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October 14, 2010

Ms. Michelle Kaysen
U.S. Environmental Protection Agency, Region 5
Waste Management Division
77 West Jackson Blvd., DE-9J
Chicago, IL 60604-3590

RE: Third Quarter 2010 Progress Report
RCRA Corrective Action
Former GM Delco Plant 5, Kokomo, IN
USEPA ID No. IND000806844

Dear Ms. Kaysen:

In accordance with the Performance-Based Corrective Action Agreement between the U.S. Environmental Protection Agency Region 5 (USEPA) and Motors Liquidation Company (MLC), please find the attached progress report for the third quarter of 2010 (July 1, 2010 through September 30, 2010).

Please contact me if you would like to discuss this matter further. Thank you.

Sincerely,

David M. Favero, P.G.
Project Manager

Attachment A – Third Quarter 2010 Progress Report

C: Glynda Oakes, IDEM Office of Land Quality
Howard County Health Department
Carey Stranahan, City of Kokomo
Kokomo Public Library (Public Information Repository)
Francis Ramacciotti, ENVIRON (via e-mail)
Sarah Fisher, ARCADIS (via e-mail)

ATTACHMENT A
THIRD QUARTER 2010 PROGRESS REPORT
PERFORMANCE-BASED RCRA CORRECTIVE ACTION
FORMER GM DELCO PLANT 5, KOKOMO, IN
JULY 1, 2010 TO SEPTEMBER 30, 2010

WORK PERFORMED THIS QUARTER

- Completed groundwater modeling to support the identification of the area(s) where a groundwater use restriction should be pursued as part of the Corrective Measures Proposal (CMP).
- Completed draft CMP and submitted to USEPA on August 30, 2010.
- Prepared an evaluation of groundwater analytical results from samples collected via low-flow and passive diffusion bag sampling techniques [enclosed].
- Reviewed costs incurred on the project from July 10, 2009 to June 30, 2010 with USEPA.

DATA AVAILABLE DURING THIS QUARTER

- None.

PROBLEMS ENCOUNTERED

- None.

SUMMARY OF PROBLEM RESOLUTION

- NA

POTENTIAL PROBLEMS

- None.

**ESTIMATED PERCENT COMPLETE AND INFORMATION SUMMARY FOR
SELECTED ACTIVITIES**

- DOCC 100%
Summarized available information for the Site and identified 7 Areas of Interest (AOIs), 4 of which require additional investigation. No ecological habitat identified at or in the immediate vicinity of the Site. Due May 15, 2006 and submitted October 10, 2005.
- Public Participation Plan 100%
- RFI Work Plan 100%
(Submitted December 15, 2005)
- RFI Phase I Implementation 100%
Objective was to characterize the hydrogeology, to evaluate potential off-Site groundwater impacts, and to characterize AOIs at the Site. Phase I included installation of 38 soil borings and 20 monitoring wells. Ninety-five (95) soil, 8 borehole water, and 23 groundwater samples were analyzed. Completed in October 2005.
- RFI Data Report (Phase I data) 100%
Major findings included identifying small, isolated zones with perched groundwater, two continuous saturated sand units over the investigation area with shallow groundwater flow generally to the southeast. TCE is primary chemical of concern with source areas identified in AOIs 5 and 7. TCE groundwater impacts extend off-Site but not present in borehole water samples collected approximately 800 feet from the Site. No potable water wells identified in immediate vicinity of the Site. Currently no unacceptable risks to human health have been identified. Submitted January 19, 2006.
- RFI Phase II Implementation 100%
Objective was to further characterize on- and off-Site groundwater impacts and AOIs on Site. Phase II included installation of 29 soil borings and 20 monitoring wells. Seventy-five (75) soil, 2 borehole water, and 20 groundwater samples were analyzed. Completed in March 2006.
- RFI Data Report (updated to include Phase II data) 100%
Major findings included more precise delineation of on- and off-Site TCE groundwater impacts, groundwater flow in the bedrock appears to generally be to the northeast and TCE distribution in bedrock groundwater indicates an upgradient source of TCE to the bedrock groundwater, more precise delineation of source area soil impacts at AOIs 5 and 7, and identification of a possible additional source area in the vicinity of the former south manufacturing building. Currently no unacceptable risks to human health have been identified. Submitted May 26, 2006.

