

**2011 Annual Groundwater  
Monitoring Report  
Motors Liquidation Company  
Dr. Martin Luther King Jr.  
Boulevard Site  
Anderson, Indiana  
RCRA Facility Investigation  
IND 980 700 801**

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## ACRONYMS AND ABBREVIATIONS

|               |  |
|---------------|--|
| 1,1-DCE       | 1,1,1-dichloroethene                                       |
| 1,1,1,-TCA    | 1,1,1-trichloroethane                                      |
| mg/L          | milligram per liter  |
| AOC           | area of concern  |
| AOI           | area of interest   |
| bgs           | below ground surface                                       |
| cis-1,2-DCE   | cis-1,2-dichloroethene                                     |
| CM            | corrective measures  |
| CMP           | corrective measures plan                                   |
| DO            | dissolved oxygen   |
| ENVIRON       | ENVIRON International Corporation                          |
| EPA           | Environmental Protection Agency, US                        |
| FEMA          | Federal Emergency Management Agency                        |
| FMG           | Field Method Guideline                                     |
| GMC           | former General Motors Corporation                          |
| GPS           | Global Positioning System                                  |
| HQ            | hazard quotient  |
| IDEM          | Indiana Department of Environmental Management             |
| IM            | Interim Measure  |
| MCL           | Maximum Contaminant Level                                  |
| MLK           | Martin Luther King Jr.                                     |
| NAVD          | North American Vertical Datum                              |
| ORP           | oxidation reduction potential                              |
| POTW          | publicly owned treatment works                             |
| RACER         | Revitalizing Auto Communities Environmental Response Trust |
| RCRA          | Resource Conservation and Recovery Act                     |
| RFI           | RCRA Facility Investigation                                |
| RISC          | Risk Integrated System of Closure                          |
| TCE           | trichloroethene  |
| TCL           | target compound list                                       |
| trans-1,2-DCE | trans-1,2-dichloroethene                                   |
| VC            | vinyl chloride   |
| VI            | vapor intrusion  |
| VOC           | volatile organic compound                                  |
| WWTP          | wastewater treatment plant                                 |

## 1 Introduction

This report summarizes the results of groundwater and surface water monitoring conducted during 2011 by the Revitalizing Auto Communities Environmental Response (RACER) Trust at the former Delphi I site located at 2915 Dr. Martin Luther King Jr. (MLK) Boulevard, Anderson, Indiana. This report is submitted to the Indiana Department of Environmental Management (IDEM) in support of ongoing Resource Conservation and Recovery Act (RCRA) Corrective Action at the site. The monitoring was conducted pursuant to the *Site-Wide Groundwater Monitoring Plan* (AECOM, October 28, 2010).

### 1.1 OBJECTIVES

The site-wide groundwater monitoring program was proposed concurrent to the final corrective measures at the site. The primary objectives of the site-wide groundwater monitoring are:

1. Evaluate the effectiveness of the proposed in-situ corrective measures (CM) for groundwater
2. Monitor the stability of the two volatile organic compound (VOC) plumes.

The final corrective measures have not been implemented to date. As such, this report has been prepared to present the stability analysis of the VOC plumes as updated with 2011 data. As appropriate, this report supplements findings of the revised Final RFI Report (Earth Tech, Inc. and ENVIRON, July 8, 2011) and the previous annual groundwater monitoring reports (Earth Tech, Inc. and ENVIRON, January 31, 2007; Earth Tech, Inc., January 31, 2008; AECOM, February 27, 2009, April 26, 2010, and January 31, 2011).

### 1.2 REPORT ORGANIZATION

Section 2 of this report provides a general site overview. Section 3 summarizes the work conducted as part of the groundwater monitoring program. Analytical data for 2011 and a risk-based screening of these data are presented in Section 4. Section 5 presents an update regarding the nature and extent of groundwater contamination, including trend analyses of the concentrations of the principal site VOC constituents in groundwater over time. Conclusions and recommendations for future monitoring are provided in Sections 6 and 7.

The risk-based data screening presented in Section 4 of this report was prepared by ENVIRON International Corporation (ENVIRON).

## 2 Groundwater Monitoring Overview

### 2.1 SITE DESCRIPTION

The MLK Boulevard site is located in the northwest quarter of Section 23, T19N, R7E, on the southwest side of Anderson, Madison County, Indiana (Figure 2-1). Formerly, the site comprised approximately 3,000,000 square feet of manufacturing area situated on 234 acres. MLK Boulevard divides the site in a north-south direction. General Motors Corporation (GM) previously conducted automotive parts manufacturing operations in plants on both sides of MLK Boulevard. The former east manufacturing areas (Plants 6 and 9) are bounded by MLK Boulevard on the west, by a railroad on the south, by 29<sup>th</sup> Street on the north, and by Madison Avenue on the east (Figure 2-2).

