



**Worldwide Facilities Group
Remediation Team**

April 29, 2008

Reference No. 013968

Mr. Peter Ramanauskas
Project Manager for IND 0060306099
Land and Chemicals Division
U.S. EPA Region 5
77 West Jackson Blvd. (LU-9J)
Chicago, IL 60604-3590

Dear Mr. Ramanauskas:

Re: GM Powertrain – Bedford Facility, IND 006036099
Voluntary RCRA Corrective Action
EI CA750 Determination
GM Powertrain Group, Bedford Indiana Facility
Bedford, Indiana

General Motors (GM) Powertrain–Bedford Plant, Bedford, Indiana (Facility) has prepared the enclosed CA750 – Migration of Contaminated Groundwater Under Control Form (including supporting tables and figures) to facilitate the United States Environmental Protection Agency's (U.S. EPA) CA750 determination for this Facility. Based on its evaluation of the RFI groundwater characterization results, GM believes that the available data on current groundwater conditions at the facility support a positive CA750 determination (RCRIS status code "YE").

Also enclosed are three documents that U.S. EPA had requested to facilitate its CA750 determination: (1) dye-trace study reports (prepared by Hydrogeology, Inc. (HGI)); (2) discussion of the quality control review of contamination of the sample analytical results that occurred in May and June 2006 (prepared by CRA); and (3) discussion regarding the re-sampling of residential wells near the Facility (prepared by CRA).

We look forward to your review of the enclosed materials. If you have any questions during your review, or need addition information, please call me at (248) 753-5799.

Yours truly,

General Motors Corporation

Cheryl R. Hiatt
Project Manager

WS/cnb/111
Encl.

c.c.: See Attached Distribution List

•2000 Centerpoint Pkwy •Mail Code 483-520-190 • Pontiac, MI 48341-3147 • FAX (248) 753-5829

GM Bedford Distribution List

		copy sent (y/n)
Peter Ramanauskas (2)	U.S. EPA, Region 5	Yes
Brad Stimple	U.S. EPA, OSC	Yes
Gerald O'Callaghan (5 copies)	IDEM Management	Yes
Stacey DeLaReintrie	TN & Associates	Yes
John Bassett	Earth Tech	Yes
Ed Peterson	GM WFG Remediation	Yes
Stephen Song	ENVIRON International Corporation, Inc.	Yes
Francis Ramacciotti	ENVIRON International Corporation, Inc.	Yes
James McGuigan	CRA Project Manager	Yes
Bill Steinmann	CRA Project Geologist	Yes

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action

Environmental Indicator (EI) RCRIS code (CA750)

Migration of Contaminated Groundwater Under Control

Facility Name: General Motors Powertrain Bedford Facility
Facility Address: 105 GM Drive, Bedford, Indiana
Facility EPA ID #: IND 006 036 099

1. Has **all** available relevant/significant information on known and reasonably suspected releases to the groundwater media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

 X If yes - check here and continue with #2 below.

 If no - re-evaluate existing data, or

 If data are not available skip to #6 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Migration of Contaminated Groundwater Under Control" EI

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)

Page 2

2. Is **groundwater** known or reasonably suspected to be “contaminated”¹ above appropriately protective “levels” (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?

 X If yes - continue after identifying key contaminants, citing appropriate “levels,” and referencing supporting documentation.

 If no - skip to #8 and enter “YE” status code, after citing appropriate “levels,” and referencing supporting documentation to demonstrate that groundwater is not “contaminated.”

 If unknown - skip to #8 and enter “IN” status code.

Rationale and Reference(s):

Groundwater at the Facility is found in four flow systems: overburden, shallow bedrock, intermediate bedrock, and deep bedrock. Groundwater in the overburden and shallow bedrock discharges to the ground surface as seeps and springs at some locations at and around the Facility. A survey of groundwater use around the Facility conducted during preparation of the Current Conditions Report (CRA 2001a) identified a few former residential wells, but found no current potable use of groundwater in the vicinity of the Facility (CRA 2001a). The locations where groundwater and spring water data have been collected from each of the groundwater flow systems are shown on Figures 1 to 8.

The identification of “contaminated” groundwater for the purposes of this CA750 determination is based on a comparison of the most recent groundwater and spring water data, which best represent current conditions, with drinking water criteria. This CA750 determination is based on validated groundwater and surface water data that were collected through March 18, 2008. The drinking water criteria are based on the following hierarchy: (1) Indiana maximum contaminant levels (MCLs), (2) Federal MCLs, and (3) Region 9 tap water ingestion values based on a target cancer risk of 10^{-5} and a hazard quotient of 1. Table 2-1 summarizes the comparison for the most recent groundwater data from monitoring wells for all detected constituents in each of the four flow systems. Table 2-2 summarizes the comparison of the most recent spring water data. Table 2-3 summarizes the most recent data from former residential wells and cisterns. The locations where the current data indicate presence of contamination are shown on Figures 1 to 8. The comparison results for non-PCB chemicals are shown on Figures 1 to 4, and the comparison results for PCBs are shown on Figures 5 to 8. Figures 5 to 8 are also color-coded to show locations where the concentration of PCBs had been higher than the MCL of 0.0005 mg/L even if subsequent monitoring showed that the concentration is not higher than the MCL.

Table 2-4a summarizes the locations where the concentration of PCBs in the most recent groundwater data is higher than the MCL. As shown on this table, only three monitoring wells in the overburden and shallow bedrock have PCB concentrations that exceed the MCL, and no wells in the intermediate bedrock and deep bedrock have a PCB concentration that exceeds the

Footnotes:

¹“Contamination” and “contaminated” describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriate “levels” (appropriate for the protection of the groundwater resource and its beneficial uses).

**Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)**

Page 3

MCL. Table 2-4b summarizes the locations of the springs where the concentration of PCBs in the most recent data is higher than the MCL. As shown on this table, approximately 20 springs have PCB concentrations that exceed the MCL, but the spring water from all of these locations is collected and managed in accordance with the Facility's Site Source Control Plan (CRA 2003) and Addenda.

As shown on Tables 2-1, two other organic compounds have concentrations in groundwater that are higher than the drinking water criteria. Chlorobenzene and vinyl chloride concentrations exceeded the drinking water criteria at one former temporary monitoring well (TMW-X193Y251) in the overburden, which has been removed as part of the AOI 4 soil removal action in March 2007.

Tables 2-1 and 2-2 also show that a few metals (aluminum, arsenic, chromium, iron, lead, and manganese) have concentrations that are higher than the drinking water criteria at several monitoring wells and springs. However, the presence of these metals is likely unrelated to the Facility based on their distribution in the groundwater and the RFI soil characterization data at and around these locations. Additional groundwater sampling and analysis for certain metals at certain locations (MW-X033Y147 cluster, MW-X257Y073, and MW-X169Y058S-1) were included as part of the most recent groundwater sampling event to verify the prior concentrations. The results of this sampling show that the most recent concentrations of chromium III and VI, antimony, and thallium do not exceed drinking water criteria at the MW-X033Y147 cluster, MW-X257Y073, and MW-X169Y058S-1, respectively. These data, including the recently collected data, do not indicate that the metal concentrations higher than the drinking water criteria are related to the Facility, and therefore, these concentrations are not considered "contamination" for the purposes of this CA750 determination.

Nonaqueous-phase liquid (NAPL) is present at several springs and monitoring wells in the overburden and shallow bedrock. The majority of the NAPL observed in overburden and shallow bedrock at the Facility is denser than water and likely hydraulic oil that was used in the die-presses. NAPL that is lighter than water has been observed at only one location at the Facility, corehole location CH-5. At this location, both light non-aqueous phase liquid (LNAPL) and dense non-aqueous phase liquid (DNAPL) have historically been observed. However, the most recent monitoring of this location has identified only dense NAPL and the material that appeared to be LNAPL at CH-5 may have settled and sunk to the bottom of the corehole. The analytical data from NAPL and liquid emulsion are summarized on Table 2-5, which show that PCBs were detected in most of the liquid samples. A few VOCs, SVOCs, and metals were also detected in some of the liquid samples. NAPL was also present in the former residential well at Parcel 207 (which is in the shallow bedrock) and possibly in the former residential well at Parcel 213. The most recent result from the Parcel 207 Well is included on Table 2-3. The residential well at Parcel 213 was previously grouted, thus, a sample could not be collected from this location. However, GM has installed monitoring wells at both of these parcels (MW-X247Y118 and MW-X318Y217) and has not observed NAPL in these monitoring wells.

In summary, groundwater at the Facility is considered to meet the definition of "contamination" based on the presence of concentrations of PCBs, chlorobenzene, and vinyl chloride in groundwater and spring water that are higher than their MCLs, and the presence of NAPL.

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)

Page 4

3. Has the **migration** of contaminated groundwater **stabilized** (such that contaminated groundwater is expected to remain within “existing area of contaminated groundwater”² as defined by the monitoring locations designated at the time of this determination)?

 X If yes - continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the (horizontal or vertical) dimensions of the “existing area of groundwater contamination”²).

 If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the “existing area of groundwater contamination”²) - skip to #8 and enter “NO” status code, after providing an explanation.

 If unknown - skip to #8 and enter “IN” status code.

Rationale and Reference(s):

Groundwater and Springs

Overburden Groundwater

Chlorobenzene, vinyl chloride, and PCB concentrations exceed their MCLs at former temporary monitoring well TMW-X193Y251, which was installed in the overburden and was subsequently excavated as part of the AOI 4 soil removal action in March 2007. As shown in the dye-trace report for AOI 4 (Hydrogeology inc. 2007), groundwater at this location flows to the northeast and discharges at a number of springs which are all being captured in Site Source Control (SSC) systems A, B, E, F, and G.

Shallow Bedrock Groundwater

Total and dissolved PCB concentrations exceed the MCL from samples collected in March 2003 at MW-X233Y087S and in February 2008 at B-X143Y193CG. Groundwater in the shallow bedrock in the area of MW-X233Y087S flows to the southeast and is captured by Wet Well 1. Groundwater in the shallow bedrock in the area of B-X143Y193CG flows to the northeast and is captured by the installed Site Source Control systems and/or by the vault underdrain collection system from the East Plant Area Vault Design Report (CRA 2006).

Intermediate Bedrock Groundwater

As noted in the answer to Question 2, no site-related constituent has a groundwater concentration that is higher than the drinking water criteria in the intermediate bedrock.

Deep Bedrock Groundwater

As noted in the answer to Question 2, no site-related constituent has a groundwater concentration that is higher than the drinking water criteria in the deep bedrock.

² “existing area of contaminated groundwater” is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of “contamination” that can and will be sampled/tested in the future to physically verify that all “contaminated” groundwater remains within this area, and that the further migration of “contaminated” groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.

**Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)**

Page 5

Former Residential Well Groundwater

PCB concentrations in groundwater from the most recent sampling of wells where the concentration of PCBs previously exceeded the MCL do not currently exceed the MCL.

Spring Water

Total and dissolved PCB concentrations exceed the MCL at approximately 20 springs. These seeps and springs are being controlled by SSC systems, Interim Measures (IM), or through removal of the spring. Table 2-4b identifies how these seeps and springs are being controlled.

In summary, the lateral and vertical extent of site-related constituent concentrations in groundwater and spring water that are higher than the drinking water criteria is either bounded by locations where groundwater or spring water is not contaminated or bounded by locations where groundwater and spring water are captured by the SSC systems.

NAPL

Figures 5 and 6 show the 13 locations where NAPL has been observed in the overburden and shallow bedrock. The lateral extent of NAPL at these 13 locations is either controlled by a SSC system or is bounded by monitoring locations where NAPL is absent. Specifically, the lateral extent of NAPL at locations CH-1B, CH-2A, CH-5, SU-X208Y096, MW-X085Y070S-2, MW-X227Y049, MW-X227Y054, MW-X209Y053, Parcel 207 Well, and Spring 3-001 is controlled by Wet Well 1 and Wet Well 2. The lateral extent of NAPL at Spring H is controlled by SSC System H. NAPL extent at locations MW-X012Y100 and MW-X211Y131 are bounded by downgradient locations that do not have NAPL. Specifically, shallow well MW-X012Y100 is bounded by locations MW-X000Y105 and MW-X022Y094, which also monitor shallow groundwater. Shallow well MW-X211Y131 is bounded downgradient by the well cluster at MW-X234Y157, which has two intervals screened to monitor shallow groundwater.

Some of the liquid samples collected at the Facility have been characterized as a DNAPL. As discussed in the January 20, 2006, memorandum to USEPA (Kueper 2006), the shallow bedrock units contain solution enhanced features (epi-karst), which has a high storage capacity for DNAPL. On the other hand, the intermediate bedrock and deep bedrock lack significant amounts of weathering and fractures. Therefore, it is unlikely that DNAPL has migrated vertically and entered these deeper flow systems. This is supported by the fact that no liquid/sheen has been seen in any of the monitoring wells in these deeper flow systems.

In summary, the lateral and vertical extent of NAPL is bounded by locations where NAPL is absent and/or locations where NAPL is captured by the SSC systems.

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)

Page 6

4. Does “contaminated” groundwater **discharge** into **surface water** bodies?

_____ If yes - continue after identifying potentially affected surface water bodies.

 X If no - skip to #7 (and enter a “YE” status code in #8, if #7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater “contamination” does not enter surface water bodies.

_____ If unknown - skip to #8 and enter “IN” status code.

Rationale and Reference(s):

As discussed in the RFI Work Plan, several surface water bodies exist to the east, north, and west of the Facility. Previously, contaminated groundwater had discharged to some of the streams adjacent to the Facility, primarily through the overburden (some of which has been removed as part of the remediation) and shallow bedrock. The sediment in these streams has since been remediated, and all identified sources that could discharge to the streams have been controlled in accordance with the SSC Plan (CRA 2003) and Addenda. In addition, an extensive seep and spring monitoring program has been initiated; seeps and springs that have been found to have contamination have been controlled with collection systems. Based on available data, no contaminated groundwater or spring water currently discharge to any surface water body

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)

Page 7

5. Is the **discharge** of “contaminated” groundwater into surface water likely to be “**insignificant**” (i.e., the maximum concentration³ of each contaminant discharging into surface water is less than 10 times their appropriate groundwater “level,” and there are no other conditions (e.g., the nature, and number, of discharging contaminants, or environmental setting), which significantly increase the potential for unacceptable impacts to surface water, sediments, or eco-systems at these concentrations)?

_____ If yes - skip to #7 (and enter “YE” status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration³ of key contaminants discharged above their groundwater “level,” the value of the appropriate “level(s),” and if there is evidence that the concentrations are increasing; and 2) provide a statement of professional judgement/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or eco-system.

_____ If no - (the discharge of “contaminated” groundwater into surface water is potentially significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration³ of each contaminant discharged above its groundwater “level,” the value of the appropriate “level(s),” and if there is evidence that the concentrations are increasing; and 2) for any contaminants discharging into surface water in concentrations³ greater than 100 times their appropriate groundwater “levels,” the estimated total amount (mass in kg/yr) of each of these contaminants that are being discharged (loaded) into the surface water body (at the time of the determination), and identify if there is evidence that the amount of discharging contaminants is increasing.

_____ If unknown - enter “IN” status code in #8.

Rationale and Reference(s):

³ As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)

Page 8

6. Can the **discharge** of “contaminated” groundwater into surface water be shown to be “**currently acceptable**” (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented⁴)?

_____ If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site’s surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR 2) providing or referencing an interim-assessment,⁵ appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment “levels,” as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.

_____ If no - (the discharge of “contaminated” groundwater can not be shown to be “**currently acceptable**”) - skip to #8 and enter “NO” status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.

_____ If unknown - skip to 8 and enter “IN” status code.

Rationale and Reference(s):

⁴ Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

⁵ The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or eco-systems.

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)

Page 9

7. Will groundwater **monitoring** / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the “existing area of contaminated groundwater?”

 X If yes - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in #3) that groundwater contamination will not be migrating horizontally (or vertically, as necessary) beyond the “existing area of groundwater contamination.”

 If no - enter “NO” status code in #8

 If unknown - enter “IN” status code in #8.

Rationale and Reference(s):

Table 2-6a lists the monitoring wells, sampling frequencies, and analysis parameters that will be used to verify the stability of contaminated groundwater during the initial year of monitoring to verify this CA750 determination. Table 2-6b lists the monitoring wells where groundwater elevations will be measured and the frequency of measurement during this period to verify groundwater flow direction. Table 2-6b also identifies the monitoring wells where the presence of NAPL will be measured and the frequency of measurement. The locations identified for CA750 monitoring are also distinguished using color shading on Figures 1-8.

Table 2-6a also includes three surface water sampling locations that are intended to help confirm contaminated groundwater does not discharge to surface water. However, location Tributary 3-3 will not be sampled until potential surface runoff from currently uncapped areas surrounding Tributary 3 has been eliminated through completion of the cap system for the East Plant Area Interim Measures Alternatives Review (CRA 2005).

Separate from the CA750 monitoring summarized in Tables 2-6a and 2-6b, GM plans to continue monitoring the Site Source Controls (SSCs) and groundwater elevations at all available monitoring wells installed for the RFI.

After the first year of semi-annual monitoring, the monitoring locations and frequencies will be re-evaluated with USEPA to determine if modifications to the plan would be appropriate for the purposes of this CA750 determination.

