110	0.102 [0.105]	0.095	0.125	0.154	0.125
Beryllium	mg/L	NA	NA	NA	NA	NA	<0.001	NA	NA	NA	NA	NA	<0.001	NA	NA	NA	NA	<0.001	NA	NA
Boron	mg/L	0.07 J	0.06	0.06	0.05	<0.04	<0.04 J	<0.04	<0.04	<0.04	<0.04	<0.04 [<0.04]	0.12 J	0.09	0.06	0.09 [0.08]	0.07	0.15	0.14 J	0.10
Cadmium	mg/L	<0.001	<0.0010	<0.005	0.0005	<0.0005	<0.001	<0.001	<0.0010	<0.0005	<0.0005	<0.0005 [<0.0005]	0.003	<0.001	0.0022	0.0006 [<0.0005]	0.0006	<0.001	<0.001	<0.0010
Chromium	mg/L	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.005	<0.005	<0.005 [<0.005]	<0.010	<0.010	<0.010	0.007 [0.005]	<0.005	<0.010	<0.010	<0.010
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.01	NA	NA	NA	<0.02	NA	NA
Cobalt	mg/L	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.005	<0.005	<0.005 [<0.005]	<0.010	<0.010	<0.010	<0.005 [<0.005]	<0.005	<0.010	<0.010	<0.010
Copper	mg/L	0.015	0.007	0.006	0.017	0.015	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005 [<0.005]	0.003	<0.002	0.014	<0.005 [<0.005]	0.010	0.002	0.003	0.003
Lead	mg/L	<0.002	<0.002	<0.003	<0.003	<0.003	<0.002	<0.002	<0.002	<0.003	<0.003	<0.003 [<0.003]	<0.002	<0.002	<0.002	<0.003 [<0.003]	<0.003	<0.002	0.002	<0.002
Manganese	mg/L	0.169 ^a	0.129 ^a	0.020	0.073 ^a	0.114 ^a	0.607 ^a	0.168 ^a	0.144 ^a	0.153 ^a	0.133 ^a	0.149 [0.145] ^a	0.708 ^a	0.285 ^a	0.151 ^a	0.133 [0.137] ^a	0.188 ^a	0.020	0.165 ^a	0.042
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	mg/L	0.011	0.027	0.035	0.030	0.018	<0.010	0.013	<0.010	0.015	0.013	0.007 [0.007]	<0.010	<0.010	0.010	0.011 [0.011]	0.005	<0.010	<0.010	<0.010
Selenium	mg/L	<0.002	<0.005	<0.005	0.007	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005 [<0.005]	<0.002	<0.002	<0.005	<0.005 [<0.005]	<0.005	<0.002	<0.002	<0.005
Silver	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005 [<0.0005]	<0.0002	<0.0002	<0.0005	<0.0005 [<0.0005]	<0.0005	<0.0002	<0.0002	<0.0005
Thallium	mg/L	NA	NA	NA	NA	NA	<0.002	NA	NA	NA	NA	NA	<0.002	NA	NA	NA	NA	<0.002	NA	NA
Vanadium	mg/L	<0.002	<0.002	<0.005	<0.004	<0.004	<0.002	<0.002	<0.002	<0.005	<0.004	<0.004 [<0.004]	<0.002	<0.002	<0.002	<0.004 [<0.004]	<0.004	<0.002	<0.002	<0.002
Zinc	mg/L	0.036	0.024	0.029	0.041	0.035	0.085 J	<0.010	<0.010	0.009	0.006	0.006 [0.005]	0.053 J	<0.010	0.100	0.027 [0.025]	0.048	<0.010	0.019	0.018
General Chemistry																				
Alkalinity, total (as CaCO3)	mg/L	NA	NA	465	NA	NA	NA	NA	NA	323	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon dioxide	mg/L	NA	NA	261 F	NA	NA	NA	NA	NA	132	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	mg/L	NA	NA	<0.5	NA	NA	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	NA	NA	56	NA	NA	NA	NA	NA	181	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field**																				
Conductance, specific	mS/cm	NA	5.542	6.344	5.605	3.915	NA	NA	1.120	1.444	0.859	1.408	NA	NA	0.867	0.511	0.817	NA	NA	2.228
Dissolved oxygen (DO)	mg/L	NA	0.37	0.11	9.98	1.08	NA	NA	0.54	0.21	0.53	0.35	NA	NA	0.07	1.89	1.80	NA	NA	0.53
Oxidation reduction potential (ORP), field	millivolts	NA	-28.30	-40.50	-53.40	-27.80	NA	NA	-88.50	-104.90	-81.10	-104.50	NA	NA	125.1	45.7	93.8	NA	NA	0.2
pH	s.u.	NA	6.68	6.73	6.64	6.95	NA	NA	7.25	7.15	7.49	7.14	NA	NA	7.06	7.17	6.99	NA	NA	6.86
Temperature, field	Deg C	NA	16.42	19.07	12.70	11.36	NA	NA	17.25	24.54	10.64	11.55	NA	NA	18.68	11.14	4.85	NA	NA	14.83
Turbidity (field)	NTU	NA	8.65	5.84	7.69	62.5	NA	NA	3.07	9.96	5.60	7.98	NA	NA	8.56	2.96	11	NA	NA	4.56

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Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-02(2) 12-22 Plant 2 08/15/13	MW-02(2) 12-22 Plant 2 11/11/13	MW-02(2) 12-22 Plant 2 02/14/14	MW-02-01(3) 59-69 Plant 3 10/12/11	MW-02-01(3)* 59-69 Plant 3 12/18/12	MW-02-01(3) 59-69 Plant 3 05/23/13	MW-02-01(3) 59-69 Plant 3 08/19/13	MW-02-01(3) 59-69 Plant 3 11/06/13	MW-02-01(3) 59-69 Plant 3 02/06/14	MW-02-01(6) 35-45 Plant 6 10/17/11	MW-02-01(6) 35-45 Plant 6 12/21/12	MW-02-01(6) 35-45 Plant 6 06/07/13	MW-02-01(6) 35-45 Plant 6 08/21/13	MW-02-01(6) 35-45 Plant 6 11/14/13	MW-02-02(3) 74-84 Plant 3 10/13/11	MW-02-02(3) 74-84 Plant 3 12/19/12	MW-02-02(3) 74-84 Plant 3 05/28/13	MW-02-02(3) 74-84 Plant 3 08/20/13	MW-02-02(3) 74-84 Plant 3 11/12/13
Volatile Organics																				
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<1	<1	<1	<0.05 J	<1	<1 [<1]	<1	<1	<1	<0.05	<1	<1	<1	<1	<0.05 J	<1	<1	<1	<1
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<1	<1	<1	<0.02	<1	<1 [<1]	<1	<1	<1	<0.02	<1	<1	<1	<1	<0.02	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dioxane	ug/L	<5	<5	<5	<5	<5	<5 [<5]	<5	<5	<5	26	25	21	23	25	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10 J	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	<10	<10 J	<10 [<10]	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane (Methyl bromide)	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform (Trichloromethane)	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane (Methyl chloride)	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane (CFC-12)	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl acetate	ug/L	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	<1	<1
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert butyl ether (MTBE)	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane (CFC-11)	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trifluorotrichloroethane (Freon 113)	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	<10	<10	<10	<10	<10 J	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cyclohexane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl cyclohexane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropyl benzene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
m&p-Xylene	ug/L	<2	<2	<2	<2	<2	<2 [<2]	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2

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RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

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Semivolatile Organics																				
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropanol))	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
2,4,6-Trichlorophenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
2,4-Dichlorophenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1 J	<1	<1
2,4,5-Trichlorophenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
2,4-Dimethylphenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4-Dinitrophenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
2,4-Dinitrotoluene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,6-Dinitrotoluene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
2-Chloronaphthalene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
2-Chlorophenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Methylnaphthalene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
2-Methylphenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Nitrophenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1 J	<1	<1
3&4-Methylphenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	NA	NA	NA	NA
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
3-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1 J	<1	<1
4,6-Dinitro-2-methylphenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
4-Bromophenyl phenyl ether	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
4-Chloro-3-methylphenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Chloroaniline	ug/L	<1	<1	<1	<2	<2 J	<1 [<1]	<1	<1	<1	<2	<1	<1	<1	<1	<2	R	<1 J	<1	<1
4-Chlorophenyl phenyl ether	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
4-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
4-Nitrophenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Anthracene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acenaphthene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
Acenaphthylene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
Acetophenone	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
Atrazine	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzaldehyde	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
Benzo(a)anthracene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(a)pyrene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(b)fluoranthene	ug/L	<1	<1	<1	<1	R	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(k)fluoranthene	ug/L	<1	<1	<1	<1	R	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Biphenyl (1,1-Biphenyl)	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
bis(2-Chloroethoxy)methane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
bis(2-Chloroethyl)ether	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1										

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-02(2) 12-22 Plant 2 08/15/13	MW-02(2) 12-22 Plant 2 11/11/13	MW-02(2) 12-22 Plant 2 02/14/14	MW-02-01(3) 59-69 Plant 3 10/12/11	MW-02-01(3)* 59-69 Plant 3 12/18/12	MW-02-01(3) 59-69 Plant 3 05/23/13	MW-02-01(3) 59-69 Plant 3 08/19/13	MW-02-01(3) 59-69 Plant 3 11/06/13	MW-02-01(3) 59-69 Plant 3 02/06/14	MW-02-01(6) 35-45 Plant 6 10/17/11	MW-02-01(6) 35-45 Plant 6 12/21/12	MW-02-01(6) 35-45 Plant 6 06/07/13	MW-02-01(6) 35-45 Plant 6 08/21/13	MW-02-01(6) 35-45 Plant 6 11/14/13	MW-02-02(3) 74-84 Plant 3 10/13/11	MW-02-02(3) 74-84 Plant 3 12/19/12	MW-02-02(3) 74-84 Plant 3 05/28/13	MW-02-02(3) 74-84 Plant 3 08/20/13	MW-02-02(3) 74-84 Plant 3 11/12/13
PCBs																				
Total PCBs	ug/L	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	NA	NA	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	<0.05	<0.05	NA	NA	NA
Aroclor-1221 (PCB-1221)	ug/L	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1232 (PCB-1232)	ug/L	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1242 (PCB-1242)	ug/L	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1248 (PCB-1248)	ug/L	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1254 (PCB-1254)	ug/L	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1260 (PCB-1260)	ug/L	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	<0.05	<0.05	NA	NA	NA
Inorganics																				
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	<0.005	<0.005	<0.005	<0.002	NA	<0.002 [<0.002]	<0.005	<0.005	<0.005	0.005	<0.002	<0.002	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005
Arsenic	mg/L	<0.002	0.002	0.003	0.004	NA	0.006 [0.006]	0.011 ^{ab}	0.007	0.008	0.014 ^{ab}	0.036 ^{ab}	0.031 ^{ab}	0.014 ^{ab}	0.037 ^{ab}	<0.002	<0.002	0.004	0.006	0.009
Barium	mg/L	0.147	0.129	0.146	0.084	NA	0.080 [0.079]	0.088	0.090	0.095	0.941	1.18	1.25 ^b	1.74 ^b	1.69 ^b	0.041	0.080	0.063	0.099	0.096
Beryllium	mg/L	NA	NA	NA	<0.001	NA	NA	NA	NA	NA	<0.001	NA	NA	NA	NA	<0.001	NA	NA	NA	NA
Boron	mg/L	0.11	0.12	0.09	0.11	NA	0.12 [0.14]	0.11	0.12	0.11	0.12	0.12	0.15	0.15	0.14	<0.04	<0.04	0.04	0.06	<0.04
Cadmium	mg/L	<0.005	0.0011	<0.0005	<0.001	NA	<0.0010 [<0.001]	<0.005	<0.0005	<0.0005	<0.001	<0.001	<0.0010	<0.0005	<0.0005	<0.001	<0.001	<0.0010	<0.005	<0.0005
Chromium	mg/L	<0.005	<0.005	0.007	<0.010	NA	<0.010 [<0.01]	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.005	0.012	<0.010	<0.010	<0.010	<0.005	0.009
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.01 J	<0.01	<0.01
Cobalt	mg/L	<0.005	<0.005	<0.005	<0.010	NA	<0.010 [<0.01]	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.005	0.005	<0.010	<0.010	<0.010	0.008	0.008
Copper	mg/L	<0.005	0.008	<0.005	<0.002	NA	0.004 [0.007]	<0.005	<0.005	<0.005	0.065 J ^b	0.010	0.007	<0.005	0.040 ^b	<0.002	<0.002	<0.002	<0.005	<0.005
Lead	mg/L	<0.003	<0.003	<0.003	<0.002	NA	<0.002 [<0.002]	<0.003	<0.003	<0.003	0.016 J ^a	0.003	0.002	<0.003	0.012 ^a	<0.002	<0.002	<0.002	<0.003	<0.003
Manganese	mg/L	0.105 ^a	0.062 ^a	0.122 ^a	0.057 ^a	NA	0.049 [0.049]	0.060 ^a	0.059 ^a	0.072 ^a	0.103 J ^a	0.170 ^a	0.194 ^a	0.224 ^a	0.399 ^a	0.144 ^a	1.64 ^a	2.13 ^a	1.39 ^a	1.10 ^a
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	NA	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	mg/L	0.012	0.010	0.011	<0.010	NA	<0.010 [<0.01]	0.005	0.007	<0.005	<0.010 J	0.021	0.032	0.034	0.039	<0.010	0.024	0.033	0.038	0.045
Selenium	mg/L	0.006	<0.005	<0.005	<0.002	NA	<0.005 [<0.005]	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005
Silver	mg/L	<0.0005	<0.0005	<0.0005	<0.0002	NA	<0.0005 [<0.0005]	<0.0005	<0.0005	<0.0005	0.0003 ^b	<0.0002	<0.0005	0.0006 ^b	<0.0005	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005
Thallium	mg/L	NA	NA	NA	<0.002	NA	NA	NA	NA	NA	<0.002	NA	NA	NA	NA	<0.002	NA	NA	NA	NA
Vanadium	mg/L	<0.005	<0.004	<0.004	<0.002	NA	<0.002 [<0.002]	<0.005	<0.004	<0.004	0.002	<0.002	<0.002	<0.005	0.006 ^a	<0.002	<0.002	<0.002	<0.005	<0.004
Zinc	mg/L	0.019	0.027	0.017	<0.010	NA	0.027 [0.013]	0.010	0.008	0.010	0.095	0.030	0.016	0.017	0.073	0.01	0.051	0.032	0.015	0.005
General Chemistry																				
Alkalinity, total (as CaCO3)	mg/L	673	NA	NA	NA	NA	NA	250	NA	NA	NA	NA	NA	402	NA	NA	NA	NA	410	NA
Carbon dioxide	mg/L	225	NA	NA	NA	NA	NA	107	NA	NA	NA	NA	NA	206	NA	NA	NA	NA	277	NA
Nitrate (as N)	mg/L	0.5	NA	NA	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA
Sulfate	mg/L	76	NA	NA	NA	NA	NA	68	NA	NA	NA	NA	NA	27	NA	NA	NA	NA	364 ^a	NA
Field**																				
Conductance, specific	mS/cm	2.569	2.134	2.336	NA	NA	0.491	0.701	0.525	0.726	NA	NA	4.475	5.367	7.476	NA	NA	4.355	3.321	2.896
Dissolved oxygen (DO)	mg/L	0.20	7.61	2.29	NA	NA	0.73	0.14	0.32	0.60	NA	NA	0.13	0.13	2.91	NA	NA	0.29	0.26	0.94
Oxidation reduction potential (ORP), field	millivolts	27.5	29.5	22.8	NA	NA	-85.10	116.6	-78.70	-70.90	NA	NA	-90.60	-73.30	-95.80	NA	NA	-26.40	-55.50	-16.30
pH	s.u.	6.87	6.65	6.99	NA	NA	12.98	7.38	7.36	7.40	NA	NA	7.11	6.87	6.94	NA	NA	6.54	6.29	8.15
Temperature, field	Deg C	19.73	9.22	10.07	NA	NA	11.77	15.36	14.07	11.05	NA	NA	16.98	23.51	13.37	NA	NA	16.93	16.76	6.76
Turbidity (field)	NTU	1.85	9.8	8.72	NA	NA	8.58	38.9	43.8	88.5	NA	NA	7	5.74	119.8	NA	NA	7.68	8.08	8.72

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-02-02(3) 74-84 Plant 3 02/12/14	MW-02-02(6) 35-45 Plant 6 10/18/11	MW-02-02(6)* 35 - 45 Plant 6 12/21/12	MW-02-02(6) 35 - 45 Plant 6 06/07/13	MW-02-02(6) 35 - 45 Plant 6 08/21/13	MW-02-02(6) 35 - 45 Plant 6 11/14/13	MW-02-02(6) 35 - 45 Plant 6 02/19/14	MW-02-03(3) 79 - 89 Plant 3 10/12/11	MW-02-03(3) 79 - 89 Plant 3 12/19/12	MW-02-03(3) 79 - 89 Plant 3 05/29/13	MW-02-03(3) 79 - 89 Plant 3 08/19/13	MW-02-03(3) 79 - 89 Plant 3 11/07/13	MW-02-03(3) 79 - 89 Plant 3 02/11/14	MW-02-03(6) 35-45 Plant 6 10/18/11	MW-02-03(6)* 35 - 45 Plant 6 01/02/13	MW-02-03(6) 35-45 Plant 6 06/11/13	MW-02-03(6) 35-45 Plant 6 08/22/13	MW-02-03(6) 35-45 Plant 6 11/14/13
Volatile Organics																			
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<1 [<1]	<0.05	<1	<1	<1	<1	<1	<0.05 J	<1	<1	<1 [<1]	<1	<1	<0.05	<1	<1	<1	<1
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<1 [<1]	<0.02	<1	<1	<1	<1	<1	<0.02	<1	<1	<1 [<1]	<1	<1	<0.02	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
1,4-Dioxane	ug/L	<5 [<5]	21	20	17	23	21	20	<5	<5	<5	<5 [<5]	<5	<5	13	13	18	17	17
1,1,1-Trichloroethane	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10 [<10]	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10 J	<10	14	16	<10
1,1,2-Trichloroethane	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Bromomethane (Methyl bromide)	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Chloroform (Trichloromethane)	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Chloromethane (Methyl chloride)	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	1	1	1	1
Chloroethane	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane (CFC-12)	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Benzene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Methyl acetate	ug/L	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Toluene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Methyl tert butyl ether (MTBE)	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane (CFC-11)	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trifluorotrichloroethane (Freon 113)	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10
1,2,4-Trichlorobenzene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Cyclohexane	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Methyl cyclohexane	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Dibromochloromethane	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Isopropyl benzene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
m&p-Xylene	ug/L	<2 [<2]	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2 [<2]	<2	<2	<2	<2	<2	<2	<2

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-02-02(3) 74-84 Plant 3 02/12/14	MW-02-02(6) 35-45 Plant 6 10/18/11	MW-02-02(6)* 35 - 45 Plant 6 12/21/12	MW-02-02(6) 35 - 45 Plant 6 06/07/13	MW-02-02(6) 35 - 45 Plant 6 08/21/13	MW-02-02(6) 35 - 45 Plant 6 11/14/13	MW-02-02(6) 35 - 45 Plant 6 02/19/14	MW-02-03(3) 79 - 89 Plant 3 10/12/11	MW-02-03(3) 79 - 89 Plant 3 12/19/12	MW-02-03(3) 79 - 89 Plant 3 05/29/13	MW-02-03(3) 79 - 89 Plant 3 08/19/13	MW-02-03(3) 79 - 89 Plant 3 11/07/13	MW-02-03(3) 79 - 89 Plant 3 02/11/14	MW-02-03(6) 35-45 Plant 6 10/18/11	MW-02-03(6)* 35 - 45 Plant 6 01/02/13	MW-02-03(6) 35-45 Plant 6 06/11/13	MW-02-03(6) 35-45 Plant 6 08/22/13	MW-02-03(6) 35-45 Plant 6 11/14/13
Semivolatile Organics																			
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisop	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
2,4,6-Trichlorophenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
2,4-Dichlorophenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
2,4-Dimethylphenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
2,4-Dinitrophenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
2,4-Dinitrotoluene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
2,6-Dinitrotoluene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
2-Chloronaphthalene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
2-Chlorophenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
2-Methylnaphthalene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
2-Methylphenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
2-Nitroaniline	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
2-Nitrophenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
3&4-Methylphenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
3,3'-Dichlorobenzidine	ug/L	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA
Naphthalene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
3-Nitroaniline	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
4,6-Dinitro-2-methylphenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
4-Bromophenyl phenyl ether	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
4-Chloro-3-methylphenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
4-Chloroaniline	ug/L	<1 [<1]	<2	<2	<1	<1	<1	<1	<2	<1 J	<1	<1 [<1]	<1	<1	<2	<2	<1	<1	<1
4-Chlorophenyl phenyl ether	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
4-Nitroaniline	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
4-Nitrophenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Anthracene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Acenaphthene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Acenaphthylene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Acetophenone	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Atrazine	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Benzaldehyde	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Benzo(a)anthracene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Benzo(a)pyrene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Benzo(b)fluoranthene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Benzo(k)fluoranthene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Biphenyl (1,1-Biphenyl)	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
bis(2-Chloroethoxy)methane	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
bis(2-Chloroethyl)ether	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	2 B [6 B]	<2	<2	1	1	<1	3 B	<2	<1	<1	<1 [<1]	1	7 B ^a	<2	<2	1 B	<1	<1
Butyl benzylphthalate (BBP)	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Caprolactam	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	7 J	1	<1
Carbazole	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Chrysene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Dibenz(a,h)anthracene	ug/L	<2 [<2]	<1	<1	<2	<2	<2	<2	<1	<2	<2	<2 [<2]	<2	<2	<1	<1	<2	<2	<2
Dibenzofuran	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Diethyl phthalate	ug/L	<2 [<2]	<2	<2	<1	<1	<1	<2	<2	<1	<1	<1 [<1]	<1	<1	<2	<2	<2	<1	<2
Dimethyl phthalate	ug/L	<1 [<1]	<2	<2	<1	5	<1	<1	<2	<1	<1	5 [6]	<1	<1	<2	<2	<1	5 B	<1
Di-n-butylphthalate (DBP)	ug/L	<1 [<1]	<1	<1	1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	2	<1	<1
Di-n-octyl phthalate (DnOP)	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	1	<1
Fluoranthene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Fluorene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Hexachlorobenzene	ug/L	<1 [<1]	<0.05	NA	<1	<1	<1	<1	<0.05	NA	<1	<1 [<1]	<1	<1	<0.05	NA	<1	<1	<1
Hexachlorobutadiene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Hexachlorocyclopentadiene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Hexachloroethane	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Indeno(1,2,3-cd)pyrene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Isophorone	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Nitrobenzene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
N-Nitrosodi-n-propylamine	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
N-Nitrosodiphenylamine	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Pentachlorophenol	ug/L	<1 [<1]	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Phenanthrene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Phenol	ug/L	<1 [<1]	1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	2 J	<1	<1	<1
Pyrene	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-02-02(3) 74-84 Plant 3 02/12/14	MW-02-02(6) 35-45 Plant 6 10/18/11	MW-02-02(6)* 35 - 45 Plant 6 12/21/12	MW-02-02(6) 35 - 45 Plant 6 06/07/13	MW-02-02(6) 35 - 45 Plant 6 08/21/13	MW-02-02(6) 35 - 45 Plant 6 11/14/13	MW-02-02(6) 35 - 45 Plant 6 02/19/14	MW-02-03(3) 79 - 89 Plant 3 10/12/11	MW-02-03(3) 79 - 89 Plant 3 12/19/12	MW-02-03(3) 79 - 89 Plant 3 05/29/13	MW-02-03(3) 79 - 89 Plant 3 08/19/13	MW-02-03(3) 79 - 89 Plant 3 11/07/13	MW-02-03(3) 79 - 89 Plant 3 02/11/14	MW-02-03(6) 35-45 Plant 6 10/18/11	MW-02-03(6)* 35 - 45 Plant 6 01/02/13	MW-02-03(6) 35-45 Plant 6 06/11/13	MW-02-03(6) 35-45 Plant 6 08/22/13	MW-02-03(6) 35-45 Plant 6 11/14/13
PCBs																			
Total PCBs	ug/L	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	NA	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA
Aroclor-1221 (PCB-1221)	ug/L	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1232 (PCB-1232)	ug/L	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1242 (PCB-1242)	ug/L	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1248 (PCB-1248)	ug/L	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1254 (PCB-1254)	ug/L	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1260 (PCB-1260)	ug/L	NA	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA
Inorganics																			
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	<0.005 [<0.005]	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005 [<0.005]	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005
Arsenic	mg/L	0.007 [0.007]	0.025 ^{ab}	0.051 ^{ab}	0.031 ^{ab}	0.029 ^{ab}	0.047 ^{ab}	0.041 ^{ab}	0.006	0.007	0.009	0.009 [0.009]	0.014 ^{ab}	0.013 ^{ab}	0.007	0.109 ^{ab}	0.028 ^{ab}	0.015 ^{ab}	0.050 ^{ab}
Barium	mg/L	0.078 [0.079]	0.854	1.08	1.04	1.12	1.14	1.19	0.463	0.602	0.695	0.712 [0.744]	0.979	0.592	0.944	0.935	1.21 ^b	1.25 ^b	1.15
Beryllium	mg/L	NA	<0.001	NA	NA	NA	NA	NA	<0.001	NA	NA	NA	NA	NA	<0.001	NA	NA	NA	NA
Boron	mg/L	<0.04 [<0.04]	0.06	0.07	0.06	0.06	0.06	0.07	0.08	<0.04	<0.04	<0.04 [<0.04]	0.04	<0.04	0.05	0.10	0.13	0.09	0.06
Cadmium	mg/L	<0.0005 [<0.0005]	<0.001	<0.001	<0.0010	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.0010	<0.005 [<0.005]	<0.0005	<0.0005	<0.001	<0.001	<0.0010	0.0013	0.0010
Chromium	mg/L	<0.005 [<0.005]	<0.010	0.013	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.005 [<0.005]	0.019	<0.005	<0.010	0.017	0.023	0.020	0.026
Chromium VI (hexavalent)	mg/L	<0.01 [<0.01]	NA	NA	NA	NA	NA	NA	NA	R	<0.01	<0.01	<0.01	<0.01	NA	NA	NA	NA	NA
Cobalt	mg/L	0.008 [0.008]	<0.010	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.005 [<0.005]	0.010	<0.005	<0.010	<0.010	<0.010	0.005	0.012
Copper	mg/L	0.005 [0.005]	0.003 J	0.009	<0.002	0.016	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005 [<0.005]	0.010	0.005	<0.002 J	0.030 ^b	0.006	0.010	0.082 ^b
Lead	mg/L	<0.003 [<0.003]	<0.002 J	0.005 ^a	<0.002	<0.003	<0.003	<0.003	<0.002	<0.002	<0.002	<0.003 [<0.003]	0.004	<0.003	<0.002 J	0.009 ^a	0.002	0.005 ^a	0.026 ^a
Manganese	mg/L	1.23 [1.24] ^a	0.119 J ^a	0.478 ^a	0.120 ^a	0.124 ^a	0.116 ^a	0.124 ^a	0.158 ^a	0.112 ^a	0.121 ^a	0.113 [0.119] ^a	0.418 ^a	0.098 ^a	0.201 J ^a	0.289 ^a	0.294 ^a	0.279 ^a	0.837 ^a
Mercury	mg/L	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	mg/L	0.029 [0.029]	<0.010 J	0.025	0.048	0.027	0.023	0.012	<0.010	<0.010	0.022	0.025 [0.026]	0.057	0.016	<0.010 J	0.090	0.186 ^{ab}	0.075	0.097
Selenium	mg/L	0.005 [0.005]	<0.002	<0.002	0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005	0.005 [<0.005]	<0.005	<0.005	<0.002	0.004	0.016	0.007	0.006
Silver	mg/L	<0.0005 [<0.0005]	<0.0002	<0.0002	<0.0005	<0.0005	0.0010 ^b	<0.0005	<0.0002	<0.0002	<0.0005	<0.0005 [<0.0005]	0.0005 ^b	<0.0005	0.0003 ^b	<0.0002	<0.0005	<0.0005	<0.0005
Thallium	mg/L	NA	<0.002	NA	NA	NA	NA	NA	<0.002	NA	NA	NA	NA	NA	<0.002	NA	NA	NA	NA
Vanadium	mg/L	<0.004 [<0.004]	<0.002	0.005 ^a	<0.002	<0.005	<0.004	<0.004	<0.002	<0.002	<0.002	<0.005 [<0.005]	0.006 ^a	<0.004	<0.002	0.025 ^a	<0.002	0.008 ^a	0.012 ^a
Zinc	mg/L	0.026 [0.025]	0.015	0.047	0.025	0.006	0.008	<0.005	<0.010	<0.010	<0.010	0.005 [<0.005]	0.045	0.021	0.015	0.100	0.039	0.051	0.169
General Chemistry																			
Alkalinity, total (as CaCO3)	mg/L	NA	NA	NA	NA	246	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	308	NA
Carbon dioxide	mg/L	NA	NA	NA	NA	156	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	250	NA
Nitrate (as N)	mg/L	NA	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA
Sulfate	mg/L	NA	NA	NA	NA	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	65	NA
Field**																			
Conductance, specific	mS/cm	4.315	NA	NA	4.106	4.048	4.454	4.766	NA	NA	3.931	4.080	4.239	4.529	NA	NA	7.740	7.423	9.987
Dissolved oxygen (DO)	mg/L	0.51	NA	NA	0.57	0.15	6.52	0.43	NA	NA	0.22	0.23	0.50	0.52	NA	NA	1.31	0.86	4.48
Oxidation reduction potential (ORP), field	millivolts	-7.40	NA	NA	-30.70	-79.00	-57.20	-70.80	NA	NA	-82.30	-71.50	-127.00	-45.40	NA	NA	322.7	-26.00	-71.30
pH	s.u.	6.49	NA	NA	7.21	6.99	6.98	7.15	NA	NA	6.73	6.92	6.50	6.93	NA	NA	6.89	6.74	6.81
Temperature, field	Deg C	4.65	NA	NA	14.57	20.44	7.52	13.33	NA	NA	16.80	15.44	10.53	5.35	NA	NA	23.37	24.00	10.77
Turbidity (field)	NTU	9.32	NA	NA	7	6.98	7.00	8.82	NA	NA	2.51	2.81	9.96	9.61	NA	NA	18	59.1	111.2

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-02-03(6) 35-45 Plant 6 02/19/14	MW-02-04(3)* 76-86 Plant 3 12/19/12	MW-02-04(3) 76-86 Plant 3 05/21/13	MW-02-04(3) 76-86 Plant 3 08/19/13	MW-02-04(3) 76-86 Plant 3 11/07/13	MW-02-04(3) 76-86 Plant 3 02/11/14	MW-03(2) 12-22 Plant 2 10/18/11	MW-03(2) 12-22 Plant 2 12/20/12	MW-03(2) 12-22 Plant 2 05/22/13	MW-03(2) 12-22 Plant 2 08/19/13	MW-03(2) 12-22 Plant 2 11/13/13	MW-03(2) 12-22 Plant 2 02/17/14	MW-03(3) 8-13 Plant 3 10/19/11	MW-03(3) 8-13 Plant 3 01/03/13	MW-03-01 28-33 Plant 6 10/17/11	MW-03-01 28-33 Plant 6 12/20/12	MW-03-01 28-33 Plant 6 05/28/13	MW-03-01 28-33 Plant 6 08/15/13	MW-03-01 28-33 Plant 6 11/07/13	MW-03-01 28-33 Plant 6 02/18/14	MW-03-02 30-40 Plant 6 10/17/11
Volatile Organics																						
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<1	<1	<1	<1	<1	<1	<0.05	<1	<1	<1	<1	<1	<0.05	<1	<0.05	<1	<1	<1	<1	<1	<0.05
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<1	<1	<1	<1	<1	<1	<0.02	<1	<1	<1	<1	<1	<0.02	<1	<0.02	<1	<1	<1	<1	<1	<0.02
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dioxane	ug/L	16	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2	1	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10	<10
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane (Methyl bromide)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform (Trichloromethane)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane (Methyl chloride)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	ug/L	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane (CFC-12)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl acetate	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	ug/L	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert butyl ether (MTBE)	ug/L	<1	<1	<1	<1	<1	<1	<1	2	<1	1	2	2	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane (CFC-11)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trifluorotrichloroethane (Freon 113)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cyclohexane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl cyclohexane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropyl benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
m&p-Xylene	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2

Preliminary Groundwater Geochemical Assessment RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Table 1 - Complete Data Table_final.xlsx

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:			MW-02-03(6) 35-45 Plant 6 02/19/14	MW-02-04(3)* 76-86 Plant 3 12/19/12	MW-02-04(3) 76-86 Plant 3 05/21/13	MW-02-04(3) 76-86 Plant 3 08/19/13	MW-02-04(3) 76-86 Plant 3 11/07/13	MW-02-04(3) 76-86 Plant 3 02/11/14	MW-03(2) 12-22 Plant 2 10/18/11	MW-03(2) 12-22 Plant 2 12/20/12	MW-03(2) 12-22 Plant 2 05/22/13	MW-03(2) 12-22 Plant 2 08/19/13	MW-03(2) 12-22 Plant 2 11/13/13	MW-03(2) 12-22 Plant 2 02/17/14	MW-03(3) 8-13 Plant 3 10/19/11	MW-03(3) 8-13 Plant 3 01/03/13	MW-03-01 28-33 Plant 6 10/17/11	MW-03-01 28-33 Plant 6 12/20/12	MW-03-01 28-33 Plant 6 05/28/13	MW-03-01 28-33 Plant 6 08/15/13	MW-03-01 28-33 Plant 6 11/07/13	MW-03-01 28-33 Plant 6 02/18/14	MW-03-02 30-40 Plant 6 10/17/11
PCBs																							
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	<0.05	NA	NA	NA	NA	NA	<0.05
Aroclor-1016 (PCB-1016)	ug/L	NA	<0.05	NA	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	<0.05	<0.05	NA	NA	NA	NA	<0.05
Aroclor-1221 (PCB-1221)	ug/L	NA	<0.1	NA	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	<0.05	<0.1	NA	NA	NA	NA	<0.05
Aroclor-1232 (PCB-1232)	ug/L	NA	<0.1	NA	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	<0.05	<0.1	NA	NA	NA	NA	<0.05
Aroclor-1242 (PCB-1242)	ug/L	NA	<0.1	NA	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	<0.05	<0.1	NA	NA	NA	NA	<0.05
Aroclor-1248 (PCB-1248)	ug/L	NA	<0.1	NA	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	<0.05	<0.1	NA	NA	NA	NA	<0.05
Aroclor-1254 (PCB-1254)	ug/L	NA	<0.1	NA	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	<0.05	<0.1	NA	NA	NA	NA	<0.05
Aroclor-1260 (PCB-1260)	ug/L	NA	<0.05	NA	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	<0.05	<0.05	NA	NA	NA	NA	<0.05
Inorganics																							
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	0.008 ^a	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002
Arsenic	mg/L	0.089 ^{ab}	0.023 ^{ab}	0.013 ^{ab}	0.015 ^{ab}	0.021 ^{ab}	0.024 ^{ab}	<0.002	0.003	0.003	0.003	0.003	0.011 ^{ab}	0.012 ^{ab}	0.008	0.005	0.005	0.016 ^{ab}	0.019 ^{ab}	0.018 ^{ab}	0.047 ^{ab}	0.040 ^{ab}	0.005
Barium	mg/L	1.31 ^b	0.172	0.157	0.167	0.161	0.162	0.618	0.551	0.374	0.441	0.452	0.411	0.208	0.100	0.463	0.380	0.396	0.370	0.364	0.387	0.473	
Beryllium	mg/L	NA	NA	NA	NA	NA	NA	<0.001	NA	NA	NA	NA	NA	<0.001	NA	<0.001	NA	NA	NA	NA	NA	<0.001	
Boron	mg/L	0.07	<0.04	<0.04	<0.04	0.04	0.04	0.17	0.16 J	0.18	0.18	0.16	0.15	0.05 J	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.05
Cadmium	mg/L	<0.0005	<0.001	<0.0010	<0.005	<0.0005	<0.0005	<0.001	<0.001	<0.0010	<0.005	0.0006	<0.0005	<0.001	<0.001	0.004	<0.001	<0.0010	<0.005	<0.0005	<0.0005	<0.001	
Chromium	mg/L	0.030	0.112	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.005	0.010	<0.005	<0.010	<0.010	<0.010	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	
Chromium VI (hexavalent)	mg/L	NA	<0.02	<0.01	<0.01	<0.05 X	<0.01	<0.02	NA	NA	NA	NA	NA	NA	<0.01	NA	NA	NA	NA	NA	NA	NA	
Cobalt	mg/L	0.006	<0.010	<0.010	0.009	0.010	0.011	0.012	<0.010	0.010	0.010	0.005	0.007	<0.010	<0.010	0.011	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	
Copper	mg/L	0.015	0.009	0.038 ^b	<0.005	<0.005	0.006	0.006	0.007	0.018	0.005	0.006	0.009	<0.002	0.004	<0.002	<0.002	0.003	<0.005	0.005	<0.005	0.104 ^b	
Lead	mg/L	0.006 ^a	0.002	<0.002	<0.003	<0.003	<0.003	<0.002	<0.002	<0.002	<0.003	<0.003	<0.003	<0.002	<0.002	<0.002	0.014 ^a	<0.002	<0.002	<0.003	<0.003	<0.003	0.002
Manganese	mg/L	0.397 ^a	0.275 ^a	0.069 ^a	0.072 ^a	0.076 ^a	0.083 ^a	2.14 ^a	2.03 ^a	1.35 ^a	1.62 ^a	1.25 ^a	1.48 ^a	0.799 ^a	0.574 ^a	0.235 ^a	0.255 ^a	0.281 ^a	0.207 ^a	0.294 ^a	0.278 ^a	0.192 ^a	
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	
Nickel	mg/L	0.045	0.110 ^a	0.019	0.031	0.036	0.025	0.049	0.028	0.053	0.062	0.058	0.037	<0.010	0.011	0.010	<0.010	0.032	0.046	0.049	0.018	<0.010	
Selenium	mg/L	<0.005	<0.002	<0.005	<0.005	0.005	<0.005	<0.002	<0.002	0.005	0.009	0.010	0.005	<0.002	<0.002	<0.002	<0.002	0.007	0.013	0.008	<0.005	<0.002	
Silver	mg/L	<0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0005 ^b	<0.0002	<0.0005	<0.0005	0.0005 ^b	<0.0005	0.0002	<0.0002	0.0023 J ^b	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0010 J ^b	
Thallium	mg/L	NA	NA	NA	NA	NA	NA	<0.002	NA	NA	NA	NA	NA	<0.002	NA	<0.002	NA	NA	NA	NA	NA	<0.002	
Vanadium	mg/L	0.007 ^a	0.004	<0.002	<0.005	<0.004	<0.004	<0.002	<0.002	<0.002	<0.005	<0.004	<0.004	<0.002	0.003	<0.002	<0.002	<0.002	<0.005	<0.004	<0.004	0.004	
Zinc	mg/L	0.046	0.021	0.017	0.008	0.008	0.022	0.018	<0.010	0.020	0.009	0.009	0.021	<0.010 J	0.021	0.060	0.014	0.020	0.026	0.015	0.010	0.091	
General Chemistry																							
Alkalinity, total (as CaCO3)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	485	NA	NA	NA	NA	NA	NA	NA	325	NA	NA	NA	
Carbon dioxide	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	264	NA	NA	NA	NA	NA	NA	NA	198	NA	NA	NA	
Nitrate (as N)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	NA	NA	
Sulfate	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	99	NA	NA	NA	NA	NA	NA	NA	129	NA	NA	NA	
Field**																							
Conductance, specific	mS/cm	8.196	NA	3.299	3.944	4.260	4.781	NA	NA	6.188	6.390	6.533	6.889	NA	NA	NA	NA	14.07	13.14	18.84	14.23	NA	
Dissolved oxygen (DO)	mg/L	0.40	NA	0.45	0.20	0.48	0.51	NA	NA	0.13	0.25	4.48	0.57	NA	NA	NA	NA	0.25	0.27	2.81	0.21	NA	
Oxidation reduction potential (ORP), field	millivolts	-58.50	NA	-29.70	-79.80	-123.90	-42.50	NA	NA	4.7	70.2	-4.90	-14.80	NA	NA	NA	NA	-61.40	-69.90	-66.00	-45.10	NA	
pH	s.u.	6.85	NA	8.43	7.00	6.79	7.01	NA	NA	6.67	6.69	6.66	6.67	NA	NA	NA	NA	6.95	6.72	6.78	6.79	NA	
Temperature, field	Deg C	4.10	NA	18.05	17.11	13.51	4.31	NA	NA	12.5	18.89	12.54	7.33	NA	NA	NA	NA	16.95	18.30	11.57	8.55	NA	
Turbidity (field)	NTU	311	NA	5.05	8.78	9.98	101	NA	NA	6.98	4.90	1.39	16.7	NA	NA	NA	NA	6	1.29	6.12	6.51	NA	

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-03-02 30-40 Plant 6 12/19/12	MW-03-02 30-40 Plant 6 05/31/13	MW-03-02 30-40 Plant 6 08/15/13	MW-03-02 30-40 Plant 6 11/08/13	MW-03-02 30-40 Plant 6 02/18/14	MW-03-04 33-43 Plant 6 10/17/11	MW-03-04 33-43 Plant 6 12/20/12	MW-03-04 33-43 Plant 6 06/04/13	MW-03-04 33-43 Plant 6 08/21/13	MW-03-04 33-43 Plant 6 11/14/13	MW-03-04 33-43 Plant 6 02/18/14	MW-03-05 35-45 Plant 6 12/02/11	MW-03-05 35-45 Plant 6 12/19/12	MW-03-06 30-40 Plant 6 10/07/11	MW-03-06* 30-40 Plant 6 01/03/13	MW-03-06 30-40 Plant 6 05/29/13	MW-03-06 30-40 Plant 6 08/16/13	MW-03-06 30-40 Plant 6 11/12/13	MW-03-06 30-40 Plant 6 02/20/14	MW-03-07 30-40 Plant 6 10/18/11	MW-03-07 30-40 Plant 6 12/20/12	MW-03-07 30-40 Plant 6 06/10/13
Volatile Organics																							
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<1	<1	<1	<1	<1	<0.05 J	<1	<1	<1	<1	<1	<0.05 J	<1	<0.05	<1	<1	<1	<1	<1	<0.05	<1	<1
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<1	<1	<1	<1	<1	<0.02	<1	<1	<1	<1	<1	<0.02	<1	<0.02	<1	<1	<1	<1	<1	<0.02	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dioxane	ug/L	<5	5 B	<5	<5	<5	54	46	48	47	45	39	<5	<5	10	10	7	9	9	6	28	27	28
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 J	<10	<10	14	<10	<10	<10 J	<10 J	<10	<10
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane (Methyl bromide)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform (Trichloromethane)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane (Methyl chloride)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	4 ^a	12 ^a	12 ^a	9 ^a	12 ^a	9 ^a	<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane (CFC-12)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl acetate	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert butyl ether (MTBE)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane (CFC-11)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trifluorotrichloroethane (Freon 113)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cyclohexane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl cyclohexane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropyl benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
m&p-Xylene	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2

Preliminary Groundwater Geochemical Assessment RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Table 1 - Complete Data Table_final.xlsx

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-03-02 30-40 Plant 6 12/19/12	MW-03-02 30-40 Plant 6 05/31/13	MW-03-02 30-40 Plant 6 08/15/13	MW-03-02 30-40 Plant 6 11/08/13	MW-03-02 30-40 Plant 6 02/18/14	MW-03-04 33-43 Plant 6 10/17/11	MW-03-04 33-43 Plant 6 12/20/12	MW-03-04 33-43 Plant 6 06/04/13	MW-03-04 33-43 Plant 6 08/21/13	MW-03-04 33-43 Plant 6 11/14/13	MW-03-04 33-43 Plant 6 02/18/14	MW-03-05 35-45 Plant 6 12/02/11	MW-03-05 35-45 Plant 6 12/19/12	MW-03-06 30-40 Plant 6 10/07/11	MW-03-06* 30-40 Plant 6 01/03/13	MW-03-06 30-40 Plant 6 05/29/13	MW-03-06 30-40 Plant 6 08/16/13	MW-03-06 30-40 Plant 6 11/12/13	MW-03-06 30-40 Plant 6 02/20/14	MW-03-07 30-40 Plant 6 10/18/11	MW-03-07 30-40 Plant 6 12/20/12	MW-03-07 30-40 Plant 6 06/10/13
PCBs																							
Total PCBs	ug/L	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA
Aroclor-1221 (PCB-1221)	ug/L	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA
Aroclor-1232 (PCB-1232)	ug/L	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA
Aroclor-1242 (PCB-1242)	ug/L	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA
Aroclor-1248 (PCB-1248)	ug/L	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA
Aroclor-1254 (PCB-1254)	ug/L	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA
Aroclor-1260 (PCB-1260)	ug/L	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA
Inorganics																							
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002
Arsenic	mg/L	0.018 ^{ab}	0.010	0.018 ^{ab}	0.025 ^{ab}	0.023 ^{ab}	0.023 ^{ab}	0.024 ^{ab}	0.017 ^{ab}	0.021 ^{ab}	0.023 ^{ab}	0.022 ^{ab}	0.011 ^{ab}	0.014 ^{ab}	0.005	0.011 ^{ab}	0.009	0.012 ^{ab}	0.033 ^{ab}	0.023 ^{ab}	0.018 ^{ab}	0.049 ^{ab}	0.018 ^{ab}
Barium	mg/L	0.502	0.403	0.567	0.536	0.477	0.293	0.331	0.311	0.342	0.351	0.328	0.326	0.279	0.279	0.284	0.315	0.342	0.300	0.299	0.253	0.258	0.245
Beryllium	mg/L	NA	NA	NA	NA	NA	<0.001	NA	NA	NA	NA	NA	<0.001	NA	<0.005	NA	NA	NA	NA	NA	<0.001	NA	NA
Boron	mg/L	0.05	0.05	0.044	0.06	<0.04	0.13	0.11	0.11	0.11	0.11	0.10	0.10	0.12	<0.20	0.08	0.08	0.07	0.09	0.09	0.10	0.10	0.11
Cadmium	mg/L	<0.001	<0.0010	<0.005	<0.0005	<0.0005	<0.001	<0.001	<0.0010	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.001	0.0031	<0.005	0.0014	<0.0005	<0.001	<0.001	<0.0010
Chromium	mg/L	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	0.015	<0.010	0.022	0.041	0.018	<0.005	<0.010	<0.010	<0.010
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/L	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010
Copper	mg/L	<0.002	0.065 ^b	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	0.008	0.002	0.004	0.012	0.015	0.006	0.007	<0.005	<0.002 J	<0.002	<0.002
Lead	mg/L	<0.002	<0.002	<0.003	<0.003	<0.003	0.002	<0.002	<0.002	<0.003	<0.003	<0.003	0.008 ^a	<0.002	<0.002	0.003	0.007 ^a	<0.003	<0.003	<0.003	<0.002 J	<0.002	<0.002
Manganese	mg/L	0.146 ^a	0.116 ^a	0.154 ^a	0.145 ^a	0.149 ^a	0.130 ^a	0.128 ^a	0.128 ^a	0.140 ^a	0.130 ^a	0.131 ^a	0.319 ^a	0.169 ^a	0.331 ^a	0.363 ^a	0.446 ^a	0.354 ^a	0.312 ^a	0.276 ^a	0.050 J	0.071 ^a	0.076 ^a
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	mg/L	<0.010	0.017	0.029	0.023	0.013	<0.010	0.029	0.017	0.015	0.011	0.008	0.014	<0.010	0.028	0.061	0.051	0.069	0.078	0.025	<0.010 J	<0.010	0.020
Selenium	mg/L	<0.002	0.006	0.013	<0.005	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	0.008	0.007	0.010	0.018	<0.005	<0.002	<0.002	<0.005
Silver	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002 J	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0003 ^b	<0.0002	<0.0002	<0.0002	0.0006 ^b	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0005
Thallium	mg/L	NA	NA	NA	NA	NA	<0.002	NA	NA	NA	NA	NA	<0.002	NA	<0.002	NA	NA	NA	NA	<0.002	NA	NA	NA
Vanadium	mg/L	<0.002	<0.002	<0.005	<0.004	<0.004	0.002	<0.002	<0.002	<0.005	<0.004	<0.004	0.004	<0.002	0.005 ^a	0.045 ^{ab}	0.008 ^a	<0.005	<0.004	<0.004	0.002	<0.002	<0.002
Zinc	mg/L	<0.010	0.011	0.005	<0.005	0.010	<0.010	<0.010	<0.010	0.007	<0.005	0.006	0.065	0.014	<0.010	0.016	0.027	0.021	0.016	0.007	<0.010	<0.010	<0.010
General Chemistry																							
Alkalinity, total (as CaCO3)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon dioxide	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	121	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	81	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field**																							
Conductance, specific	mS/cm	NA	4.131	5.414	7.424	5.308	NA	NA	1.537	1.483	1.600	1.585	NA	NA	NA	NA	NA	11.59	16.63	12.89	NA	NA	1.021
Dissolved oxygen (DO)	mg/L	NA	0.36	0.25	2.27	0.22	NA	NA	0.07	0.13	3.13	0.26	NA	NA	NA	NA	NA	0.27	3.12	0.18	NA	NA	0.13
Oxidation reduction potential (ORP), field	millivolts	NA	-56.00	-77.50	-93.40	-30.50	NA	NA	-82.70	-89.30	-57.80	-50.90	NA	NA	NA	NA	NA	-56.40	-68.30	-30.70	NA	NA	-11.20
pH	s.u.	NA	7.12	6.87	6.93	6.61	NA	NA	7.30	7.12	6.60	6.88	NA	NA	NA	NA	NA	6.69	6.81	6.79	NA	NA	7.46
Temperature, field	Deg C	NA	19.76	18.10	14.55	10.05	NA	NA	18.35	18.47	10.11	6.24	NA	NA	NA	NA	NA	20.90	15.14	12.90	NA	NA	16.94
Turbidity (field)	NTU	NA	9	3.68	5.12	8.98	NA	NA	9	9.6	6.29	58.7	NA	NA	NA	NA	80	199.3	22.81	27.3	NA	NA	7

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-03-07 30-40 Plant 6 08/22/13	MW-03-07 30-40 Plant 6 11/15/13	MW-03-07 30-40 Plant 6 02/19/14	MW-03-08 35-45 Plant 6 12/02/11	MW-03-08 35-45 Plant 6 01/02/13	MW-03-08 35-45 Plant 6 08/22/13	MW-03-08 35-45 Plant 6 11/15/13	MW-04(3) 10.5-15.5 Plant 3 11/28/11	MW-04(3) 10.5-15.5 Plant 3 01/02/13	MW-04-01(3) 95-105 Plant 3 10/12/11	MW-04-01(3) 95-105 Plant 3 12/18/12	MW-04-01(3) 95-105 Plant 3 05/24/13	MW-04-01(3) 95-105 Plant 3 08/20/13	MW-04-01(3) 95-105 Plant 3 11/07/13	MW-04-01(3) 95-105 Plant 3 02/07/14	MW-04-01(6) 78-88 Plant 6 10/18/11	MW-04-01(6)* 78-88 Plant 6 01/03/13	MW-04-01(6) 78-88 Plant 6 06/13/13	MW-04-01(6) 78-88 Plant 6 08/23/13	MW-04-01(6) 78-88 Plant 6 11/14/13
Volatile Organics																					
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<1	<1	<1	<0.05 J	<1	<1 [<1]	<1	<0.05	<1	<0.05 J	<1	<1	<1	<1	<1	<0.05	<1	<1	<1	<1
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<1	<1	<1	<0.02	<1	<1 [<1]	<1	<0.02	<1	<0.02	<1	<1	<1	<1	<1	<0.02	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dioxane	ug/L	28	27	29	<5	<5	<5 [<5]	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	2	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	10	<10	<10 [<10]	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10 J	<10	<10	<10	<10
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane (Methyl bromide)	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform (Trichloromethane)	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane (Methyl chloride)	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane (CFC-12)	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl acetate	ug/L	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert butyl ether (MTBE)	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane (CFC-11)	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trifluorotrichloroethane (Freon 113)	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cyclohexane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl cyclohexane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropyl benzene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2	<1
m&p-Xylene	ug/L	<2	<2	<2	<2	<2	<2 [<2]	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	5	<2

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-03-07 30-40 Plant 6 08/22/13	MW-03-07 30-40 Plant 6 11/15/13	MW-03-07 30-40 Plant 6 02/19/14	MW-03-08 35-45 Plant 6 12/02/11	MW-03-08 35-45 Plant 6 01/02/13	MW-03-08 35-45 Plant 6 08/22/13	MW-03-08 35-45 Plant 6 11/15/13	MW-04(3) 10.5-15.5 Plant 3 11/28/11	MW-04(3) 10.5-15.5 Plant 3 01/02/13	MW-04-01(3) 95-105 Plant 3 10/12/11	MW-04-01(3) 95-105 Plant 3 12/18/12	MW-04-01(3) 95-105 Plant 3 05/24/13	MW-04-01(3) 95-105 Plant 3 08/20/13	MW-04-01(3) 95-105 Plant 3 11/07/13	MW-04-01(3) 95-105 Plant 3 02/07/14	MW-04-01(6) 78-88 Plant 6 10/18/11	MW-04-01(6)* 78-88 Plant 6 01/03/13	MW-04-01(6) 78-88 Plant 6 06/13/13	MW-04-01(6) 78-88 Plant 6 08/23/13	MW-04-01(6) 78-88 Plant 6 11/14/13
Semivolatile Organics																					
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisop	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4,6-Trichlorophenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4-Dichlorophenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4-Dimethylphenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4-Dinitrophenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4-Dinitrotoluene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,6-Dinitrotoluene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Chloronaphthalene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Chlorophenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Methylnaphthalene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Methylphenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Nitrophenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
3&4-Methylphenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	<0.05	NA	NA	NA	<0.05	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
3-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4,6-Dinitro-2-methylphenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Bromophenyl phenyl ether	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Chloro-3-methylphenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Chloroaniline	ug/L	<1	<1	<1	<2 J	<1	<1 [<1]	<1	<2	<1 J	<2	<1 J	<1	<1	<1	<1	<2	<2	<1	<1	<1
4-Chlorophenyl phenyl ether	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Nitrophenol	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Anthracene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acenaphthene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acenaphthylene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acetophenone	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Atrazine	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzaldehyde	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(a)anthracene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(a)pyrene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(b)fluoranthene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(k)fluoranthene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Biphenyl (1,1-Biphenyl)	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
bis(2-Chloroethoxy)methane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
bis(2-Chloroethyl)ether	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	<1	1 B	<1	<2	<1	<1 [<1]	<1	<2	<1	<2	<1 B	<1	<1	<1	2 B	<2	<2	<1	1	<1
Butyl benzylphthalate (BBP)	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Caprolactam	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	14 J	<1	<1	<1
Carbazole	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chrysene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibenz(a,h)anthracene	ug/L	<2	<2	<2	<1	<2	<2 [<2]	<2	<1	<2	<1	<2	<2	<2	<2	<2	<1	<1	<2	<2	<2
Dibenzofuran	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Diethyl phthalate	ug/L	<1	<1	<2	<2	<1	<1 [<1]	<1	<2	<1	<2	<1	<1	<1	<2	<1	<2	<2	<2	<1	<1
Dimethyl phthalate	ug/L	6 B	<1	<1	<2	<1	7 B [6 B]	<1	<2	<1	<2	<1	<1	4	<1	<1	<2	<2	2	6 B	<1
Di-n-butylphthalate (DBP)	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Di-n-octyl phthalate (DnOP)	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Fluoranthene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Fluorene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Hexachlorobenzene	ug/L	<1	<1	<1	<0.05	NA	<1 [<1]	<1	0.10	NA	<0.05	NA	<1	<1	<1	<1	<0.05	NA	<1	<1	<1
Hexachlorobutadiene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Hexachlorocyclopentadiene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Hexachloroethane	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Indeno(1,2,3-cd)pyrene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isophorone	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Nitrobenzene	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Nitrosodi-n-propylamine	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Nitrosodiphenylamine	ug/L	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	R	<1								

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:		MW-03-07 30-40 Plant 6 08/22/13	MW-03-07 30-40 Plant 6 11/15/13	MW-03-07 30-40 Plant 6 02/19/14	MW-03-08 35-45 Plant 6 12/02/11	MW-03-08 35-45 Plant 6 01/02/13	MW-03-08 35-45 Plant 6 08/22/13	MW-03-08 35-45 Plant 6 11/15/13	MW-04(3) 10.5-15.5 Plant 3 11/28/11	MW-04(3) 10.5-15.5 Plant 3 01/02/13	MW-04-01(3) 95-105 Plant 3 10/12/11	MW-04-01(3) 95-105 Plant 3 12/18/12	MW-04-01(3) 95-105 Plant 3 05/24/13	MW-04-01(3) 95-105 Plant 3 08/20/13	MW-04-01(3) 95-105 Plant 3 11/07/13	MW-04-01(3) 95-105 Plant 3 02/07/14	MW-04-01(6) 78-88 Plant 6 10/18/11	MW-04-01(6)* 78-88 Plant 6 01/03/13	MW-04-01(6) 78-88 Plant 6 06/13/13	MW-04-01(6) 78-88 Plant 6 08/23/13	MW-04-01(6) 78-88 Plant 6 11/14/13
PCBs																					
Total PCBs	ug/L	NA	NA	NA	<0.05	NA	NA	NA	<0.05	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	NA	NA	NA	<0.05	<0.05	NA	NA	<0.05	<0.05	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA
Aroclor-1221 (PCB-1221)	ug/L	NA	NA	NA	<0.05	<0.1	NA	NA	<0.05	<0.1	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1232 (PCB-1232)	ug/L	NA	NA	NA	<0.05	<0.1	NA	NA	<0.05	<0.1	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1242 (PCB-1242)	ug/L	NA	NA	NA	<0.05	<0.1	NA	NA	<0.05	<0.1	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1248 (PCB-1248)	ug/L	NA	NA	NA	<0.05	<0.1	NA	NA	<0.05	<0.1	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1254 (PCB-1254)	ug/L	NA	NA	NA	<0.05	<0.1	NA	NA	<0.05	<0.1	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1260 (PCB-1260)	ug/L	NA	NA	NA	<0.05	<0.05	NA	NA	<0.05	<0.05	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA
Inorganics																					
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	<0.005	<0.005	<0.005	0.002	<0.002	<0.005 [<0.005]	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005
Arsenic	mg/L	0.013 ^{ab}	0.017 ^{ab}	0.020 ^{ab}	0.034 ^{ab}	0.008	<0.002 [<0.002]	0.009	<0.002	<0.002	0.003	0.003	<0.002	0.005	0.003	0.003	0.003	0.007	0.007	0.004	0.005
Barium	mg/L	0.238	0.234	0.240	0.126	0.236	0.116 [0.119]	0.255	0.071	0.072	0.042	0.058	0.287	0.047	0.052	0.047	0.230	0.148	0.144	0.091	0.150
Beryllium	mg/L	NA	NA	NA	<0.001	NA	NA	NA	<0.001	NA	<0.001	NA	NA	NA	NA	NA	<0.001	NA	NA	NA	NA
Boron	mg/L	0.11	0.10	0.11	<0.04	0.05	0.07 [0.07]	0.07	0.06	0.05	0.11	0.10	0.05	0.12	0.13	0.14	0.05	0.06	0.04	0.07	0.06
Cadmium	mg/L	<0.0005	<0.0005	<0.0005	0.001	0.002	0.0012 [<0.0005]	0.0010	<0.001	<0.001	<0.001	<0.001	<0.0010	<0.005	<0.0005	<0.0005	<0.001	<0.001	<0.0010	<0.0005	<0.0005
Chromium	mg/L	<0.005	<0.005	<0.005	<0.010	<0.010	0.007 [<0.005]	<0.005	<0.010	<0.010	<0.010	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	0.011	0.006
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/L	<0.005	<0.005	<0.005	<0.010	<0.010	<0.005 [<0.005]	<0.005	<0.010	<0.010	<0.010	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	0.013	0.011	0.014	0.012
Copper	mg/L	<0.005	<0.005	<0.005	0.024 ^b	0.025 ^b	0.018 [0.006]	0.021 ^b	<0.002	0.002	<0.002	<0.002	0.022 ^b	0.006	<0.005	<0.005	<0.002 J	0.006	0.003	0.005	<0.005
Lead	mg/L	<0.003	<0.003	<0.003	0.010 ^a	0.011 ^a	0.004 [0.003]	0.012 ^a	0.002	<0.002	<0.002	<0.002	<0.002	<0.003	<0.003	<0.003	<0.002 J	0.003	<0.002	<0.003	<0.003
Manganese	mg/L	0.074 ^a	0.066 ^a	0.080 ^a	0.018	0.059 ^a	0.030 [0.029]	0.078 ^a	0.039	0.018	0.022	0.044	0.350 ^a	0.021	0.034	0.029	0.211 J ^a	0.508 ^a	0.441 ^a	0.624 ^a	0.453 ^a
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	mg/L	0.013	0.008	0.007	<0.010	0.012	0.011 [0.008]	0.010	<0.010	0.010	<0.010	0.010	0.010	0.008	0.010	<0.005	<0.010 J	0.026	0.037	0.042	0.025
Selenium	mg/L	<0.005	<0.005	<0.005	0.005	<0.002	<0.005 [<0.005]	<0.005	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.002	0.002	<0.005	<0.005	<0.005
Silver	mg/L	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0005 [<0.0005]	<0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005
Thallium	mg/L	NA	NA	NA	<0.002	NA	NA	NA	<0.002	NA	<0.002	NA	NA	NA	NA	NA	<0.002	NA	NA	NA	NA
Vanadium	mg/L	<0.005	<0.004	<0.004	0.018 ^a	0.006 ^a	<0.005 [<0.005]	<0.004	<0.002	0.004	<0.002	<0.002	0.005 ^a	<0.005	<0.004	<0.004	<0.002	0.006 ^a	<0.002	<0.005	<0.004
Zinc	mg/L	<0.005	<0.005	<0.005	0.051	0.044	0.037 [0.006]	0.039	<0.010	<0.010	<0.010	<0.010	<0.010	<0.005	0.014	<0.005	<0.010	0.022	0.015	0.010	0.007
General Chemistry																					
Alkalinity, total (as CaCO3)	mg/L	318	NA	NA	NA	NA	112 [124]	NA	NA	NA	NA	NA	NA	281	NA	NA	NA	NA	NA	477	NA
Carbon dioxide	mg/L	114	NA	NA	NA	NA	65 [59]	NA	NA	NA	NA	NA	NA	164	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	mg/L	<0.5	NA	NA	NA	NA	<0.5 [<0.5]	NA	NA	NA	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	<0.5	NA
Sulfate	mg/L	62	NA	NA	NA	NA	33 [30]	NA	NA	NA	NA	NA	NA	99	NA	NA	NA	NA	NA	645 ^a	NA
Field**																					
Conductance, specific	mS/cm	0.998	1.061	1.122	NA	NA	0.544	0.996	NA	NA	NA	NA	0.707	0.959	0.708	1.092	NA	NA	1.254	1.690	1.566
Dissolved oxygen (DO)	mg/L	0.17	5.62	0.23	NA	NA	0.24	3.36	NA	NA	NA	NA	0.20	0.25	0.56	0.40	NA	NA	26.50	1.44	4.23
Oxidation reduction potential (ORP), field	millivolts	-95.40	-67.50	-98.70	NA	NA	-4.10	-26.30	NA	NA	NA	NA	-110.20	-71.90	-63.60	-67.10	NA	NA	543.1	3.3	-25.70
pH	s.u.	7.25	6.67	7.48	NA	NA	8.15	7.89	NA	NA	NA	NA	10.28	6.77	7.15	7.21	NA	NA	7.10	6.90	6.66
Temperature, field	Deg C	21.84	10.34	12.01	NA	NA	22.90	11.15	NA	NA	NA	NA	12.33	13.51	11.32	10.25	NA	NA	18.95	19.38	11.70
Turbidity (field)	NTU	5.9	4.32	19.2	NA	NA	23.92	5.36	NA	NA	NA	NA	3.77	6.06	83.2	8.63	NA	NA	10	115	30.2

