



June 25, 2007

U.S.EPA Region 5  
Waste Pesticides and Toxics Division, DE-9J  
77 West Jackson Blvd.  
Chicago, IL 60604-3590  
Attn: Ms. Mirtha Capiro

RE: General Motors Corporation - Moraine, Ohio  
Revised Supplemental Groundwater Investigation Work Plan

Dear Ms. Capiro:

On behalf of General Motors Corporation (GM), BOW Environmental Solutions, Inc. is submitting a Revised Supplemental Groundwater Investigation Work Plan for the Former Delphi Harrison Thermal Systems, General Motors Truck Group Moraine Assembly Plant, and the former General Motors Powertrain Group Moraine Engine Plant in Moraine, Ohio. As detailed below, the purpose of this Work Plan is to gather additional data to support further evaluation of ongoing corrective measures.

The results of the 2006 supplemental data collection, which have been used to refine the corrective measures for the site, were presented in the Corrective Measures Supplemental Groundwater Investigation Report submitted to U.S. EPA on February 28, 2007. In the February 28, 2007 report, GM recommended additional data collection to further evaluate current site conditions and to more effectively manage the final corrective measures. The proposed work scope was presented in the Revised Supplemental Groundwater Investigation Work Plan (Work Plan) submitted to U.S. EPA on March 16, 2007. In the March 16, 2007 Work Plan, GM proposed additional groundwater data collection near Holes Creek, RZ-1, and GM-41 and completion of a water level study in the DN-13 area. The groundwater data collection was completed in March/April 2007 and the DN-13 water level study was initiated in March 2007. Based on the results of the recently completed work, GM is proposing additional work in the central portion of the Vehicle Distribution Center (formerly Moraine Engine Plant), the Moraine Assembly Plant, and along the eastern site boundary near the Moraine Assembly Paint Building Parking Lot. After completion of this additional work, GM will provide U.S. EPA with a report of the results from work completed in March/April 2007 and the results of the additional data collection activities proposed herein. This report will include an evaluation of the supplemental investigation results with respect to the scope of ongoing corrective measures, and propose changes to these corrective measures, if warranted to meet the corrective action objectives.

The objectives for the work completed in March/April 2007 (March 16, 2007 Work Plan) were to:

- Refine available information on groundwater fluctuations in the area of lower aquifer pumping well DN-13 to improve the understanding of groundwater flow downgradient of the site by conducting a transducer study;
- Refine the understanding of groundwater quality in the vicinity of Holes Creek by profiling the upper and lower aquifers and installing a well south of Holes Creek;
- Refine performance monitoring at a location further downgradient of the RZ-1 barrier by profiling the upper aquifer and installing a well in the former Building 14; and
- Provide additional characterization of groundwater chemistry to the northwest, southwest, and northeast of lower aquifer well GM-41 by profiling the upper and lower aquifers and installing wells at these locations.

The objectives for the proposed work scope presented below are to:

- Refine current understanding of the geology and provide additional characterization of groundwater chemistry northeast of newly installed lower aquifer well GM-68 by profiling the upper and lower aquifers; north of the Moraine Assembly Paint Building paired with upper aquifer wells GM-71 and GM-72 by profiling the lower aquifer; and installing wells near these locations; and
- Refine current understanding of the geology and provide additional characterization of groundwater chemistry east of lower aquifer well GM-58 by profiling the upper and lower aquifers and installing well(s) near this location.

### **Proposed Scope of Work**

Additional characterization of hydrogeology and groundwater chemistry to the northeast of well GM-68 and in the vicinity of GM-71 and GM-72 will be conducted. GM will evaluate four areas for installation of proposed wells GM-73 to GM-76 (Figure 1). The boring locations are approximate and may be modified based on utility clearance and plant operations. GM is also proposing to install an off-site well (GM-77) east of lower aquifer well GM-58 and west of Northbound Kettering Boulevard. The purpose for drilling in this location is to evaluate potential off-site VOC source contributions. The borings will be drilled using rotosonic methodology and continuously sampled for lithologic characterization. During drilling, vertical aquifer sampling will be conducted to provide an understanding of the VOC concentration profile. This data will be considered as screening quality and will be used to determine whether to install wells as discussed below.

- Well GM-73 will be paired with GM-71/-72 and located north of the Moraine Assembly Paint Building and south of Stroop Road to further refine the current understanding of the geology and groundwater chemistry in the lower aquifer. Proposed well GM-73 will be drilled to a minimum depth of 120 ft bls, including vertical aquifer profiling for the lower aquifer (approximately every 10-15 ft once the lower aquifer is reached). The groundwater samples will be submitted for expedited

laboratory analysis of the site-specific parameter list. Upon evaluation of the groundwater profiling data, a deep well may be installed.