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)

Page 10

8. Check the appropriate RCRIS status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

YE YE - Yes, "Migration of Contaminated Groundwater Under Control" has been verified. Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at the General Motors Powertrain Bedford Facility, EPA ID # IND 006 036 099, located at 105 GM Drive, Bedford, Indiana. Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater" This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

_____ NO - Unacceptable migration of contaminated groundwater is observed or expected.

_____ IN - More information is needed to make a determination.

Completed by (signature) _____ Date _____
 (print) _____
 (title) _____

Supervisor (signature) _____ Date _____
 (print) _____
 (title) _____
 (EPA Region or State) _____

Locations where References may be found:

USEPA Region 5 has the following documents, which support the CA750 documentation:

- *Current Conditions Report (CRA 2001a)*
- *RFI Work Plan (CRA 2001b) and Addenda*
- *Site Source Control Work Plan (CRA 2003) and Addenda*
- *RFI Investigation Groundwater Analytical Data Report (CRA 2003)*
- *RFI Technical Memorandum – Soil; Sediment; Surface Water; Wipe Sampling (CRA 2004)*
- *EI CA725 Report (ENVIRON 2005)*
- *Memorandums on High & Low Flow Spring & Seep Sampling (CRA 2005) and amendments*
- *East Plant Area Interim Measures Alternatives Review (CRA 2005)*
- *Technical Memorandum to Peter Ramanauskas from D. H. Kueper (2006)*
- *East Plant Area Vault Design Report (CRA 2006)*
- *Dye Trace Reports (Hydrogeology inc. 2007)*
- *Residential Well Re-Sampling Technical Memorandum (CRA 2008)*

Contact telephone and e-mail numbers

(name) _____
(phone #) _____
(e-mail) _____

T A B L E S

Table 2-1:	Groundwater Screening Results Summary
Table 2-2:	Spring Water Screening Results Summary
Table 2-3:	Residential Well and Cistern Sampling Results
Table 2-4a:	Groundwater Samples Exceeding Screening Criterion for PCBs
Table 2-4b:	Spring Water Samples Exceeding Screening Criterion for PCBs
Table 2-5:	Other Liquid Matrices Screening Results Summary
Table 2-6a:	CA750 Groundwater and Surface Water Sampling Locations
Table 2-6b:	CA750 NAPL and Groundwater Gauging Locations

Table 2-1: Groundwater Screening Results Summary
GM Powertrain Bedford Facility, Bedford, Indiana

On/Off-Site	Hydrogeologic Unit	Chem Group	Chemical	CASRN	Meas Basis	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Max Detect to Drinking Water Criteria
ON	Overburden	VOC	Benzene	71-43-2	T	4	1	1.55E-03	1.55E-03	5.0E-03	3.1E-01
ON	Overburden	VOC	2-Butanone	78-93-3	T	4	1	7.30E-04	7.30E-04	2.2E+01	3.3E-05
ON	Overburden	VOC	Chlorobenzene	108-90-7	T	4	1	1.45E-01	1.45E-01	1.0E-01	1.5E+00
ON	Overburden	VOC	1,2-Dichlorobenzene	95-50-1	T	4	1	3.70E-03	3.70E-03	6.0E-01	6.2E-03
ON	Overburden	VOC	Vinyl Chloride	75-01-4	T	4	1	5.30E-03	5.30E-03	2.0E-03	2.7E+00
ON	Overburden	PCB	PCBs (total)	1336-36-3	D	4	1	1.02E-03	1.02E-03	5.0E-04	2.0E+00
ON	Overburden	PCB	PCBs (total)	1336-36-3	T	4	2	4.43E-05	2.20E-03	5.0E-04	4.4E+00
ON	Overburden	INORG	Aluminum	7429-90-5	T	4	1	2.40E-01	2.40E-01	3.7E+01	6.5E-03
ON	Overburden	INORG	Arsenic	7440-38-2	D	4	1	5.20E-03	5.20E-03	1.0E-02	5.2E-01
ON	Overburden	INORG	Arsenic	7440-38-2	T	4	1	2.90E-03	2.90E-03	1.0E-02	2.9E-01
ON	Overburden	INORG	Barium	7440-39-3	D	4	4	3.40E-02	2.10E-01	2.0E+00	1.1E-01
ON	Overburden	INORG	Barium	7440-39-3	T	4	4	2.90E-02	2.10E-01	2.0E+00	1.1E-01
ON	Overburden	INORG	Cadmium	7440-43-9	D	4	1	6.70E-04	6.70E-04	5.0E-03	1.3E-01
ON	Overburden	INORG	Cadmium	7440-43-9	T	4	1	7.00E-04	7.00E-04	5.0E-03	1.4E-01
ON	Overburden	INORG	Chromium (total)	7440-47-3	T	4	2	3.70E-03	6.90E-03	1.0E-01	6.9E-02
ON	Overburden	INORG	Cobalt	7440-48-4	D	4	3	4.00E-03	1.10E-01	7.3E-01	1.5E-01
ON	Overburden	INORG	Cobalt	7440-48-4	T	4	3	3.90E-03	1.80E-01	7.3E-01	2.5E-01
ON	Overburden	INORG	Copper	7440-50-8	D	4	1	1.70E-02	1.70E-02	1.3E+00	1.3E-02
ON	Overburden	INORG	Copper	7440-50-8	T	4	1	3.50E-02	3.50E-02	1.3E+00	2.7E-02
ON	Overburden	INORG	Iron	7439-89-6	D	4	2	3.30E+00	4.65E+00	1.1E+01	4.2E-01
ON	Overburden	INORG	Iron	7439-89-6	T	4	3	1.40E-01	4.70E+00	1.1E+01	4.3E-01
ON	Overburden	INORG	Manganese	7439-96-5	D	4	4	6.45E-02	2.20E+00	8.8E-01	2.5E+00
ON	Overburden	INORG	Manganese	7439-96-5	T	4	4	6.20E-02	2.20E+00	8.8E-01	2.5E+00
ON	Overburden	INORG	Mercury	7439-97-6	D	4	1	1.30E-04	1.30E-04	2.0E-03	6.5E-02
ON	Overburden	INORG	Mercury	7439-97-6	T	4	2	6.73E-05	1.50E-04	2.0E-03	7.5E-02
ON	Overburden	INORG	Nickel	7440-02-0	D	4	3	3.20E-03	1.40E-01	7.3E-01	1.9E-01
ON	Overburden	INORG	Nickel	7440-02-0	T	4	4	2.18E-03	1.40E-01	7.3E-01	1.9E-01
ON	Overburden	INORG	Zinc	7440-66-6	D	4	2	5.40E-02	6.60E-02	1.1E+01	6.0E-03
ON	Overburden	INORG	Zinc	7440-66-6	T	4	2	5.20E-02	6.60E-02	1.1E+01	6.0E-03
ON	Shallow_Bedrock	VOC	Acetone	67-64-1	T	27	2	1.20E-03	4.20E-03	3.7E+00	1.1E-03
ON	Shallow_Bedrock	VOC	Benzene	71-43-2	T	27	1	3.10E-04	3.10E-04	5.0E-03	6.2E-02
ON	Shallow_Bedrock	VOC	2-Butanone	78-93-3	T	27	7	8.80E-04	8.00E-02	2.2E+01	3.6E-03
ON	Shallow_Bedrock	VOC	Carbon Disulfide	75-15-0	T	27	3	2.70E-04	7.70E-04	3.7E+00	2.1E-04
ON	Shallow_Bedrock	VOC	Chlorobenzene	108-90-7	T	29	2	2.50E-04	9.30E-04	1.0E-01	9.3E-03
ON	Shallow_Bedrock	VOC	Chloroform	67-66-3	T	27	5	3.20E-04	5.10E-03	8.0E-02	6.4E-02
ON	Shallow_Bedrock	VOC	Chloromethane	74-87-3	T	27	2	1.60E-04	1.90E-04	5.2E-02	3.7E-03
ON	Shallow_Bedrock	VOC	1,2-Dichlorobenzene	95-50-1	T	27	1	4.00E-04	4.00E-04	6.0E-01	6.7E-04
ON	Shallow_Bedrock	VOC	1,3-Dichlorobenzene	541-73-1	T	27	2	2.60E-04	2.20E-03	3.3E-02	6.7E-02
ON	Shallow_Bedrock	VOC	1,4-Dichlorobenzene	106-46-7	T	27	2	4.10E-04	6.20E-03	7.5E-02	8.3E-02
ON	Shallow_Bedrock	VOC	cis-1,2-Dichloroethene	156-59-2	T	27	1	2.00E-03	2.00E-03	7.0E-02	2.9E-02
ON	Shallow_Bedrock	VOC	4-Methyl-2-pentanone	108-10-1	T	27	1	8.80E-04	8.80E-04	2.9E+00	3.0E-04
ON	Shallow_Bedrock	VOC	Toluene	108-88-3	T	27	13	2.10E-04	6.60E-02	1.0E+00	6.6E-02
ON	Shallow_Bedrock	VOC	Vinyl Chloride	75-01-4	T	29	1	1.90E-03	1.90E-03	2.0E-03	9.5E-01
ON	Shallow_Bedrock	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T	27	2	3.10E-03	4.50E-03	6.0E-03	7.5E-01
ON	Shallow_Bedrock	SVOC	Butylbenzylphthalate	85-68-7	T	27	3	6.10E-04	3.40E-03	7.3E+00	4.7E-04
ON	Shallow_Bedrock	SVOC	Caprolactam	105-60-2	T	27	4	9.10E-04	6.20E-01	1.8E+01	3.4E-02

Table 2-1: Groundwater Screening Results Summary
GM Powertrain Bedford Facility, Bedford, Indiana

On/Off-Site	Hydrogeologic Unit	Chem Group	Chemical	CASRN	Meas Basis	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Max Detect to Drinking Water Criteria
ON	Shallow_Bedrock	SVOC	Diethylphthalate	84-66-2	T	27	3	1.60E-03	4.50E-03	2.9E+01	1.6E-04
ON	Shallow_Bedrock	SVOC	2,4-Dimethylphenol	105-67-9	T	27	1	1.10E-03	1.10E-03	7.3E-01	1.5E-03
ON	Shallow_Bedrock	SVOC	Di-n-butylphthalate	84-74-2	T	27	5	7.30E-04	5.30E-03	3.7E+00	1.4E-03
ON	Shallow_Bedrock	SVOC	Di-n-octylphthalate	117-84-0	T	27	1	6.90E-04	6.90E-04	1.5E+00	4.6E-04
ON	Shallow_Bedrock	SVOC	Methylphenol (total)	1319-77-3	T	27	1	9.60E-03	9.60E-03	1.8E+01	5.3E-02
ON	Shallow_Bedrock	SVOC	Phenol	108-95-2	T	27	3	9.00E-03	1.20E-01	2.2E+01	5.5E-03
ON	Shallow_Bedrock	PCB	PCBs (total)	1336-36-3	D	43	4	6.80E-05	1.70E-03	5.0E-04	3.4E+00
ON	Shallow_Bedrock	PCB	PCBs (total)	1336-36-3	T	43	4	7.60E-05	4.30E-02	5.0E-04	8.6E+01
ON	Shallow_Bedrock	INORG	Aluminum	7429-90-5	D	25	1	3.30E-01	3.30E-01	3.7E+01	8.9E-03
ON	Shallow_Bedrock	INORG	Aluminum	7429-90-5	T	25	1	3.30E-02	3.30E-02	3.7E+01	8.9E-04
ON	Shallow_Bedrock	INORG	Antimony	7440-36-0	D	25	1	4.30E-03	4.30E-03	6.0E-03	7.2E-01
ON	Shallow_Bedrock	INORG	Arsenic	7440-38-2	D	25	7	2.30E-03	1.30E-02	1.0E-02	1.3E+00
ON	Shallow_Bedrock	INORG	Arsenic	7440-38-2	T	25	7	2.50E-03	1.20E-02	1.0E-02	1.2E+00
ON	Shallow_Bedrock	INORG	Barium	7440-39-3	D	25	24	3.00E-02	2.10E-01	2.0E+00	1.1E-01
ON	Shallow_Bedrock	INORG	Barium	7440-39-3	T	25	23	3.20E-02	2.20E-01	2.0E+00	1.1E-01
ON	Shallow_Bedrock	INORG	Cadmium	7440-43-9	D	25	2	3.20E-04	5.70E-04	5.0E-03	1.1E-01
ON	Shallow_Bedrock	INORG	Cadmium	7440-43-9	T	25	1	4.00E-04	4.00E-04	5.0E-03	8.0E-02
ON	Shallow_Bedrock	INORG	Chromium (total)	7440-47-3	D	25	3	3.60E-03	4.30E-01	1.0E-01	4.3E+00
ON	Shallow_Bedrock	INORG	Chromium (total)	7440-47-3	T	25	6	2.50E-03	2.80E-01	1.0E-01	2.8E+00
ON	Shallow_Bedrock	INORG	Cobalt	7440-48-4	D	25	8	1.20E-03	1.00E-02	7.3E-01	1.4E-02
ON	Shallow_Bedrock	INORG	Cobalt	7440-48-4	T	25	6	8.60E-04	9.80E-03	7.3E-01	1.3E-02
ON	Shallow_Bedrock	INORG	Copper	7440-50-8	D	25	2	2.50E-03	2.70E-03	1.3E+00	2.1E-03
ON	Shallow_Bedrock	INORG	Copper	7440-50-8	T	25	2	2.60E-03	3.00E-03	1.3E+00	2.3E-03
ON	Shallow_Bedrock	INORG	Iron	7439-89-6	D	25	19	6.00E-02	1.70E+01	1.1E+01	1.5E+00
ON	Shallow_Bedrock	INORG	Iron	7439-89-6	T	25	25	6.40E-02	1.63E+01	1.1E+01	1.5E+00
ON	Shallow_Bedrock	INORG	Manganese	7439-96-5	D	25	23	1.80E-03	2.10E+00	8.8E-01	2.4E+00
ON	Shallow_Bedrock	INORG	Manganese	7439-96-5	T	25	23	3.20E-03	2.40E+00	8.8E-01	2.7E+00
ON	Shallow_Bedrock	INORG	Mercury	7439-97-6	D	25	2	9.60E-05	1.10E-04	2.0E-03	5.5E-02
ON	Shallow_Bedrock	INORG	Mercury	7439-97-6	T	25	1	8.90E-05	8.90E-05	2.0E-03	4.5E-02
ON	Shallow_Bedrock	INORG	Nickel	7440-02-0	D	25	10	3.70E-03	3.00E-02	7.3E-01	4.1E-02
ON	Shallow_Bedrock	INORG	Nickel	7440-02-0	T	25	10	3.10E-03	3.30E-02	7.3E-01	4.5E-02
ON	Shallow_Bedrock	INORG	Thallium	7440-28-0	D	25	1	4.10E-04	4.10E-04	2.0E-03	2.1E-01
ON	Shallow_Bedrock	INORG	Thallium	7440-28-0	T	25	1	4.00E-04	4.00E-04	2.0E-03	2.0E-01
ON	Shallow_Bedrock	INORG	Vanadium	7440-62-2	D	25	1	9.40E-04	9.40E-04	2.6E-01	3.6E-03
ON	Shallow_Bedrock	INORG	Vanadium	7440-62-2	T	25	1	9.90E-04	9.90E-04	2.6E-01	3.8E-03
ON	Shallow_Bedrock	INORG	Zinc	7440-66-6	D	25	7	1.40E-02	5.90E-01	1.1E+01	5.4E-02
ON	Shallow_Bedrock	INORG	Zinc	7440-66-6	T	25	14	1.70E-02	5.30E-01	1.1E+01	4.8E-02
ON	Intermediate_Bedrock	VOC	Acetone	67-64-1	T	15	1	2.50E-03	2.50E-03	3.7E+00	6.8E-04
ON	Intermediate_Bedrock	VOC	2-Butanone	78-93-3	T	15	1	6.70E-04	6.70E-04	2.2E+01	3.0E-05
ON	Intermediate_Bedrock	VOC	Chloroform	67-66-3	T	15	3	8.20E-04	1.40E-03	8.0E-02	1.8E-02
ON	Intermediate_Bedrock	VOC	Methyl Acetate	79-20-9	T	15	1	1.40E-03	1.40E-03	3.7E+01	3.8E-05
ON	Intermediate_Bedrock	VOC	4-Methyl-2-pentanone	108-10-1	T	15	1	5.40E-04	5.40E-04	2.9E+00	1.9E-04
ON	Intermediate_Bedrock	VOC	Methylene Chloride	75-09-2	T	15	1	3.20E-04	3.20E-04	5.0E-03	6.4E-02
ON	Intermediate_Bedrock	VOC	Toluene	108-88-3	T	15	12	4.90E-04	1.60E-02	1.0E+00	1.6E-02
ON	Intermediate_Bedrock	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T	15	1	4.13E-03	4.13E-03	6.0E-03	6.9E-01
ON	Intermediate_Bedrock	SVOC	Caprolactam	105-60-2	T	15	1	1.80E-02	1.80E-02	1.8E+01	1.0E-03

Table 2-1: Groundwater Screening Results Summary
GM Powertrain Bedford Facility, Bedford, Indiana

On/Off-Site	Hydrogeologic Unit	Chem Group	Chemical	CASRN	Meas Basis	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Max Detect to Drinking Water Criteria
ON	Intermediate_Bedrock	SVOC	Diethylphthalate	84-66-2	T	15	11	5.43E-04	5.90E-02	2.9E+01	2.0E-03
ON	Intermediate_Bedrock	SVOC	2,4-Dimethylphenol	105-67-9	T	15	1	3.40E-03	3.40E-03	7.3E-01	4.7E-03
ON	Intermediate_Bedrock	SVOC	Di-n-butylphthalate	84-74-2	T	15	9	6.40E-04	1.90E-02	3.7E+00	5.1E-03
ON	Intermediate_Bedrock	SVOC	Methylphenol (total)	1319-77-3	T	15	1	1.60E-03	1.60E-03	1.8E-01	8.9E-03
ON	Intermediate_Bedrock	SVOC	Phenol	108-95-2	T	15	1	2.60E-03	2.60E-03	2.2E+01	1.2E-04
ON	Intermediate_Bedrock	INORG	Aluminum	7429-90-5	T	15	1	3.89E-01	3.89E-01	3.7E+01	1.1E-02
ON	Intermediate_Bedrock	INORG	Antimony	7440-36-0	D	15	1	4.00E-03	4.00E-03	6.0E-03	6.7E-01
ON	Intermediate_Bedrock	INORG	Arsenic	7440-38-2	D	15	4	2.70E-03	3.90E-03	1.0E-02	3.9E-01
ON	Intermediate_Bedrock	INORG	Arsenic	7440-38-2	T	15	5	2.30E-03	4.30E-03	1.0E-02	4.3E-01
ON	Intermediate_Bedrock	INORG	Barium	7440-39-3	D	15	15	5.20E-02	3.70E-01	2.0E+00	1.9E-01
ON	Intermediate_Bedrock	INORG	Barium	7440-39-3	T	15	15	5.20E-02	4.00E-01	2.0E+00	2.0E-01
ON	Intermediate_Bedrock	INORG	Beryllium	7440-41-7	T	15	1	6.20E-04	6.20E-04	4.0E-03	1.6E-01
ON	Intermediate_Bedrock	INORG	Chromium (total)	7440-47-3	D	15	3	7.50E-03	1.90E-01	1.0E-01	1.9E+00
ON	Intermediate_Bedrock	INORG	Chromium (total)	7440-47-3	T	15	2	5.90E-02	2.10E-01	1.0E-01	2.1E+00
ON	Intermediate_Bedrock	INORG	Chromium III	16065-83-1	D	2	2	5.30E-03	2.30E-02	1.0E-01	2.3E-01
ON	Intermediate_Bedrock	INORG	Chromium III	16065-83-1	T	2	2	4.20E-03	3.10E-02	1.0E-01	3.1E-01
ON	Intermediate_Bedrock	INORG	Cobalt	7440-48-4	D	15	2	8.70E-04	1.20E-03	7.3E-01	1.6E-03
ON	Intermediate_Bedrock	INORG	Cobalt	7440-48-4	T	15	2	9.85E-04	1.00E-03	7.3E-01	1.4E-03
ON	Intermediate_Bedrock	INORG	Copper	7440-50-8	D	15	1	1.78E-03	1.78E-03	1.3E+00	1.4E-03
ON	Intermediate_Bedrock	INORG	Iron	7439-89-6	D	15	13	8.90E-02	4.10E+00	1.1E+01	3.7E-01
ON	Intermediate_Bedrock	INORG	Iron	7439-89-6	T	15	14	5.60E-02	4.80E+00	1.1E+01	4.4E-01
ON	Intermediate_Bedrock	INORG	Manganese	7439-96-5	D	15	11	4.10E-03	4.40E-02	8.8E-01	5.0E-02
ON	Intermediate_Bedrock	INORG	Manganese	7439-96-5	T	15	11	3.80E-03	4.20E-02	8.8E-01	4.8E-02
ON	Intermediate_Bedrock	INORG	Nickel	7440-02-0	D	15	4	3.00E-03	1.40E-02	7.3E-01	1.9E-02
ON	Intermediate_Bedrock	INORG	Nickel	7440-02-0	T	15	5	2.50E-03	1.60E-02	7.3E-01	2.2E-02
ON	Intermediate_Bedrock	INORG	Zinc	7440-66-6	D	15	7	1.05E-02	3.00E-01	1.1E+01	2.7E-02
ON	Intermediate_Bedrock	INORG	Zinc	7440-66-6	T	15	8	1.40E-02	3.20E-01	1.1E+01	2.9E-02
ON	Deep_Bedrock	VOC	Acetone	67-64-1	T	6	1	2.20E-02	2.20E-02	3.7E+00	5.9E-03
ON	Deep_Bedrock	VOC	Bromodichloromethane	75-27-4	T	6	2	9.70E-04	2.20E-03	8.0E-02	2.8E-02
ON	Deep_Bedrock	VOC	2-Butanone	78-93-3	T	6	2	3.50E-03	4.80E-03	2.2E+01	2.2E-04
ON	Deep_Bedrock	VOC	Carbon Disulfide	75-15-0	T	6	3	2.40E-04	3.50E-04	3.7E+00	9.5E-05
ON	Deep_Bedrock	VOC	Chloroform	67-66-3	T	6	5	3.50E-04	1.00E-02	8.0E-02	1.3E-01
ON	Deep_Bedrock	VOC	2-Hexanone	591-78-6	T	6	1	6.70E-04	6.70E-04		
ON	Deep_Bedrock	VOC	Methyl Acetate	79-20-9	T	6	1	3.30E-03	3.30E-03	3.7E+01	8.9E-05
ON	Deep_Bedrock	VOC	4-Methyl-2-pentanone	108-10-1	T	6	1	6.20E-04	6.20E-04	2.9E+00	2.1E-04
ON	Deep_Bedrock	VOC	Methylene Chloride	75-09-2	T	6	1	4.10E-04	4.10E-04	5.0E-03	8.2E-02
ON	Deep_Bedrock	VOC	Toluene	108-88-3	T	6	6	7.80E-04	9.70E-03	1.0E+00	9.7E-03
ON	Deep_Bedrock	VOC	Xylenes (total)	1330-20-7	T	6	1	1.40E-03	1.40E-03	1.0E+01	1.4E-04
ON	Deep_Bedrock	SVOC	Caprolactam	105-60-2	T	6	1	1.00E-03	1.00E-03	1.8E+01	5.6E-05
ON	Deep_Bedrock	SVOC	Diethylphthalate	84-66-2	T	6	5	7.90E-04	1.60E-02	2.9E+01	5.5E-04
ON	Deep_Bedrock	SVOC	Di-n-butylphthalate	84-74-2	T	6	3	4.90E-04	1.20E-02	3.7E+00	3.2E-03
ON	Deep_Bedrock	SVOC	2-Methylnaphthalene	91-57-6	T	6	1	1.20E-03	1.20E-03	7.3E-01	1.6E-03
ON	Deep_Bedrock	PCB	PCBs (total)	1336-36-3	T	6	1	4.20E-05	4.20E-05	5.0E-04	8.4E-02
ON	Deep_Bedrock	INORG	Arsenic	7440-38-2	D	6	2	3.80E-03	6.00E-03	1.0E-02	6.0E-01
ON	Deep_Bedrock	INORG	Arsenic	7440-38-2	T	6	1	7.20E-03	7.20E-03	1.0E-02	7.2E-01
ON	Deep_Bedrock	INORG	Barium	7440-39-3	D	6	6	5.00E-02	8.90E-02	2.0E+00	4.5E-02