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Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-04-02(3) 126-136 Plant 3 10/11/11	MW-04-02(3) 126-136 Plant 3 02/29/12	MW-04-02(3) 126-136 Plant 3 12/18/12	MW-04-02(3) 126-136 Plant 3 05/21/13	MW-04-02(3) 126-136 Plant 3 08/16/13	MW-04-02(3) 126-136 Plant 3 11/07/13	MW-04-02(3) 126-136 Plant 3 02/11/14	MW-04-03(3) 80-90 Plant 3 02/29/12	MW-04-03(3)* 80-90 Plant 3 12/18/12	MW-04-03(3) 80-90 Plant 3 05/22/13	MW-04-03(3) 80-90 Plant 3 08/16/13	MW-04-03(3) 80-90 Plant 3 11/07/13	MW-04-03(3) 80-90 Plant 3 02/11/14	MW-04-04(3) 72-82 Plant 3 03/01/12	MW-04-04(3) 72-82 Plant 3 12/18/12	MW-04-04(3) 72-82 Plant 3 05/23/13	MW-04-04(3) 72-82 Plant 3 08/14/13	MW-04-04(3) 72-82 Plant 3 11/05/13
Volatile Organics																			
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<0.05 J	<0.05 J	<1	<1 [<1]	<1	<1	<1	<0.05 J	<1	<1	<1	<1	<1	<1	<0.05 J	<1	<1	<1
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<0.02	<0.02	<1	<1 [<1]	<1	<1	<1	<0.02	<1	<1	<1	<1	<1	<1	<0.02	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dioxane	ug/L	<5	<5	<5	<5 [<5]	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10 J	<10 [<10]	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10 J	<10	<10
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10 J	<10 [<10]	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10 J	<10	<10
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	2	1	<1	2 [2]	2	1	2	<1	<1	<1	<1	<1	<1	<1	1	1	2	<1
Bromoform	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane (Methyl bromide)	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	12	9	<1	15 [15]	16	10	15	<1	<1	<1	<1	<1	<1	<1	5	5	5	3
Chlorobenzene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform (Trichloromethane)	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane (Methyl chloride)	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	ug/L	13 ^a	7 ^a	<1	15 [15] ^{ab}	12 ^a	6 ^a	12 ^a	9 ^a	13 ^a	20 ^{ab}	15 ^{ab}	8 ^a	14 ^{ab}	5 ^a	5 ^a	6 ^a	4 ^a	3 ^a
Chloroethane	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane (CFC-12)	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl acetate	ug/L	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert butyl ether (MTBE)	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane (CFC-11)	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trifluorotrichloroethane (Freon 113)	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	<10	<10	<10 J	<10 [<10]	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10 J	<10	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cyclohexane	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl cyclohexane	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromochloromethane	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropyl benzene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1
m&p-Xylene	ug/L	<2	<2	<2	<2 [<2]	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2

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Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:		MW-04-02(3) 126-136 Plant 3 10/11/11	MW-04-02(3) 126-136 Plant 3 02/29/12	MW-04-02(3) 126-136 Plant 3 12/18/12	MW-04-02(3) 126-136 Plant 3 05/21/13	MW-04-02(3) 126-136 Plant 3 08/16/13	MW-04-02(3) 126-136 Plant 3 11/07/13	MW-04-02(3) 126-136 Plant 3 02/11/14	MW-04-03(3) 80-90 Plant 3 02/29/12	MW-04-03(3)* 80-90 Plant 3 12/18/12	MW-04-03(3) 80-90 Plant 3 05/22/13	MW-04-03(3) 80-90 Plant 3 08/16/13	MW-04-03(3) 80-90 Plant 3 11/07/13	MW-04-03(3) 80-90 Plant 3 02/11/14	MW-04-04(3) 72-82 Plant 3 03/01/12	MW-04-04(3) 72-82 Plant 3 12/18/12	MW-04-04(3) 72-82 Plant 3 05/23/13	MW-04-04(3) 72-82 Plant 3 08/14/13	MW-04-04(3) 72-82 Plant 3 11/05/13
Semivolatile Organics																			
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4,6-Trichlorophenol	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4-Dichlorophenol	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4-Dimethylphenol	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4-Dinitrophenol	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4-Dinitrotoluene	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,6-Dinitrotoluene	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Chloronaphthalene	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Chlorophenol	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Methylnaphthalene	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Methylphenol	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Nitroaniline	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Nitrophenol	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
3&4-Methylphenol	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
3,3'-Dichlorobenzidine	ug/L	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	NA	NA	NA
Naphthalene	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
3-Nitroaniline	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4,6-Dinitro-2-methylphenol	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Bromophenyl phenyl ether	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Chloro-3-methylphenol	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Chloroaniline	ug/L	<2	NA	<1 J	<1 [<1]	<1	<1	<1	NA	<2 J	<1	<1	<1	<1	<1	<2	<1 J	<1	<1
4-Chlorophenyl phenyl ether	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Nitroaniline	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Nitrophenol	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Anthracene	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acenaphthene	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acenaphthylene	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acetophenone	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Atrazine	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzaldehyde	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(a)anthracene	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(a)pyrene	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(b)fluoranthene	ug/L	<1	NA	R	<1 [<1]	<1	<1	<1	NA	R	<1	<1	<1	<1	<1	<1	R	<1	<1
Benzo(g,h,i)perylene	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(k)fluoranthene	ug/L	<1	NA	R	<1 [<1]	<1	<1	<1	NA	R	<1	<1	<1	<1	<1	<1	R	<1	<1
Biphenyl (1,1-Biphenyl)	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
bis(2-Chloroethoxy)methane	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
bis(2-Chloroethyl)ether	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	<2	NA	<2 B	1 [<1]	<1	<1	5 B	NA	<2	<1	<1	<1	1	2 B	<2	<1	1	<1
Butyl benzylphthalate (BBP)	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Caprolactam	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	9	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbazole	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chrysene	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibenz(a,h)anthracene	ug/L	<1	NA	<2	<2 [<2]	<2	<2	<2	NA	<1	<2	<2	<2	<2	<1	<2	<2	<2	<2
Dibenzofuran	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Diethyl phthalate	ug/L	<2	NA	<1	<1 [<1]	<1	<1	<1	NA	<2	<1	<1	<1	<1	<1	<2	<1	<1	<1
Dimethyl phthalate	ug/L	<2	NA	<1	<1 [<1]	6	<1	<1	NA	<2	<1	8	<1	<1	<1	<2	<1	<1	4
Di-n-butylphthalate (DBP)	ug/L	<1	NA	<1 B	<1 [<1]	<1	<1	<1	NA	<1 B	<1	<1	<1	<1	<1	<1	<1	<1	<1
Di-n-octyl phthalate (DnOP)	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Fluoranthene	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Fluorene	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Hexachlorobenzene	ug/L	<0.05	NA	NA	<1 [<1]	<1	<1	<1	NA	NA	<1	<1	<1	<1	<1	<0.05	NA	<1	<1
Hexachlorobutadiene	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Hexachlorocyclopentadiene	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Hexachloroethane	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Indeno(1,2,3-cd)pyrene	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isophorone	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Nitrobenzene	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Nitrosodi-n-propylamine	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Nitrosodiphenylamine	ug/L	<1	NA	R	<1 [<1]	<1	<1	<1	NA	R	<1	<1	<1	<1	<1	<1	R	<1	<1
Pentachlorophenol	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Phenanthrene	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Phenol	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	4	<1	<1	<1	<1	<1	<1	<1	<1	<1
Pyrene	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-04-02(3) 126-136 Plant 3 10/11/11	MW-04-02(3) 126-136 Plant 3 02/29/12	MW-04-02(3) 126-136 Plant 3 12/18/12	MW-04-02(3) 126-136 Plant 3 05/21/13	MW-04-02(3) 126-136 Plant 3 08/16/13	MW-04-02(3) 126-136 Plant 3 11/07/13	MW-04-02(3) 126-136 Plant 3 02/11/14	MW-04-03(3) 80-90 Plant 3 02/29/12	MW-04-03(3)* 80-90 Plant 3 12/18/12	MW-04-03(3) 80-90 Plant 3 05/22/13	MW-04-03(3) 80-90 Plant 3 08/16/13	MW-04-03(3) 80-90 Plant 3 11/07/13	MW-04-03(3) 80-90 Plant 3 02/11/14	MW-04-04(3) 72-82 Plant 3 03/01/12	MW-04-04(3) 72-82 Plant 3 12/18/12	MW-04-04(3) 72-82 Plant 3 05/23/13	MW-04-04(3) 72-82 Plant 3 08/14/13	MW-04-04(3) 72-82 Plant 3 11/05/13
PCBs																			
Total PCBs	ug/L	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	<0.05	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA
Aroclor-1221 (PCB-1221)	ug/L	<0.05	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1232 (PCB-1232)	ug/L	<0.05	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1242 (PCB-1242)	ug/L	<0.05	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1248 (PCB-1248)	ug/L	<0.05	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1254 (PCB-1254)	ug/L	<0.05	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1260 (PCB-1260)	ug/L	<0.05	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA
Inorganics																			
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	<0.002	NA	<0.002	<0.002 [<0.002]	<0.005	<0.005	<0.005	NA	NA	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005
Arsenic	mg/L	0.004	NA	<0.002	0.007 [<0.007]	0.009	0.008	0.014 ^{ab}	NA	NA	<0.002	0.003	0.003	0.004	0.013 ^{ab}	0.013 ^{ab}	0.011 ^{ab}	0.012 ^{ab}	0.011 ^{ab}
Barium	mg/L	0.099	NA	0.015	0.108 [0.104]	0.093	0.096	0.165	NA	NA	0.187	0.194	0.191	0.195	0.091	0.111	0.091	0.087	0.096
Beryllium	mg/L	<0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.001	NA	NA	NA	NA
Boron	mg/L	0.36	NA	<0.04	0.31 [0.33]	0.308	0.28	0.29	NA	NA	0.44	0.421	0.46	0.47	0.29	0.26	0.32	0.329	0.33
Cadmium	mg/L	<0.001	NA	<0.001	<0.0010 [<0.001]	<0.005	<0.0005	<0.0005	NA	NA	<0.0010	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.0010	<0.0005
Chromium	mg/L	<0.010	NA	<0.010	<0.010 [<0.01]	<0.005	<0.005	0.037	NA	NA	<0.010	0.011	0.083	0.037	<0.005	0.013	<0.010	<0.005	<0.005
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/L	<0.010	NA	<0.010	<0.010 [<0.01]	<0.005	<0.005	<0.005	NA	NA	<0.010	<0.005	<0.005	<0.005	<0.005	<0.010	<0.010	<0.005	<0.005
Copper	mg/L	<0.002	NA	0.008	<0.002 [<0.002]	0.073 ^b	<0.005	0.006	NA	NA	0.009	0.006	0.006	<0.005	<0.004	0.005	0.014	0.010	<0.005
Lead	mg/L	<0.002	NA	<0.002	<0.002 [<0.002]	<0.003	<0.003	<0.003	NA	NA	<0.002	<0.003	<0.003	<0.003	0.007 ^a	0.008 ^a	<0.002	<0.003	<0.003
Manganese	mg/L	0.291 ^a	NA	<0.010	0.326 [0.336] ^a	0.312 ^a	0.265 ^a	0.456 ^a	NA	NA	0.168 ^a	0.173 ^a	0.204 ^a	0.215 ^a	0.530 ^a	0.798 ^a	0.447 ^a	0.446 ^a	0.434 ^a
Mercury	mg/L	<0.0001	NA	<0.0001	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	NA	NA	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	mg/L	<0.010	NA	0.012	0.013 [0.012]	0.011	0.013	0.031	NA	NA	0.013	0.020	0.100	0.030	0.005	0.020	<0.010	0.015	0.013
Selenium	mg/L	<0.002	NA	<0.002	<0.005 [<0.005]	<0.005	<0.005	<0.005	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.005
Silver	mg/L	<0.0002	NA	<0.0002	<0.0005 [<0.0005]	<0.0005	<0.0005	<0.0005	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0005
Thallium	mg/L	<0.002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.002	NA	NA	NA	NA
Vanadium	mg/L	<0.002	NA	<0.002	<0.002 [<0.002]	<0.005	<0.004	<0.004	NA	NA	<0.002	<0.005	<0.004	<0.004	<0.004	0.005 ^a	<0.002	<0.005	<0.004
Zinc	mg/L	0.04	NA	0.471 ^u	0.020 [0.023]	0.006	0.106	0.177	NA	NA	0.016	<0.005	0.012	0.009	<0.005	0.039	0.010	<0.005	0.008
General Chemistry																			
Alkalinity, total (as CaCO3)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	384	NA
Carbon dioxide	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	119	NA
Nitrate (as N)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA
Sulfate	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	180	NA
Field**																			
Conductance, specific	mS/cm	NA	NA	NA	1.259	1.354	1.261	1.569	NA	NA	1.160	1.478	1.537	1.533	NA	NA	1.167	1.473	1.625
Dissolved oxygen (DO)	mg/L	NA	NA	NA	0.40	0.17	0.89	0.51	NA	NA	0.56	0.24	0.68	0.32	NA	NA	1.25	0.21	0.55
Oxidation reduction potential (ORP), field	millivolts	NA	NA	NA	-46.90	-69.50	-143.40	-42.80	NA	NA	-28.60	-71.50	-104.90	-46.80	NA	NA	16.1	-71.90	-139.30
pH	s.u.	NA	NA	NA	6.78	6.99	6.71	6.93	NA	NA	8.62	6.94	6.38	6.85	NA	NA	7.77	6.75	8.28
Temperature, field	Deg C	NA	NA	NA	14.63	13.63	8.55	4.67	NA	NA	15.38	14.30	11.99	5.83	NA	NA	12.57	16.22	13.95
Turbidity (field)	NTU	NA	NA	NA	5.97	1.94	8.21	25.3	NA	NA	7.75	5.61	87.7	7.68	NA	NA	0.38	6.69	6.16

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-04-04(3) 72-82 Plant 3 02/10/14	MW-04-04R 82-110 Plant 6 08/23/13	MW-04-04R 82-110 Plant 6 11/12/13	MW-04-04R 82-110 Plant 6 02/20/14	MW-04-05(6) 20-30 Plant 6 10/13/11	MW-04-05(6) 20-30 Plant 6 12/18/12	MW-04-05(6) 20-30 Plant 6 05/22/13	MW-04-05(6) 20-30 Plant 6 08/14/13	MW-04-05(6) 20-30 Plant 6 11/07/13	MW-04-05(6) 20-30 Plant 6 02/18/14	MW-04-06(6) 88-98 Plant 6 10/17/11	MW-04-06(6) 88-98 Plant 7 01/29/13	MW-04-06R 74-99.5 Plant 6 08/23/13	MW-04-06R 74-99.5 Plant 6 11/07/13	MW-04-06R 74-99.5 Plant 6 02/17/14	MW-05(3) 10-15 Plant 3 11/28/11	MW-05(3) 10-15 Plant 3 01/02/13	MW-05(3) 10-15 Plant 3 06/12/13	MW-05(3) 10-15 Plant 3 08/22/13	MW-05(3) 10-15 Plant 3 11/13/13
Volatile Organics																					
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<1	<1	<1	<1	<0.05 J	<1	<1	<1	<1	<1	<0.05	<1	<1 [<1]	<1	<1	<0.05	<1	<1	<1	<1
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<1	<1	<1	<1	<0.02	<1	<1	<1	<1	<1	<0.02	<1	<1 [<1]	<1	<1	<0.02	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
1,4-Dioxane	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5 [<5]	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	11	<10	<10 [<10]	<10	11	<10	<10	<10	<10	<10
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Bromomethane (Methyl bromide)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	4	<1	<1	<1	1	<1	<1	<1	<1	<1	3	2	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Chloroform (Trichloromethane)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Chloromethane (Methyl chloride)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	ug/L	5 ^a	<1	<1	<1	1	<1	1	<1	<1	<1	2	2	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane (CFC-12)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Methyl acetate	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Methyl tert butyl ether (MTBE)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane (CFC-11)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trifluorotrichloroethane (Freon 113)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Cyclohexane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Methyl cyclohexane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Isopropyl benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
m&p-Xylene	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2 [<2]	<2	<2	<2	<2	<2	<2	<2

Preliminary Groundwater Geochemical Assessment RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Table 1 - Complete Data Table_final.xlsx

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:		MW-04-04(3) 72-82 Plant 3 02/10/14	MW-04-04R 82-110 Plant 6 08/23/13	MW-04-04R 82-110 Plant 6 11/12/13	MW-04-04R 82-110 Plant 6 02/20/14	MW-04-05(6) 20-30 Plant 6 10/13/11	MW-04-05(6) 20-30 Plant 6 12/18/12	MW-04-05(6) 20-30 Plant 6 05/22/13	MW-04-05(6) 20-30 Plant 6 08/14/13	MW-04-05(6) 20-30 Plant 6 11/07/13	MW-04-05(6) 20-30 Plant 6 02/18/14	MW-04-06(6) 88-98 Plant 6 10/17/11	MW-04-06(6) 88-98 Plant 7 01/29/13	MW-04-06R 74-99.5 Plant 6 08/23/13	MW-04-06R 74-99.5 Plant 6 11/07/13	MW-04-06R 74-99.5 Plant 6 02/17/14	MW-05(3) 10-15 Plant 3 11/28/11	MW-05(3) 10-15 Plant 3 01/02/13	MW-05(3) 10-15 Plant 3 06/12/13	MW-05(3) 10-15 Plant 3 08/22/13	MW-05(3) 10-15 Plant 3 11/13/13
PCBs																					
Total PCBs	ug/L	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	NA	NA	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA
Aroclor-1221 (PCB-1221)	ug/L	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1232 (PCB-1232)	ug/L	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1242 (PCB-1242)	ug/L	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1248 (PCB-1248)	ug/L	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1254 (PCB-1254)	ug/L	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1260 (PCB-1260)	ug/L	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA
Inorganics																					
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	0.007 ^a	0.003	<0.005 [<0.005]	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005
Arsenic	mg/L	0.012 ^{ab}	0.019 ^{ab}	0.021 ^{ab}	0.023 ^{ab}	<0.002	<0.002	<0.002	0.006	0.024 ^{ab}	0.020 ^{ab}	0.002	0.003	0.022 [0.023] ^{ab}	0.021 ^{ab}	0.020 ^{ab}	<0.002	<0.002	<0.002	<0.002	0.003
Barium	mg/L	0.085	0.435	0.414	0.402	1.00	1.07	0.934	0.841	0.873	0.750	1.25 ^b	0.868	0.412 [0.403]	0.381	0.291	0.116	0.096	0.086	0.113	0.093
Beryllium	mg/L	NA	NA	NA	NA	<0.0025	NA	NA	NA	NA	NA	<0.001	NA	NA	NA	NA	<0.001	NA	NA	NA	NA
Boron	mg/L	0.33	0.04	0.04	0.05	0.10	0.08	0.09	0.096	0.10	0.08	0.05	0.09	0.05 [0.05]	0.05	<0.04	0.07	0.06	0.05	0.06	0.05
Cadmium	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.0010	<0.005	<0.0005	<0.0005	0.001	<0.001	<0.0005 [<0.0005]	<0.0005	<0.0005	<0.001	<0.001	0.0024	0.0027	0.0022
Chromium	mg/L	<0.005	<0.005	0.010	0.041	<0.010	<0.010	<0.010	<0.005	<0.005	0.011	<0.010	0.033	0.007 [0.007]	0.015	0.017	<0.010	<0.010	<0.010	<0.005	0.008
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/L	<0.005	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.005 [<0.005]	<0.005	<0.005	<0.010	<0.010	<0.010	<0.005	<0.005
Copper	mg/L	<0.005	<0.005	0.007	0.006	<0.002	<0.002	<0.002	<0.005	<0.005	0.005	0.217 ^b	0.040 ^b	0.009 [0.009]	0.019	0.010	0.003	0.003	0.004	<0.005	<0.005
Lead	mg/L	<0.003	<0.003	<0.003	<0.003	<0.005	<0.002	<0.002	<0.003	<0.003	<0.003	0.032 ^a	0.005 ^a	<0.003 [<0.003]	<0.003	<0.003	<0.002	<0.002	<0.002	<0.003	<0.003
Manganese	mg/L	0.387 ^a	0.051 ^a	0.048	0.059 ^a	0.546 ^a	0.479 ^a	0.438 ^a	0.422 ^a	0.466 ^a	0.407 ^a	0.079 ^a	0.040	0.109 [0.106] ^a	0.123 ^a	0.219 ^a	0.032	0.023	0.021	0.013	0.026
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	mg/L	0.008	0.017	0.016	0.101 ^a	<0.010	<0.010	0.020	0.026	0.033	0.019	0.013	0.041	0.031 [0.03]	0.060	0.013	<0.010	0.026	0.043	0.027	0.024
Selenium	mg/L	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005	0.012	0.007	<0.005	<0.002	<0.002	<0.005 [<0.005]	0.006	<0.005	<0.002	0.002	<0.005	<0.005	<0.005
Silver	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002 J	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0006 J ^b	<0.0002	<0.0005 [<0.0005]	<0.0005	<0.0005	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005
Thallium	mg/L	NA	NA	NA	NA	<0.002	NA	NA	NA	NA	NA	<0.002	NA	NA	NA	NA	<0.002	NA	NA	NA	NA
Vanadium	mg/L	<0.004	<0.005	<0.004	<0.004	0.002	<0.002	<0.002	<0.005	<0.004	<0.004	0.004	0.003	<0.005 [<0.005]	<0.004	<0.004	<0.002	0.010 ^a	<0.002	<0.005	<0.004
Zinc	mg/L	0.015	<0.005	0.005	0.005	<0.010	<0.010	0.011	0.007	0.011	0.014	0.128	0.065	0.010 [0.009]	0.006	0.005	0.014	<0.010	0.020	0.041	0.031
General Chemistry																					
Alkalinity, total (as CaCO3)	mg/L	NA	406	NA	NA	NA	NA	NA	504	NA	NA	NA	NA	375	NA	NA	NA	NA	NA	NA	NA
Carbon dioxide	mg/L	NA	NA	NA	NA	NA	NA	NA	188	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	mg/L	NA	<0.5	NA	NA	NA	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	NA	51	NA	NA	NA	NA	NA	126	NA	NA	NA	NA	113	NA	NA	NA	NA	NA	NA	NA
Field**																					
Conductance, specific	mS/cm	1.832	1.126	1.444	1.212	NA	NA	13.16	14.01	16.51	12.39	NA	NA	2.595	4.899	3.669	NA	NA	2.972	3.101	1.629
Dissolved oxygen (DO)	mg/L	0.26	1.06	1.87	0.15	NA	NA	0.17	0.30	2.65	0.22	NA	NA	0.12	2.25	0.28	NA	NA	8.64	3.79	2.64
Oxidation reduction potential (ORP), field	millivolts	-34.20	-58.10	-73.30	-91.30	NA	NA	-78.30	-75.20	-47.70	-31.10	NA	NA	-108.20	-133.60	-111.80	NA	NA	397.3	-5.60	-10.20
pH	s.u.	6.90	7.02	6.97	7.14	NA	NA	7.02	6.77	6.94	6.58	NA	NA	7.20	7.15	7.16	NA	NA	7.33	7.06	8.02
Temperature, field	Deg C	8.99	21.93	11.81	14.25	NA	NA	16.47	17.18	12.48	4.64	NA	NA	17.34	13.98	11.82	NA	NA	16.19	27.16	5.22
Turbidity (field)	NTU	9.97	65.5	23.55	29.3	NA	NA	7	22.95	6.98	39.3	NA	NA	210	21.32	32.6	NA	NA	7	7.18	2.95

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-05(3) 10-15 Plant 3 02/11/14	MW-06(3) 6.5-11.5 Plant 3 11/28/11	MW-06(3) 6.5-11.5 Plant 3 01/03/13	MW-06(3) 6.5-11.5 Plant 3 06/03/13	MW-06(3) 6.5-11.5 Plant 3 08/21/13	MW-06(3) 6.5-11.5 Plant 3 11/14/13	MW-06(3) 6.5-11.5 Plant 3 02/11/14	MW-12-01 87-110 Plant 2 04/18/12	MW-12-01 87-110 Plant 2 06/11/13	MW-12-01 87-110 Plant 2 08/20/13	MW-12-01 87-110 Plant 2 11/07/13	MW-12-01 87-110 Plant 2 02/17/14	MW-12-01 87-110 Plant 2 12/18/12	MW-12-01 87-110 Plant 2 04/17/12	MW-12-02 87-110 Plant 2 12/18/12	MW-12-02 87-110 Plant 2 05/29/13	MW-12-02 87-110 Plant 2 08/14/13	MW-12-02 87-110 Plant 2 11/05/13	MW-12-02 87-110 Plant 2 02/13/14	MW-12-03 57-80 Plant 6 04/18/12	MW-12-03 57-80 Plant 6 12/21/12
Volatile Organics																						
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<1	<0.05	<1	<1	<1 [<1]	<1	<1	<0.05	<1	<1 [<1]	<1	<1	<1	<1	<0.05	<1	<1	<1	<1	<0.05	<1
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<1	<0.02	<1	<1	<1 [<1]	<1	<1	<0.02	<1	<1 [<1]	<1	<1	<1	<1	<0.02	<1	<1	<1	<1	<0.02	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dioxane	ug/L	<5	<5	<5	<5	<5 [<5]	<5	<5	<5	<5	<5 [<5]	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	ug/L	<1	44	29	38	35 [39]	22	21	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	4	4	4	4 [4]	4	4	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane (Methyl bromide)	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform (Trichloromethane)	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane (Methyl chloride)	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane (CFC-12)	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl acetate	ug/L	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert butyl ether (MTBE)	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane (CFC-11)	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trifluorotrichloroethane (Freon 113)	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]											

Preliminary Groundwater Geochemical Assessment RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Table 1 - Complete Data Table_final.xlsx

Table 1 Interim Groundwater Sampling Results 2011-2014 Preliminary Groundwater Geochemical Assessment RACER Trust Plants 2, 3, and 6 - Lansing, Michigan																						
Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-05(3) 10-15 Plant 3 02/11/14	MW-06(3) 6.5-11.5 Plant 3 11/28/11	MW-06(3) 6.5-11.5 Plant 3 01/03/13	MW-06(3) 6.5-11.5 Plant 3 06/03/13	MW-06(3) 6.5-11.5 Plant 3 08/21/13	MW-06(3) 6.5-11.5 Plant 3 11/14/13	MW-06(3) 6.5-11.5 Plant 3 02/11/14	MW-12-01 87-110 Plant 2 04/18/12	MW-12-01 87-110 Plant 2 06/11/13	MW-12-01 87-110 Plant 2 08/20/13	MW-12-01 87-110 Plant 2 11/07/13	MW-12-01 87-110 Plant 2 02/17/14	MW-12-01 87-110 Plant 2 12/18/12	MW-12-02 87-110 Plant 2 04/17/12	MW-12-02 87-110 Plant 2 12/18/12	MW-12-02 87-110 Plant 2 05/29/13	MW-12-02 87-110 Plant 2 08/14/13	MW-12-02 87-110 Plant 2 11/05/13	MW-12-02 87-110 Plant 2 02/13/14	MW-12-03 57-80 Plant 6 04/18/12	MW-12-03 57-80 Plant 6 12/21/12
PCBs																						
Total PCBs	ug/L	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	NA	<0.05	NA	NA	NA	NA	NA	<0.05
Aroclor-1221 (PCB-1221)	ug/L	NA	<0.05	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1	NA	NA	NA	NA	NA	<0.1
Aroclor-1232 (PCB-1232)	ug/L	NA	<0.05	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1	NA	NA	NA	NA	NA	<0.1
Aroclor-1242 (PCB-1242)	ug/L	NA	<0.05	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1	NA	NA	NA	NA	NA	<0.1
Aroclor-1248 (PCB-1248)	ug/L	NA	<0.05	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1	NA	NA	NA	NA	NA	<0.1
Aroclor-1254 (PCB-1254)	ug/L	NA	<0.05	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1	NA	NA	NA	NA	NA	<0.1
Aroclor-1260 (PCB-1260)	ug/L	NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	NA	<0.05	NA	NA	NA	NA	NA	<0.05
Inorganics																						
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	<0.005	<0.002	<0.002	<0.002	<0.005 [<0.005]	<0.005	<0.005	<0.002	<0.002	<0.005 [<0.005]	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002
Arsenic	mg/L	0.004	<0.002	<0.002	<0.002	<0.002 [<0.002]	<0.002	<0.002	0.008	0.012 ^{ab}	0.010 [0.01]	0.010	0.022 ^{ab}	<0.002	0.023 ^{ab}	0.010	0.008	0.013 ^{ab}	0.007	0.012 ^{ab}	0.005	<0.002
Barium	mg/L	0.078	0.083	0.040	0.039	0.038 [0.041]	0.038	0.034	0.075	0.069	0.075 [0.071]	0.058	0.114	0.038	0.217	0.210	0.171	0.219	0.181	0.223	0.357	0.278
Beryllium	mg/L	NA	<0.001	NA	NA	NA	NA	NA	<0.001	NA	NA	NA	NA	NA	<0.001	NA	NA	NA	NA	NA	<0.001	NA
Boron	mg/L	0.06	0.12	0.05	0.04	0.05 [0.05]	<0.04	<0.04	0.12	0.10	0.12 [0.13]	0.13	0.14	0.08	0.07	0.06	0.06	0.071	0.08	0.07	<0.04	<0.04
Cadmium	mg/L	<0.0005	<0.001	<0.001	<0.0010	<0.0005 [<0.0005]	<0.0005	<0.0005	<0.001	<0.0010	<0.005 [<0.005]	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.0010	<0.005	<0.0005	<0.0005	<0.001	<0.001
Chromium	mg/L	<0.005	<0.010	<0.010	<0.010	<0.005 [<0.005]	<0.005	<0.005	<0.010	<0.010	0.019 [0.018]	<0.005	0.158	<0.010	<0.010	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010
Chromium VI (hexavalent)	mg/L	NA	NA	<0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/L	<0.005	<0.010	<0.010	<0.010	<0.005 [<0.005]	<0.005	<0.005	<0.010	<0.010	<0.005 [<0.005]	<0.005	0.011	<0.010	<0.010	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010
Copper	mg/L	<0.005	0.002	<0.002	<0.002	0.059 [<0.005] ^b	<0.005	<0.005	0.006	0.003	0.011 [0.012]	<0.005	0.064 ^b	<0.002	0.005	<0.002	0.010	<0.005	<0.005	<0.005	0.005	<0.002
Lead	mg/L	<0.003	<0.002	<0.002	<0.002	<0.003 [<0.003]	<0.003	<0.003	<0.002	<0.002	0.004 [0.003]	<0.003	0.011 ^a	<0.002	<0.002	<0.002	<0.002	<0.003	<0.003	<0.003	<0.002	<0.002
Manganese	mg/L	0.007	0.208 ^a	0.341 ^a	0.211 ^a	0.210 [0.204] ^a	0.096 ^a	0.353 ^a	0.058 ^a	0.068 ^a	0.118 [0.114] ^a	0.264 ^a	0.244 ^a	0.427 ^a	0.164 ^a	0.157 ^a	0.252 ^a	0.127 ^a	0.304 ^a	0.126 ^a	0.072 ^a	0.190 ^a
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	mg/L	0.012	<0.010	<0.010	<0.010	0.007 [0.007]	0.007	<0.005	<0.010	0.020	0.019 [0.019]	0.016	0.114 ^a	<0.010	<0.010	<0.010	<0.010	0.010	0.008	<0.005	<0.010	<0.010
Selenium	mg/L	<0.005	<0.002	<0.002	<0.005	<0.005 [<0.005]	<0.005	<0.005	<0.002	<0.005	<0.005 [0.005]	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002
Silver	mg/L	<0.0005	<0.0002	<0.0002	<0.0005	<0.0005 [<0.0005]	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005 [<0.0005]	<0.0005	<0.0005	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002
Thallium	mg/L	NA	<0.002	NA	NA	NA	NA	NA	<0.002	NA	NA	NA	NA	NA	<0.002	NA	NA	NA	NA	NA	<0.002	NA
Vanadium	mg/L	<0.004	<0.002	<0.002	<0.002	<0.005 [<0.005]	<0.004	<0.004	<0.002	<0.002	0.007 [0.015] ^a	<0.004	0.017 ^a	<0.002	<0.002	<0.002	<0.002	<0.005	<0.004	<0.004	<0.002	<0.002
Zinc	mg/L	0.022	<0.010	<0.010	<0.010	<0.005 [<0.005]	0.005	<0.005	<0.010	0.024	0.052 [0.048]	<0.005	0.136	<0.010	<0.010	<0.010	<0.010	0.016	<0.005	<0.005	<0.010	<0.010
General Chemistry																						
Alkalinity, total (as CaCO3)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	322 [325]	NA	NA	NA	NA	NA	NA	408	NA	NA	NA	NA
Carbon dioxide	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	197 [182]	NA	NA	NA	NA	NA	NA	140	NA	NA	NA	NA
Nitrate (as N)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5 [<0.5]	NA	NA	NA	NA	NA	NA	<0.5	NA	NA	NA	NA
Sulfate	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	182 [183]	NA	NA	NA	NA	NA	NA	142	NA	NA	NA	NA
Field**																						
Conductance, specific	mS/cm	3.051	NA	NA	0.542	0.549	0.565	0.666	NA	1.878	1.844	1.901	1.936	NA	NA	NA	1.160	1.255	1.235	1.261	NA	NA
Dissolved oxygen (DO)	mg/L	4.21	NA	NA	2.74	0.63	1.60	4.66	NA	0.36	0.17	4.00	0.21	NA	NA	NA	0.28	0.26	19.38	0.24	NA	NA
Oxidation reduction potential (ORP), field	millivolts	35.3	NA	NA	-15.40	-24.80	42.6	85.0	NA	-82.70	-115.90	-147.80	-123.10	NA	NA	NA	NA	-80.70	-159.30	-68.70	NA	NA
pH	s.u.	7.26	NA	NA	7.45	7.26	8.66	7.55	NA	7.24	7.16	7.18	6.84	NA	NA	NA	NA	7.01	7.10	7.13	NA	NA
Temperature, field	Deg C	0.94	NA	NA	16.55	24.81	11.51	6.11	NA	15.11	19.47	12.55	7.52	NA	NA	NA	15.60	17.05	14.72	11.50	NA	NA
Turbidity (field)	NTU	7.66	NA	NA	2.15	8.98	8.33	7.64	NA	6.20	166	75.5	502	NA	NA	NA	8.20	4.41	6.85	4.92	NA	NA

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-12-03 57-80 Plant 6 05/22/13	MW-12-03 57-80 Plant 6 08/14/13	MW-12-03 57-80 Plant 6 11/06/13	MW-12-03 57-80 Plant 6 02/17/14	MW-12-04 77-100 Plant 3 04/17/12	MW-12-04 77-100 Plant 3 12/18/12	MW-12-04 77-100 Plant 3 05/23/13	MW-12-04 77-100 Plant 3 08/15/13	MW-12-04 77-100 Plant 3 11/05/13	MW-12-05 75-99 Plant 2 10/04/12	MW-12-05 75-99 Plant 2 10/16/12	MW-12-05 75-99 Plant 2 12/19/12	MW-12-05 75-99 Plant 2 06/11/13	MW-12-05 75-99 Plant 2 08/21/13	MW-12-05 75-99 Plant 2 11/11/13	MW-12-05 75-99 Plant 2 02/18/14	MW-12-06 80.6-99.5 Plant 2 10/03/12	MW-12-06 80.6-99.5 Plant 2 10/16/12	MW-12-06* 80.6-99.5 Plant 2 12/18/12	MW-12-06 80.6-99.5 Plant 2 06/12/13	MW-12-06 80.6-99.5 Plant 2 08/21/13	MW-12-06 80.6-99.5 Plant 2 11/08/13
Volatile Organics																							
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<1	<1	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<1	<1	<1	<1	<0.02	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dioxane	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	10	<10
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane (Methyl bromide)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform (Trichloromethane)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane (Methyl chloride)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane (CFC-12)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl acetate	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert butyl ether (MTBE)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane (CFC-11)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trifluorotrichloroethane (Freon 113)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cyclohexane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl cyclohexane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropyl benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1
m&p-Xylene	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2 J	<2	<2	<2	<2	<2	<2	<2

Preliminary Groundwater Geochemical Assessment RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Table 1 - Complete Data Table_final.xlsx

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-12-03 57-80 Plant 6 05/22/13	MW-12-03 57-80 Plant 6 08/14/13	MW-12-03 57-80 Plant 6 11/06/13	MW-12-03 57-80 Plant 6 02/17/14	MW-12-04 77-100 Plant 3 04/17/12	MW-12-04 77-100 Plant 3 12/18/12	MW-12-04 77-100 Plant 3 05/23/13	MW-12-04 77-100 Plant 3 08/15/13	MW-12-04 77-100 Plant 3 11/05/13	MW-12-05 75-99 Plant 2 10/04/12	MW-12-05 75-99 Plant 2 10/16/12	MW-12-05 75-99 Plant 2 12/19/12	MW-12-05 75-99 Plant 2 06/11/13	MW-12-05 75-99 Plant 2 08/21/13	MW-12-05 75-99 Plant 2 11/11/13	MW-12-05 75-99 Plant 2 02/18/14	MW-12-06 80.6-99.5 Plant 2 10/03/12	MW-12-06 80.6-99.5 Plant 2 10/16/12	MW-12-06* 80.6-99.5 Plant 2 12/18/12	MW-12-06 80.6-99.5 Plant 2 06/12/13	MW-12-06 80.6-99.5 Plant 2 08/21/13	MW-12-06 80.6-99.5 Plant 2 11/08/13
PCBs																							
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	NA	NA	NA
Aroclor-1221 (PCB-1221)	ug/L	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	NA	NA
Aroclor-1232 (PCB-1232)	ug/L	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	NA	NA
Aroclor-1242 (PCB-1242)	ug/L	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	NA	NA
Aroclor-1248 (PCB-1248)	ug/L	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	NA	NA
Aroclor-1254 (PCB-1254)	ug/L	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	NA	NA
Aroclor-1260 (PCB-1260)	ug/L	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	NA	NA	NA
Inorganics																							
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005	<0.002	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	<0.005
Arsenic	mg/L	<0.002	<0.002	<0.002	0.004	0.011 ^{ab}	0.011 ^{ab}	<0.002	0.011 ^{ab}	0.010	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	0.004	0.008	0.006	0.003	0.007	0.002	0.004
Barium	mg/L	0.211	0.151	0.185	0.205	0.174	0.152	0.029	0.152	0.140	0.053	0.034	0.037	0.029	0.034	0.034	0.040	0.035	0.049	0.031	0.052	0.050	0.064
Beryllium	mg/L	NA	NA	NA	NA	<0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Boron	mg/L	<0.04	<0.04	<0.04	<0.04	0.06	0.06	0.14	0.06	0.07	0.07	0.05	0.06	0.05	0.07	0.07	0.06	0.26	0.18	0.11	0.19	0.22	0.19
Cadmium	mg/L	<0.0010	<0.005	<0.0005	<0.0005	<0.001	<0.001	<0.0010	<0.005	<0.0005	<0.001	<0.001	<0.001	<0.0010	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.0010	<0.0005
Chromium	mg/L	<0.010	<0.005	0.005	0.011	<0.010	<0.010	<0.010	<0.005	<0.005	0.037	<0.010	0.033	<0.010	0.006	<0.005	0.008	<0.010	<0.010	0.036	<0.010	0.005	<0.005
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/L	<0.010	<0.005	0.006	0.011	<0.010	<0.010	<0.010	<0.005	<0.005	<0.010	<0.010	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.010	<0.005	<0.005
Copper	mg/L	0.026 ^b	<0.005	<0.005	0.010	0.003	<0.002	<0.002	<0.005	<0.005	0.045 ^b	<0.002	0.005	0.012	0.009	0.006	0.008	0.004	<0.002	0.028 ^b	<0.002	0.007	<0.005
Lead	mg/L	<0.002	<0.003	<0.003	<0.003	<0.002	<0.002	<0.002	<0.003	<0.003	0.007 ^a	0.002	<0.002	<0.002	<0.003	<0.003	<0.003	<0.002	<0.002	0.003	<0.002	0.004	<0.003
Manganese	mg/L	0.689 ^a	1.23 ^a	0.965 ^a	1.23 ^a	0.116 ^a	0.126 ^a	0.431 ^a	0.125 ^a	0.111 ^a	0.904 ^a	0.103 ^a	0.184 ^a	0.100 ^a	0.076 ^a	0.091 ^a	0.097 ^a	0.073 ^a	0.049	0.337 ^a	0.040	0.100 ^a	0.066 ^a
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	mg/L	0.015	0.025	0.024	0.028	<0.010	<0.010	<0.010	0.010	0.010	0.031	0.012	0.038	0.040	0.044	0.038	0.023	<0.010	<0.010	<0.010	0.040	0.012	0.006
Selenium	mg/L	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005
Silver	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	0.0104 ^b	<0.0005	<0.0005	<0.0005
Thallium	mg/L	NA	NA	NA	NA	<0.002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/L	<0.002	<0.005	<0.004	<0.004	<0.002	<0.002	<0.002	<0.005	<0.004	0.007 ^a	<0.002	0.002	<0.002	<0.005	<0.004	<0.004	<0.002	<0.002	0.006 ^a	<0.002	<0.005	<0.004
Zinc	mg/L	0.017	<0.005	0.008	0.012	<0.010	<0.010	0.011	<0.005	<0.005	0.030	0.060	0.019	0.019	0.008	0.006	0.005	0.013	<0.010	0.022	<0.010	0.013	<0.005
General Chemistry																							
Alkalinity, total (as CaCO3)	mg/L	NA	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	414	NA	NA	NA	NA	NA	NA	415	NA
Carbon dioxide	mg/L	NA	206	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	220	NA	NA	NA	NA	NA	NA	221	NA
Nitrate (as N)	mg/L	NA	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	NA	<0.5	NA
Sulfate	mg/L	NA	559 ^a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,350 ^a	NA	NA	NA	NA	NA	NA	22	NA
Field**																							
Conductance, specific	mS/cm	1.790	2.280	2.748	2.230	NA	NA	0.608	1.659	1.170	NA	NA	NA	2.729	2.726	3.143	3.578	NA	NA	NA	0.772	0.757	0.869
Dissolved oxygen (DO)	mg/L	0.18	0.16	1.23	0.21	NA	NA	0.34	0.34	0.40	NA	NA	NA	0.37	0.69	12.62	0.20	NA	NA	NA	0.52	0.32	2.89
Oxidation reduction potential (ORP), field	millivolts	-150.20	-279.90	-254.30	-70.20	NA	NA	-432.10	-83.40	-79.80	NA	NA	NA	-19.40	-64.50	-113.20	-73.60	NA	NA	NA	-67.20	-138.20	-178.20
pH	s.u.	6.89	6.55	6.86	6.74	NA	NA	11.73	6.95	6.82	NA	NA	NA	6.77	6.93	7.07	7.08	NA	NA	NA	6.77	7.20	7.21
Temperature, field	Deg C	17.04	16.73	13.65	10.85	NA	NA	12.83	13.23	13.97	NA	NA	NA	19.10	28.18	13.36	14.08	NA	NA	NA	16.21	28.11	13.78
Turbidity (field)	NTU	6	9.54	9.97	110	NA	NA	8.54	2.68	3.20	NA	NA	NA	32.3	36.6	5.3	457.0	NA	NA	NA	7.20	109	9.57

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-12-06 80.6-99.5 Plant 2 02/17/14	MW-12-07 10-15 Plant 2 12/19/12	MW-12-07 10-15 Plant 2 05/24/13	MW-12-07 10-15 Plant 2 08/16/13	MW-12-07 10-15 Plant 2 11/07/13	MW-12-07 10-15 Plant 2 02/17/14	MW-12-08 10 - 20 Plant 2 12/20/12	MW-12-08 19-24 Plant 2 05/23/13	MW-12-08 19-24 Plant 2 08/16/13	MW-12-08 19-24 Plant 2 11/07/13	MW-12-08 19-24 Plant 2 02/17/14	MW-12-09 14-19 Plant 2 12/19/12	MW-12-09 14-19 Plant 2 05/23/13	MW-12-09 14-19 Plant 2 08/16/13	MW-12-09 14-19 Plant 2 11/07/13	MW-12-09 14-19 Plant 2 02/14/14	MW-12-10 8-13 Plant 6 12/18/12	MW-12-10 8-13 Plant 6 05/22/13	MW-12-10 8-13 Plant 6 08/14/13	MW-12-10 8-13 Plant 6 11/07/13	MW-12-10 8-13 Plant 6 02/17/14
Volatile Organics																						
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
1,4-Dioxane	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5 [<5]	<5	<5	<5	<5	<7 B	<5	<5	<5	<5	<5 [<5]	<5	<5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
2-Hexanone	ug/L	<10	<10 J	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Acetone	ug/L	<10	<10 J	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Bromomethane (Methyl bromide)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
1,2-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Carbon disulfide	ug/L	<1	<1 J	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
cis-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Chloroform (Trichloromethane)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Chloromethane (Methyl chloride)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
cis-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Dichlorodifluoromethane (CFC-12)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Methyl acetate	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Methyl tert butyl ether (MTBE)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Trichlorofluoromethane (CFC-11)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trifluorotrichloroethane (Freon 113)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	<10	<10 J	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Cyclohexane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Methyl cyclohexane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
Isopropyl benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	1	<1	<1	<1 [<1]	<1	<1
m&p-Xylene	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2 [<2]	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2 [<2]	<2	<2

Preliminary Groundwater Geochemical Assessment RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Table 1 - Complete Data Table_final.xlsx

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-12-06 80.6-99.5 Plant 2 02/17/14	MW-12-07 10-15 Plant 2 12/19/12	MW-12-07 10-15 Plant 2 05/24/13	MW-12-07 10-15 Plant 2 08/16/13	MW-12-07 10-15 Plant 2 11/07/13	MW-12-07 10-15 Plant 2 02/17/14	MW-12-08 10 - 20 Plant 2 12/20/12	MW-12-08 19-24 Plant 2 05/23/13	MW-12-08 19-24 Plant 2 08/16/13	MW-12-08 19-24 Plant 2 11/07/13	MW-12-08 19-24 Plant 2 02/17/14	MW-12-09 14-19 Plant 2 12/19/12	MW-12-09 14-19 Plant 2 05/23/13	MW-12-09 14-19 Plant 2 08/16/13	MW-12-09 14-19 Plant 2 11/07/13	MW-12-09 14-19 Plant 2 02/14/14	MW-12-10 8-13 Plant 6 12/18/12	MW-12-10 8-13 Plant 6 05/22/13	MW-12-10 8-13 Plant 6 08/14/13	MW-12-10 8-13 Plant 6 11/07/13	MW-12-10 8-13 Plant 6 02/17/14
PCBs																						
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	NA	<0.05	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	NA	NA	NA	NA
Aroclor-1221 (PCB-1221)	ug/L	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA
Aroclor-1232 (PCB-1232)	ug/L	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA
Aroclor-1242 (PCB-1242)	ug/L	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA
Aroclor-1248 (PCB-1248)	ug/L	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA
Aroclor-1254 (PCB-1254)	ug/L	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA
Aroclor-1260 (PCB-1260)	ug/L	NA	<0.05	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	NA	NA	NA	NA
Inorganics																						
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005 [<0.005]	<0.005	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005 [<0.005]	<0.005	<0.005
Arsenic	mg/L	0.006	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002 [<0.002]	0.025 ^{ab}	0.031 ^{ab}	0.003	0.005	0.003	0.006	0.008	<0.002	<0.002	0.004 [0.004]	0.006	0.005
Barium	mg/L	0.065	0.052	0.039	0.043	0.034	0.035	0.326	0.254	0.297 [0.287]	0.249	0.239	0.063	0.060	0.057	0.056	0.062	0.204	0.066	0.133 [0.131]	0.187	0.167
Beryllium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Boron	mg/L	0.22	0.05	0.04	0.05	0.05	0.04	<0.04 J	0.05	<0.04 [<0.04]	0.05	<0.04	0.16	0.18	0.20	0.21	0.24	0.08	0.08	0.088 [0.094]	0.11	0.07
Cadmium	mg/L	<0.0005	<0.001	<0.0010	<0.005	<0.0005	<0.0005	<0.001	<0.0010	<0.005 [<0.005]	<0.0005	<0.0005	<0.001	<0.0010	<0.005	<0.0005	<0.0005	<0.001	<0.0010	<0.005 [<0.005]	<0.0005	<0.0005
Chromium	mg/L	0.006	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	0.009 [<0.005]	<0.005	0.011	<0.010	<0.010	<0.005	<0.005	0.007	<0.010	<0.010	<0.005 [<0.005]	<0.005	<0.005
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/L	<0.005	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.005 [<0.005]	<0.005	<0.005	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.005 [<0.005]	<0.005	<0.005
Copper	mg/L	0.009	0.007	0.003	<0.005	<0.005	0.005	0.010	0.003	0.009 [<0.005]	<0.005	0.010	0.003	0.006	<0.005	<0.005	0.007	0.002	<0.002	<0.002	<0.005	<0.005
Lead	mg/L	<0.003	<0.002	<0.002	<0.003	<0.003	<0.003	<0.002	<0.002	<0.003 [<0.003]	<0.003	<0.003	<0.002	<0.002	<0.003	<0.003	<0.003	<0.002	<0.002	<0.003 [<0.003]	<0.003	<0.003
Manganese	mg/L	0.059 ^a	0.067 ^a	<0.010	0.008	0.005	0.005	0.672 ^a	0.499 ^a	0.585 [0.529] ^a	0.496 ^a	0.584 ^a	0.698 ^a	0.722 ^a	0.552 ^a	0.560 ^a	0.638 ^a	1.33 ^a	0.273 ^a	0.618 [0.604] ^a	1.04 ^a	1.09 ^a
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001	<0.0001
Nickel	mg/L	0.006	<0.010	<0.010	0.006	0.013	0.026	0.017	0.023	0.037 [0.033]	0.059	0.019	0.010	0.034	0.036	0.040	0.033	<0.010	0.034	0.015 [0.015]	0.061	0.068
Selenium	mg/L	<0.005	<0.002	0.006	0.005	<0.005	<0.005	<0.002	0.006	<0.005 [<0.005]	0.005	<0.005	<0.002	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005 [<0.005]	<0.005	<0.005
Silver	mg/L	<0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005 [<0.0005]	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005 [<0.0005]	<0.0005	<0.0005
Thallium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/L	<0.004	<0.002	<0.002	<0.005	<0.004	<0.004	<0.002	<0.002	<0.005 [<0.005]	<0.004	<0.004	<0.002	<0.002	<0.005	<0.004	<0.004	<0.002	<0.002	<0.005 [<0.005]	<0.004	<0.004
Zinc	mg/L	0.010	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	0.012	0.012 [0.007]	0.035	0.013	<0.010	0.014	0.010	0.006	0.013	<0.010	0.010	0.005 [0.006]	<0.005	<0.005
General Chemistry																						
Alkalinity, total (as CaCO3)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	494 [504]	NA	NA
Carbon dioxide	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	184 [178]	NA	NA
Nitrate (as N)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5 [<0.5]	NA	NA
Sulfate	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	49 [49]	NA	NA
Field**																						
Conductance, specific	mS/cm	0.915	NA	0.687	0.741	0.698	0.709	NA	13.85	15.08	12.98	14.29	NA	4.919	3.948	4.289	4.044	NA	1.945	3.635	5.553	4.005
Dissolved oxygen (DO)	mg/L	0.19	NA	5.81	2.28	34.20	3.94	NA	0.11	0.08	15.56	0.51	NA	0.05	0.15	2.74	0.30	NA	0.65	0.23	3.04	0.49
Oxidation reduction potential (ORP), field	millivolts	-149.30	NA	0.8	72.9	48.7	33.6	NA	-73.50	-78.30	-40.10	33.8	NA	-23.80	-13.60	-47.70	-21.40	NA	17.6	-47.60	84.2	27.4
pH	s.u.	7.51	NA	7.13	7.14	7.25	7.23	NA	6.77	6.85	6.82	6.64	NA	6.65	6.78	6.81	6.73	NA	7.23	6.77	6.85	6.77
Temperature, field	Deg C	10.15	NA	10.10	17.32	12.94	4.49	NA	11.68	27.30	12.01	1.79	NA	11.31	16.40	14.22	6.41	NA	16.30	18.71	11.25	7.42
Turbidity (field)	NTU	32.8	NA	3.10	5.49	4.97	9.69	NA	9.09	120	8.14	59.8	NA	8.17	7.29	8.65	169	NA	4	4.9	7.98	4.96

Preliminary Groundwater Geochemical Assessment RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Table 1 - Complete Data Table_final.xlsx

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:		MW-12-11 13-18 Plant 6 12/18/12	MW-12-11 13-18 Plant 6 05/23/13	MW-12-11 13-18 Plant 6 08/14/13	MW-12-11 13-18 Plant 6 11/06/13	MW-12-11 13-18 Plant 6 02/18/14	MW-12-12 13-18 Plant 6 12/18/12	MW-12-12 13-18 Plant 6 06/12/13	MW-12-12 13-18 Plant 6 08/15/13	MW-12-12 13-18 Plant 6 11/08/13	MW-12-12 13-18 Plant 6 02/19/14	MW-12-13* 18.5-23.5 Plant 6 01/28/13	MW-12-13 18.5-23.5 Plant 6 05/30/13	MW-12-13 18.5-23.5 Plant 6 08/19/13	MW-12-13 18.5-23.5 Plant 6 11/08/13	MW-12-13 18.5-23.5 Plant 6 02/19/14	MW-12-14 25-30 Plant 6 12/21/12	MW-12-14 25-30 Plant 6 06/05/13	MW-12-14 25-30 Plant 6 08/19/13	MW-12-14 25-30 Plant 6 11/11/13	MW-12-14 25-30 Plant 6 02/20/14	MW-12-15 18-23 Plant 6 12/18/12	
Semivolatile Organics																							
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
2,4,6-Trichlorophenol	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
2,4-Dichlorophenol	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
2,4,5-Trichlorophenol	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
2,4-Dimethylphenol	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
2,4-Dinitrophenol	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
2,4-Dinitrotoluene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
2,6-Dinitrotoluene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
2-Chloronaphthalene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
2-Chlorophenol	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
2-Methylnaphthalene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
2-Methylphenol	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
2-Nitroaniline	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
2-Nitrophenol	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
3&4-Methylphenol	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Naphthalene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
3-Nitroaniline	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
4,6-Dinitro-2-methylphenol	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
4-Bromophenyl phenyl ether	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
4-Chloro-3-methylphenol	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
4-Chloroaniline	ug/L	<1 J	<1	<1	<1	<1 [<1]	<1 J	<1	<1	NA	<1	<2 J	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1 J	
4-Chlorophenyl phenyl ether	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
4-Nitroaniline	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
4-Nitrophenol	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
Anthracene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
Acenaphthene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
Acenaphthylene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
Acetophenone	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
Atrazine	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
Benzaldehyde	ug/L	<1	<1	<1	<1	<1 [<1]	1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
Benzo(a)anthracene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
Benzo(a)pyrene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
Benzo(b)fluoranthene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	
Benzo(g,h,i)perylene	ug/L	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1										