- RFI Phase III Implementation 100%

Objective was to further characterize on- and off-Site groundwater impacts and AOIs on Site. The initial RFI Phase III fieldwork included installation of 6 soil borings and 13 monitoring wells. Fourteen (14) soil, 4 borehole water, and 42 groundwater samples were submitted for analysis. An additional 6 soil borings and 4 monitoring wells were installed, and 16 soil samples and 4 groundwater samples were collected as part of additional “step-out” activities (Phase IIIb) performed based on review of preliminary RFI Phase III soil and borehole water sample analytical data. Following review of the preliminary data from the “step-out” activities (Phase IIIb), two additional monitoring wells were installed (Phase IIIc) to further characterize and delineate the extent of groundwater containing TCE in the S1 unit in the northwestern portion of the Site (MW-0623-S1), and in the S2 unit east of the Site along Lordeman Street (MW-0607-S2). Access was obtained to the adjacent former Midwest Plating property where three monitoring wells were installed, and soil and groundwater samples were collected. Started on October 9, 2006 and completed in March 2007.
- RFI Data Report (updated to include Phase III data) 100%

Major findings included more precise delineation of on- and off-Site groundwater impacts, groundwater flow in the bedrock appears to generally be to the south, the source of the cis-1,2-DCE in bedrock groundwater is uncertain, additional characterization of the groundwater in the bedrock is necessary, there are relatively high concentrations of TCE and PCE in the soil at the former Midwest Plating property, and more precise delineation of source area soil impacts at AOIs 5 and the former south manufacturing building. Currently no unacceptable risks to human health have been identified. Submitted June 1, 2007.
- RFI Soil Gas Sampling 100%

Objective is to allow for verifying the appropriateness of the groundwater vapor intrusion criteria that have been used to guide the RFI field investigation at the Site. A work plan addendum was submitted to USEPA on July 10, 2007. A conference call was held with USEPA to discuss the work plan and the work plan was subsequently revised incorporating USEPA’s comments and resubmitted to USEPA. Soil gas monitoring ports were installed in the residential area east of the Site on August 7, 2007, and soil gas samples were collected on August 13, 2007. Preliminary soil gas analytical results were submitted to USEPA on August 28, 2007 and a conference call was held to discuss those results on August 30, 2007. Additional soil gas sampling ports were installed on September 4, 2007, and additional soil gas samples were collected on September 17, 2007. The preliminary analytical results from the second sampling event were submitted to USEPA on September 27, 2007. USEPA provided comments on the preliminary data in a letter dated October 2, 2007. The comment letter and results were discussed during an October 16, 2007, conference call. Additional risk evaluation was completed and submitted to USEPA on October 30, 2007, and a conference call to discuss the additional information was held on November 28, 2007. GM’s response to USEPA’s October 2, 2007 comment letter was submitted to USEPA on December 3, 2007.

- Soil Gas Investigation Data Report 100%
The final soil gas investigation data report was submitted to USEPA on December 21, 2007.
- RFI Phase IV Implementation 100%
Objective is to further characterize on-Site soil impacts in the former south manufacturing building and to characterize the groundwater flow and delineate the horizontal and vertical extent of cis-1,2-DCE in the groundwater in the bedrock.

A total sixty-two (62) soil borings were advanced from August 29, 2007 to September 5, 2007 within and in the vicinity of the former north and south manufacturing buildings, and field screened. Soil samples were collected based on field observations, and in total thirty-one (31) soil samples were submitted for laboratory analysis. An additional 26 soil borings were advanced from November 19, 2007 to November 20, 2007 to delineate TCE within and in the vicinity of the north and south manufacturing buildings. A total of 60 soil samples were submitted for laboratory analysis. An additional fourteen (14) soil borings were advanced on January 15, 2008 to delineate TCE within and in the vicinity of the north and south manufacturing buildings. A total of fifteen (15) soil samples were submitted for laboratory analysis. Based on review of this data, TCE is adequately delineated.

Installation of the pilot bedrock boring, packer testing, FLUTe testing, discrete low flow vertical groundwater sampling, and isolated groundwater sampling was completed between August 20, 2007 and December 8, 2007. A preliminary report of the results from the pilot bedrock boring was submitted to USEPA on November 16, 2007. An updated report was submitted to USEPA on March 21, 2008. Three additional bedrock monitoring wells were installed in the upper transmissive zone from December 4, 2007 to December 15, 2007. Installation of the additional three deeper bedrock boreholes was completed from April 14, 2008 to May 1, 2008. FLUTe hydraulic profiling of the bedrock boreholes was completed from May 13, 2008 to May 15, 2008. The technical memo with the results of the profiling was submitted to USEPA on July 10, 2008. Discrete depth vertical groundwater sampling (packer sampling) of select intervals in the boreholes was completed in the third quarter 2008. An updated technical memo to summarize the data and provide recommendations for future groundwater sampling was prepared and submitted to USEPA on October 20, 2008. A groundwater sampling event was completed in November 2008 that included collecting depth to water information across the entire monitoring well network, collecting samples from a subset of approximately 30 existing wells, and discrete depth vertical groundwater sampling (packer sampling) of select intervals in the boreholes, all to confirm the characterization of contaminated groundwater on- and off-Site.