Table 2-1: Groundwater Screening Results Summary
GM Powertrain Bedford Facility, Bedford, Indiana

On/Off-Site	Hydrogeologic Unit	Chem Group	Chemical	CASRN	Meas Basis	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Max Detect to Drinking Water Criteria
ON	Deep_Bedrock	INORG	Barium	7440-39-3	T	6	6	4.40E-02	9.80E-02	2.0E+00	4.9E-02
ON	Deep_Bedrock	INORG	Chromium (total)	7440-47-3	D	6	3	7.60E-03	1.10E+00	1.0E-01	1.1E+01
ON	Deep_Bedrock	INORG	Chromium (total)	7440-47-3	T	6	2	1.50E-01	1.30E+00	1.0E-01	1.3E+01
ON	Deep_Bedrock	INORG	Cobalt	7440-48-4	D	6	1	2.00E-03	2.00E-03	7.3E-01	2.7E-03
ON	Deep_Bedrock	INORG	Cobalt	7440-48-4	T	6	1	1.70E-03	1.70E-03	7.3E-01	2.3E-03
ON	Deep_Bedrock	INORG	Copper	7440-50-8	D	6	1	1.50E-02	1.50E-02	1.3E+00	1.2E-02
ON	Deep_Bedrock	INORG	Copper	7440-50-8	T	6	1	3.70E-02	3.70E-02	1.3E+00	2.8E-02
ON	Deep_Bedrock	INORG	Iron	7439-89-6	D	6	5	1.00E-01	7.70E-01	1.1E+01	7.0E-02
ON	Deep_Bedrock	INORG	Iron	7439-89-6	T	6	5	1.70E-01	9.40E-01	1.1E+01	8.5E-02
ON	Deep_Bedrock	INORG	Manganese	7439-96-5	D	6	5	1.60E-02	4.00E-02	8.8E-01	4.5E-02
ON	Deep_Bedrock	INORG	Manganese	7439-96-5	T	6	6	7.60E-03	3.80E-02	8.8E-01	4.3E-02
ON	Deep_Bedrock	INORG	Nickel	7440-02-0	D	6	3	6.20E-03	1.80E-02	7.3E-01	2.5E-02
ON	Deep_Bedrock	INORG	Nickel	7440-02-0	T	6	3	5.20E-03	2.20E-02	7.3E-01	3.0E-02
ON	Deep_Bedrock	INORG	Selenium	7782-49-2	D	6	1	9.80E-03	9.80E-03	5.0E-02	2.0E-01
ON	Deep_Bedrock	INORG	Selenium	7782-49-2	T	6	1	1.30E-02	1.30E-02	5.0E-02	2.6E-01
ON	Deep_Bedrock	INORG	Silver	7440-22-4	T	6	1	9.80E-04	9.80E-04	1.8E-01	5.4E-03
ON	Deep_Bedrock	INORG	Zinc	7440-66-6	D	6	2	3.40E-02	2.90E-01	1.1E+01	2.6E-02
ON	Deep_Bedrock	INORG	Zinc	7440-66-6	T	6	5	1.50E-02	4.00E-01	1.1E+01	3.6E-02
OFF	Shallow_Bedrock	VOC	Acetone	67-64-1	T	10	1	9.40E-04	9.40E-04	3.7E+00	2.5E-04
OFF	Shallow_Bedrock	VOC	Chlorobenzene	108-90-7	T	10	1	2.40E-04	2.40E-04	1.0E-01	2.4E-03
OFF	Shallow_Bedrock	VOC	Chloroform	67-66-3	T	10	3	1.20E-04	4.20E-04	8.0E-02	5.3E-03
OFF	Shallow_Bedrock	VOC	Chloromethane	74-87-3	T	10	2	1.70E-04	2.00E-04	5.2E-02	3.8E-03
OFF	Shallow_Bedrock	VOC	cis-1,2-Dichloroethene	156-59-2	T	10	1	3.60E-03	3.60E-03	7.0E-02	5.1E-02
OFF	Shallow_Bedrock	VOC	trans-1,2-Dichloroethene	156-60-5	T	10	1	5.00E-04	5.00E-04	1.0E-01	5.0E-03
OFF	Shallow_Bedrock	VOC	Toluene	108-88-3	T	10	2	1.90E-04	1.90E-04	1.0E+00	1.9E-04
OFF	Shallow_Bedrock	VOC	Trichloroethene	79-01-6	T	10	1	3.70E-04	3.70E-04	5.0E-03	7.4E-02
OFF	Shallow_Bedrock	VOC	Vinyl Chloride	75-01-4	T	10	1	8.60E-04	8.60E-04	2.0E-03	4.3E-01
OFF	Shallow_Bedrock	SVOC	Butylbenzylphthalate	85-68-7	T	10	1	5.10E-04	5.10E-04	7.3E+00	7.0E-05
OFF	Shallow_Bedrock	SVOC	Caprolactam	105-60-2	T	10	1	2.60E-01	2.60E-01	1.8E+01	1.4E-02
OFF	Shallow_Bedrock	SVOC	Di-n-octylphthalate	117-84-0	T	10	1	1.45E-03	1.45E-03	1.5E+00	9.7E-04
OFF	Shallow_Bedrock	PCB	PCBs (total)	1336-36-3	T	26	1	1.50E-04	1.50E-04	5.0E-04	3.0E-01
OFF	Shallow_Bedrock	INORG	Aluminum	7429-90-5	D	8	1	1.55E-01	1.55E-01	3.7E+01	4.2E-03
OFF	Shallow_Bedrock	INORG	Aluminum	7429-90-5	T	8	2	5.00E-02	1.55E-01	3.7E+01	4.2E-03
OFF	Shallow_Bedrock	INORG	Arsenic	7440-38-2	D	8	1	2.05E-03	2.05E-03	1.0E-02	2.1E-01
OFF	Shallow_Bedrock	INORG	Arsenic	7440-38-2	T	8	1	6.00E-03	6.00E-03	1.0E-02	6.0E-01
OFF	Shallow_Bedrock	INORG	Barium	7440-39-3	D	8	8	5.60E-03	1.30E-01	2.0E+00	6.5E-02
OFF	Shallow_Bedrock	INORG	Barium	7440-39-3	T	8	8	5.80E-03	1.40E-01	2.0E+00	7.0E-02
OFF	Shallow_Bedrock	INORG	Cadmium	7440-43-9	D	8	1	2.45E-04	2.45E-04	5.0E-03	4.9E-02
OFF	Shallow_Bedrock	INORG	Cadmium	7440-43-9	T	8	1	2.15E-04	2.15E-04	5.0E-03	4.3E-02
OFF	Shallow_Bedrock	INORG	Chromium (total)	7440-47-3	T	8	1	2.35E-03	2.35E-03	1.0E-01	2.4E-02
OFF	Shallow_Bedrock	INORG	Copper	7440-50-8	T	8	1	3.60E-03	3.60E-03	1.3E+00	2.8E-03
OFF	Shallow_Bedrock	INORG	Iron	7439-89-6	D	8	4	5.30E-02	8.30E-01	1.1E+01	7.5E-02
OFF	Shallow_Bedrock	INORG	Iron	7439-89-6	T	8	6	1.60E-01	1.10E+00	1.1E+01	1.0E-01
OFF	Shallow_Bedrock	INORG	Lead	7439-92-1	T	8	1	2.80E-03	2.80E-03	1.5E-02	1.9E-01
OFF	Shallow_Bedrock	INORG	Manganese	7439-96-5	D	8	7	3.30E-03	5.90E-02	8.8E-01	6.7E-02
OFF	Shallow_Bedrock	INORG	Manganese	7439-96-5	T	8	7	5.50E-03	6.80E-02	8.8E-01	7.7E-02

Table 2-1: Groundwater Screening Results Summary GM Powertrain Bedford Facility, Bedford, Indiana											
On/Off- Site	Hydrogeologic Unit	Chem Group	Chemical	CASRN	Meas Basis	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Max Detect to Drinking Water Criteria
OFF	Shallow_Bedrock	INORG	Nickel	7440-02-0	D	8	3	4.80E-03	1.60E-02	7.3E-01	2.2E-02
OFF	Shallow_Bedrock	INORG	Nickel	7440-02-0	T	8	3	5.70E-03	1.50E-02	7.3E-01	2.1E-02
OFF	Shallow_Bedrock	INORG	Silver	7440-22-4	D	8	1	8.35E-04	8.35E-04	1.8E-01	4.6E-03
OFF	Shallow_Bedrock	INORG	Silver	7440-22-4	T	8	1	5.65E-04	5.65E-04	1.8E-01	3.1E-03
OFF	Shallow_Bedrock	INORG	Vanadium	7440-62-2	D	8	1	5.05E-03	5.05E-03	2.6E-01	1.9E-02
OFF	Shallow_Bedrock	INORG	Vanadium	7440-62-2	T	8	1	4.80E-03	4.80E-03	2.6E-01	1.8E-02
OFF	Shallow_Bedrock	INORG	Zinc	7440-66-6	D	8	5	2.40E-02	1.40E-01	1.1E+01	1.3E-02
OFF	Shallow_Bedrock	INORG	Zinc	7440-66-6	T	8	5	2.50E-02	2.20E-01	1.1E+01	2.0E-02
Notes:											
Only constituents detected in the most recent groundwater data from monitoring wells in each hydrogeologic unit are shown.											
Shaded cells represent ratios of conc to screening criteria greater than 1.											
The Screening Criteria hierarchy is State MCL, Fed MCL, the lower of Region 9 tap water ingestion values at a cancer risk of 1E-5 or hazard quotient of 1.											
The Screening Criteria for Naphthalene were used as a surrogate for 2-Methylnaphthalene.											
The Screening Criteria for Chromium VI was used as a surrogate for Chromium (total).											
The concentrations for the Methylphenol (2, 3, & 4) were summed before comparing to the Screening Criteria for 4-Methylphenol.											
The concentrations for all Aroclors were summed before comparing to the Screening Criteria for PCBs.											
The concentrations for the Xylene isomers (m/p and o) were summed before comparing to the Screening Criteria.											
Chem Group - Chemical Group											
Meas Basis - Measured Basis; T = Total, D = Dissolved											

**Table 2-2: Spring Water Screening Results Summary
GM Powertrain Bedford Facility, Bedford, Indiana**

On/Off-Site	Chem Group	Chemical	CASRN	Meas Basis	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Max Detect to Drinking Water Criteria
ON	VOC	Carbon Disulfide	75-15-0	T	1	1	3.70E-04	3.70E-04	3.7E+00	1.0E-04
ON	VOC	Chlorobenzene	108-90-7	T	1	1	2.90E-04	2.90E-04	1.0E-01	2.9E-03
ON	VOC	1,4-Dichlorobenzene	106-46-7	T	1	1	2.70E-04	2.70E-04	7.5E-02	3.6E-03
ON	PCB	PCBs (total)	1336-36-3	T	21	18	4.70E-04	7.90E-01	5.0E-04	1.6E+03
ON	INORG	Aluminum	7429-90-5	T	1	1	5.62E+01	5.62E+01	3.7E+01	1.5E+00
ON	INORG	Antimony	7440-36-0	T	1	1	4.30E-03	4.30E-03	6.0E-03	7.2E-01
ON	INORG	Arsenic	7440-38-2	T	1	1	8.10E-02	8.10E-02	1.0E-02	8.1E+00
ON	INORG	Barium	7440-39-3	D	1	1	9.30E-02	9.30E-02	2.0E+00	4.7E-02
ON	INORG	Barium	7440-39-3	T	1	1	8.90E-01	8.90E-01	2.0E+00	4.5E-01
ON	INORG	Beryllium	7440-41-7	T	1	1	1.40E-03	1.40E-03	4.0E-03	3.5E-01
ON	INORG	Chromium (total)	7440-47-3	T	1	1	8.70E-02	8.70E-02	1.0E-01	8.7E-01
ON	INORG	Cobalt	7440-48-4	T	1	1	1.20E-01	1.20E-01	7.3E-01	1.6E-01
ON	INORG	Copper	7440-50-8	T	1	1	3.80E-01	3.80E-01	1.3E+00	2.9E-01
ON	INORG	Iron	7439-89-6	T	1	1	3.06E+02	3.06E+02	1.1E+01	2.8E+01
ON	INORG	Lead	7439-92-1	T	1	1	6.70E-02	6.70E-02	1.5E-02	4.5E+00
ON	INORG	Manganese	7439-96-5	D	1	1	7.10E-01	7.10E-01	8.8E-01	8.1E-01
ON	INORG	Manganese	7439-96-5	T	1	1	5.74E+01	5.74E+01	8.8E-01	6.5E+01
ON	INORG	Mercury	7439-97-6	T	1	1	5.80E-04	5.80E-04	2.0E-03	2.9E-01
ON	INORG	Nickel	7440-02-0	T	1	1	1.50E-01	1.50E-01	7.3E-01	2.1E-01
ON	INORG	Silver	7440-22-4	T	1	1	3.10E-03	3.10E-03	1.8E-01	1.7E-02
ON	INORG	Vanadium	7440-62-2	T	1	1	9.60E-02	9.60E-02	2.6E-01	3.7E-01
ON	INORG	Zinc	7440-66-6	T	1	1	4.20E-01	4.20E-01	1.1E+01	3.8E-02
OFF	VOC	Benzene	71-43-2	T	1	1	1.70E-04	1.70E-04	5.0E-03	3.4E-02
OFF	VOC	Ethyl Benzene	100-41-4	T	1	1	3.30E-04	3.30E-04	7.0E-01	4.7E-04
OFF	VOC	Methyl tert-butyl ether	1634-04-4	T	1	1	3.50E-04	3.50E-04	2.0E-01	1.8E-03
OFF	VOC	Toluene	108-88-3	T	1	1	9.10E-04	9.10E-04	1.0E+00	9.1E-04
OFF	VOC	Xylenes (total)	1330-20-7	T	1	1	4.40E-04	4.40E-04	1.0E+01	4.4E-05
OFF	SVOC	Acenaphthene	83-32-9	T	1	1	9.50E-04	9.50E-04	2.2E+00	4.3E-04
OFF	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T	1	1	3.50E-03	3.50E-03	6.0E-03	5.8E-01
OFF	SVOC	2-Methylnaphthalene	91-57-6	T	1	1	8.20E-04	8.20E-04	7.3E-01	1.1E-03
OFF	SVOC	Naphthalene	91-20-3	T	1	1	4.30E-03	4.30E-03	7.3E-01	5.9E-03
OFF	SVOC	Phenanthrene	85-01-8	T	1	1	9.90E-04	9.90E-04	1.1E+00	9.0E-04
OFF	PCB	PCBs (total)	1336-36-3	D	74	2	9.60E-05	1.80E-03	5.0E-04	3.6E+00
OFF	PCB	PCBs (total)	1336-36-3	T	76	14	5.28E-05	8.10E-01	5.0E-04	1.6E+03
OFF	INORG	Aluminum	7429-90-5	T	1	1	1.30E+00	1.30E+00	3.7E+01	3.5E-02
OFF	INORG	Barium	7440-39-3	D	1	1	2.50E-01	2.50E-01	2.0E+00	1.3E-01
OFF	INORG	Barium	7440-39-3	T	1	1	2.60E-01	2.60E-01	2.0E+00	1.3E-01
OFF	INORG	Chromium (total)	7440-47-3	D	1	1	2.00E-03	2.00E-03	1.0E-01	2.0E-02
OFF	INORG	Chromium (total)	7440-47-3	T	1	1	3.60E-03	3.60E-03	1.0E-01	3.6E-02
OFF	INORG	Iron	7439-89-6	D	1	1	3.99E+01	3.99E+01	1.1E+01	3.6E+00

Table 2-2: Spring Water Screening Results Summary GM Powertrain Bedford Facility, Bedford, Indiana										
On/Off- Site	Chem Group	Chemical	CASRN	Meas Basis	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Max Detect to Drinking Water Criteria
OFF	INORG	Iron	7439-89-6	T	1	1	4.26E+01	4.26E+01	1.1E+01	3.9E+00
OFF	INORG	Lead	7439-92-1	T	1	1	4.10E-03	4.10E-03	1.5E-02	2.7E-01
OFF	INORG	Manganese	7439-96-5	D	1	1	3.10E+00	3.10E+00	8.8E-01	3.5E+00
OFF	INORG	Manganese	7439-96-5	T	1	1	3.10E+00	3.10E+00	8.8E-01	3.5E+00
OFF	INORG	Mercury	7439-97-6	D	1	1	3.40E-04	3.40E-04	2.0E-03	1.7E-01
OFF	INORG	Mercury	7439-97-6	T	1	1	4.40E-04	4.40E-04	2.0E-03	2.2E-01
OFF	INORG	Vanadium	7440-62-2	T	1	1	2.20E-03	2.20E-03	2.6E-01	8.5E-03
OFF	INORG	Zinc	7440-66-6	D	1	1	1.30E-02	1.30E-02	1.1E+01	1.2E-03
OFF	INORG	Zinc	7440-66-6	T	1	1	1.00E-01	1.00E-01	1.1E+01	9.1E-03
Notes:										
Only constituents detected in the most recent on-site and off-site spring water data are shown.										
Shaded cells represent ratios of conc to screening criteria greater than 1.										
The Screening Criteria hierarchy is State MCL, Fed MCL, the lower of Region 9 tap water ingestion values at a cancer risk of 1E-5 or hazard quotient of 1.										
The Screening Criteria for Pyrene were used as surrogates for Phenanthrene.										
The Screening Criteria for Naphthalene were used as a surrogate for 2-Methylnaphthalene.										
The Screening Criteria for Chromium VI was used as a surrogate for Chromium (total).										
The concentrations for all Aroclors were summed before comparing to the screening criteria for PCBs.										
The concentrations for the Xylene isomers (m/p and o) were summed before comparing to the Screening Criteria.										
Chem Group - Chemical Group										
Meas Basis - Measured Basis; T = Total, D = Dissolved										

Table 2-3: Residential Well and Cistern Sampling Results
GM Powertrain Bedford Facility, Bedford, Indiana