The manufacturing facilities west of MLK Boulevard, referred to as the Main Plant, were bounded on the west, south and southeast by railroad tracks, and on the north by 25<sup>th</sup> Street. Facility parking areas were located west of the westernmost railroad, and north of 25<sup>th</sup> Street. Formerly developed areas of the property were largely covered with asphalt or concrete. Land use surrounding the site varies from residential and commercial on the north and east, residential and recreational on the south, and agricultural on the west. A small public-access park is located in the northwest part of the property. The Meadowbrook Golf Course is located southeast of the site (Figure 2-2).

GM began operations at the MLK Boulevard facility in 1929. Manufacturing plants were expanded several times, generally proceeding from the north end of the Main Plant southward and eastward. East of MLK Boulevard, Plant 9 construction commenced in 1969, and building additions were performed in 1973, 1977, 1981, 1985, 1986 and 1989. Manufacturing operations on the site ceased in 2006. All facilities west of MLK Boulevard were demolished during the period late 2007 to early 2009. The demolition included the removal of all concrete building slabs and many areas of pavement around the immediate Main Plant building area. Following demolition, the area was regarded and covered with varying thicknesses of crushed concrete. A soil and vegetative cover were applied during the summer of 2009. The building site location is now an open field.

The former Plant 6 and 9 properties and a lot east of Madison Avenue were sold soon after manufacturing operations ceased there in 1997. The remaining portions of the property were held by GM until its bankruptcy in June 2009 and are currently owned by the RACER Trust. The RACER Trust was created in March 2011 by the U.S. Bankruptcy Court to clean up and position for redevelopment certain properties and other facilities owned by former GM before the 2009 bankruptcy. Figure 2-2 shows the current RACER property boundary. The term “site”, as used throughout this report, refers to the aggregate of former GM properties.

### 2.2 HYDROLOGIC SETTING

#### 2.2.1 Physiography

The site is situated in the New Castle Till Plains and Drainageways Section of the Central Till Plain Region as described by Gray (2000). This area was affected by multiple continental glaciations that deposited a thick blanket of glacial sediments over the bedrock. The New Castle Till Plains and Drainageways Section is primarily underlain by complexly stratified glacial diamict deposits, glaciofluvial sand and gravel deposits and glaciolacustrine silt and clay deposits. The area is characterized by broad plains of low relief crossed by relict glacial meltwater valleys.

#### 2.2.2 Surface Water Drainage

The site area is nearly level with elevations ranging from 860 to 880 feet NAVD 88. East of MLK Boulevard the elevation is lowest, and the surface elevation descends into a relict glacial meltwater

valley. Former Plant 9, Plant 6, and the Meadowbrook Golf Course are all located in the relict meltwater valley, the western border of which roughly follows the alignment of MLK Boulevard (Figure 2-1 and Figure 2-2). This valley trends south-southwest from Anderson, Indiana several miles towards Pendleton, Indiana (Brown and others, 2003). A small channelized stream, Stanley Ditch, occupies the north end of the relict meltwater valley and drains westward along the south boundary of the Meadowbrook Golf Course. Stanley Ditch originally flowed to the north between former Plant 6 and Plant 9 but was diverted southward in 1963 to provide storm water relief for the City of Anderson combined sewer system. As a result, Stanley Ditch is now tributary to Prairie Creek and flows to the south down the trend of the valley to Pendleton, Indiana where it joins Fall Creek, a tributary to the West Fork White River.

Surface water run-off from paved areas of the property is directed to the combined sewer system that discharges north to the City of Anderson POTW on the West Fork White River. The combined sewer system flows northward across the Meadowbrook Golf Course property and beneath former Plant 9 up the trend of the relict meltwater channel. Surface water on the northern portion of the Meadowbrook Golf course property is directed through piping, and discharges to ponds. Surface water in the southern portion of the Meadowbrook property drains southward toward Stanley Ditch that flows along the southern and eastern property boundaries of the golf course.

A drainage divide between Stanley Ditch and Prairie Creek, draining to the south, and the combined sewer system, draining north to West Fork White River, appears to occur near the south side of former Plant 9, perhaps near and along the South Anderson Cutoff railroad embankment. Areas to the south of the railroad embankment, including most of the Meadowbrook golf Course, are floodway and floodway fringe areas subject to flooding (FEMA, February 18, 1994).