- RFI Supplemental Data Report (updated to include Phase IV soil data) 100%
Major findings included more complete characterization of on-Site soil impacts at AOIs 2, 3 and the former north and south manufacturing buildings. In addition, the Phase IV soil

results were evaluated relative to the determination included in the CA725 Report for the Former GM Delco Plant 5 Facility in Kokomo, Indiana (ENVIRON 2007) that all current human exposures to “contamination” at or from the Facility are under control, based on soil data collected prior to September 1, 2007. The evaluation of the Phase IV soil data concluded that results do not alter the conclusions presented in the CA725 Report or the “YE” determination for the CA725. Submitted June 27, 2008.

- Groundwater Evaluation 100%
A draft groundwater evaluation was prepared to provide the USEPA with GM’s evaluation of groundwater quality and flow data collected through February 2009. Submitted on April 10, 2009. This evaluation will be included in the RFI Report. A meeting was held with USEPA on May 19, 2009 to discuss the evaluation and proposed additional investigation.
- Additional Groundwater Investigation 100%
Groundwater sampling completed June 17 through 19, 2009.
- Draft RFI Report 100%
(Submitted October 5, 2009)
A meeting was held with USEPA on October 27, 2009, to review the draft report. USEPA provided comments on the human health risk assessment on December 22, 2009. A call was held with USEPA on February 22, 2010 to discuss USPEA’s comments on the RFI risk assessment. Based on that call a revised RFI Report was submitted to USEPA for review on March 18, 2010.
- Final RFI Report 100%
The final RFI Report was submitted to USEPA on May 21, 2010.
- Human Health EI (CA725) Report 100%
(Submitted November 30, 2007)
Minor comments received from USEPA on December 12, 2007, and revisions submitted on December 20, 2007. USEPA approved the determination on January 3, 2008.
- Groundwater Migration EI (CA750) 100%
(Submitted November 30, 2009)
A draft determination was submitted to USEPA on October 30, 2009 and was reviewed with USEPA via teleconference on November 12, 2009. The final determination was submitted to USEPA on November 30, 2009. USEPA approved the determination on December 22, 2009.
- Interim Measures Work Plan 0%
(If necessary)
- Operation and Maintenance of Interim Measures 0%

(If necessary)

- Draft Corrective Measures Proposal 100%
(Originally due June 30, 2010, Revised due date of August 31, 2010, Submitted on August 30, 2010)
MLC requested an extension to submit the CMP on June 22, 2010. USEPA agreed to extend the submittal date for the CMP to August 31, 2010. The draft CMP was submitted to USEPA on August 30, 2010. The CMP included proposed corrective measures to mitigate potentially significant future exposures that could results from historic site activities. The CMP also included documentation of groundwater modeling performed to support the identification of the area(s) where a groundwater use restriction should be pursued as part of final corrective measures.
- Final Corrective Measures Proposal 0%

SUMMARY OF CONTACTS WITH INTERESTED PARTIES

- The following documents were placed in the public information repository:
 - *Second Quarter 2010 Progress Report*, RCRA Corrective Action, Former GM Delco Plant 5, Kokomo, IN, USEPA ID No. IND000806844, July 14, 2010.
 - *RCRA Corrective Action, Draft Corrective Measures Proposal*, Former GM Delco Plant 5, Kokomo, Indiana, IND 000806844, ARCADIS U.S. and ENVIRON International, Inc., August 30, 2010.
- The Executive Director of the Kokomo - Howard County Plan Commission provided written comments on the draft CMP clarifying that the proposed Well Restriction Overlay District must be reviewed with and approved by both the city of Kokomo and Howard County zoning boards since the proposed District would be located in both jurisdictions.

CHANGES IN PERSONNEL

- None.

PROJECTED WORK FOR NEXT REPORTING PERIOD

- Evaluate and respond to any comments received from USEPA on the draft CMP.
- Revise draft CMP as necessary.

- Review future scope of work and budget with USEPA for July 1, 2010 through October 31, 2010 and for November 1, 2010 through December 31, 2011.
- Complete semi-annual groundwater sampling to support the Environmental Indicators CA750.
- Prepare summaries of meetings, data reviews, or conference calls with USEPA, as appropriate.
- Prepare the Fourth Quarter 2010 Progress Report.