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-12-11 13-18 Plant 6 12/18/12	MW-12-11 13-18 Plant 6 05/23/13	MW-12-11 13-18 Plant 6 08/14/13	MW-12-11 13-18 Plant 6 11/06/13	MW-12-11 13-18 Plant 6 02/18/14	MW-12-12 13-18 Plant 6 12/18/12	MW-12-12 13-18 Plant 6 06/12/13	MW-12-12 13-18 Plant 6 08/15/13	MW-12-12 13-18 Plant 6 11/08/13	MW-12-12 13-18 Plant 6 02/19/14	MW-12-13* 18.5-23.5 Plant 6 01/28/13	MW-12-13 18.5-23.5 Plant 6 05/30/13	MW-12-13 18.5-23.5 Plant 6 08/19/13	MW-12-13 18.5-23.5 Plant 6 11/08/13	MW-12-13 18.5-23.5 Plant 6 02/19/14	MW-12-13 25-30 Plant 6 12/21/12	MW-12-14 25-30 Plant 6 06/05/13	MW-12-14 25-30 Plant 6 08/19/13	MW-12-14 25-30 Plant 6 11/11/13	MW-12-14 25-30 Plant 6 02/20/14	MW-12-15 18-23 Plant 6 12/18/12
PCBs																						
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	<0.05	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	<0.05
Aroclor-1221 (PCB-1221)	ug/L	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	<0.1
Aroclor-1232 (PCB-1232)	ug/L	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	<0.1
Aroclor-1242 (PCB-1242)	ug/L	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	<0.1
Aroclor-1248 (PCB-1248)	ug/L	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	<0.1
Aroclor-1254 (PCB-1254)	ug/L	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	<0.1
Aroclor-1260 (PCB-1260)	ug/L	<0.05	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	<0.05
Inorganics																						
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	<0.002	<0.002	<0.005	<0.005	<0.005 [<0.005]	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005 [<0.005]	<0.002
Arsenic	mg/L	0.007	0.004	0.013 ^{ab}	0.006	0.013 [0.014] ^{ab}	0.006	0.003	<0.002	0.009	0.006	0.002	<0.002	0.004	0.003	0.004	<0.002	<0.002	0.004	<0.002	<0.002 [<0.002]	<0.002
Barium	mg/L	0.125	0.107	0.104	0.115	0.109 [0.102]	0.246	0.073	0.095	0.116	0.093	0.184	0.158	0.155	0.161	0.161	0.124	0.120	0.110	0.099	0.096 [0.097]	0.298
Beryllium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Boron	mg/L	<0.04	<0.04	<0.04	0.04	<0.04 [<0.04]	0.04	0.04	0.05	0.07	0.06	0.08	0.04	0.04	0.05	0.05	0.08	0.08	0.08	0.08	0.09 [0.08]	0.05
Cadmium	mg/L	<0.001	<0.0010	<0.005	<0.0005	<0.0005 [<0.0005]	<0.001	<0.0010	<0.005	<0.0005	<0.0005	<0.001	<0.0010	<0.005	<0.0005	<0.0005	<0.001	<0.0010	<0.005	<0.0005	<0.0005 [<0.0005]	<0.001
Chromium	mg/L	<0.010	0.012	0.005	0.013	0.019 [0.012]	<0.010	<0.010	0.009	0.232 ^b	0.378 ^b	<0.010	<0.010	<0.005	<0.005	0.006	<0.010	<0.010	0.006	<0.005	<0.005 [<0.005]	<0.010
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/L	<0.010	<0.010	<0.005	<0.005	<0.005 [<0.005]	<0.010	<0.010	0.010	0.014	0.034	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.005	<0.005	<0.005 [<0.005]	<0.010
Copper	mg/L	0.005	0.004	<0.005	<0.005	0.005 [<0.005]	0.013	0.005	<0.005	0.016	0.012	<0.002	<0.002	<0.005	<0.005	<0.005	0.023 ^b	0.004	<0.005	<0.005	<0.005 [<0.005]	<0.002
Lead	mg/L	<0.002	<0.002	<0.003	<0.003	<0.003 [<0.003]	0.002	0.002	<0.003	0.003	<0.003	0.003	<0.002	<0.003	<0.003	<0.003	<0.002	<0.002	<0.003	<0.003	<0.003 [<0.003]	<0.002
Manganese	mg/L	0.973 ^a	0.889 ^a	0.856 ^a	0.857 ^a	0.794 [0.792] ^a	1.25 ^a	0.106 ^a	0.320 ^a	0.452 ^a	0.677 ^a	0.204 ^a	0.131 ^a	0.128 ^a	0.132 ^a	0.124 ^a	0.390 ^a	0.394 ^a	0.368 ^a	0.313 ^a	0.330 [0.337] ^a	0.341 ^a
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001
Nickel	mg/L	0.020	0.026	0.034	0.045	0.018 [0.018]	0.020	0.035	0.062	0.268 ^{ab}	1.15 ^{ab}	<0.010	0.014	0.011	0.015	0.029	0.023	0.019	0.014	0.014	0.008 [0.008]	<0.010
Selenium	mg/L	<0.002	0.007	0.014	0.010	<0.005 [<0.005]	<0.002	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.005	<0.005	0.004	<0.005	<0.005	<0.005	<0.005 [<0.005]	<0.002
Silver	mg/L	<0.0002	<0.0005	<0.0005	0.0006 ^b	<0.0005 [<0.0005]	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005 [<0.0005]	<0.0002
Thallium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/L	<0.002	<0.002	<0.005	<0.004	<0.004 [<0.004]	0.005 ^a	<0.002	<0.005	<0.004	<0.004	0.002	<0.002	<0.005	<0.004	<0.004	0.002	<0.002	<0.005	<0.004	<0.004 [<0.004]	0.004
Zinc	mg/L	<0.010	0.061	<0.005	0.010	0.006 [<0.005]	0.011	0.014	0.014	0.022	0.013	<0.010	<0.010	<0.005	0.011	<0.005	0.020	<0.010	0.006	<0.005	<0.005 [0.005]	<0.010
General Chemistry																						
Alkalinity, total (as CaCO3)	mg/L	NA	NA	380	NA	NA	NA	NA	426	NA	NA	NA	NA	267	NA	NA	NA	NA	470	NA	NA	NA
Carbon dioxide	mg/L	NA	NA	200	NA	NA	NA	NA	130	NA	NA	NA	NA	106	NA	NA	NA	NA	239	NA	NA	NA
Nitrate (as N)	mg/L	NA	NA	<0.5	NA	NA	NA	NA	1.1	NA	NA	NA	NA	<0.5	NA	NA	NA	NA	3.3	NA	NA	NA
Sulfate	mg/L	NA	NA	234	NA	NA	NA	NA	183	NA	NA	NA	NA	131	NA	NA	NA	NA	206	NA	NA	NA
Field**																						
Conductance, specific	mS/cm	NA	6.462	7.081	8.853	6.837	NA	2.965	3.540	NA	3.373	NA	1.447	1.222	1.745	1.498	NA	1.456	1.270	1.781	1.377	NA
Dissolved oxygen (DO)	mg/L	NA	0.30	0.33	4.52	0.49	NA	1.12	0.43	NA	0.24	NA	0.50	0.21	1.92	0.24	NA	0.49	0.11	2.69	0.24	NA
Oxidation reduction potential (ORP), field	millivolts	NA	-9.40	-68.60	-22.30	3.3	NA	474.3	-3.60	NA	-44.60	NA	-14.90	-113.40	-125.50	-85.00	NA	494.3	43.3	56.2	17.5	NA
pH	s.u.	NA	6.88	6.57	6.83	6.54	NA	7.71	7.0	NA	6.86	NA	7.38	7.22	7.27	7.48	NA	6.94	6.65	6.84	6.75	NA
Temperature, field	Deg C	NA	10.17	16.06	14.23	3.02	NA	20.14	23.40	NA	10.68	NA	25.68	25.68	12.50	5.54	NA	15.89	17.73	13.32	12.89	NA
Turbidity (field)	NTU	NA	8	5.2	9.73	26.9	NA	21	125.6	NA	96	NA	9	10.9	9.73	85.6	NA	7	9.91	6.41	20.7	NA

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:		MW-12-15 18-23 Plant 6 05/24/13	MW-12-15 18-23 Plant 6 08/20/13	MW-12-15 18-23 Plant 6 11/06/13	MW-12-16 28-33 Plant 6 12/18/12	MW-12-16 28-33 Plant 6 05/23/13	MW-12-16 28-33 Plant 6 08/20/13	MW-12-16 28-33 Plant 6 11/05/13	MW-12-17 9.5-14.5 Plant 2 12/20/12	MW-12-17 9.5-14.5 Plant 2 05/22/13	MW-12-17 9.5-14.5 Plant 2 08/15/13	MW-12-17 9.5-14.5 Plant 2 08/20/13	MW-12-17 9.5-14.5 Plant 2 11/11/13	MW-12-17 9.5-14.5 Plant 2 02/14/14	MW-12-18 28-33 Plant 2 11/20/12	MW-12-18 28-33 Plant 2 12/19/12	MW-12-18 28-33 Plant 2 05/24/13	MW-12-18 28-33 Plant 2 08/20/13	MW-12-18 28-33 Plant 2 11/07/13	MW-12-18 28-33 Plant 2 02/14/14	MW-12-20 75-80 Plant 3 02/08/13	MW-12-20 75-80 Plant 3 05/24/13		
Volatile Organics																								
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
1,4-Dioxane	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5 [<5]	<5	NA	<5	<5	NA	<5 [<5]	<5	<5	<5		
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10 J	<10	NA	<10 [<10]	<10	<10	<10		
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
Acetone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10 J	<10	NA	<10 [<10]	<10	<10	<10		
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2	<1 [<1]	<1	2	2	3	NA	2 [2]	2	<1	<1		
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
Bromomethane (Methyl bromide)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
1,2-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1 J	<1	NA	<1 [<1]	<1	<1	<1		
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
cis-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
Chloroform (Trichloromethane)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
Chloromethane (Methyl chloride)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
cis-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
Dichlorodifluoromethane (CFC-12)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
Methyl acetate	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	NA	<10 [<10]	<10	<10	<10		
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	1	<1	<1		
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
Methyl tert butyl ether (MTBE)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
Trichlorofluoromethane (CFC-11)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Trifluorotrichloroethane (Freon 113)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	NA	<1 [<1]	<1	<1	<1		
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10 J	<10	NA	<10 [<10]	<10	<10	<10		
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	NA	<10 [<10]	<10	<10	<10		
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1																

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Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-12-15 18-23 Plant 6 05/24/13	MW-12-15 18-23 Plant 6 08/20/13	MW-12-15 18-23 Plant 6 11/06/13	MW-12-16 28-33 Plant 6 12/18/12	MW-12-16 28-33 Plant 6 05/23/13	MW-12-16 28-33 Plant 6 08/20/13	MW-12-16 28-33 Plant 6 11/05/13	MW-12-17 9.5-14.5 Plant 2 12/20/12	MW-12-17 9.5-14.5 Plant 2 05/22/13	MW-12-17 9.5-14.5 Plant 2 08/15/13	MW-12-17 9.5-14.5 Plant 2 08/20/13	MW-12-17 9.5-14.5 Plant 2 11/11/13	MW-12-17 9.5-14.5 Plant 2 02/14/14	MW-12-18 28-33 Plant 2 11/20/12	MW-12-18 28-33 Plant 2 12/19/12	MW-12-18 28-33 Plant 2 05/24/13	MW-12-18 28-33 Plant 2 08/20/13	MW-12-18 28-33 Plant 2 11/07/13	MW-12-18 28-33 Plant 2 02/14/14	MW-12-20 75-80 Plant 3 02/08/13	MW-12-20 75-80 Plant 3 05/24/13
Semivolatile Organics																						
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropanol))	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
2,4,6-Trichlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
2,4-Dichlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1 J	<1	NA	<1	<1	<1	<1
2,4,5-Trichlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
2,4-Dimethylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
2,4-Dinitrophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
2,4-Dinitrotoluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
2,6-Dinitrotoluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
2-Chloronaphthalene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
2-Chlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
2-Methylnaphthalene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
2-Methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
2-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
2-Nitrophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1 J	<1	NA	<1	<1	<1	<1
3&4-Methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
3-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
4,6-Dinitro-2-methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
4-Bromophenyl phenyl ether	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
4-Chloro-3-methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
4-Chloroaniline	ug/L	<1	<1	<1	<1 J	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	NA	<1 J	<1	NA	<1	<1 J	<1	<1
4-Chlorophenyl phenyl ether	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
4-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
4-Nitrophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
Anthracene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
Acenaphthene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
Acenaphthylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
Acetophenone	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1 J	<1	NA	<1	<1	<1	<1
Atrazine	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
Benzaldehyde	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
Benzo(a)anthracene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
Benzo(a)pyrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
Benzo(b)fluoranthene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	R	<1	NA	<1	<1	<1	<1
Benzo(g,h,i)perylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
Benzo(k)fluoranthene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	<1	<1
Biphenyl (1,1-Biphenyl)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	&						

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PCBs																									
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Aroclor-1016 (PCB-1016)	ug/L	NA	NA	NA	<0.05	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA			
Aroclor-1221 (PCB-1221)	ug/L	NA	NA	NA	<0.1	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA			
Aroclor-1232 (PCB-1232)	ug/L	NA	NA	NA	<0.1	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA			
Aroclor-1242 (PCB-1242)	ug/L	NA	NA	NA	<0.1	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA			
Aroclor-1248 (PCB-1248)	ug/L	NA	NA	NA	<0.1	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA			
Aroclor-1254 (PCB-1254)	ug/L	NA	NA	NA	<0.1	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA			
Aroclor-1260 (PCB-1260)	ug/L	NA	NA	NA	<0.05	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA			
Inorganics																									
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Antimony	mg/L	<0.002	<0.005	<0.005	<0.002	<0.002	<0.005	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005 [<0.005]	<0.005	NA	<0.002	<0.002	NA	<0.005 [<0.005]	<0.005	<0.002	<0.002			
Arsenic	mg/L	0.002	0.004	<0.002	0.022 ^{ab}	0.011 ^{ab}	0.015 ^{ab}	0.015 ^{ab}	<0.002	0.002	0.002	0.005	0.002 [0.002]	<0.002	NA	<0.002	<0.002	NA	0.006 [0.005]	0.006	0.002	<0.002			
Barium	mg/L	0.048	0.289	0.297	0.247	0.213	0.203	0.213	0.085	0.052	0.077	0.232	0.162 [0.165]	0.093	NA	0.255	0.237	NA	0.232 [0.22]	0.243	0.140	0.129			
Beryllium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Boron	mg/L	0.11	0.05	0.05	0.07	0.06	0.08	0.08	0.04 J	0.05	0.04	0.04	0.05 [0.05]	<0.04	NA	0.04	<0.04	NA	0.05 [0.05]	<0.04	0.06	0.07			
Cadmium	mg/L	<0.0010	<0.005	<0.0005	<0.001	<0.0010	<0.005	<0.0005	<0.001	<0.0010	<0.005	<0.005	<0.0005 [<0.0005]	<0.0005	NA	<0.001	<0.0010	NA	<0.0005 [<0.0005]	<0.0005	<0.001	<0.0010			
Chromium	mg/L	<0.010	0.006	0.007	<0.010	<0.010	<0.005	<0.005	<0.010	<0.010	<0.005	0.005	<0.005 [<0.005]	<0.005	NA	<0.010	<0.010	NA	<0.005 [<0.005]	<0.005	<0.010	<0.010			
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Cobalt	mg/L	<0.010	<0.005	<0.005	<0.010	<0.010	<0.005	<0.005	<0.010	<0.010	<0.005	<0.005	<0.005 [<0.005]	<0.005	NA	<0.010	<0.010	NA	<0.005 [<0.005]	<0.005	<0.010	<0.010			
Copper	mg/L	<0.002	<0.005	<0.005	0.007	<0.002	<0.005	<0.005	<0.002	0.021 ^b	<0.005	0.027 ^b	<0.005 [<0.005]	<0.005	NA	0.008	0.005	NA	<0.005 [<0.005]	<0.005	<0.002	0.020			
Lead	mg/L	<0.002	<0.003	<0.003	0.005 ^a	<0.002	<0.003	<0.003	<0.002	<0.002	<0.003	<0.003	<0.003 [<0.003]	<0.003	NA	<0.002	<0.002	NA	<0.003 [<0.003]	<0.003	<0.002	<0.002			
Manganese	mg/L	0.020	0.335 ^a	0.338 ^a	0.460 ^a	0.345 ^a	0.318 ^a	0.308 ^a	0.169 ^a	0.138 ^a	0.243 ^a	0.095 ^a	0.140 [0.142] ^a	0.183 ^a	NA	0.247 ^a	0.121 ^a	NA	0.087 [0.085] ^a	0.077 ^a	0.153 ^a	0.138 ^a			
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001	NA	<0.0001	<0.0001	NA	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001			
Nickel	mg/L	0.010	0.011	0.020	0.011	0.013	0.013	0.016	<0.010	<0.010	0.006	0.015	0.006 [0.006]	<0.005	NA	0.104 ^a	0.087	NA	0.014 [0.014]	0.006	0.047	0.013			
Selenium	mg/L	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.005	<0.005 [<0.005]	<0.005	NA	<0.002	<0.005	NA	<0.005 [<0.005]	<0.005	<0.002	<0.005			
Silver	mg/L	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005 [<0.0005]	<0.0005	NA	<0.0002	<0.0005	NA	<0.0005 [<0.0005]	<0.0005	<0.0002	<0.0005			
Thallium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Vanadium	mg/L	<0.002	0.005 ^a	0.004	0.003	<0.002	<0.005	<0.004	<0.002	<0.002	<0.005	<0.005	<0.004 [<0.004]	<0.004	NA	<0.002	<0.002	NA	<0.004 [<0.004]	<0.004	<0.002	<0.002			
Zinc	mg/L	0.023	<0.005	0.005	0.016	0.013	0.005	0.005	<0.010	0.014	<0.005	0.005	<0.005 [<0.005]	<0.005	NA	0.015	0.014	NA	<0.005 [<0.005]	0.005	0.013	0.020			
General Chemistry																									
Alkalinity, total (as CaCO3)	mg/L	NA	560	NA	NA	NA	535	NA	NA	NA	250	362	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Carbon dioxide	mg/L	NA	312	NA	NA	NA	287	NA	NA	NA	58	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Nitrate (as N)	mg/L	NA	<0.5	NA	NA	NA	<0.5	NA	NA	NA	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Sulfate	mg/L	NA	8	NA	NA	NA	189	NA	NA	NA	50	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Field**																									
Conductance, specific	mS/cm	1.268	1.119	1.599	NA	2.183	1.840	2.474	NA	0.900	0.760	NA	0.744	0.855	NA	NA	3.431	3.089	3.266	3.069	NA	1.227			
Dissolved oxygen (DO)	mg/L	0.22	0.07	1.87	NA	0.34	0.63	2.30	NA	0.21	0.14	NA	2.98	0.49	NA	NA	1.44	0.24	5.80	0.36	NA	2.56			
Oxidation reduction potential (ORP), field	millivolts	-68.00	-73.80	-90.30	NA	-58.00	-55.50	-79.70	NA	-36.80	-8.70	NA	9.52	-15.90	NA	NA	-54.00	-32.10	-53.90	-26.50	NA	-94.70			
pH	s.u.	7.05	6.85	6.97	NA	7.03	6.89	6.89	NA	7.61	7.61	NA	6.70	7.49	NA	NA	6.98	6.99	6.87	6.99	NA	7.07			
Temperature, field	Deg C	10.92	20.22	15.24	NA	12.78	18.35	14.78	NA	13.40	22.25	NA	13.43	10.59	NA	NA	16.10	24.36	11.42	5.84	NA	13.74			
Turbidity (field)	NTU	2	32.6	5.21	NA	3	5.9	1.44	NA	3.56	3.40	NA	4.17	8.70	NA	NA	9.30	20.3	9.95	9.1	NA	56.9			

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-12-20 75-80 Plant 3 05/31/13	MW-12-20 75-80 Plant 3 08/15/13	MW-12-20 75-80 Plant 3 11/08/13	MW-12-20 75-80 Plant 3 02/11/14	MW-12-21 70-75 Plant 3 02/08/13	MW-12-21 70-75 Plant 3 02/14/13	MW-12-21 70-75 Plant 3 06/06/13	MW-12-21 70-75 Plant 3 08/19/13	MW-12-21 70-75 Plant 3 11/11/13	MW-12-21 70-75 Plant 3 02/10/14	MW-13-22* 89-94 Plant 3 03/28/13	MW-13-22 89-94 Plant 3 04/02/13	MW-13-22 89-94 Plant 3 05/31/13	MW-13-22 89-94 Plant 3 08/19/13	MW-13-22 89-94 Plant 3 11/11/13	MW-13-22 89-94 Plant 3 12/18/13	MW-13-22 89-94 Plant 3 02/10/14	MW-13-23 69-74 Plant 3 04/02/13	MW-13-23 69-74 Plant 3 05/29/13	MW-13-23 69-74 Plant 3 08/20/13	MW-13-23 69-74 Plant 3 11/12/13	MW-13-23 69-74 Plant 3 02/11/14
Volatile Organics																							
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
1,2-Dibromoethane (Ethylene dibromide)	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
1,4-Dioxane	ug/L	NA	<5	<5	<5	380 ^a	460 ^a	510 Y ^a	450 Y ^a	500 Y ^a	165 ^a	52	52	112 ^a	240 Y ^a	270 Y ^a	NA	NA	14	<5	<5	<5	<5
1,1,1-Trichloroethane	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	NA	<10	<10	<10	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	NA	<10	<10	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Acetone	ug/L	NA	<10	<10	<10	<10	NA	<10	10	<10	<10	<10	<10	<10	<10	<10	NA	<10	20	<10	<10	<10	<10
1,1,2-Trichloroethane	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Bromomethane (Methyl bromide)	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Chloroform (Trichloromethane)	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Chloromethane (Methyl chloride)	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Vinyl chloride	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane (CFC-12)	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Benzene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Methyl acetate	ug/L	NA	<10	<10	<10	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	NA	<10	<10	<10	<10	<10	<10
Ethylbenzene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	1
Methylene chloride	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Styrene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Toluene	ug/L	NA	<1	<1	<1	<1	NA	2	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	2	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Methyl tert butyl ether (MTBE)	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane (CFC-11)	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trifluorotrichloroethane (Freon 113)	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	NA	<10	<10	<10	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	NA	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	NA	<10	<10	<10	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	NA	<10	<10	<10	<10	<10	<10
1,2,4-Trichlorobenzene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Cyclohexane	ug/L	NA	<1	<1	2	<1	NA	<1	<1	<1	1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Methyl cyclohexane	ug/L	NA	<1	<1	2	<1	NA	<1	<1	<1	1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Dibromochloromethane	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
Isopropyl benzene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	NA	<1	1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	1	<1	<1	<1	<1	2
m&p-Xylene	ug/L	NA	<2	<2	<2	<2	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	NA	<2	<2	<2	<2	<2	3

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RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

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Semivolatile Organics																							
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
2,4,6-Trichlorophenol	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
2,4-Dichlorophenol	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
2,4,5-Trichlorophenol	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
2,4-Dimethylphenol	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
2,4-Dinitrophenol	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
2,4-Dinitrotoluene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
2,6-Dinitrotoluene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
2-Chloronaphthalene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
2-Chlorophenol	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
2-Methylnaphthalene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
2-Methylphenol	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
2-Nitroaniline	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
2-Nitrophenol	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
3&4-Methylphenol	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
3-Nitroaniline	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
4,6-Dinitro-2-methylphenol	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
4-Bromophenyl phenyl ether	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
4-Chloro-3-methylphenol	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
4-Chloroaniline	ug/L	NA	<1	<1	<1	<1 J	NA	<1	<1	<1	<1	<2	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
4-Chlorophenyl phenyl ether	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
4-Nitroaniline	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
4-Nitrophenol	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Anthracene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Acenaphthene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Acenaphthylene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Acetophenone	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Atrazine	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Benzaldehyde	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Benzo(a)anthracene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Benzo(a)pyrene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Benzo(b)fluoranthene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Benzo(g,h,i)perylene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Benzo(k)fluoranthene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Biphenyl (1,1-Biphenyl)	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
bis(2-Chloroethoxy)methane	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
bis(2-Chloroethyl)ether	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	NA	1	<1	1 B	<1	NA	1	<1	<1	<1	2	NA	<1	1	<1	NA	3 B	NA	<1	1	<1	2 B
Butyl benzylphthalate (BBP)	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Caprolactam	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	7	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Carbazole	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Chrysene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Dibenz(a,h)anthracene	ug/L	NA	<2	<2	<2	<2	NA	<2	<2	<2	<2	<1	NA	<2	<2	<2	NA	<2	NA	<2	<2	<2	<2
Dibenzofuran	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Diethyl phthalate	ug/L	NA	<1	<1	<1	8	NA	<1	<1	<1	<1	<2	NA	<1.1	<1	<1	NA	<1	NA	1	<1	<2	<1
Dimethyl phthalate	ug/L	NA	7	<1	<1	<1	NA	<1	5	<1	<1	<2	NA	<1	7	<1	NA	<1	NA	<1	5	<1	<1
Di-n-butylphthalate (DBP)	ug/L	NA	<1	<1	<1	<1 B	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Di-n-octyl phthalate (DnOP)	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Fluoranthene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Fluorene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Hexachlorobenzene	ug/L	NA	<1	<1	<1	NA	NA	<1	<1	<1	<1	NA	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Hexachlorocyclopentadiene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Hexachloroethane	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Indeno(1,2,3-cd)pyrene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Isophorone	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
Nitrobenzene	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
N-Nitrosodi-n-propylamine	ug/L	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1
N-Nitrosodiphenylamine	ug/L	NA	<1																				

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-12-20 75-80 Plant 3 05/31/13	MW-12-20 75-80 Plant 3 08/15/13	MW-12-20 75-80 Plant 3 11/08/13	MW-12-20 75-80 Plant 3 02/11/14	MW-12-21 70-75 Plant 3 02/08/13	MW-12-21 70-75 Plant 3 02/14/13	MW-12-21 70-75 Plant 3 06/06/13	MW-12-21 70-75 Plant 3 08/19/13	MW-12-21 70-75 Plant 3 11/11/13	MW-12-21 70-75 Plant 3 02/10/14	MW-13-22* 89-94 Plant 3 03/28/13	MW-13-22 89-94 Plant 3 04/02/13	MW-13-22 89-94 Plant 3 05/31/13	MW-13-22 89-94 Plant 3 08/19/13	MW-13-22 89-94 Plant 3 11/11/13	MW-13-22 89-94 Plant 3 12/18/13	MW-13-22 89-94 Plant 3 02/10/14	MW-13-23 69-74 Plant 3 04/02/13	MW-13-23 69-74 Plant 3 05/29/13	MW-13-23 69-74 Plant 3 08/20/13	MW-13-23 69-74 Plant 3 11/12/13	MW-13-23 69-74 Plant 3 02/11/14
PCBs																							
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics																							
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	281	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15.2 ^a	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	93.1	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.54	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22.1	NA	NA	NA	NA	NA	NA
Antimony	mg/L	NA	<0.005	<0.005	<0.005	<0.002	NA	<0.002	<0.005	<0.005	<0.005	<0.002	NA	<0.002	<0.005	<0.005	NA	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005
Arsenic	mg/L	NA	<0.002	0.004	0.002	<0.002	NA	0.002	0.003	0.005	0.007	0.013 ^{ab}	NA	0.005	0.008	0.005	NA	0.005	0.016 ^{ab}	<0.002	0.002	<0.002	<0.002
Barium	mg/L	NA	0.125	0.154	0.124	0.061	NA	0.039	0.064	0.150	0.036	0.045	NA	0.039	0.051	0.039	NA	0.037	0.117	0.020	0.032	0.018	0.024
Beryllium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Boron	mg/L	NA	0.08	0.07	0.07	0.26	NA	0.37	0.42	0.59 ^a	0.33	0.32	NA	0.27	0.24	0.23	NA	0.30	0.31	0.34	0.34	0.24	0.19
Cadmium	mg/L	NA	<0.005	<0.0005	<0.0005	<0.001	NA	<0.0010	<0.005	<0.0005	<0.0005	<0.0010	NA	<0.0010	<0.005	<0.0005	NA	<0.0005	<0.0010	<0.0010	<0.005	<0.0005	0.0005
Chromium	mg/L	NA	0.009	0.037	0.006	<0.010	NA	<0.010	0.019	0.069	<0.005	0.010	NA	<0.010	0.009	0.006	NA	<0.005	0.048	<0.010	<0.005	0.007	<0.005
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/L	NA	<0.005	<0.005	<0.005	<0.010	NA	<0.010	0.006	0.009	<0.005	<0.010	NA	<0.010	<0.005	<0.005	NA	<0.005	0.028	<0.010	0.005	0.006	0.013
Copper	mg/L	NA	<0.005	0.023 ^b	<0.005	0.002	NA	0.023 ^b	0.509 ^b	0.152 ^b	<0.005	0.002	NA	<0.002	<0.005	<0.005	NA	<0.005	0.041 ^b	<0.002	0.012	<0.005	<0.005
Lead	mg/L	NA	<0.003	0.006 ^a	<0.003	<0.002	NA	<0.002	0.004	0.008 ^a	<0.003	0.004	NA	<0.002	<0.003	<0.003	NA	<0.003	0.019 ^a	<0.002	<0.003	<0.003	<0.003
Manganese	mg/L	NA	0.133 ^a	0.423 ^a	0.157 ^a	0.307 ^a	NA	0.366 ^a	0.439 ^a	0.571 ^a	0.088 ^a	0.37 ^a	NA	0.100 ^a	0.118 ^a	0.084 ^a	0.074 ^a	0.097 ^a	5.67 ^{ab}	1.73 ^a	1.24 ^a	1.76 ^a	1.22 ^a
Mercury	mg/L	NA	<0.0001	<0.0001	<0.0001	<0.0001	NA	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	NA	<0.0001	<0.0001	<0.0001	NA	<0.0001	0.0003 ^b	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	mg/L	NA	0.015	0.028	0.016	0.041	NA	0.087	0.074	0.087	0.018	0.039	NA	0.022	0.027	0.039	NA	0.017	0.207 ^{ab}	0.038	0.040	0.050	0.041
Selenium	mg/L	NA	<0.005	<0.005	<0.005	<0.002	NA	<0.005	<0.005	<0.005	<0.005	<0.002	NA	<0.005	<0.005	<0.005	NA	<0.005	0.005	<0.005	<0.005	<0.005	<0.005
Silver	mg/L	NA	<0.0005	<0.0005	<0.0005	<0.0002	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	NA	<0.0005	<0.0005	<0.0005	NA	<0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005
Thallium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/L	NA	<0.005	0.008 ^a	<0.004	<0.002	NA	<0.002	0.010 ^a	0.009 ^a	<0.004	0.008 ^a	NA	<0.002	<0.005	<0.004	NA	<0.004	0.024 ^a	<0.002	<0.005	<0.004	<0.004
Zinc	mg/L	NA	0.014	0.034	0.020	0.025	NA	0.405 ^u	0.201	0.091	0.009	0.053	NA	<0.010	0.011	0.006	NA	0.011	1.41 ^u	0.022	0.025	0.017	0.809 ^u
General Chemistry																							
Alkalinity, total (as CaCO3)	mg/L	NA	NA	NA	NA	NA	NA	NA	558	NA	NA	NA	NA	NA	435	NA	422	NA	NA	NA	423	NA	NA
Carbon dioxide	mg/L	NA	NA	NA	NA	NA	NA	NA	234	NA	NA	NA	NA	NA	288	NA	NA	NA	NA	NA	282	NA	NA
Nitrate (as N)	mg/L	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	<0.5	NA	NA
Sulfate	mg/L	NA	NA	NA	NA	NA	NA	NA	992 ^a	NA	NA	NA	NA	NA	669 ^a	NA	548 ^a	NA	NA	NA	1,030 ^a	NA	NA
Field**																							
Conductance, specific	mS/cm	NA	1.258	1.191	1.361	NA	NA	2.317	2.311	2.345	2.096	NA	NA	1.836	1.586	1.825	NA	1.947	NA	2.382	2.151	1.553	1.987
Dissolved oxygen (DO)	mg/L	NA	0.14	2.66	2.45	NA	NA	52.2	1.60	1.21	0.58	NA	NA	0.39	0.15	1.59	0.36	0.42	NA	0.20	0.62	0.49	1.78
Oxidation reduction potential (ORP), field	millivolts	NA	149.8	-71.90	-76.60	NA	NA	120.7	42.8	-69.40	-116.60	NA	NA	-99.40	-86.40	-95.10	-88.90	-46.20	NA	-53.50	3.5	-6.00	78.8
pH	s.u.	NA	7.08	7.49	7.11	NA	NA	6.51	6.76	7.94	6.79	NA	NA	7.17	6.98	8.11	6.9	6.75	NA	6.46	6.69	7.28	6.80
Temperature, field	Deg C	NA	24.01	7.18	6.14	NA	NA	14.95	23.85	5.93	14.15	NA	NA	19.62	18.35	11.28	6.71	8.0	NA	19.00	21.01	10.42	10.75
Turbidity (field)	NTU	NA	95	172	39.2	NA	NA	42.9	149	142	40.9	NA	NA	7.29	187	9.85	9.76	7.3	NA	4.43	9.66	5.51	790

Preliminary Groundwater Geochemical Assessment RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Table 1 - Complete Data Table_final.xlsx

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Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-13-24* 69-74 Plant 3 04/03/13	MW-13-24 69-74 Plant 3 05/30/13	MW-13-24 69-74 Plant 3 08/15/13	MW-13-24 69-74 Plant 3 11/11/13	MW-13-24 69-74 Plant 3 02/10/14	MW-13-25 67-72 Plant 3 04/03/13	MW-13-25 67-72 Plant 3 05/28/13	MW-13-25 67-72 Plant 3 08/20/13	MW-13-25 67-72 Plant 3 11/11/13	MW-13-25 67-72 Plant 3 02/07/14	MW-13-25 67-72 Plant 3 04/04/13	MW-13-26 72-77 Plant 3 06/10/13	MW-13-26 72-77 Plant 3 08/16/13	MW-13-26 72-77 Plant 3 11/08/13	MW-13-26 72-77 Plant 3 02/10/14	MW-13-27 67-72 Plant 3 04/24/13	MW-13-27 67-72 Plant 3 05/29/13	MW-13-27 67-72 Plant 3 08/20/13	MW-13-27 67-72 Plant 3 11/11/13	MW-13-27 67-72 Plant 3 02/11/14	MW-13-28 99-115.5 Plant 3 04/23/13	
PCBs																							
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor-1016 (PCB-1016)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor-1221 (PCB-1221)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor-1232 (PCB-1232)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor-1242 (PCB-1242)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor-1248 (PCB-1248)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor-1254 (PCB-1254)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor-1260 (PCB-1260)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Inorganics																							
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Antimony	mg/L	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005 [<0.005]	<0.005 [<0.005]	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005 [<0.005]	<0.002
Arsenic	mg/L	0.011 ^{ab}	<0.002	<0.002	<0.002	<0.002	0.006	0.018 ^{ab}	0.022 ^{ab}	0.023 ^{ab}	0.022 ^{ab}	0.013 ^{ab}	0.003	0.003 [0.002]	0.002 [0.003]	0.002	0.005	0.007	0.005	0.004	0.004 [0.005]	0.021 ^{ab}	
Barium	mg/L	0.124	0.026	0.030	0.029	0.043	0.124	0.027	0.033	0.020	0.026	0.134	0.044	0.036 [0.037]	0.032 [0.032]	0.037	0.105	0.069	0.050	0.034	0.044 [0.043]	0.088	
Beryllium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Boron	mg/L	0.12	0.12	0.17	0.15	0.21	0.09	0.06	0.10	0.07	0.10	0.19	0.10	0.09 [0.08]	0.08 [0.08]	0.10	0.08	0.06	0.08	0.09	0.08 [0.08]	0.15	
Cadmium	mg/L	<0.0010	<0.0010	<0.005	<0.0005	<0.0005	<0.0010	<0.0010	<0.005	<0.0005	<0.0005	<0.0010	<0.0010	<0.005 [<0.005]	<0.0005 [<0.0005]	<0.0005	<0.0010	<0.0010	<0.005	<0.0005	<0.0005 [<0.0005]	<0.0010	
Chromium	mg/L	0.032	<0.010	<0.005	<0.005	0.081	0.008	<0.010	<0.005	<0.005	<0.005	0.026	<0.010	0.008 [0.008]	<0.005 [<0.005]	<0.005	<0.010	<0.010	<0.005	<0.005	<0.005 [<0.005]	<0.010	
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Cobalt	mg/L	0.018	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.005	0.005	<0.005	0.023	<0.010	<0.005 [<0.005]	<0.005 [<0.005]	<0.005	<0.010	<0.010	<0.005	<0.005	<0.005 [<0.005]	<0.010	
Copper	mg/L	0.036 ^b	<0.002	0.005	<0.005	0.092 ^b	0.012	<0.002	0.007	<0.005	<0.005	0.006	<0.002	<0.005 [<0.005]	<0.005 [<0.005]	<0.005	0.003	<0.002	<0.005	<0.005	<0.005 [<0.005]	0.002	
Lead	mg/L	0.028 ^a	<0.002	<0.003	<0.003	<0.003	0.003	<0.002	<0.003	<0.003	<0.003	<0.002	<0.002	<0.003 [<0.003]	<0.003 [<0.003]	<0.003	<0.002	<0.002	<0.003	<0.003	<0.003 [<0.003]	<0.002	
Manganese	mg/L	4.91 ^{ab}	0.378 ^a	0.330 ^a	0.340 ^a	0.321 ^a	1.21 ^a	0.816 ^a	0.856 ^a	0.824 ^a	0.732 ^a	4.68 ^{ab}	0.158 ^a	0.140 [0.139] ^a	0.137 [0.136] ^a	0.112 ^a	0.820 ^a	0.813 ^a	0.832 ^a	0.680 ^a	0.770 [0.752] ^a	0.045	
Mercury	mg/L	0.0003 ^b	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0005 ^b	<0.0001	<0.0001 [<0.0001]	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001	
Nickel	mg/L	0.161 ^{ab}	0.022	0.027	0.045	0.036	0.041	0.031	0.040	0.060	0.020	0.148 ^{ab}	0.019	0.027 [0.025]	0.025 [0.024]	0.011	0.014	0.019	0.029	0.028	0.013 [0.011]	0.021	
Selenium	mg/L	0.005	<0.005	<0.005	<0.005	<0.005	0.002	<0.005	0.006	0.007	<0.005	0.003	0.005	<0.005 [<0.005]	<0.005 [<0.005]	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005 [<0.005]	<0.005	
Silver	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005	0.0031 J ^b	<0.0005	<0.0005	<0.0005	<0.0005 [<0.0005]	0.0007 ^b	
Thallium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Vanadium	mg/L	0.020 ^a	0.002	0.011 ^a	<0.004	0.007 ^a	0.004	<0.002	<0.005	<0.004	<0.004	0.005 ^a	<0.002	<0.005 [<0.005]	<0.004 [<0.004]	<0.004	<0.002	0.002	<0.005	<0.004	<0.004 [<0.004]	<0.002	
Zinc	mg/L	1.60 ^u	<0.010	0.014	0.007	0.121	0.097	0.014	0.015	0.015	0.013	3.26 ^{au}	<0.010	<0.005 [0.005]	<0.005 [<0.005]	0.010	0.024	<0.010	0.006	0.008	<0.005 [<0.005]	0.019	
General Chemistry																							
Alkalinity, total (as CaCO3)	mg/L	NA	NA	517	NA	NA	NA	NA	528	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Carbon dioxide	mg/L	NA	NA	286	NA	NA	NA	NA	336	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Nitrate (as N)	mg/L	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfate	mg/L	NA	NA	1,120 ^a	NA	NA	NA	NA	1,400 ^a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Field**																							
Conductance, specific	mS/cm	NA	2.649	2.929	2.772	2.662	NA	2.619	3.778	2.005	3.187	NA	2.317	2.271	2.271	2.239	NA	3.532	3.805	2.159	3.733	NA	
Dissolved oxygen (DO)	mg/L	NA	0.20	0.37	0.54	0.65	NA	0.21	0.34	0.67	0.49	NA	0.65	0.40	0.70	0.17	NA	0.20	0.19	0.42	0.32	NA	
Oxidation reduction potential (ORP), field	millivolts	NA	-95.10	-113.50	-85.10	-173.90	NA	-85.50	-106.10	-44.90	-37.70	NA	-64.90	98.1	-103.90	-90.00	NA	-95.40	-94.20	-58.90	-49.90	NA	
pH	s.u.	NA	6.59	6.68	7.88	6.74	NA	10.25	7.03	6.66	6.63	NA	6.61	6.82	8.05	6.79	NA	6.57	6.81	6.81	6.65	NA	
Temperature, field	Deg C	NA	19.40	18.72	13.89	12.11	NA	18.43	22.63	8.65	7.79	NA	17.17	21.07	12.65	13.52	NA	17.97	22.05	11.55	11.16	NA	
Turbidity (field)	NTU	NA	8.11	24.3	9.92	9.65	NA	2.81	9.12	2.91	5.9	NA	4.33	8.76	9.92	5.26	NA	2.30	7.65	1.73	5.2	NA	

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-13-28 99-115.5 Plant 3 06/12/13	MW-13-28 99-115.5 Plant 3 08/19/13	MW-13-28 99-115.5 Plant 3 11/11/13	MW-13-28 99-115.5 Plant 3 02/10/14	MW-13-29 68-73 Plant 3 04/25/13	MW-13-29 68-73 Plant 3 05/24/13	MW-13-29 68-73 Plant 3 08/16/13	MW-13-29 68-73 Plant 3 11/11/13	MW-13-29 68-73 Plant 3 12/18/13	MW-13-29 68-73 Plant 3 02/07/14	MW-13-30 72-77 Plant 3 04/25/13	MW-13-30 72-77 Plant 3 05/28/13	MW-13-30 72-77 Plant 3 08/16/13	MW-13-30 72-77 Plant 3 11/12/13	MW-13-30 72-77 Plant 3 02/10/14	MW-13-31 5-10 Plant 3 08/22/13	MW-13-31 5-10 Plant 3 11/07/13	MW-13-31 5-10 Plant 3 02/06/14	MW-13-32 5-10 Plant 3 08/27/13	MW-13-32 5-10 Plant 3 11/08/13	MW-13-32 5-10 Plant 3 02/10/14	MW-13-33 12-17 Plant 3 08/23/13	
Volatile Organics																								
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
1,4-Dioxane	ug/L	<5	<5	<5	<5	38	30	28	31	NA	20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Acetone	ug/L	<10	38	22	24	<10	13	<10	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Bromomethane (Methyl bromide)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
1,2-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
cis-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Chloroform (Trichloromethane)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	<1	<1	
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Chloromethane (Methyl chloride)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
cis-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Dichlorodifluoromethane (CFC-12)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Methyl acetate	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Toluene	ug/L	<1	<1	<1	<1	<1	5	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	21	<1	<1	<1	
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Methyl tert butyl ether (MTBE)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Trichlorofluoromethane (CFC-11)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Trifluorotrichloroethane (Freon 113)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<																

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Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-13-28 99-115.5 Plant 3 06/12/13	MW-13-28 99-115.5 Plant 3 08/19/13	MW-13-28 99-115.5 Plant 3 11/11/13	MW-13-28 99-115.5 Plant 3 02/10/14	MW-13-29 68-73 Plant 3 04/25/13	MW-13-29 68-73 Plant 3 05/24/13	MW-13-29 68-73 Plant 3 08/16/13	MW-13-29 68-73 Plant 3 11/11/13	MW-13-29 68-73 Plant 3 12/18/13	MW-13-29 68-73 Plant 3 02/07/14	MW-13-30 72-77 Plant 3 04/25/13	MW-13-30 72-77 Plant 3 05/28/13	MW-13-30 72-77 Plant 3 08/16/13	MW-13-30 72-77 Plant 3 11/12/13	MW-13-30 72-77 Plant 3 02/10/14	MW-13-31 5-10 Plant 3 08/22/13	MW-13-31 5-10 Plant 3 11/07/13	MW-13-31 5-10 Plant 3 02/06/14	MW-13-32 5-10 Plant 3 08/27/13	MW-13-32 5-10 Plant 3 11/08/13	MW-13-32 5-10 Plant 3 02/10/14	MW-13-33 12-17 Plant 3 08/23/13
Semivolatile Organics																							
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4,6-Trichlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4-Dichlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4-Dimethylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4-Dinitrophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4-Dinitrotoluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,6-Dinitrotoluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Chloronaphthalene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Chlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Methylnaphthalene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Nitrophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
3&4-Methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1 J	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
3-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4,6-Dinitro-2-methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Bromophenyl phenyl ether	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Chloro-3-methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Chloroaniline	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1 J	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Chlorophenyl phenyl ether	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Nitrophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Anthracene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acenaphthene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acenaphthylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acetophenone	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Atrazine	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzaldehyde	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(a)anthracene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(a)pyrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(b)fluoranthene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<				

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-13-28 99-115.5 Plant 3 06/12/13	MW-13-28 99-115.5 Plant 3 08/19/13	MW-13-28 99-115.5 Plant 3 11/11/13	MW-13-28 99-115.5 Plant 3 02/10/14	MW-13-29 68-73 Plant 3 04/25/13	MW-13-29 68-73 Plant 3 05/24/13	MW-13-29 68-73 Plant 3 08/16/13	MW-13-29 68-73 Plant 3 11/11/13	MW-13-29 68-73 Plant 3 12/18/13	MW-13-29 68-73 Plant 3 02/07/14	MW-13-30 72-77 Plant 3 04/25/13	MW-13-30 72-77 Plant 3 05/28/13	MW-13-30 72-77 Plant 3 08/16/13	MW-13-30 72-77 Plant 3 11/12/13	MW-13-30 72-77 Plant 3 02/10/14	MW-13-31 5-10 Plant 3 08/22/13	MW-13-31 5-10 Plant 3 11/07/13	MW-13-31 5-10 Plant 3 02/06/14	MW-13-32 5-10 Plant 3 08/27/13	MW-13-32 5-10 Plant 3 11/08/13	MW-13-32 5-10 Plant 3 02/10/14	MW-13-33 12-17 Plant 3 08/23/13		
PCBs																									
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Aroclor-1016 (PCB-1016)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Aroclor-1221 (PCB-1221)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Aroclor-1232 (PCB-1232)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Aroclor-1242 (PCB-1242)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Aroclor-1248 (PCB-1248)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Aroclor-1254 (PCB-1254)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Aroclor-1260 (PCB-1260)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Inorganics																									
Calcium	mg/L	139	NA	NA	NA	NA	NA	NA	NA	593	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	7.37 ^a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Magnesium	mg/L	46.2	NA	NA	NA	NA	NA	NA	NA	117	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	15.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	42.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Antimony	mg/L	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005	<0.005	NA	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
Arsenic	mg/L	0.009	0.007	0.005	0.002	0.005	0.005	0.006	0.006	NA	0.005	0.002	0.002	0.003	<0.002	0.002	<0.002	0.004	<0.002	0.006	0.002	0.005	<0.002		
Barium	mg/L	0.100	0.086	0.115	0.117	0.056	0.021	0.021	0.018	NA	0.022	0.095	0.046	0.048	0.051	0.177	0.198	0.364	0.136	0.223	0.143	0.163	0.249		
Beryllium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Boron	mg/L	0.11	0.09	0.09	0.07	0.79 ^a	0.77 ^a	0.835 ^a	0.54 ^a	NA	0.38	0.23	0.19	0.226	0.21	0.22	0.28	0.27	0.17	0.22	0.32	0.29	0.14		
Cadmium	mg/L	<0.0010	<0.005	<0.0005	<0.0005	<0.0010	<0.0010	<0.005	<0.0005	NA	<0.0005	<0.0010	<0.0010	<0.005	<0.0005	<0.0005	<0.0005	0.0033	0.0010	<0.0005	<0.0005	<0.0005	0.0018		
Chromium	mg/L	<0.010	<0.005	<0.005	<0.005	0.010	<0.010	0.015	<0.005	NA	<0.005	<0.010	<0.010	0.017	0.011	0.047	0.011	0.018	<0.005	0.010	<0.005	1.43 ^b	0.017		
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Cobalt	mg/L	<0.010	<0.005	<0.005	<0.005	0.016	0.016	0.014	0.014	NA	0.015	0.006	<0.010	<0.005	<0.005	0.008	<0.005	<0.005	<0.005	0.005	<0.005	0.026	0.021		
Copper	mg/L	0.007	<0.005	<0.005	<0.005	0.009	0.002	0.006	<0.005	NA	<0.005	0.010	0.002	0.006	<0.005	<0.005	0.018	0.117 ^b	0.006	0.047 ^b	0.016	0.067 ^b	0.120 ^b		
Lead	mg/L	<0.002	<0.003	<0.003	<0.003	0.003	<0.002	<0.003	<0.003	NA	<0.003	0.002	<0.002	<0.003	<0.003	<0.003	0.070 ^{ab}	0.337 ^{ab}	<0.003	0.065 ^{ab}	<0.003	0.021 ^a	0.065 ^{ab}		
Manganese	mg/L	0.118 ^a	0.014	0.009	<0.005	0.716 ^a	0.560 ^a	0.619 ^a	0.778 ^a	0.841 ^a	0.832 ^a	1.30 ^a	0.959 ^a	0.565 ^a	0.407 ^a	2.68 ^a	0.740 ^a	0.165 ^a	0.013	0.625 ^a	0.737 ^a	1.27 ^a	1.38 ^a		
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	NA	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0002 ^b	<0.0001	0.0002 ^b	<0.0001	0.0015 ^b	<0.0001	0.0005 ^b	<0.0001		
Nickel	mg/L	0.012	0.009	0.015	0.005	0.064	0.054	0.070	0.054	NA	0.031	0.037	0.046	0.028	0.021	0.405 ^{ab}	0.021	0.078	0.016	0.043	0.241 ^{ab}	2.25 ^{ab}	0.065		
Selenium	mg/L	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.007	0.011	<0.005	<0.005	<0.005	<0.005	<0.005		
Silver	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0013 ^b	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		
Thallium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Vanadium	mg/L	<0.002	<0.005	<0.004	<0.004	0.006 ^a	<0.002	<0.005	<0.004	NA	<0.004	<0.002	<0.002	<0.005	0.004	<0.004	0.007 ^a	0.024 ^a	<0.004	0.017 ^a	<0.004	<0.004	0.027 ^a		
Zinc	mg/L	0.096	0.013	<0.005	0.006	0.150	0.033	0.015	0.012	NA	0.015	0.180	0.035	0.013	<0.005	0.529 ^u	0.140	0.883 ^u	0.463 ^u	0.191	0.035	0.078	0.183		
General Chemistry																									
Alkalinity, total (as CaCO3)	mg/L	348	NA	NA	NA	NA	NA	NA	NA	429	NA	NA	NA	NA	NA	NA	404	NA	NA	NA	NA	NA	488		
Carbon dioxide	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	265	NA	NA	NA	NA	NA	187		
Nitrate (as N)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	<0.5		
Sulfate	mg/L	107	NA	NA	NA	NA	NA	NA	NA	3,860 ^a	NA	NA	NA	NA	NA	NA	57	NA	NA	NA	NA	NA	175		
Field**																									
Conductance, specific	mS/cm	1.080	0.538	2.080	1.808	NA	2.445	3.089	2.084	NA	2.658	NA	2.774	2.035	0.972	1.619	0.863	0.743	0.869	NA	0.672	1.191	0.925		
Dissolved oxygen (DO)	mg/L	0.16	1.05	0.52	0.31	NA	1.57	0.18	0.26	0.45	2.53	NA	0.52	0.17	0.72	0.27	1.29	1.42	2.29	NA	1.05	1.82	4.68		
Oxidation reduction potential (ORP), field	millivolts	-117.90	-151.70	-176.50	-126.50	NA	-78.10	-57.90	-12.90	-15.80	3.6	NA	-179.00	-126.10	-100.00	-129.00	-75.20	-41.10	81.2	NA	149.4	51.2	74.5		
pH	s.u.	7.17	10.14	11.61	11.74	NA	11.88	6.68	6.59	6.62	6.52	NA	7.19	6.81	7.76	6.82	6.44	6.69	6.84	NA	6.78	6.96	6.88		
Temperature, field	Deg C	17.19	22.02	10.85	11.91	NA	16.43	17.96	14.09	13.66	2.62	NA	17.58	19.56	8.46	15.14	20.25	13.56	7.20	NA	8.77	9.48	15.54		
Turbidity (field)	NTU	48.5	168	9.81	8.1	NA	2.19	9.8	8.02	9.89	2.97	NA	6.57	127	18.5	187.0	6.95	88.8	1.65	NA	5.48	212	73.5		

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-13-33 12-17 Plant 3 11/06/13	MW-13-33 12-17 Plant 3 02/10/14	MW-13-34 74-79 Plant 3 08/20/13	MW-13-34 74-79 Plant 3 11/15/13	MW-13-34 74-79 Plant 3 12/19/13	MW-13-34 74-79 Plant 3 02/06/14	MW-13-35 25-30 Plant 3 09/20/13	MW-13-35 25-30 Plant 3 11/05/13	MW-13-36R 5.5-10.5 Plant 3 12/18/13	MW-13-36R 5.5-10.5 Plant 3 02/20/14	MW-13-37 97-112 Plant 3 10/17/13	MW-13-37 97-112 Plant 3 11/06/13	MW-13-37 97-112 Plant 3 02/13/14	MW-13-38 107-124 Plant 3 10/16/13	MW-13-38 107-124 Plant 3 11/06/13	MW-13-38 107-124 Plant 3 02/12/14	MW-13-39B 97-112 Plant 3 10/14/13	MW-13-39B 97-112 Plant 3 10/15/13	MW-13-39B 97-112 Plant 3 11/15/13	MW-13-39B 97-112 Plant 3 02/10/14	MW-13-40 72-77 Plant 3 12/17/13
Volatile Organics																						
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
1,4-Dioxane	ug/L	<5	<5	17	99 ^a	NA	43	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
2-Hexanone	ug/L	<10	<10	<10	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NA	<10
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Acetone	ug/L	<10	<10	<10	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	16	<10	<10	<10	<10	<10	NA	<10
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Bromoform	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Bromomethane (Methyl bromide)	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
1,2-Dichloroethane	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
cis-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Chlorobenzene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Chloroform (Trichloromethane)	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Trichloroethene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Chloromethane (Methyl chloride)	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
cis-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Vinyl chloride	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Chloroethane	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Dichlorodifluoromethane (CFC-12)	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Benzene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Methyl acetate	ug/L	<10	<10	<10	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NA	<10
Ethylbenzene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Methylene chloride	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Styrene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Toluene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Methyl tert butyl ether (MTBE)	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Trichlorofluoromethane (CFC-11)	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trifluorotrichloroethane (Freon 113)	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	<10	<10	<10	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NA	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NA	<10
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Cyclohexane	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Methyl cyclohexane	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Dibromochloromethane	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
Isopropyl benzene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
o-Xylene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1
m&p-Xylene	ug/L	<2	<2	<2	<2	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NA	<2

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:		MW-13-33 12-17 Plant 3 11/06/13	MW-13-33 12-17 Plant 3 02/10/14	MW-13-34 74-79 Plant 3 08/20/13	MW-13-34 74-79 Plant 3 11/15/13	MW-13-34 74-79 Plant 3 12/19/13	MW-13-34 74-79 Plant 3 02/06/14	MW-13-35 25-30 Plant 3 09/20/13	MW-13-35 25-30 Plant 3 11/05/13	MW-13-36R 5.5-10.5 Plant 3 12/18/13	MW-13-36R 5.5-10.5 Plant 3 02/20/14	MW-13-37 97-112 Plant 3 10/17/13	MW-13-37 97-112 Plant 3 11/06/13	MW-13-37 97-112 Plant 3 02/13/14	MW-13-38 107-124 Plant 3 10/16/13	MW-13-38 107-124 Plant 3 11/06/13	MW-13-38 107-124 Plant 3 02/12/14	MW-13-39B 97-112 Plant 3 10/14/13	MW-13-39B 97-112 Plant 3 10/15/13	MW-13-39B 97-112 Plant 3 11/15/13	MW-13-39B 97-112 Plant 3 02/10/14	MW-13-40 72-77 Plant 3 12/17/13	
Semivolatile Organics																							
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
2,4,6-Trichlorophenol	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
2,4-Dichlorophenol	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
2,4,5-Trichlorophenol	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
2,4-Dimethylphenol	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	3	2	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
2,4-Dinitrophenol	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
2,4-Dinitrotoluene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
2,6-Dinitrotoluene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
2-Chloronaphthalene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
2-Chlorophenol	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
2-Methylnaphthalene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
2-Methylphenol	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
2-Nitroaniline	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
2-Nitrophenol	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
3&4-Methylphenol	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	1	1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Naphthalene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	2	1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
3-Nitroaniline	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
4,6-Dinitro-2-methylphenol	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
4-Bromophenyl phenyl ether	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
4-Chloro-3-methylphenol	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
4-Chloroaniline	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
4-Chlorophenyl phenyl ether	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
4-Nitroaniline	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
4-Nitrophenol	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
Anthracene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
Acenaphthene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
Acenaphthylene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
Acetophenone	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
Atrazine	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
Benzaldehyde	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
Benzo(a)anthracene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
Benzo(a)pyrene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
Benzo(b)fluoranthene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
Benzo(g,h,i)perylene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
Benzo(k)fluoranthene	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
Biphenyl (1,1-Biphenyl)	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
bis(2-Chloroethoxy)methane	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1	NA	<1	<1	NA	NA	<1	<1	<1	
bis(2-Chloroethyl)ether	ug/L	<1	<1	<1	<1	NA	<1	<1	<1	&													

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Location ID: Sample Depth(): Plant: Date Collected:		MW-13-33 12-17 Plant 3 11/06/13	MW-13-33 12-17 Plant 3 02/10/14	MW-13-34 74-79 Plant 3 08/20/13	MW-13-34 74-79 Plant 3 11/15/13	MW-13-34 74-79 Plant 3 12/19/13	MW-13-34 74-79 Plant 3 02/06/14	MW-13-35 25-30 Plant 3 09/20/13	MW-13-35 25-30 Plant 3 11/05/13	MW-13-36R 5.5-10.5 Plant 3 12/18/13	MW-13-36R 5.5-10.5 Plant 3 02/20/14	MW-13-37 97-112 Plant 3 10/17/13	MW-13-37 97-112 Plant 3 11/06/13	MW-13-37 97-112 Plant 3 02/13/14	MW-13-38 107-124 Plant 3 10/16/13	MW-13-38 107-124 Plant 3 11/06/13	MW-13-38 107-124 Plant 3 02/12/14	MW-13-39B 97-112 Plant 3 10/14/13	MW-13-39B 97-112 Plant 3 10/15/13	MW-13-39B 97-112 Plant 3 11/15/13	MW-13-39B 97-112 Plant 3 02/10/14	MW-13-40 72-77 Plant 3 12/17/13
PCBs																						
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics																						
Calcium	mg/L	NA	NA	NA	NA	261	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	12.7 ^a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	82.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	5.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	106	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	NA	<0.005	<0.005	NA	NA	<0.005	<0.005	<0.005
Arsenic	mg/L	<0.002	<0.002	0.006	0.003	NA	0.004	0.009	0.006	0.003	0.002	NA	0.009	0.010	NA	0.007	0.010	NA	NA	0.005	<0.002	0.015 ^{ab}
Barium	mg/L	0.087	0.071	0.102	0.190	NA	0.120	0.363	0.272	0.064	0.049	NA	0.222	0.178	NA	0.128	0.127	NA	NA	0.077	0.056	0.288
Beryllium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Boron	mg/L	0.14	0.09	0.07	0.19	NA	0.09	0.06	0.10	0.13	0.12	NA	0.08	0.10	NA	0.12	0.13	NA	NA	0.07	0.11	0.07
Cadmium	mg/L	<0.0005	<0.0005	<0.005	<0.0005	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NA	<0.0005	<0.0005	NA	<0.0005	<0.0005	NA	NA	<0.0005	<0.0005	<0.0005
Chromium	mg/L	<0.005	0.008	0.005	0.013	NA	0.008	0.013	<0.005	<0.005	<0.005	NA	<0.005	<0.005	NA	0.043	0.011	NA	NA	<0.005	<0.005	0.007
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/L	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	NA	<0.005	<0.005	NA	NA	<0.005	<0.005	<0.005
Copper	mg/L	0.011	0.020	<0.005	<0.005	NA	<0.005	0.010	<0.005	0.006	0.009	NA	<0.005	<0.005	NA	<0.005	0.006	NA	NA	<0.005	0.006	<0.005
Lead	mg/L	<0.003	0.007 ^a	<0.003	<0.003	NA	<0.003	<0.003	<0.003	0.003	0.003	NA	<0.003	<0.003	NA	<0.003	<0.003	NA	NA	<0.003	<0.003	<0.003
Manganese	mg/L	0.029	0.155 ^a	0.187 ^a	0.310 ^a	0.201 ^a	0.223 ^a	0.316 ^a	0.252 ^a	0.021	0.016	NA	0.159 ^a	0.129 ^a	NA	0.127 ^a	0.132 ^a	NA	NA	0.154 ^a	0.305 ^a	0.161 ^a
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	NA	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	NA	<0.0001	<0.0001	NA	<0.0001	<0.0001	NA	NA	<0.0001	<0.0001	<0.0001
Nickel	mg/L	0.011	0.011	0.024	0.022	NA	0.013	0.051	0.022	0.012	0.011	NA	0.014	0.006	NA	0.032	0.019	NA	NA	0.015	0.007	0.031
Selenium	mg/L	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	NA	<0.005	0.007	NA	NA	<0.005	<0.005	<0.005
Silver	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NA	<0.0005	<0.0005	NA	<0.0005	<0.0005	NA	NA	<0.0005	<0.0005	<0.0005
Thallium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/L	<0.004	0.006 ^a	<0.005	<0.004	NA	<0.004	0.008 ^a	0.005 ^a	0.005 ^a	0.005 ^a	NA	<0.004	<0.004	NA	<0.004	<0.004	NA	NA	<0.004	<0.004	<0.004
Zinc	mg/L	0.009	0.020	0.064	0.017	NA	0.018	0.038	0.018	<0.005	<0.005	NA	0.006	0.035	NA	0.009	0.028	NA	NA	0.006	0.013	0.010
General Chemistry																						
Alkalinity, total (as CaCO3)	mg/L	NA	NA	440	NA	452	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon dioxide	mg/L	NA	NA	290	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	mg/L	NA	NA	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	NA	NA	253 ^a	NA	172	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field**																						
Conductance, specific	mS/cm	0.696	NA	2.104	2.171	NA	2.012	NA	2.432	NA	1.696	NA	1.070	0.962	NA	2.346	2.442	NA	NA	1.134	1.581	NA
Dissolved oxygen (DO)	mg/L	1.12	NA	0.15	0.74	0.12	0.32	NA	2.14	0.07	0.21	NA	0.34	0.36	NA	0.35	0.30	NA	NA	0.39	0.14	0.96
Oxidation reduction potential (ORP), field	millivolts	98.8	NA	-115.50	-110.20	-125.90	-132.30	NA	-75.90	-169.30	-16.10	NA	-217.40	-106.40	NA	-191.20	-148.80	NA	NA	-165.40	-163.50	-80.20
pH	s.u.	6.77	NA	7.02	8.57	6.91	6.91	NA	6.95	12.35	13.66	NA	8.30	6.99	NA	8.79	7.24	NA	NA	9.17	7.56	6.96
Temperature, field	Deg C	12.79	NA	21.16	13.32	13.74	14.15	NA	14.29	6.75	5.35	NA	15.19	6.15	NA	13.82	2.79	NA	NA	10.04	7.39	6.22
Turbidity (field)	NTU	272	NA	407	31.7	22.3	610	NA	8.76	25.3	NA	NA	9.92	27.6	NA	29.9	38.2	NA	NA	52.3	9.98	80.7