Matrix	Property	Location Name	Sample Date	Meas Basis	Chemical	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Detect to Drinking Water Criterion
Well Water	216 Rawlins Mill Road	216 Rawlins Mill Road	06/09/06	D	PCBs (total)	1.30E-04	J	7.30E-05	5E-04	3E-01
Well Water	216 Rawlins Mill Road	216 Rawlins Mill Road	06/09/06	T	PCBs (total)		U	7.30E-05	5E-04	
Well Water	228 Madison Street	228 Madison Street	03/03/03	D	PCBs (total)		U	1.00E-04	5E-04	
Well Water	228 Madison Street	228 Madison Street	03/03/03	T	PCBs (total)		U	1.00E-04	5E-04	
Well Water	P424	325 Heltonville Road	08/11/04	D	PCBs (total)		U	8.20E-05	5E-04	
Well Water	P424	325 Heltonville Road	08/11/04	T	PCBs (total)		U	8.20E-05	5E-04	
Well Water	412 Peerless Rd	412 Peerless Rd	06/10/03	D	PCBs (total)		U	1.00E-04	5E-04	
Well Water	412 Peerless Rd	412 Peerless Rd	06/10/03	T	PCBs (total)		U	1.00E-04	5E-04	
Well Water	P408	550 North Jackson Street	03/25/03	D	PCBs (total)		UJ	9.10E-05	5E-04	
Well Water	P408	550 North Jackson Street	03/25/03	T	PCBs (total)		UJ	9.10E-05	5E-04	
Well Water	612 E Street	612 E Street	05/15/03	D	PCBs (total)		UJ	9.10E-05	5E-04	
Well Water	612 E Street	612 E Street	05/15/03	T	PCBs (total)		UJ	9.10E-05	5E-04	
Well Water	P423	985 Peerless Road	07/29/04	D	PCBs (total)		U	9.10E-05	5E-04	
Well Water	P423	985 Peerless Road	07/29/04	T	PCBs (total)		U	9.10E-05	5E-04	
Well Water	P013	PARCEL 13 WELL	10/01/01	T	PCBs (total)		UJ	1.00E-04	5E-04	
Well Water	P368	PARCEL 14 WELL	07/24/01	T	PCBs (total)		U	1.00E-04	5E-04	
Well Water	P015	PARCEL 15 WELL	02/12/02	T	PCBs (total)		UJ	1.00E-04	5E-04	
Well Water	P018	PARCEL 18 WELL	04/09/02	D	PCBs (total)		U	1.00E-04	5E-04	
Well Water	P018	PARCEL 18 WELL	04/09/02	T	PCBs (total)		U	1.00E-04	5E-04	
Well Water	P020/P296	PARCEL 20/296 WELL	06/21/06	D	PCBs (total)		U	7.30E-05	5E-04	
Well Water	P020/P296	PARCEL 20/296 WELL	06/21/06	T	PCBs (total)		U	7.30E-05	5E-04	
Well Water	P208	PARCEL 208 WELL	03/13/07	D	PCBs (total)		U	7.30E-05	5E-04	
Well Water	P208	PARCEL 208 WELL	03/13/07	T	PCBs (total)		U	7.30E-05	5E-04	
Well Water	P209/P210	PARCEL 209 210 WELL	05/07/02	D	PCBs (total)		U	1.05E-04	5E-04	
Well Water	P209/P210	PARCEL 209 210 WELL	05/07/02	T	PCBs (total)		U	5.55E-03	5E-04	
Well Water	P211/P212	PARCEL 211 212 WELL	03/28/02	D	PCBs (total)		UJ	1.00E-04	5E-04	
Well Water	P211/P212	PARCEL 211 212 WELL	03/28/02	T	PCBs (total)		UJ	1.00E-04	5E-04	
Well Water	P217	PARCEL 217 WELL	01/29/02	T	PCBs (total)		U	1.00E-04	5E-04	
Well Water	P028	PARCEL 28 WELL 001	04/17/02	D	PCBs (total)		UJ	1.00E-04	5E-04	
Well Water	P028	PARCEL 28 WELL 001	04/17/02	T	PCBs (total)		UJ	1.00E-04	5E-04	
Well Water	P028	PARCEL 28 WELL 002	04/17/02	D	PCBs (total)		U	1.00E-04	5E-04	
Well Water	P028	PARCEL 28 WELL 002	04/17/02	T	PCBs (total)		UJ	1.00E-04	5E-04	
Well Water	P292	PARCEL 292 WELL	03/21/02	D	PCBs (total)		U	1.00E-04	5E-04	
Well Water	P292	PARCEL 292 WELL	03/21/02	T	PCBs (total)		U	1.00E-04	5E-04	
Well Water	P295	PARCEL 295 WELL	06/06/02	D	PCBs (total)		U	1.05E-04	5E-04	
Well Water	P295	PARCEL 295 WELL	06/06/02	T	PCBs (total)		U	1.05E-04	5E-04	
Well Water	P368	PARCEL 368 WELL	07/26/01	T	PCBs (total)		U	1.00E-04	5E-04	
Well Water	P372	PARCEL 372 WELL	04/15/02	D	PCBs (total)		UJ	1.00E-04	5E-04	
Well Water	P372	PARCEL 372 WELL	04/15/02	T	PCBs (total)		UJ	1.00E-04	5E-04	
Well Water	P388	PARCEL 388 WELL	03/13/07	D	PCBs (total)		U	7.30E-05	5E-04	

Table 2-3: Residential Well and Cistern Sampling Results
GM Powertrain Bedford Facility, Bedford, Indiana

Matrix	Property	Location Name	Sample Date	Meas Basis	Chemical	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Detect to Drinking Water Criterion
Well Water	P388	PARCEL 388 WELL	03/13/07	T	PCBs (total)		U	7.30E-05	5E-04	
Well Water	P390/392	PARCEL 390/392 WELL	06/16/06	D	PCBs (total)		UJ	7.30E-05	5E-04	
Well Water	P390/392	PARCEL 390/392 WELL	06/16/06	T	PCBs (total)		U	7.30E-05	5E-04	
Well Water	P394	PARCEL 394 WELL	06/07/02	D	PCBs (total)		U	1.05E-04	5E-04	
Well Water	P394	PARCEL 394 WELL	06/07/02	T	PCBs (total)		U	1.05E-04	5E-04	
Well Water	P412	PARCEL 412 WELL	05/30/02	D	PCBs (total)		U	1.05E-04	5E-04	
Well Water	P412	PARCEL 412 WELL	05/30/02	T	PCBs (total)		UJ	1.05E-04	5E-04	
Well Water	P413	PARCEL 413 WELL	06/06/06	D	PCBs (total)		U	7.30E-05	5E-04	
Well Water	P413	PARCEL 413 WELL	06/06/06	T	PCBs (total)		U	7.30E-05	5E-04	
Well Water	P414	PARCEL 414 WELL	06/06/06	D	PCBs (total)		U	7.30E-05	5E-04	
Well Water	P414	PARCEL 414 WELL	06/06/06	T	PCBs (total)		U	7.30E-05	5E-04	
Well Water	P415	PARCEL 415 WELL	04/02/02	D	PCBs (total)		U	1.00E-04	5E-04	
Well Water	P415	PARCEL 415 WELL	04/02/02	T	PCBs (total)		UJ	1.00E-04	5E-04	
Well Water	P416	PARCEL 416 WELL	05/31/02	D	PCBs (total)		UJ	1.00E-04	5E-04	
Well Water	P416	PARCEL 416 WELL	05/31/02	T	PCBs (total)		UJ	1.00E-04	5E-04	
Well Water	P005	PARCEL 5 E.WELL	04/10/02	D	PCBs (total)		UJ	1.00E-04	5E-04	
Well Water	P005	PARCEL 5 E.WELL	04/10/02	T	PCBs (total)		UJ	1.00E-04	5E-04	
Well Water	P005	PARCEL 5 W.WELL	04/10/02	D	PCBs (total)		U	1.00E-04	5E-04	
Well Water	P005	PARCEL 5 W.WELL	04/10/02	T	PCBs (total)		U	1.00E-04	5E-04	
Liquid Emulsion	P207	PARCEL 207 WELL	01/18/07	T	PCBs (total)	6.60E-01		3.60E-02	5E-04	1E+03
Cistern Water	1326 3rd Street	CISTERN 1326 3rd ST	08/02/01	T	PCBs (total)		U	1.00E-04	5E-04	
Cistern Water	P064	CISTERN 1537 BRECKENRIDGE	08/02/01	T	PCBs (total)		U	1.00E-04	5E-04	
Cistern Water	202 N STREET	CISTERN 202 N ST	01/29/02	T	PCBs (total)		U	1.00E-04	5E-04	
Cistern Water	406 J Street	CISTERN 406 J ST	08/02/01	T	PCBs (total)		U	1.00E-04	5E-04	
Cistern Water	411 L Street	CISTERN 411 L ST	08/01/01	T	PCBs (total)		U	1.00E-04	5E-04	
Notes:										
Only constituents in the most recent data from residential properties are shown.										
The concentrations for all Aroclors were summed before comparing to the drinking water criterion for PCBs.										
Shaded cells represent ratios of conc to screening criterion greater than 1.										
The drinking water criterion for PCBs (total) is the MCL.										
Meas Basis - Measured Basis; T = Total (unfiltered), D = Dissolved (filtered)										
Limit - Laboratory analytical limit										
Data Qualifiers										
U - Non-detect										
J - Estimated										

**Table 2-4a: Groundwater Samples Exceeding Screening Criterion for PCBs
GM Powertrain Bedford Facility, Bedford, Indiana**

On/Off Site	Wellzone	Location	Sample Date	Meas Basis	Chemical	Conc (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Max Detect to Drinking Water Criterion
ON	Overburden	TMW-X193Y251	03/19/03	D	PCBs (total)	1.02E-03	5E-04	2E+00
ON	Overburden	TMW-X193Y251	03/19/03	T	PCBs (total)	2.20E-03	5E-04	4E+00
ON	Shallow_Bedrock	B-X143Y193CG	02/25/08	D	PCBs (total)	1.70E-03	5E-04	3E+00
ON	Shallow_Bedrock	B-X143Y193CG	02/25/08	T	PCBs (total)	2.98E-03	5E-04	6E+00
ON	Shallow_Bedrock	MW-X233Y087S	03/14/03	D	PCBs (total)	1.20E-03	5E-04	2E+00
ON	Shallow_Bedrock	MW-X233Y087S	03/14/03	T	PCBs (total)	4.30E-02	5E-04	9E+01
Notes:								
The drinking water criterion for PCBs (total) is the MCL.								
The concentrations for all Aroclors were summed before comparing to the drinking water criterion for PCBs.								
Shaded cells represent ratios of conc to screening criterion greater than 1.								
Meas Basis - Measured Basis; T = Total (unfiltered), D = Dissolved (filtered)								

**Table 2-4b: Spring Water Samples Exceeding Screening Criterion for PCBs
GM Powertrain Bedford Facility, Bedford, Indiana**

On/Off Site	Location Name	Sample Date	Meas Basis	Chem Group	Chemical	Conc (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Max Detect to Drinking Water Criterion	Captured By
ON	Eastern Seep Area 01	10/21/04	T	PCB	PCBs (total)	5.30E-02	5E-04	1E+02	SSC D
ON	Eastern Seep Area 02	08/17/04	T	PCB	PCBs (total)	4.60E-02	5E-04	9E+01	SSC C
OFF	Spring 018B	08/02/05	T	PCB	PCBs (total)	5.40E-03	5E-04	1E+01	Removed
OFF	Spring 018C	03/18/08	T	PCB	PCBs (total)	5.40E-04	5E-04	1E+00	Captured at Spring 018C
OFF	Spring 021-002	10/20/04	T	PCB	PCBs (total)	2.50E-02	5E-04	5E+01	Removed
OFF	Spring 021-003	08/13/04	T	PCB	PCBs (total)	9.40E-04	5E-04	2E+00	Removed
OFF	Spring 021-005	12/16/04	D	PCB	PCBs (total)	1.80E-03	5E-04	4E+00	Removed
OFF	Spring 021-005	12/16/04	T	PCB	PCBs (total)	8.10E-01	5E-04	2E+03	Removed
ON	Spring 201-003	12/07/06	T	PCB	PCBs (total)	5.60E-04	5E-04	1E+00	Captured in Sump
ON	Spring A	10/21/04	T	PCB	PCBs (total)	1.45E-02	5E-04	3E+01	SSC A
ON	Spring B	10/21/04	T	PCB	PCBs (total)	7.70E-04	5E-04	2E+00	SSC A
ON	Spring C	10/21/04	T	PCB	PCBs (total)	2.30E-03	5E-04	5E+00	SSC E
ON	Spring D	10/21/04	T	PCB	PCBs (total)	2.95E-03	5E-04	6E+00	SSC F
ON	Spring E	10/21/04	T	PCB	PCBs (total)	6.40E-04	5E-04	1E+00	SSC F
ON	Spring East of Storm Pond-2	06/01/04	T	PCB	PCBs (total)	5.87E-03	5E-04	1E+01	SSC B
ON	Spring F	10/21/04	T	PCB	PCBs (total)	3.52E-03	5E-04	7E+00	SSC G
ON	Spring G	10/21/04	T	PCB	PCBs (total)	3.50E-03	5E-04	7E+00	SSC G
ON	Spring H	10/21/04	T	PCB	PCBs (total)	7.90E-01	5E-04	2E+03	SSC H
ON	Spring I	02/02/05	T	PCB	PCBs (total)	1.10E-03	5E-04	2E+00	SSC I-M
ON	Spring L	01/12/05	T	PCB	PCBs (total)	4.43E-03	5E-04	9E+00	SSC I-M
ON	Spring M	01/12/05	T	PCB	PCBs (total)	1.10E-03	5E-04	2E+00	SSC I-M
ON	Spring N	04/18/06	T	PCB	PCBs (total)	5.70E-03	5E-04	1E+01	SSC F
ON	SW-X216Y274	05/21/02	T	PCB	PCBs (total)	4.60E-03	5E-04	9E+00	SSC A
Notes:									
SSC = Site Source Control									
The drinking water criterion for PCBs (total) is the MCL.									
The concentrations for all Aroclors were summed before comparing to the drinking water criterion for PCBs.									
Shaded cells represent ratios of conc to screening criteria greater than 1.									
Meas Basis - Measured Basis; T = Total (unfiltered), D = Dissolved (filtered)									

Table 2-5: Other Liquid Matrices Screening Results Summary
GM Powertrain Bedford Facility, Bedford, Indiana

On/Off-Site	Chem Group	Chemical	CASRN	Meas Basis	Matrix	Analyzed	Detected	Min Detected	Max Detected	Units
ON	VOC	Benzene	71-43-2	T	Liquid Emulsion	2	1	4.30E-04	4.30E-04	MG/L
ON	VOC	Bromodichloromethane	75-27-4	T	Liquid Emulsion	2	1	5.70E-04	5.70E-04	MG/L
ON	VOC	Carbon Disulfide	75-15-0	T	Liquid Emulsion	2	1	3.70E-04	3.70E-04	MG/L
ON	VOC	Chloroform	67-66-3	T	Liquid Emulsion	2	1	6.70E-03	6.70E-03	MG/L
ON	VOC	Cyclohexane	110-82-7	T	Liquid Emulsion	2	1	1.30E-04	1.30E-04	MG/L
ON	VOC	1,3-Dichlorobenzene	541-73-1	T	Liquid Emulsion	2	1	3.30E-04	3.30E-04	MG/L
ON	VOC	1,4-Dichlorobenzene	106-46-7	T	Liquid Emulsion	2	1	5.40E-04	5.40E-04	MG/L
ON	VOC	Ethyl Benzene	100-41-4	T	Liquid Emulsion	2	1	2.60E-04	2.60E-04	MG/L
ON	VOC	Toluene	108-88-3	T	Liquid Emulsion	2	1	1.90E-02	1.90E-02	MG/L
ON	VOC	1,2,4-Trichlorobenzene	120-82-1	T	Liquid Emulsion	2	1	4.20E-04	4.20E-04	MG/L
ON	VOC	Xylenes (total)	1330-20-7	T	Liquid Emulsion	2	1	9.20E-04	9.20E-04	MG/L
ON	SVOC	Acenaphthene	83-32-9	T	Liquid Emulsion	2	1	8.70E-03	8.70E-03	MG/L
ON	SVOC	Biphenyl	92-52-4	T	Liquid Emulsion	2	1	3.80E-03	3.80E-03	MG/L
ON	SVOC	2,4-Dimethylphenol	105-67-9	T	Liquid Emulsion	2	1	7.00E-02	7.00E-02	MG/L
ON	SVOC	Methylphenol (total)	1319-77-3	T	Liquid Emulsion	2	1	2.06E-02	2.06E-02	MG/L
ON	SVOC	Phenol	108-95-2	T	Liquid Emulsion	2	1	5.70E-02	5.70E-02	MG/L
ON	PCB	PCBs (total)	1336-36-3	T	Liquid Emulsion	8	2	2.25E+05	2.75E+05	MG/KG
ON	PCB	PCBs (total)	1336-36-3	D	Liquid Emulsion	3	2	4.90E-04	5.10E-02	MG/L
ON	PCB	PCBs (total)	1336-36-3	T	Liquid Emulsion	8	5	2.55E-01	6.50E+01	MG/L
ON	INORG	Aluminum	7429-90-5	D	Liquid Emulsion	2	1	7.00E-02	7.00E-02	MG/L
ON	INORG	Aluminum	7429-90-5	T	Liquid Emulsion	2	1	1.20E+00	1.20E+00	MG/L
ON	INORG	Barium	7440-39-3	D	Liquid Emulsion	2	2	1.00E-01	6.90E-01	MG/L
ON	INORG	Barium	7440-39-3	T	Liquid Emulsion	2	2	9.20E-02	6.80E-01	MG/L
ON	INORG	Chromium (total)	7440-47-3	T	Liquid Emulsion	2	2	2.80E-03	5.20E-03	MG/L
ON	INORG	Cobalt	7440-48-4	D	Liquid Emulsion	2	1	1.40E-03	1.40E-03	MG/L
ON	INORG	Cobalt	7440-48-4	T	Liquid Emulsion	2	2	1.40E-03	2.40E-03	MG/L
ON	INORG	Copper	7440-50-8	T	Liquid Emulsion	2	1	9.00E-02	9.00E-02	MG/L
ON	INORG	Cyanide (amenable)	57-12-5A	T	Liquid Emulsion	2	1	2.30E-03	2.30E-03	MG/L
ON	INORG	Iron	7439-89-6	T	Liquid Emulsion	2	2	2.80E+00	2.29E+01	MG/L
ON	INORG	Iron	7439-89-6	D	Liquid Emulsion	2	2	7.90E-02	8.70E-02	MG/L
ON	INORG	Manganese	7439-96-5	D	Liquid Emulsion	2	1	2.90E+00	2.90E+00	MG/L
ON	INORG	Manganese	7439-96-5	T	Liquid Emulsion	2	2	1.50E-01	2.80E+00	MG/L
ON	INORG	Nickel	7440-02-0	D	Liquid Emulsion	2	1	5.40E-03	5.40E-03	MG/L
ON	INORG	Nickel	7440-02-0	T	Liquid Emulsion	2	2	5.80E-03	2.00E-02	MG/L
ON	INORG	Vanadium	7440-62-2	T	Liquid Emulsion	2	1	2.90E-03	2.90E-03	MG/L
ON	VOC	1,3-Dichlorobenzene	541-73-1	T	Non-aqueous phase liquid	1	1	5.10E+00	5.10E+00	MG/KG
ON	VOC	1,4-Dichlorobenzene	106-46-7	T	Non-aqueous phase liquid	1	1	6.60E+00	6.60E+00	MG/KG
ON	VOC	Methyl Acetate	79-20-9	T	Non-aqueous phase liquid	1	1	1.70E+00	1.70E+00	MG/KG
ON	VOC	Toluene	108-88-3	T	Non-aqueous phase liquid	1	1	2.50E-01	2.50E-01	MG/KG
ON	VOC	1,2,4-Trichlorobenzene	120-82-1	T	Non-aqueous phase liquid	1	1	8.90E+00	8.90E+00	MG/KG
ON	SVOC	Acenaphthene	83-32-9	T	Non-aqueous phase liquid	1	1	1.20E+02	1.20E+02	MG/KG
ON	SVOC	Biphenyl	92-52-4	T	Non-aqueous phase liquid	1	1	4.60E+01	4.60E+01	MG/KG
ON	PCB	PCBs (total)	1336-36-3	T	Non-aqueous phase liquid	2	2	2.50E+05	4.00E+05	MG/KG
ON	INORG	Cyanide (amenable)	57-12-5A	T	Non-aqueous phase liquid	1	1	1.80E-03	1.80E-03	MG/KG
OFF	VOC	Acetone	67-64-1	T	Liquid Emulsion	4	2	8.10E-01	1.10E+00	MG/L
OFF	VOC	2-Butanone	78-93-3	T	Liquid Emulsion	4	3	3.10E-02	1.10E+00	MG/L
OFF	VOC	Chlorobenzene	108-90-7	T	Liquid Emulsion	4	1	2.40E-04	2.40E-04	MG/L
OFF	VOC	Cumene	98-82-8	T	Liquid Emulsion	4	2	5.60E-04	3.80E-03	MG/L
OFF	VOC	Cyclohexane	110-82-7	T	Liquid Emulsion	4	2	4.00E-04	2.30E-03	MG/L
OFF	VOC	1,3-Dichlorobenzene	541-73-1	T	Liquid Emulsion	4	1	1.80E-04	1.80E-04	MG/L
OFF	VOC	1,4-Dichlorobenzene	106-46-7	T	Liquid Emulsion	4	2	4.70E-04	2.90E-03	MG/L
OFF	VOC	cis-1,2-Dichloroethene	156-59-2	T	Liquid Emulsion	4	1	3.50E-04	3.50E-04	MG/L
OFF	VOC	Ethyl Benzene	100-41-4	T	Liquid Emulsion	4	1	2.60E-03	2.60E-03	MG/L
OFF	VOC	Methylcyclohexane	108-87-2	T	Liquid Emulsion	4	2	1.20E-03	9.00E-03	MG/L
OFF	VOC	Methylene Chloride	75-09-2	T	Liquid Emulsion	4	1	5.60E-03	5.60E-03	MG/L
OFF	VOC	Xylenes (total)	1330-20-7	T	Liquid Emulsion	4	1	1.70E-02	1.70E-02	MG/L
OFF	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T	Liquid Emulsion	4	2	1.60E-01	1.10E+00	MG/L
OFF	SVOC	Di-n-octylphthalate	117-84-0	T	Liquid Emulsion	4	2	1.50E-01	8.30E-01	MG/L
OFF	SVOC	Phenanthrene	85-01-8	T	Liquid Emulsion	4	2	2.30E-02	8.30E-02	MG/L
OFF	PCB	PCBs (total)	1336-36-3	T	Liquid Emulsion	5	1	3.30E+04	3.30E+04	MG/KG
OFF	PCB	PCBs (total)	1336-36-3	D	Liquid Emulsion	2	1	5.20E-03	5.20E-03	MG/L
OFF	PCB	PCBs (total)	1336-36-3	T	Liquid Emulsion	5	4	1.50E-04	2.70E+00	MG/L
OFF	INORG	Aluminum	7429-90-5	T	Liquid Emulsion	4	3	1.70E-01	9.30E+01	MG/L
OFF	INORG	Antimony	7440-36-0	T	Liquid Emulsion	4	1	3.50E-02	3.50E-02	MG/L
OFF	INORG	Arsenic	7440-38-2	T	Liquid Emulsion	4	1	1.40E-01	1.40E-01	MG/L
OFF	INORG	Barium	7440-39-3	D	Liquid Emulsion	1	1	4.60E-02	4.60E-02	MG/L
OFF	INORG	Barium	7440-39-3	T	Liquid Emulsion	4	4	3.60E-02	1.10E+00	MG/L
OFF	INORG	Beryllium	7440-41-7	T	Liquid Emulsion	4	1	2.20E-03	2.20E-03	MG/L
OFF	INORG	Cadmium	7440-43-9	T	Liquid Emulsion	4	2	4.40E-03	1.50E-01	MG/L
OFF	INORG	Chromium (total)	7440-47-3	T	Liquid Emulsion	4	3	5.30E-03	2.00E-01	MG/L
OFF	INORG	Cobalt	7440-48-4	T	Liquid Emulsion	4	3	3.30E-03	6.90E-02	MG/L