Enclosure:

Evaluation of Groundwater Sampling Techniques, Passive Diffusion Bag Samplers and Low-Flow Groundwater Sampling, Motors Liquidation Company, Former GM Delco Plant 5, Kokomo, Indiana, ARCADIS, October 2010.

Evaluation of Groundwater Sampling Techniques
Passive Diffusion Bag Samplers and
Low-Flow Groundwater Sampling

GM Delco Plant 5
Kokomo, Indiana

Background 2

Evaluation of Data 2

Tables

Table 1	Selected Monitoring Wells
Table 2	Comparison of Low Flow Sampling and Passive Diffusion Bags, Former GM Delco Plant 5, Kokomo, Indiana
Table 3	Evaluation of Detected Analytical Results

Drawings

Drawing 1	Scatterplot of Concentrations for All Former GM Delco Plant 5 Samples Obtained by Low and Passive Diffusion Sampling Techniques (n=15 detects) Evaluation of Groundwater Sampling Techniques.
Drawing 2	Scatterplot Comparison of Concentrations for PDB Samples with a 3 Week Soaking Duration (2010) vs. a 2 Week Soaking Duration (2009) Evaluation of Groundwater Sampling Techniques.

Attachment

A	Former GM Delco Plant 5 Laboratory Analytical Reports
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Background

As result of GM's recent bankruptcy, certain of the current operating assets of GM were sold on July 10, 2009 to a newly formed company, which is now known as General Motors LLC. Existing, non-continuing assets remained the property of "old" GM, which is now known as Motors Liquidation Company (MLC), in its capacity as a debtor-in-possession in the bankruptcy case. Prior to GM's bankruptcy, GM initiated an evaluation at the Former GM Delco Plant 5 (the Site) to determine if passive diffusion sampling could be used to monitor the volatile organic compounds (VOC) in groundwater instead of the existing sampling technique (low-flow sampling) used for the projects. It is estimated that passive diffusion sampling may result in a cost savings of approximately 40% of the sampling costs during monitoring events.

Passive diffusion bag (PDB) samplers are constructed of low-density polyethylene and contain deionized water. The PDB samplers operate by relying on the movement of groundwater through the monitoring well screen. The VOCs in the groundwater diffuse across the PDB until the concentrations in the PDB are in equilibrium with the concentration in the groundwater.

PDB samplers were deployed in selected monitoring wells, ranging in concentrations of VOCs and aquifer type (confined and bedrock). Table 1 presents the selected monitoring wells at the site. Ten monitoring wells were sampled during two collection events occurring in June 2009 and May 2010. The PDB samplers were allowed to equilibrate in the monitoring wells for approximately two weeks prior to sampling during the first sampling event and three weeks during the second sampling event. Groundwater samples were also collected from the selected monitoring wells using the low-flow sampling technique. By collecting a pair of samples for each event – one using PDB samplers and one using low-flow sampling – a statistical analysis appropriate for "matched pairs" can be conducted to evaluate the correspondence between VOC concentrations reported for samples collected by the two sampling methods.

At the site, monitoring wells were sampled via low-flow sampling within 24-hours from the time the PDB sampler was retrieved. For this dataset, the sample results (VOC concentrations) associated with the low-flow and corresponding PDB sampling are paired. Groundwater analytical results are summarized in Table 2. Laboratory analytical reports are provided in Appendix A of this memo.

Evaluation of Data

Analytical groundwater data for the site were pooled. Multiple compounds (cis-1,2 DCE, trans-1,2 DCE, TCE, and vinyl chloride) were also pooled into a single data set in order to have a sufficient sample size to evaluate the paired results. Typically, a minimum sample size of 8 to 10 observations is recommended to conduct most

statistical evaluations, including correlation or regression analysis (e.g., p. 5-3 of USEPA, 2009¹). This is the minimum sample size needed to assess variability and evaluate distribution shapes. It is assumed that the influence (if any) of the PDB sampling method on the concentration of a VOC is similar for each VOC. A natural logarithm transformation was applied to the 15 pairs with detects in both sample results to accommodate the difference in the range of concentrations associated with different VOCs. Nineteen data pairs with non-detects in one or both sample results were excluded. Table 3 presents the evaluation of the detected data. Drawing 1 (upper figure) shows the least-squares linear regression line fit to the final data set, the regression equation and r-square, a key corresponding to each of the 4 constituent data groups, and a 1:1 line (dotted blue) showing hypothetical perfect correspondence between PDB and low flow sampling. The following observations are noted:

- There is a very strong correlation between low flow and PDB sample results ($r^2 = 0.92$). The results are reliable given that data pairs exhibit natural log concentrations across the entire interval [-5.7, 0.37], equivalent to a range (untransformed) of 0.0035 to 1.44 mg/L.
- There is minimal bias associated with PDB sampling, meaning that concentrations appear to be independent of sampling technique. The regression analysis provides an indication of correspondence based on deviations from a slope of 1.0 and intercept of zero. For this dataset, a slope of 0.98 and positive intercept (0.090) suggests that low flow sampling yields slightly higher concentrations than PDB sampling. However, the ratio of concentrations (low flow/PDB) ranges from 0.7 to 4.4 with a mean of 1.3 and median of 1.1.
- Subsets of data based on VOC pairs appear to be evenly scattered on either side of the regression line (Drawing 1, lower figure), further indicating that the direction and magnitude of differences in concentrations between the two sampling methods is not chemical-specific.