Preliminary Groundwater Geochemical Assessment RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Preliminary Groundwater Geochemical Assessment RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Table 1 - Complete Data Table_final.xlsx

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-13-40 72-77 Plant 3 02/11/14	MW-13-41 77-82 Plant 3 12/17/13	MW-13-41 77-82 Plant 3 02/12/14	MW-13-42 70-75 Plant 2 12/17/13	MW-13-42 70-75 Plant 2 02/17/14	MW-13-43 72-77 Plant 2 12/13/13	MW-13-43 72-77 Plant 2 02/14/14	MW-13-44 96-115 Plant 2 11/15/13	MW-13-44 96-115 Plant 2 12/13/13	MW-13-44 96-115 Plant 2 02/14/14	MW-13-45 72-77 Plant 2 12/13/13	MW-13-45 72-77 Plant 2 02/13/14	MW-13-46 68-73 Plant 3 12/19/13	MW-13-46 68-73 Plant 3 02/07/14	MW-13-47 99-119 Plant 3 11/15/13	MW-13-47 99-119 Plant 3 12/19/13	MW-13-47 99-119 Plant 3 02/06/14	MW-13-48 65-70 Plant 3 12/19/13	MW-13-48 65-70 Plant 3 02/06/14	MW-13-49 73-78 Plant 3 12/20/13	MW-13-49 73-78 Plant 3 02/07/14	MW-13-50 85-107 Plant 6 11/05/13
PCBs																							
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics																							
Calcium	mg/L	NA	NA	NA	NA	NA	154	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	271	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	3.26 ^a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.3 ^a	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	58.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	62.5	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	2.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.76	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	148	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	258 ^a	NA	NA	NA	NA
Antimony	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA
Arsenic	mg/L	0.026 ^{ab}	0.018 ^{ab}	0.022 ^{ab}	0.005	0.007	0.003	0.006	NA	<0.002	0.002	0.005	0.009	<0.002	0.005	NA	0.012 ^{ab}	0.011 ^{ab}	0.007	0.007	0.003	0.003	NA
Barium	mg/L	0.325	0.076	0.076	0.106	0.108	0.516	0.562	NA	0.111	0.145	0.354	0.380	0.085	0.106	NA	0.109 J	0.130	0.581	0.516	0.140	0.164	NA
Beryllium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Boron	mg/L	0.06	0.22	0.23	0.08	0.08	0.11	0.13	NA	0.08	0.06	0.08	0.06	0.08	0.05	NA	0.11	0.11	0.12	0.20	0.14	0.13	NA
Cadmium	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	0.0007	<0.0005	<0.0005	NA	<0.0005	<0.0005	<0.0005	0.0006	<0.0005	<0.0005	NA	<0.0005	<0.0005	<0.0005	<0.0005	0.0027	<0.0005	NA
Chromium	mg/L	0.015	0.006	0.005	0.276 ^b	0.166 ^b	<0.005	0.007	NA	0.008	<0.005	<0.005	2.40 ^b	<0.005	0.023	NA	<0.005	<0.005	<0.005	<0.005	0.008	<0.005	NA
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/L	<0.005	0.006	<0.005	0.016	0.015	<0.005	<0.005	NA	<0.005	<0.005	<0.005	0.039	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA
Copper	mg/L	0.016	0.005	<0.005	0.029 ^b	0.031 ^b	<0.005	<0.005	NA	0.010	0.006	0.005	0.083 ^b	<0.005	0.009	NA	<0.005	<0.005	0.011	<0.005	0.009	<0.005	NA
Lead	mg/L	<0.003	<0.003	<0.003	0.008 ^a	0.013 ^a	<0.003	<0.003	NA	<0.003	<0.003	<0.003	0.004	<0.003	0.008 ^a	NA	<0.003	<0.003	<0.003	<0.003	0.004	<0.003	NA
Manganese	mg/L	0.244 ^a	0.088 ^a	0.074 ^a	0.776 ^a	2.61 ^a	0.045	0.039	NA	0.249 ^a	0.151 ^a	0.059 ^a	0.619 ^a	0.419 ^a	0.484 ^a	NA	0.370 ^a	0.141 ^a	0.352 ^a	0.364 ^a	0.384 ^a	0.187 ^a	NA
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	0.0002 ^b	<0.0001	<0.0001	NA	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	NA	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	NA
Nickel	mg/L	0.032	0.030	0.025	0.249 ^{ab}	0.138 ^{ab}	0.014	0.018	NA	0.014	0.017	0.013	1.52 ^{ab}	0.009	0.026	NA	0.059	0.006	0.008	0.009	0.042	0.012	NA
Selenium	mg/L	<0.005	0.009	0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA
Silver	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NA
Thallium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/L	0.005 ^a	<0.004	<0.004	0.016 ^a	0.021 ^a	<0.004	<0.004	NA	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	NA	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	NA
Zinc	mg/L	0.043	0.010	0.007	0.113	0.396 ^u	<0.005	0.009	NA	0.068	0.015	0.008	0.030	0.017	0.134	NA	0.031	0.009	0.006	<0.005	0.118	0.010	NA
General Chemistry																							
Alkalinity, total (as CaCO3)	mg/L	NA	NA	NA	NA	NA	431	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	408	NA	NA	NA	NA
Carbon dioxide	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	NA	NA	NA	NA	NA	66	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	181	NA	NA	NA	NA
Field**																							
Conductance, specific	mS/cm	7.450	NA	6.135	NA	NA	NA	1.577	NA	NA	1.544	NA	1.256	NA	NA	NA	NA	1.606	NA	2.441	NA	1.710	NA
Dissolved oxygen (DO)	mg/L	0.44	0.78	0.24	0.36	NA	0.43	0.42	NA	0.4	0.52	0.61	0.18	0.64	NA	NA	0.34	0.32	0.26	0.72	0.76	1.10	NA
Oxidation reduction potential (ORP), field	millivolts	-55.50	-79.40	-80.90	-110.20	NA	-88.30	-59.90	NA	-182.80	-178.60	-88.30	-123.70	-79.90	NA	NA	-109.70	-42.50	-92.80	-34.80	-113.80	-65.10	NA
pH	s.u.	6.98	7.09	7.05	6.91	NA	7.1	6.93	NA	7.49	7.39	7.19	7.12	6.75	NA	NA	7.1	6.89	6.79	6.72	7.14	7.12	NA
Temperature, field	Deg C	5.06	6.13	10.87	5.75	NA	13.11	10.02	NA	6.45	4.09	12.27	6.39	7.87	NA	NA	13.83	9.79	13.9	5.07	5.52	4.66	NA
Turbidity (field)	NTU	999	72.3	138	7.44	NA	9.82	9.96	NA	53.8	46.1	7.93	999	4.01	NA	NA	72.7	14.6	51.3	7.02	25.6	23.3	NA

Preliminary Groundwater Geochemical Assessment RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Table 1 - Complete Data Table_final.xlsx

Preliminary Groundwater Geochemical Assessment RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

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Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-13-50 85-107 Plant 6 12/16/13	MW-13-50 85-107 Plant 6 02/18/14	MW-13-51 77-87 Plant 2 12/16/13	MW-13-51 77-87 Plant 2 02/18/14	MW-13-52 70-80 Plant 6 12/20/13	MW-13-52 70-80 Plant 6 02/18/14	MW-13-53 73-83 Plant 6 12/17/13	MW-13-53 73-83 Plant 6 02/18/14	MW-19 55-65 Plant 3 10/19/11	MW-19* 55-65 Plant 3 12/20/12	MW-19 55-65 Plant 3 06/04/13	MW-19 55-65 Plant 3 08/22/13	MW-19 55-65 Plant 3 11/14/13	MW-19 55-65 Plant 3 02/11/14	MW-22 52.5-62.5 Plant 3 11/29/11	MW-22 52.5-62.5 Plant 3 12/19/12	MW-22 52.5-62.5 Plant 3 05/30/13	MW-22 52.5-62.5 Plant 3 08/21/13	MW-22 52.5-62.5 Plant 3 11/13/13	MW-22 52.5-62.5 Plant 3 02/12/14	MW-23 52-62 Plant 3 11/29/11	MW-23 52-62 Plant 3 12/20/12	MW-23 52-62 Plant 3 05/31/13	
PCBs																									
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	NA	<0.05	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	NA	<0.05	<0.05	NA
Aroclor-1221 (PCB-1221)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	NA	<0.05	<0.1	NA
Aroclor-1232 (PCB-1232)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	NA	<0.05	<0.1	NA
Aroclor-1242 (PCB-1242)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	NA	<0.05	<0.1	NA
Aroclor-1248 (PCB-1248)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	NA	<0.05	<0.1	NA
Aroclor-1254 (PCB-1254)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	NA	<0.05	<0.1	NA
Aroclor-1260 (PCB-1260)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	NA	<0.05	<0.05	NA
Inorganics																									
Calcium	mg/L	NA	NA	NA	NA	167	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	10.7 ^a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	55.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	4.77	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	12.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	<0.005 [<0.005]	<0.005 [<0.005]	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002
Arsenic	mg/L	0.007 [0.007]	0.004 [0.003]	0.006	0.009	0.005	0.005	0.009	0.006	<0.002	0.002	<0.002	0.004	0.003	0.005	0.004	<0.002	0.003	<0.002	0.002	0.003	0.006	0.009	0.008	0.008
Barium	mg/L	0.175 [0.181]	0.176 [0.167]	0.174	0.198	0.286	0.263	0.226	0.237	0.057	0.065	0.052	0.136	0.076	0.153	0.133	0.107	0.112	0.106	0.103	0.105	0.084	0.097	0.080	0.080
Beryllium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	<0.001	NA	NA	NA	NA	NA	<0.001	NA	NA	NA	NA	NA	<0.001	NA	NA	NA
Boron	mg/L	0.05 [0.05]	0.04 [0.04]	0.05	<0.04	0.06	<0.04	0.05	<0.04	<0.04 J	<0.04	0.04	0.06	<0.04	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Cadmium	mg/L	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.0010	0.0014	0.0010	<0.0005	<0.001	<0.001	<0.0010	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.0010
Chromium	mg/L	<0.005 [<0.005]	0.005 [0.005]	0.017	0.043	<0.005	<0.005	0.007	0.006	<0.010	0.013	<0.010	0.128	0.009	0.007	<0.010	0.043	<0.010	<0.005	0.008	0.007	<0.010	<0.010	<0.010	<0.010
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.01	<0.01	<0.01	<0.01	<0.01	NA	<0.02	<0.01	<0.01	<0.01	<0.01	NA	<0.02	NA	
Cobalt	mg/L	<0.005 [<0.005]	<0.005 [<0.005]	<0.005	0.007	<0.005	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	0.010	<0.005	<0.005	<0.010	<0.010	<0.010	<0.005	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010
Copper	mg/L	<0.005 [<0.005]	<0.005 [<0.005]	0.008	0.010	<0.005	<0.005	<0.005	<0.005	0.010	0.023 ^b	0.004	0.053 ^b	0.027 ^b	0.005	<0.002	0.003	<0.002	<0.005	<0.005	<0.005	<0.005	<0.002	0.005	0.009
Lead	mg/L	<0.003 [<0.003]	<0.003 [<0.003]	<0.003	0.005 ^a	<0.003	<0.003	<0.003	<0.003	0.005 ^a	0.017 ^a	<0.002	0.029 ^a	0.020 ^a	<0.003	0.002	0.002	<0.002	<0.003	<0.003	<0.003	<0.002	0.005 ^a	<0.002	<0.002
Manganese	mg/L	0.117 [0.116] ^a	0.100 [0.102] ^a	0.329 ^a	0.305 ^a	0.168 ^a	0.102 ^a	0.141 ^a	0.110 ^a	0.311 ^a	0.146 ^a	0.039	0.264 ^a	0.132 ^a	0.615 ^a	0.356 ^a	0.991 ^a	0.707 ^a	0.821 ^a	1.00 ^a	1.20 ^a	0.064 ^a	0.309 ^a	0.054 ^a	
Mercury	mg/L	<0.0001 [<0.0001]	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	mg/L	0.007 [0.008]	0.006 [0.007]	0.028	0.080	0.009	0.005	0.023	0.009	<0.010	0.026	<0.010	0.079	0.020	0.019	<0.010	0.042	0.015	0.022	0.022	0.014	<0.010	0.017	0.010	0.010
Selenium	mg/L	<0.005 [<0.005]	<0.005 [<0.005]	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005	0.005	<0.002	<0.002	<0.005	
Silver	mg/L	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	0.0008 ^b	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0005
Thallium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	<0.002	NA	NA	NA	NA	<0.002	NA	NA	NA	NA	NA	NA	<0.002	NA	NA	NA
Vanadium	mg/L	<0.004 [<0.004]	<0.004 [<0.004]	0.005 ^a	0.006 ^a	<0.004	<0.004	<0.004	<0.004	<0.002	0.002	<0.002	0.012 ^a	<0.004	<0.004	<0.002	<0.002	<0.002	<0.005	<0.004	<0.004	<0.002	0.004	<0.002	<0.002
Zinc	mg/L	0.012 [0.01]	<0.005 [<0.005]	0.024	0.060	0.015	0.006	0.009	0.005	0.058 J	0.234	0.032	0.307 ^u	0.244	0.040	<0.010	<0.010	<0.010	0.006	0.006	0.005	<0.010	0.025	<0.010	<0.010
General Chemistry																									
Alkalinity, total (as CaCO3)	mg/L	NA	NA	NA	NA	409	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	216	NA	NA	NA	NA	NA	NA
Carbon dioxide	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	140	NA	NA	NA	NA	NA	NA
Nitrate (as N)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	NA	NA	NA	NA	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	158	NA	NA	NA	NA	NA	NA
Field**																									
Conductance, specific	mS/cm	NA	0.920	NA	1.443	NA	1.161	NA	0.971	NA	NA	0.623	1.036	0.554	3.042	NA	NA	1.737	1.619	1.355	2.052	NA	NA	NA	1.156
Dissolved oxygen (DO)	mg/L	0.39	2.19	0.67	0.31	0.31	0.56	0.45	1.11	NA	NA	0.63	1.52	1.09	0.24	NA	NA	0.51	0.26	0.48	0.26	NA	NA	NA	0.24
Oxidation reduction potential (ORP), field	millivolts	-96.80	-32.20	-47.20	-95.70	-112.10	-72.50	-49.50	-34.20	NA	NA	83.3	-20.50	65.8	-10.00	NA	NA	-7.10	-20.60	-12.00					

Preliminary Groundwater Geochemical Assessment RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Table 1 - Complete Data Table_final.xlsx

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-23 52-62 Plant 3 08/22/13	MW-23 52-62 Plant 3 11/14/13	MW-23 52-62 Plant 3 02/12/14	MW-88-1 103.5-140 Plant 3 03/27/12	MW-88-1 103.5-140 Plant 3 12/18/12	MW-88-1 103.5-140 Plant 3 05/22/13	MW-88-1 103.5-140 Plant 3 08/15/13	MW-88-1 103.5-140 Plant 3 11/05/13	MW-88-1 103.5-140 Plant 3 02/06/14	MW-88-1 103.5-140 Plant 3 10/13/11	MW-91-2 68-78 Plant 3 02/29/12	MW-91-2 68-78 Plant 3 12/20/12	MW-91-2 68-78 Plant 3 06/07/13	MW-91-2 68-78 Plant 3 08/22/13	MW-91-2 68-78 Plant 3 11/12/13	MW-91-3 105-117 Plant 3 10/19/11	MW-91-3 105-117 Plant 3 12/18/12	MW-91-3 105-117 Plant 3 06/03/13	MW-91-3 105-117 Plant 3 08/16/13	MW-91-3 105-117 Plant 3 11/12/13	MW-91-3 105-117 Plant 3 02/13/14	MW-91-4 116-132.5 Plant 3 04/17/12	MW-91-4* 116-132.5 Plant 3 12/18/12	
Semivolatile Organics																									
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropanol))	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
2,4,6-Trichlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
2,4-Dichlorophenol	ug/L	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
2,4,5-Trichlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
2,4-Dimethylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
2,4-Dinitrophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
2,4-Dinitrotoluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
2,6-Dinitrotoluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
2-Chloronaphthalene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
2-Chlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
2-Methylnaphthalene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
2-Methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
2-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
2-Nitrophenol	ug/L	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
3&4-Methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05 [<0.05]	NA	NA	NA	NA	NA	NA	<0.05	NA
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
3-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
4,6-Dinitro-2-methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
4-Bromophenyl phenyl ether	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
4-Chloro-3-methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
4-Chloroaniline	ug/L	<1	<1	<1	<2	<1 J	<1	<1	<1	<1	<2	NA	<1	<1	<1	<1	<2 [<2]	<1 J	<1 [<1]	<1	<1	<1	<2	<2 J	
4-Chlorophenyl phenyl ether	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
4-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
4-Nitrophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
Anthracene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
Acenaphthene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
Acenaphthylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
Acetophenone	ug/L	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
Atrazine	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
Benzaldehyde	ug/L	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1 [<1]	<1	<1	<1	<1	<1	
Benzo(a)anthracene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1										

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Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-23 52-62 Plant 3 08/22/13	MW-23 52-62 Plant 3 11/14/13	MW-23 52-62 Plant 3 02/12/14	MW-88-1 103.5-140 Plant 3 03/27/12	MW-88-1 103.5-140 Plant 3 12/18/12	MW-88-1 103.5-140 Plant 3 05/22/13	MW-88-1 103.5-140 Plant 3 08/15/13	MW-88-1 103.5-140 Plant 3 11/05/13	MW-88-1 103.5-140 Plant 3 02/06/14	MW-91-2 68-78 Plant 3 10/13/11	MW-91-2 68-78 Plant 3 02/29/12	MW-91-2 68-78 Plant 3 12/20/12	MW-91-2 68-78 Plant 3 06/07/13	MW-91-2 68-78 Plant 3 08/22/13	MW-91-2 68-78 Plant 3 11/12/13	MW-91-3 105-117 Plant 3 10/19/11	MW-91-3 105-117 Plant 3 12/18/12	MW-91-3 105-117 Plant 3 06/03/13	MW-91-3 105-117 Plant 3 08/16/13	MW-91-3 105-117 Plant 3 11/12/13	MW-91-3 105-117 Plant 3 02/13/14	MW-91-4 116-132.5 Plant 3 04/17/12	MW-91-4* 116-132.5 Plant 3 12/18/12
PCBs																								
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05 [<u><0.05</u>]	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	<0.05	NA	<0.05	NA	NA	NA	<0.05 [<u><0.05</u>]	<0.05	NA	NA	NA	NA	NA	<0.05
Aroclor-1221 (PCB-1221)	ug/L	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	NA	<0.1	NA	NA	NA	<0.05 [<u><0.05</u>]	<0.1	NA	NA	NA	NA	NA	<0.1
Aroclor-1232 (PCB-1232)	ug/L	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	NA	<0.1	NA	NA	NA	<0.05 [<u><0.05</u>]	<0.1	NA	NA	NA	NA	NA	<0.1
Aroclor-1242 (PCB-1242)	ug/L	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	NA	<0.1	NA	NA	NA	<0.05 [<u><0.05</u>]	<0.1	NA	NA	NA	NA	NA	<0.1
Aroclor-1248 (PCB-1248)	ug/L	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	NA	<0.1	NA	NA	NA	<0.05 [<u><0.05</u>]	<0.1	NA	NA	NA	NA	NA	<0.1
Aroclor-1254 (PCB-1254)	ug/L	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05	NA	<0.1	NA	NA	NA	<0.05 [<u><0.05</u>]	<0.1	NA	NA	NA	NA	NA	<0.1
Aroclor-1260 (PCB-1260)	ug/L	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	<0.05	NA	<0.05	NA	NA	NA	<0.05 [<u><0.05</u>]	<0.05	NA	NA	NA	NA	NA	<0.05
Inorganics																								
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.005	<0.002	<0.002	<0.005	<0.005	<0.002 [<u><0.002</u>]	<0.002	<0.002 [<u><0.002</u>]	<0.005	<0.005	<0.005	<0.002	NA
Arsenic	mg/L	0.007	0.007	0.008	0.009	0.008	0.009	0.009	0.008	0.007	0.023 ^{ab}	0.032 ^{ab}	0.008	0.027 ^{ab}	0.004	0.009	<0.002 [<u><0.002</u>]	<0.002	<0.002 [<u><0.002</u>]	<0.002	<0.002	<0.002	0.012 ^{ab}	NA
Barium	mg/L	0.093	0.087	0.089	0.103	0.101	0.092	0.094	0.091	0.100	0.171	0.205	0.121	0.137	0.117	0.112	0.018 [0.019]	0.024	0.024 [0.023]	0.020	0.023	0.031	0.090	NA
Beryllium	mg/L	NA	NA	NA	<0.001	NA	NA	NA	NA	NA	<0.001	<0.001	NA	NA	NA	NA	<0.001 [<u><0.001</u>]	NA	NA	NA	NA	NA	<0.001	NA
Boron	mg/L	<0.04	<0.04	0.04	0.08	0.07	0.09	0.09	0.09	0.07	0.04	0.05	<0.04	0.04	0.05	0.08	0.21 J [0.22 J]	0.20	0.21 [0.22]	0.228	0.20	0.24	0.42	NA
Cadmium	mg/L	<0.0005	<0.0005	<0.0005	0.037 ^{ab}	0.002	<0.0010	<0.005	<0.0005	0.0026	<0.001	<0.0005	<0.001	<0.0010	<0.0005	<0.0005	<0.001 [<u><0.001</u>]	<0.001	<0.0010 [<u><0.001</u>]	<0.005	<0.0005	<0.0005	<0.001	NA
Chromium	mg/L	0.010	<0.005	<0.005	<0.010	<0.010	<0.010	<0.005	<0.005	<0.005	0.149	0.318 ^b	<0.010	0.350 ^b	0.098	0.058	<0.010 [<u><0.01</u>]	<0.010	<0.010 [<u><0.01</u>]	<0.005	<0.005	0.006	<0.010	NA
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	<0.02	<0.01	<0.01	<0.01	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/L	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.005	<0.010	<0.010	<0.005	<0.005	<0.010 [<u><0.01</u>]	<0.010	<0.010 [<u><0.01</u>]	<0.005	<0.005	<0.005	<0.010	NA
Copper	mg/L	<0.005	<0.005	<0.005	0.041 ^b	0.010	0.014	<0.005	<0.005	0.018	<0.002	0.015	<0.002	0.026 ^b	<0.005	0.008	<0.002 [<u><0.002</u>]	<0.002	<0.002 [0.006]	<0.005	<0.005	0.008	0.006	NA
Lead	mg/L	<0.003	<0.003	<0.003	0.014 ^a	0.004	<0.002	<0.003	<0.003	0.003	<0.002	0.010 ^a	<0.002	0.009 ^a	<0.003	<0.003	<0.002 [<u><0.002</u>]	<0.002	<0.002 [<u><0.002</u>]	<0.003	<0.003	<0.003	0.006 ^a	NA
Manganese	mg/L	0.074 ^a	0.056 ^a	0.104 ^a	0.062 ^a	0.031	0.027	0.027	0.026	0.031	0.053 ^a	0.068 ^a	0.050	0.178 ^a	0.049	0.052 ^a	0.017 [0.017]	0.018	0.016 [0.015]	0.015	0.015	0.023	0.309 ^a	NA
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 [<u><0.0001</u>]	<0.0001	<0.0001 [<u><0.0001</u>]	<0.0001	<0.0001	<0.0001	<0.0001	NA
Nickel	mg/L	0.023	0.011	0.007	<0.010	<0.010	<0.010	0.010	0.010	0.007	<0.010	<0.005	<0.010	0.042	0.015	0.015	<0.010 [<u><0.01</u>]	<0.010	0.011 [0.01]	0.009	0.010	0.007	<0.010	NA
Selenium	mg/L	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	0.007	<0.002 [<u><0.002</u>]	<0.002	<0.005 [<u><0.005</u>]	<0.005	<0.005	<0.005	<0.002	NA
Silver	mg/L	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0002 [<u><0.0002</u>]	<0.0002	<0.0005 [<u><0.0005</u>]	<0.0005	<0.0005	<0.0005	<0.0002	NA
Thallium	mg/L	NA	NA	NA	<0.002	NA	NA	NA	NA	NA	<0.002	<0.002	NA	NA	NA	NA	<0.002 [<u><0.002</u>]	NA	NA	NA	NA	NA	<0.002	NA
Vanadium	mg/L	0.008 ^a	<0.004	<0.004	<0.002	<0.002	<0.002	<0.005	<0.004	<0.004	<0.002	<0.004	<0.002	<0.002	<0.005	<0.004	<0.002 [<u><0.002</u>]	<0.002	<0.002 [<u><0.002</u>]	<0.005	<0.004	<0.004	<0.002	NA
Zinc	mg/L	0.008	<0.005	0.010	0.166	0.015	0.012	<0.005	0.005	0.025	<0.010	0.014	<0.010	0.026	<0.005	0.006	0.077 J [0.07 J]	0.054	0.034 [0.038]	0.024	0.025	0.028	<0.010	NA
General Chemistry																								
Alkalinity, total (as CaCO3)	mg/L	356	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	338	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon dioxide	mg/L	152	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	127	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	mg/L	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	199	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	190	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field**																								
Conductance, specific	mS/cm	1.059	0.789	1.170	NA	NA	0.744	1.086	0.739	1.161	NA	NA	NA	1.120	1.104	1.001	NA	NA	0.962	0.882	0.600	0.977	NA	NA
Dissolved oxygen (DO)	mg/L	0.13	0.39	0.69	NA	NA	0.42	0.26	0.28	0.66	NA	NA	NA	0.09	0.21	0.45	NA	NA	1.05	0.26	0.34	0.23	NA	NA
Oxidation reduction potential (ORP), field	millivolts	113.4	-107.60	-40.80	NA	NA	-28.80	-73.90	-78.10	-30.90	NA	NA	NA	-126.70	-116.00	-68.10	NA	NA	-75.10	-82.80	-79.50	-71.20	NA	NA
pH	s.u.	7.33	7.27	7.23	NA	NA	8.97	7.28	7.17	7.19	NA	NA	NA	7.20	7.37	8.55	NA	NA	7.18	7.25	7.23	7.20	NA	NA
Temperature, field	Deg C	20.54	13.72	9.38	NA	NA	14.20	12.59	12.40	3.97	NA	NA	NA	18.25	17.86	14.97	NA	NA	13.82	13.95	10.41			

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MW-91-4 116-132.5 Plant 3 05/22/13	MW-91-4 116-132.5 Plant 3 08/14/13	MW-91-4 116-132.5 Plant 3 11/05/13	MW-91-4 116-132.5 Plant 3 02/10/14	MW-91-5 112.5-128 Plant 3 10/12/11	MW-91-5 112.5-128 Plant 3 05/22/13	MW-91-5 112.5-128 Plant 3 08/15/13	MW-91-5 112.5-128 Plant 3 11/08/13	MW-91-5 112.5-128 Plant 3 02/07/14	MW-91-5 112.5 - 128 Plant 3 12/19/12	MW-91-6* 82-98 Plant 3 04/04/13	MW-91-6 82-98 Plant 3 08/15/13	MW-91-6 82-98 Plant 3 11/15/13	MW-91-6 82-98 Plant 3 02/07/14	MWBP-10A-UST1-4 28-38 Plant 6 12/02/11	MWBP-10A-UST1-4 28-38 Plant 6 12/21/12	MWBP-10A-UST1-4 28-38 Plant 6 06/12/13	MWBP-10A-UST1-4 28-38 Plant 6 08/23/13	MWBP-10A-UST1-4 28-38 Plant 6 11/13/13
Volatile Organics																				
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<1	<1	<1	<1	<0.05 J	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.05 J	<1	<1	<1	<1
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<1	<1	<1	<1	<0.02	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.02 J	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dioxane	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	2	1	2	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane (Methyl bromide)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	23	19	18	12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform (Trichloromethane)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane (Methyl chloride)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	ug/L	17 ^{ab}	10 ^a	11 ^a	8 ^a	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane (CFC-12)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl acetate	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	13	11	12	7	3
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert butyl ether (MTBE)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane (CFC-11)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trifluorotrichloroethane (Freon 113)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cyclohexane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl cyclohexane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	44	44	25	32	43
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropyl benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	4	4	3	2	1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	2	<1	1	<1	<1
m&p-Xylene	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	21	13	22	11	4

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Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:		MW-91-4 116-132.5 Plant 3 05/22/13	MW-91-4 116-132.5 Plant 3 08/14/13	MW-91-4 116-132.5 Plant 3 11/05/13	MW-91-4 116-132.5 Plant 3 02/10/14	MW-91-5 112.5-128 Plant 3 10/12/11	MW-91-5 112.5-128 Plant 3 05/22/13	MW-91-5 112.5-128 Plant 3 08/15/13	MW-91-5 112.5-128 Plant 3 11/08/13	MW-91-5 112.5-128 Plant 3 02/07/14	MW-91-5 112.5 - 128 Plant 3 12/19/12	MW-91-6* 82-98 Plant 3 04/04/13	MW-91-6 82-98 Plant 3 08/15/13	MW-91-6 82-98 Plant 3 11/15/13	MW-91-6 82-98 Plant 3 02/07/14	MWBP-10A-UST1-4 28-38 Plant 6 12/02/11	MWBP-10A-UST1-4 28-38 Plant 6 12/21/12	MWBP-10A-UST1-4 28-38 Plant 6 06/12/13	MWBP-10A-UST1-4 28-38 Plant 6 08/23/13	MWBP-10A-UST1-4 28-38 Plant 6 11/13/13
Semivolatile Organics																				
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisop	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
2,4,6-Trichlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
2,4-Dichlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
2,4,5-Trichlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
2,4-Dimethylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
2,4-Dinitrophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
2,4-Dinitrotoluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
2,6-Dinitrotoluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
2-Chloronaphthalene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
2-Chlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
2-Methylnaphthalene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
2-Methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
2-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
2-Nitrophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
3&4-Methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2 J	2	<1	<1
3-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
4,6-Dinitro-2-methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
4-Bromophenyl phenyl ether	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
4-Chloro-3-methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
4-Chloroaniline	ug/L	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1 J	<2 J	<1	<1	<1	<2 J	<1 J	<1	<1	<1
4-Chlorophenyl phenyl ether	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
4-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
4-Nitrophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Anthracene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Acenaphthene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Acenaphthylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Acetophenone	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Atrazine	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Benzaldehyde	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Benzo(a)anthracene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Benzo(a)pyrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Benzo(b)fluoranthene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Benzo(g,h,i)perylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Benzo(k)fluoranthene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Biphenyl (1,1-Biphenyl)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
bis(2-Chloroethoxy)methane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
bis(2-Chloroethyl)ether	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	<1	<1	2 B	<2	<1	<1	<1	1 B	1	<2	<1	<1	2 B	<2	1 J	1	<1	<1
Butyl benzylphthalate (BBP)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Caprolactam	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	8	<1	<1	<1	<1	R	<1	<1	<1
Carbazole	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Chrysene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Dibenz(a,h)anthracene	ug/L	<2	<2	<2	<2	<1	<2	<2	<2	<2	<2	<1	<2	<2	<2	<1	<2 J	<2	<2	<2
Dibenzofuran	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Diethyl phthalate	ug/L	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<2	<1	<1	<1	<2	<1 J	<2	<1	<1
Dimethyl phthalate	ug/L	<1	6	<1	<1	<2	<1	6	<1	<1	<1	<2	8	<1	<1	<2	<1 J	9	10 B	<1
Di-n-butylphthalate (DBP)	ug/L	<1	<1	<1	<1	<1	1 B	<1	<1	<1	<1	<1	<1	<1	<1	2	2 J	1	<1	<1
Di-n-octyl phthalate (DnOP)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Fluoranthene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Fluorene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Hexachlorobenzene	ug/L	<1	<1	<1	<1	<0.05	<1	<1	<1	<1	NA	NA	<1	<1	<1	<0.05	NA	<1	<1	<1
Hexachlorobutadiene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Hexachlorocyclopentadiene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Hexachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Indeno(1,2,3-cd)pyrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Isophorone	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Nitrobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
N-Nitrosodi-n-propylamine	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
N-Nitrosodiphenylamine	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Pentachlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Phenanthrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1
Phenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Pyrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:		MW-91-4 116-132.5 Plant 3 05/22/13	MW-91-4 116-132.5 Plant 3 08/14/13	MW-91-4 116-132.5 Plant 3 11/05/13	MW-91-4 116-132.5 Plant 3 02/10/14	MW-91-5 112.5-128 Plant 3 10/12/11	MW-91-5 112.5-128 Plant 3 05/22/13	MW-91-5 112.5-128 Plant 3 08/15/13	MW-91-5 112.5-128 Plant 3 11/08/13	MW-91-5 112.5-128 Plant 3 02/07/14	MW-91-5 112.5 - 128 Plant 3 12/19/12	MW-91-6* 82-98 Plant 3 04/04/13	MW-91-6 82-98 Plant 3 08/15/13	MW-91-6 82-98 Plant 3 11/15/13	MW-91-6 82-98 Plant 3 02/07/14	MWBP-10A-UST1-4 28-38 Plant 6 12/02/11	MWBP-10A-UST1-4 28-38 Plant 6 12/21/12	MWBP-10A-UST1-4 28-38 Plant 6 06/12/13	MWBP-10A-UST1-4 28-38 Plant 6 08/23/13	MWBP-10A-UST1-4 28-38 Plant 6 11/13/13
PCBs																				
Total PCBs	ug/L	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA
Aroclor-1221 (PCB-1221)	ug/L	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1232 (PCB-1232)	ug/L	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1242 (PCB-1242)	ug/L	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1248 (PCB-1248)	ug/L	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1254 (PCB-1254)	ug/L	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1260 (PCB-1260)	ug/L	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA
Inorganics																				
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	0.010 ^a	<0.005	<0.005
Arsenic	mg/L	0.012 ^{ab}	0.014 ^{ab}	0.011 ^{ab}	0.005	0.010	0.010	0.010	0.011 ^{ab}	0.011 ^{ab}	<0.002	0.011 ^{ab}	0.008	0.010	0.009	0.038 ^{ab}	0.021 ^{ab}	0.028 ^{ab}	0.036 ^{ab}	0.026 ^{ab}
Barium	mg/L	0.097	0.099	0.087	0.073	0.301	0.337	0.342	0.331	0.330	0.097	0.129	0.147	0.132	0.167	0.010	0.021	0.016	0.010	0.017
Beryllium	mg/L	NA	NA	NA	NA	<0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.001	NA	NA	NA	NA
Boron	mg/L	0.35	0.343	0.35	0.45	0.10	0.09	0.10	0.10	0.10	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.08	0.12	0.09
Cadmium	mg/L	<0.0010	<0.005	<0.0005	0.0016	<0.001	<0.0010	<0.005	<0.0005	<0.0005	<0.001	0.0023	<0.005	<0.0005	0.0011	<0.001	<0.001	<0.0010	<0.0005	<0.0005
Chromium	mg/L	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	0.005	<0.005
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/L	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.005	<0.005
Copper	mg/L	0.006	<0.005	<0.005	<0.005	<0.002	0.002	<0.005	<0.005	<0.005	<0.002	0.005	<0.005	<0.005	0.009	<0.002	0.013	0.061 ^b	0.023 ^b	<0.005
Lead	mg/L	<0.002	<0.003	<0.003	<0.003	<0.002	<0.002	<0.003	<0.003	<0.003	<0.002	0.006 ^a	<0.003	<0.003	0.005 ^a	0.004	0.011 ^a	0.032 ^a	0.012 ^a	0.007 ^a
Manganese	mg/L	0.360 ^a	0.356 ^a	0.323 ^a	0.313 ^a	0.080 ^a	0.085 ^a	0.081 ^a	0.088 ^a	0.078 ^a	0.234 ^a	0.145 ^a	0.152 ^a	0.146 ^a	0.177 ^a	0.055 ^a	0.035	0.045	0.020	0.025
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	mg/L	0.011	0.015	0.012	0.008	0.010	<0.010	0.008	0.007	<0.005	0.011	<0.010	0.009	0.011	0.008	0.015	<0.010	0.025	0.013	<0.005
Selenium	mg/L	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005	0.024	<0.002	<0.005	<0.005	<0.005
Silver	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005
Thallium	mg/L	NA	NA	NA	NA	<0.002	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.002	NA	NA	NA	NA
Vanadium	mg/L	<0.002	<0.005	<0.004	<0.004	<0.002	<0.002	<0.005	<0.004	<0.004	<0.002	<0.002	<0.005	<0.004	<0.004	0.030 ^{ab}	0.032 ^{ab}	0.027 ^a	0.026 ^a	0.033 ^{ab}
Zinc	mg/L	0.013	0.007	0.013	0.047	<0.010	0.021	<0.005	0.006	<0.005	0.016	0.087	0.011	0.005	0.056	0.023	0.043	0.057	0.016	0.036
General Chemistry																				
Alkalinity, total (as CaCO3)	mg/L	NA	419	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon dioxide	mg/L	NA	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	mg/L	NA	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	NA	175	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field**																				
Conductance, specific	mS/cm	1.186	1.453	1.520	1.466	NA	1.221	1.231	0.776	1.288	NA	NA	1.447	1.226	1.556	NA	NA	NA	3.202	1.037
Dissolved oxygen (DO)	mg/L	0.27	0.20	0.45	1.43	NA	0.54	0.31	0.39	0.29	NA	NA	0.23	0.50	0.44	NA	NA	NA	0.02	1.53
Oxidation reduction potential (ORP), field	millivolts	-27.70	-81.30	-146.10	-90.10	NA	-108.60	-128.00	-123.30	-97.30	NA	NA	-93.50	-71.70	-39.30	NA	NA	NA	-106.10	42.3
pH	s.u.	8.83	6.74	8.42	7.21	NA	8.02	7.13	7.17	7.25	NA	NA	6.99	8.36	6.73	NA	NA	NA	7.99	8.56
Temperature, field	Deg C	13.86	17.23	13.80	0.93	NA	13.32	14.51	11.58	11.55	NA	NA	13.33	13.99	2.86	NA	NA	NA	18.58	7.46
Turbidity (field)	NTU	4.42	6.06	7.36	5.21	NA	5.22	5.69	8.72	2.87	NA	NA	4.67	7.35	15.3	NA	NA	NA	88.6	21.9

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MWBP-10A-UST1-4 28-38 Plant 6 02/19/14	MWBP-10-UST1-4 15-25 Plant 6 12/02/11	MWBP-10-UST1-4 15-25 Plant 6 06/12/13	MWBP-10-UST1-4 15-25 Plant 6 08/23/13	MWBP-10-UST1-4 15-25 Plant 6 11/12/13	MWBP-10-UST1-4 15-25 Plant 6 02/20/14	MWBP-10-UST1-4 15-25 Plant 6 12/21/12	MWBP-10-UST5-6 28-38 Plant 6 10/07/11	MWBP-10-UST5-6 28-38 Plant 6 12/21/12	MWBP-10-UST5-6 28-38 Plant 6 06/04/13	MWBP-10-UST5-6 28-38 Plant 6 08/22/13	MWBP-10-UST5-6 28-38 Plant 6 11/06/13	MWBP-10-UST5-6 28-38 Plant 6 02/17/14	MWBP-11-UST1-4 9-19 Plant 6 11/29/11	MWBP-11-UST1-4 9-19 Plant 6 12/21/12
Volatile Organics																
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<1	<0.05	<1	<1 [<1]	<1	<1	<1	<0.05	<1 [<1]	<1	<1	<1	<1	<0.05	<1
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<1	NA	<1	<1 [<1]	<1	<1	<1	<0.02	<1 [<1]	<1	<1	<1	<1	<0.02	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
1,4-Dioxane	ug/L	NA	<5	<5	<5 [<5]	<5	<5	<5	<5	<5 [<5]	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Bromomethane (Methyl bromide)	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Chloroform (Trichloromethane)	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Chloromethane (Methyl chloride)	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Vinyl chloride	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane (CFC-12)	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Benzene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Methyl acetate	ug/L	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10
Ethylbenzene	ug/L	1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Toluene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Methyl tert butyl ether (MTBE)	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	1	2 [2]	2	2	1	1	<1	<1
Trichlorofluoromethane (CFC-11)	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trifluorotrichloroethane (Freon 113)	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Cyclohexane	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Methyl cyclohexane	ug/L	36	<3 X	2	<1 [<1]	3	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Dibromochloromethane	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Isopropyl benzene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
m&p-Xylene	ug/L	<2	<2	<2	<2 [<2]	<2	<2	<2	<2	<2 [<2]	<2	<2	<2	<2	<2	<2

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MWBP-10A-UST1-4 28-38 Plant 6 02/19/14	MWBP-10-UST1-4 15-25 Plant 6 12/02/11	MWBP-10-UST1-4 15-25 Plant 6 06/12/13	MWBP-10-UST1-4 15-25 Plant 6 08/23/13	MWBP-10-UST1-4 15-25 Plant 6 11/12/13	MWBP-10-UST1-4 15-25 Plant 6 02/20/14	MWBP-10-UST1-4 15-25 Plant 6 12/21/12	MWBP-10-UST5-6 28-38 Plant 6 10/07/11	MWBP-10-UST5-6 28-38 Plant 6 12/21/12	MWBP-10-UST5-6 28-38 Plant 6 06/04/13	MWBP-10-UST5-6 28-38 Plant 6 08/22/13	MWBP-10-UST5-6 28-38 Plant 6 11/06/13	MWBP-10-UST5-6 28-38 Plant 6 02/17/14	MWBP-11-UST1-4 9-19 Plant 6 11/29/11	MWBP-11-UST1-4 9-19 Plant 6 12/21/12
Semivolatile Organics																
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisop	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
2,4,6-Trichlorophenol	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
2,4-Dichlorophenol	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
2,4-Dimethylphenol	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
2,4-Dinitrophenol	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
2,4-Dinitrotoluene	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
2,6-Dinitrotoluene	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
2-Chloronaphthalene	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
2-Chlorophenol	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
2-Methylnaphthalene	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
2-Methylphenol	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
2-Nitroaniline	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
2-Nitrophenol	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
3&4-Methylphenol	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
3,3'-Dichlorobenzidine	ug/L	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA
Naphthalene	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
3-Nitroaniline	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
4,6-Dinitro-2-methylphenol	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
4-Bromophenyl phenyl ether	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
4-Chloro-3-methylphenol	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
4-Chloroaniline	ug/L	<1	<2 J	<1	NA	<1	<1	<1	<2	<1 [<1]	<1	<1	<1	<1	<2	<1
4-Chlorophenyl phenyl ether	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
4-Nitroaniline	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
4-Nitrophenol	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Anthracene	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Acenaphthene	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Acenaphthylene	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Acetophenone	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Atrazine	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Benzaldehyde	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	2	<1	<1	<1	<1	<1
Benzo(a)anthracene	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Benzo(a)pyrene	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Benzo(b)fluoranthene	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Benzo(k)fluoranthene	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Biphenyl (1,1-Biphenyl)	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
bis(2-Chloroethoxy)methane	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
bis(2-Chloroethyl)ether	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	2 B	<2	2	NA	2 B	10 B ^a	2	<2	<1 [<1]	<1	<1	<1	<1	2 B	<1
Butyl benzylphthalate (BBP)	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Caprolactam	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	1
Carbazole	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Chrysene	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Dibenz(a,h)anthracene	ug/L	<2	<1	<2	NA	<2	<2	<2	<1	<2 [<2]	<2	<2	<2	<2	<1	<2
Dibenzofuran	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Diethyl phthalate	ug/L	<2	2	<2	NA	<1	<2	1	<2	<1 [<1]	<1	<1	<1	<2	<2	<1
Dimethyl phthalate	ug/L	<1	<2	9	NA	<1	<1	<1	<2	<1 [<1]	<1	5	<1	<1	<2	<1
Di-n-butylphthalate (DBP)	ug/L	<1	2	1	NA	<1	<1	3	<1	<1 [<1]	<1	<1	<1	<1	1	<1
Di-n-octyl phthalate (DnOP)	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Fluoranthene	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Fluorene	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Hexachlorobenzene	ug/L	<1	<0.05	<1	NA	<1	<1	NA	<0.05	NA	<1	<1	<1	<1	<0.05	NA
Hexachlorobutadiene	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Hexachlorocyclopentadiene	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Hexachloroethane	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Indeno(1,2,3-cd)pyrene	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Isophorone	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Nitrobenzene	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
N-Nitrosodi-n-propylamine	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
N-Nitrosodiphenylamine	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Pentachlorophenol	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Phenanthrene	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Phenol	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1
Pyrene	ug/L	<1	<1	<1	NA	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1

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Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MWBP-10A-UST1-4 28-38 Plant 6 02/19/14	MWBP-10-UST1-4 15-25 Plant 6 12/02/11	MWBP-10-UST1-4 15-25 Plant 6 06/12/13	MWBP-10-UST1-4 15-25 Plant 6 08/23/13	MWBP-10-UST1-4 15-25 Plant 6 11/12/13	MWBP-10-UST1-4 15-25 Plant 6 02/20/14	MWBP-10-UST1-4 15-25 Plant 6 12/21/12	MWBP-10-UST5-6 28-38 Plant 6 10/07/11	MWBP-10-UST5-6 28-38 Plant 6 12/21/12	MWBP-10-UST5-6 28-38 Plant 6 06/04/13	MWBP-10-UST5-6 28-38 Plant 6 08/22/13	MWBP-10-UST5-6 28-38 Plant 6 11/06/13	MWBP-10-UST5-6 28-38 Plant 6 02/17/14	MWBP-11-UST1-4 9-19 Plant 6 11/29/11	MWBP-11-UST1-4 9-19 Plant 6 12/21/12
PCBs																
Total PCBs	ug/L	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA
Aroclor-1016 (PCB-1016)	ug/L	NA	<0.05	NA	NA	NA	NA	<0.05	<0.05	<0.05 [<0.05]	NA	NA	NA	NA	<0.05	<0.05
Aroclor-1221 (PCB-1221)	ug/L	NA	<0.05	NA	NA	NA	NA	<0.1	<0.05	<0.1 [<0.1]	NA	NA	NA	NA	<0.05	<0.1
Aroclor-1232 (PCB-1232)	ug/L	NA	<0.05	NA	NA	NA	NA	<0.1	<0.05	<0.1 [<0.1]	NA	NA	NA	NA	<0.05	<0.1
Aroclor-1242 (PCB-1242)	ug/L	NA	<0.05	NA	NA	NA	NA	<0.1	<0.05	<0.1 [<0.1]	NA	NA	NA	NA	<0.05	<0.1
Aroclor-1248 (PCB-1248)	ug/L	NA	<0.05	NA	NA	NA	NA	<0.1	<0.05	<0.1 [<0.1]	NA	NA	NA	NA	<0.05	<0.1
Aroclor-1254 (PCB-1254)	ug/L	NA	<0.05	NA	NA	NA	NA	<0.1	<0.05	<0.1 [<0.1]	NA	NA	NA	NA	<0.05	<0.1
Aroclor-1260 (PCB-1260)	ug/L	NA	<0.05	NA	NA	NA	NA	<0.05	<0.05	<0.05 [<0.05]	NA	NA	NA	NA	<0.05	<0.05
Inorganics																
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	<0.005	<0.002	<0.002	<0.005 [<0.005]	<0.005	<0.005	<0.002	<0.002	<0.002 [<0.002]	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002
Arsenic	mg/L	0.018 ^{ab}	0.049 ^{ab}	0.037 ^{ab}	0.062 [0.061] ^{ab}	0.055 ^{ab}	0.054 ^{ab}	0.057 ^{ab}	<0.002	<0.002 [<0.002]	0.003	<0.002	0.004	0.012 ^{ab}	0.032 ^{ab}	0.029 ^{ab}
Barium	mg/L	0.011	0.074	0.081	0.112 [0.11]	0.084	0.085	0.093	0.229	0.185 [0.183]	0.245	0.253	0.204	0.223	0.067	0.025
Beryllium	mg/L	NA	<0.001	NA	NA	NA	NA	NA	<0.001	NA	NA	NA	NA	NA	<0.001	NA
Boron	mg/L	0.10	0.10	0.08	0.11 [0.11]	0.12	0.11	0.10	<0.04	0.06 [0.06]	0.05	0.06	0.06	0.04	0.13	0.11
Cadmium	mg/L	<0.0005	<0.001	<0.0010	0.0006 [0.001]	0.0008	<0.0005	<0.001	<0.001	<0.001 [<0.001]	<0.0010	<0.0005	<0.0005	<0.0005	<0.001	<0.001
Chromium	mg/L	0.005	<0.010	<0.010	0.011 [0.012]	0.015	0.009	0.011	<0.010	<0.010 [<0.01]	0.010	0.006	<0.005	<0.005	<0.010	<0.010
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/L	<0.005	<0.010	<0.010	<0.005 [<0.005]	<0.005	<0.005	<0.010	<0.010	<0.010 [<0.01]	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010
Copper	mg/L	0.015	0.006	0.006	0.009 [0.01]	<0.005	0.011	0.006	0.004	<0.002 [<0.002]	0.004	<0.005	<0.005	<0.005	0.032 ^b	0.023 ^b
Lead	mg/L	0.007 ^a	0.002	<0.002	0.005 [0.005] ^a	<0.003	<0.003	<0.002	<0.002	<0.002 [<0.002]	<0.002	<0.003	<0.003	<0.003	0.018 ^a	0.007 ^a
Manganese	mg/L	0.020	0.073 ^a	0.072 ^a	0.111 [0.113] ^a	0.082 ^a	0.070 ^a	0.080 ^a	0.253 ^a	0.622 [0.624] ^a	0.400 ^a	0.190 ^a	0.100 ^a	0.123 ^a	0.263 ^a	0.062 ^a
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	mg/L	<0.005	<0.010	<0.010	0.011 [0.01]	0.006	0.007	<0.010	0.016	<0.010 [<0.01]	0.011	0.019	0.009	0.008	0.013	<0.010
Selenium	mg/L	<0.005	<0.002	<0.005	<0.005 [<0.005]	<0.005	<0.005	<0.002	<0.002	<0.002 [<0.002]	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002
Silver	mg/L	<0.0005	<0.0002	<0.0005	0.0006 [<0.0005] ^b	<0.0005	<0.0005	<0.0002	<0.0002	<0.0002 [<0.0002]	0.0007 ^b	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002
Thallium	mg/L	NA	<0.002	NA	NA	NA	NA	NA	<0.002	NA	NA	NA	NA	NA	<0.002	NA
Vanadium	mg/L	0.030 ^{ab}	0.042 ^{ab}	0.034 ^{ab}	0.072 [0.073] ^{ab}	0.070 ^{ab}	0.049 ^{ab}	0.068 ^{ab}	<0.002	<0.002 [<0.002]	<0.002	<0.005	<0.004	<0.004	0.013 ^a	0.005 ^a
Zinc	mg/L	0.008	<0.010	<0.010	0.145 [0.148]	0.022	0.050	<0.010	0.01	0.012 [<0.01]	<0.010	0.005	<0.005	<0.005	0.021	0.011
General Chemistry																
Alkalinity, total (as CaCO3)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon dioxide	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field**																
Conductance, specific	mS/cm	1.039	NA	4.110	NA	3.283	3.091	NA	NA	NA	5.856	5.186	5.259	5.212	NA	NA
Dissolved oxygen (DO)	mg/L	0.18	NA	0.12	NA	0.95	1.09	NA	NA	NA	1.26	0.66	72.35	1.79	NA	NA
Oxidation reduction potential (ORP), field	millivolts	35.9	NA	-114.00	NA	-114.10	30.6	NA	NA	NA	32.3	98.5	35.4	26.0	NA	NA
pH	s.u.	9.26	NA	7.71	NA	7.58	7.82	NA	NA	NA	6.92	6.91	7.64	7.01	NA	NA
Temperature, field	Deg C	6.91	NA	17.01	NA	7.45	5.66	NA	NA	NA	19.84	22.26	15.35	12.64	NA	NA
Turbidity (field)	NTU	18.1	NA	14.9	NA	15.2	112	NA	NA	NA	3.94	43.5	7.56	5.75	NA	NA

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RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MWBP-11-UST1-4 9-19 Plant 6 06/13/13	MWBP-11-UST1-4 9-19 Plant 6 08/23/13	MWBP-11-UST1-4 9-19 Plant 6 11/13/13	MWBP-11-UST1-4 9-19 Plant 6 02/19/14	MWBP-12A-UST1-4 28-38 Plant 6 12/02/11	MWBP-12A-UST1-4 28-38 Plant 6 12/21/12	MWBP-12A-UST1-4 28-38 Plant 6 06/07/13	MWBP-12A-UST1-4 28-38 Plant 6 08/23/13	MWBP-12A-UST1-4 28-38 Plant 6 11/13/13	MWBP-12-UST1-4 15-25 Plant 6 10/18/11	MWBP-12-UST1-4 15-25 Plant 6 12/20/12	MWBP-12-UST1-4 15-25 Plant 6 06/10/13	MWBP-12-UST1-4 15-25 Plant 6 08/23/13	MWBP-12-UST1-4 15-25 Plant 6 11/12/13	MWBP-12-UST1-4 15-25 Plant 6 02/19/14
Volatile Organics																
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<1 [<1]	<1	<1	<1	<0.05 J	<1 [<1]	<1	<1	<1	<0.05	<1	<5 X	<1	<1	<1
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<1 [<1]	<1	<1	<1	<0.02	<1 [<1]	<1	<1	<1	<0.02	<1	<5 X	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
1,4-Dichlorobenzene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
1,4-Dioxane	ug/L	<5 [<5]	<5	<5	<5	<5	<5 [<5]	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
2-Hexanone	ug/L	<10 [<10]	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<50 X	<10	<10	<10
1,1,2,2-Tetrachloroethane	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Acetone	ug/L	<10 [<10]	<10	<10	<10	<48 J	<10 [<10]	<10	<10	<10	<10	<10	<50 X	47	<10	<10
1,1,2-Trichloroethane	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Bromodichloromethane	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
1,1-Dichloroethane	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Bromoform	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
1,1-Dichloroethene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Bromomethane (Methyl bromide)	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
1,2-Dichloroethane	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Carbon disulfide	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Carbon tetrachloride	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Chlorobenzene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Chloroform (Trichloromethane)	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Trichloroethene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Chloromethane (Methyl chloride)	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Tetrachloroethene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Vinyl chloride	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Chloroethane	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Dichlorodifluoromethane (CFC-12)	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Benzene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	2	9 ^a	9 ^a
Methyl acetate	ug/L	<10 [<10]	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<50 X	<10	<10	<10
Ethylbenzene	ug/L	<1 [<1]	1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Methylene chloride	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Styrene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Toluene	ug/L	1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Methyl tert butyl ether (MTBE)	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Trichlorofluoromethane (CFC-11)	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trifluorotrichloroethane (Freon 113)	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	<10 [<10]	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<50 X	<10	<10	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	<10 [<10]	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<50 X	<10	<10	<10
1,2,4-Trichlorobenzene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Cyclohexane	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	1	1	1
Methyl cyclohexane	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Dibromochloromethane	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
Isopropyl benzene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
o-Xylene	ug/L	<1 [<1]	2	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<5 X	<1	<1	<1
m&p-Xylene	ug/L	3 [3]	4	<2	<2	<2	<2 [<2]	<2	<2	<2	<2	<2	<10 X	<2	<2	<2