Table 2-5: Other Liquid Matrices Screening Results Summary
GM Powertrain Bedford Facility, Bedford, Indiana

On/Off-Site	Chem Group	Chemical	CASRN	Meas Basis	Matrix	Analyzed	Detected	Min Detected	Max Detected	Units
OFF	INORG	Copper	7440-50-8	T	Liquid Emulsion	4	4	6.80E-03	1.12E+01	MG/L
OFF	INORG	Cyanide (total)	57-12-5	T	Liquid Emulsion	4	1	6.10E-03	6.10E-03	MG/L
OFF	INORG	Iron	7439-89-6	T	Liquid Emulsion	4	4	4.10E+00	1.23E+03	MG/L
OFF	INORG	Iron	7439-89-6	D	Liquid Emulsion	1	1	9.80E-02	9.80E-02	MG/L
OFF	INORG	Lead	7439-92-1	T	Liquid Emulsion	4	2	3.30E-02	4.50E+00	MG/L
OFF	INORG	Manganese	7439-96-5	T	Liquid Emulsion	4	4	1.50E-01	4.20E+00	MG/L
OFF	INORG	Manganese	7439-96-5	D	Liquid Emulsion	1	1	1.00E-01	1.00E-01	MG/L
OFF	INORG	Mercury	7439-97-6	T	Liquid Emulsion	4	2	1.90E-04	7.70E-04	MG/L
OFF	INORG	Nickel	7440-02-0	D	Liquid Emulsion	1	1	3.60E-03	3.60E-03	MG/L
OFF	INORG	Nickel	7440-02-0	T	Liquid Emulsion	4	4	5.00E-03	2.00E-01	MG/L
OFF	INORG	Thallium	7440-28-0	T	Liquid Emulsion	4	1	5.20E-03	5.20E-03	MG/L
OFF	INORG	Vanadium	7440-62-2	T	Liquid Emulsion	4	2	4.80E-03	1.90E-01	MG/L
OFF	INORG	Zinc	7440-66-6	T	Liquid Emulsion	4	2	4.00E-01	4.82E+01	MG/L
OFF	VOC	Chlorobenzene	108-90-7	T	Non-aqueous phase liquid	1	1	6.70E+00	6.70E+00	MG/KG
OFF	VOC	1,3-Dichlorobenzene	541-73-1	T	Non-aqueous phase liquid	1	1	5.40E+00	5.40E+00	MG/KG
OFF	VOC	1,4-Dichlorobenzene	106-46-7	T	Non-aqueous phase liquid	1	1	1.10E+01	1.10E+01	MG/KG
OFF	SVOC	Di-n-octylphthalate	117-84-0	T	Non-aqueous phase liquid	1	1	1.20E+03	1.20E+03	MG/KG
OFF	PDIST	Diesel Range Organics	DRO	T	Non-aqueous phase liquid	1	1	9.30E+05	9.30E+05	MG/KG
OFF	PCB	PCBs (total)	1336-36-3	T	Non-aqueous phase liquid	1	1	2.00E+05	2.00E+05	MG/KG
Notes:										
Only constituents detected in the most recent data in NAPL or liquid emulsion are shown.										
Meas Basis - Measured Basis; T = Total (unfiltered), D = Dissolved (filtered)										

**Table 2-6a: CA750 Groundwater and Surface Water Sampling Locations
GM Powertrain Bedford Facility, Bedford, Indiana**

Location Name	Description	Sampling Parameter(s)	Monitoring Frequency	Reason
CH-1B	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
CH-2A	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
CH-5	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
CH-9A	Shallow Bedrock	VOC, SVOC, PCB	semi-annual	delineation of GW extent
CH-42	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
CH-42A	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
CH-43	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
CH-44	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
MW-X000Y105	Shallow Bedrock	VOC, SVOC, PCB	semi-annual	delineation of GW extent
MW-X012Y078	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
MW-X012Y100	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
MW-X033Y147S	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
MW-X043Y176	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
MW-X043Y186	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
MW-X047Y236	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
MW-X060Y304	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
MW-X085Y070S-1	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
MW-X085Y070S-2	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
MW-X169Y058S-1	Shallow Bedrock	PCB, Vinyl Chloride	semi-annual	delineation of GW extent
MW-X209Y053	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
MW-X227Y049	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
MW-X227Y054	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
MW-X261Y356D-3	Intermediate Bedrock	PCB	semi-annual	delineation of GW extent
MW-X277Y100	Shallow Bedrock	VOC, SVOC, PCB	semi-annual	delineation of GW extent
MW-X297Y305D-2	Intermediate Bedrock	PCB	semi-annual	delineation of GW extent
MW-X300Y199I-1	Intermediate Bedrock	PCB	semi-annual	delineation of GW extent
MW-X300Y199I-2	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
MW-X300Y199I-3	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
MW-X300Y199I-4	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
MW-X315Y115	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
MW-X315Y150	Shallow Bedrock	PCB	semi-annual	delineation of GW extent
Tributary 3-3	Surface Water	PCB	semi-annual	monitor potential GW discharges to surface water
Western Tributary HW	Surface Water	PCB	semi-annual	monitor potential GW discharges to surface water
Northern Tributary 1	Surface Water	PCB	semi-annual	monitor potential GW discharges to surface water
Notes:				
1. If NAPL or a sheen is present at the time of sampling, a groundwater sample will not be collected.				
If the NAPL or sheen/emulsion has not been previously characterized, a characterization sample will be collected.				
2. Corehole CH-9A and wells MW-X000Y105 and MW-X277Y100 will be analyzed once for VOCs and SVOCs. The need for further VOC and SVOC analysis in subsequent semi-annual monitoring will be determined in consultation with EPA based on the results from the initial samples.				
3. Tributary 3-3 will be included for monitoring in the future once the cap system has been constructed and surface water is no longer being collected and treated.				
4. After the first year of monitoring, the monitoring locations and frequencies will be re-evaluated with USEPA to determine if modifications to the plan would be appropriate for the purposes of this CA750 determination.				

**Table 2-6b: CA750 NAPL and Groundwater Gauging Locations
GM Powertrain Bedford Facility, Bedford, Indiana**

Location Name	Measurement Parameter	Monitoring Frequency	Reason
CH-1B	NAPL presence	quarterly	presence of NAPL
CH-2A	NAPL presence	quarterly	presence of NAPL
CH-5	NAPL presence	quarterly	presence of NAPL
CH-9A	NAPL presence	quarterly	presence of NAPL
CH-42	NAPL presence	quarterly	presence of NAPL
CH-42A	NAPL presence	quarterly	presence of NAPL
CH-43	NAPL presence	quarterly	presence of NAPL
CH-44	NAPL presence	quarterly	presence of NAPL
MW-X012Y100	NAPL presence	quarterly	presence of NAPL
MW-X085Y070S-1	NAPL presence	quarterly	presence of NAPL
MW-X085Y070S-2	NAPL presence	quarterly	presence of NAPL
MW-X209Y053	NAPL presence	quarterly	presence of NAPL
MW-X227Y049	NAPL presence	quarterly	presence of NAPL
MW-X227Y054	NAPL presence	quarterly	presence of NAPL
MW-X000Y105	groundwater elevation	quarterly	groundwater flow direction
MW-X012Y090	groundwater elevation	quarterly	groundwater flow direction
MW-X012Y110	groundwater elevation	quarterly	groundwater flow direction
MW-X022Y094	groundwater elevation	quarterly	groundwater flow direction
MW-X022Y096	groundwater elevation	quarterly	groundwater flow direction
MW-X190Y048	groundwater elevation	quarterly	groundwater flow direction
MW-X192Y048	groundwater elevation	quarterly	groundwater flow direction
MW-X209Y078S	groundwater elevation	quarterly	groundwater flow direction
MW-X237Y058	groundwater elevation	quarterly	groundwater flow direction
MW-X242Y060S	groundwater elevation	quarterly	groundwater flow direction
MW-X272Y038	groundwater elevation	quarterly	groundwater flow direction
MW-X288Y005	groundwater elevation	quarterly	groundwater flow direction
Notes:			
The well zone for all locations shown is shallow bedrock.			
NAPL or sheen have never been observed at MW-X085Y070S-1, CH-42, CH-42A, CH-43, or CH-44.			
If NAPL is not present at a location, the groundwater elevation will be taken.			
After the first year of monitoring, the monitoring locations and frequencies will be re-evaluated with USEPA to determine if modifications to the plan would be appropriate for the purposes of this CA750 determination.			

FIGURES

- Figure 1: Groundwater Sample Locations, Overburden Non-PCB Sample Results
- Figure 2: Groundwater Sample Locations, Shallow Bedrock Non-PCB Sample Results
- Figure 3: Groundwater Sample Locations, Intermediate Bedrock Non-PCB Sample Results
- Figure 4: Groundwater Sample Locations, Deep Bedrock Non-PCB Sample Results
- Figure 5: Groundwater Sample Locations, Overburden PCB Delineation and NAPL Results
- Figure 6: Groundwater Sample Locations, Shallow Bedrock PCB Delineation and NAPL Results
- Figure 7: Groundwater Sample Locations, Intermediate Bedrock PCB Delineation and NAPL Results
- Figure 8: Groundwater Sample Locations, Deep Bedrock PCB Delineation and NAPL Results

Seep 5013A	5/29/2002 Spring Water mg/l
Metals	
Aluminum	1.3
Aluminum (Dissolved)	0.2 U
Antimony	0.06 U
Antimony (Dissolved)	0.06 U
Arsenic	0.01 U
Arsenic (Dissolved)	0.01 U
Chromium III (Trivalent)	NS
Chromium III (Trivalent) (Dissolved)	NS
Chromium Total	0.0036 J
Chromium Total (Dissolved)	0.002 J
Chromium VI (Hexavalent)	NS
Chromium VI (Hexavalent) (Dissolved)	NS
Iron	42.6 (A)
Iron (Dissolved)	39.9 (A)
Lead	0.0041
Lead (Dissolved)	0.003 U
Manganese	3.1 (A)
Manganese (Dissolved)	3.1 (A)
Thallium	0.001 U
Thallium (Dissolved)	0.001 U
SVOCs	
bis(2-Ethylhexyl)phthalate	0.0035 J
VOCs	
Chlorobenzene	0.001 U
Vinyl chloride	0.001 U

TMW-X128Y255A	7/14/2004 Groundwater mg/l
Metals	
Aluminum	0.24
Aluminum (Dissolved)	0.2 U
Antimony	0.06 U
Antimony (Dissolved)	0.06 U
Arsenic	0.0029 J
Arsenic (Dissolved)	0.01 U
Chromium III (Trivalent)	NS
Chromium III (Trivalent) (Dissolved)	NS
Chromium Total	0.01 U
Chromium Total (Dissolved)	0.01 U
Chromium VI (Hexavalent)	NS
Chromium VI (Hexavalent) (Dissolved)	NS
Iron	3.3
Iron (Dissolved)	3.3
Lead	0.003 U
Lead (Dissolved)	0.003 U
Manganese	2.2 (A)
Manganese (Dissolved)	2.2 (A)
Thallium	0.001 U
Thallium (Dissolved)	0.001 U
SVOCs	
bis(2-Ethylhexyl)phthalate	0.01 U
VOCs	
Chlorobenzene	0.001 U
Vinyl chloride	0.001 U

TMW-X193Y251 Abandoned	3/19/2003 Groundwater mg/l
Metals	
Aluminum	0.2 U/0.2 U
Aluminum (Dissolved)	0.2 U/0.2 U
Antimony	0.06 U/0.06 U
Antimony (Dissolved)	0.06 U/0.06 U
Arsenic	0.01 U/0.01 U
Arsenic (Dissolved)	0.01 U/0.01 U
Chromium III (Trivalent)	NS/NS/NS
Chromium III (Trivalent) (Dissolved)	NS/NS/NS
Chromium Total	0.0039 J/0.0035 J
Chromium Total (Dissolved)	0.01 U/0.01 U
Chromium VI (Hexavalent)	NS
Chromium VI (Hexavalent) (Dissolved)	NS
Iron	4.7/4.7
Iron (Dissolved)	4.6/4.7
Lead	0.003 U/0.003 U
Lead (Dissolved)	0.003 U/0.003 U
Manganese	0.066/0.067
Manganese (Dissolved)	0.064/0.065
Thallium	0.001 U/0.001 U
Thallium (Dissolved)	0.001 U/0.001 U
SVOCs	
bis(2-Ethylhexyl)phthalate	0.01 U/0.01 U
VOCs	
Chlorobenzene	0.15 (A)/0.14 J (A)
Vinyl chloride	0.0053 (A)/0.0053 (A)

TMW-X128Y255B	6/30/2004 Groundwater mg/l
Metals	
Aluminum	0.2 U
Aluminum (Dissolved)	0.2 U
Antimony	0.06 U
Antimony (Dissolved)	0.06 U
Arsenic	0.01 U
Arsenic (Dissolved)	0.0052 J
Chromium III (Trivalent)	NS
Chromium III (Trivalent) (Dissolved)	NS
Chromium Total	0.01 U
Chromium Total (Dissolved)	0.01 U
Chromium VI (Hexavalent)	NS
Chromium VI (Hexavalent) (Dissolved)	NS
Iron	0.14 U
Iron (Dissolved)	0.1 U
Lead	0.003 U
Lead (Dissolved)	0.003 U
Manganese	0.062
Manganese (Dissolved)	0.067
Thallium	0.001 U
Thallium (Dissolved)	0.001 U
SVOCs	
bis(2-Ethylhexyl)phthalate	0.01 UJ
VOCs	
Chlorobenzene	0.001 U
Vinyl chloride	0.001 U

TMW-X085Y070	3/20/2003 Groundwater mg/l
Metals	
Aluminum	0.2 U
Aluminum (Dissolved)	0.2 U
Antimony	0.06 U
Antimony (Dissolved)	0.06 U
Arsenic	0.01 U
Arsenic (Dissolved)	0.01 U
Chromium III (Trivalent)	NS
Chromium III (Trivalent) (Dissolved)	NS
Chromium Total	0.0069 J
Chromium Total (Dissolved)	0.01 U
Chromium VI (Hexavalent)	NS
Chromium VI (Hexavalent) (Dissolved)	NS
Iron	0.14
Iron (Dissolved)	0.1 U
Lead	0.003 U
Lead (Dissolved)	0.003 U
Manganese	0.79
Manganese (Dissolved)	0.51
Thallium	0.001 U
Thallium (Dissolved)	0.001 U
SVOCs	
bis(2-Ethylhexyl)phthalate	0.01 U
VOCs	
Chlorobenzene	0.001 U
Vinyl chloride	0.001 U

AOI SUMMARY	
AOI ID	Description
AOI 1	Former Railroad Operations and Minerals Processing Facility
AOI 2	Waste Storage Area
AOI 3	PCB Storage Area
AOI 4	Former North Disposal Area
AOI 5	Former East Sand Disposal Area
AOI 6	Former Sludge Disposal and Fire Training Area
AOI 7	Former North Lagoon and Outfall 021
AOI 8	Former South Lagoons and Outfall 002
AOI 9	Service Tunnels
AOI 10	Existing Stormwater Lagoon and Outfall 003
AOI 11	Aboveground Storage Tanks
AOI 12	Area Affected by the Reclaimed Hydraulic Fluid Release
AOI 13	Underground Storage Tanks
AOI 14	McBride Cows Disposal Area
AOI 15	Former Equipment Storage Area
AOI 17	Piston Building Oil Accumulations
AOI 18	Area Affected by the Henry System Discharge
AOI 19	Area Affected by Paint and Thinner Spill
AOI 20	Northern Portion of the Piston Building
AOI 21	Filled Ravine North of Die Cast Building
AOI 21-1	Former Drainage Valley Under Hourly Parking Lot
AOI 21-2	Former Drainage Valley Northeast of Piston and Office Buildings
AOI 21-3	Surface Water Ditches Located Along GM Drive and Breckenridge Road
AOI 21-4	Former Drainage Valley East of Electrical Sub-Station, Breckenridge Road

AOI SUMMARY	
AOI ID	Description
AOI 22	Tool Room Annex Dock Release
AOI 23	Area Affected by the 1996 Wastewater Treatment Filter Cake Release
AOI 24	Area Affected by the June 2000 Die Lube 5150 Release
AOI 25	Off-Site Fill Area - Parcel 398
AOI 26	Off-Site Fill Area - Parcels 384 & 385
AOI 27	Off-Site Fill Area - Parcels 381 & 382
AOI 28	Off-Site Fill Area - Parcel 401
AOI 29	Off-Site Fill Area - Parcel 39

SAMPLE LOCATION IDENTIFIER	
TMW-X128Y255A	7/14/2004 Groundwater mg/l
Metals	
Aluminum	0.24
Aluminum (Dissolved)	0.2 U
	2.2 (A)
	4.7/6.7
	J
	U
	U
	NS
NOTES:	
1. GMP PROPERTY BOUNDARY SURVEY BY BLEDSOE RIGBERT GUESBERTAS RECEIVED OCTOBER 2005. ADJACENT PROPERTY BOUNDARY LOCATIONS APPROXIMATED FROM THE LAWRENCE COUNTY SURVEY PLATS. ADJACENT PROPERTY LINES MAY NOT ACCURATELY REPRESENT THE TRUE PROPERTY BOUNDARIES.	