Additionally, a comparison of the equilibration period [2-weeks (2009) vs. 3-weeks (2010)] was completed to determine if any bias is exhibited between the two separate equilibration periods. Drawing 2 is a reproduction of Drawing 1, but presents the results as a function of the equilibration period and not the chemical type.

- Due to the monitoring wells being sampled during this time period, there were limited detections to evaluate, which resulted in a smaller sample pool and limited any significant findings relative to the equilibration period. Three

¹ United States Environmental Protection Agency (USEPA). 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities. Unified Guidance. Office of Resource Conservation and Recovery. EPA/530/R-09/007. March. Available online: <http://www.epa.gov/osw/hazard/correctiveaction/resources/guidance/sitechar/gwstats/index.htm>

of the four paired results from the 3-week equilibration period were below the trend line, indicating that a 3-week equilibration period may tend to yield slightly higher PDB concentrations relative to the corresponding low-flow results compared to the 2-week equilibration period. The fourth paired result is above the trend line, and has the highest relative percent difference (343%) which would indicate a higher low flow concentration compared to the PDB result.

Based on this data review and extensive literature on the accuracy and advantages of use of PDBs for VOC sampling, ARCADIS recommends that groundwater samples to be analyzed for VOCs at the Site be collected with the PDB samplers and allowed to equilibrate in the monitoring well for a minimum of three weeks. For samples to be analyzed for other COCs, (i.e., metals, SVOCs) the currently used low-flow sampling methodology will continue to be utilized.

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Table 1. Selected Monitoring Wells, Evaluation of Groundwater Sampling Techniques.

Selected Monitoring Well	Low Flow and PDB Collection Date(s)	Aquifer type
MW-0705-S1	6/26/2009	Confined
MW-0516-S1	6/24/2009; 6/25/2009 5/5/2010; 5/6/2010	Confined
MW-0607-S1	5/5/2010; 5/6/2010	Confined
MW-0501-S1	6/24/2009; 6/25/2009	Confined
MW-0612-S2	6/25/2009	Confined
MW-0603-S2	5/5/2010; 5/6/2010	Confined
MW-0607-S2	5/5/2010; 5/6/2010	Confined
MW-0609-S2	5/5/2010; 5/6/2010	Confined
MW-0608-B1	6/25/2009	Bedrock
MW-0603-B1	6/25/2009	Bedrock

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Table 2. Comparison of Low Flow Sampling and Passive Diffusion Bags Concentrations for Select Compounds.

Compound	Sampling Technique	MW-0705-S1 MW-0516-S1 MW-0516-S1 MW-0607-S1 MW-0501-S1					MW-0612-S2 MW-0603-S2 MW-0607-S2 MW-0609-S2				MW-0608-B1 MW-0603-B1	
		2009	2009	2010	2010	2009	2009	2010	2010	2010	2009	2009
Chloroform (Trichloromethane)	Low Flow PDB	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	<0.005
	Difference (%)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0055	<0.005	<0.005	<0.005
cis-1,2-DCE		NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
	Low Flow PDB	0.050	<0.005	<0.005	<0.005	<0.005	1.440	0.291	<0.005	0.102	0.125	0.545
	Difference (%)	0.034	<0.005	<0.005	<0.005	<0.005	1.360	0.0657	<0.005	0.127	0.169	0.557
trans-1,2-DCE		32.00	NC	NC	NC	NC	5.56	77.42	NC	-24.51	-35.20	-2.20
	Low Flow PDB	0.0149	<0.005	<0.005	<0.005	<0.005	0.199	0.0106	<0.005	0.013	0.123	0.079
	Difference (%)	0.009	<0.005	<0.005	<0.005	<0.005	0.183	<0.005	<0.005	0.017	0.188	0.077
TCE		39.60	NC	NC	NC	NC	8.04	NC	NC	-30.77	-52.85	2.27
	Low Flow PDB	0.178	<0.005	<0.005	<0.005	<0.005	0.353	<0.005	<0.005	<0.005	<0.005	<0.005
	Difference (%)	0.0863	<0.005	<0.005	<0.005	<0.005	0.268	<0.005	<0.005	<0.005	0.0066	<0.005
Vinyl Chloride		51.52	NC	NC	NC	NC	24.08	NC	NC	NC	NC	NC
	Low Flow PDB	0.0051	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0035	<0.002	<0.002
	Difference (%)	0.0048	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0041	0.0032	0.0036
		5.88	NC	NC	NC	NC	NC	NC	NC	-17.14	NC	NC