- Well GM-74 will be located between wells GM-68S/D and Springboro Road to further refine the current understanding of the geology and groundwater chemistry upgradient of GM-68S/D. Proposed well GM-74 will be drilled to a minimum depth of 120 ft bls, including vertical aquifer profiling for both the upper and lower aquifers (approximately every 10-15 ft once the water table is reached). The groundwater samples will be submitted for expedited laboratory analysis of the site-specific parameter list. Upon evaluation of the groundwater profiling data, a shallow and/or deep well may be installed.
- Well GM-75 will be located southwest of the Moraine Assembly Plant to further refine the current understanding of the geology and groundwater chemistry upgradient of GM-68S/D and to evaluate potential VOC source contributions. Proposed well GM-75 will be drilled to a minimum depth of 120 ft bls, including vertical aquifer profiling for both the upper and lower aquifers (approximately every 10-15 ft once the water table is reached). The groundwater samples will be submitted for expedited laboratory analysis of the site-specific parameter list. Upon evaluation of the groundwater profiling data, a shallow and/or deep well may be installed.
- Well GM-76 (formerly referred to as GM-71 in the March 16, 2007 Work Plan) will be located in the southern portion of the Moraine Assembly Plant to further refine the current understanding of the geology and groundwater chemistry upgradient of GM-68S/D and to evaluate potential VOC source contributions. Proposed well GM-76 will be drilled to a minimum depth of 120 ft bls, including vertical aquifer profiling for both the upper and lower aquifers (approximately every 10-15 ft once the water table is reached). The groundwater samples will be submitted for expedited laboratory analysis of the site-specific parameter list. Upon evaluation of the groundwater profiling data, a shallow and/or deep well may be installed.
- Well GM-77 will be located east of lower aquifer well GM-58 and west of Northbound Kettering Boulevard to refine the current understanding of the off-site geology and groundwater chemistry and to evaluate potential off-site VOC source contributions. Proposed well GM-77 will be drilled in the right-of-way to a minimum depth of 120 ft bls, including vertical aquifer profiling for both the upper and lower aquifers (approximately every 10-15 ft once the water table is reached). The groundwater samples will be submitted for expedited laboratory analysis of the site-specific parameter list. Upon evaluation of the groundwater profiling data, a shallow and/or deep well may be installed. Authorization to drill in the right-of-way will be obtained by GM prior to drilling at this location.

The newly installed wells will be developed and surveyed following procedures defined in the Supplemental RFI Work Plan (ARCADIS 1997). The new wells will be sampled following procedures defined in the Site-Wide Groundwater Monitoring Plan (ARCADIS 2002). The groundwater samples will be submitted for laboratory analysis of the site-

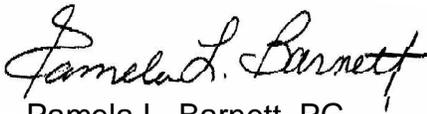
specific VOC parameter list. Following completion of well installation, a site-wide round of water level measurements will be conducted with the annual groundwater event scheduled for September 2007.

### **Data Report**

The data generated from the supplemental investigation activities will be used to evaluate hydrogeology and groundwater chemistry in the vicinity of Holes Creek, south of RZ-1, and in the general area around GM-41/GM-68 to better assess the current corrective measures. The data report may include a recommendation to add some of these new wells in the site-wide groundwater monitoring program. The data evaluation will include the results of the transducer study, boring logs, groundwater contour maps, tabulated analytical results, geologic cross sections, and analytical results posted in databoxes on figures. In addition, GM will utilize these data to provide an updated assessment of corrective measures performance. Based on this assessment, GM will propose modifications, if warranted, to the ongoing corrective measures to optimize the overall performance and duration of the final corrective measures.

GM will proceed with the field work portion of this proposed work plan when permits and utility clearances are finalized. The drilling is scheduled to begin on July 5, 2007. Please call 937-455-2636, if you have any questions.