Chemical Name	Drinking Water Criteria (mg/L)
	(A)
Metals	
Aluminum	37
Aluminum (Dissolved)	37
Antimony	0.006
Antimony (Dissolved)	0.006
Arsenic	0.01
Arsenic (Dissolved)	0.01
Chromium III (Trivalent)	0.1
Chromium III (Trivalent) (Dissolved)	0.1
Chromium Total	0.1
Chromium Total (Dissolved)	0.1
Chromium VI (Hexavalent)	0.1
Chromium VI (Hexavalent) (Dissolved)	0.1
Iron	11
Iron (Dissolved)	11
Lead	0.015
Lead (Dissolved)	0.015
Manganese	0.88
Manganese (Dissolved)	0.88
Thallium	0.002
Thallium (Dissolved)	0.002
SVOCs	
bis(2-Ethylhexyl)phthalate	0.006
VOCs	
Chlorobenzene	0.1
Vinyl chloride	0.002

LEGEND	
	EXISTING BUILDINGS
	FENCE LINE
	RAILROAD TRACKS
	DIRT ROADS
	ROADS / PAVED AREAS
	APPROXIMATE SURFACE WATER LOCATION
	APPROXIMATE GM PROPERTY BOUNDARY
	APPROXIMATE PARCEL BOUNDARY
	AOI BOUNDARY
	PROPOSED COLLECTION TRENCH

SCALE VERIFICATION	
THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.	

GM POWERTRAIN BEDFORD FACILITY BEDFORD, INDIANA

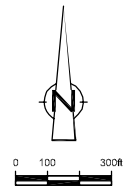
EI CA750 GROUNDWATER SUMMARY

GROUNDWATER SAMPLE LOCATIONS OVERBURDEN NON-PCB SAMPLE RESULTS



CONESTOGA-ROVERS & ASSOCIATES

Source References			
BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT MI, APRIL 2001, AND CRA SURVEYS 2002 TO 2005			
Project Manager:	Reviewed By:	Date:	
JJM	P.G.	APRIL 2008	
Scale:	Project N#:	Report N#:	Drawing N#:
AS SHOWN	13968-00	MEMO460	figure 1



MW-X169Y068D-2	6/3/2003 mg/l
Metals	
Aluminum	0.2 U/0.2 U
Aluminum (Dissolved)	0.2 U/0.2 U
Antimony	0.06 U/0.06 U
Antimony (Dissolved)	0.06 U/0.06 U
Arsenic	0.01 U/0.01 U
Arsenic (Dissolved)	0.01 U/0.01 U
Chromium III (Trivalent)	NS/NS
Chromium III (Trivalent) (Dissolved)	NS/NS
Chromium Total	0.01 U/0.01 U
Chromium Total (Dissolved)	0.01 U/0.01 U
Chromium VI (Hexavalent)	NS/NS
Chromium VI (Hexavalent) (Dissolved)	NS/NS
Iron	0.19/0.19
Iron (Dissolved)	0.003 U/0.003 U
Lead	0.003 U/0.003 U
Lead (Dissolved)	0.015 U/0.015 U
Manganese	0.015 U/0.015 U
Manganese (Dissolved)	0.001 U/0.001 U
Thallium	0.001 U/0.001 U
Thallium (Dissolved)	0.001 U/0.001 U
SVOCs	
bis(2-Ethylhexyl)phthalate	0.01 U/0.01 U
VOCs	
Chlorobenzene	0.001 U/0.001 U
Vinyl chloride	0.001 U/0.001 U

MW-X178Y367D-2	6/11/2003 mg/l
Metals	
Aluminum	0.2 U/0.2 U
Aluminum (Dissolved)	0.2 U/0.2 U
Antimony	0.06 U/0.06 U
Antimony (Dissolved)	0.06 U/0.06 U
Arsenic	0.01 U/0.01 U
Arsenic (Dissolved)	0.01 U/0.01 U
Chromium III (Trivalent)	NS/NS
Chromium III (Trivalent) (Dissolved)	NS/NS
Chromium Total	0.01 U/0.01 U
Chromium Total (Dissolved)	0.01 U/0.01 U
Chromium VI (Hexavalent)	NS/NS
Chromium VI (Hexavalent) (Dissolved)	NS/NS
Iron	0.19/0.19
Iron (Dissolved)	0.003 U/0.003 U
Lead	0.003 U/0.003 U
Lead (Dissolved)	0.015 U/0.015 U
Manganese	0.015 U/0.015 U
Manganese (Dissolved)	0.001 U/0.001 U
Thallium	0.001 U/0.001 U
Thallium (Dissolved)	0.001 U/0.001 U
SVOCs	
bis(2-Ethylhexyl)phthalate	0.01 U/0.01 U
VOCs	
Chlorobenzene	0.001 U/0.001 U
Vinyl chloride	0.001 U/0.001 U

MW-X261Y356D-3	6/10/2003 mg/l
Metals	
Aluminum	0.2 U
Aluminum (Dissolved)	0.2 U
Antimony	0.06 U
Antimony (Dissolved)	0.06 U
Arsenic	0.0023 J
Arsenic (Dissolved)	0.01 U
Chromium III (Trivalent)	NS
Chromium III (Trivalent) (Dissolved)	NS
Chromium Total	0.01 U
Chromium Total (Dissolved)	0.01 U
Chromium VI (Hexavalent)	NS
Chromium VI (Hexavalent) (Dissolved)	NS
Iron	0.067 J
Iron (Dissolved)	0.009 J
Lead	0.003 U
Lead (Dissolved)	0.003 U
Manganese	0.0079 J
Manganese (Dissolved)	0.0085 J
Thallium	0.001 U
Thallium (Dissolved)	0.001 U
SVOCs	
bis(2-Ethylhexyl)phthalate	0.01 U
VOCs	
Chlorobenzene	0.001 U
Vinyl chloride	0.001 U

MW-X261Y356D-2	6/11/2003 mg/l
Metals	
Aluminum	0.2 U
Aluminum (Dissolved)	0.2 U
Antimony	0.06 U
Antimony (Dissolved)	0.06 U
Arsenic	0.0029 J
Arsenic (Dissolved)	0.003 J
Chromium III (Trivalent)	NS
Chromium III (Trivalent) (Dissolved)	NS
Chromium Total	0.059
Chromium Total (Dissolved)	0.13 (A)
Chromium VI (Hexavalent)	NS
Chromium VI (Hexavalent) (Dissolved)	NS
Iron	4.8
Iron (Dissolved)	4.1
Lead	0.003 U
Lead (Dissolved)	0.003 U
Manganese	0.028
Manganese (Dissolved)	0.025
Thallium	0.001 U
Thallium (Dissolved)	0.001 U
SVOCs	
bis(2-Ethylhexyl)phthalate	0.01 U
VOCs	
Chlorobenzene	0.001 U
Vinyl chloride	0.001 U

MW-X297Y305D-2	10/23/2003 mg/l
Metals	
Aluminum	0.2 U
Aluminum (Dissolved)	0.2 U
Antimony	0.06 U
Antimony (Dissolved)	0.004 J
Arsenic	0.01 U
Arsenic (Dissolved)	0.01 U
Chromium III (Trivalent)	NS
Chromium III (Trivalent) (Dissolved)	NS
Chromium Total	0.01 U
Chromium Total (Dissolved)	0.01 U
Chromium VI (Hexavalent)	NS
Chromium VI (Hexavalent) (Dissolved)	NS
Iron	0.1 U
Iron (Dissolved)	0.1 U
Lead	0.003 U
Lead (Dissolved)	0.003 U
Manganese	0.017
Manganese (Dissolved)	0.018
Thallium	0.001 U
Thallium (Dissolved)	0.001 U
SVOCs	
bis(2-Ethylhexyl)phthalate	0.01 U
VOCs	
Chlorobenzene	0.001 U
Vinyl chloride	0.001 U

MW-X033Y147D-3	6/13/2003 mg/l	5/30/2007 mg/l
Metals		
Aluminum	0.2 U	NS
Aluminum (Dissolved)	0.2 U	NS
Antimony	0.06 U	NS
Antimony (Dissolved)	0.06 U	NS
Arsenic	0.0035 J	NS
Arsenic (Dissolved)	0.0031 J	NS
Chromium III (Trivalent)	NS	0.0053 J
Chromium III (Trivalent) (Dissolved)	NS	0.0042 J
Chromium Total	0.21 (A)	NS
Chromium Total (Dissolved)	0.19 (A)	NS
Chromium VI (Hexavalent)	NS	0.02 U
Chromium VI (Hexavalent) (Dissolved)	NS	0.02 U
Iron	1.7 J	NS
Iron (Dissolved)	1.5	NS
Lead	0.003 U	NS
Lead (Dissolved)	0.003 U	NS
Manganese	0.042 J	NS
Manganese (Dissolved)	0.044 J	NS
Thallium	0.001 U	NS
Thallium (Dissolved)	0.001 U	NS
SVOCs		
bis(2-Ethylhexyl)phthalate	0.013 U	NS
VOCs		
Chlorobenzene	0.005 U	NS
Vinyl chloride	0.005 U	NS

MW-X033Y147D-2	6/12/2003 mg/l	5/30/2007 mg/l
Metals		
Aluminum	0.2 U	NS
Aluminum (Dissolved)	0.2 U	NS
Antimony	0.06 U	NS
Antimony (Dissolved)	0.06 U	NS
Arsenic	0.01 U	NS
Arsenic (Dissolved)	0.01 U	NS
Chromium III (Trivalent)	NS	0.023
Chromium III (Trivalent) (Dissolved)	NS	0.031
Chromium Total	0.01 U	NS
Chromium Total (Dissolved)	0.01 U	NS
Chromium VI (Hexavalent)	NS	0.02 U
Chromium VI (Hexavalent) (Dissolved)	NS	0.02 U
Iron	1.5 J	NS
Iron (Dissolved)	1.3	NS
Lead	0.003 U	NS
Lead (Dissolved)	0.003 U	NS
Manganese	0.01 J	NS
Manganese (Dissolved)	0.01 J	NS
Thallium	0.001 U	NS
Thallium (Dissolved)	0.001 U	NS
SVOCs		
bis(2-Ethylhexyl)phthalate	0.01 U	NS
VOCs		
Chlorobenzene	0.001 U	NS
Vinyl chloride	0.001 U	NS

MW-X085Y070D-3	6/10/2003 mg/l
Metals	
Aluminum	0.2 U
Aluminum (Dissolved)	0.2 U
Antimony	0.06 U
Antimony (Dissolved)	0.06 U
Arsenic	0.01 U
Arsenic (Dissolved)	0.01 U
Chromium III (Trivalent)	NS
Chromium III (Trivalent) (Dissolved)	NS
Chromium Total	0.01 U
Chromium Total (Dissolved)	0.01 U
Chromium VI (Hexavalent)	NS
Chromium VI (Hexavalent) (Dissolved)	NS
Iron	0.16
Iron (Dissolved)	0.16
Lead	0.003 U
Lead (Dissolved)	0.003 U
Manganese	0.015 U
Manganese (Dissolved)	0.015 U
Thallium	0.001 U
Thallium (Dissolved)	0.001 U
SVOCs	
bis(2-Ethylhexyl)phthalate	0.01 U
VOCs	
Chlorobenzene	0.001 U
Vinyl chloride	0.001 U

MW-X085Y070D-2	6/10/2003 mg/l
Metals	
Aluminum	0.2 U
Aluminum (Dissolved)	0.22 U
Antimony	0.06 U
Antimony (Dissolved)	0.06 U
Arsenic	0.0025 J
Arsenic (Dissolved)	0.01 U
Chromium III (Trivalent)	NS
Chromium III (Trivalent) (Dissolved)	NS
Chromium Total	0.01 U
Chromium Total (Dissolved)	0.01 U
Chromium VI (Hexavalent)	NS
Chromium VI (Hexavalent) (Dissolved)	NS
Iron	0.31
Iron (Dissolved)	0.23
Lead	0.003 U
Lead (Dissolved)	0.003 U
Manganese	0.011 J
Manganese (Dissolved)	0.01 J
Thallium	0.001 U
Thallium (Dissolved)	0.001 U
SVOCs	
bis(2-Ethylhexyl)phthalate	0.01 U
VOCs	
Chlorobenzene	0.001 U
Vinyl chloride	0.001 U

MW-X251Y189D-4	6/9/2003 mg/l
Metals	
Aluminum	0.2 U
Aluminum (Dissolved)	0.2 U
Antimony	0.06 U
Antimony (Dissolved)	0.06 U
Arsenic	0.01 U
Arsenic (Dissolved)	0.01 U
Chromium III (Trivalent)	NS
Chromium III (Trivalent) (Dissolved)	NS
Chromium Total	0.01 U
Chromium Total (Dissolved)	0.01 U
Chromium VI (Hexavalent)	NS
Chromium VI (Hexavalent) (Dissolved)	NS
Iron	0.13
Iron (Dissolved)	0.095 J
Lead	0.003 U
Lead (Dissolved)	0.003 U
Manganese	0.015 U
Manganese (Dissolved)	0.015 U
Thallium	0.001 U
Thallium (Dissolved)	0.001 U
SVOCs	
bis(2-Ethylhexyl)phthalate	0.01 U
VOCs	
Chlorobenzene	0.001 U
Vinyl chloride	0.001 U

MW-X251Y189D-3	5/15/2003 mg/l
Metals	
Aluminum	0.2 U
Aluminum (Dissolved)	0.2 U
Antimony	0.06 U
Antimony (Dissolved)	0.06 U
Arsenic	0.01 U
Arsenic (Dissolved)	0.01 U
Chromium III (Trivalent)	NS
Chromium III (Trivalent) (Dissolved)	NS
Chromium Total	0.01 U
Chromium Total (Dissolved)	0.0075 J
Chromium VI (Hexavalent)	NS
Chromium VI (Hexavalent) (Dissolved)	NS
Iron	0.056 J
Iron (Dissolved)	0.1 U
Lead	0.003 U
Lead (Dissolved)	0.003 U
Manganese	0.015 U
Manganese (Dissolved)	0.015 U
Thallium	0.001 U
Thallium (Dissolved)	0.001 U
SVOCs	
bis(2-Ethylhexyl)phthalate	0.01 U
VOCs	
Chlorobenzene	0.001 U
Vinyl chloride	0.001 U

MW-X251Y189D-2	4/23/2003 mg/l
Metals	
Aluminum	0.2 U
Aluminum (Dissolved)	0.2 U
Antimony	0.06 U
Antimony (Dissolved)	0.06 U
Arsenic	0.01 U
Arsenic (Dissolved)	0.01 U
Chromium III (Trivalent)	NS
Chromium III (Trivalent) (Dissolved)	NS
Chromium Total	0.01 U
Chromium Total (Dissolved)	0.01 U
Chromium VI (Hexavalent)	NS
Chromium VI (Hexavalent) (Dissolved)	NS
Iron	0.23
Iron (Dissolved)	0.13
Lead	0.003 U
Lead (Dissolved)	0.003 U
Manganese	0.0038 J
Manganese (Dissolved)	0.0041 J
Thallium	0.001 U
Thallium (Dissolved)	0.001 U
SVOCs	
bis(2-Ethylhexyl)phthalate	0.01 U
VOCs	
Chlorobenzene	0.001 U
Vinyl chloride	0.001 U

MW-X269Y201D-2	4/29/2003 mg/l
Metals	
Aluminum	0.2 U
Aluminum (Dissolved)	0.2 U
Antimony	0.06 U
Antimony (Dissolved)	0.06 U
Arsenic	0.0043 J
Arsenic (Dissolved)	0.0039 J
Chromium III (Trivalent)	NS
Chromium III (Trivalent) (Dissolved)	NS
Chromium Total	0.01 U
Chromium Total (Dissolved)	0.01 U
Chromium VI (Hexavalent)	NS
Chromium VI (Hexavalent) (Dissolved)	NS
Iron	0.32
Iron (Dissolved)	0.28
Lead	0.003 U
Lead (Dissolved)	0.003 U
Manganese	0.01 J
Manganese (Dissolved)	0.0096 J
Thallium	0.001 U
Thallium (Dissolved)	0.001 U
SVOCs	
bis(2-Ethylhexyl)phthalate	0.01 U
VOCs	
Chlorobenzene	0.001 U
Vinyl chloride	0.001 U

MW-X234Y157D-3	4/16/2003 mg/l
Metals	
Aluminum	0.2 U
Aluminum (Dissolved)	0.2 U
Antimony	0.06 U
Antimony (Dissolved)	0.06 U
Arsenic	0.01 U
Arsenic (Dissolved)	0.0027 J
Chromium III (Trivalent)	NS
Chromium III (Trivalent) (Dissolved)	NS
Chromium Total	0.01 U
Chromium Total (Dissolved)	0.01 U
Chromium VI (Hexavalent)	NS
Chromium VI (Hexavalent) (Dissolved)	NS
Iron	1.4
Iron (Dissolved)	1.3
Lead	0.003 U
Lead (Dissolved)	0.003 U
Manganese	0.011 J
Manganese (Dissolved)	0.012 J
Thallium	0.001 U
Thallium (Dissolved)	0.001 U
SVOCs	
bis(2-Ethylhexyl)phthalate	0.01 U
VOCs	
Chlorobenzene	0.001 U
Vinyl chloride	0.001 U

MW-X234Y157D-2	4/29/2003 mg/l
Metals	
Aluminum	0.2 U/0.75
Aluminum (Dissolved)	0.2 U/0.75
Antimony	0.06 U/0.06 U
Antimony (Dissolved)	0.06 U/0.06 U
Arsenic	0.01 U/0.01 U
Arsenic (Dissolved)	0.01 U/0.01 U
Chromium III (Trivalent)	NS/NS
Chromium III (Trivalent) (Dissolved)	NS/NS
Chromium Total	0.01 U/0.01 U
Chromium Total (Dissolved)	0.01 U/0.01 U
Chromium VI (Hexavalent)	NS/NS
Chromium VI (Hexavalent) (Dissolved)	NS/NS
Iron	0.26/0.34
Iron (Dissolved)	0.23/0.34
Lead	0.003 U/0.003 U
Lead (Dissolved)	0.003 U/0.003 U
Manganese	0.0053 U/0.0054 J
Manganese (Dissolved)	0.004 U/0.004 J
Thallium	0.001 U/0.001 U
Thallium (Dissolved)	0.001 U/0.001 U
SVOCs	
bis(2-Ethylhexyl)phthalate	0.0069 J (A)/0.01 U
VOCs	
Chlorobenzene	0.001 U/0.001 U
Vinyl chloride	0.001 U/0.001 U