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Semivolatile Organics																
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4,6-Trichlorophenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4-Dichlorophenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4-Dimethylphenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4-Dinitrophenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4-Dinitrotoluene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,6-Dinitrotoluene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Chloronaphthalene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Chlorophenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Methylnaphthalene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Methylphenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Nitroaniline	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Nitrophenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
3&4-Methylphenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA
Naphthalene	ug/L	1 [1]	1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
3-Nitroaniline	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
4,6-Dinitro-2-methylphenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Bromophenyl phenyl ether	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Chloro-3-methylphenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Chloroaniline	ug/L	<1 [<1]	<1	<1	<1	<2 J	<1 [<1]	<1	<1	<1	<2	<1	<1	<1	<1	<1
4-Chlorophenyl phenyl ether	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Nitroaniline	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Nitrophenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Anthracene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acenaphthene	ug/L	2 [2]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acenaphthylene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acetophenone	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Atrazine	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzaldehyde	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	1	<1	<1
Benzo(a)anthracene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(a)pyrene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(b)fluoranthene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(k)fluoranthene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Biphenyl (1,1-Biphenyl)	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
bis(2-Chloroethoxy)methane	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
bis(2-Chloroethyl)ether	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1 [1]	<1	2 B	1 B	<2	<1 [<1]	<1	<1	<1	<2	1	4 B	1	<1	4 B
Butyl benzylphthalate (BBP)	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Caprolactam	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbazole	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chrysene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibenz(a,h)anthracene	ug/L	<2 [<2]	<2	<2	<2	<1	<2 [<2]	<2	<2	<2	<1	<2	<2	<2	<2	<2
Dibenzofuran	ug/L	1 [1]	1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Diethyl phthalate	ug/L	<2 [<2]	<1	<1	<2	<2	<1 [<1]	<1	<1	<1	<2	<1	<1	<1	<1	<2
Dimethyl phthalate	ug/L	4 [4]	6 B	<1	<1	<2	<1 [<1]	<1	5 B	<1	<2	<1	<1	12 B	<1	<1
Di-n-butylphthalate (DBP)	ug/L	<1 [<1]	<1	<1	<1	2	<1 [<1]	<1	<1	<1	<1	1	1	<1	<1	<1
Di-n-octyl phthalate (DnOP)	ug/L	<1 [<1]	<1	<1	<1	2	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Fluoranthene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Fluorene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Hexachlorobenzene	ug/L	<1 [<1]	<1	<1	<1	<0.05	NA	<1	<1	<1	<0.05	NA	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Hexachlorocyclopentadiene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Hexachloroethane	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Indeno(1,2,3-cd)pyrene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isophorone	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Nitrobenzene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Nitrosodi-n-propylamine	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Nitrosodiphenylamine	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Pentachlorophenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Phenanthrene	ug/L	3 [3] ^b	3 ^b	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Phenol	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1
Pyrene	ug/L	<1 [<1]	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:		MWBP-11-UST1-4 9-19 Plant 6 06/13/13	MWBP-11-UST1-4 9-19 Plant 6 08/23/13	MWBP-11-UST1-4 9-19 Plant 6 11/13/13	MWBP-11-UST1-4 9-19 Plant 6 02/19/14	MWBP-12A-UST1-4 28-38 Plant 6 12/02/11	MWBP-12A-UST1-4 28-38 Plant 6 12/21/12	MWBP-12A-UST1-4 28-38 Plant 6 06/07/13	MWBP-12A-UST1-4 28-38 Plant 6 08/23/13	MWBP-12A-UST1-4 28-38 Plant 6 11/13/13	MWBP-12-UST1-4 15-25 Plant 6 10/18/11	MWBP-12-UST1-4 15-25 Plant 6 12/20/12	MWBP-12-UST1-4 15-25 Plant 6 06/10/13	MWBP-12-UST1-4 15-25 Plant 6 08/23/13	MWBP-12-UST1-4 15-25 Plant 6 11/12/13	MWBP-12-UST1-4 15-25 Plant 6 02/19/14
PCBs																
Total PCBs	ug/L	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	NA	NA	NA	NA	<0.05	<0.05 [<0.05]	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA
Aroclor-1221 (PCB-1221)	ug/L	NA	NA	NA	NA	<0.05	<0.1 [<0.1]	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA
Aroclor-1232 (PCB-1232)	ug/L	NA	NA	NA	NA	<0.05	<0.1 [<0.1]	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA
Aroclor-1242 (PCB-1242)	ug/L	NA	NA	NA	NA	<0.05	<0.1 [<0.1]	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA
Aroclor-1248 (PCB-1248)	ug/L	NA	NA	NA	NA	<0.05	<0.1 [<0.1]	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA
Aroclor-1254 (PCB-1254)	ug/L	NA	NA	NA	NA	<0.05	<0.1 [<0.1]	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA
Aroclor-1260 (PCB-1260)	ug/L	NA	NA	NA	NA	<0.05	<0.05 [<0.05]	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA
Inorganics																
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	<0.002 [<0.002]	<0.005	<0.005	<0.005	<0.002	<0.002 [<0.002]	<0.002	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005
Arsenic	mg/L	0.019 [0.018] ^{ab}	0.019 ^{ab}	0.028 ^{ab}	0.021 ^{ab}	0.012 ^{ab}	0.021 [0.02] ^{ab}	0.014 ^{ab}	0.003	0.011 ^{ab}	0.016 ^{ab}	0.006	0.011 ^{ab}	0.016 ^{ab}	0.016 ^{ab}	0.010
Barium	mg/L	0.022 [0.019]	0.013	0.017	0.027	0.120	0.201 [0.179]	0.516	0.517	0.317	0.620	0.106	0.130	0.150	0.143	0.097
Beryllium	mg/L	NA	NA	NA	NA	<0.001	NA	NA	NA	NA	<0.001	NA	NA	NA	NA	NA
Boron	mg/L	0.06 [0.06]	0.09	0.10	0.09	0.11	0.05 [0.05]	0.06	0.06	0.05	0.04 J	0.12	0.11	0.13	0.12	0.11
Cadmium	mg/L	<0.0010 [<0.001]	<0.0005	<0.0005	<0.0005	<0.001	<0.001 [<0.001]	<0.0010	<0.0005	<0.0005	<0.001	<0.001	<0.0010	<0.0005	<0.0005	<0.0005
Chromium	mg/L	<0.010 [<0.01]	<0.005	<0.005	<0.005	<0.010	<0.010 [<0.01]	<0.010	<0.005	0.008	<0.010	<0.010	<0.010	<0.005	0.011	<0.005
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/L	<0.010 [<0.01]	<0.005	<0.005	<0.005	<0.010	<0.010 [<0.01]	<0.010	<0.005	<0.005	<0.010	<0.010	<0.010	<0.005	<0.005	<0.005
Copper	mg/L	0.011 [0.011]	0.011	0.014	0.014	<0.002	<0.002 [<0.002]	<0.002	<0.005	<0.005	<0.004	<0.002	<0.002	<0.005	<0.005	<0.005
Lead	mg/L	0.003 [0.003]	0.003	0.004	0.009 ^a	<0.002	<0.002 [<0.002]	<0.002	<0.003	<0.003	0.003	<0.002	<0.002	<0.003	<0.003	<0.003
Manganese	mg/L	0.040 [0.041]	0.021	0.025	0.127 ^a	0.119 ^a	0.456 [0.455] ^a	0.444 ^a	0.424 ^a	0.396 ^a	0.419 J ^a	0.088 ^a	0.146 ^a	0.148 ^a	0.124 ^a	0.126 ^a
Mercury	mg/L	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	mg/L	<0.010 [<0.01]	0.009	0.005	0.007	<0.010	0.025 [0.023]	0.019	0.033	0.031	<0.010	<0.010	0.023	0.016	0.013	0.008
Selenium	mg/L	<0.005 [<0.005]	<0.005	<0.005	<0.005	<0.002	0.004 [0.003]	0.007	<0.005	<0.005	<0.002	<0.002	0.010	<0.005	0.008	<0.005
Silver	mg/L	<0.0005 [<0.0005]	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002 [<0.0002]	<0.0005	<0.0005	<0.0005	0.0034 ^b	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005
Thallium	mg/L	NA	NA	NA	NA	<0.002	NA	NA	NA	NA	<0.002	NA	NA	NA	NA	NA
Vanadium	mg/L	0.003 [0.003]	<0.005	0.004	0.009 ^a	0.010 ^a	0.009 [0.01] ^a	<0.002	<0.005	<0.004	0.003	0.006 ^a	0.009 ^a	0.008 ^a	0.011 ^a	0.006 ^a
Zinc	mg/L	<0.010 [<0.01]	<0.005	<0.005	0.013	<0.010	0.017 [0.023]	0.014	0.072	0.091	0.017	<0.010	<0.010	<0.005	<0.005	0.008
General Chemistry																
Alkalinity, total (as CaCO3)	mg/L	NA	NA	NA	NA	NA	NA	NA	398	NA	NA	NA	NA	NA	NA	NA
Carbon dioxide	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	mg/L	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	NA	NA	NA	NA	NA	NA	NA	390 ^a	NA	NA	NA	NA	NA	NA	NA
Field**																
Conductance, specific	mS/cm	1.194	NA	1.300	1.021	NA	NA	4.095	3.712	3.951	NA	NA	3.512	3.531	3.489	2.940
Dissolved oxygen (DO)	mg/L	0.13	NA	8.15	3.99	NA	NA	0.31	1.56	20.25	NA	NA	0.13	0.07	4.69	0.54
Oxidation reduction potential (ORP), field	millivolts	-141.90	NA	-34.00	30.7	NA	NA	-38.40	-75.90	-30.90	NA	NA	-111.30	-126.30	-116.30	-83.20
pH	s.u.	9.97	NA	9.60	10.28	NA	NA	6.72	6.96	6.49	NA	NA	7.49	7.29	7.32	7.24
Temperature, field	Deg C	16.75	NA	14.04	7.54	NA	NA	14.80	20.66	8.27	NA	NA	17.57	25.77	12.20	12.56
Turbidity (field)	NTU	30.4	NA	15.8	205	NA	NA	6.69	9.19	9.87	NA	NA	5	39.4	2.54	20.9

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MWBP-12-UST5-6 28-38 Plant 6 10/10/11	MWBP-12-UST5-6 28-38 Plant 6 06/04/13	MWBP-12-UST5-6 28-38 Plant 6 08/22/13	MWBP-12-UST5-6 28-38 Plant 6 11/06/13	MWBP-12-UST5-6 28-38 Plant 6 12/21/12	MWBP-13A-UST1-4 28-38 Plant 6 10/18/11	MWBP-13A-UST1-4 28-38 Plant 6 12/21/12	MWBP-13A-UST1-4 28-38 Plant 6 06/06/13	MWBP-13A-UST1-4 28-38 Plant 6 08/23/13	MWBP-13A-UST1-4 28-38 Plant 6 11/13/13	MWBP-13A-UST1-4 28-38 Plant 6 02/19/14	P2-MW-01 31-36 Plant 2 08/29/11	P2-MW-01 31-36 Plant 2 10/10/11	P2-MW-01 31-36 Plant 2 12/18/12	P2-MW-01 31-36 Plant 2 05/30/13	P2-MW-01 31-36 Plant 2 08/14/13
Volatile Organics																	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<0.05	<1	<1	<1	<1	<0.05	<1	<1	<1	<1	<1	<0.05	<0.05	<1	<1	<1
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<0.02	<1	<1	<1	<1	<0.02	<1	<1	<1	<1	<1	<1	<0.02	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dioxane	ug/L	9	<5	8	8	<7 B	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane (Methyl bromide)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform (Trichloromethane)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane (Methyl chloride)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane (CFC-12)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl acetate	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert butyl ether (MTBE)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane (CFC-11)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trifluorotrichloroethane (Freon 113)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cyclohexane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl cyclohexane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropyl benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
m&p-Xylene	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	MWBP-12-UST5-6 28-38 Plant 6 10/10/11	MWBP-12-UST5-6 28-38 Plant 6 06/04/13	MWBP-12-UST5-6 28-38 Plant 6 08/22/13	MWBP-12-UST5-6 28-38 Plant 6 11/06/13	MWBP-12-UST5-6 28-38 Plant 6 12/21/12	MWBP-13A-UST1-4 28-38 Plant 6 10/18/11	MWBP-13A-UST1-4 28-38 Plant 6 12/21/12	MWBP-13A-UST1-4 28-38 Plant 6 06/06/13	MWBP-13A-UST1-4 28-38 Plant 6 08/23/13	MWBP-13A-UST1-4 28-38 Plant 6 11/13/13	MWBP-13A-UST1-4 28-38 Plant 6 02/19/14	P2-MW-01 31-36 Plant 2 08/29/11	P2-MW-01 31-36 Plant 2 10/10/11	P2-MW-01 31-36 Plant 2 12/18/12	P2-MW-01 31-36 Plant 2 05/30/13	P2-MW-01 31-36 Plant 2 08/14/13
Semivolatile Organics																	
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisop	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4,6-Trichlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4-Dichlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4-Dimethylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4-Dinitrophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4-Dinitrotoluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,6-Dinitrotoluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Chloronaphthalene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Chlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Methylnaphthalene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Nitrophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
3&4-Methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
3,3'-Dichlorobenzidine	ug/L	<0.05	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<2	<0.05	NA	NA	NA
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
3-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4,6-Dinitro-2-methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Bromophenyl phenyl ether	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Chloro-3-methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Chloroaniline	ug/L	<2	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<2 J	<2	<1 J	<1	<1
4-Chlorophenyl phenyl ether	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Nitrophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Anthracene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acenaphthene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acenaphthylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acetophenone	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Atrazine	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzaldehyde	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(a)anthracene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(a)pyrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(b)fluoranthene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(k)fluoranthene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Biphenyl (1,1-Biphenyl)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
bis(2-Chloroethoxy)methane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
bis(2-Chloroethyl)ether	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	<2	<1	1	<1	<1	<2	<1	<1	<1	<1	<1	6 B	<2	<2	<1	<1
Butyl benzylphthalate (BBP)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Caprolactam	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbazole	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chrysene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibenz(a,h)anthracene	ug/L	<1	<2	<2	<2	<2	<1	<2	<2	<2	<2	<2	<1	<1	<2	<2	<2
Dibenzofuran	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Diethyl phthalate	ug/L	<2	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<2	<2	<1	<1	<1
Dimethyl phthalate	ug/L	<2	<1	5	<1	<1	<2	<1	<1	3 B	<1	<1	3	<2	<1	<1	10
Di-n-butylphthalate (DBP)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Di-n-octyl phthalate (DnOP)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Fluoranthene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Fluorene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Hexachlorobenzene	ug/L	<0.05	<1	<1	<1	NA	<0.05	NA	<1	<1	<1	<1	<1	<0.05	NA	<1	<1
Hexachlorobutadiene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Hexachlorocyclopentadiene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Hexachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Indeno(1,2,3-cd)pyrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isophorone	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Nitrobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Nitrosodi-n-propylamine	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Nitrosodiphenylamine	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Pentachlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Phenanthrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Phenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Pyrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:		MWBP-12-UST5-6 28-38 Plant 6 10/10/11	MWBP-12-UST5-6 28-38 Plant 6 06/04/13	MWBP-12-UST5-6 28-38 Plant 6 08/22/13	MWBP-12-UST5-6 28-38 Plant 6 11/06/13	MWBP-12-UST5-6 28-38 Plant 6 12/21/12	MWBP-13A-UST1-4 28-38 Plant 6 10/18/11	MWBP-13A-UST1-4 28-38 Plant 6 12/21/12	MWBP-13A-UST1-4 28-38 Plant 6 06/06/13	MWBP-13A-UST1-4 28-38 Plant 6 08/23/13	MWBP-13A-UST1-4 28-38 Plant 6 11/13/13	MWBP-13A-UST1-4 28-38 Plant 6 02/19/14	P2-MW-01 31-36 Plant 2 08/29/11	P2-MW-01 31-36 Plant 2 10/10/11	P2-MW-01 31-36 Plant 2 12/18/12	P2-MW-01 31-36 Plant 2 05/30/13	P2-MW-01 31-36 Plant 2 08/14/13
PCBs																	
Total PCBs	ug/L	<0.05	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	<0.05	NA	NA	NA	<0.05	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	<0.05	NA	NA
Aroclor-1221 (PCB-1221)	ug/L	<0.05	NA	NA	NA	<0.1	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.05	<0.1	NA	NA
Aroclor-1232 (PCB-1232)	ug/L	<0.05	NA	NA	NA	<0.1	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.05	<0.1	NA	NA
Aroclor-1242 (PCB-1242)	ug/L	<0.05	NA	NA	NA	<0.1	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.05	<0.1	NA	NA
Aroclor-1248 (PCB-1248)	ug/L	<0.05	NA	NA	NA	<0.1	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.05	<0.1	NA	NA
Aroclor-1254 (PCB-1254)	ug/L	<0.05	NA	NA	NA	<0.1	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.05	<0.1	NA	NA
Aroclor-1260 (PCB-1260)	ug/L	<0.05	NA	NA	NA	<0.05	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	<0.05	NA	NA
Inorganics																	
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	<0.002	<0.002	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005
Arsenic	mg/L	0.007	0.007	0.005	0.007	0.007	<0.002	0.002	0.004	<0.002	0.014 ^{ab}	0.006	0.009	<0.002	<0.002	0.013 ^{ab}	0.011 ^{ab}
Barium	mg/L	0.077	0.075	0.074	0.080	0.090	0.159	0.160	0.175	0.173	0.253	0.184	1.15	0.932	0.080	1.19	1.11
Beryllium	mg/L	<0.001	NA	NA	NA	NA	<0.001	NA	NA	NA	NA	NA	0.0006	<0.001	NA	NA	NA
Boron	mg/L	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04 J	<0.04	<0.04	<0.04	<0.04	<0.04	0.04	<0.04	<0.04	0.04	0.041
Cadmium	mg/L	<0.001	<0.0010	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.0010	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.0010	<0.005
Chromium	mg/L	<0.010	<0.010	<0.005	<0.005	<0.010	<0.010	<0.010	<0.010	<0.005	0.011	0.232 ^b	<0.005	<0.010	<0.010	<0.010	<0.005
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/L	<0.010	<0.010	<0.005	<0.005	<0.010	<0.010	<0.010	<0.010	<0.005	<0.005	0.006	<0.005	<0.010	<0.010	<0.010	<0.005
Copper	mg/L	<0.002	<0.002	<0.005	<0.005	0.004	<0.002	<0.002	<0.002	<0.005	<0.005	0.019	<0.0025	<0.002	0.010	0.003	<0.005
Lead	mg/L	<0.002	<0.002	<0.003	<0.003	0.004	0.002	<0.002	<0.002	<0.003	<0.003	0.007 ^a	0.018 ^a	<0.002	<0.002	<0.002	<0.003
Manganese	mg/L	0.266 ^a	0.241 ^a	0.243 ^a	0.237 ^a	0.322 ^a	0.378 J ^a	0.480 ^a	0.496 ^a	0.460 ^a	0.705 ^a	0.562 ^a	0.116 ^a	0.138 ^a	<0.010	0.211 ^a	0.200 ^a
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	mg/L	<0.010	0.014	0.019	0.094	<0.010	<0.010	0.045	0.022	0.030	0.043	0.158 ^{ab}	0.021	<0.010	<0.010	0.020	0.026
Selenium	mg/L	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	0.006	0.006	0.006	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005	<0.005
Silver	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0002	0.0028 ^b	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0005	<0.0005
Thallium	mg/L	<0.002	NA	NA	NA	NA	<0.002	NA	NA	NA	NA	NA	0.0009	<0.002	NA	NA	NA
Vanadium	mg/L	<0.002	<0.002	<0.005	<0.004	0.004	<0.002	0.009 ^a	<0.002	<0.005	<0.004	<0.004	<0.0025	<0.002	<0.002	<0.002	<0.005
Zinc	mg/L	<0.010	<0.010	<0.005	0.006	0.017	<0.010	<0.010	<0.010	<0.005	0.008	0.046	<0.005	<0.010	<0.010	<0.010	0.023
General Chemistry																	
Alkalinity, total (as CaCO3)	mg/L	NA	NA	352	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon dioxide	mg/L	NA	NA	210	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	mg/L	NA	NA	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	NA	NA	262 ^a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field**																	
Conductance, specific	mS/cm	NA	2.365	2.164	2.331	NA	NA	NA	5.274	3.940	7.062	4.835	NA	NA	NA	4.062	4.546
Dissolved oxygen (DO)	mg/L	NA	0.05	0.27	4.22	NA	NA	NA	0.19	0.18	5.47	0.57	NA	NA	NA	0.11	0.13
Oxidation reduction potential (ORP), field	millivolts	NA	-65.90	-79.00	-78.90	NA	NA	NA	-40.80	-82.40	-52.30	-42.20	NA	NA	NA	-79.10	-77.90
pH	s.u.	NA	6.98	6.84	6.97	NA	NA	NA	6.68	6.87	6.51	6.70	NA	NA	NA	6.89	6.89
Temperature, field	Deg C	NA	17.27	18.01	14.87	NA	NA	NA	15.14	17.57	11.86	12.42	NA	NA	NA	22.14	20.15
Turbidity (field)	NTU	NA	6.95	30.3	9.29	NA	NA	NA	2.55	2.65	4.89	69.9	NA	NA	NA	9.00	5.86

Preliminary Groundwater Geochemical Assessment RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Table 1 - Complete Data Table_final.xlsx

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:		P2-MW-01 31-36 Plant 2 11/05/13	P2-MW-01 31-36 Plant 2 02/13/14	P2-MW-02 31-41 Plant 2 09/07/11	P2-MW-02 31-41 Plant 2 10/10/11	P2-MW-02 31-41 Plant 2 10/19/11	P2-MW-02 31-41 Plant 2 12/19/12	P2-MW-02 31-41 Plant 2 05/24/13	P2-MW-02 31-41 Plant 2 05/31/13	P2-MW-02 31-41 Plant 2 08/21/13	P2-MW-02 31-41 Plant 2 11/08/13	P2-MW-02 31-41 Plant 2 02/17/14	P2-MW-03* 27-32 Plant 2 08/31/11	P2-MW-03 27-32 Plant 2 10/10/11	P2-MW-03* 27 - 32 Plant 2 12/19/12	P2-MW-03 27-32 Plant 2 06/05/13	P2-MW-03 27-32 Plant 2 08/20/13	P2-MW-03 27-32 Plant 2 11/05/13	P2-MW-03 27-32 Plant 2 02/14/14	P2-MW-04 26-36 Plant 2 08/25/11	P2-MW-04 26-36 Plant 2 10/05/11	P2-MW-04 26-36 Plant 2 05/30/13	P2-MW-04 26-36 Plant 2 08/14/13	P2-MW-04 26-36 Plant 2 11/06/13	P2-MW-04 26-36 Plant 2 02/17/14
Semivolatile Organics																									
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4,6-Trichlorophenol	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
2,4-Dichlorophenol	ug/L	<1	<1	NA	<1	NA	<1 J	<1	NA	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
2,4-Dimethylphenol	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
2,4-Dinitrophenol	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
2,4-Dinitrotoluene	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
2,6-Dinitrotoluene	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
2-Chloronaphthalene	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
2-Chlorophenol	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Methylnaphthalene	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
2-Methylphenol	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
2-Nitroaniline	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
2-Nitrophenol	ug/L	<1	<1	NA	<1	NA	<1 J	<1	NA	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
3&4-Methylphenol	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	NA	<0.05 J	<0.05	NA	NA	NA	NA
Naphthalene	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
3-Nitroaniline	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1 J	<1 J	<1	<1	<1	<1	<1
4,6-Dinitro-2-methylphenol	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
4-Bromophenyl phenyl ether	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
4-Chloro-3-methylphenol	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
4-Chloroaniline	ug/L	<1	<1	NA	<2	NA	<1 J	<1	NA	<1	<1	<1	<2	<2	R	<1	<1	<1	<1	<2 J	<2	<1	<1	<1	<1
4-Chlorophenyl phenyl ether	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
4-Nitroaniline	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
4-Nitrophenol	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
Anthracene	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
Acenaphthene	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
Acenaphthylene	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
Acetophenone	ug/L	<1	<1	NA	<1	NA	<1 J	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Atrazine	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
Benzaldehyde	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(a)anthracene	ug/L	<1	<1	NA	<1	NA	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1
Benzo(a)pyrene	ug/L	<1	<1																						

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Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

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PCBs																												
Total PCBs	ug/L	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA			
Aroclor-1016 (PCB-1016)	ug/L	NA	NA	NA	<0.05	NA	<0.05	NA	NA	NA	NA	NA	<0.05	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA			
Aroclor-1221 (PCB-1221)	ug/L	NA	NA	NA	<0.05	NA	<0.1	NA	NA	NA	NA	NA	<0.05	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA			
Aroclor-1232 (PCB-1232)	ug/L	NA	NA	NA	<0.05	NA	<0.1	NA	NA	NA	NA	NA	<0.05	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA			
Aroclor-1242 (PCB-1242)	ug/L	NA	NA	NA	<0.05	NA	<0.1	NA	NA	NA	NA	NA	<0.05	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA			
Aroclor-1248 (PCB-1248)	ug/L	NA	NA	NA	<0.05	NA	<0.1	NA	NA	NA	NA	NA	<0.05	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA			
Aroclor-1254 (PCB-1254)	ug/L	NA	NA	NA	<0.05	NA	<0.1	NA	NA	NA	NA	NA	<0.05	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA			
Aroclor-1260 (PCB-1260)	ug/L	NA	NA	NA	<0.05	NA	<0.05	NA	NA	NA	NA	NA	<0.05	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA			
Inorganics																												
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Antimony	mg/L	<0.005	<0.005	<0.005 [<0.005]	<0.002	<0.002	<0.002	<0.002	NA	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.002	0.003	<0.005	<0.005	<0.005		
Arsenic	mg/L	0.006	0.018 ^{ab}	0.0327 [0.0326] ^{ab}	0.009	0.002	0.002	0.004	NA	<0.002	0.002	0.003	0.007	0.007	0.009	0.005	0.010	0.006	0.006	0.0023	0.003	0.009	0.008	0.008	0.006			
Barium	mg/L	0.775	1.09	0.237 [0.235]	0.213	0.215	0.121	0.180	NA	0.197	0.056	0.049	0.435	0.408	0.407	0.422	0.457	0.369	0.387	0.516	0.567	0.057	0.249	0.276	0.179			
Beryllium	mg/L	NA	NA	0.0008 [0.0006]	<0.001	<0.001	NA	NA	NA	NA	NA	NA	0.0006	<0.001	NA	NA	NA	NA	NA	NA	<0.001	NA	NA	NA	NA			
Boron	mg/L	0.05	0.04	0.069 [0.062]	0.05	0.05	0.04	0.04	NA	0.05	<0.04	<0.04	0.07	0.06	0.10	0.06	0.09	0.11	0.07	0.110	0.10	0.19	0.544 ^a	0.36	0.57 ^a			
Cadmium	mg/L	<0.0005	<0.0005	<0.0005 [<0.0005]	<0.001	<0.001	<0.001	<0.0010	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.0010	<0.005	<0.0005	<0.0005	<0.0005	<0.001	<0.0010	<0.005	<0.0005	<0.0005			
Chromium	mg/L	<0.005	0.008	0.058 [0.059]	<0.010	<0.010	0.026	0.015	NA	<0.005	0.008	0.011	<0.005	<0.010	<0.010	<0.010	0.024	0.005	<0.005	<0.005	<0.010	<0.010	<0.005	<0.005	<0.005			
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Cobalt	mg/L	<0.005	<0.005	<0.005 [<0.005]	<0.010	<0.010	<0.010	<0.010	NA	<0.005	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	0.006	<0.005	<0.005	<0.005	<0.010	<0.010	<0.005	<0.005	<0.005			
Copper	mg/L	0.005	<0.005	<0.0025 [<0.0025]	<0.002	<0.002	0.005	0.013	NA	<0.005	0.010	<0.005	<0.0025	0.005	0.009	<0.002	0.022 ^b	0.005	<0.005	<0.0025	<0.002	0.004	0.009	<0.005	<0.005			
Lead	mg/L	<0.003	<0.003	0.0046 [<0.0025] ^a	<0.002	<0.002	<0.002	0.006 ^a	NA	<0.003	0.006 ^a	<0.003	0.009 ^a	<0.002	0.005 ^a	<0.002	0.007 ^a	<0.003	<0.003	0.0178 ^a	<0.002	<0.002	<0.003	<0.003	<0.003			
Manganese	mg/L	0.124 ^a	0.209 ^a	0.061 [0.061] ^a	0.086 ^a	0.085 ^a	0.273 ^a	0.317 ^a	NA	0.212 ^a	0.079 ^a	0.203 ^a	0.155 ^a	0.135 ^a	0.269 ^a	0.171 ^a	0.369 ^a	0.167 ^a	0.193 ^a	0.118 ^a	0.132 ^a	<0.010	0.157 ^a	0.142 ^a	0.159 ^a			
Mercury	mg/L	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001	NA	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0001 ^b	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001			
Nickel	mg/L	0.022	0.016	0.032 [0.031]	<0.010	<0.010	0.026	0.017	NA	0.012	0.010	0.012	0.014	0.036	<0.010	<0.010	0.028	0.013	0.008	<0.005	<0.010	<0.010	0.026	0.018	0.016			
Selenium	mg/L	<0.005	<0.005	<0.005 [<0.005]	<0.002	<0.002	<0.002	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.005	<0.005			
Silver	mg/L	<0.0005	<0.0005	<0.0005 [<0.0005]	<0.0002	<0.0002	<0.0002	<0.0005	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	0.0005 ^b	<0.0005			
Thallium	mg/L	NA	NA	<0.0005 [<0.0005]	<0.002	<0.002	NA	NA	NA	NA	NA	NA	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	<0.002	NA	NA	NA	NA			
Vanadium	mg/L	<0.004	<0.004	<0.0025 [<0.0025]	<0.002	<0.002	<0.002	0.007 ^a	NA	<0.005	0.004	<0.004	<0.0025	<0.002	0.008 ^a	0.002	0.017 ^a	0.007 ^a	<0.004	<0.0025	<0.002	<0.002	<0.005	<0.004	<0.004			
Zinc	mg/L	0.025	0.012	<0.005 [<0.005]	<0.010	0.022	<0.010	0.024	NA	0.005	0.015	<0.005	<0.005	0.01	0.017	0.012	0.040	0.020	0.005	<0.005	<0.010	<0.010	0.018	0.007	0.005			
General Chemistry																												
Alkalinity, total (as CaCO3)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	357	NA	NA			
Carbon dioxide	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	131	NA	NA			
Nitrate (as N)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	NA			
Sulfate	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	341 ^a	NA	NA			
Field**																												
Conductance, specific	mS/cm	2.595	4.117	NA	NA	NA	NA	NA	NA	0.932	0.505	0.683	NA	NA	NA	1.158	1.185	1.105	1.516	NA	NA	0.345	2.448	1.349	2.392			
Dissolved oxygen (DO)	mg/L	3.52	0.20	NA	NA	NA	NA	NA	NA	0.25	40.74	0.46	NA	NA	NA	0.62	0.22	3.32	0.21	NA	NA	0.68	0.12	3.38	0.27			
Oxidation reduction potential (ORP), field	millivolts	-71.90	-67.20	NA	NA	NA	NA	NA	NA	-67.50	-12.70	-2.30	NA	NA	NA	-91.70	-62.10	-95.00	-90.40	NA	NA	151.2	-78.10	-116.20	-82.70			
pH	s.u.</																											

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	P2-SB-03 14-19 Plant 2 09/16/11	P2-SB-03 14-19 Plant 2 12/20/12	P2-SB-03 14-19 Plant 2 05/29/13	P2-SB-03 14-19 Plant 2 08/19/13	P2-SB-03 14-19 Plant 2 11/06/13	P2-SB-03 14-19 Plant 2 02/14/14	P2-SB-06 24-29 Plant 2 09/06/11	P2-SB-06 24-29 Plant 2 12/20/12	P2-SB-20 8-13 Plant 2 08/31/11	P2-SB-20 8-13 Plant 2 12/20/12	P2-SB-20 8-13 Plant 2 06/05/13	P2-SB-20 8-13 Plant 2 08/21/13	P2-SB-20 8-13 Plant 2 11/08/13	P2-SB-20 8-13 Plant 2 02/13/14	P3-SB-07 11-16 Plant 3 08/18/11	P3-SB-07 11-16 Plant 3 01/03/13	P3-SB-07 11-16 Plant 3 05/28/13	P3-SB-07 11-16 Plant 3 08/20/13	P3-SB-07 11-16 Plant 3 11/12/13	P3-SB-07 11-16 Plant 3 02/12/14	P3-SB-28 8-13 Plant 3 08/23/11	P3-SB-28 8-13 Plant 3 01/03/13	P3-SB-28 8-13 Plant 3 06/05/13
Volatile Organics																								
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<0.05	<1	<1	<1	<1	<1	<1	<1 [<1]	<0.05	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<0.02	<1	<1	<1	<1	<1	<1	<1 [<1]	<0.02	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
1,4-Dioxane	ug/L	<5	<5	<5	5	<5	<5	30	22 [23]	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	NA	<5	<5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NA	<10	<10
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Acetone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	11	<10	<10	<10	NA	<10	<10
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	3 [3]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Bromomethane (Methyl bromide)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
1,2-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
cis-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Chloroform (Trichloromethane)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Chloromethane (Methyl chloride)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
cis-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	1	2 [2]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Dichlorodifluoromethane (CFC-12)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Methyl acetate	ug/L	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NA	<10	<10
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Methyl tert butyl ether (MTBE)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Trichlorofluoromethane (CFC-11)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trifluorotrichloroethane (Freon 113)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NA	<10	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NA	<10	<10
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Cyclohexane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Methyl cyclohexane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Isopropyl benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
m&p-Xylene	ug/L	<2	<2	<2	<2	<2	<2	<2	<2 [<2]	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NA	<2	<2

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	P2-SB-03 14-19 Plant 2 09/16/11	P2-SB-03 14-19 Plant 2 12/20/12	P2-SB-03 14-19 Plant 2 05/29/13	P2-SB-03 14-19 Plant 2 08/19/13	P2-SB-03 14-19 Plant 2 11/06/13	P2-SB-03 14-19 Plant 2 02/14/14	P2-SB-06 24-29 Plant 2 09/06/11	P2-SB-06 24-29 Plant 2 12/20/12	P2-SB-20 8-13 Plant 2 08/31/11	P2-SB-20 8-13 Plant 2 12/20/12	P2-SB-20 8-13 Plant 2 06/05/13	P2-SB-20 8-13 Plant 2 08/21/13	P2-SB-20 8-13 Plant 2 11/08/13	P2-SB-20 8-13 Plant 2 02/13/14	P3-SB-07 11-16 Plant 3 08/18/11	P3-SB-07 11-16 Plant 3 01/03/13	P3-SB-07 11-16 Plant 3 05/28/13	P3-SB-07 11-16 Plant 3 08/20/13	P3-SB-07 11-16 Plant 3 11/12/13	P3-SB-07 11-16 Plant 3 02/12/14	P3-SB-28 8-13 Plant 3 08/23/11	P3-SB-28 8-13 Plant 3 01/03/13	P3-SB-28 8-13 Plant 3 06/05/13	
Semivolatile Organics																									
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1	<1	
2,4,6-Trichlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
2,4-Dichlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
2,4,5-Trichlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
2,4-Dimethylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
2,4-Dinitrophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
2,4-Dinitrotoluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
2,6-Dinitrotoluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
2-Chloronaphthalene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
2-Chlorophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Methylnaphthalene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
2-Methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
2-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
2-Nitrophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
3&4-Methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
3,3'-Dichlorobenzidine	ug/L	<2	NA	NA	NA	NA	NA	<2	NA	<2	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	NA	<2 J	NA	NA
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1	<1	<1
3-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1 J	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
4,6-Dinitro-2-methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
4-Bromophenyl phenyl ether	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
4-Chloro-3-methylphenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
4-Chloroaniline	ug/L	<2	<1	<1	<1	<1	<1	<2	<1 [<1]	<2 J	<1	<1	<1	<1	<1	<2 J	<1 J	<1	<1	<1	<1	<1	<2 J	<1	<1
4-Chlorophenyl phenyl ether	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
4-Nitroaniline	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
4-Nitrophenol	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
Anthracene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
Acenaphthene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
Acenaphthylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
Acetophenone	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1	<1	<1
Atrazine	ug/L	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 J	<1	<1
Benzaldehyde	ug/L	<1	<1	<1	<1	<1	<1	<1 J	<1 [<1]	<1	<1	<1	<1	<1	<1	<1 J									

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:		P2-SB-03 14-19 Plant 2 09/16/11	P2-SB-03 14-19 Plant 2 12/20/12	P2-SB-03 14-19 Plant 2 05/29/13	P2-SB-03 14-19 Plant 2 08/19/13	P2-SB-03 14-19 Plant 2 11/06/13	P2-SB-03 14-19 Plant 2 02/14/14	P2-SB-06 24-29 Plant 2 09/06/11	P2-SB-06 24-29 Plant 2 12/20/12	P2-SB-20 8-13 Plant 2 08/31/11	P2-SB-20 8-13 Plant 2 12/20/12	P2-SB-20 8-13 Plant 2 06/05/13	P2-SB-20 8-13 Plant 2 08/21/13	P2-SB-20 8-13 Plant 2 11/08/13	P2-SB-20 8-13 Plant 2 02/13/14	P3-SB-07 11-16 Plant 3 08/18/11	P3-SB-07 11-16 Plant 3 01/03/13	P3-SB-07 11-16 Plant 3 05/28/13	P3-SB-07 11-16 Plant 3 08/20/13	P3-SB-07 11-16 Plant 3 11/12/13	P3-SB-07 11-16 Plant 3 02/12/14	P3-SB-28 8-13 Plant 3 08/23/11	P3-SB-28 8-13 Plant 3 01/03/13	P3-SB-28 8-13 Plant 3 06/05/13	
PCBs																									
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	NA	<0.05	NA	NA	NA	NA	NA	<0.05 [<0.05]	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<0.05	NA
Aroclor-1221 (PCB-1221)	ug/L	NA	<0.1	NA	NA	NA	NA	NA	<0.1 [<0.1]	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	NA	NA	<0.1	NA
Aroclor-1232 (PCB-1232)	ug/L	NA	<0.1	NA	NA	NA	NA	NA	<0.1 [<0.1]	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	NA	NA	<0.1	NA
Aroclor-1242 (PCB-1242)	ug/L	NA	<0.1	NA	NA	NA	NA	NA	<0.1 [<0.1]	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	NA	NA	<0.1	NA
Aroclor-1248 (PCB-1248)	ug/L	NA	<0.1	NA	NA	NA	NA	NA	<0.1 [<0.1]	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	NA	NA	<0.1	NA
Aroclor-1254 (PCB-1254)	ug/L	NA	<0.1	NA	NA	NA	NA	NA	<0.1 [<0.1]	<0.05	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	NA	NA	<0.1	NA
Aroclor-1260 (PCB-1260)	ug/L	NA	<0.05	NA	NA	NA	NA	NA	<0.05 [<0.05]	<0.05	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<0.05	NA
Inorganics																									
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	NA	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.002 [<0.002]	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002
Arsenic	mg/L	NA	0.028 ^{ab}	0.024 ^{ab}	0.020 ^{ab}	0.023 ^{ab}	0.024 ^{ab}	0.0183 ^{ab}	<0.002 [<0.002]	0.001	0.005	0.025 ^{ab}	0.035 ^{ab}	0.027 ^{ab}	0.022 ^{ab}	<0.0005	<0.002	<0.002	0.002	<0.002	<0.002	0.002	0.002	0.002	<0.002
Barium	mg/L	NA	0.226	0.209	0.231	0.240	0.230	0.876	0.091 [0.096]	0.147	0.032	0.070	0.031	0.005	0.016	0.089	0.058	0.055	0.058	0.061	0.051	0.067	0.028	0.025	
Beryllium	mg/L	NA	NA	NA	NA	NA	NA	0.0007	NA	0.0007	NA	NA	NA	NA	NA	0.0005	NA	NA	NA	NA	NA	<0.0005	NA	NA	
Boron	mg/L	NA	0.05 J	0.04	0.05	0.06	0.05	0.444	0.69 J [0.7 J] ^a	0.35	0.24 J	0.15	0.16	0.17	0.11	1.22 ^a	0.99 ^a	0.98 ^a	0.91 ^a	1.08 ^a	0.98 ^a	0.404	0.17	0.14	
Cadmium	mg/L	NA	<0.001	<0.0010	<0.005	<0.0005	<0.0005	<0.0005	<0.001 [<0.001]	<0.0005	<0.001	<0.0010	0.0009	<0.0005	<0.0005	<0.0005	<0.001	<0.0010	<0.005	<0.0005	<0.0005	<0.0005	<0.001	<0.0010	
Chromium	mg/L	NA	<0.010	<0.010	<0.005	<0.005	<0.005	<0.005	<0.010 [<0.01]	<0.005	<0.010	0.011	0.009	<0.005	<0.005	<0.005	<0.010	<0.010	<0.005	0.007	<0.005	<0.005	<0.010	<0.010	
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.01	<0.01	<0.01	<0.01	NA	<0.01	<0.01	
Cobalt	mg/L	NA	<0.010	<0.010	<0.005	<0.005	<0.005	<0.005	<0.010 [<0.01]	<0.005	<0.010	<0.010	<0.005	<0.005	<0.005	<0.005	<0.010	<0.010	<0.005	<0.005	<0.005	<0.005	<0.010	<0.010	
Copper	mg/L	NA	<0.002	0.004	<0.005	<0.005	<0.005	<0.0025	<0.002 [<0.002]	0.004	0.009	0.029 ^b	0.014	0.006	0.009	<0.0025	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	0.004	0.002	
Lead	mg/L	NA	<0.002	<0.002	<0.003	<0.003	<0.003	0.0150 ^a	<0.002 [<0.002]	0.018 ^a	0.003	0.010 ^a	0.004	<0.003	<0.003	0.008 ^a	<0.002	<0.002	<0.003	<0.003	<0.003	<0.0025	<0.002	<0.002	
Manganese	mg/L	NA	0.042	0.043	0.077 ^a	0.073 ^a	0.048	0.118 ^a	0.495 [0.495] ^a	0.177 ^a	0.029	0.106 ^a	0.045	0.013	0.020	0.178 ^a	0.043	<0.010	0.016	0.097 ^a	0.017	0.137 ^a	0.172 ^a	0.102 ^a	
Mercury	mg/L	NA	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	
Nickel	mg/L	NA	<0.010	<0.010	0.010	0.008	0.005	0.006	<0.010 [<0.01]	<0.005	<0.010	0.014	0.009	<0.005	<0.005	0.005	0.011	<0.010	0.009	0.017	0.010	<0.005	<0.010	<0.010	
Selenium	mg/L	NA	<0.002	<0.005	<0.005	0.005	<0.005	<0.005	<0.002 [<0.002]	<0.005	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	0.004	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	
Silver	mg/L	NA	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002 [<0.0002]	<0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	
Thallium	mg/L	NA	NA	NA	NA	NA	NA	<0.0005	NA	<0.0005	NA	NA	NA	NA	NA	0.0019	NA	NA	NA	NA	NA	0.0008	NA	NA	
Vanadium	mg/L	NA	<0.002	<0.002	<0.005	<0.004	<0.004	<0.0025	<0.002 [<0.002]	<0.0025	0.005 ^a	0.024 ^a	0.024 ^a	0.014 ^a	0.013 ^a	<0.0025	0.002	<0.002	<0.005	<0.004	<0.004	<0.0025	<0.002	<0.002	
Zinc	mg/L	NA	<0.010	<0.010	0.006	0.006	<0.005	<0.005	<0.010 [<0.01]	<0.005	<0.010	0.025	0.023	<0.005	0.008	<0.005	<0.010	0.010	0.006	0.016	0.010	<0.005	<0.010	<0.010	
General Chemistry																									
Alkalinity, total (as CaCO3)	mg/L	NA	NA	NA	269	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	307	NA	NA	NA	NA	NA	
Carbon dioxide	mg/L	NA	NA	NA	102	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	135	NA	NA	NA	NA	NA	
Nitrate (as N)	mg/L	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.9 ^a	NA	NA	NA	NA	NA	
Sulfate	mg/L	NA	NA	NA	52	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	178	NA	NA	NA	NA	NA	
Field**																									
Conductance, specific	mS/cm	NA	NA	1.002	0.933	1.000	1.067	NA	NA	NA	NA	0.507	0.403	0.371	0.455	NA	NA	1.011	1.164	0.868	1.121	NA	NA	0.321	
Dissolved oxygen (DO)	mg/L	NA	NA	2.30	0.28	3.52	0.35	NA	NA	NA	NA	1.30	0.61	2.18	1.34	NA	NA	1.10	0.23	1.88	3.19	NA	NA	3.13	
Oxidation reduction potential (ORP), field	millivolts	NA	NA	-6.80	76.3	-59.70	-88.00	NA	NA	NA	NA	81.8	80.4	-18.20	75.6	NA	NA	-8.10	67.2	4.5	127.7	NA	NA	183.9	
pH	s.u.	NA	NA	7.27	7.26	7.0	7.48	NA	NA	NA	NA	8.89	8.84	9.10	8.65	NA	NA	7.53	7.22	8.19	7.22	NA	NA	7.82	
Temperature, field	Deg C	NA	NA	20.95	30.01	12.30	8.83	NA	NA	NA	NA	20.50	28.17	16.05	4.42	NA	NA	19.50	20.13	7.55	7.26	NA	NA	17.82	
Turbidity (field)	NTU	NA	NA	6.90	8.73	8.24	5.21	NA	NA	NA	NA	185	103	9.2	38.6	NA	NA	0.63	8.15	48.6	8.96	NA	NA	1.98	

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:		P3-SB-28 8-13 Plant 3 08/20/13	P3-SB-28 8-13 Plant 3 11/13/13	P3-SB-28 8-13 Plant 3 02/19/14	P6-MW-01 23-28 Plant 6 08/10/11	P6-MW-01 23-28 Plant 6 10/18/11	P6-MW-01* 23-28 Plant 6 12/21/12	P6-MW-01 23-28 Plant 6 06/05/13	P6-MW-01 23-28 Plant 6 08/20/13	P6-MW-01 23-28 Plant 6 11/11/13	P6-MW-01 23-28 Plant 6 02/20/14	P6-SB-07 15-20 Plant 6 08/10/11	P6-SB-07* 15-20 Plant 6 09/21/12	P6-SB-07 15-20 Plant 6 12/19/12	P6-SB-07 15-20 Plant 6 06/05/13	P6-SB-07 15-20 Plant 6 08/16/13	P6-SB-07 15-20 Plant 6 11/15/13	P6-SB-07 15-20 Plant 6 02/20/14	P6-SB-18 3-8 Plant 6 08/08/11	P6-SB-18 3-8 Plant 6 12/19/12	P6-SB-18 3-8 Plant 6 05/30/13	P6-SB-18 3-8 Plant 6 08/19/13	
Volatile Organics																							
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<1	<1	<1 [<1]	<0.05	<0.05	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<0.05	<1	<5 X	<1	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<1	<1	<1 [<1]	<1	<0.02	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<0.02	<1	<5 X	<1	
1,2-Dichlorobenzene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
1,4-Dichlorobenzene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
1,4-Dioxane	ug/L	<5	<5	<5 [<5]	<5	<5	<5	<5	<5	<5	<5	NA	<5	<5	<5	<5	<5	<5 [<5]	<5	<5	<5	<5	
1,1,1-Trichloroethane	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
2-Hexanone	ug/L	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	NA	<10	<10 J	<10	<10	<10	<10 [<10]	<10	<10 J	<50 X	<10	
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
Acetone	ug/L	<10	<10	<10 [<10]	<10	<10 J	<10	<10	<10	<10	<10 J	NA	<10	<10 J	<10	<10	<10	<10 [<10]	13	<10 J	<50 X	11	
1,1,2-Trichloroethane	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
Bromodichloromethane	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
1,1-Dichloroethane	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
Bromoform	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
1,1-Dichloroethene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
Bromomethane (Methyl bromide)	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
1,2-Dichloroethane	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
Carbon disulfide	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
Carbon tetrachloride	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
cis-1,2-Dichloroethene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
Chlorobenzene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
trans-1,2-Dichloroethene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
Chloroform (Trichloromethane)	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
Trichloroethene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
Chloromethane (Methyl chloride)	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
Tetrachloroethene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
cis-1,3-Dichloropropene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
Vinyl chloride	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
Chloroethane	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
Dichlorodifluoromethane (CFC-12)	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
Benzene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
Methyl acetate	ug/L	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	NA	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<50 X	<10	
Ethylbenzene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
Methylene chloride	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
Styrene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
Toluene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
trans-1,3-Dichloropropene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
Methyl tert butyl ether (MTBE)	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
Trichlorofluoromethane (CFC-11)	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Trifluorotrichloroethane (Freon 113)	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<5 X	<1	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	NA	<10	<10 J	<10	<10	<10	<10 [<10]	<10	<10 J	<50 X	<10	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	NA	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<50 X	<10	
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1															

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:		P3-SB-28 8-13 Plant 3 08/20/13	P3-SB-28 8-13 Plant 3 11/13/13	P3-SB-28 8-13 Plant 3 02/19/14	P6-MW-01 23-28 Plant 6 08/10/11	P6-MW-01 23-28 Plant 6 10/18/11	P6-MW-01* 23-28 Plant 6 12/21/12	P6-MW-01 23-28 Plant 6 06/05/13	P6-MW-01 23-28 Plant 6 08/20/13	P6-MW-01 23-28 Plant 6 11/11/13	P6-MW-01 23-28 Plant 6 02/20/14	P6-SB-07 15-20 Plant 6 08/10/11	P6-SB-07* 15-20 Plant 6 09/21/12	P6-SB-07 15-20 Plant 6 12/19/12	P6-SB-07 15-20 Plant 6 06/05/13	P6-SB-07 15-20 Plant 6 08/16/13	P6-SB-07 15-20 Plant 6 11/15/13	P6-SB-07 15-20 Plant 6 02/20/14	P6-SB-18 3-8 Plant 6 08/08/11	P6-SB-18 3-8 Plant 6 12/19/12	P6-SB-18 3-8 Plant 6 05/30/13	P6-SB-18 3-8 Plant 6 08/19/13
Semivolatile Organics																						
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisop	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
2,4,6-Trichlorophenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1 J	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
2,4-Dichlorophenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1 J	<1	NA	<1 J	<1 J	<1	<1	<1	<1 [<1]	NA	<1 J	<1	<1
2,4,5-Trichlorophenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1 J	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
2,4-Dimethylphenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	2	<1
2,4-Dinitrophenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	R	<1	NA	<1 J	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
2,4-Dinitrotoluene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
2,6-Dinitrotoluene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
2-Chloronaphthalene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
2-Chlorophenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1 J	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
2-Methylnaphthalene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	2	<1
2-Methylphenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
2-Nitroaniline	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
2-Nitrophenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1 J	<1	NA	<1 J	<1 J	<1	<1	<1	<1 [<1]	NA	<1 J	<1	<1
3&4-Methylphenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1 J	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	<0.1	<0.05	NA	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	2	<1
3-Nitroaniline	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
4,6-Dinitro-2-methylphenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
4-Bromophenyl phenyl ether	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
4-Chloro-3-methylphenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
4-Chloroaniline	ug/L	<1	<1	<1 [<1]	<2 J	<2	<2	NA	<1	<1	<1	NA	<2 J	<1 J	<1	<1	<1	<1 [<1]	NA	<1 J	<1	<1
4-Chlorophenyl phenyl ether	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
4-Nitroaniline	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
4-Nitrophenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1 J	<1	NA	<1 J	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
Anthracene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
Acenaphthene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	1	3	1
Acenaphthylene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
Acetophenone	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1 J	<1	<1	<1	<1 [<1]	NA	<1 J	<1	<1
Atrazine	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
Benzaldehyde	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	1	<1
Benzo(a)anthracene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
Benzo(a)pyrene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
Benzo(b)fluoranthene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	R	<1	<1	<1	<1 [<1]	NA	R	<1	<1
Benzo(g,h,i)perylene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
Benzo(k)fluoranthene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	R	<1	<1	<1	<1 [<1]	NA	R	<1	<1
Biphenyl (1,1-Biphenyl)	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
bis(2-Chloroethoxy)methane	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1 J	<1	<1	<1	<1 [<1]	NA	<1 J	<1	<1
bis(2-Chloroethyl)ether	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	<1	2 B [2 B]	<2	<2	<2	NA	<1	<1	<2 B	NA	<2	1	<1	1	<1	1 B [2 B]	NA	1	1	2
Butyl benzylphthalate (BBP)	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
Caprolactam	ug/L	<1	<1	<1 [<1]	<1	<1	1 J	NA	<1	R	<1	NA	5	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
Carbazole	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
Chrysene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
Dibenz(a,h)anthracene	ug/L	<2	<2	<2 [<2]	<1	<1	<1	NA	<2	<2	<2	NA	<1	<2	<2	<2	<2	<2 [<2]	NA	<2	<2	<2
Dibenzofuran	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
Diethyl phthalate	ug/L	<1	<1	<2 [<2]	<2	<2	<2	NA	<1	<1	<2	NA	<2	<1	<1	<1	<1	<2 [<2]	NA	1	<1	<1
Dimethyl phthalate	ug/L	4	<1	<1 [<1]	<2	<2	<2	NA	5	<1	<1	NA	<2	<1	<1	<1	10	<1 [<1]	NA	<1	<1	13
Di-n-butylphthalate (DBP)	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	1	2	<1
Di-n-octyl phthalate (DnOP)	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
Fluoranthene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
Fluorene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
Hexachlorobenzene	ug/L	<1	<1	<1 [<1]	<0.1	<0.05	NA	NA	<1	<1	<1	NA	<0.05	NA	<1	<1	<1	<1 [<1]	NA	NA	<1	<1
Hexachlorobutadiene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
Hexachlorocyclopentadiene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
Hexachloroethane	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
Indeno(1,2,3-cd)pyrene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
Isophorone	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
Nitrobenzene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	NA	<1	<1	<1	NA	<1	<1	<1	<1	<1	<1 [<1]	NA	<1	<1	<1
N-Nitrosodi-n-propylamine	ug/L	<1	<1	<1 [<1]	<1	<1	<															

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	P3-SB-28 8-13 Plant 3 08/20/13	P3-SB-28 8-13 Plant 3 11/13/13	P3-SB-28 8-13 Plant 3 02/19/14	P6-MW-01 23-28 Plant 6 08/10/11	P6-MW-01 23-28 Plant 6 10/18/11	P6-MW-01* 23-28 Plant 6 12/21/12	P6-MW-01 23-28 Plant 6 06/05/13	P6-MW-01 23-28 Plant 6 08/20/13	P6-MW-01 23-28 Plant 6 11/11/13	P6-MW-01 23-28 Plant 6 02/20/14	P6-SB-07 15-20 Plant 6 08/10/11	P6-SB-07* 15-20 Plant 6 09/21/12	P6-SB-07 15-20 Plant 6 12/19/12	P6-SB-07 15-20 Plant 6 06/05/13	P6-SB-07 15-20 Plant 6 08/16/13	P6-SB-07 15-20 Plant 6 11/15/13	P6-SB-07 15-20 Plant 6 02/20/14	P6-SB-18 3-8 Plant 6 08/08/11	P6-SB-18 3-8 Plant 6 12/19/12	P6-SB-18 3-8 Plant 6 05/30/13	P6-SB-18 3-8 Plant 6 08/19/13
PCBs																						
Total PCBs	ug/L	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA
Aroclor-1221 (PCB-1221)	ug/L	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA
Aroclor-1232 (PCB-1232)	ug/L	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA
Aroclor-1242 (PCB-1242)	ug/L	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA
Aroclor-1248 (PCB-1248)	ug/L	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA
Aroclor-1254 (PCB-1254)	ug/L	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA
Aroclor-1260 (PCB-1260)	ug/L	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA
Inorganics																						
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	<0.005	<0.005	<0.005 [<0.005]	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	NA	<0.002	<0.002	<0.005	<0.005	<0.005 [<0.005]	0.008 ^a	0.005	0.006	0.007 ^a
Arsenic	mg/L	0.004	0.002	0.002 [<0.002]	0.0062	0.007	0.015 ^{ab}	0.017 ^{ab}	0.013 ^{ab}	0.010	0.009	0.0028	NA	<0.002	<0.002	0.003	<0.002	0.003 [0.003]	0.0145 ^{ab}	0.007	0.003	0.010
Barium	mg/L	0.036	0.036	0.024 [0.023]	0.056	0.042	0.068 J	0.083	0.083	0.094	0.082	0.062	NA	0.040	0.040	0.048	0.051	0.047 [0.046]	0.035	0.028	0.031	0.040
Beryllium	mg/L	NA	NA	NA	0.0005	<0.001	NA	NA	NA	NA	NA	0.0006	NA	NA	NA	NA	NA	NA	0.0006	NA	NA	NA
Boron	mg/L	0.27	0.17	0.15 [0.15]	0.106	0.14	0.11	0.11	0.07	0.12	0.13	0.086	NA	0.07	0.07	0.07	0.09	0.08 [0.08]	0.192	0.10	0.10	0.17
Cadmium	mg/L	<0.005	<0.0005	<0.0005 [<0.0005]	<0.0005	<0.001	<0.001	<0.0010	<0.005	<0.0005	<0.0005	<0.0005	NA	<0.001	<0.0010	<0.005	<0.0005	<0.0005 [<0.0005]	<0.0005	<0.001	<0.0010	<0.005
Chromium	mg/L	<0.005	0.005	<0.005 [<0.005]	<0.005	0.013	0.019	<0.010	<0.005	<0.005	<0.005	<0.005	NA	<0.010	<0.010	<0.005	<0.005	<0.005 [<0.005]	<0.005	<0.010	<0.010	<0.005
Chromium VI (hexavalent)	mg/L	<0.01	<0.01	<0.01 [<0.01]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/L	<0.005	<0.005	<0.005 [<0.005]	<0.005	<0.010	<0.010	<0.010	<0.005	<0.005	<0.005	<0.005	NA	<0.010	<0.010	<0.005	<0.005	<0.005 [<0.005]	<0.005	<0.010	<0.010	<0.005
Copper	mg/L	<0.005	<0.005	<0.005 [<0.005]	<0.025	0.008 J	0.009	0.039 ^b	<0.005	<0.005	0.009	<0.025	NA	<0.002	0.015	<0.005	<0.005	<0.005 [<0.005]	0.079 ^b	0.036 ^b	0.038 ^b	0.060 ^b
Lead	mg/L	<0.003	<0.003	<0.003 [<0.003]	0.0069 ^a	0.005 J ^a	0.003	<0.002	<0.003	<0.003	<0.003	<0.0025	NA	<0.002	<0.002	<0.003	<0.003	<0.003 [<0.003]	1.49 ^{ab}	0.072 ^{ab}	0.090 ^{ab}	0.044 ^a
Manganese	mg/L	0.257 ^a	0.287 ^a	0.203 [0.21] ^a	1.08 ^a	1.36 J ^a	0.927 ^a	0.762 ^a	0.459 ^a	0.640 ^a	0.694 ^a	0.052 ^a	NA	0.028	0.062 ^a	0.067 ^a	0.045	0.040 [0.04]	<0.005	<0.010	<0.010	0.007
Mercury	mg/L	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	NA	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	mg/L	0.006	0.007	0.007 [0.006]	0.007	0.032 J	0.041	0.050	0.013	0.021	0.010	0.008	NA	<0.010	<0.010	0.008	0.007	0.006 [0.006]	0.007	<0.010	<0.010	<0.005
Selenium	mg/L	<0.005	<0.005	<0.005 [<0.005]	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.002	<0.005	<0.005	<0.005	<0.005 [<0.005]	<0.005	<0.002	<0.005	<0.005
Silver	mg/L	<0.0005	<0.0005	<0.0005 [<0.0005]	<0.0005	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NA	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005 [<0.0005]	<0.0005	<0.0002	<0.0005	0.0005 ^b
Thallium	mg/L	NA	NA	NA	<0.0005	<0.002	NA	NA	NA	NA	NA	0.0006	NA	NA	NA	NA	NA	NA	0.0008	NA	NA	NA
Vanadium	mg/L	<0.005	<0.004	<0.004 [<0.004]	<0.0025	0.004	0.005 ^a	<0.002	<0.005	<0.004	<0.004	<0.0025	NA	<0.002	<0.002	<0.005	<0.004	<0.004 [<0.004]	0.0228 ^a	0.020 ^a	0.021 ^a	0.020 ^a
Zinc	mg/L	<0.005	<0.005	0.006 [<0.005]	<0.005	0.020	0.025	0.011	0.008	0.008	0.008	<0.005	NA	<0.010	<0.010	0.007	0.005	<0.005 [<0.005]	<0.005	<0.010	<0.010	0.005
General Chemistry																						
Alkalinity, total (as CaCO3)	mg/L	170	NA	NA	NA	NA	NA	NA	356	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	115
Carbon dioxide	mg/L	83	NA	NA	NA	NA	NA	NA	168	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
Nitrate (as N)	mg/L	<0.5	NA	NA	NA	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5
Sulfate	mg/L	23	NA	NA	NA	NA	NA	NA	346 ^a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	97
Field**																						
Conductance, specific	mS/cm	0.472	0.310	0.405	NA	NA	NA	2.054	1.773	2.373	1.851	NA	NA	NA	0.417	0.441	0.424	0.537	NA	NA	0.721	0.576
Dissolved oxygen (DO)	mg/L	1.02	0.85	0.77	NA	NA	NA	0.30	0.27	3.05	0.43	NA	NA	NA	2.58	0.11	10.30	0.16	NA	NA	0.16	0.10
Oxidation reduction potential (ORP), field	millivolts	13.0	17.5	14.9	NA	NA	NA	78.6	-64.30	-66.60	-39.70	NA	NA	NA	-109.50	-118.80	-25.30	-127.60	NA	NA	85.2	-27.60
pH	s.u.	8.06	8.19	7.81	NA	NA	NA	7.12	7.02	6.97	6.88	NA	NA	NA	7.88	7.60	7.60	7.88	NA	NA	11.31	10.88
Temperature, field	Deg C	23.82	6.10	6.15	NA	NA	NA	15.25	24.05	13.99	11.26	NA	NA	NA	18.44	20.97	14.36	9.65	NA	NA	19.68	23.37
Turbidity (field)	NTU	5.4	6.84	9.21	NA	NA	NA	6	6.52	2.91	9.55	NA	NA	NA	3.96	9.47	2.13	6.96	NA	NA	6	5.6

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:		P6-SB-18 3-8 Plant 6 11/11/13	P6-SB-21 3-8 Plant 6 08/04/11	P6-SB-21 3-8 Plant 6 12/19/12	P6-SB-21 3-8 Plant 6 06/06/13	P6-SB-21 3-8 Plant 6 08/16/13	P6-SB-21 3-8 Plant 6 11/14/13	P6-SB-21 3-8 Plant 6 02/20/14	P6-SB-32 7-12 Plant 6 08/11/11	P6-SB-32 7-12 Plant 6 12/19/12	P6-SB-32 7-12 Plant 6 06/11/13	P6-SB-32 7-12 Plant 6 08/26/13	P6-SB-32 7-12 Plant 6 11/15/13	P6-SB-32 7-12 Plant 6 02/20/14	P6-SB-35 3-8 Plant 6 08/05/11	P6-SB-35 3-8 Plant 6 12/19/12	P6-SB-35 3-8 Plant 6 06/05/13	P6-SB-35 3-8 Plant 6 08/19/13	P6-SB-35 3-8 Plant 6 11/12/13	P6-SB-37 5-10 Plant 6 06/11/13	P6-SB-37 5-10 Plant 6 12/19/12	P6-SB-37 5-10 Plant 6 08/16/13	P6-SB-37 5-10 Plant 6 11/11/13	P6-SB-37 5-10 Plant 6 02/20/14
Volatile Organics																								
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<1	<0.05	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<0.05 J	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<1	<0.02	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
1,4-Dioxane	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	NA	<5	<5	<5 [<5]	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10 J	<10	<10	<10	<10	<1,000	<500	<200 Y	<500 Y	<200 Y	<200 Y	<10	<10 J	<10 [<10]	<10	<10	<10	<10 J	<10	<10	<10
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10 J	<10	<10	<10	<10	<1,000	<500	<200 Y	<500 Y	210 Y	<200 Y	<10	<10 J	<10 [<10]	<10	<10	<10	<10 J	<10	<10	<10
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Bromomethane (Methyl bromide)	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Chloroform (Trichloromethane)	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	2	<1	<1	<1	1
Chloromethane (Methyl chloride)	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane (CFC-12)	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Benzene	ug/L	<1	11 ^a	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Methyl acetate	ug/L	<10	<10	<10	<10	<10	<10	<10	<1,000	<500	<200 Y	<500 Y	<200 Y	<200 Y	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	600 ^{ab}	270 ^{ab}	340 Y ^{ab}	400 Y ^{ab}	640 Y ^{ab}	1,090 Y ^{ab}	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<50 Y	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<100	<50	<20 Y	<60 YX	<20 Y	<20 Y	<1	<1	<1 [<1]	<1	<1	<1</				