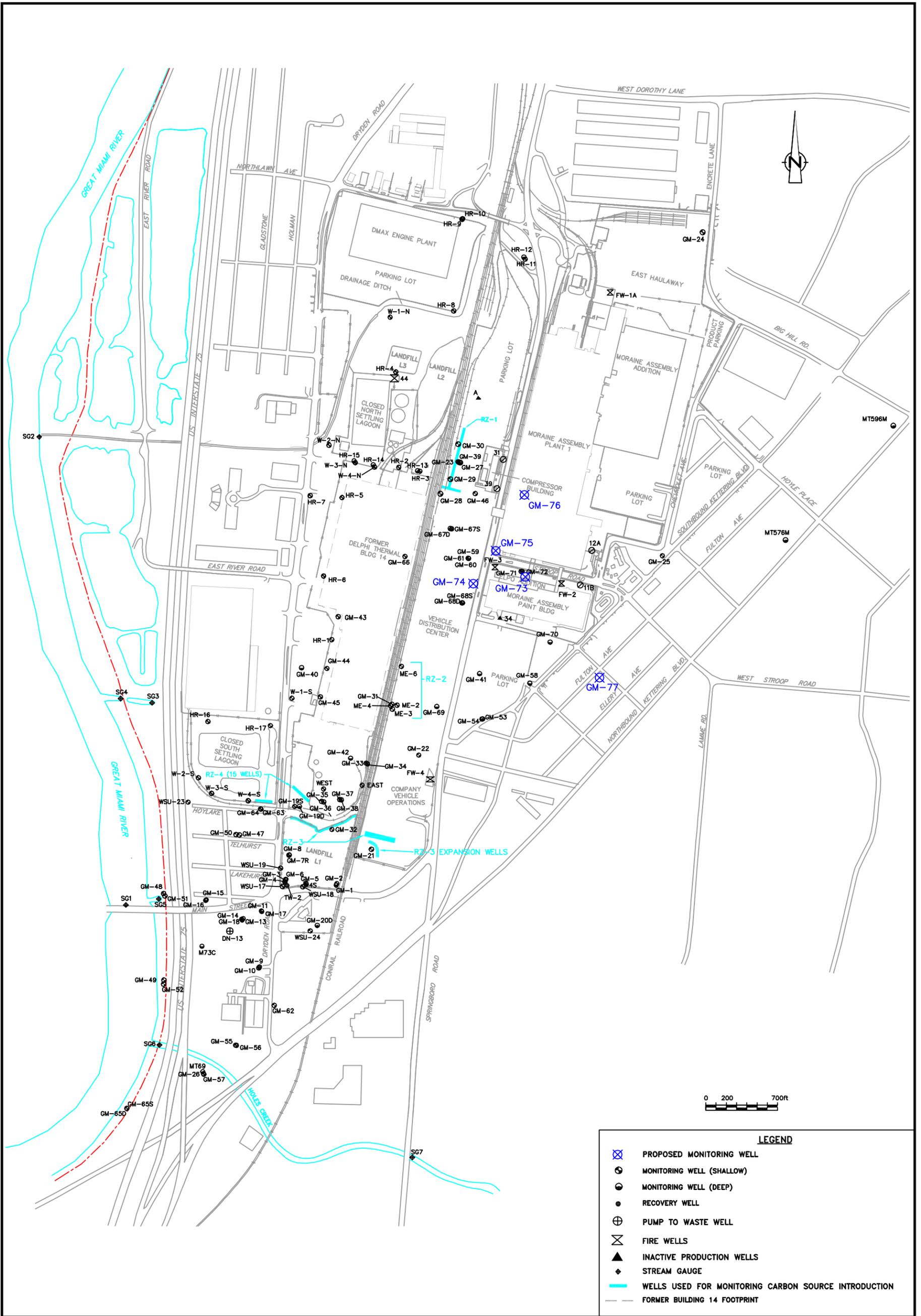
Sincerely,



Pamela L. Barnett, PG  
Project Manager  
BOW Environmental Solutions, Inc. on behalf of GM

cc: H. O'Connell, Ohio EPA  
J. Caufield, GM Remediation

User Name : bemith Date: Mon, 11 Jun 2007 - 9:50am Path Name : G:\DRAWINGS\HARRISON\CRA-DWG\2007\OH29407-04.dwg Layout Tab: PROPOSED MWs



LEGEND		
	PROPOSED MONITORING WELL	
	MONITORING WELL (SHALLOW)	
	MONITORING WELL (DEEP)	
	RECOVERY WELL	
	PUMP TO WASTE WELL	
	FIRE WELLS	
	INACTIVE PRODUCTION WELLS	
	STREAM GAUGE	
	WELLS USED FOR MONITORING CARBON SOURCE INTRODUCTION	
	FORMER BUILDING 14 FOOTPRINT	

284 Cramer Creek Court  
Dublin, OH 43017  
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**LOCATION OF PROPOSED SUPPLEMENTAL INVESTIGATION WELLS**  
**GENERAL MOTORS CORPORATION**  
**MORAINES, OHIO**

DATE 6/11/2007	PROJECT MANAGER N. GILLOTTI	DRAWING NAME CRA/07/OH29407-04
DRAWN R. SMITH	LEAD DESIGN PROF. J. REID	CHECKED N. GILLOTTI
PROJECT NUMBER OH000294.0010.003		FIGURE NUMBER 1