### 2.2.3 Hydrogeology

Figure 2-3 presents a generalized, schematic east-west hydrogeologic cross section of the unconsolidated materials at the site showing monitoring well completion intervals. The unconsolidated deposits range from less than 20 feet to over 160 feet in thickness and overlie an irregular bedrock surface. Bedrock beneath the site consists of carbonate rocks of Silurian age. The bedrock topography beneath the site slopes to the northwest into a pre-glacial bedrock valley. The bedrock is high (above 840 foot elevation) in the southern portion of the former Plant 9 area and at the Meadowbrook Golf Course. Bedrock is generally only about 20 feet below ground surface (bgs) in this area as a result of both the high bedrock elevation and low ground surface elevation in the relict meltwater valley area east of MLK Boulevard. To the northwest, the bedrock elevation descends to below 730 foot elevation at former groundwater production well 11 (Figure 2-2), and the bedrock in this area is in excess of 158 feet bgs.

Detailed hydrogeologic cross sections are presented in both the Stage II RFI Data Report (Earth Tech, March 30, 2005) and the RFI Final Report (Earth Tech and ENVIRON, September 28, 2007). Five distinct geologic units are recognized in the unconsolidated surficial soil materials. These units are identified from top to bottom as Units 1 to 5.

Unit 1 is a heterogeneous fill material consisting of silty clay loam, silty clay, sandy clay, sandy clay loam, and loam texture soil intermixed, in places, with debris consisting of wood, brick, glass, brick, concrete, coal fragments, and cinders. The unit consists of fill material placed at various times during the developmental history of the property and is generally no more than a few feet in thickness. In places, the lower portion of the Unit 1 fill is saturated and a localized perched groundwater zone occurs. The clayey diamicts in the underlying Unit 2 confining unit cause this perched groundwater condition. Saturated conditions have been observed in the basal portion of Unit 1 in several shallow AOC 1 – South Court Area soil borings.

Unit 2 is a glacial diamict of silty clay loam, silty clay, and loam texture with occasional thin, interbedded sand and gravel deposits. Sand and gravel lithologies make up a small percentage of the unit. Unit 2 is thin in southern and eastern parts of the site, but thickens to the north and west.

Unit 3 consists of stratified sand and gravel and forms the uppermost aquifer beneath the site. In places, a diamict occurs within Unit 3 and is identified as the Unit 3 Confining Bed. At some locations the confining bed is represented by a distinctive silty texture and laminated structure. The confining bed is hydrologically significant because it separates the Unit 3 aquifer into an upper portion (Unit 3S) and lower portion (Unit 3D). Unit 3 is generally only 10 to 20 feet thick in the eastern part of the site beneath the meltwater valley. The unit thickens appreciably in the western part of the area where it forms the major portion of the unconsolidated deposits.

Unit 3 is almost entirely within the phreatic zone and is the uppermost aquifer unit at the Site. Groundwater may exist in the unit under both confined and unconfined conditions. Where the base of Unit 2 is relatively high in elevation, the upper few feet of Unit 3 are unsaturated, and unconfined conditions occur. At locations where the base of Unit 2 is relatively low in elevation the top of Unit 3 is saturated, and confined conditions occur.

Conceptually, Unit 3 may be divided into an upper (Unit 3S) and lower (Unit 3D) part (Figure 2-3). In those places where there is no physical separation between the upper and lower parts of the unit provided by the Unit 3 Confining Bed, the designations 3S and 3D merely provide a convenient way to refer to the upper and lower portions of the Unit 3 aquifer, and the monitoring wells completed therein. Where a physical separation occurs due to the presence of the Unit 3 Confining Bed, Unit 3S refers to that portion of the aquifer above the confining layer and Unit 3D refers to that portion below the confining layer. Locally, the Unit 3 Confining Bed induces a downward vertical gradient within the Unit 3 aquifer. Where the confining bed is absent, water levels in Units 3S and 3D are comparable.

The lateral groundwater gradient in Unit 3S is directed to the northeast in AOC 1 - South Court Area. Locally there are significant variations in the magnitude and direction of the gradient related, in part, to the presence or absence of the Unit 3 Confining Bed. An east-southeast oriented potentiometric trough in Unit 3S persistently occurs in the vicinity MW 40, 42, and 68 where the confining bed is absent. In this area groundwater flow in Unit 3S appears to be directed easterly into the relict meltwater valley.