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Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:		P6-SB-18 3-8 Plant 6 11/11/13	P6-SB-21 3-8 Plant 6 08/04/11	P6-SB-21 3-8 Plant 6 12/19/12	P6-SB-21 3-8 Plant 6 06/06/13	P6-SB-21 3-8 Plant 6 08/16/13	P6-SB-21 3-8 Plant 6 11/14/13	P6-SB-21 3-8 Plant 6 02/20/14	P6-SB-32 7-12 Plant 6 08/11/11	P6-SB-32 7-12 Plant 6 12/19/12	P6-SB-32 7-12 Plant 6 06/11/13	P6-SB-32 7-12 Plant 6 08/26/13	P6-SB-32 7-12 Plant 6 11/15/13	P6-SB-32 7-12 Plant 6 02/20/14	P6-SB-35 3-8 Plant 6 08/05/11	P6-SB-35 3-8 Plant 6 12/19/12	P6-SB-35 3-8 Plant 6 06/05/13	P6-SB-35 3-8 Plant 6 08/19/13	P6-SB-35 3-8 Plant 6 11/12/13	P6-SB-37 5-10 Plant 6 06/11/13	P6-SB-37 5-10 Plant 6 12/19/12	P6-SB-37 5-10 Plant 6 08/16/13	P6-SB-37 5-10 Plant 6 11/11/13	P6-SB-37 5-10 Plant 6 02/20/14			
Semivolatile Organics																											
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
2,4,6-Trichlorophenol	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
2,4-Dichlorophenol	ug/L	<1 J	<2	<1 J	<1	<1	<1	<1	NA	<1 J	<1	<1	<1	<1	NA	<1 J	<1 [<1]	<1	<1	<1	<1 J	<1	<1	<1	<1		
2,4,5-Trichlorophenol	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1 [<1]	<1	<1	<1	<1	3	<1	<1	<1		
2,4-Dimethylphenol	ug/L	<1 J	<4	<1	<1	<1	<1	<1	NA	12	13	24	20	31	NA	<1	<1 [1]	<1	<1	<1	<1	<1	1	<1	<1		
2,4-Dinitrophenol	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
2,4-Dinitrotoluene	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
2,6-Dinitrotoluene	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
2-Chloronaphthalene	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
2-Chlorophenol	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
2-Methylnaphthalene	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	2	<1	1	1	2	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
2-Methylphenol	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	1	<1	2	3	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
2-Nitroaniline	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
2-Nitrophenol	ug/L	<1 J	<2	<1 J	<1	<1	<1	<1	NA	<1 J	<1	<1	<1	<1	NA	<1 J	<1 [<1]	<1	<1	<1	<1 J	<1	<1	<1	<1		
3&4-Methylphenol	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	93	10	25	41	29	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
3,3'-Dichlorobenzidine	ug/L	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Naphthalene	ug/L	<1 J	<4	<1	<1	<1	<1	<1	NA	162 ^b	59 ^b	115 ^b	124 ^b	158 ^b	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
3-Nitroaniline	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
4,6-Dinitro-2-methylphenol	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
4-Bromophenyl phenyl ether	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
4-Chloro-3-methylphenol	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
4-Chloroaniline	ug/L	<1 J	<4 J	<1 J	<1	<1	<1	<1	NA	<1 J	<1	<1	<1	<1	NA	<1 J	<1 [<1]	<1	<1	<1	<1 J	<1	<1	<1	<1		
4-Chlorophenyl phenyl ether	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
4-Nitroaniline	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
4-Nitrophenol	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
Anthracene	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
Acenaphthene	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
Acenaphthylene	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
Acetophenone	ug/L	<1 J	<2	<1 J	<1	<1	<1	<1	NA	<1 J	<1	<1	<1	<1	NA	<1 J	<1 [<1]	<1	<1	<1	<1 J	<1	<1	<1	<1		
Atrazine	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
Benzaldehyde	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1		
Benzo(a)anthracene	ug/L	<1 J	<2	<1	<1	<1	<1	<1	NA	<1	<1	<1	<1	<1	NA	<1	</										

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:		P6-SB-18 3-8 Plant 6 11/11/13	P6-SB-21 3-8 Plant 6 08/04/11	P6-SB-21 3-8 Plant 6 12/19/12	P6-SB-21 3-8 Plant 6 06/06/13	P6-SB-21 3-8 Plant 6 08/16/13	P6-SB-21 3-8 Plant 6 11/14/13	P6-SB-21 3-8 Plant 6 02/20/14	P6-SB-32 7-12 Plant 6 08/11/11	P6-SB-32 7-12 Plant 6 12/19/12	P6-SB-32 7-12 Plant 6 06/11/13	P6-SB-32 7-12 Plant 6 08/26/13	P6-SB-32 7-12 Plant 6 11/15/13	P6-SB-32 7-12 Plant 6 02/20/14	P6-SB-35 3-8 Plant 6 08/05/11	P6-SB-35 3-8 Plant 6 12/19/12	P6-SB-35 3-8 Plant 6 06/05/13	P6-SB-35 3-8 Plant 6 08/19/13	P6-SB-35 3-8 Plant 6 11/12/13	P6-SB-37 5-10 Plant 6 06/11/13	P6-SB-37 5-10 Plant 6 12/19/12	P6-SB-37 5-10 Plant 6 08/16/13	P6-SB-37 5-10 Plant 6 11/11/13	P6-SB-37 5-10 Plant 6 02/20/14
PCBs																								
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	NA	NA	NA
Aroclor-1221 (PCB-1221)	ug/L	NA	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA
Aroclor-1232 (PCB-1232)	ug/L	NA	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA
Aroclor-1242 (PCB-1242)	ug/L	NA	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA
Aroclor-1248 (PCB-1248)	ug/L	NA	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA
Aroclor-1254 (PCB-1254)	ug/L	NA	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	<0.1	NA	NA	NA
Aroclor-1260 (PCB-1260)	ug/L	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	<0.05	NA	NA	NA
Inorganics																								
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	0.006	0.018 ^a	<0.002	<0.002	<0.005	<0.005	<0.005	NA	<0.002	<0.002	<0.005	<0.005	<0.005	NA	<0.002	<0.002 [<0.002]	<0.005	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005
Arsenic	mg/L	0.006	0.0293 ^{ab}	0.003	0.005	0.004	0.003	0.003	NA	0.013 ^{ab}	0.010	0.020 ^{ab}	0.017 ^{ab}	0.010	NA	0.004	0.009 [0.008]	0.015 ^{ab}	0.008	0.002	0.002	0.007	0.005	0.0005
Barium	mg/L	0.023	1.78 ^b	0.028	0.029	0.025	0.025	0.022	NA	0.281	0.144	0.212	0.203	0.174	NA	0.018	0.017 [0.014]	0.016	0.018	0.037	0.060	0.031	0.023	0.046
Beryllium	mg/L	NA	<0.0007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0006
Boron	mg/L	0.12	0.587 ^a	0.22	0.32	0.34	0.28	0.21	NA	0.24	0.24	0.26	0.28	0.23	NA	0.09	0.14 [0.14]	0.19	0.17	0.23	0.19	0.19	0.15	0.250
Cadmium	mg/L	<0.0005	<0.0005	<0.001	<0.0010	<0.005	<0.0005	<0.0005	NA	<0.001	<0.0010	<0.0005	<0.0005	<0.0005	NA	<0.001	<0.0010 [<0.001]	<0.005	<0.0005	<0.0010	<0.001	<0.005	<0.0005	<0.0005
Chromium	mg/L	0.005	<0.005	<0.010	<0.010	<0.005	<0.005	<0.005	NA	<0.010	<0.010	<0.005	0.007	<0.005	<0.005	<0.010	<0.010 [<0.01]	0.010	0.014	<0.010	<0.010	<0.005	<0.005	<0.005
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/L	<0.005	<0.005	<0.010	<0.010	<0.005	<0.005	<0.005	NA	<0.010	<0.010	<0.005	<0.005	<0.005	<0.005	<0.010	<0.010 [<0.01]	<0.005	<0.005	<0.010	<0.010	<0.005	<0.005	<0.005
Copper	mg/L	0.020	<0.025	0.002	0.003	0.016	<0.005	<0.005	NA	<0.002	<0.002	<0.005	0.006	<0.005	NA	0.004	0.006 [0.005]	0.007	0.007	0.002	0.007	0.058 ^b	<0.005	<0.025
Lead	mg/L	0.021 ^a	0.116 ^{ab}	<0.002	<0.002	<0.003	<0.003	<0.003	NA	<0.002	<0.002	<0.003	<0.003	<0.003	NA	<0.002	<0.002 [<0.002]	<0.003	<0.003	0.003	0.018 ^a	<0.003	0.003	0.0027
Manganese	mg/L	0.170 ^a	<0.016	0.265 ^a	0.272 ^a	0.244 ^a	0.231 ^a	0.219 ^a	NA	0.572 ^a	0.227 ^a	0.500 ^a	0.159 ^a	0.315 ^a	0.008	0.010	<0.010 [<0.01]	<0.005	0.007	0.019	0.099 ^a	0.270 ^a	0.043	0.026
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	NA	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	NA	<0.0001	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	mg/L	<0.005	<0.005	<0.010	<0.010	0.005	<0.005	<0.005	NA	<0.010	0.035	0.024	0.020	0.010	NA	<0.010	<0.010 [<0.01]	<0.005	0.006	0.023	<0.010	0.009	0.023	<0.005
Selenium	mg/L	<0.005	<0.005	<0.002	<0.005	<0.005	<0.005	<0.005	NA	<0.002	<0.005	<0.005	<0.005	<0.005	NA	<0.002	0.005 [<0.005]	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.005
Silver	mg/L	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	NA	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	NA	<0.0002	<0.0005 [<0.0005]	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0005
Thallium	mg/L	NA	<0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0007
Vanadium	mg/L	0.021 ^a	<0.0025	<0.002	<0.002	<0.005	<0.004	<0.004	NA	<0.002	<0.002	<0.005	<0.004	<0.004	NA	0.008 ^a	0.020 [0.018] ^a	0.027 ^a	0.021 ^a	<0.002	0.006 ^a	<0.005	<0.004	<0.0025
Zinc	mg/L	<0.005	<0.013	<0.010	<0.010	<0.005	<0.005	<0.005	NA	<0.010	0.012	0.015	0.005	0.005	NA	<0.010	<0.010 [<0.01]	0.010	<0.005	<0.010	0.013	0.009	0.007	<0.005
General Chemistry																								
Alkalinity, total (as CaCO3)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	904	NA	NA	NA	NA	NA	89	NA	NA	NA	NA	NA	NA
Carbon dioxide	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	NA	NA	NA	NA	NA
Nitrate (as N)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	1.6	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5	NA	NA	NA	NA	NA	117	NA	NA	NA	NA	NA	NA
Field**																								
Conductance, specific	mS/cm	0.884	NA	NA	1.116	0.663	0.929	0.771	NA	NA	NA	NA	1.988	2.024	NA	NA	0.472	NA	0.673	1.652	NA	0.824	1.149	1.250
Dissolved oxygen (DO)	mg/L	17.96	NA	NA	0.02	0.16	2.79	3.02	NA	NA	NA	NA	7.43	0.36	NA	NA	0.22	NA	5.87	2.65	NA	0.65	6.98	1.06
Oxidation reduction potential (ORP), field	millivolts	-137.80	NA	NA	58.9	-46.80	-81.10	-41.70	NA	NA	NA	NA	-34.30	-65.40	NA	NA	276.9	NA	-65.20	514.3	NA	-15.80	-32.20	23.7
pH	s.u.	11.52	NA	NA	8.25	7.88	8.15	8.40	NA	NA	NA	NA	6.62	6.90	NA	NA	9.89	NA	9.84	7.41	NA	7.32	7.64	7.29
Temperature, field	Deg C	10.30	NA	NA	14.56	21.02	11.54	5.49	NA	NA	NA	NA	11.74	3.55	NA	NA	17.12	NA	9.07	17.25	NA	17.26	3.61	1.50
Turbidity (field)	NTU	9.75	NA	NA	10	5.91	5.25	4.18	NA	NA	NA	NA	30.3	47.1	NA	NA	5	NA	9.81	6	NA	7.32	20.69	5.73

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	SME-MW-2* 33-38 Plant 6 12/21/12	SME-MW-2 33-38 Plant 6 06/07/13	SME-MW-02 33-38 Plant 6 08/23/13	SME-MW-02 33-38 Plant 6 11/14/13	SME-MW-02 33-38 Plant 6 02/20/14	UNK-03 7-12 Plant 6 10/14/11	UNK-03 7-12 Plant 6 12/20/12	UNK-03 7-12 Plant 6 06/12/13	UNK-03 7-12 Plant 6 08/23/13	UNK-03 7-12 Plant 6 11/12/13	UNK-03 7-12 Plant 6 02/20/14	UNK-09 11-16 Plant 3 10/19/11	UNK-09 11-16 Plant 3 01/03/13	UNK-09 11-16 Plant 3 05/30/13	UNK-09 11-16 Plant 3 08/21/13	UNK-09 11-16 Plant 3 11/14/13	UNK-09 11-16 Plant 3 02/12/14	UNK-10 11-16 Plant 3 10/19/11	UNK-10 11-16 Plant 3 01/03/13	UNK-10 11-16 Plant 3 05/31/13	UNK-10 11-16 Plant 3 08/21/13	UNK-10 11-16 Plant 3 11/15/13
Volatile Organics																							
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<1	<1	<1	<1	<1	<0.05 J	<1	<1	<1	<1	<1	<0.05 [<0.05]	<1	<1	<1	<1	<1	<0.05	<1	<1	<1	<1
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<1	<1	<1	<1	<1	<0.02	<1	<1	<1	<1	<1	<0.02 [<0.02]	<1	<1	<1	<1	<1	<0.02	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dioxane	ug/L	14	<5	14	10	11	<5	<5	<5	<5	<5	<5	<5 [<5]	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 J [<10 J]	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1 [1]	1	<1	1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane (Methyl bromide)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform (Trichloromethane)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane (Methyl chloride)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane (CFC-12)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl acetate	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert butyl ether (MTBE)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane (CFC-11)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trifluorotrichloroethane (Freon 113)	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	<10	<10	<10	<10	<10	<10																

Preliminary Groundwater Geochemical Assessment RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Table 1 - Complete Data Table_final.xlsx

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:		SME-MW-2* 33-38 Plant 6 12/21/12	SME-MW-2 33-38 Plant 6 06/07/13	SME-MW-02 33-38 Plant 6 08/23/13	SME-MW-02 33-38 Plant 6 11/14/13	SME-MW-02 33-38 Plant 6 02/20/14	UNK-03 7-12 Plant 6 10/14/11	UNK-03 7-12 Plant 6 12/20/12	UNK-03 7-12 Plant 6 06/12/13	UNK-03 7-12 Plant 6 08/23/13	UNK-03 7-12 Plant 6 11/12/13	UNK-03 7-12 Plant 6 02/20/14	UNK-09 11-16 Plant 3 10/19/11	UNK-09 11-16 Plant 3 01/03/13	UNK-09 11-16 Plant 3 05/30/13	UNK-09 11-16 Plant 3 08/21/13	UNK-09 11-16 Plant 3 11/14/13	UNK-09 11-16 Plant 3 02/12/14	UNK-10 11-16 Plant 3 10/19/11	UNK-10 11-16 Plant 3 01/03/13	UNK-10 11-16 Plant 3 05/31/13	UNK-10 11-16 Plant 3 08/21/13	UNK-10 11-16 Plant 3 11/15/13
PCBs																							
Total PCBs	ug/L	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	<0.05 [<0.05]	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	<0.05 [<0.05]	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA
Aroclor-1221 (PCB-1221)	ug/L	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05 [<0.05]	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1232 (PCB-1232)	ug/L	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05 [<0.05]	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1242 (PCB-1242)	ug/L	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05 [<0.05]	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1248 (PCB-1248)	ug/L	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05 [<0.05]	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1254 (PCB-1254)	ug/L	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA	NA	<0.05 [<0.05]	<0.1	NA	NA	NA	NA	<0.05	<0.1	NA	NA	NA
Aroclor-1260 (PCB-1260)	ug/L	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	<0.05 [<0.05]	<0.05	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA
Inorganics																							
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002 [<0.002]	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005
Arsenic	mg/L	0.005	<0.002	0.009	0.004	0.004	0.004	<0.002	0.002	0.003	0.003	<0.002	0.015 [0.014] ^{ab}	0.006	0.011 ^{ab}	0.024 ^{ab}	0.020 ^{ab}	0.011 ^{ab}	<0.002	<0.002	0.003	0.005	0.004
Barium	mg/L	0.395	0.273	0.454	0.331	0.451	0.035	0.053	0.052	0.052	0.043	0.033	0.102 [0.103]	0.052	0.038	0.053	0.055	0.033	0.045	0.045	0.042	0.040	0.053
Beryllium	mg/L	NA	NA	NA	NA	NA	<0.001	NA	NA	NA	NA	NA	<0.001 [<0.001]	NA	NA	NA	NA	NA	<0.001	NA	NA	NA	NA
Boron	mg/L	0.06	0.06	0.06	0.05	0.07	0.16	0.08	0.08	0.14	0.11	0.08	0.19 J [0.19 J]	0.13	0.06	0.10	0.09	0.05	0.18 J	0.13	0.09	0.12	0.14
Cadmium	mg/L	0.005 ^b	0.0017	0.0059 ^{ab}	0.0018	0.0012	0.002	0.006 ^{ab}	0.0018	0.0008	0.0017	<0.0005	0.002 [0.002]	<0.001	<0.0010	0.0007	0.0009	0.0009	0.003	<0.001	0.0018	0.0008	0.0015
Chromium	mg/L	0.012	<0.010	0.012	<0.005	<0.005	<0.010	<0.010	<0.010	<0.005	0.006	<0.005	<0.010 [<0.01]	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.005	<0.005
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.01	NA	NA	NA	NA	NA	<0.01	NA	NA	NA
Cobalt	mg/L	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010 [<0.01]	<0.010	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.005	<0.005
Copper	mg/L	0.011	0.003	0.023 ^b	<0.005	<0.005	0.023 ^b	0.010	0.007	0.007	0.005	0.012	0.004 [0.004]	0.004	0.003	<0.005	0.005	0.013	0.005	0.004	0.004	<0.005	0.011
Lead	mg/L	0.008 ^a	<0.002	0.033 ^a	<0.003	<0.003	0.003	0.005 ^a	<0.002	<0.003	<0.003	<0.003	<0.002 [<0.002]	<0.002	0.002	<0.003	<0.003	<0.003	0.002	<0.002	0.002	<0.003	0.005 ^a
Manganese	mg/L	0.166 ^a	0.017	0.359 ^a	0.015	0.100 ^a	0.508 ^a	0.617 ^a	0.124 ^a	0.523 ^a	0.582 ^a	0.119 ^a	0.029 [0.029]	0.016	0.035	0.045	0.052 ^a	0.048	0.098 ^a	0.090 ^a	0.451 ^a	0.285 ^a	0.218 ^a
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	mg/L	0.254 ^{ab}	0.012	0.040	0.015	0.016	0.012	<0.010	<0.010	0.011	0.009	0.005	<0.010 [<0.01]	<0.010	<0.010	0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.005	0.008
Selenium	mg/L	0.003	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.002 [<0.002]	<0.002	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.005	<0.005	<0.005
Silver	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002 J	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002 [<0.0002]	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005
Thallium	mg/L	NA	NA	NA	NA	NA	<0.002	NA	NA	NA	NA	NA	<0.002 [<0.002]	NA	NA	NA	NA	<0.002	NA	NA	NA	NA	NA
Vanadium	mg/L	0.008 ^a	<0.002	0.008 ^a	<0.004	<0.004	0.012 ^a	0.003	0.006 ^a	0.007 ^a	0.005 ^a	<0.004	<0.002 [<0.002]	0.002	<0.002	<0.005	<0.004	<0.004	<0.002	<0.002	<0.002	<0.005	<0.004
Zinc	mg/L	0.046	0.014	0.130	0.018	0.018	0.01	0.056	<0.010	0.009	0.006	0.011	0.081 J [0.08 J]	0.026	0.023	0.026	0.028	0.040	0.166 J	0.076	0.114	0.057	0.113
General Chemistry																							
Alkalinity, total (as CaCO3)	mg/L	NA	NA	305	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon dioxide	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	mg/L	NA	NA	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	NA	NA	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field**																							
Conductance, specific	mS/cm	NA	NA	NA	2.238	2.574	NA	NA	NA	2.120	2.515	1.606	NA	NA	0.445	0.713	0.680	0.400	NA	NA	0.668	0.636	0.657
Dissolved oxygen (DO)	mg/L	NA	NA	NA	25.68	0.46	NA	NA	NA	0.18	5.35	3.11	NA	NA	0.58	0.06	1.22	1.94	NA	NA	1.41	0.21	0.68
Oxidation reduction potential (ORP), field	millivolts	NA	NA	NA	-8.40	-16.10	NA	NA	NA	-64.90	-22.30	60.9	NA	NA	-118.50	-202.60	-23.70	-45.30	NA	NA	-26.10	-128.70	-9.70
pH	s.u.	NA	NA	NA	7.04	7.23	NA	NA	NA	7.75	6.76	7.59	NA	NA	8.22	7.73	8.84	7.83	NA	NA	7.51	7.50	8.25
Temperature, field	Deg C	NA	NA	NA	12.97	13.78	NA	NA	NA	20.06	9.21	1.75	NA	NA	20.80	23.42	10.57	5.46	NA	NA	19.89	23.70	12.16
Turbidity (field)	NTU	NA	NA	NA	1.89	361.0	NA	NA	NA	7.52	9.89	6.91	NA	NA	9.96	9.98	8.81	11.2	NA	NA	9.36	7.49	9.91

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	UNK-10 11-16 Plant 3 02/12/14	UNK-11 6.5-11.5 Plant 3 11/29/11	UNK-11 6.5-11.5 Plant 3 01/02/13	UNK-11 6.5-11.5 Plant 3 06/04/13	UNK-11 6.5-11.5 Plant 3 08/21/13	UNK-11 6.5-11.5 Plant 3 11/14/13	UNK-11 6.5-11.5 Plant 3 02/11/14	UNK-13 11-16 Plant 3 01/03/13	UNK-15 69-79 Plant 3 11/29/11	UNK-15 69-79 Plant 3 01/03/13	UNK-15 69-79 Plant 3 06/04/13	UNK-15 69-79 Plant 3 11/14/13	UNK-15 69-79 Plant 3 02/11/14
Volatile Organics														
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	<1	<0.05	<1 [<1]	<1	<1	<1	<1	<1	<0.05	<1	<1	<1	<1 [<1]
1,2-Dibromoethane (Ethylene dibromide)	ug/L	<1	<0.02	<1 [<1]	<1	<1	<1	<1	<1	<0.02	<1	<1	<1	<1 [<1]
1,2-Dichlorobenzene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
1,4-Dichlorobenzene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
1,4-Dioxane	ug/L	<5	<5	<5 [<5]	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5 [<5]
1,1,1-Trichloroethane	ug/L	<1	<1	29 [30]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
2-Hexanone	ug/L	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Acetone	ug/L	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]
1,1,2-Trichloroethane	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Bromodichloromethane	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
1,1-Dichloroethane	ug/L	<1	1	3 [4]	1	1	2	1	1	<1	<1	<1	<1	<1 [<1]
Bromoform	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
1,1-Dichloroethene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Bromomethane (Methyl bromide)	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
1,2-Dichloroethane	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Carbon disulfide	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Carbon tetrachloride	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
cis-1,2-Dichloroethene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Chlorobenzene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
trans-1,2-Dichloroethene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Chloroform (Trichloromethane)	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Trichloroethene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Chloromethane (Methyl chloride)	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Tetrachloroethene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
cis-1,3-Dichloropropene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Vinyl chloride	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Chloroethane	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Dichlorodifluoromethane (CFC-12)	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Benzene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Methyl acetate	ug/L	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]
Ethylbenzene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Methylene chloride	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Styrene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Toluene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
trans-1,3-Dichloropropene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Methyl tert butyl ether (MTBE)	ug/L	<1	<2 J	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Trichlorofluoromethane (CFC-11)	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trifluorotrichloroethane (Freon 113)	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	<10	<10	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 [<10]
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
1,3-Dichlorobenzene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Cyclohexane	ug/L	<1	<3 J	<1 [<1]	1	<1	<1	4	<1	<1	<1	<1	<1	<1 [<1]
Methyl cyclohexane	ug/L	<1	<1	<1 [<1]	<1	<1	<1	4	<1	<1	<1	<1	<1	<1 [<1]
Dibromochloromethane	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Isopropyl benzene	ug/L	<1	<1	<1 [<1]	1	<1	<1	1	<1	<1	<1	<1	<1	<1 [<1]
o-Xylene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
m&p-Xylene	ug/L	<2	<2	<2 [<2]	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2 [<2]

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:		UNK-10 11-16 Plant 3 02/12/14	UNK-11 6.5-11.5 Plant 3 11/29/11	UNK-11 6.5-11.5 Plant 3 01/02/13	UNK-11 6.5-11.5 Plant 3 06/04/13	UNK-11 6.5-11.5 Plant 3 08/21/13	UNK-11 6.5-11.5 Plant 3 11/14/13	UNK-11 6.5-11.5 Plant 3 02/11/14	UNK-13 11-16 Plant 3 01/03/13	UNK-15 69-79 Plant 3 11/29/11	UNK-15 69-79 Plant 3 01/03/13	UNK-15 69-79 Plant 3 06/04/13	UNK-15 69-79 Plant 3 11/14/13	UNK-15 69-79 Plant 3 02/11/14
Semivolatile Organics														
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisop	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
2,4,6-Trichlorophenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
2,4-Dichlorophenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
2,4,5-Trichlorophenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
2,4-Dimethylphenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
2,4-Dinitrophenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
2,4-Dinitrotoluene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
2,6-Dinitrotoluene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
2-Chloronaphthalene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
2-Chlorophenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
2-Methylnaphthalene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
2-Methylphenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
2-Nitroaniline	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
2-Nitrophenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
3&4-Methylphenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
3,3'-Dichlorobenzidine	ug/L	NA	<0.05	NA	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA
Naphthalene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
3-Nitroaniline	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
4,6-Dinitro-2-methylphenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
4-Bromophenyl phenyl ether	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
4-Chloro-3-methylphenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
4-Chloroaniline	ug/L	<1	<2	<1 J [<1 J]	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1 [<1]
4-Chlorophenyl phenyl ether	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
4-Nitroaniline	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
4-Nitrophenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Anthracene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Acenaphthene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Acenaphthylene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Acetophenone	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Atrazine	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Benzaldehyde	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Benzo(a)anthracene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Benzo(a)pyrene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Benzo(b)fluoranthene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Benzo(g,h,i)perylene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Benzo(k)fluoranthene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Biphenyl (1,1-Biphenyl)	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
bis(2-Chloroethoxy)methane	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
bis(2-Chloroethyl)ether	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	3 B	<2	<1 [<1]	<1	<1	<1	4 B	8 ^a	<2	<1	<1	<1	3 B [6 B]
Butyl benzylphthalate (BBP)	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Caprolactam	ug/L	<1	2	<1 [<1]	<1	<1	<1	<1	4	<1	<1	<1	<1	<1 [<1]
Carbazole	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Chrysene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Dibenz(a,h)anthracene	ug/L	<2	<1	<2 [<2]	<2	<2	<2	<2	<2	<1	<2	<2	<2	<2 [<2]
Dibenzofuran	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Diethyl phthalate	ug/L	<2	<2	<1 [<1]	<1	<1	<2	<1	<1	<2	<1	<1	<1	<1 [<2]
Dimethyl phthalate	ug/L	<1	<2	<1 [<1]	<1	2	<1	<1	<1	<2	<1	<1	<1	<1 [<1]
Di-n-butylphthalate (DBP)	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1 B	<1	<1	<1	<1	<1 [<1]
Di-n-octyl phthalate (DnOP)	ug/L	<1	1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Fluoranthene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	1	<1	<1	<1	<1	<1 [<1]
Fluorene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Hexachlorobenzene	ug/L	<1	<0.05	NA	<1	<1	<1	<1	NA	<0.05	NA	<1	<1	<1 [<1]
Hexachlorobutadiene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Hexachlorocyclopentadiene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Hexachloroethane	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Indeno(1,2,3-cd)pyrene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Isophorone	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Nitrobenzene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
N-Nitrosodi-n-propylamine	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
N-Nitrosodiphenylamine	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Pentachlorophenol	ug/L	<1	<1	<1 [<1]	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Phenanthrene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Phenol	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 [<1]
Pyrene	ug/L	<1	<1	<1 [<1]	<1	<1	<1	<1	1	<1	<1	<1	<1	<1 [<1]

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Sample Depth(): Plant: Date Collected:	Units	UNK-10 11-16 Plant 3 02/12/14	UNK-11 6.5-11.5 Plant 3 11/29/11	UNK-11 6.5-11.5 Plant 3 01/02/13	UNK-11 6.5-11.5 Plant 3 06/04/13	UNK-11 6.5-11.5 Plant 3 08/21/13	UNK-11 6.5-11.5 Plant 3 11/14/13	UNK-11 6.5-11.5 Plant 3 02/11/14	UNK-13 11-16 Plant 3 01/03/13	UNK-15 69-79 Plant 3 11/29/11	UNK-15 69-79 Plant 3 01/03/13	UNK-15 69-79 Plant 3 06/04/13	UNK-15 69-79 Plant 3 11/14/13	UNK-15 69-79 Plant 3 02/11/14
PCBs														
Total PCBs	ug/L	NA	<0.05	NA	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA
Aroclor-1016 (PCB-1016)	ug/L	NA	<0.05	<0.05 [<0.05]	NA	NA	NA	NA	<0.05	<0.05	<0.05	NA	NA	NA
Aroclor-1221 (PCB-1221)	ug/L	NA	<0.05	<0.1 [<0.1]	NA	NA	NA	NA	<0.1	<0.05	<0.1	NA	NA	NA
Aroclor-1232 (PCB-1232)	ug/L	NA	<0.05	<0.1 [<0.1]	NA	NA	NA	NA	<0.1	<0.05	<0.1	NA	NA	NA
Aroclor-1242 (PCB-1242)	ug/L	NA	<0.05	<0.1 [<0.1]	NA	NA	NA	NA	<0.1	<0.05	<0.1	NA	NA	NA
Aroclor-1248 (PCB-1248)	ug/L	NA	<0.05	<0.1 [<0.1]	NA	NA	NA	NA	<0.1	<0.05	<0.1	NA	NA	NA
Aroclor-1254 (PCB-1254)	ug/L	NA	<0.05	<0.1 [<0.1]	NA	NA	NA	NA	<0.1	<0.05	<0.1	NA	NA	NA
Aroclor-1260 (PCB-1260)	ug/L	NA	<0.05	<0.05 [<0.05]	NA	NA	NA	NA	<0.05	<0.05	<0.05	NA	NA	NA
Inorganics														
Calcium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	<0.005	<0.002	<0.002 [<0.002]	<0.002	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005 [<0.005]
Arsenic	mg/L	0.004	0.007	<0.002 [<0.002]	0.015 ^{ab}	0.013 ^{ab}	0.012 ^{ab}	0.013 ^{ab}	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002 [<0.002]
Barium	mg/L	0.038	0.146	0.040 [0.04]	0.080	0.069	0.102	0.094	0.059	0.053	0.037	0.027	0.043	0.036 [0.034]
Beryllium	mg/L	NA	<0.001	NA	NA	NA	NA	NA	NA	<0.001	NA	NA	NA	NA
Boron	mg/L	0.10	0.10	0.05 [0.05]	0.06	0.08	0.12	0.09	0.12	0.15	0.16	0.11	0.15	0.16 [0.17]
Cadmium	mg/L	0.0007	0.001	<0.001 [<0.001]	<0.0010	0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.0010	0.0007	<0.0005 [<0.0005]
Chromium	mg/L	<0.005	<0.010	<0.010 [<0.01]	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.010	<0.005	<0.005 [<0.005]
Chromium VI (hexavalent)	mg/L	NA	NA	NA	NA	NA	NA	NA	<0.01	NA	<0.01	NA	NA	NA
Cobalt	mg/L	<0.005	<0.010	<0.010 [<0.01]	<0.010	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.010	<0.005	<0.005 [<0.005]
Copper	mg/L	0.007	0.002	<0.002 [<0.002]	<0.002	0.019	<0.005	<0.005	0.008	0.003	<0.002	<0.002	<0.005	<0.005 [<0.005]
Lead	mg/L	<0.003	0.003	<0.002 [<0.002]	<0.002	<0.003	<0.003	<0.003	0.004	<0.002	<0.002	<0.002	<0.003	<0.003 [<0.003]
Manganese	mg/L	0.145 ^a	0.094 ^a	0.263 [0.248] ^a	0.224 ^a	0.162 ^a	0.208 ^a	0.261 ^a	0.100 ^a	0.052 ^a	0.013	0.057 ^a	0.075 ^a	0.048 [0.049]
Mercury	mg/L	<0.0001	<0.0001	<0.0001 [<0.0001]	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 [<0.0001]
Nickel	mg/L	<0.005	<0.010	<0.010 [<0.01]	<0.010	0.009	0.010	0.006	0.015	0.012	<0.010	0.012	0.012	0.008 [0.008]
Selenium	mg/L	<0.005	<0.002	<0.002 [<0.002]	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005 [<0.005]
Silver	mg/L	<0.0005	<0.0002	<0.0002 [<0.0002]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005 [<0.0005]
Thallium	mg/L	NA	<0.002	NA	NA	NA	NA	NA	NA	<0.002	NA	NA	NA	NA
Vanadium	mg/L	<0.004	<0.002	<0.002 [<0.002]	<0.002	<0.005	<0.004	<0.004	0.009 ^a	<0.002	<0.002	<0.002	<0.004	<0.004 [<0.004]
Zinc	mg/L	0.062	0.032	<0.010 [<0.01]	<0.010	0.025	<0.005	0.006	0.132	0.015	0.011	<0.010	0.007	0.010 [0.01]
General Chemistry														
Alkalinity, total (as CaCO3)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon dioxide	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field**														
Conductance, specific	mS/cm	0.647	NA	NA	0.531	0.679	0.523	0.836	NA	NA	NA	1.432	1.393	1.397
Dissolved oxygen (DO)	mg/L	2.11	NA	NA	2.06	0.82	0.70	0.60	NA	NA	NA	0.28	10.72	2.97
Oxidation reduction potential (ORP), field	millivolts	-3.00	NA	NA	-99.90	-91.40	-72.60	-61.30	NA	NA	NA	162.5	151.0	55.8
pH	s.u.	7.72	NA	NA	7.23	7.14	7.22	7.17	NA	NA	NA	7.35	7.87	7.79
Temperature, field	Deg C	5.10	NA	NA	17.70	26.01	8.95	8.22	NA	NA	NA	17.11	9.19	7.04
Turbidity (field)	NTU	7.25	NA	NA	8.59	8.76	1.86	9.23	NA	NA	NA	0.85	5.21	5.03

Table 1
Interim Groundwater Sampling Results 2011-2014

Preliminary Groundwater Geochemical And Plume Stability Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Table Notes:

- Shading indicates result exceeding one or more MDEQ Part 201 Generic Cleanup Criteria and Screening Levels, Dated December 30, 2013.
- Bold fonts represent data where detections were noted above the MDL but below MDEQ Part 201 Generic Cleanup Criteria.
- Data shown in [] represent duplicate sample analytical results.
- mg/L - milligrams per liter
- µg/L - micrograms per liter
- * - SVOC and/or PCB analyses conducted on filtered samples
- ** - Field parameters for 2011 and 2012 sampling events available in Appendix F
- ^a - Sample exceeds Residential Drinking Water Criteria
- ^b - Sample exceeds Groundwater Surface Water Interface Criteria
- ^c - Sample exceeds Non-Residential Groundwater Volatilization to Indoor Air Inhalation Criteria
- ^d - Sample exceeds Water Solubility Criteria
- ^e - Sample exceeds Flammability and Explosivity Screening Levels
- ^f - Sample exceeds Non-Residential Groundwater Concentrations for Vapor Intrusion

MDEQ Criteria Footnotes: (as revised December 30, 2013)

- = Not listed in the MDEQ Criteria Tables.
- ID = Insufficient data to develop a criterion.
- Na = Not available.
- NLV = Not likely to volatilize.
- d = If the calculated criterion is below State of Michigan Safe Drinking Water Standard established pursuant to Section 5 of 1976 PA 399, MCL 325.1005, the criterion defaults to the Safe Drinking Water Standard.
- A = Criterion is the state of Michigan drinking water standard established pursuant to Section 5 of 1976 PA 399, MCL 325.1005.
- D = Calculated criterion exceeds 100 percent, hence it is reduced to 100 percent or 1.0E+9 parts per billion (ppb).
- E = Criterion is the aesthetic drinking water value, as required by Section 20120a(5) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA).
- F = Criterion is based on adverse impacts to plant life and phytotoxicity.
- G = Groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water. The final chronic value (FCV) for the protection of aquatic life shall be calculated based on the pH or hardness of the receiving surface water. A hardness value of 257 mg/L was used.
- L = Criteria for lead are derived using a biologically based model, as allowed for under Section 20120a(10) of the NREPA, and are not calculated using the algorithms and assumptions specified in pathway-specific rules.
- M = Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.
- S = Criterion defaults to the hazardous substance-specific water solubility limit.
- W = Concentrations of trihalomethanes in groundwater shall be added together to determine compliance with the Michigan drinking water standard of 80 µg/L.
- X = The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source.
- AA = Comparison to these criteria may take into account an evaluation of whether the hazardous substances are adsorbed to particulates rather than dissolved in water and whether filtered groundwater samples were used to evaluate groundwater.
- HH = The residential criterion for sodium is 230,000 µg/L in accordance with the Sodium Advisory Council recommendation and revised Groundwater Discharge Standards.

Lab and Validation Data Qualifiers:

- B = Compounds also found in associated method blank.
- D = Compound quantified using a secondary dilution.
- E = Analyte exceeds calibration range.
- I = Matrix interference with internal standard.
- J = The compound/constituent was positively identified; however, the associated numerical value is an estimated concentration only.
- R = Rejected
- S = Surrogate recovery outside of control limits.
- UB = Compound considered non-detect at the listed value due to associated blank contamination.
- UJ = The analyte was not detected above the quantitation limits, however the quantitation limits is estimated.
- U = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- X = Elevated reporting limit due to matrix interference.
- Y = Elevated reporting limit due to high target concentration.
- Z = Sample preserved in the lab.

Table 2
Complete Mann-Kendall Trend Test Results

Preliminary Groundwater Geochemical and Plume Stability Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Analyte	Well ID	Start Date	End Date	Most Recent Result	Sample Size	Minimum Result	Maximum Result	Arithmetic Mean	Geometric mean	Standard Deviation	Sum of Trend (S)	p-Value	Trend*	Frequency of Detections
Bedrock														
<i>Metals</i>														
Arsenic	MW-91-6	04/04/2013	02/07/2014	0.009	4	0.008	0.011	0.010	0.009	0.001	-2	0.3750	No Trend	100%
Arsenic	MW-12-01	04/18/2012	02/17/2014	0.022	6	<0.002	0.022	0.012	0.011	0.005	8	0.1020	No Trend	83%
Arsenic	MW-12-02	04/17/2012	02/13/2014	0.012	6	0.007	0.023	0.012	0.011	0.006	-5	0.2350	No Trend	100%
Arsenic	MW-12-04	04/17/2012	11/05/2013	0.01	5	<0.002	0.011	0.011	0.010	0.001	-3	0.3250	No Trend	80%
Arsenic	MW-91-4	04/17/2012	02/10/2014	0.005	5	0.005	0.014	0.011	0.010	0.003	-5	0.1800	No Trend	100%
Arsenic	MW-13-28	04/23/2013	02/10/2014	0.002	5	0.002	0.021	0.009	0.007	0.007	-10	0.0083	Decreasing	100%
Arsenic	MW-91-5	10/12/2011	02/07/2014	0.011	6	<0.002	0.011	0.010	0.010	0.001	9	0.0680	Increasing	83%
Arsenic	MW-04-02(3)	10/11/2011	02/11/2014	0.014	6	<0.002	0.014	0.008	0.007	0.004	11	0.0280	Increasing	83%
Copper	MW-12-01	04/18/2012	02/17/2014	0.064	6	<0.005	0.064	0.015	0.007	0.024	4	0.2980	No Trend	67%
Copper	MW-12-05	10/04/2012	02/18/2014	0.008	7	<0.002	0.045	0.013	0.009	0.014	-1	0.5000	No Trend	86%
Copper	MW-88-1	03/27/2012	02/06/2014	0.018	6	<0.005	0.041	0.017	0.015	0.012	-4	0.2980	No Trend	67%
Manganese	MW-91-6	04/04/2013	02/07/2014	0.177	4	0.145	0.177	0.155	0.154	0.015	4	0.1670	No Trend	100%
Manganese	MW-04-01(3)	10/12/2011	02/07/2014	0.029	6	0.021	0.35	0.083	0.044	0.131	-1	0.5000	No Trend	100%
Manganese	MW-04-01(6)	10/18/2011	11/14/2013	0.453	5	0.211	0.624	0.447	0.422	0.151	4	0.2420	No Trend	100%
Manganese	MW-04-02(3)	10/11/2011	02/11/2014	0.456	6	<0.010	0.456	0.317	0.311	0.074	5	0.2350	No Trend	83%
Manganese	MW-12-01	04/18/2012	02/17/2014	0.244	6	0.058	0.427	0.197	0.153	0.143	5	0.2350	No Trend	100%
Manganese	MW-12-02	04/17/2012	02/13/2014	0.126	6	0.126	0.304	0.188	0.178	0.073	-3	0.3600	No Trend	100%
Manganese	MW-12-04	04/17/2012	11/05/2013	0.111	5	0.111	0.431	0.182	0.154	0.139	-2	0.4080	No Trend	100%
Manganese	MW-12-06	10/03/2012	02/17/2014	0.059	7	0.04	0.337	0.103	0.079	0.105	-3	0.3860	No Trend	100%
Manganese	MW-88-1	03/27/2012	02/06/2014	0.031	6	0.026	0.062	0.034	0.032	0.014	-7	0.1360	No Trend	100%
Manganese	MW-91-4	04/17/2012	02/10/2014	0.313	5	0.309	0.36	0.332	0.332	0.024	-2	0.4080	No Trend	100%
Manganese	MW-91-5	10/12/2011	02/07/2014	0.078	6	0.078	0.234	0.108	0.098	0.062	-3	0.3600	No Trend	100%
Manganese	MW-12-05	10/04/2012	02/18/2014	0.097	7	0.076	0.904	0.222	0.142	0.303	-13	0.0350	Decreasing	100%
Manganese	MW-13-28	04/23/2013	02/10/2014	<0.005	5	<0.005	0.118	0.039	0.022	0.047	-8	0.0420	Decreasing	80%
Manganese	MW-12-03	04/18/2012	02/17/2014	1.23	6	0.072	1.23	0.729	0.490	0.506	12	0.0182	Increasing	100%
Nickel	MW-12-01	04/18/2012	02/17/2014	0.114	6	<0.010	0.114	0.033	0.023	0.040	8	0.1020	No Trend	67%
Zinc	MW-04-02(3)	10/11/2011	02/11/2014	0.177	6	0.006	0.471	0.137	0.059	0.176	1	0.5000	No Trend	100%
<i>Volatile Organic Compounds</i>														
Vinyl chloride	MW-04-02(3)	12/18/2012	02/11/2014	12	5	<1	15	10.1	9.4	4.1	1	0.5000	No Trend	80%
Vinyl chloride	MW-91-4	12/18/2012	02/10/2014	8	5	8	17	11.8	11.4	3.4	-6	0.1170	No Trend	100%
Perched														
<i>Metals</i>														
Antimony	P6-SB-18	08/08/2011	11/11/2013	0.006	5	0.005	0.008	0.006	0.006	0.001	-1	0.5000	No Trend	100%
Arsenic	MW-02-02(6)	10/18/2011	02/19/2014	0.041	6	0.025	0.051	0.037	0.036	0.011	3	0.3600	No Trend	100%
Arsenic	MW-02-03(6)	10/18/2011	02/19/2014	0.089	6	0.007	0.109	0.050	0.034	0.041	5	0.2350	No Trend	100%
Arsenic	MW-03-04	10/17/2011	02/18/2014	0.022	6	0.017	0.024	0.021	0.021	0.002	-2	0.4300	No Trend	100%
Arsenic	MW-03-07	10/18/2011	02/19/2014	0.02	6	0.013	0.049	0.023	0.020	0.013	-2	0.4300	No Trend	100%
Arsenic	MW-03-08	12/02/2011	11/15/2013	0.009	4	<0.002	0.034	0.015	0.012	0.013	-2	0.3750	No Trend	75%
Arsenic	MW-12-11	12/18/2012	02/18/2014	0.013	5	0.004	0.013	0.009	0.008	0.004	3	0.3250	No Trend	100%
Arsenic	MW-12-16	12/18/2012	11/05/2013	0.015	4	0.011	0.022	0.016	0.015	0.005	-1	0.5000	No Trend	100%
Arsenic	MWBP-10A-UST1-4	12/02/2011	02/19/2014	0.018	6	0.018	0.038	0.028	0.027	0.008	-7	0.1360	No Trend	100%
Arsenic	MWBP-10-UST1-4	12/02/2011	02/20/2014	0.054	6	0.037	0.062	0.052	0.052	0.009	1	0.5000	No Trend	100%
Arsenic	MWBP-11-UST1-4	11/29/2011	02/19/2014	0.021	6	0.019	0.032	0.025	0.024	0.006	-6	0.1860	No Trend	100%
Arsenic	MWBP-12A-UST1-4	12/02/2011	11/13/2013	0.011	5	0.003	0.021	0.012	0.010	0.006	-4	0.2420	No Trend	100%
Arsenic	MWBP-12-UST1-4	10/18/2011	02/19/2014	0.01	6	0.006	0.016	0.013	0.012	0.004	0	0.5770	No Trend	100%
Arsenic	MWBP-13A-UST1-4	10/18/2011	02/19/2014	0.006	6	<0.002	0.014	0.005	0.004	0.005	8	0.1020	No Trend	67%

Table 2
Complete Mann-Kendall Trend Test Results

Preliminary Groundwater Geochemical and Plume Stability Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Analyte	Well ID	Start Date	End Date	Most Recent Result	Sample Size	Minimum Result	Maximum Result	Arithmetic Mean	Geometric mean	Standard Deviation	Sum of Trend (S)	p-Value	Trend*	Frequency of Detections
Arsenic	P2-MW-01	08/29/2011	02/13/2014	0.018	7	<0.002	0.018	0.010	0.009	0.005	8	0.1550	No Trend	71%
Arsenic	P2-MW-03	08/31/2011	02/14/2014	0.006	7	0.005	0.01	0.007	0.007	0.002	-3	0.3860	No Trend	100%
Arsenic	P2-SB-03	12/20/2012	02/14/2014	0.024	5	0.02	0.028	0.024	0.024	0.003	-3	0.3250	No Trend	100%
Arsenic	P2-SB-20	08/31/2011	02/13/2014	0.022	6	0.001	0.035	0.019	0.012	0.013	7	0.1360	No Trend	100%
Arsenic	P6-MW-01	08/10/2011	02/20/2014	0.009	7	0.0062	0.017	0.011	0.010	0.004	3	0.3860	No Trend	100%
Arsenic	P6-SB-32	12/19/2012	02/20/2014	0.010	5	0.010	0.020	0.014	0.013	0.004	-1	0.5000	No Trend	100%
Arsenic	B-BP-16	10/13/2011	02/19/2014	0.007	6	<0.002	0.037	0.010	0.007	0.013	-1	0.5000	No Trend	83%
Arsenic	MW-02 (UNK-12)	10/19/2011	02/13/2014	0.005	5	<0.002	0.011	0.005	0.005	0.003	-2	0.4080	No Trend	80%
Arsenic	UNK-09	10/19/2011	02/12/2014	0.011	6	0.006	0.024	0.015	0.013	0.007	2	0.4300	No Trend	100%
Arsenic	UNK-11	11/29/2011	02/11/2014	0.013	6	<0.002	0.015	0.011	0.011	0.003	4	0.2980	No Trend	83%
Arsenic	P6-SB-18	08/08/2011	11/11/2013	0.006	5	0.003	0.0145	0.008	0.007	0.004	-4	0.2420	No Trend	100%
Arsenic	P6-SB-35	12/19/2012	11/12/2013	0.008	4	0.004	0.015	0.009	0.008	0.005	2	0.3750	No Trend	100%
Arsenic	MW-02-01(6)	10/17/2011	11/14/2013	0.037	5	0.014	0.037	0.026	0.024	0.012	3	0.3250	No Trend	100%
Arsenic	P6-SB-21	08/04/2011	02/20/2014	0.003	6	0.003	0.0293	0.008	0.005	0.011	-8	0.1020	No Trend	100%
Arsenic	P2-MW-02	09/07/2011	02/17/2014	0.003	7	<0.002	0.0327	0.008	0.004	0.011	-10	0.0935	Decreasing	86%
Arsenic	MW-03-01	10/17/2011	02/18/2014	0.040	6	0.005	0.047	0.024	0.019	0.016	11	0.0280	Increasing	100%
Arsenic	MW-03-02	10/17/2011	02/18/2014	0.023	6	0.005	0.025	0.017	0.015	0.008	10	0.0480	Increasing	100%
Arsenic	MW-03-06	10/07/2011	02/20/2014	0.023	6	0.005	0.033	0.016	0.013	0.010	11	0.0280	Increasing	100%
Arsenic	MW-03(2)	10/18/2011	02/17/2014	0.012	6	<0.002	0.012	0.006	0.005	0.004	12	0.0182	Increasing	83%
Barium	P6-SB-21	08/04/2011	02/20/2014	0.022	6	0.022	1.78	0.318	0.052	0.716	-12	0.0182	Decreasing	100%
Barium	MW-02-01(6)	10/17/2011	11/14/2013	1.69	5	0.941	1.74	1.360	1.325	0.344	8	0.0420	Increasing	100%
Barium	MW-02-03(6)	10/18/2011	02/19/2014	1.31	6	0.935	1.31	1.133	1.124	0.159	9	0.0680	Increasing	100%
Boron	P3-SB-07	08/18/2011	02/12/2014	0.98	6	0.91	1.22	1.027	1.022	0.109	-6	0.1860	No Trend	100%
Boron	CH-14-RO	08/22/2011	02/12/2014	0.11	6	0.08	1.29	0.303	0.159	0.484	-4	0.2980	No Trend	100%
Boron	P6-SB-21	08/04/2011	02/20/2014	0.21	6	0.21	0.587	0.326	0.306	0.138	-7	0.1360	No Trend	100%
Boron	P2-MW-04	08/25/2011	02/17/2014	0.57	6	0.1	0.57	0.312	0.248	0.211	11	0.0280	Increasing	100%
Cadmium	UNK-03	10/14/2011	02/20/2014	<0.0005	6	<0.0005	0.006	0.002	0.002	0.002	-11	0.0280	Decreasing	83%
Chromium	CH-14-RO	08/22/2011	02/12/2014	17	6	17	27.1	22.117	21.902	3.332	-8	0.1020	No Trend	100%
Chromium (VI)	CH-14-RO	08/22/2011	02/12/2014	17.9	6	17.9	28.4	23.417	23.100	4.218	-9	0.0680	Decreasing	100%
Copper	MW-02-01(6)	10/17/2011	11/14/2013	0.040	5	<0.005	0.065	0.026	0.016	0.026	-4	0.2420	No Trend	80%
Copper	MW-02-03(6)	10/18/2011	02/19/2014	0.015	6	<0.002	0.082	0.025	0.015	0.029	7	0.1360	No Trend	83%
Copper	MW-03-08	12/02/2011	11/15/2013	0.021	4	0.018	0.025	0.022	0.022	0.003	-2	0.3750	No Trend	100%
Copper	MW-01(2)	10/18/2011	02/13/2014	0.015	6	0.006	0.032	0.015	0.013	0.009	-4	0.2980	No Trend	100%
Copper	MWBP-10A-UST1-4	12/02/2011	02/19/2014	0.015	6	<0.005	0.061	0.019	0.010	0.022	1	0.5000	No Trend	83%
Copper	MWBP-11-UST1-4	11/29/2011	02/19/2014	0.014	6	0.011	0.032	0.018	0.016	0.008	-5	0.2350	No Trend	100%
Copper	P2-SB-20	08/31/2011	02/13/2014	0.009	6	0.004	0.029	0.012	0.010	0.009	2	0.4300	No Trend	100%
Copper	P6-SB-18	08/08/2011	11/11/2013	0.02	5	0.02	0.079	0.047	0.042	0.023	-4	0.2420	No Trend	100%
Copper	UNK-03	10/14/2011	02/20/2014	0.012	6	0.005	0.023	0.011	0.009	0.007	-6	0.1860	No Trend	100%
Lead	MW-02-01(6)	10/17/2011	11/14/2013	0.012	5	<0.003	0.016	0.007	0.005	0.007	-4	0.2420	No Trend	80%
Lead	MW-02-03(6)	10/18/2011	02/19/2014	0.006	6	<0.002	0.026	0.008	0.005	0.009	7	0.1360	No Trend	83%
Lead	MW-03-08	12/02/2011	11/15/2013	0.012	4	0.004	0.012	0.009	0.009	0.004	2	0.3750	No Trend	100%
Lead	MWBP-10A-UST1-4	12/02/2011	02/19/2014	0.007	6	0.004	0.032	0.012	0.010	0.010	0	0.5770	No Trend	100%
Lead	MWBP-11-UST1-4	11/29/2011	02/19/2014	0.009	6	0.003	0.018	0.007	0.006	0.006	-2	0.4300	No Trend	100%
Lead	P6-SB-37	12/19/2012	02/20/2014	0.0027	6	<0.003	0.018	0.005	0.004	0.006	-8	0.1020	No Trend	67%
Lead	P2-SB-20	08/31/2011	02/13/2014	<0.003	6	<0.003	0.018	0.007	0.005	0.006	-10	0.0480	Decreasing	67%
Lead	P6-SB-18	08/08/2011	11/11/2013	0.021	5	0.021	1.49	0.343	0.098	0.642	-8	0.0420	Decreasing	100%
Manganese	MW-02-02(6)	10/18/2011	02/19/2014	0.124	6	0.116	0.478	0.180	0.152	0.146	0	0.5770	No Trend	100%
Manganese	MW-03-01	10/17/2011	02/18/2014	0.278	6	0.207	0.294	0.258	0.257	0.033	5	0.2350	No Trend	100%

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Analyte	Well ID	Start Date	End Date	Most Recent Result	Sample Size	Minimum Result	Maximum Result	Arithmetic Mean	Geometric mean	Standard Deviation	Sum of Trend (S)	p-Value	Trend*	Frequency of Detections
Manganese	MW-03-02	10/17/2011	02/18/2014	0.149	6	0.116	0.192	0.150	0.149	0.024	-3	0.3600	No Trend	100%
Manganese	MW-03-04	10/17/2011	02/18/2014	0.131	6	0.128	0.14	0.131	0.131	0.004	5	0.2350	No Trend	100%
Manganese	MW-03-06	10/07/2011	02/20/2014	0.276	6	0.276	0.446	0.347	0.343	0.058	-7	0.1360	No Trend	100%
Manganese	MW-03-07	10/18/2011	02/19/2014	0.08	6	0.05	0.08	0.070	0.069	0.011	7	0.1360	No Trend	100%
Manganese	MW-03-08	12/02/2011	11/15/2013	0.078	4	0.018	0.078	0.046	0.040	0.027	4	0.1670	No Trend	100%
Manganese	MW-01(2)	10/18/2011	02/13/2014	0.114	6	0.02	0.169	0.097	0.080	0.052	-3	0.3600	No Trend	100%
Manganese	MW-02(2)	10/18/2011	02/14/2014	0.122	6	0.02	0.165	0.086	0.069	0.054	5	0.2350	No Trend	100%
Manganese	MW-12-07	12/19/2012	02/17/2014	0.005	5	<0.010	0.067	0.018	0.009	0.027	-3	0.3250	No Trend	80%
Manganese	MW-12-08	12/20/2012	02/17/2014	0.584	5	0.496	0.672	0.567	0.564	0.073	-4	0.2420	No Trend	100%
Manganese	MW-12-09	12/19/2012	02/14/2014	0.638	5	0.552	0.722	0.634	0.630	0.078	-2	0.4080	No Trend	100%
Manganese	MW-12-10	12/18/2012	02/17/2014	1.09	5	0.273	1.33	0.870	0.760	0.421	2	0.4080	No Trend	100%
Manganese	MW-12-12	12/18/2012	02/19/2014	0.677	5	0.106	1.25	0.561	0.419	0.437	2	0.4080	No Trend	100%
Manganese	MW-12-13	01/28/2013	02/19/2014	0.124	5	0.124	0.204	0.144	0.141	0.034	-6	0.1170	No Trend	100%
Manganese	MW-12-14	12/21/2012	02/20/2014	0.33	5	0.313	0.394	0.359	0.358	0.036	-6	0.1170	No Trend	100%
Manganese	MW-12-15	12/18/2012	11/06/2013	0.338	4	0.02	0.341	0.259	0.167	0.159	0	0.6250	No Trend	100%
Manganese	MWBP-10-UST1-4	12/02/2011	02/20/2014	0.07	6	0.07	0.111	0.081	0.080	0.015	-1	0.5000	No Trend	100%
Manganese	MWBP-11-UST1-4	11/29/2011	02/19/2014	0.127	6	0.021	0.263	0.090	0.059	0.093	-5	0.2350	No Trend	100%
Manganese	MWBP-12A-UST1-4	12/02/2011	11/13/2013	0.396	5	0.119	0.456	0.368	0.332	0.141	-2	0.4080	No Trend	100%
Manganese	MWBP-12-UST1-4	10/18/2011	02/19/2014	0.126	6	0.088	0.419	0.175	0.152	0.121	-3	0.3600	No Trend	100%
Manganese	MWBP-12-UST5-6	10/10/2011	11/06/2013	0.237	5	0.237	0.322	0.262	0.260	0.036	-6	0.1170	No Trend	100%
Manganese	P2-MW-01	08/29/2011	02/13/2014	0.209	7	<0.010	0.211	0.158	0.153	0.046	7	0.1910	No Trend	86%
Manganese	P2-MW-02	09/07/2011	02/17/2014	0.203	7	0.061	0.317	0.176	0.148	0.102	3	0.3860	No Trend	100%
Manganese	P2-MW-03	08/31/2011	02/14/2014	0.193	7	0.135	0.369	0.208	0.197	0.083	7	0.1910	No Trend	100%
Manganese	P2-SB-03	12/20/2012	02/14/2014	0.048	5	0.042	0.077	0.057	0.055	0.017	4	0.2420	No Trend	100%
Manganese	P3-SB-07	08/18/2011	02/12/2014	0.017	6	<0.010	0.178	0.061	0.038	0.065	-3	0.3600	No Trend	83%
Manganese	P6-SB-07	08/10/2011	02/20/2014	0.04	6	0.028	0.067	0.049	0.047	0.014	-1	0.5000	No Trend	100%
Manganese	P6-SB-32	12/19/2012	02/20/2014	0.315	5	0.159	0.572	0.355	0.318	0.176	-4	0.2420	No Trend	100%
Manganese	B-BP-16	10/13/2011	02/19/2014	0.306	6	0.301	0.485	0.351	0.344	0.077	-1	0.5000	No Trend	100%
Manganese	MW-02 (UNK-12)	10/19/2011	02/13/2014	0.188	5	0.133	0.708	0.293	0.238	0.239	-6	0.1170	No Trend	100%
Manganese	MW-06(3)	11/28/2011	02/11/2014	0.353	6	0.096	0.353	0.237	0.218	0.096	1	0.5000	No Trend	100%
Manganese	UNK-10	10/19/2011	02/12/2014	0.145	6	0.09	0.451	0.215	0.182	0.138	1	0.5000	No Trend	100%
Manganese	UNK-11	11/29/2011	02/11/2014	0.261	6	0.094	0.263	0.202	0.191	0.065	3	0.3600	No Trend	100%
Manganese	UNK-15	11/29/2011	02/11/2014	0.048	5	0.013	0.075	0.049	0.043	0.023	2	0.4080	No Trend	100%
Manganese	CH-14-RO	08/22/2011	02/12/2014	0.01	6	<0.010	0.068	0.018	0.012	0.024	0	0.5770	No Trend	83%
Manganese	MW-12-17	12/20/2012	02/14/2014	0.183	6	0.095	0.243	0.161	0.155	0.050	1	0.5000	No Trend	100%
Manganese	P3-SB-28	08/23/2011	02/19/2014	0.203	6	0.102	0.287	0.193	0.182	0.071	7	0.1360	No Trend	100%
Manganese	P6-SB-37	12/19/2012	02/20/2014	0.026	6	0.007	0.27	0.077	0.040	0.100	-6	0.1860	No Trend	100%
Manganese	UNK-03	10/14/2011	02/20/2014	0.119	6	0.119	0.617	0.412	0.335	0.229	-3	0.3600	No Trend	100%
Manganese	P6-SB-21	08/04/2011	02/20/2014	0.219	6	0.016	0.272	0.240	0.239	0.025	-3	0.3600	No Trend	83%
Manganese	MW-03(2)	10/18/2011	02/17/2014	1.48	6	1.25	2.14	1.645	1.612	0.364	-9	0.0680	Decreasing	100%
Manganese	MW-12-11	12/18/2012	02/18/2014	0.794	5	0.794	0.973	0.874	0.872	0.065	-8	0.0420	Decreasing	100%
Manganese	MW-12-16	12/18/2012	11/05/2013	0.308	4	0.308	0.46	0.358	0.353	0.070	-6	0.0420	Decreasing	100%
Manganese	MW-12-18	12/19/2012	02/14/2014	0.077	4	0.077	0.247	0.133	0.119	0.078	-6	0.0420	Decreasing	100%
Manganese	MWBP-10A-UST1-4	12/02/2011	02/19/2014	0.02	6	0.02	0.055	0.033	0.031	0.014	-10	0.0480	Decreasing	100%
Manganese	MWBP-10-UST5-6	10/07/2011	02/17/2014	0.123	6	0.1	0.622	0.281	0.230	0.199	-9	0.0680	Decreasing	100%
Manganese	P2-SB-20	08/31/2011	02/13/2014	0.02	6	0.013	0.177	0.065	0.043	0.064	-9	0.0680	Decreasing	100%
Manganese	P6-MW-01	08/10/2011	02/20/2014	0.694	7	0.459	1.36	0.846	0.801	0.302	-13	0.0350	Decreasing	100%
Manganese	MW-04-05(6)	10/13/2011	02/18/2014	0.407	6	0.407	0.546	0.460	0.457	0.050	-11	0.0280	Decreasing	100%