Compounds that had a detection in one or more of the samples are presented.
 NC - Not calculated due to non-detect in one or more of the samples
 Concentrations in mg/L (milligrams/Liter).
 PDB - Passive diffusion bag
 Shaded cells are where one or both samples were non-detect
 Percent Difference = { (Low Flow Conc - PDB Conc) / Low Flow Conc } X 100

Table 3. Evaluation of Detected Analytical Results, Evaluation of Groundwater Sampling Techniques.

Detects

Site-Chem	Sample ID	PDB (mg/L)	Low Flow (mg/L)	Difference (%)	RPD (%)	Ratio	Ln [PDB] (mg/L)	Ln [Low Flow] (mg/L)
KO-cis12DCE	MW-0705-S1	0.034	0.05	32%	47%	1.5	-3.381	-2.996
KO-cis12DCE	MW-0612-S2	1.36	1.44	6%	6%	1.1	0.307	0.365
KO-cis12DCE	MW-0608-B1	0.169	0.125	-35%	-26%	0.7	-1.778	-2.079
KO-cis12DCE	MW-0603-B1	0.557	0.545	-2%	-2%	1.0	-0.585	-0.607
KO-cis12DCE	MW-0603-S2	0.0657	0.291	77%	343%	4.4	-2.723	-1.234
KO-cis12DCE	MW-0609-S2	0.127	0.102	-25%	-20%	0.8	-2.064	-2.283
KO-trans12DCE	MW-0705-S1	0.009	0.0149	40%	66%	1.7	-4.711	-4.206
KO-trans12DCE	MW-0612-S2	0.183	0.199	8%	9%	1.1	-1.698	-1.614
KO-trans12DCE	MW-0608-B1	0.188	0.123	-53%	-35%	0.7	-1.671	-2.096
KO-trans12DCE	MW-0603-B1	0.077	0.079	3%	3%	1.0	-2.564	-2.538
KO-trans12DCE	MW-0609-S2	0.017	0.013	-31%	-24%	0.8	-4.075	-4.343
KO-TCE	MW-0705-S1	0.0863	0.178	52%	106%	2.1	-2.450	-1.726
KO-TCE	MW-0612-S2	0.268	0.353	24%	32%	1.3	-1.317	-1.041
KO-VC	MW-0705-S1	0.0048	0.0051	6%	6%	1.1	-5.339	-5.279
KO-VC	MW-0609-S2	0.0041	0.0035	-17%	-15%	0.9	-5.497	-5.655

mean	33%	1.33
median	6%	1.06
min	-35%	0.65
max	343%	4.43

* Water levels in MW-S2A-0501 may not be sufficient for PDB sampling. The fluctuating water level is believed to be seasonal. During the August 2008, sampling event, there was limited water for PDB sampling (upon regauging the well several weeks later only 6 inches of water was measured).