The hydraulic gradient for Unit 3D is more consistent and the potentiometric surface for this unit suggests an eastward gradient in the South Court Area and along MLK Boulevard into the relict meltwater valley. The north-northeast / south-southwest oriented relict meltwater valley at former Plant 9 and the Meadowbrook Golf Course appears to induce a hydraulic gradient to the south along its axis. Contaminants in the lower portion of Unit 3 would be expected to move generally eastward and then southward near the former WWTP area.

Unit 4 consists of hard diamict of loam or clay loam texture. The unit forms a confining bed between Unit 3 and Silurian carbonate bedrock. The unit is absent from the eastern part of the area at Plant 9 and portions of the adjacent Meadowbrook Golf Course.

Two deep bedrock borings at the north end of the site (MW 62 and MW 71) encountered a bed of cobbles above the bedrock surface. This zone is referred to as Unit 5. The unit was encountered at no other locations.

### 2.3 PREVIOUS GROUNDWATER INVESTIGATIONS

The following sections summarize groundwater investigations that have been conducted at the site. Monitoring wells on and adjacent to the MLK site have been installed at various times. There are currently a total of 94 monitoring wells in the area (Figure 2-2). The earliest site wells (MW 1 to MW 17) were installed in 1992 and 1993 for the purposes of evaluating a suspected waste oil leak at Area 1 – Former Waste Oil Tank (SWMU 16) (Figure 2-2). The longest monitoring history exists for these wells. Most of the 1992 – 1993 wells were installed in Unit 3S. No evidence of a significant waste oil leak was found at SWMU 16, but elevated concentrations of VOCs, primarily trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride (VC) were detected in several wells in this area. These wells are now known to be located in and around a source area for the Area 1 – South Court VOC plume, as described later this document.

Work associated with RFI Stage I in 2000 – 2001 included installation of 19 new monitoring wells (MW 18 to MW 37) and collection of 85 groundwater samples from new and existing wells. The new wells were completed in Units 1, 3S, and 3D. The Stage I investigations partially delineated a groundwater VOC plume extending north and east from AOC 1 - South Court. This plume was found to lie underneath several previously-defined AOIs and was referred to as *Area 1*. The Stage I RFI investigations identified concentrations of TCE, cis-1,2-DCE, and VC above screening criteria based on state and federal maximum contaminant levels (MCLs). A Stage I RFI report was completed in 2001, and this report included a work plan for additional ground water delineation work in both on and off-site areas (Earth Tech and ENVIRON, July 31, 2001).

Stage II RFI investigations began in late 2003. Work associated with the Stage II RFI in 2003 – 2005 included installation of 47 monitoring wells (MW 38 to MW 84) and collection of 182 groundwater samples from both new and existing wells. Area 1 was expanded to include Plant 9 as well as off-site areas including Meadowbrook Golf Course. Seven wells (MW-1 to MW-7) were installed on the golf course by others in 2003. Sampling of MW-4 in October 2003 indicated that high concentrations of cis-1,2-DCE and VC were present. Additional wells (MW 56, 57, 58 77, and 85) were installed by the former GMC on the golf course in 2004 and 2007 to delineate the VOC plume southeast of MW-4 (Figure 2-2). These and other RFI Stage II monitoring wells delineated the concentrations of TCE, cis-1,2-DCE, and VC above MCLs both on and off-site (Earth Tech and ENVIRON, September 28, 2007). Three additional monitoring wells (MW 86, MW 87, and MW 88) were installed on the Plant 9 property in October 2010 to provide additional downgradient plume delineation.

From October 2005 until October 2007 the former GMC conducted quarterly monitoring of a selected group of monitoring wells according to an interim site-wide groundwater monitoring plan (Conestoga-Rovers & Associates, September 20, 2005). This work was conducted for nine consecutive quarters ending in October 2007. Summary results from this monitoring have been provided in the previous 2006 and 2007 Annual Groundwater Monitoring Reports (Earth Tech and ENVIRON January 31, 2007, January 31, 2008). An additional round of groundwater monitoring was conducted in February 2008.

The interim monitoring program was replaced by a site-wide groundwater monitoring plan associated with the final Corrective Measures Proposal (CMP) for the facility. This program conducts semiannual sampling at a modified well list with sampling of two surface water monitoring points on the Meadowbrook Golf Course conducted three time per year. The sampling plan for this program (AECOM, October 28, 2010) was approved by the IDEM on November 24, 2010.. Sampling under this program has been conducted since June 2008.