Chemical Name	Drinking Water Criteria (mg/L)
	(A)
Metals	
Aluminum	37
Aluminum (Dissolved)	37
Antimony	0.006
Antimony (Dissolved)	0.006
Arsenic	0.01
Arsenic (Dissolved)	0.01
Chromium III (Trivalent)	0.1
Chromium III (Trivalent) (Dissolved)	0.1
Chromium Total	0.1
Chromium Total (Dissolved)	0.1
Chromium VI (Hexavalent)	0.1
Chromium VI (Hexavalent) (Dissolved)	0.1
Iron	11
Iron (Dissolved)	11
Lead	0.015
Lead (Dissolved)	0.015
Manganese	0.88
Manganese (Dissolved)	0.88
Thallium	0.002
Thallium (Dissolved)	0.002
SVOCs	
bis(2-Ethylhexyl)phthalate	0.006
VOCs	
Chlorobenzene	0.1
Vinyl chloride	0.002

AOI SUMMARY	
AOI ID	Description
AOI 1	Former Railroad Operations and Minerals Processing Facility
AOI 2	Waste Storage Area
AOI 3	PCB Storage Areas
AOI 4	Former North Disposal Area
AOI 5	Former East Sand Disposal Area
AOI 6	Former Sludge Disposal and Fire Training Area
AOI 7	Former Lagoon and Outfall 001
AOI 8	Former South Lagoons and Outfall 002
AOI 9	Service Tunnels
AOI 10	Existing Stormwater Lagoon and Outfall 003
AOI 11	Aboveground Storage Tanks
AOI 12	Area Affected by the Reclaimed Hydraulic Fluid Release
AOI 13	Underground Storage Tanks
AOI 14	McBride Cows Disposal Area
AOI 15	Former Equipment Storage Area
AOI 17	Piston Building Oil Accumulations
AOI 18	Area Affected by the Henry System Discharge
AOI 19	Area Affected by Paint and Thinner Spill
AOI 20	Northern Portion of the Piston Building
AOI 21	Filled Ravine North of Die Cast Building
AOI 21-1	Former Drainage Valley Under Hourly Parking Lot
AOI 21-2	Former Drainage Valley Northeast of Piston and Office Buildings
AOI 21-3	Surface Water Ditches Located Along GM Drive and Breckenridge Road
AOI 21-4	Former Drainage Valley East of Electrical Sub-Station, Breckenridge Road

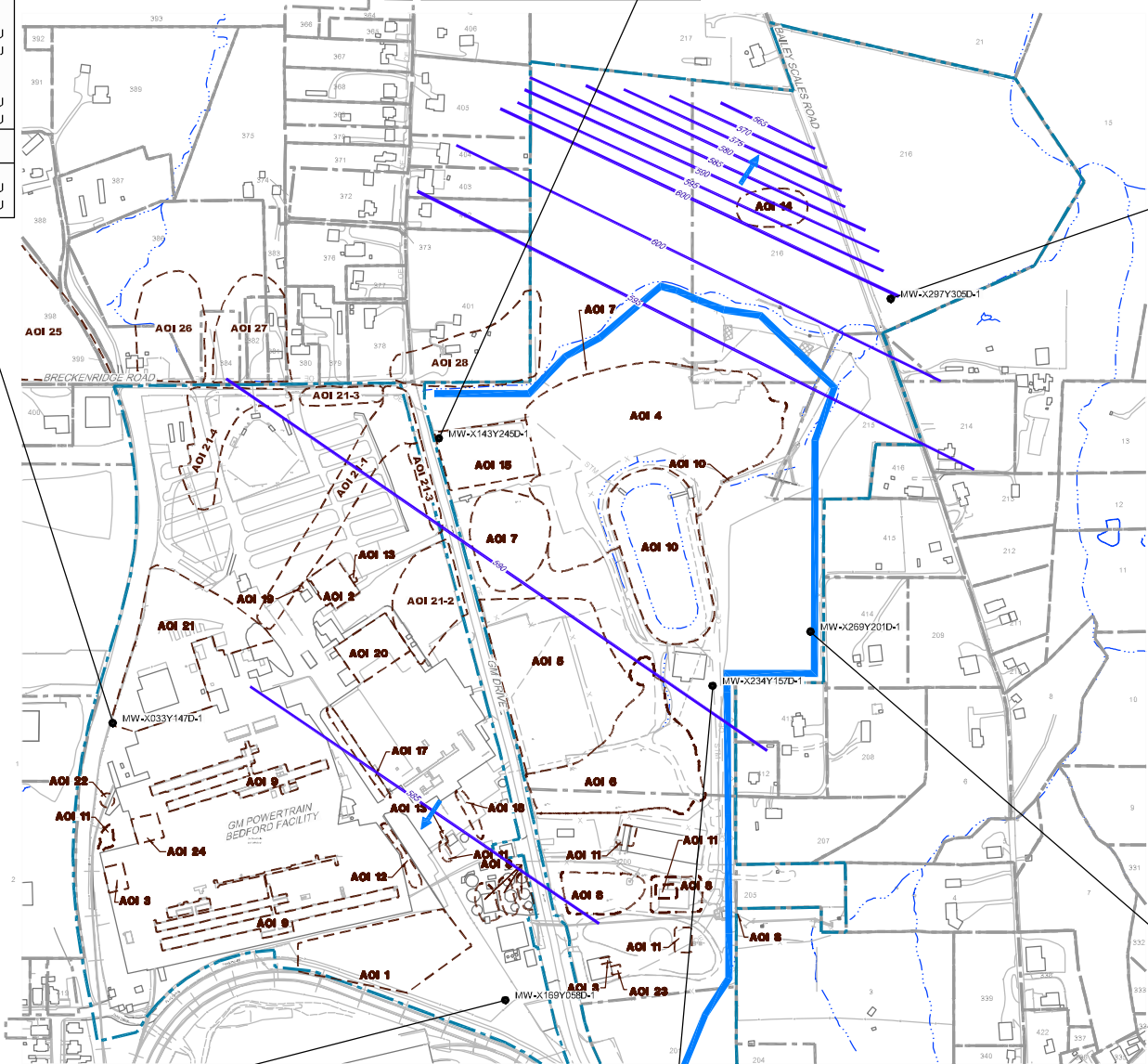
AOI SUMMARY	
<u>AOI ID</u>	<u>Description</u>
AOI 22	Tool Room Annex Dock Release
AOI 23	Area Affected by the 1996 Wastewater Treatment Filter Cake Release
AOI 24	Area Affected by the June 2000 Die Lube 5150 Release
AOI 25	Off-Site Fill Area - Parcel 398
AOI 26	Off-Site Fill Area - Parcels 394 & 395
AOI 27	Off-Site Fill Area - Parcels 381 & 382
AOI 28	Off-Site Fill Area - Parcel 401
AOI 29	Off-Site Fill Area - Parcel 39

<u>NOTES:</u>	
1	GALPROPERTY BOUNDARY GUERRITTAZ RECEIVED
	BOUNDARY LOCATIONS AND COUNTY SURVEY PLATS, ACCURATELY REPRESENT

MW-X033Y147D-1	6/12/2003 mg/l
Metals	
Aluminum	0.2 U
Aluminum (Dissolved)	0.2 U
Antimony	0.06 U
Antimony (Dissolved)	0.06 U
Arsenic	0.01 U
Arsenic (Dissolved)	0.01 U
Chromium III (Trivalent)	NS
Chromium III (Trivalent) (Dissolved)	NS
Chromium Total	0.15 (A)
Chromium Total (Dissolved)	0.12 (A)
Chromium VI (Hexavalent)	NS
Chromium VI (Hexavalent) (Dissolved)	NS
Iron	0.17 J
Iron (Dissolved)	0.21
Lead	0.003 U
Lead (Dissolved)	0.003 U
Manganese	0.02
Manganese (Dissolved)	0.018
Thallium	0.001 U
Thallium (Dissolved)	0.001 U
SVOcs	
bis(2-Ethylhexyl)phthalate	0.01 U
VOCs	
Chlorobenzene	0.001 U
Vinyl chloride	0.001 U

MW-X143Y245D-1	5/29/2003 mg/l
Metals	
Aluminum	0.2 U
Aluminum (Dissolved)	0.2 U
Antimony	0.06 U
Antimony (Dissolved)	0.06 U
Arsenic	0.01 U
Arsenic (Dissolved)	0.01 U
Chromium III (Trivalent)	NS
Chromium III (Trivalent) (Dissolved)	NS
Chromium Total	0.01 U
Chromium Total (Dissolved)	0.01 U
Chromium VI (Hexavalent)	NS
Chromium VI (Hexavalent) (Dissolved)	NS
Iron	0.1 U
Iron (Dissolved)	0.1 U
Lead	0.003 U
Lead (Dissolved)	0.003 U
Manganese	0.038
Manganese (Dissolved)	0.04
Thallium	0.001 U
Thallium (Dissolved)	0.001 U
SVOcs	
bis(2-Ethylhexyl)phthalate	0.01 U
VOCs	
Chlorobenzene	0.001 U
Vinyl chloride	0.001 U

MW-X297Y305D-1	10/24/2003 mg/l
Metals	
Aluminum	0.2 U
Aluminum (Dissolved)	0.2 U
Antimony	0.06 U
Antimony (Dissolved)	0.06 U
Arsenic	0.0072 J
Arsenic (Dissolved)	0.006 J
Chromium III (Trivalent)	NS
Chromium III (Trivalent) (Dissolved)	NS
Chromium Total	1.3 (A)
Chromium Total (Dissolved)	1.1 (A)
Chromium VI (Hexavalent)	NS
Chromium VI (Hexavalent) (Dissolved)	NS
Iron	0.94
Iron (Dissolved)	0.77
Lead	0.003 U
Lead (Dissolved)	0.003 U
Manganese	0.038
Manganese (Dissolved)	0.031
Thallium	0.001 U
Thallium (Dissolved)	0.001 U
SVOcs	
bis(2-Ethylhexyl)phthalate	0.01 U
VOCs	
Chlorobenzene	0.001 U
Vinyl chloride	0.001 U



MW-X169Y058D-1	5/28/2003 mg/l
Metals	
Aluminum	0.2 U
Aluminum (Dissolved)	0.2 U
Antimony	0.06 U
Antimony (Dissolved)	0.06 U
Arsenic	0.01 U
Arsenic (Dissolved)	0.01 U
Chromium III (Trivalent)	NS
Chromium III (Trivalent) (Dissolved)	NS
Chromium Total	0.01 U
Chromium Total (Dissolved)	0.01 U
Chromium VI (Hexavalent)	NS
Chromium VI (Hexavalent) (Dissolved)	NS
Iron	0.81
Iron (Dissolved)	0.6
Lead	0.003 U
Lead (Dissolved)	0.003 U
Manganese	0.0076 J
Manganese (Dissolved)	0.015 U
Thallium	0.001 U
Thallium (Dissolved)	0.001 U
SVOcs	
bis(2-Ethylhexyl)phthalate	0.01 U
VOCs	
Chlorobenzene	0.001 U
Vinyl chloride	0.001 U

MW-X234Y157D-1	5/7/2003 mg/l
Metals	
Aluminum	0.2 U
Aluminum (Dissolved)	0.2 U
Antimony	0.06 U
Antimony (Dissolved)	0.06 U
Arsenic	0.01 U
Arsenic (Dissolved)	0.01 U
Chromium III (Trivalent)	NS
Chromium III (Trivalent) (Dissolved)	NS
Chromium Total	0.01 U
Chromium Total (Dissolved)	0.01 U
Chromium VI (Hexavalent)	NS
Chromium VI (Hexavalent) (Dissolved)	NS
Iron	0.18
Iron (Dissolved)	0.1
Lead	0.003 U
Lead (Dissolved)	0.003 U
Manganese	0.013 J
Manganese (Dissolved)	0.017
Thallium	0.001 U
Thallium (Dissolved)	0.001 U
SVOcs	
bis(2-Ethylhexyl)phthalate	0.01 U
VOCs	
Chlorobenzene	0.001 U
Vinyl chloride	0.001 U

MW-X269Y201D-1	5/7/2003 mg/l
Metals	
Aluminum	0.2 U
Aluminum (Dissolved)	0.2 U
Antimony	0.06 U
Antimony (Dissolved)	0.06 U
Arsenic	0.01 U
Arsenic (Dissolved)	0.0038 J
Chromium III (Trivalent)	NS
Chromium III (Trivalent) (Dissolved)	NS
Chromium Total	0.01 U
Chromium Total (Dissolved)	0.0076 J
Chromium VI (Hexavalent)	NS
Chromium VI (Hexavalent) (Dissolved)	NS
Iron	0.35
Iron (Dissolved)	0.32
Lead	0.003 U
Lead (Dissolved)	0.003 U
Manganese	0.016
Manganese (Dissolved)	0.016
Thallium	0.001 U
Thallium (Dissolved)	0.001 U
SVOcs	
bis(2-Ethylhexyl)phthalate	0.01 U
VOCs	
Chlorobenzene	0.001 U
Vinyl chloride	0.001 U

AOI ID	Description
AOI 1	Former Railroad Operations and Minerals Processing Facility
AOI 2	Waste Storage Area
AOI 3	PCB Storage Area
AOI 4	Former North Disposal Area
AOI 5	Former East Sand Disposal Area
AOI 6	Former Sludge Disposal and Fire Training Area
AOI 7	Former North Lagoon and Outfall 001
AOI 8	Former South Lagoons and Outfall 002
AOI 9	Service Tunnels
AOI 10	Existing Stormwater Lagoon and Outfall 003
AOI 11	Aboveground Storage Tanks
AOI 12	Area Affected by the Reclaimed Hydraulic Fluid Release
AOI 13	Underground Storage Tanks
AOI 14	McBride Cows Disposal Area
AOI 15	Former Equipment Storage Area
AOI 17	Piston Building Oil Accumulations
AOI 18	Area Affected by the Henry System Discharge
AOI 19	Area Affected by Paint and Thinner Spill
AOI 20	Northern Portion of the Piston Building
AOI 21	Pilled Ravine North of the Cast Building
AOI 21-1	Former Drainage Valley Under Hourly Parking Lot
AOI 21-2	Former Drainage Valley Northeast of Piston and Office Buildings
AOI 21-3	Surface Water Ditches Located Along GM Drive and Breckenridge Road
AOI 21-4	Former Drainage Valley East of Electrical Sub-Station, Breckenridge Road

AOI ID	Description
AOI 22	Tool Room Annex Dock Release
AOI 23	Area Affected by the 1995 Wastewater Treatment Filter Cake Release
AOI 24	Area Affected by the June 2000 Die Lube 5150 Release
AOI 25	Off-Site Fill Area - Parcel 388
AOI 26	Off-Site Fill Area - Parcels 384 & 385
AOI 27	Off-Site Fill Area - Parcels 381 & 382
AOI 28	Off-Site Fill Area - Parcel 401
AOI 29	Off-Site Fill Area - Parcel 39

MW-X269Y201D-1	5/7/2003 mg/l
Metals	
Aluminum	0.2 U
Aluminum (Dissolved)	0.2 U

SAMPLE LOCATION IDENTIFIER	
DATE SAMPLE TAKEN	5/7/2003
RESULT UNIT	mg/l
CONCENTRATION	
CHEMICAL NAME	
	1.1 (A)
J	THE ASSOCIATED VALUE IS AN ESTIMATED QUANTITY
46	THE ANALYTE WAS ANALYZED FOR, BUT WAS QUALIFIED NOT DETECTED ABOVE THE SAMPLE REPORT LIMIT
	NOT SAMPLED
NOTES:	
1. GM PROPERTY BOUNDARY SURVEY BY BLEDSE ROBERT GUERRETTA2 RECEIVED OCTOBER 2002. ADJACENT PROPERTY BOUNDARY LOCATIONS APPROXIMATED FROM THE LAWRENCE COUNTY SURVEY PLATS. ADJOINING PROPERTY LINES MAY NOT ACCURATELY REPRESENT THE TRUE PROPERTY BOUNDARIES.	

Chemical Name	Drinking Water Criteria (mg/L)
	(A)
Metals	
Aluminum	37
Aluminum (Dissolved)	37
Antimony	0.006
Antimony (Dissolved)	0.006
Arsenic	0.01
Arsenic (Dissolved)	0.01
Chromium III (Trivalent)	0.1
Chromium III (Trivalent) (Dissolved)	0.1
Chromium Total	0.1
Chromium Total (Dissolved)	0.1
Chromium VI (Hexavalent)	0.1
Chromium VI (Hexavalent) (Dissolved)	0.1
Iron	11
Iron (Dissolved)	11
Lead	0.015
Lead (Dissolved)	0.015
Manganese	0.88
Manganese (Dissolved)	0.88
Thallium	0.002
Thallium (Dissolved)	0.002
SVOcs	
bis(2-Ethylhexyl)phthalate	0.006
VOCs	
Chlorobenzene	0.1
Vinyl chloride	0.002

GM POWERTRAIN BEDFORD FACILITY BEDFORD, INDIANA

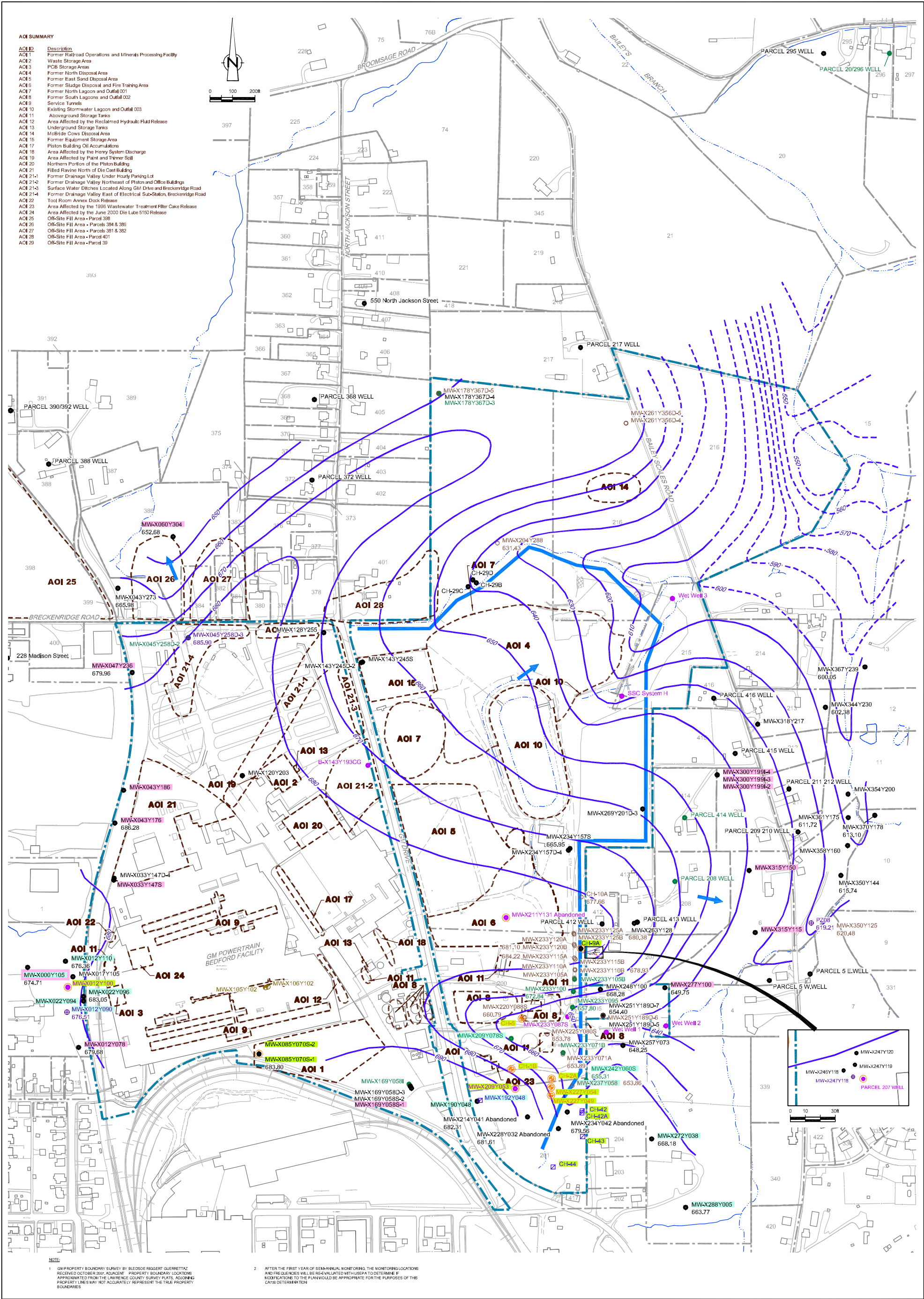
EI CA750 GROUNDWATER SUMMARY

GROUNDWATER SAMPLE LOCATIONS DEEP BEDROCK NON-PCB SAMPLE RESULTS



CONESTOGA-ROVERS & ASSOCIATES

Source References			
BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT MI, APRIL 2001, AND CRA SURVEYS 2002 TO 2005			
Project Manager:	Reviewed By:	Date:	
J.M.	K.V.	AUGUST 2007	
Scale:	Project N#:	Report N#:	Drawing N#:
AS SHOWN	13968-00	MEMO460	figure 4



LEGEND

- EXISTING BUILDINGS
- FENCE LINE
- RAILROAD TRACKS
- DIRT ROADS
- ROADS / PAVED AREAS
- APPROXIMATE SURFACE WATER LOCATION
- APPROXIMATE GM PROPERTY BOUNDARY
- APPROXIMATE PARCEL BOUNDARY
- AOI BOUNDARY
- HISTORICAL NAPL PRESENCE
- SHALLOW GROUNDWATER FLOW CONTOUR (F.A.M.S.) (JANUARY 2008)
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW

● MW-X012Y078

● MW-X000Y105

● MW-X020Y053

ALL SAMPLE RESULTS LESS THAN 0.3 µg/L PCBs

MOST RECENT SAMPLE RESULT GREATER THAN 0.3 µg/L PCBs

HISTORICAL SAMPLE RESULT GREATER THAN 0.3 µg/L PCBs

CA750 GROUNDWATER SAMPLING LOCATION

CA750 NAPL AND GROUNDWATER GAUGING LOCATION

LOCATION TO BE MONITORED FOR NAPL PRESENCE AND SAMPLED FOR PCBs IF NAPL PRESENCE NOT PRESENT

GROUNDWATER ELEVATION (F.A.M.S.)