Table 2
Complete Mann-Kendall Trend Test Results

Preliminary Groundwater Geochemical and Plume Stability Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Analyte	Well ID	Start Date	End Date	Most Recent Result	Sample Size	Minimum Result	Maximum Result	Arithmetic Mean	Geometric mean	Standard Deviation	Sum of Trend (S)	p-Value	Trend*	Frequency of Detections
Manganese	MWBP-13A-UST1-4	10/18/2011	02/19/2014	0.562	6	0.378	0.705	0.514	0.504	0.111	9	0.0680	Increasing	100%
Manganese	MW-02-01(6)	10/17/2011	11/14/2013	0.399	5	0.103	0.399	0.218	0.198	0.111	10	0.0083	Increasing	100%
Manganese	MW-02-03(6)	10/18/2011	02/19/2014	0.397	6	0.201	0.837	0.383	0.341	0.231	9	0.0680	Increasing	100%
Manganese	P2-MW-04	08/25/2011	02/17/2014	0.159	6	<0.010	0.159	0.137	0.136	0.020	9	0.0680	Increasing	83%
Manganese	UNK-09	10/19/2011	02/12/2014	0.048	6	0.016	0.052	0.038	0.035	0.014	11	0.0280	Increasing	100%
Nickel	MW-02-03(6)	10/18/2011	02/19/2014	0.045	6	<0.010	0.186	0.089	0.079	0.052	1	0.5000	No Trend	83%
Nickel	MW-12-18	12/19/2012	02/14/2014	0.006	4	0.006	0.104	0.053	0.030	0.050	-6	0.0420	Decreasing	100%
Nickel	MW-12-12	12/18/2012	02/19/2014	1.15	5	0.02	1.15	0.307	0.106	0.482	10	0.0083	Increasing	100%
Nickel	MWBP-13A-UST1-4	10/18/2011	02/19/2014	0.158	6	<0.010	0.158	0.053	0.040	0.052	9	0.0680	Increasing	83%
Vanadium	MW-12-15	12/18/2012	11/06/2013	0.004	4	<0.002	0.005	0.004	0.004	0.001	1	0.5000	No Trend	75%
Vanadium	MWBP-10A-UST1-4	12/02/2011	02/19/2014	0.03	6	0.026	0.033	0.030	0.030	0.003	0	0.5770	No Trend	100%
Vanadium	MWBP-10-UST1-4	12/02/2011	02/20/2014	0.049	6	0.034	0.072	0.056	0.054	0.016	3	0.3600	No Trend	100%
Vanadium	MWBP-11-UST1-4	11/29/2011	02/19/2014	0.009	6	<0.005	0.013	0.006	0.005	0.004	-3	0.3600	No Trend	83%
Vanadium	MWBP-12-UST1-4	10/18/2011	02/19/2014	0.006	6	0.003	0.011	0.007	0.007	0.003	6	0.1860	No Trend	100%
Vanadium	P2-SB-20	08/31/2011	02/13/2014	0.013	6	<0.0025	0.024	0.014	0.012	0.009	4	0.2980	No Trend	83%
Vanadium	B-BP-16	10/13/2011	02/19/2014	0.007	6	<0.005	0.009	0.007	0.007	0.001	0	0.5770	No Trend	83%
Vanadium	P6-SB-18	08/08/2011	11/11/2013	0.021	5	0.02	0.0228	0.021	0.021	0.001	-2	0.4080	No Trend	100%
Vanadium	P6-SB-35	12/19/2012	11/12/2013	0.021	4	0.008	0.027	0.019	0.017	0.008	4	0.1670	No Trend	100%
Vanadium	MW-02-03(6)	10/18/2011	02/19/2014	0.007	6	<0.002	0.025	0.011	0.010	0.007	2	0.4300	No Trend	67%
Vanadium	UNK-03	10/14/2011	02/20/2014	<0.004	6	<0.004	0.012	0.006	0.005	0.003	-7	0.1360	Decreasing	83%
1,4-Dioxane														
1,4-Dioxane	MW-03-06	01/03/2013	02/20/2014	6	5	6	10	8.2	8.1	1.6	-5	0.1800	No Trend	100%
1,4-Dioxane	MW-02-01(6)	10/17/2011	11/14/2013	26	5	21	26	24	24	2.0	-3	0.3250	No Trend	100%
1,4-Dioxane	MW-02-02(6)	12/21/2012	02/19/2014	20	5	17	23	20	20	2.2	1	0.5000	No Trend	100%
1,4-Dioxane	MW-03-07	12/20/2012	02/19/2014	29	5	27	29	28	28	0.8	4	0.2420	No Trend	100%
1,4-Dioxane	P2-MW-03	12/19/2012	02/14/2014	37	5	15	37	28	26	9.8	2	0.4080	No Trend	100%
1,4-Dioxane	MW-03-04	12/20/2012	02/18/2014	39	5	39	48	45	45	3.5	-6	0.1170	No Trend	100%
1,4-Dioxane	P2-MW-04	05/30/2013	02/17/2014	52	4	<5	59	54	53	4.1	2	0.3750	No Trend	75%
Volatile Organic Compounds														
Vinyl chloride	MW-03-06	01/03/2013	02/20/2014	9	5	9	12	11	11	2	-4	0.2420	No Trend	100%
Toluene	P6-SB-32	08/11/2011	02/20/2014	660	6	100	660	308	267	187	4	0.2980	No Trend	100%
Ethylbenzene	P6-SB-32	08/11/2011	02/20/2014	1090	6	270	1090	557	499	299	9	0.0680	Increasing	100%
Isopropyl benzene	P6-SB-32	08/11/2011	02/20/2014	330	6	60	330	155	129	102	11	0.0280	Increasing	100%
Weathered Bedrock & Deep Overburden														
Metals														
Arsenic	MW-02-01(3)	10/12/2011	02/06/2014	0.008	5	0.004	0.011	0.007	0.007	0.003	6	0.1170	No Trend	100%
Arsenic	MW-02-04(3)	12/19/2012	02/11/2014	0.024	5	0.013	0.024	0.019	0.019	0.005	4	0.2420	No Trend	100%
Arsenic	MW-04-04(3)	03/01/2012	02/10/2014	0.012	6	0.011	0.013	0.012	0.012	0.001	-6	0.1860	No Trend	100%
Arsenic	MW-13-22	03/28/2013	02/10/2014	0.005	5	0.005	0.013	0.007	0.007	0.003	-5	0.1800	No Trend	100%
Arsenic	MW-91-2	10/13/2011	11/12/2013	0.009	6	0.004	0.032	0.017	0.013	0.012	-5	0.2350	No Trend	100%
Arsenic	MW-13-26	04/04/2013	02/10/2014	0.002	5	0.002	0.013	0.005	0.003	0.005	-8	0.0420	Decreasing	100%
Arsenic	MW-02-03(3)	10/12/2011	02/11/2014	0.013	6	0.006	0.014	0.010	0.009	0.003	12	0.0182	Increasing	100%
Arsenic	MW-13-25	04/03/2013	02/07/2014	0.022	5	0.006	0.023	0.018	0.016	0.007	7	0.0800	Increasing	100%
Boron	MW-12-21	02/08/2013	02/10/2014	0.33	5	0.26	0.59	0.394	0.379	0.124	4	0.2420	No Trend	100%
Boron	MW-13-29	04/25/2013	02/07/2014	0.38	5	0.38	0.835	0.663	0.636	0.195	-6	0.1170	No Trend	100%
Chromium	MW-91-2	10/13/2011	11/12/2013	0.058	6	<0.010	0.35	0.171	0.132	0.131	-3	0.3600	No Trend	83%
Copper	MW-12-21	02/08/2013	02/10/2014	<0.005	5	<0.005	0.509	0.138	0.023	0.217	0	0.5920	No Trend	80%
Copper	MW-19	10/19/2011	02/11/2014	0.005	6	0.004	0.053	0.020	0.014	0.019	1	0.5000	No Trend	100%

Table 2
Complete Mann-Kendall Trend Test Results

Preliminary Groundwater Geochemical and Plume Stability Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Analyte	Well ID	Start Date	End Date	Most Recent Result	Sample Size	Minimum Result	Maximum Result	Arithmetic Mean	Geometric mean	Standard Deviation	Sum of Trend (S)	p-Value	Trend*	Frequency of Detections
Lead	MW-19	10/19/2011	02/11/2014	<0.003	6	<0.003	0.029	0.013	0.010	0.010	0	0.5770	No Trend	67%
Manganese	MW-02-01(3)	10/12/2011	02/06/2014	0.072	5	0.049	0.072	0.059	0.059	0.008	6	0.1170	No Trend	100%
Manganese	MW-02-02(3)	10/13/2011	02/12/2014	1.23	6	0.144	2.13	1.272	0.991	0.662	-1	0.5000	No Trend	100%
Manganese	MW-02-03(3)	10/12/2011	02/11/2014	0.098	6	0.098	0.418	0.170	0.147	0.123	-3	0.3600	No Trend	100%
Manganese	MW-02-04(3)	12/19/2012	02/11/2014	0.083	5	0.069	0.275	0.115	0.097	0.090	2	0.4080	No Trend	100%
Manganese	MW-12-20	02/08/2013	02/11/2014	0.157	5	0.133	0.423	0.201	0.180	0.125	2	0.4080	No Trend	100%
Manganese	MW-12-21	02/08/2013	02/10/2014	0.088	5	0.088	0.571	0.354	0.301	0.178	2	0.4080	No Trend	100%
Manganese	MW-13-23	04/02/2013	02/11/2014	1.22	5	1.22	5.67	2.324	1.920	1.888	-6	0.1170	No Trend	100%
Manganese	MW-13-25	04/03/2013	02/07/2014	0.732	5	0.732	1.21	0.888	0.874	0.186	-6	0.1170	No Trend	100%
Manganese	MW-13-27	04/24/2013	02/11/2014	0.77	5	0.68	0.832	0.783	0.781	0.062	-4	0.2420	No Trend	100%
Manganese	MW-13-30	04/25/2013	02/10/2014	2.68	5	0.407	2.68	1.182	0.949	0.907	-2	0.4080	No Trend	100%
Manganese	MW-19	10/19/2011	02/11/2014	0.615	6	0.039	0.615	0.251	0.183	0.203	1	0.5000	No Trend	100%
Manganese	MW-23	11/29/2011	02/12/2014	0.104	6	0.054	0.309	0.110	0.088	0.099	1	0.5000	No Trend	100%
Manganese	MW-91-2	10/13/2011	11/12/2013	0.052	6	0.049	0.178	0.075	0.066	0.051	-3	0.3600	No Trend	100%
Manganese	MW-13-34	08/20/2013	02/06/2014	0.223	4	0.187	0.31	0.230	0.226	0.055	2	0.3750	No Trend	100%
Manganese	MW-01(3)	10/19/2011	02/11/2014	0.149	6	0.133	0.607	0.226	0.188	0.187	-9	0.0680	Decreasing	100%
Manganese	MW-04-04(3)	03/01/2012	02/10/2014	0.387	6	0.387	0.798	0.507	0.492	0.150	-13	0.0083	Decreasing	100%
Manganese	MW-13-22	03/28/2013	02/10/2014	0.097	6	0.074	0.37	0.141	0.118	0.113	-9	0.0680	Decreasing	100%
Manganese	MW-13-24	04/03/2013	02/10/2014	0.321	5	0.321	4.91	1.256	0.582	2.043	-8	0.0420	Decreasing	100%
Manganese	MW-13-26	04/04/2013	02/10/2014	0.112	5	0.112	4.68	1.045	0.276	2.032	-10	0.0083	Decreasing	100%
Manganese	MW-04-03(3)	05/22/2013	02/11/2014	0.215	4	0.168	0.215	0.190	0.189	0.023	6	0.0420	Increasing	100%
Manganese	MW-13-29	04/25/2013	02/07/2014	0.832	6	0.56	0.841	0.724	0.716	0.115	9	0.0680	Increasing	100%
Manganese	MW-22	11/29/2011	02/12/2014	1.2	6	0.356	1.2	0.846	0.791	0.293	11	0.0280	Increasing	100%
Nickel	MW-02-04(3)	12/19/2012	02/11/2014	0.025	5	0.019	0.11	0.044	0.036	0.037	-2	0.4080	No Trend	100%
Nickel	MW-04-03(3)	05/22/2013	02/11/2014	0.03	4	0.013	0.1	0.041	0.030	0.040	4	0.1670	No Trend	100%
Nickel	MW-13-23	04/02/2013	02/11/2014	0.041	5	0.038	0.207	0.075	0.058	0.074	0	0.5920	No Trend	100%
Nickel	MW-13-24	04/03/2013	02/10/2014	0.036	5	0.022	0.161	0.058	0.043	0.058	0	0.5920	No Trend	100%
Nickel	MW-13-26	04/04/2013	02/10/2014	0.011	5	0.011	0.148	0.046	0.029	0.057	-6	0.1170	No Trend	100%
Nickel	MW-13-30	04/25/2013	02/10/2014	0.405	5	0.021	0.405	0.107	0.053	0.167	0	0.5920	No Trend	100%
Vanadium	MW-13-24	04/03/2013	02/10/2014	0.007	5	<0.004	0.02	0.008	0.006	0.008	-4	0.2420	No Trend	80%
Zinc	MW-12-21	02/08/2013	02/10/2014	0.009	5	0.009	0.405	0.146	0.070	0.163	-4	0.2420	No Trend	100%
Zinc	MW-13-23	04/02/2013	02/11/2014	0.809	5	0.017	1.41	0.457	0.101	0.633	-2	0.4080	No Trend	100%
Zinc	MW-13-24	04/03/2013	02/10/2014	0.121	5	<0.010	1.6	0.350	0.042	0.701	0	0.5920	No Trend	80%
Zinc	MW-13-30	04/25/2013	02/10/2014	0.529	5	<0.005	0.529	0.154	0.056	0.221	-2	0.4080	No Trend	80%
Zinc	MW-19	10/19/2011	02/11/2014	0.04	6	0.032	0.307	0.153	0.104	0.122	1	0.5000	No Trend	100%
Volatile Organic Compounds														
1,4-Dioxane	MW-12-21	02/08/2013	02/10/2014	165	6	165	510	410.833	386.038	128.935	-1	0.5000	No Trend	100%
1,4-Dioxane	MW-13-25	04/03/2013	02/07/2014	12	5	<5	14	10.920	10.584	2.938	4	0.2420	No Trend	80%
1,4-Dioxane	MW-13-29	04/25/2013	02/07/2014	20	5	20	38	29.400	28.793	6.465	-6	0.1170	No Trend	100%
1,4-Dioxane	MW-13-22	03/28/2013	11/11/2013	270	5	52	270	145.200	114.435	103.727	9	0.0252	Increasing	100%
Vinyl chloride	MW-04-03(3)	12/18/2012	02/11/2014	14	5	8	20	14.0	13.4	4.3	-2	0.4080	No Trend	100%
Vinyl chloride	MW-04-04(3)	12/18/2012	02/10/2014	5	5	3	6	4.6	4.5	1.1	-3	0.3250	No Trend	100%

Notes:

*Trends evaluated at 90% confidence level.

Table 3
Summary of Mann-Kendall Trend Test Results for Metals - Bedrock Wells

Preliminary Groundwater Geochemical and Plume Stability Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Analyte	No Trend ¹	Decreasing Trend ¹	Increasing Trend ¹	Total Trends	Average Maximum	Lowest Criteria ²	Basis of Lowest Criteria ²
Metals					(ppm)	(ppm)	
Arsenic	5	1	2	8	0.016	0.01	GSI/DW
Copper	3	0	0	3	0.050	0.02	GSI
Manganese	11	2	1	14	0.430	0.05/0.86 ³	DW
Nickel	1	0	0	1	0.114	0.1	DW
Zinc	1	0	0	1	0.471	0.26	GSI

Notes:

1. Trends evaluated at 90% confidence level.
2. Michigan Department of Environmental Quality Part 201 Generic Cleanup Criteria and Screening Levels, Dated December 30, 2013.
3. Manganese drinking water criteria presented as both health based (0.05 ppm) and aesthetically based criteria (0.86 ppm). Health based criteria used to assess exceedances.

GSI = groundwater surface water interface

DW = drinking water

ppm = parts per million

Table 4
Summary of Mann-Kendall Trend Test Results - Perched Wells

Preliminary Groundwater Geochemical and Plume Stability Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Analyte	No Trend ¹	Decreasing Trend ¹	Increasing Trend ¹	Total Trends	Average Maximum	Lowest Criteria ²	Basis of Lowest Criteria ²
1,4-Dioxane	7	0	0	7	33	85/8.5 ³	DW
Metals					(ppm)	(ppm)	
Antimony	1	0	0	1	0.008	0.006	DW
Arsenic	27	1	4	32	0.030	0.010	GSI/DW
Barium	0	1	2	3	1.61	1.20	GSI
Boron	3	0	1	4	0.92	0.50	DW
Cadmium	0	1	0	1	0.01	0.0045	DW
Chromium	1	0	0	1	27.1	0.16	GSI
Chromium (VI)	0	1	0	1	28.40	0.011	GSI
Copper	9	0	0	9	0.048	0.020	GSI
Lead	6	2	0	8	0.204	0.004	DW
Manganese	41	9	5	55	0.42	0.05/0.86 ⁴	DW
Nickel	1	1	2	4	0.40	0.10	DW
Vanadium	10	1	0	11	0.0231	0.0045	DW
VOCs					(ppb)	(ppb)	
Toluene	1	0	0	1	660	270	GSI
Ethyl Benzene	0	0	1	1	1090	18	GSI
Isopropyl Benzene	0	0	1	1	330	28	GSI
Vinyl chloride	1	0	0	1	12	2	DW

Notes:

1. Trends evaluated at 90% confidence level.
2. Michigan Department of Environmental Quality Part 201 Generic Cleanup Criteria and Screening Levels, Dated December 30, 2013.
3. Drinking Water criteria anticipated to be modified to 8.5 ppb. For purposes of identifying exceedances, lowest criteria assumed to be 8.5 ppb.
4. Manganese drinking water criteria presented as both health based (0.05 ppm) and aesthetically based criteria (0.86 ppm). Health based criteria used to assess exceedances.

GSI = groundwater surface water interface

DW = drinking water

ppm = parts per million

ppb = parts per billion

Table 5
Summary of Mann-Kendall Trend Test Results - Deep Overburden and Weathered Bedrock Wells

Preliminary Groundwater Geochemical and Plume Stability Assessment
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Analyte	No Trend ¹	Decreasing Trend ¹	Increasing Trend ¹	Total Trends	Average Maximum	Lowest Criteria ²	Basis of Lowest Criteria ²
1,4-Dioxane	3	0	1	4	208	85/8.5 ³	DW
Metals					(ppm)	(ppm)	
Arsenic	5	1	2	8	0.018	0.010	GSI/DW
Boron	2	0	0	2	0.713	0.5	DW
Chromium	1	0	0	1	0.35	0.16	GSI
Copper	2	0	0	2	0.28	0.02	GSI
Lead	1	0	0	1	0.029	0.004	DW
Manganese	14	5	3	22	1.33	0.05/0.86 ⁴	DW
Nickel	6	0	0	6	0.19	0.10	DW
Vanadium	1	0	0	1	0.0200	0.0045	DW
Zinc	5	0	0	5	0.85	0.26	GSI
VOCs					(ppb)	(ppb)	
Vinyl Chloride	2	0	0	2	13	2	DW

Notes;

1. Trends evaluated at 90% confidence level.
2. Michigan Department of Environmental Quality Part 201 Generic Cleanup Criteria and Screening Levels, Dated December 30, 2013.
3. Drinking Water criteria anticipated to be modified to 8.5 ppb. For purposes of identifying exceedances, lowest criteria assumed to be 8.5 ppb.
4. Manganese drinking water criteria presented as both health based (0.05 ppm) and aesthetically based criteria (0.86 ppm). Health based criteria used to assess exceedances.

GSI = groundwater surface water interface

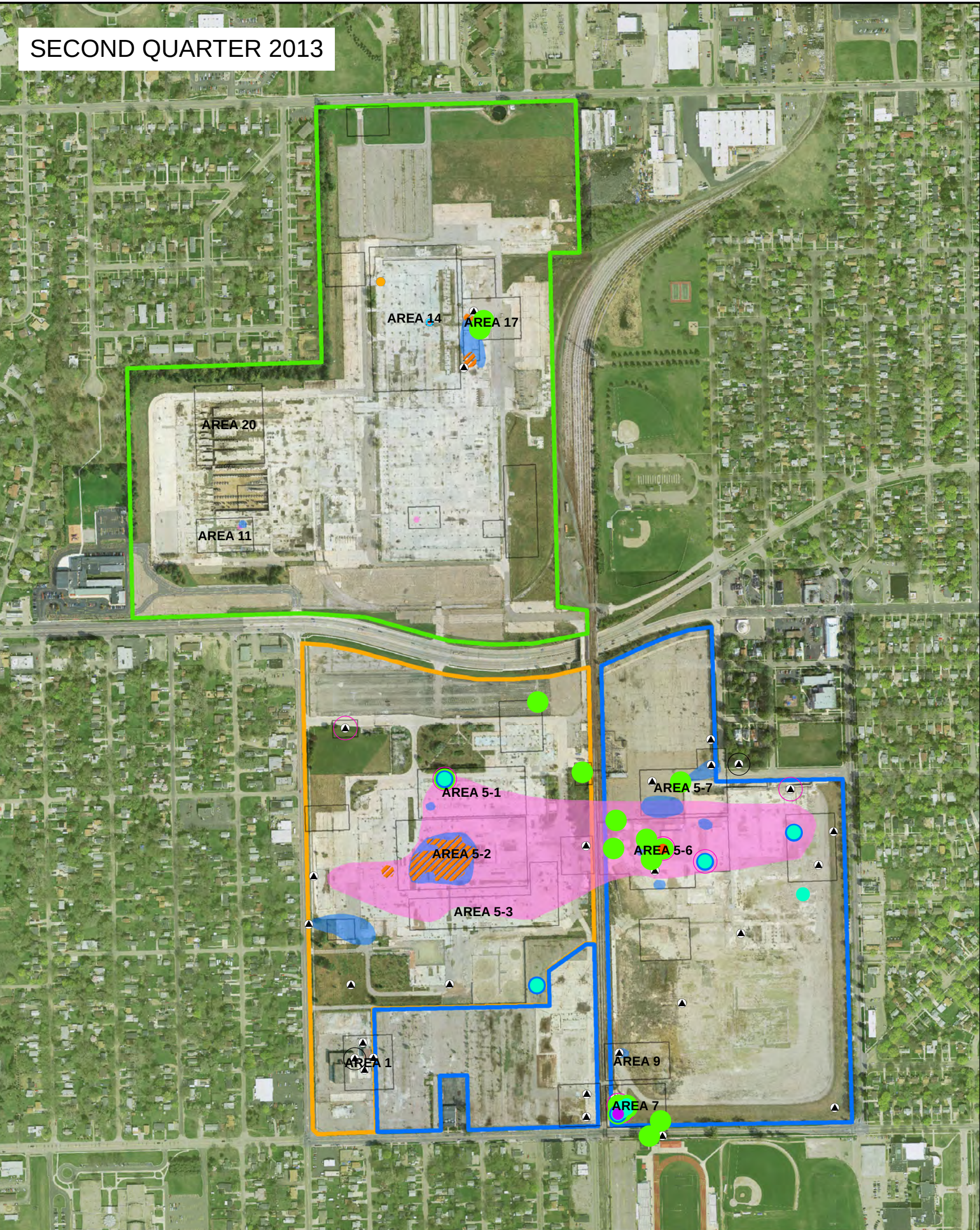
DW = drinking water

ppm = parts per million

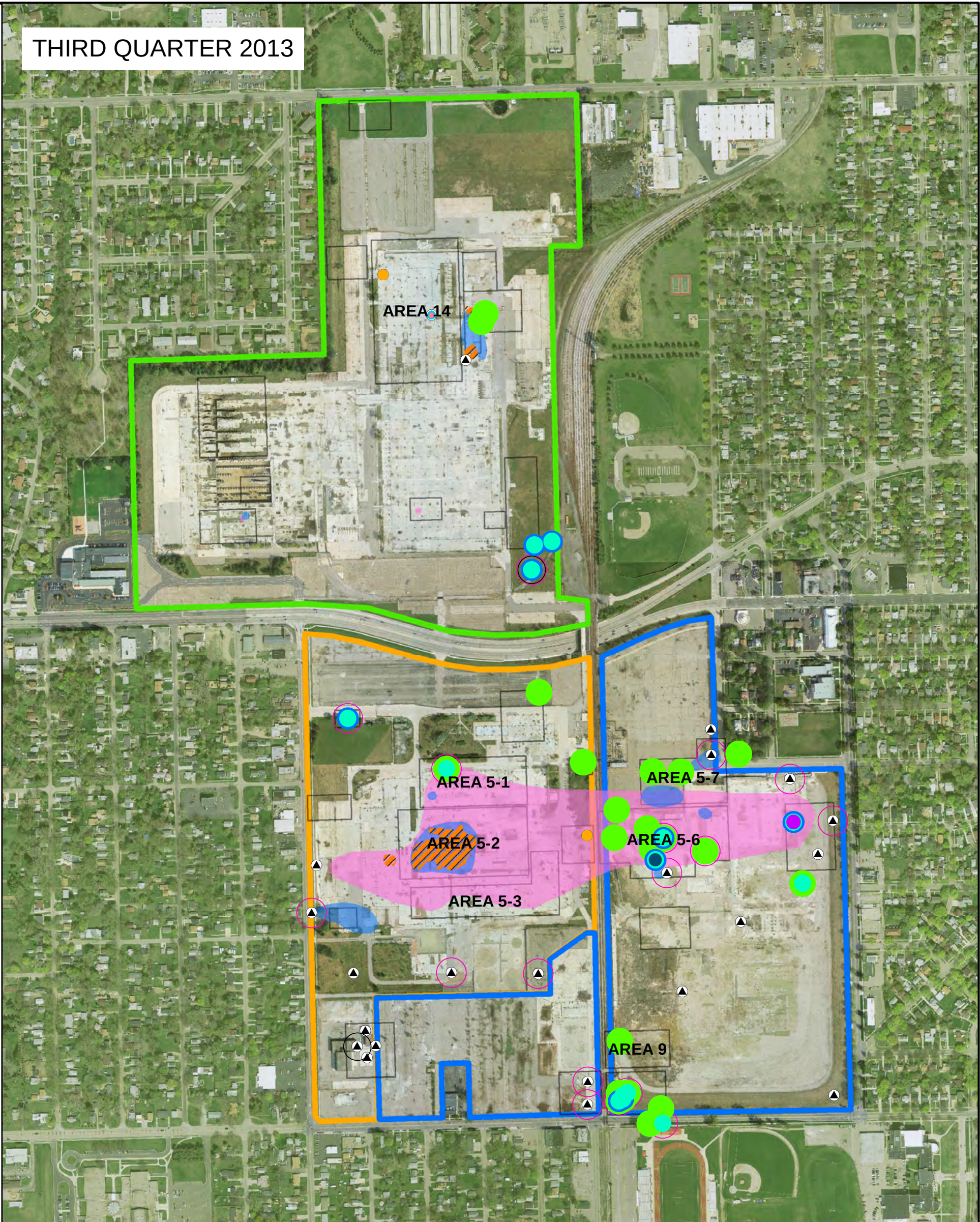
ppb = parts per billion

Figures

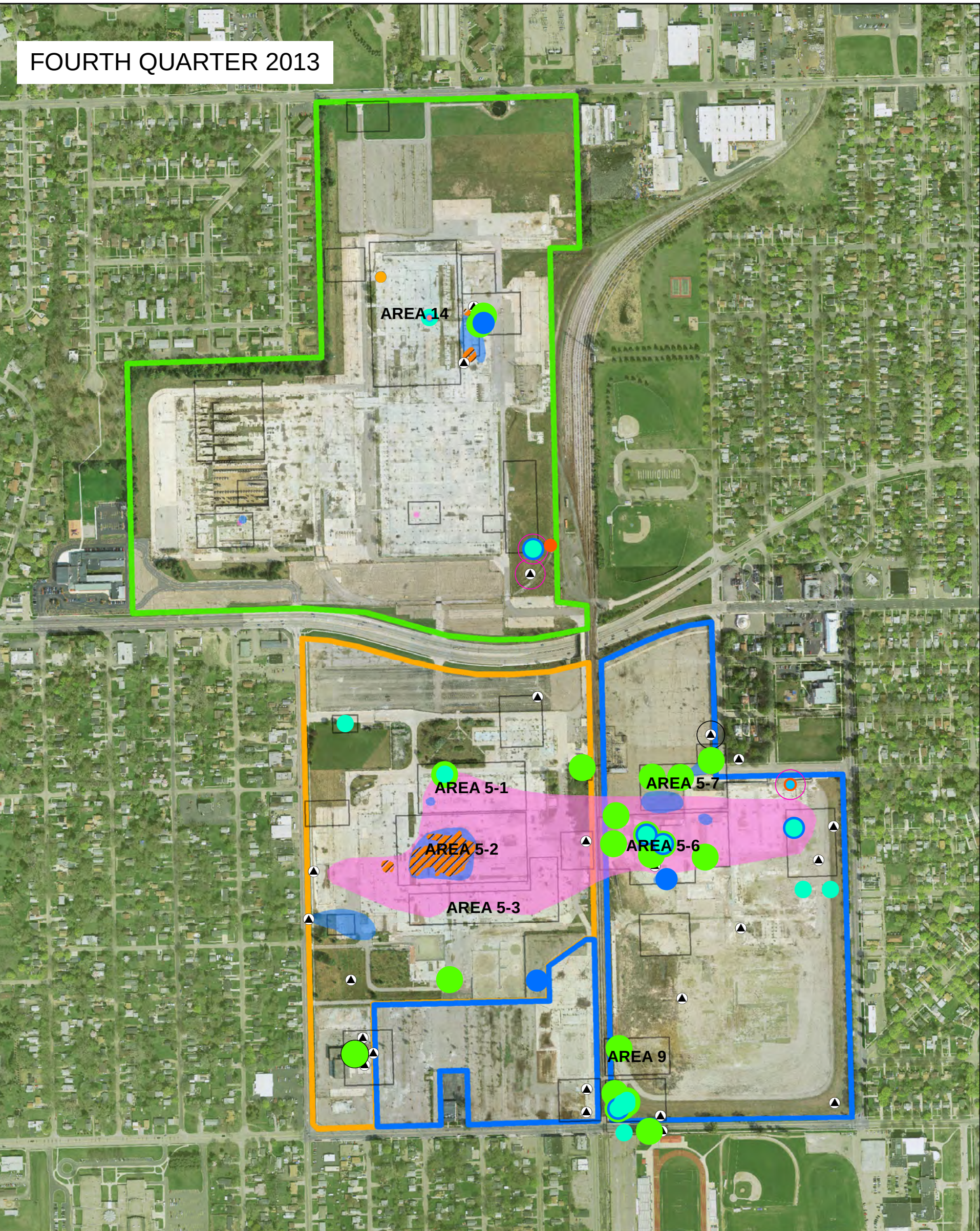
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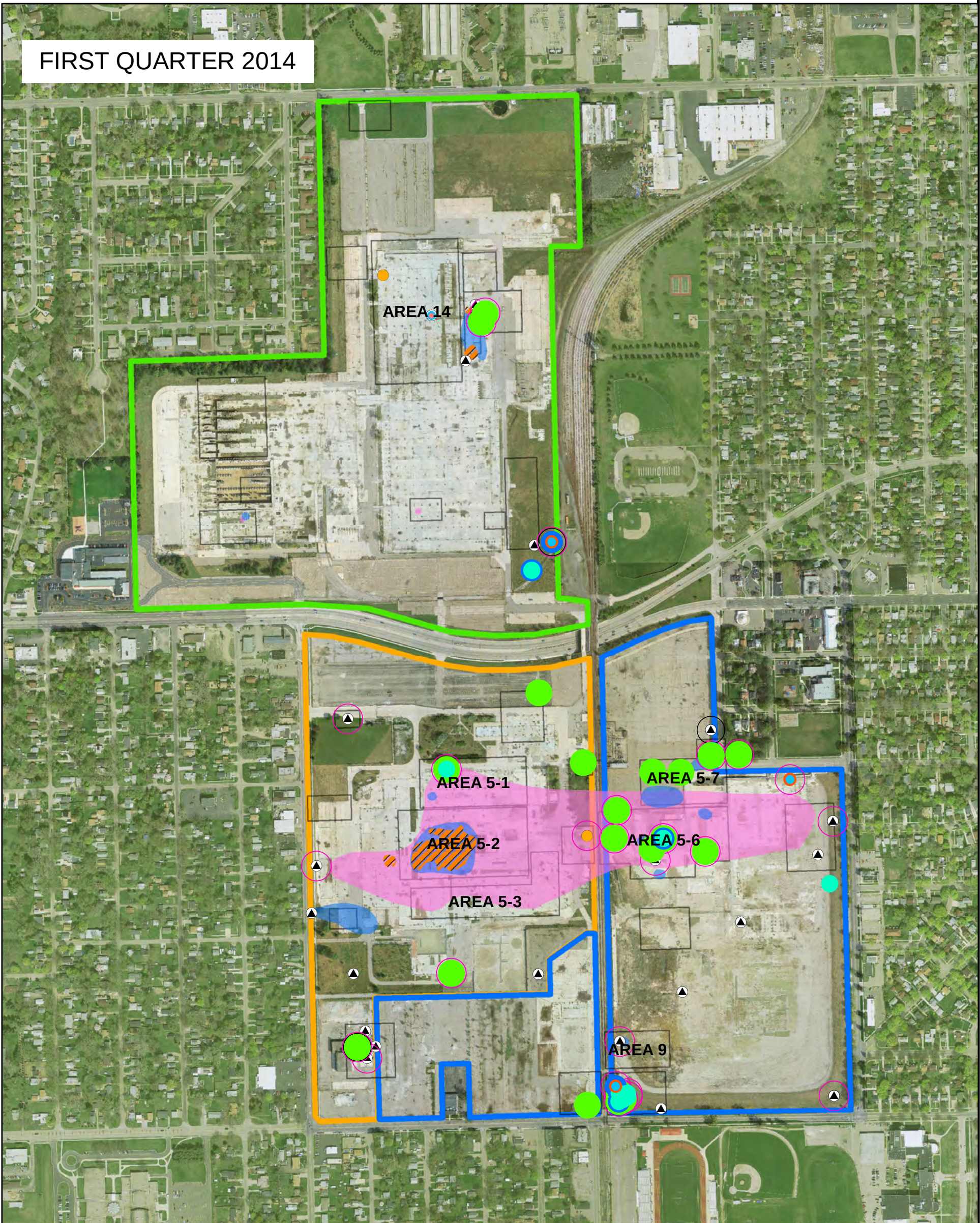
THIRD QUARTER 2013



FOURTH QUARTER 2013



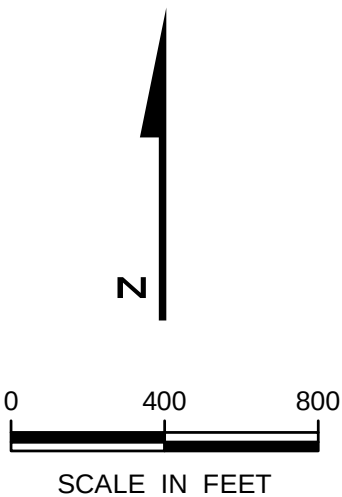
FIRST QUARTER 2014



LEGEND

- | | |
|-----------------------------------|---|
| • HEXAVALENT CHROMIUM | APPROXIMATE EXTENT OF LNAPL |
| • TOTAL CHROMIUM | APPROXIMATE EXTENT OF VOCs > DW CRITERIA |
| • BORON | APPROXIMATE EXTENT OF 1,4-DIOXANE > DW CRITERIA |
| • NICKEL | |
| • CADMIUM | |
| • VANADIUM | |
| • LEAD | |
| • ARSENIC | |
| ○ MANGANESE (AESTHETIC) | |
| ○ TURBIDITY > 10 NTU | |
| ▲ PERCHED WATER SAMPLING LOCATION | |
| | WORK PLAN AREAS |
| | PLANT 2 |
| | PLANT 3 |
| | PLANT 6 |

NOTES:
METALS RESULTS INDICATE TOTAL METALS CONCENTRATIONS, INCLUDING RESULTS FOR WELLS WITH ELEVATED TURBIDITY.
NTU: NEPHELOMETRIC TURBIDITY UNITS
VOCs: VOLATILE ORGANIC COMPOUNDS
LNAPL: LIGHT NON-AQUEOUS PHASE LIQUID
DW: DRINKING WATER

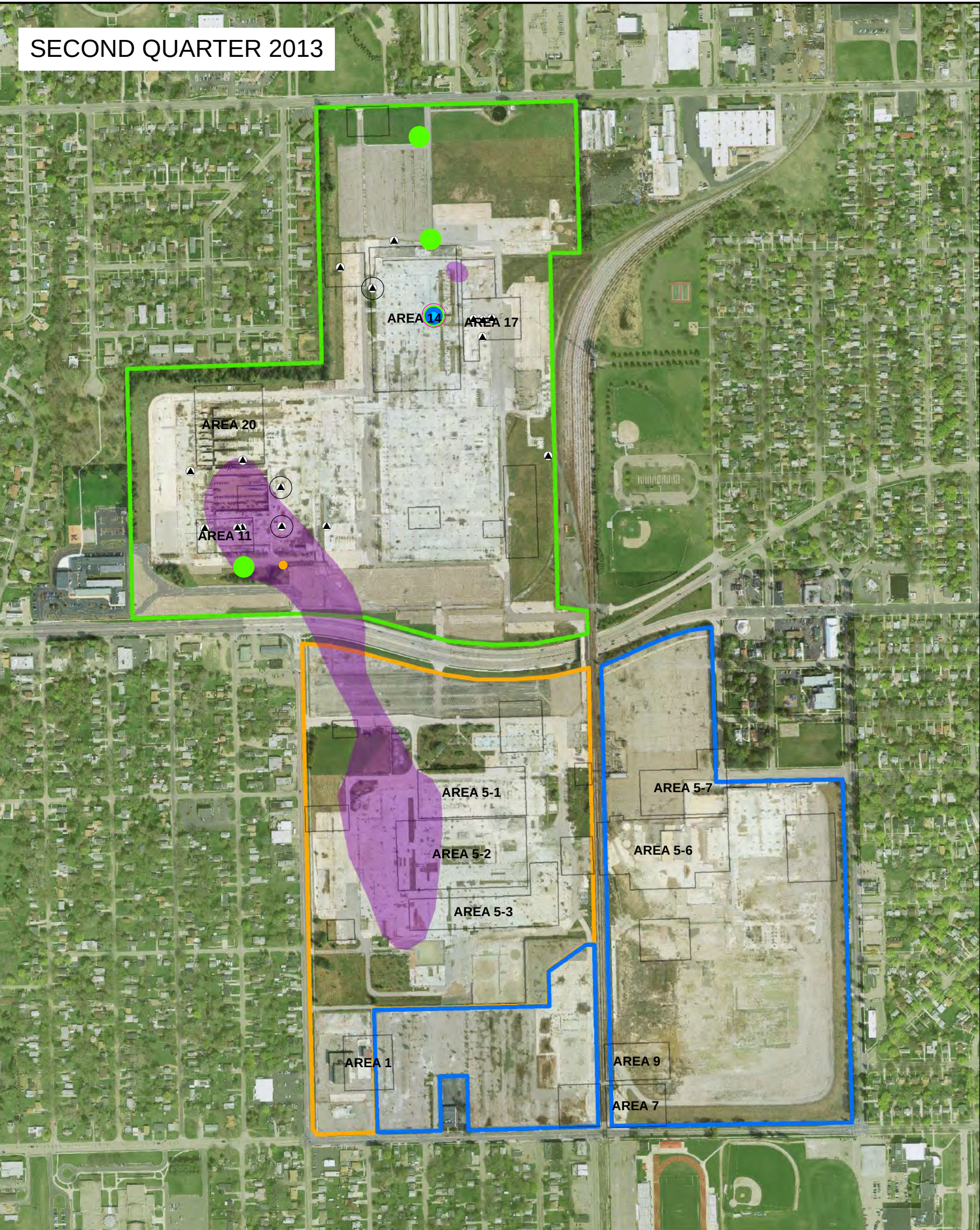


RACER TRUST
PLANTS 2, 3, & 6
LANSING, MICHIGAN

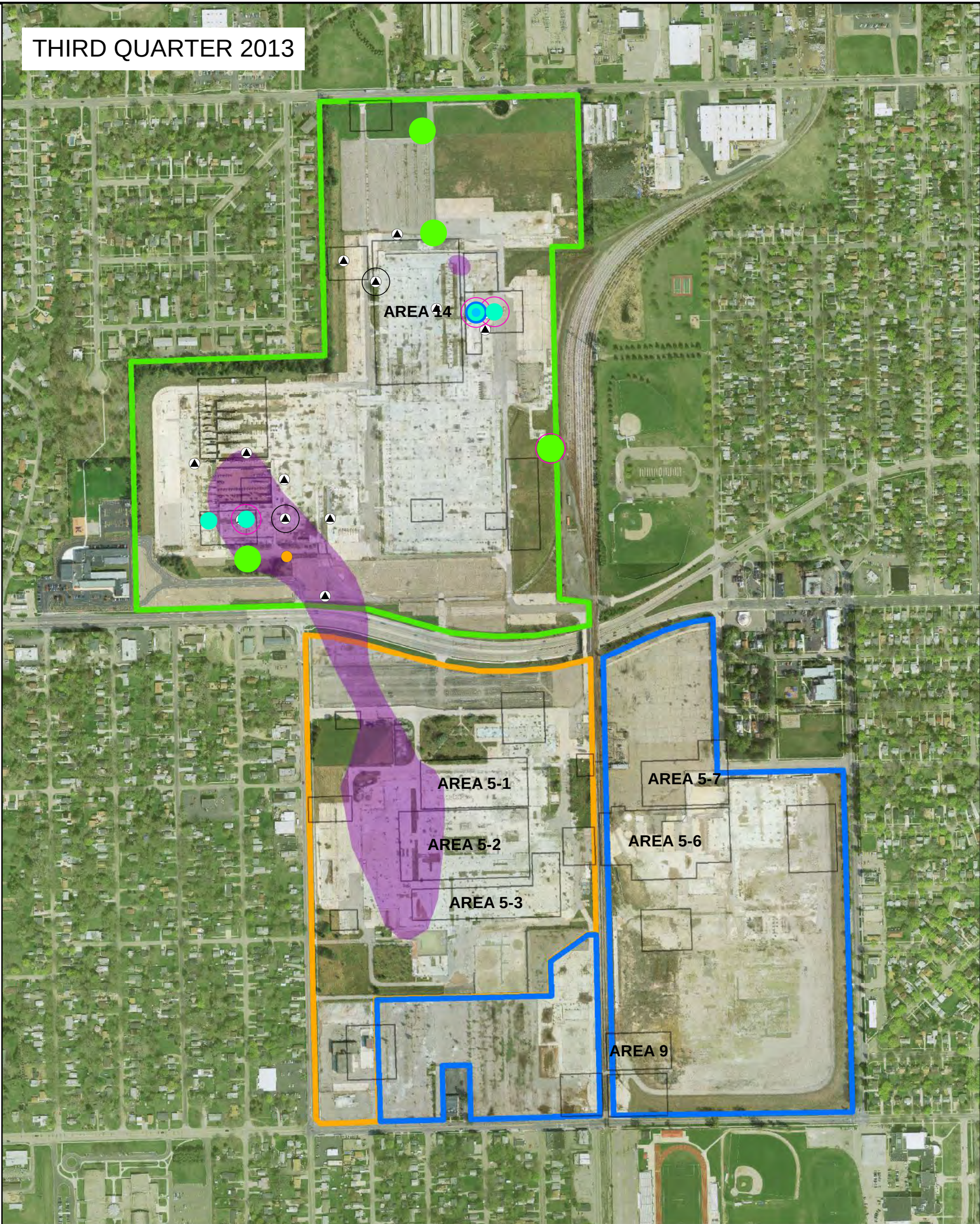
METALS EXCEEDANCES IN
PERCHED GROUNDWATER



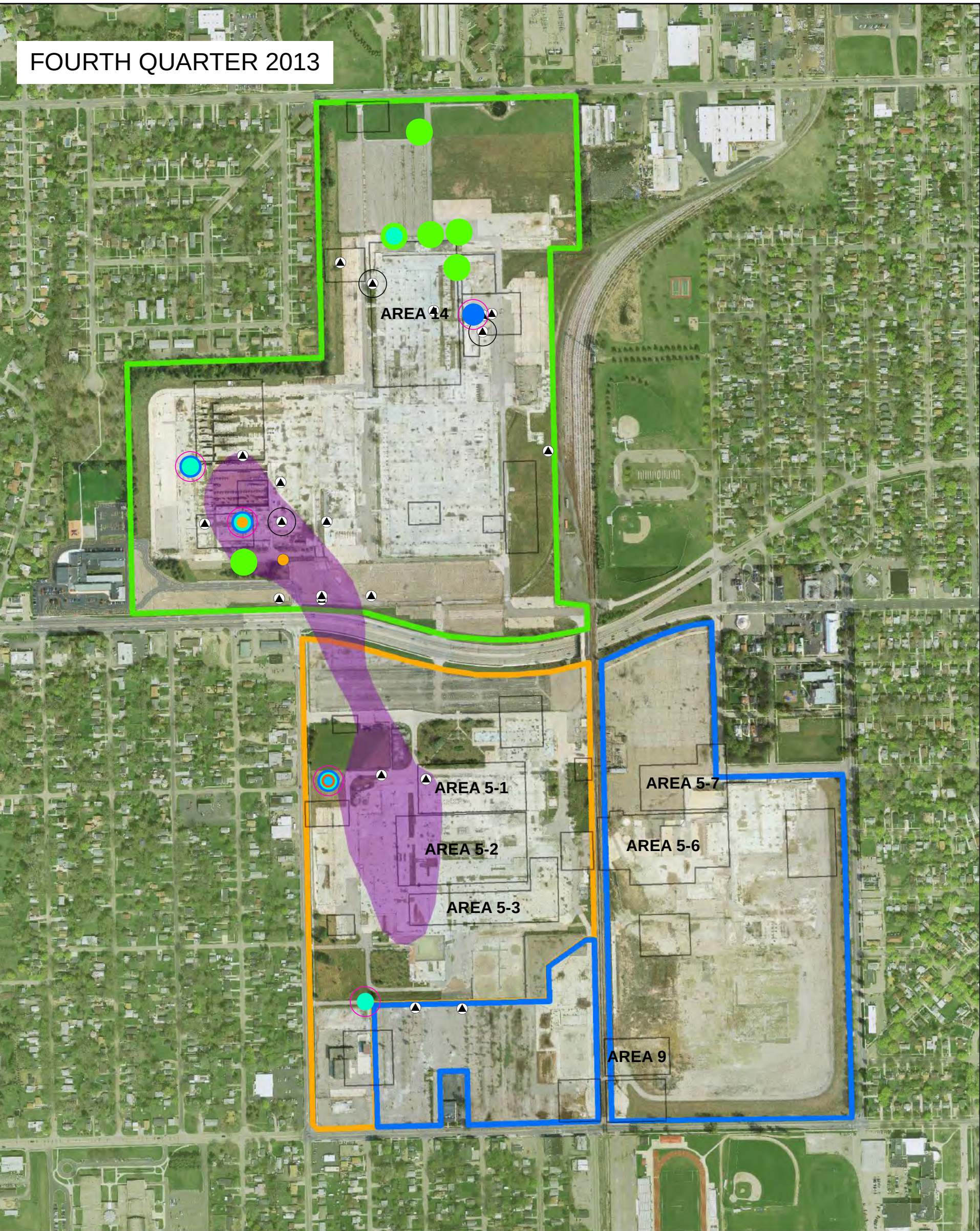
SECOND QUARTER 2013



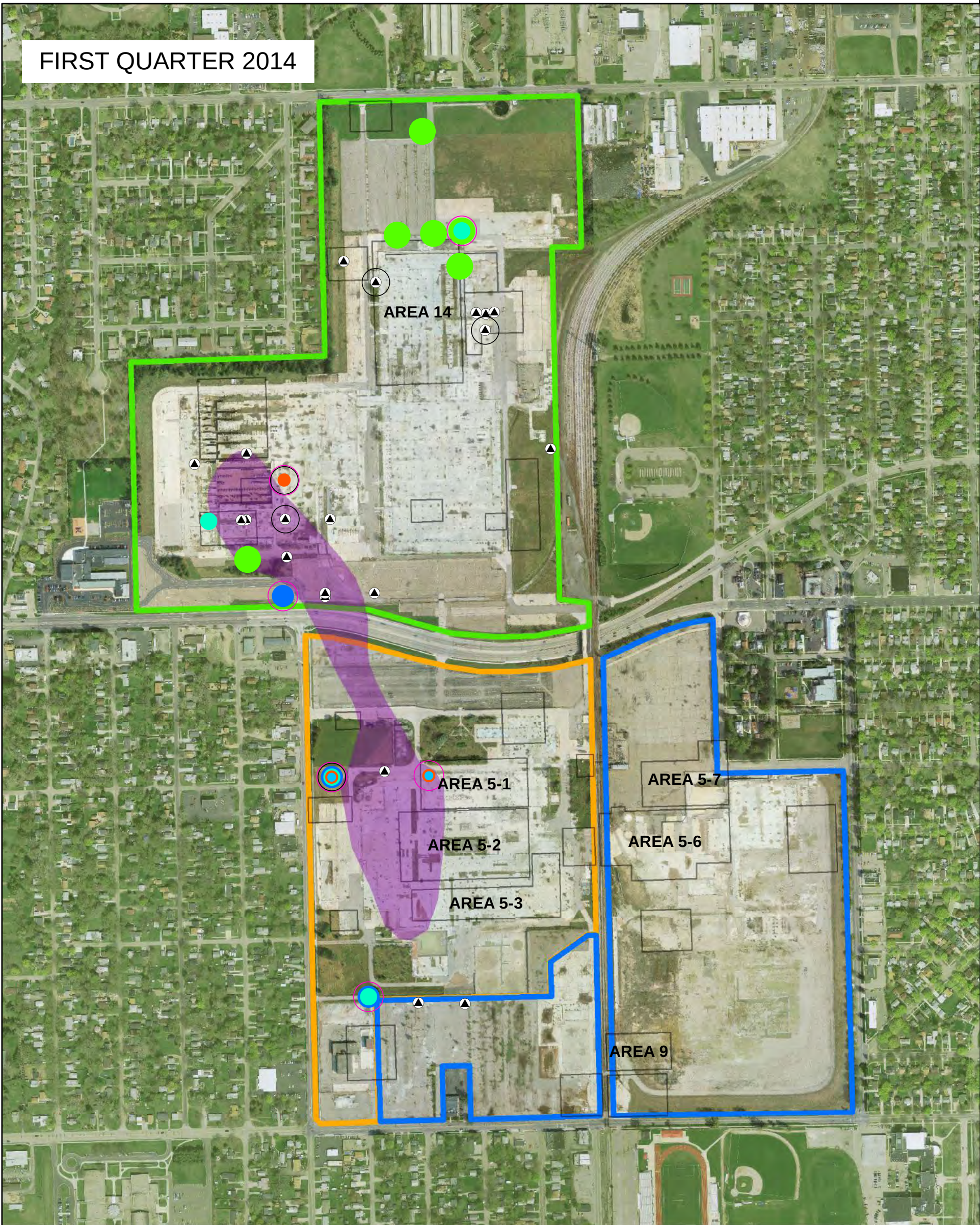
THIRD QUARTER 2013



FOURTH QUARTER 2013



FIRST QUARTER 2014



LEGEND

- TOTAL CHROMIUM
- BORON
- NICKEL
- VANADIUM
- LEAD
- ARSENIC
- MANGANESE (AESTHETIC)
- TURBIDITY > 10 NTU
- ▲ DEEP OVERBURDEN / WEATHERED BEDROCK SAMPLING LOCATION
- LOWER 1,4-DIOXANE IMPACTS > DW CRITERIA
- WORK PLAN AREAS
- PLANT 2
- PLANT 3
- PLANT 6

NOTES:
METALS RESULTS INDICATE TOTAL METALS CONCENTRATIONS, INCLUDING RESULTS FOR WELLS WITH ELEVATED TURBIDITY.