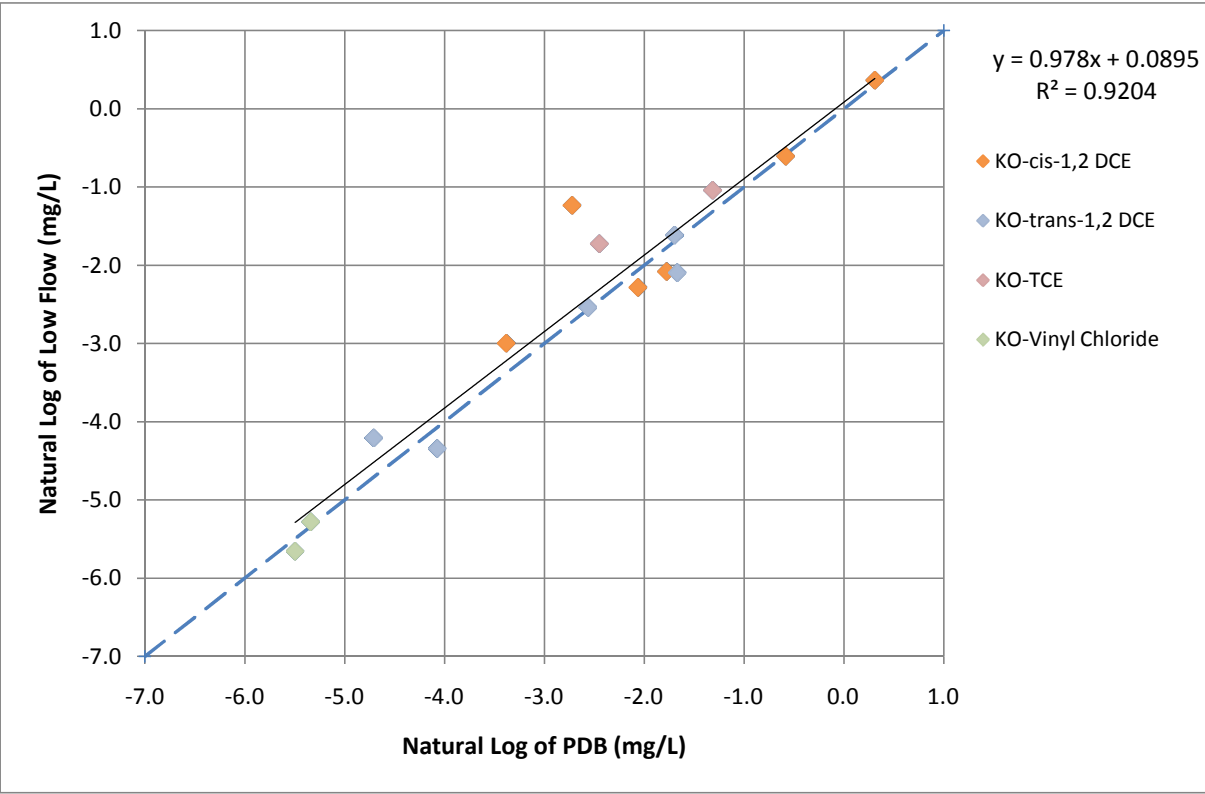
 = (pink shading) RPD < 0, or Low Flow < PDB