PROPOSED COLLECTION TRENCH

NO SAMPLE COLLECTED - INSUFFICIENT PARAMETER STABILIZATION

NO SAMPLE COLLECTED - LOCATION DRY

NO SAMPLE COLLECTED - DYE INJECTION LOCATION

NO SAMPLE COLLECTED - NAPL PRESENT

NEW LOCATION - NO SAMPLE ATTEMPT MADE TO DATE

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

GM POWERTRAIN BEDFORD FACILITY
BEDFORD, INDIANA

EI CA750 GROUNDWATER SUMMARY

GROUNDWATER SAMPLE LOCATIONS
SHALLOW BEDROCK
PCB DELINEATION AND NAPL RESULTS

CONESTOGA-ROVERS & ASSOCIATES

Source References

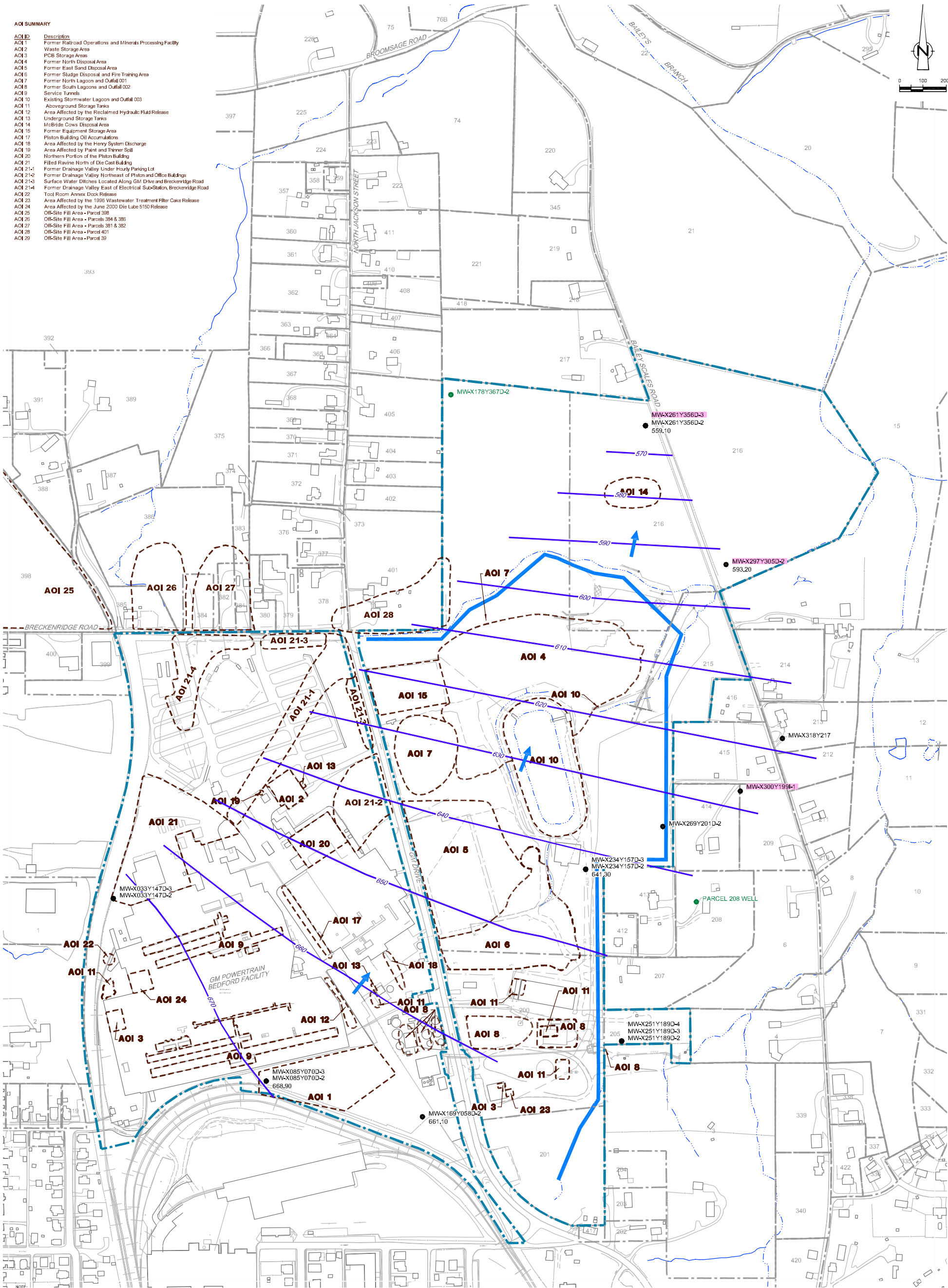
BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT MI, APRIL 2001, AND CRA SURVEYS 2002 TO 2005

Project Manager:	Reviewed By:	Date:
J.M.	P.G.	APRIL 2008
Scale:	Project N°:	Report N°:
AS SHOWN	13968-00	MEMO460
		figure 6

13968-00(MEMO460)GN-WA020 APR 29/2008

AOI SUMMARY

AOI ID	Description
AOI 1	Former Railroad Operations and Minerals Processing Facility
AOI 2	Waste Storage Area
AOI 3	PCB Storage Areas
AOI 4	Former North Disposal Area
AOI 5	Former East Sand Disposal Area
AOI 6	Former Sludge Disposal and Fire Training Area
AOI 7	Former North Lagoon and Outfall 001
AOI 8	Former South Lagoons and Outfall 002
AOI 9	Service Tunnels
AOI 10	Existing Stormwater Lagoon and Outfall 003
AOI 11	Aboveground Storage Tanks
AOI 12	Area Affected by the Reclaimed Hydraulic Fluid Release
AOI 13	Underground Storage Tanks
AOI 14	McBride Cows Disposal Area
AOI 15	Former Equipment Storage Area
AOI 17	Piston Building Oil Accumulations
AOI 18	Area Affected by the Henry System Discharge
AOI 19	Area Affected by Paint and Thinner Spill
AOI 20	Northern Portion of the Piston Building
AOI 21	Filled Ravine North of Die Cast Building
AOI 21-1	Former Drainage Valley Under Hasty Parking Lot
AOI 21-2	Former Drainage Valley Northeast of Piston and Office Buildings
AOI 21-3	Surface Water Ditches Located Along GM Drive and Breckenridge Road
AOI 21-4	Former Drainage Valley East of Electrical Sub-Station, Breckenridge Road
AOI 22	Tool Room Annex Deck Release
AOI 23	Area Affected by the 1996 Wastewater Treatment Filter Cake Release
AOI 24	Area Affected by the June 2000 Die Lube 5150 Release
AOI 25	Off-Site Fill Area - Parcel 398
AOI 26	Off-Site Fill Area - Parcels 384 & 385
AOI 27	Off-Site Fill Area - Parcels 381 & 382
AOI 28	Off-Site Fill Area - Parcel 401
AOI 29	Off-Site Fill Area - Parcel 39



1. GM PROPERTY BOUNDARY SURVEY BY BLEDSOE RIGGERTZ GUERRETTAZ RECEIVED OCTOBER 2001. ADJACENT PROPERTY BOUNDARY LOCATIONS APPROXIMATED FROM THE LAWRENCE COUNTY SURVEY PLATS. ADJOINING PROPERTY LINES MAY NOT ACCURATELY REPRESENT THE TRUE PROPERTY BOUNDARIES.
















2. AFTER THE FIRST YEAR OF SEMI-ANNUAL MONITORING, THE MONITORING LOCATIONS AND FREQUENCIES WILL BE REEVALUATED WITH HUSPA TO DETERMINE IF MODIFICATIONS TO THE PLAN WOULD BE APPROPRIATE FOR THE PURPOSES OF THIS CA750 DETERMINATION.

LEGEND	
	EXISTING BUILDINGS
	FENCE LINE
	RAILROAD TRACKS
	DIRT ROADS
	ROADS / PAVED AREAS
	APPROXIMATE SURFACE WATER LOCATION
	APPROXIMATE GM PROPERTY BOUNDARY
	APPROXIMATE PARCEL BOUNDARY
	AOI BOUNDARY
	INTERMEDIATE GROUNDWATER FLOW CONTOUR (500) (JANUARY 2008)
	APPROXIMATE DIRECTION OF GROUNDWATER FLOW

SCALE VERIFICATION	
THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.	

	MW-X085Y070D-2
	MW-X178Y367D-2
	555.90
PROPOSED COLLECTION TRENCH	
ALL SAMPLE RESULTS LESS THAN 0.5 µg/L PCBs	
HISTORICAL SAMPLE RESULT GREATER THAN 0.5 µg/L PCBs	
CA750 GROUNDWATER SAMPLING LOCATION-PCBs	
GROUNDWATER ELEVATION (8 AMSL)	

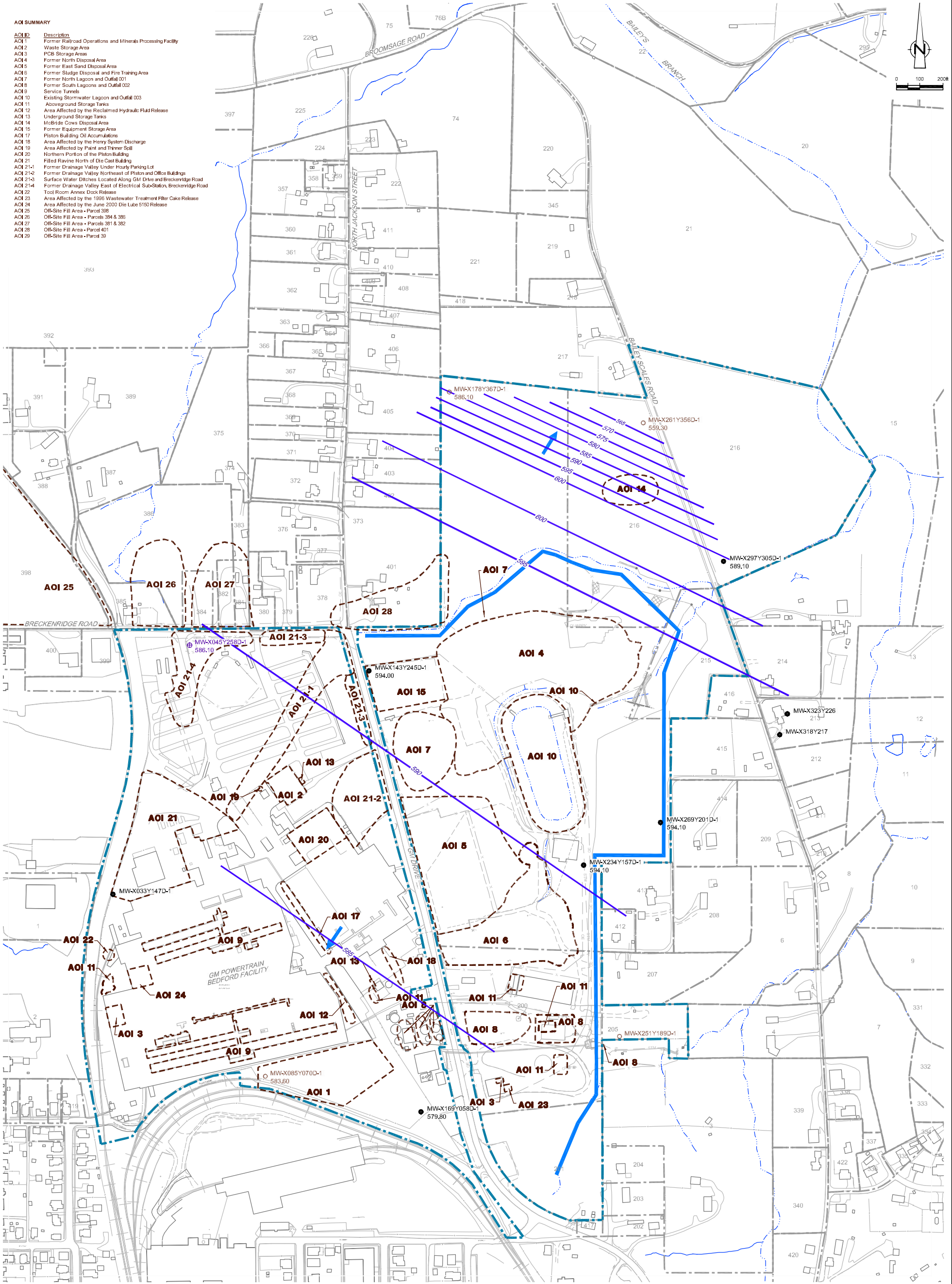
GM POWERTRAIN BEDFORD FACILITY BEDFORD, INDIANA	
EI CA750 GROUNDWATER SUMMARY	
GROUNDWATER SAMPLE LOCATIONS INTERMEDIATE BEDROCK PCB DELINEATION AND NAPL RESULTS	

LEGEND			
	EXISTING BUILDINGS		PROPOSED COLLECTION TRENCH
	FENCE LINE		MW-X085Y070D-2
	RAILROAD TRACKS		MW-X178Y357D-2
	DIRT ROADS		
	ROADS / PAVED AREAS		668.30
	APPROXIMATE SURFACE WATER LOCATION		
	APPROXIMATE O&M PROPERTY BOUNDARY		
	APPROXIMATE PARCEL BOUNDARY		
	ACI BOUNDARY		
	INTERMEDIATE GROUNDWATER FLOW CONTOUR (B AMSL) (JANUARY 2008)		
	APPROXIMATE DIRECTION OF GROUNDWATER FLOW		

CONESTOGA-ROVERS & ASSOCIATES	
13968-00(MEMO460)GM-WA021 APR 29/2008	

AOI SUMMARY

AOI ID	Description
AOI 1	Former Railroad Operations and Minerals Processing Facility
AOI 2	Waste Storage Area
AOI 3	PCB Storage Area
AOI 4	Former North Disposal Area
AOI 5	Former East Sand Disposal Area
AOI 6	Former Sludge Disposal and Fire Training Area
AOI 7	Former North Lagoon and Outfall 001
AOI 8	Former South Lagoons and Outfall 002
AOI 9	Service Tunnels
AOI 10	Existing Stormwater Lagoon and Outfall 003
AOI 11	Aboveground Storage Tanks
AOI 12	Area Affected by the Reclaimed Hydraulic Fluid Release
AOI 13	Underground Storage Tanks
AOI 14	McBride Cows Disposal Area
AOI 15	Former Equipment Storage Area
AOI 17	Piston Building Oil Accumulations
AOI 18	Area Affected by the Henry System Discharge
AOI 19	Area Affected by Paint and Thinner Spill
AOI 20	Northern Portion of the Piston Building
AOI 21	Filled Ravine North of Die Cast Building
AOI 21-1	Former Drainage Valley Under Houty Parking Lot
AOI 21-2	Former Drainage Valley Northeast of Piston and Office Buildings
AOI 21-3	Surface Water Ditches Located Along GM Drive and Breckenridge Road
AOI 21-4	Former Drainage Valley East of Electrical Sub-Station, Breckenridge Road
AOI 22	Tool Room Annex Dock Release
AOI 23	Area Affected by the 1996 Wastewater Treatment Filter Cake Release
AOI 24	Area Affected by the June 2000 Die Lube 5150 Release
AOI 25	Off-Site Fill Area - Parcel 398
AOI 26	Off-Site Fill Area - Parcels 384 & 385
AOI 27	Off-Site Fill Area - Parcels 381 & 382
AOI 28	Off-Site Fill Area - Parcel 401
AOI 29	Off-Site Fill Area - Parcel 39



1. GAI PROPERTY BOUNDARY SURVEY BY BLEDSOE ROBERT GUERRETZ RECEIVED OCTOBER 2007. ADJACENT PROPERTY BOUNDARY LOCATIONS APPROXIMATED FROM THE LAWRENCE COUNTY SURVEY PLATS. ADJACENT PROPERTY LINES MAY NOT ACCURATELY REPRESENT THE TRUE PROPERTY BOUNDARIES.

2. AFTER THE FIRST YEAR OF SEMI-ANNUAL MONITORING THE MONITORING LOCATIONS AND FREQUENCIES WILL BE RE-EVALUATED WITH USEPA TO DETERMINE IF MODIFICATIONS TO THE PLAN WOULD BE APPROPRIATE FOR THE PURPOSES OF THIS CA750 DETERMINATION.

LEGEND

- EXISTING BUILDINGS
- FENCE LINE
- RAILROAD TRACKS
- DIRT ROADS
- ROADS / PAVED AREAS
- APPROXIMATE SURFACE WATER LOCATION
- APPROXIMATE GAI PROPERTY BOUNDARY
- APPROXIMATE PARCEL BOUNDARY
- AOI BOUNDARY
- DEEP GROUNDWATER FLOW CONTOUR (R&BS) (JANUARY 2008)
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW
- PROPOSED COLLECTION TRENCH

- MW-X169Y058D-1
- MW-X045Y258D-1
- MW-X251Y189D-1
- 579.80

- ALL SAMPLE RESULTS LESS THAN 0.5 ug/L PCBs
- NO SAMPLE COLLECTED - INSUFFICIENT PUMPING OR STABILIZATION
- NO SAMPLE COLLECTED - LOCATION DRY
- GROUNDWATER ELEVATION (R&BS)

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

GM POWERTRAIN BEDFORD FACILITY
BEDFORD, INDIANA

EI CA750 GROUNDWATER SUMMARY

GROUNDWATER SAMPLE LOCATIONS
DEEP BEDROCK
PCB DELINEATION AND NAPL RESULTS



CONESTOGA-ROVERS & ASSOCIATES

Source References

BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT MI, APRIL 2001, AND CRA SURVEYS 2002 TO 2005

Project Manager:

JJM

Reviewed By:

P.G.

Date:

APRIL 2008

Scale:

AS SHOWN

Project N°:

13968-00

Report N°:

MEMO460

Drawing N°:

figure 8