NTU: NEPHELOMETRIC TURBIDITY UNITS
DW: DRINKING WATER

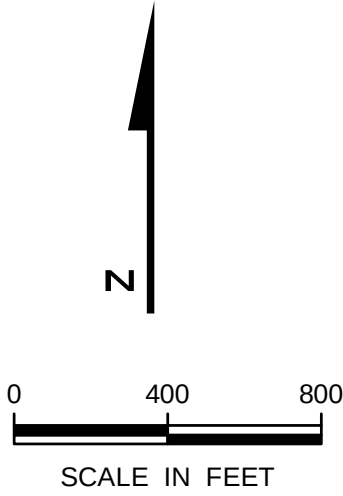
RACER TRUST
PLANTS 2, 3, & 6
LANSING, MICHIGAN

METALS EXCEEDANCES IN DEEP OVERBURDEN / WEATHERED BEDROCK

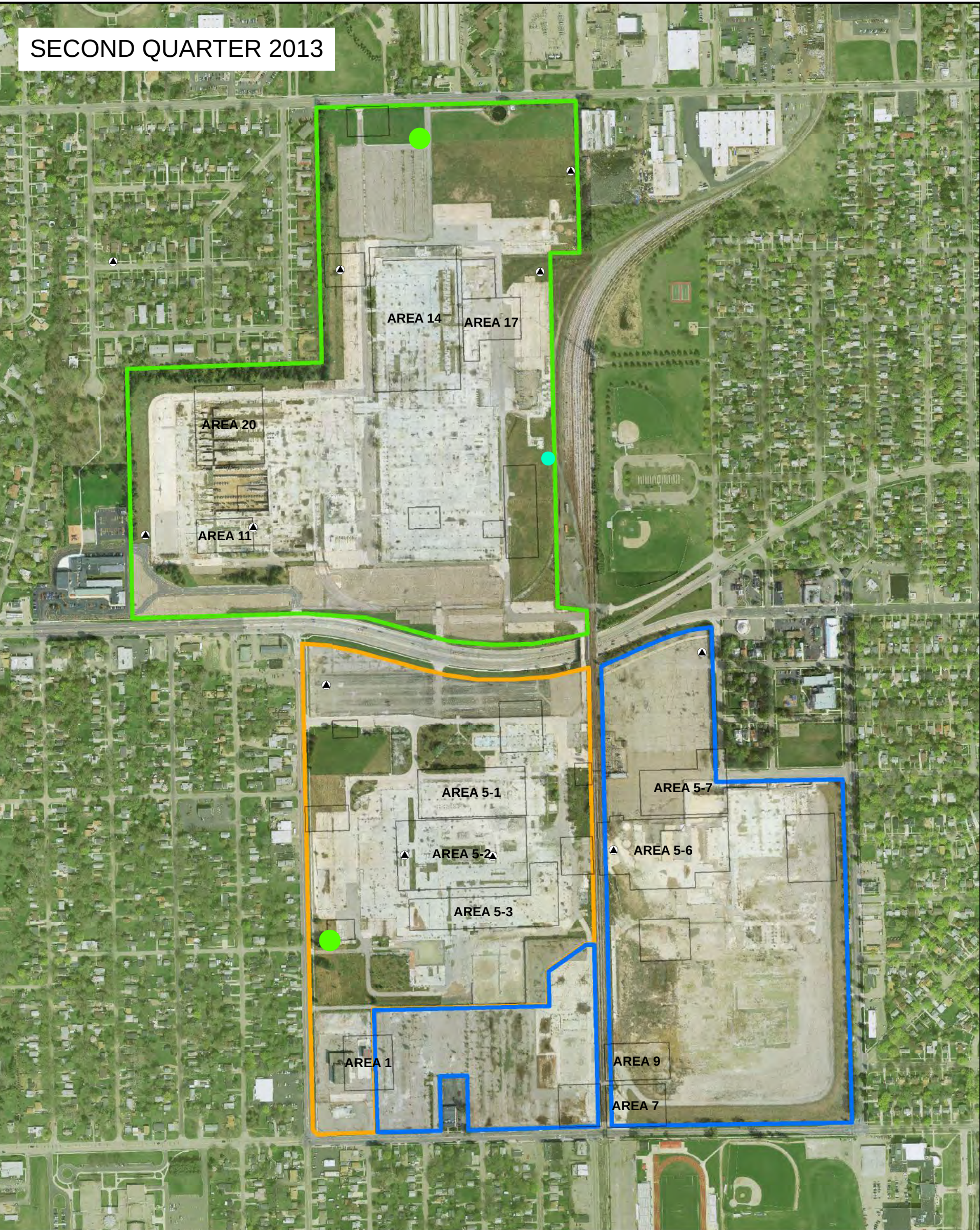


FIGURE

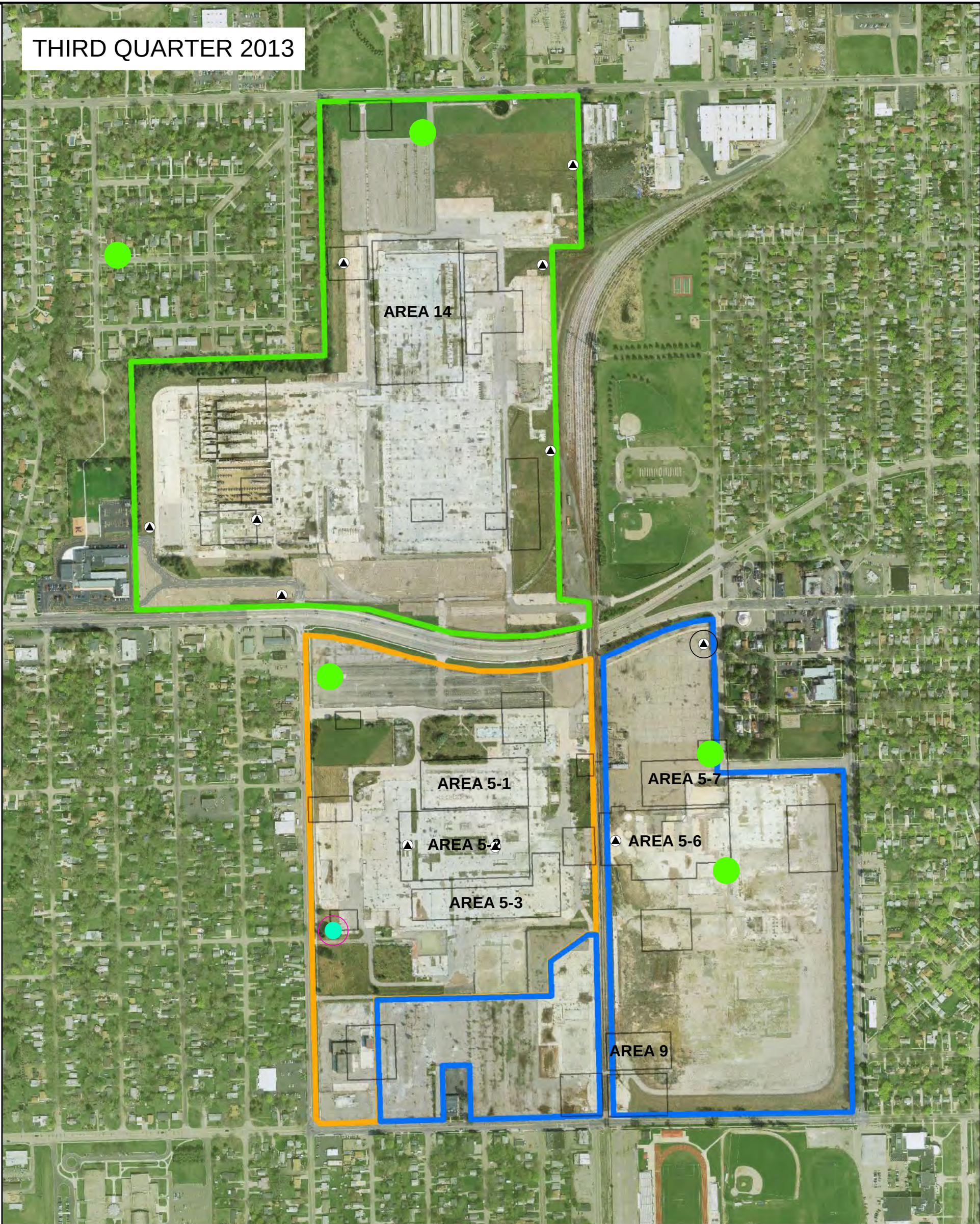
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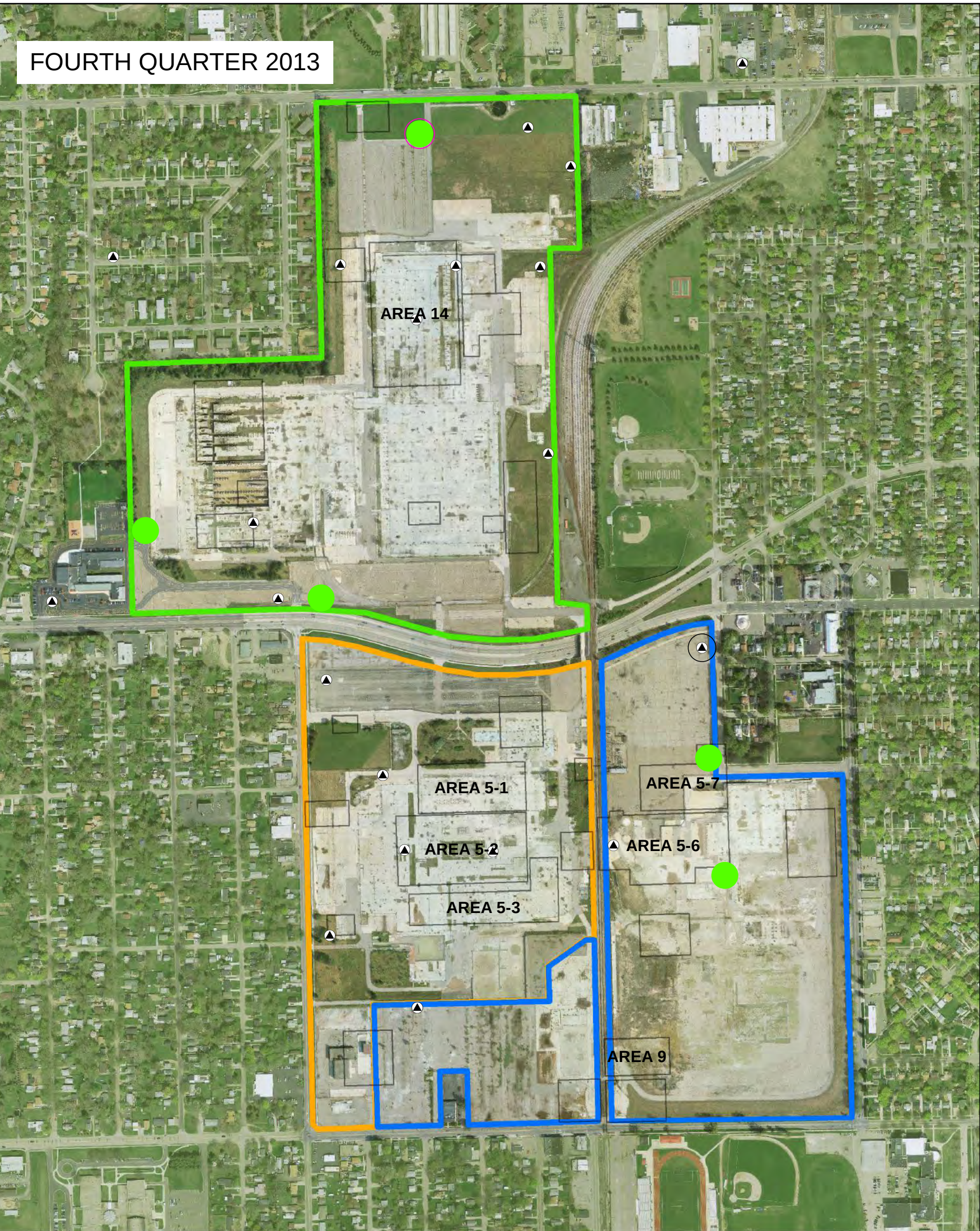
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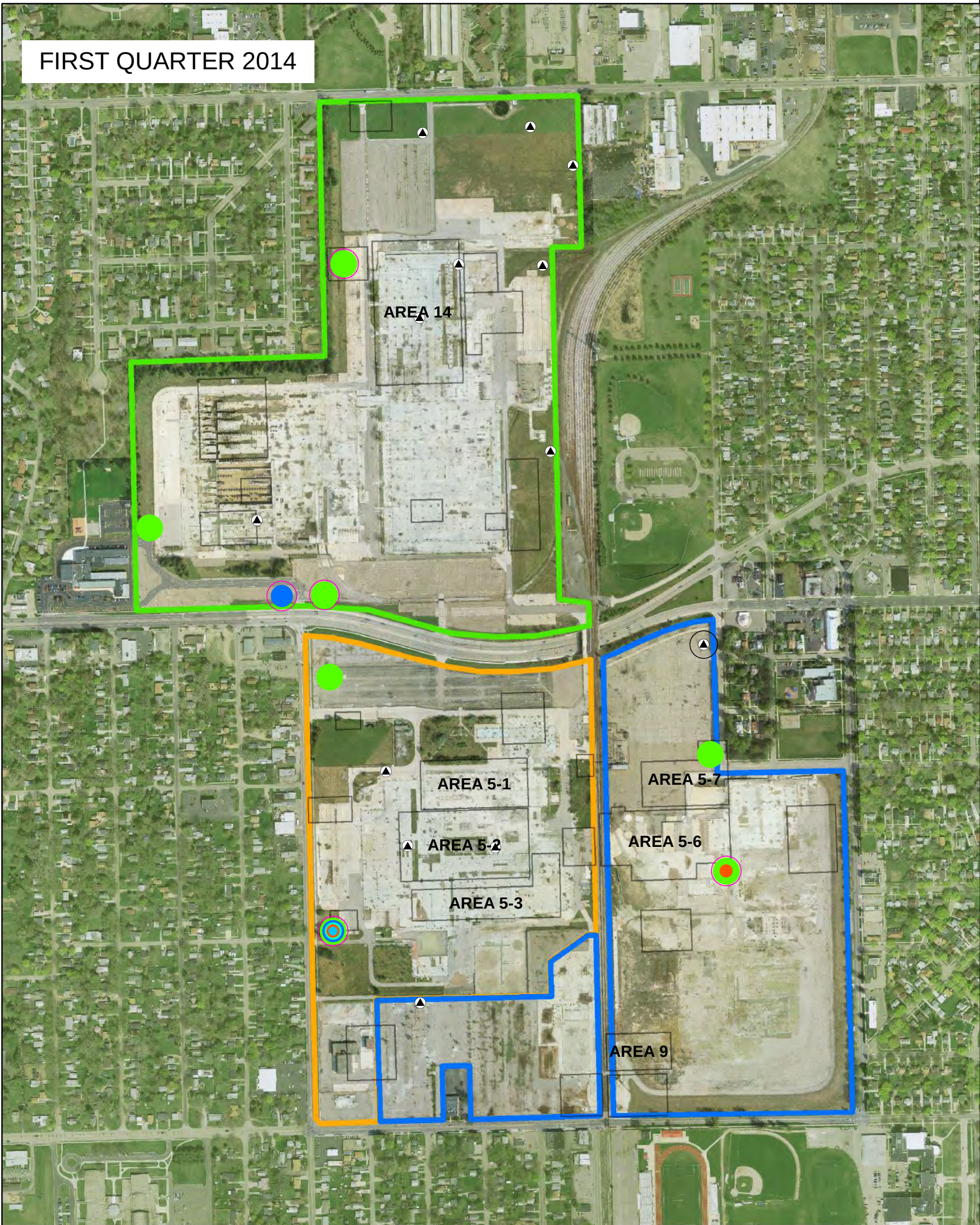
THIRD QUARTER 2013



FOURTH QUARTER 2013



FIRST QUARTER 2014

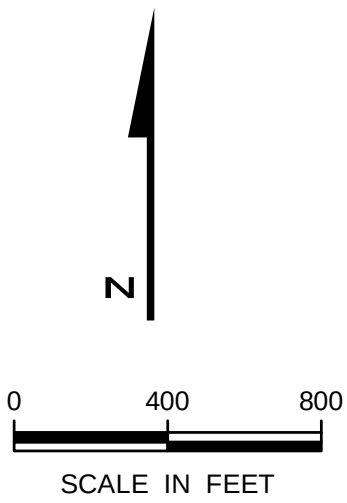


LEGEND

- TOTAL CHROMIUM
- NICKEL
- VANADIUM
- LEAD
- ARSENIC
- MANGANESE (AESTHETIC)
- TURBIDITY > 10 NTU
- ▲ BEDROCK SAMPLING LOCATION
- WORK PLAN AREAS
- PLANT 2
- PLANT 3
- PLANT 6

NOTES:
METALS RESULTS INDICATE TOTAL
METALS CONCENTRATIONS, INCLUDING
RESULTS FOR WELLS WITH ELEVATED
TURBIDITY.

NTU: NEPHELOMETRIC TURBIDITY UNITS

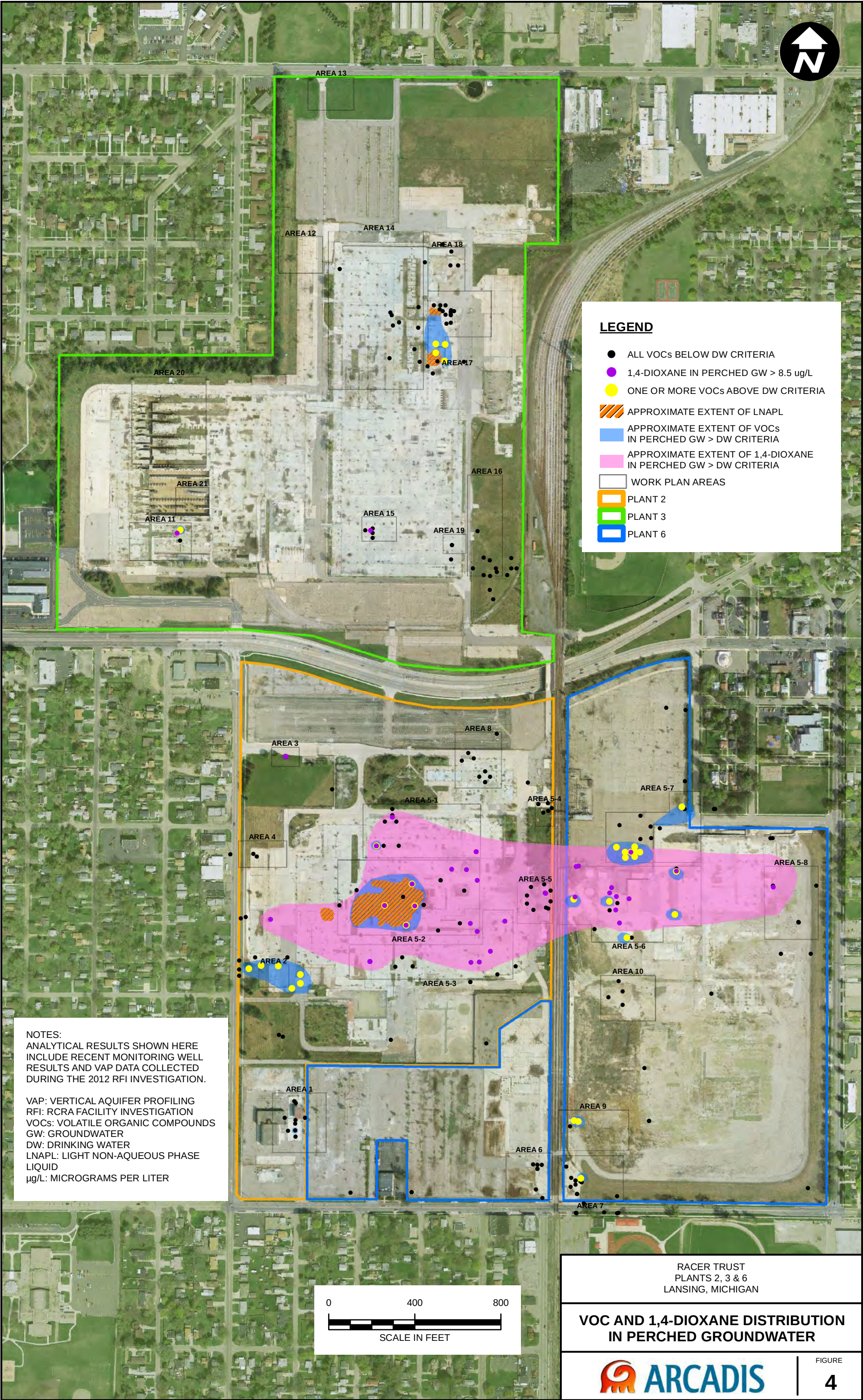


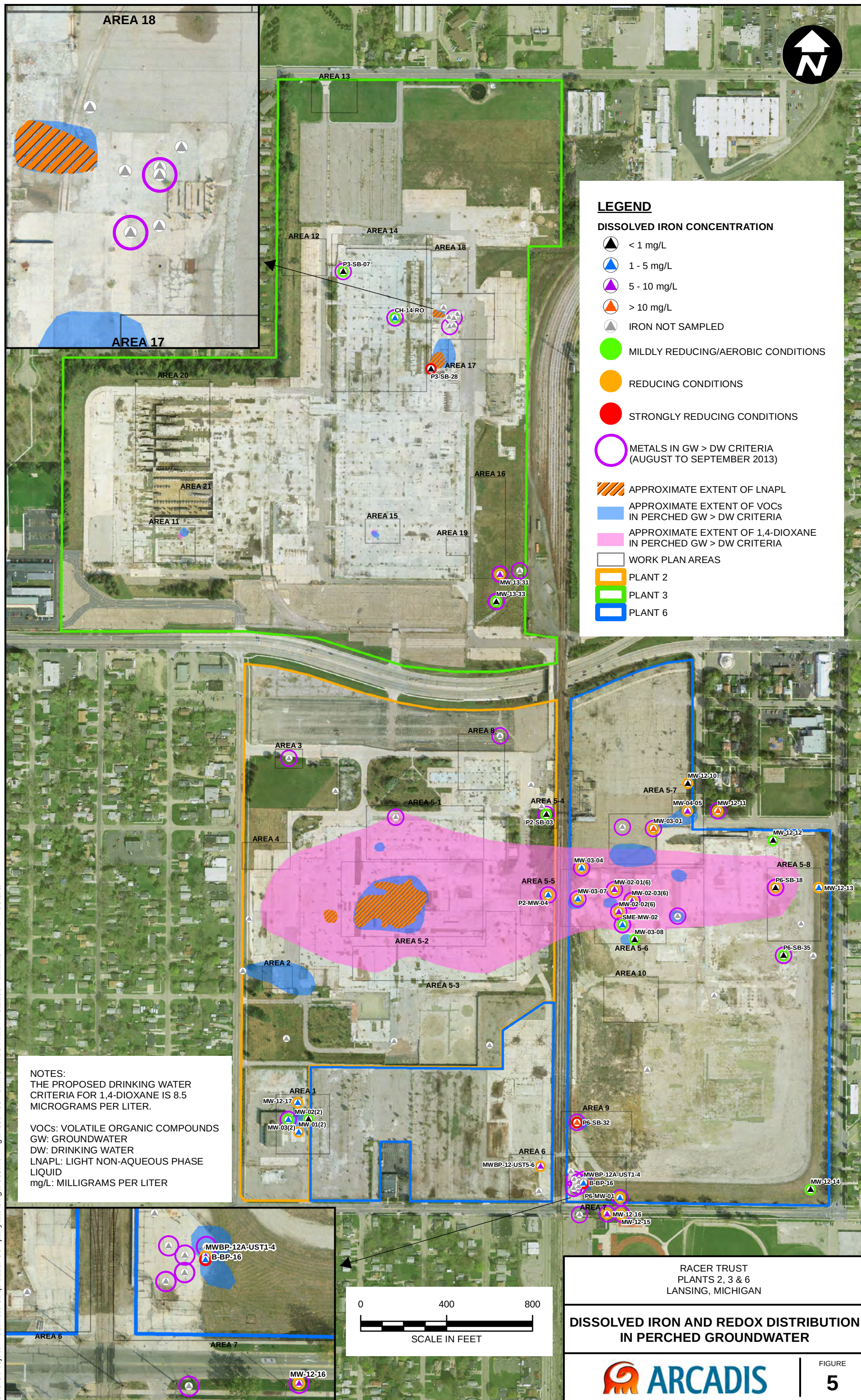
RACER TRUST
PLANTS 2, 3, & 6
LANSING, MICHIGAN

METALS EXCEEDANCES IN BEDROCK

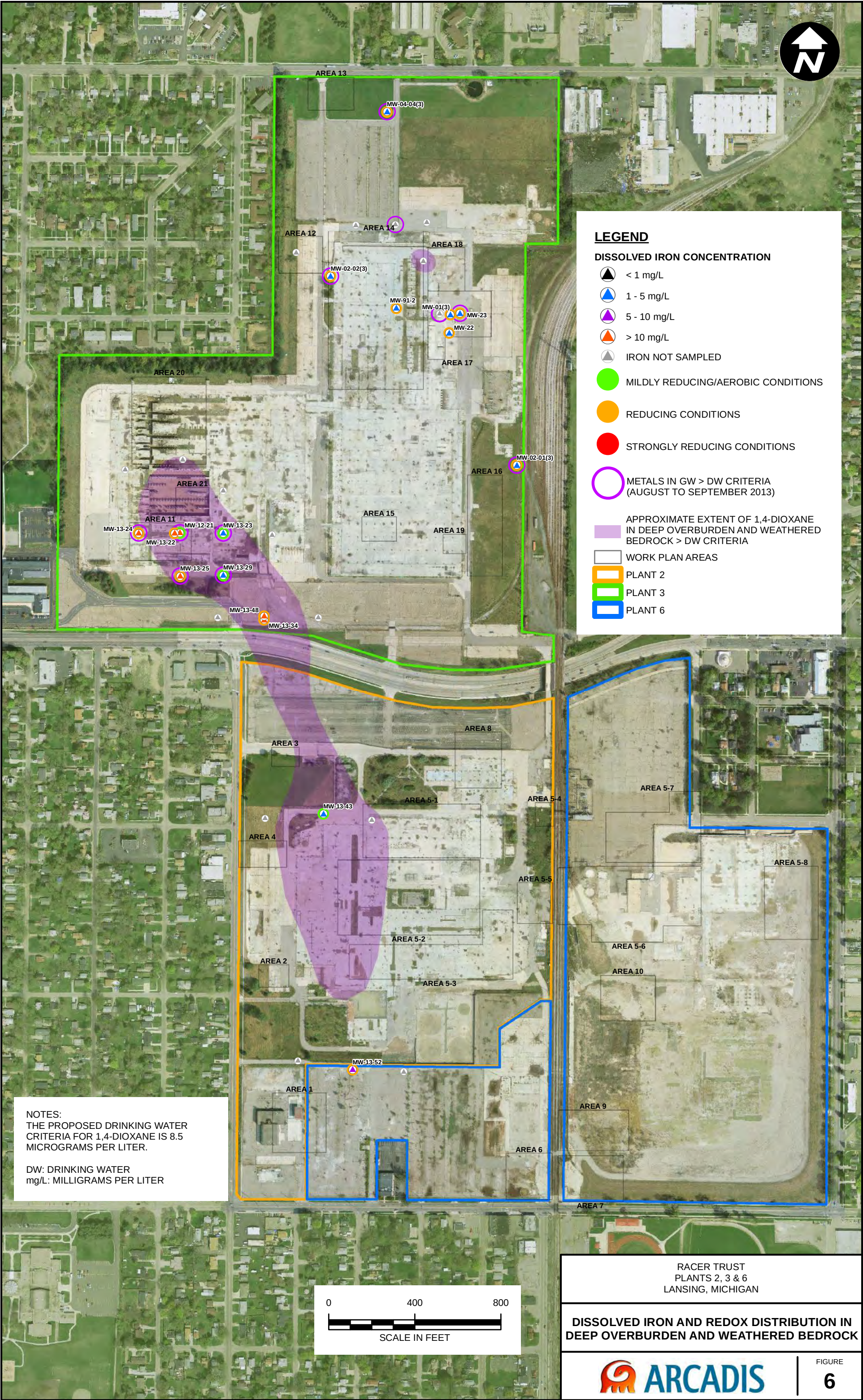


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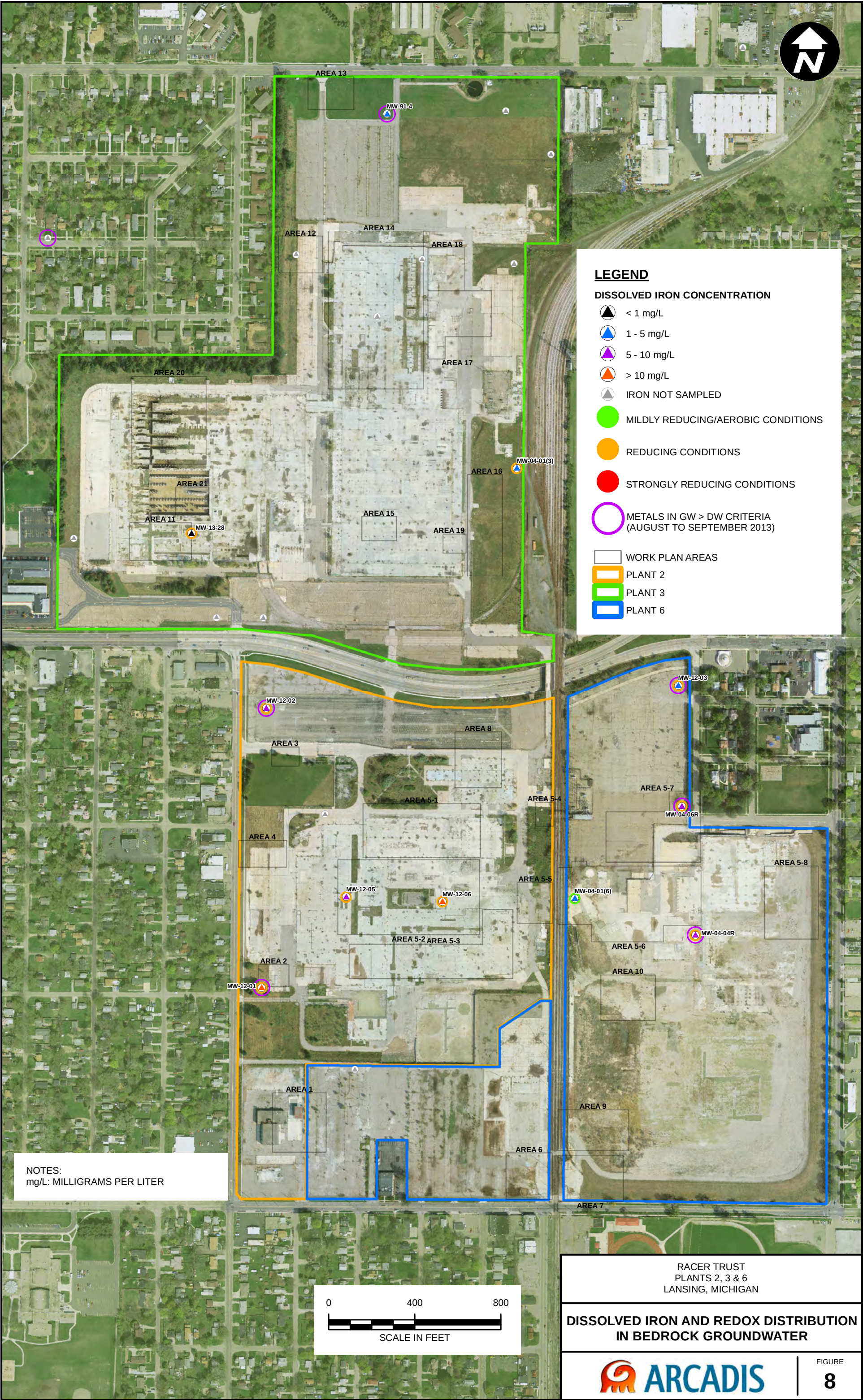




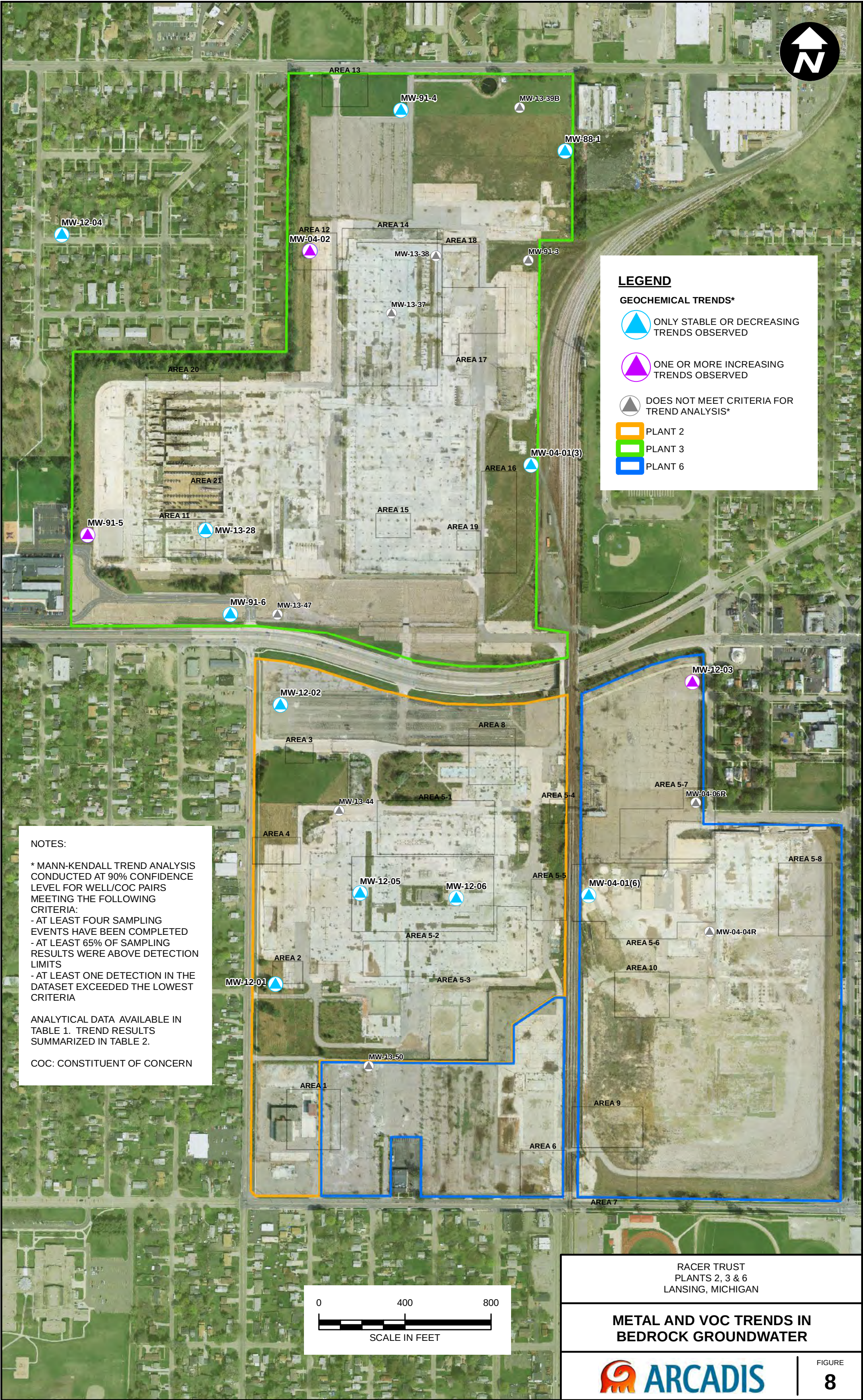
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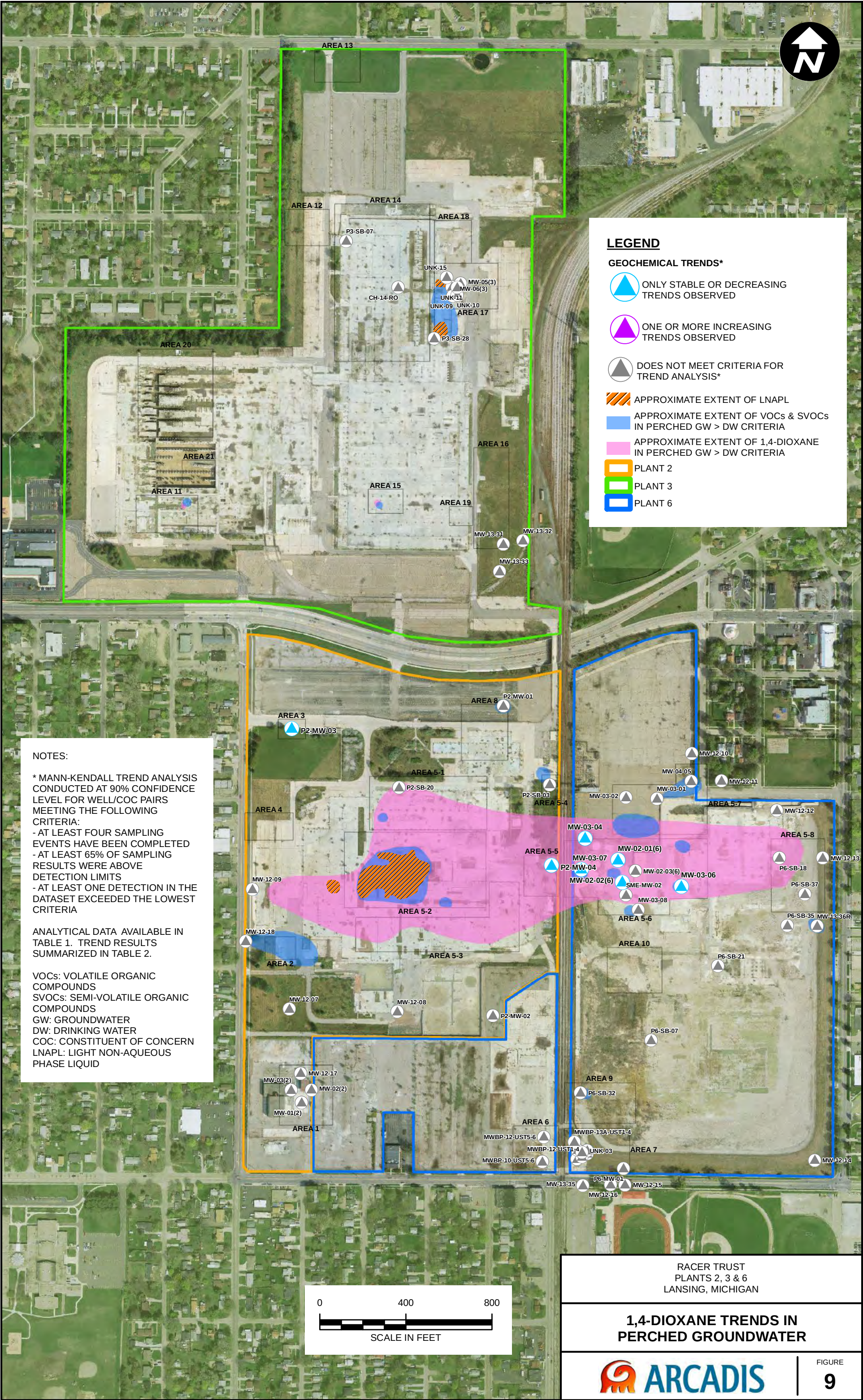
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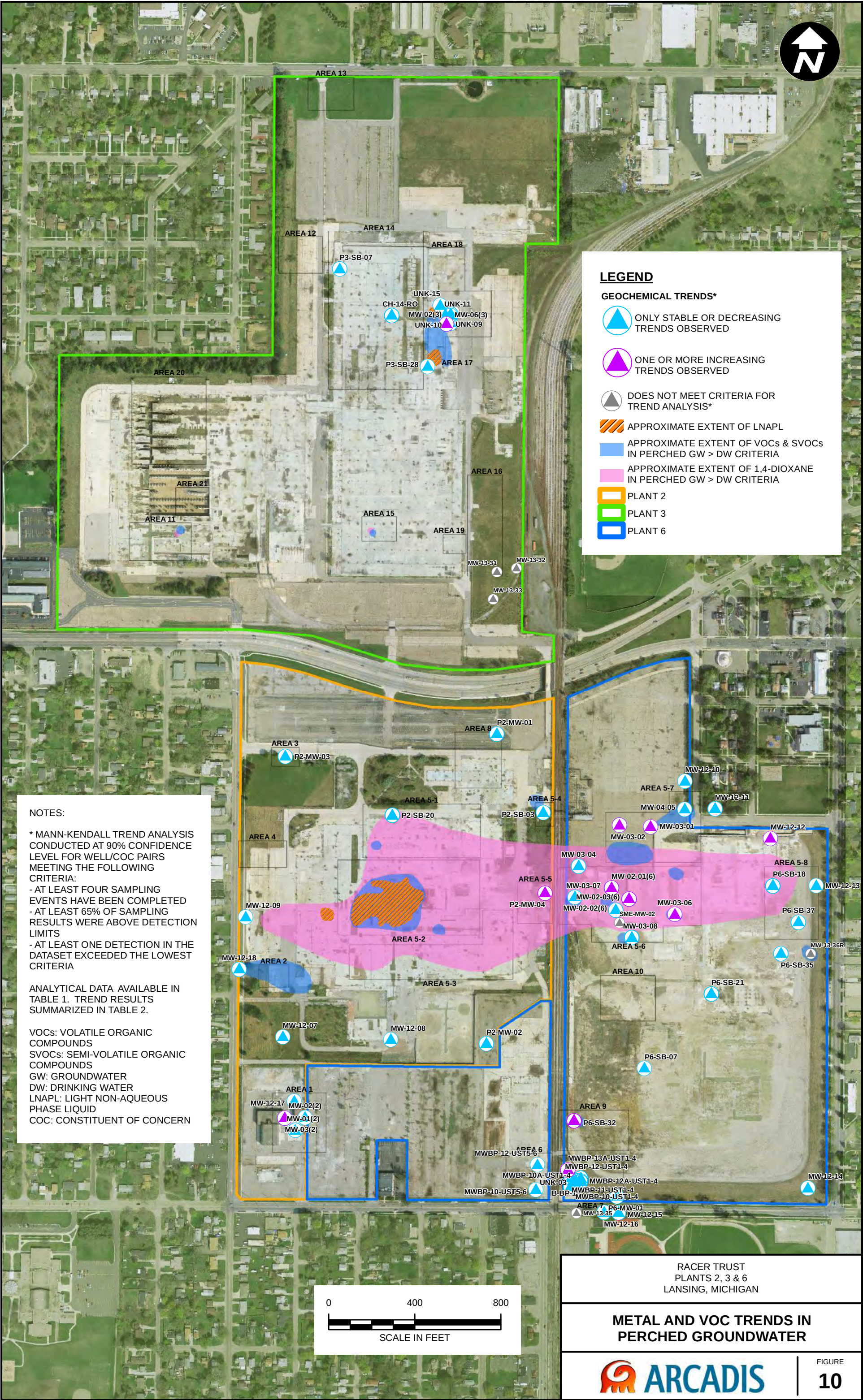
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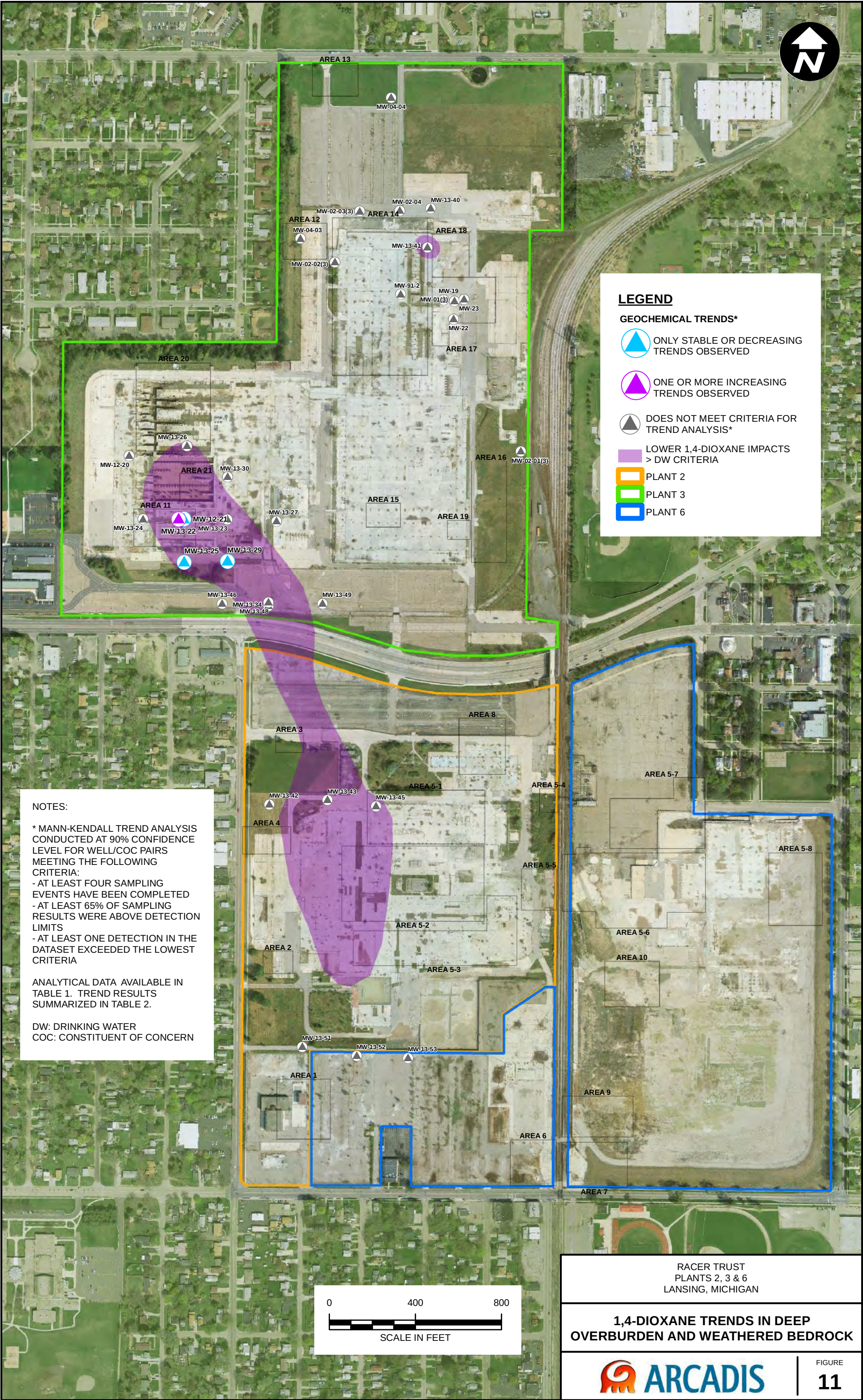
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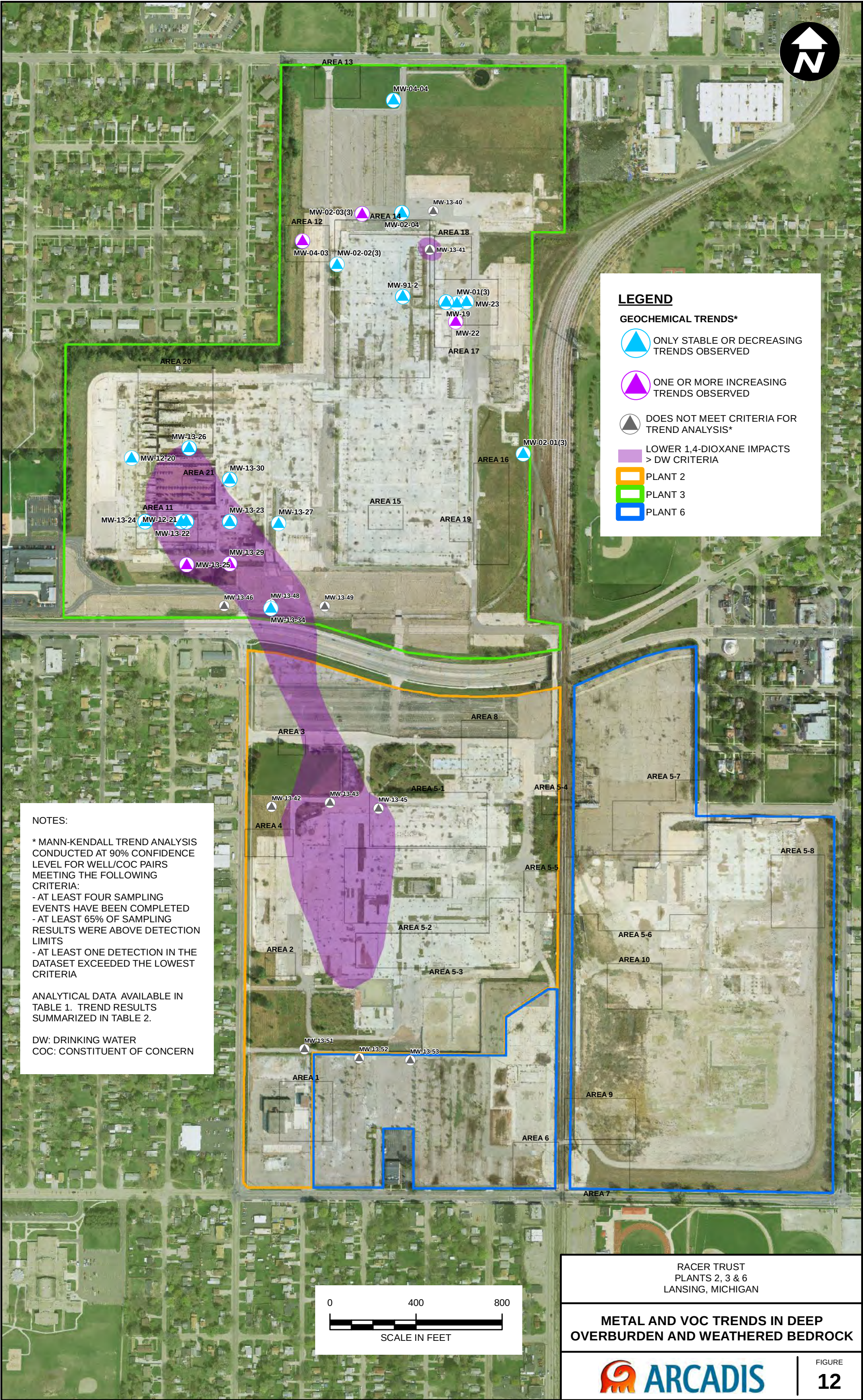
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Appendix A

Background Occurrence of Metals

Appendix A
Background Occurrence of Metals
Preliminary Groundwater Geochemical and Plume Stability Assessment
RACER Trust Plants 2, 3, and 6 – Lansing, Michigan

The area of Lansing, Michigan in Ingham County is underlain by glacial till deposited on eroded Pennsylvanian bedrock (Stuart 1945), specifically the Saginaw and Grand River formations. Limited data on metals concentrations in groundwater in the county is available. However, available information indicates arsenic concentrations in excess of drinking water criteria (10 µg/L) have been routinely detected across the county (Figure A-1) and, in several locations, concentrations up to 50 µg/L have been observed (MDEQ 2013, MDEQ 2014, Welch 2000).

Statewide background metals concentrations are better represented in available literature. Table A-1 presents results of a statewide study of natural groundwater quality conducted between 1974 and 1987 based on 299 samples of 210 wells covering 45 different glacial and bedrock deposits (Cummings 1989). Table A-1 also summarizes mean¹ concentrations of metals at the site in the three predominant groundwater bearing zones. Mean concentrations of the metals detected at the site are within the range of regional concentrations recorded in this study, with the exception of nickel.

Regional groundwater is under reducing conditions, leading to iron and manganese dissolution and mobilization of iron and manganese as well as metals associated with iron bearing minerals. Additional information regarding these processes is provided in Appendix B. These conditions explain the tendency of metals concentrations at the site to be in the upper ranges of state-wide average concentrations. Metals commonly associated with iron and manganese minerals include arsenic, copper, cobalt, lead, nickel, vanadium, and zinc.

No known site sources for the metals included in Table A-1 have been identified. Because they are also within the range of regional concentrations, they do not appear to be site-related. While no nickel source has been identified, further monitoring of nickel in discrete locations will continue to verify its stability.

References:

Cummings, T.R. 1989. Natural Ground-Water Quality in Michigan, 1974-87. United States Geological Survey Open File Report 89-259. July.

MDEQ 2013. Arsenic in Well Water: Health Information for Water Well Users. September 2013

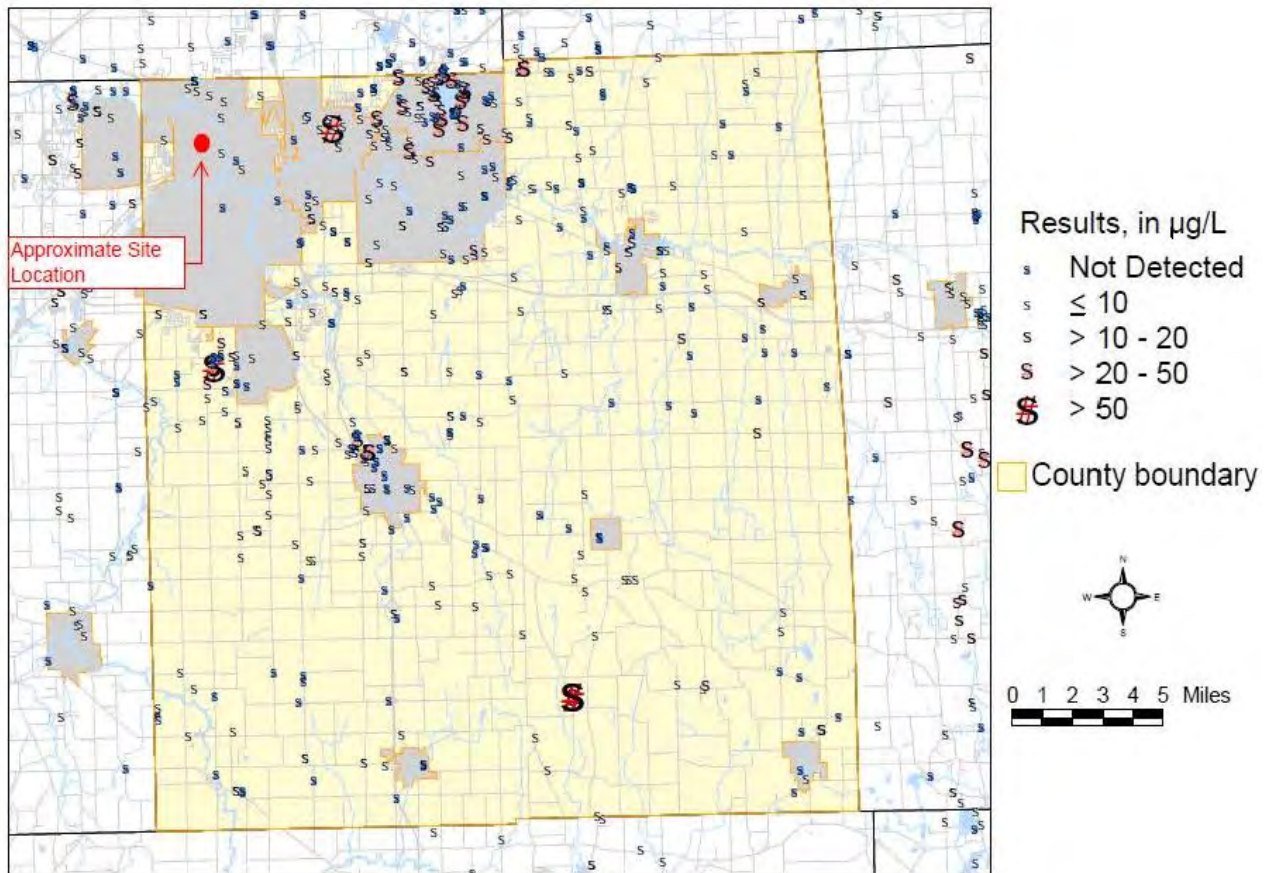
MDEQ 2014. Water Quality Maps for Michigan by County. http://www.michigan.gov/deq/0,4561,7-135-3313_3675_3690-76500--,00.html. Accessed March 2014.

Stuart, W.T. Progress Report on the Ground-water Resources of the Lansing Area, Michigan. Michigan Department of Conservation Geological Survey Division. June 1945.

Welch, A.H., Westjohn, D.B., Helsel, D.R. and Wanty, R.B. 2000, Arsenic in groundwater of the United States – occurrence and geochemistry: Ground Water v. 38 no. 4, p.589-604.

¹ Reported means are based only on concentrations at wells that were sampled four or more times, had at least one exceedance of criteria, and had at least 65 percent detections. As a result, reported means provide a higher, and thus more conservative, estimate of average maximum concentrations and overall site groundwater quality.

Appendix A
Background Occurrence of Metals
Preliminary Groundwater Geochemical and Plume Stability Assessment
RACER Trust Plants 2, 3, and 6 – Lansing, Michigan



Source: DEQ WaterChem Database, 1983-2003 samples

Figure A-1: Arsenic Concentrations in Groundwater in Ingham County (MDEQ 2014)



Appendix B

Fate and Transport of Metals and
Organic Species in Groundwater

Appendix B
Fate and Transport of Metals and Organic Species in Groundwater
Preliminary Groundwater Geochemical and Plume Stability Assessment
RACER Trust Plants 2, 3, and 6 – Lansing, Michigan

Fate and transport of volatile organic constituents (VOCs) and metals in groundwater is governed by physical processes (e.g., hydraulic conductivity of aquifer materials and hydraulic gradients), biological process, and geochemical conditions. Mobile metals may change oxidation-reduction (redox) state based on geochemical conditions, and as a result, become sequestered via sorption or precipitate in the form of oxide and hydroxide minerals. While these processes may immobilize metals, they do not result in destruction, and may be reversed by future changes in the geochemical environment (USEPA 2007). Organics, too, can become sequestered via sorption. However, organics are also degraded through biological or abiotic reactions which irreversibly transform the organic compound into simple and relatively innocuous compounds (USEPA 2004).

The oxidation of organic constituents in groundwater results in a depletion of electron acceptors (including dissolved oxygen, oxidized metals, nitrate, sulfate, and carbon dioxide) and generation of reducing conditions. Metals native to the subsurface bedrock, glacial till, or inherent in site fill may be mobilized under certain redox conditions. Conditions leading to mobilization are species-dependent; however, the most prevalent metals observed at the Site, arsenic, copper, cobalt, lead, nickel, vanadium, and zinc, are more mobile under reducing conditions. Conversely, these metals are often immobilized when exposed to more oxidizing conditions through precipitation and sorption (USEPA 2007).

Evaluation of the presence or absence of a true metals plume and its stability must account for known regional metals concentrations, the overall geochemical site setting, and the potential impacts of biodegradable VOCs. The focus of this attachment is the geochemical site setting and the effect of site geochemistry on dissolved metals concentrations.

Many organic constituents, including natural organic compounds, are biodegraded by microorganisms indigenous to the subsurface environment. During biodegradation, dissolved-phase organic compounds are transformed into carbon dioxide (CO₂), methane, and water. Biodegradation processes typically cause measurable changes in groundwater chemistry. In large part, this is observed by the sequential depletion of compounds used during respiration: dissolved oxygen, nitrate, oxidized metals, sulfate, and carbon dioxide. Thus, aerobic conditions will first progress to anaerobic conditions prior to transitioning to nitrate depletion. Next, oxidized metals present in the solid aquifer matrix such as manganese and iron will become reduced and dissolve. Finally sulfate and carbon dioxide will become depleted, and methane will be generated. Nitrate depletion and manganese and iron dissolution signify mildly reducing conditions, while sulfate depletion and methane generation (methanogenesis) signify strongly reducing conditions.

Regional groundwater in the Lansing area is under mildly reducing conditions and poised at the redox position where manganese and iron are being mobilized, termed manganese-reducing and iron-reducing conditions, respectively. Manganese-reducing conditions are induced slightly before iron-reducing. Once these metals are dissolved, other metals formerly complexed with iron and manganese minerals in the solid phase also dissolve. As a result, iron and manganese reduction can lead to mobilization of metals species including arsenic, copper, cobalt, lead, nickel, vanadium, and zinc (collectively, iron-associated metals). In addition, the metal species indicated are also reduced under similar conditions and may become reduced and dissolve directly.

Appendix B
Fate and Transport of Metals and Organic Species in Groundwater
Preliminary Groundwater Geochemical and Plume Stability Assessment
RACER Trust Plants 2, 3, and 6 – Lansing, Michigan

Once dissolved, the persistence of these metals in groundwater is governed by the redox conditions; a slight shift toward more oxidizing, less reducing, conditions results in precipitation of iron and manganese, often co-precipitating iron -associated metals. In addition, this shift in redox conditions may lead to sorption on new or existing mineral surfaces.

References:

USEPA 2004. Performance Monitoring of MNA Remedies for VOCs in Ground Water. EPA/600/R-04/027. April.

USEPA 2007. Monitored Natural Attenuation of Inorganic Contaminants in Ground Water: Volume 1 – Technical Basis for Assessment. EPA/R-07/139. October.



Appendix C

Interim Groundwater Monitoring
Activities

Appendix C
Interim Groundwater Monitoring Activities
Preliminary Groundwater Geochemical and Plume Stability Assessment
RACER Trust Plants 2, 3, and 6 – Lansing, Michigan

Site-wide interim groundwater sampling was completed during October 2011, December 2012, the second, third and fourth quarters of 2013 and the first quarter of 2014.

During the October 2011 sampling events a total of 7 wells were sampled from Plant 2; 16 wells were sampled from Plant 3; and 16 wells were sampled from Plant 6. Samples collected were analyzed for total compound list (TCL) VOCs via method 8260, TCL SVOCs via method 8270, total analyte list (TAL) total metals via method 6020 and PCBs.

During the December 2012 sampling event a total of 18 wells were sampled from Plant 2; 31 wells were sampled from Plant 3; and 39 wells were sampled from Plant 6. Samples collected were analyzed for TCL VOCs, TCL SVOCs and TAL metals.

The second quarter 2013 groundwater sampling event was completed between May 20, 2013 and June 13, 2013. A total of 17 wells were sampled from Plant 2; 41 wells were sampled from Plant 3; and 39 wells were sampled from Plant 6. Samples collected were analyzed for TCL VOCs, 1,4-dioxane via the SIMs method, TCL SVOCs and TAL metals. Those wells with turbidity above 10 nephelometric turbidity units (NTUs) were also field filtered and analyzed for dissolved metals.

The third quarter 2013 groundwater sampling event was completed between August 12, 2013 and August 26, 2013. A total of 18 wells were sampled from Plant 2; 43 wells were sampled from Plant 3; and 37 wells were sampled from Plant 6. Samples collected were analyzed for TCL VOCs, 1,4-dioxane via selective ion monitoring (SIM), TCL SVOCs and TAL metals. Those wells with turbidity above 10 NTUs were also field filtered and analyzed for dissolved metals. Also during the third quarter 2013 select wells were analyzed for water quality parameters, sulfate, nitrate, dissolved iron and manganese, methane, carbon dioxide (CO₂), and alkalinity.

The fourth quarter 2013 groundwater sampling event was completed between November 4, 2013 and November 14, 2013 and between December 16, 2013 and December 20, 2013. A total of 18 wells were sampled from Plant 2; 48 wells were sampled from Plant 3; and 40 wells were sampled from Plant 6. Samples collected were analyzed for TCL VOCs, 1,4-Dioxane via SIM, TCL SVOCs and TAL metals. Those wells with turbidity above 10 NTUs were also field filtered and analyzed for dissolved metals.

The first quarter 2014 groundwater sampling event was completed between February 3, 2014 and February 21, 2014. A total of 22 wells were sampled from Plant 2; 51 wells were sampled from Plant 3 and 34 wells were sampled from Plant 6. Samples collected were analyzed for TCL VOCs, 1,4-Dioxane via SIM, TCL SVOCs and TAL metals. Those wells with turbidity above 10 NTUs were also field filtered and analyzed for dissolved metals.

During each of the groundwater monitoring events noted above, and prior to collecting groundwater samples, all wells were gauged for depth to water and total depth to the nearest 0.01 foot (ft.), using a water-level meter within a 24 hour period.

During each of the groundwater monitoring events noted above, groundwater samples were collected from monitoring wells utilizing low-flow sampling procedures outlined in the approved field sampling plan (FSP). All wells were sampled utilizing a variable speed submersible pump. A YSI® multi-meter with flow through cell was used to collect the field parameters required for low-flow sampling.

All samples collected during the sampling events noted above were submitted to Merit Laboratories in Lansing, Michigan for analysis.



Appendix D

Mann-Kendall Trend Test

Appendix D
Mann-Kendall Trend Test
Preliminary Groundwater Geochemical and Plume Stability Assessment
RACER Trust Plants 2, 3, and 6 – Lansing, Michigan

The Mann-Kendall trend test is a non-parametric test that calculates trends based on ranked data, which can be useful where large variations in the magnitude of concentrations may be present and otherwise influence a time-series trend analysis (USEPA 2009). The basic Mann-Kendall trend test involves listing the concentrations in temporal order and computing all differences that may be formed between a given measurement and earlier measurements (Gilbert 1987). The test statistic (sum of trend (S)) is the difference between the number of strictly positive differences and the number of strictly negative differences. If there is an underlying increasing trend then these differences will tend to be positive, indicated by a sufficiently large positive value of the test statistic, and the reverse is true for a decreasing trend.

The p-value of the correlation provides a measure of the level of significance of the statistical test. In this evaluation, correlations were accepted as significant for p-values less than or equal to 0.10 (90 percent confidence level). Pursuant to United States Environmental Protection Authority (USEPA) (2009) guidance, non-detect results may be used in the Mann-Kendall analysis and treated by assigning them a common value that is lower than any of the detected concentrations for each individual well/constituent. For this analysis, the non-detects were substituted with a value equal to 95 percent of the lowest reported detected concentration per individual well/constituent.

A confidence level of 90 percent was selected for this analysis based on the number of data points available. While there is no strict guidance on appropriate confidence intervals in the overarching USEPA guidance (EPA 2009), it is generally accepted that a 90 percent confidence interval is suitable for assessing datasets with less than 10 data points.

References:

Gilbert 1987. *Statistical Methods for Environmental Pollution Monitoring*. New York: Van Nostrand Reinhold. 1987.

United States Environmental Protection Agency (USEPA) 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities. EPA 530/R-09-007. March 2009.



Appendix E

Concentration Versus Time Plots

(on CD)



Appendix F

Interim Groundwater Monitoring
Sampling Logs

(on CD)