RPD - Relative Percent Difference = $100\% \times (\text{Range} / \text{Mean})$

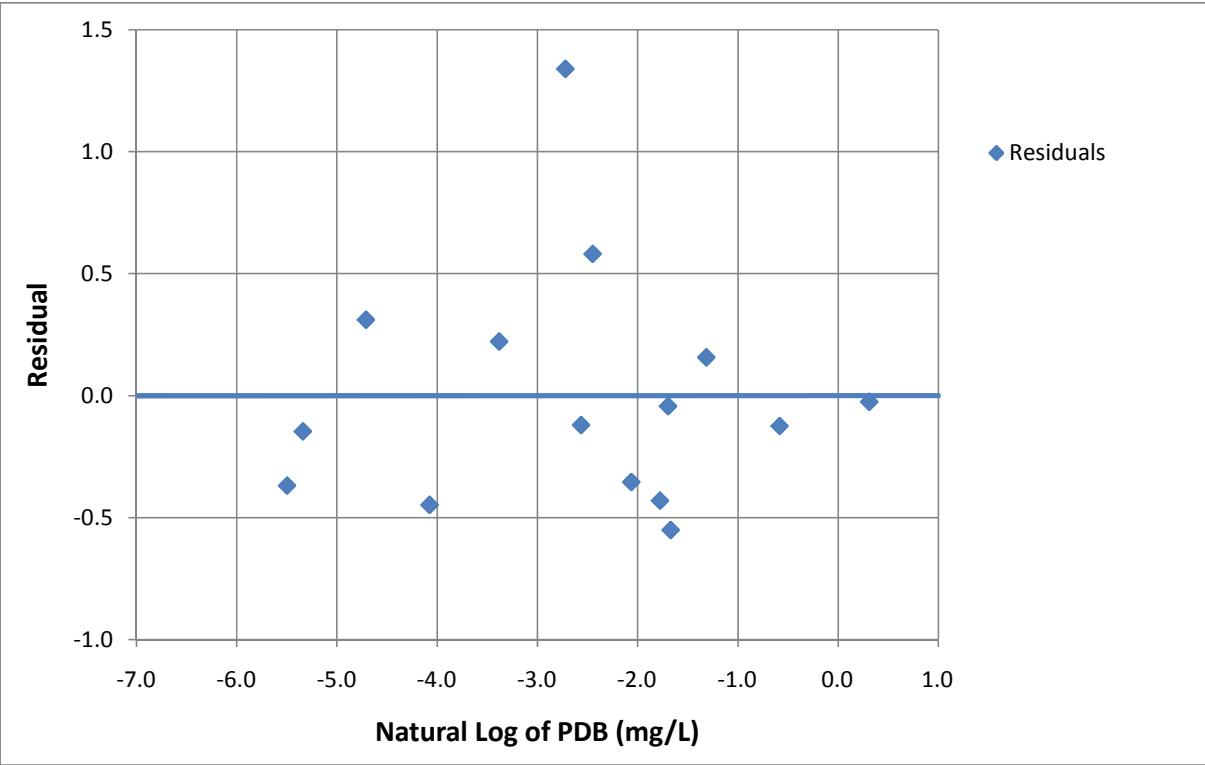
PDB - Passive diffusion bag

mg/L - milligrams/Liter

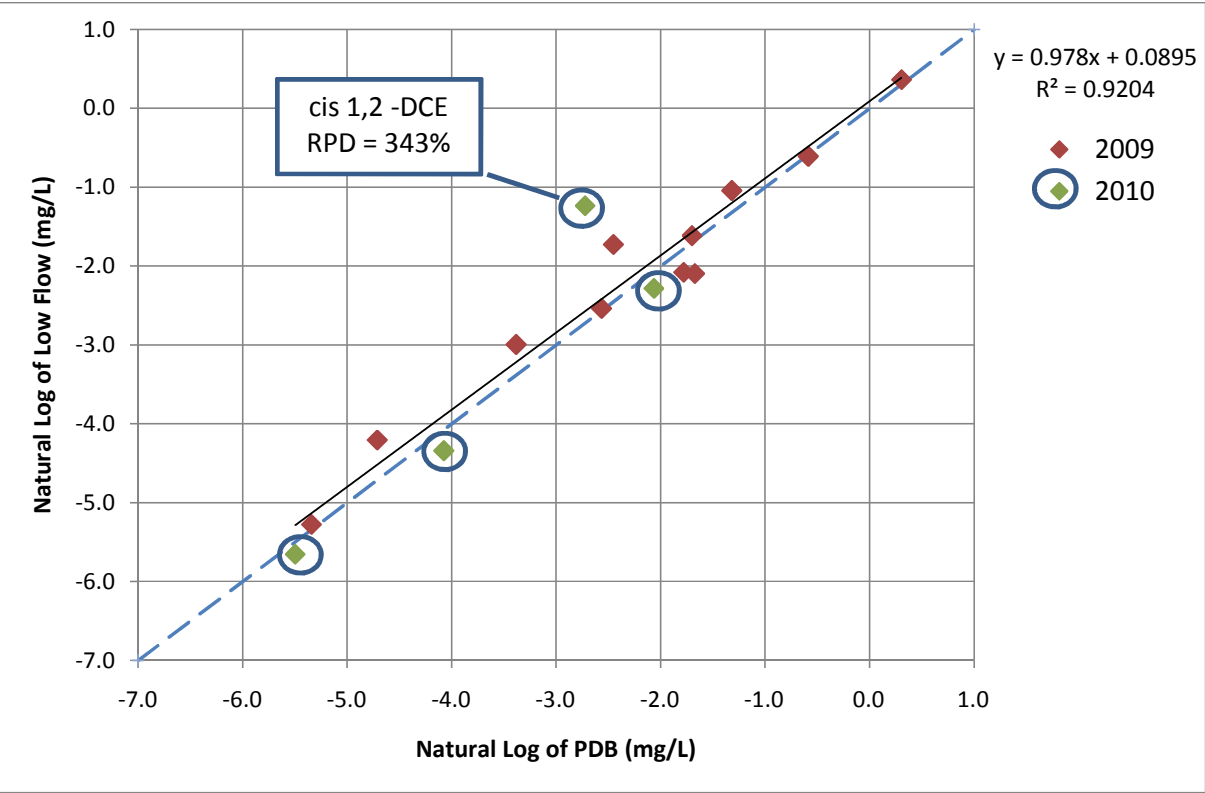
Drawing 1. Scatterplot of Concentrations for All Former GM Delco Plant 5 Samples Obtained by Low Flow and Passive Diffusion Sampling Techniques (n=15 detects), Evaluation of Groundwater Sampling Techniques. Lower Graph Shows Regression Line Residuals.



KO = Former GM Delco Plant 5, Kokomo, Indiana



Drawing 2. Scatterplot of Concentrations for All Former GM Delco Plant 5 Samples Obtained by Low Flow and Passive Diffusion Sampling Techniques (n=15 detects), 2 Week PDB Equilibration Period (2009) versus 3 Week PDB Equilibration Period (2010), Evaluation of Groundwater Sampling Techniques. Lower Graph Shows Regression Line Residuals.



KO = Former GM Delco Plant 5, Kokomo, Indiana