## 2.4 AREA 1 – SOUTH COURT AND RELATED AREAS

The groundwater impacts at the MLK site are associated with *Area 1 – South Court and Related Areas*. Previous isoconcentration maps for Unit 3 suggest there are two separate VOC plumes. One plume is associated with Area 1 – South Court. The *AOC 1 – South Court plume* extends in a northeast direction from the South Court beneath several SWMUs in the former Main Plant building area. The predominant VOCs detected in this area are TCE, cis-1,2-DCE, and vinyl chloride. The highest reported concentrations of TCE in this plume are found in the South Court at MW 3 and MW 15 (Unit 3S) and MW 31R (Unit 1). Perched groundwater in Unit 1 appears to serve as a source area for VOCs in Unit 3. These VOC contaminants are present in both the 3S and 3D portions of Unit 3, but concentrations are generally higher in the upper portion of the unit.

A separate plume is located along and east of MLK Boulevard. The primary evidence for separation of this plume from the AOC 1 – South Court plume comes from five Unit 3S wells located between the plumes where VOCs have not been detected, or detected at only very low levels (Figure 2-2, MW 16, 17, 46, 57 and 84). The VOC plume east of MLK Boulevard extends from an apparent source near MW 68 and the former WWTP along MLK Boulevard eastward toward former Plant 9 and the Meadowbrook Golf Course. The plume has migrated to the south to at least MW 85 on the golf course. This plume is referred to as the *former WWTP Area plume*. The predominant VOC constituents detected in this area are cis-1,2-DCE, and VC. TCE is only a minor plume component.

## 2.5 INTERIM MEASURES

The former GMC had previously implemented three interim measures (IMs) related to soil and groundwater at the site. One interim measure included the removal of soil at the MW 31 area of AOC 1 – South Court that contained TCE concentrations that were an order of magnitude greater than the soil concentrations in other portions of the area. In addition to removing the soil in this area, perched groundwater in Unit 1 fill was treated with HRC<sup>®</sup> as a source control measure for TCE, cis-1,2-DCE, and VC in Unit 1 and the underlying Unit 3 groundwater. During the IM, monitoring well MW 31 completed in the fill soil was removed. Following the IM a replacement well (MW 31R) was installed at the former MW 31 well location.

The second interim measure included the abandonment of two potable wells at the Meadowbrook Golf Course and subsequent connection of the golf course to public water supply. In addition, GM and the owners of the Meadowbrook Golf Course have entered into an access agreement that prohibits the use of groundwater under the golf course property. The agreement does allow use of surface water from a pond on the site for irrigation purposes. Samples from this pond are regularly collected and analyzed for VOCs.

The third interim measure included the abandonment and plugging of five former groundwater production wells on site. This work was completed during the period April 30 to September 4, 2007 in accordance with Indiana Department of Natural Resources (IDNR) well abandonment rules (312 IAC 13). Abandonment activities included electrical disconnect, pump motor and pump column removal, and well grouting. The work followed a written work plan for well abandonment (Earth Tech, July 27, 2006) and was conducted by a licensed State of Indiana water well drilling contractor. The work is summarized in an Earth Tech memo dated November 16, 2007.

### **3 Groundwater and Surface Water Monitoring**

#### **3.1 MONITORING WELL SAMPLING**

Monitoring locations utilized as part of the routine site-wide groundwater monitoring network are listed in Table 3-1. A total of 33 monitoring wells are now sampled, including MW 86 and MW 88 which were added this year based on recommendations contained in the 2010 annual report. Monitoring wells shown on the semiannual list were sampled in April 2011. All monitoring wells shown on the semiannual and annual lists were sampled in October 2011.

All monitoring well samples were collected using a low-flow rate purging and sampling strategy employing downhole two-inch submersible pumps that are dedicated to this project. Monitoring wells were sampled utilizing Teflon®-lined pump discharge tubing dedicated for each well. This tubing is cleaned and stored off-site between sampling events.

Well casings were purged prior to sampling. Geochemical stabilization parameters were recorded after each successive screen volume was removed. Those parameters include pH, temperature, dissolved oxygen content (DO), conductivity, oxidation-reduction potential (ORP), and turbidity. All field parameters were obtained using a multi-parameter meter and flow-through cell. Samples submitted for dissolved metals were field filtered through a 0.45 micron high capacity in-line filter. All field notes were recorded in a field logbook and on a purging and sampling field data form. Samples were shipped to Test America, North Canton, Ohio for analysis.

Field and analytical methods used during the site-wide groundwater monitoring program are presented in Table 3-2. All groundwater samples in 2011 were analyzed for TCL VOCs using U.S. EPA Method 8260B. Field sampling sheets are provided in Attachment A.

#### **3.2 SURFACE WATER SAMPLING AND ANALYSIS**

Surface water samples were collected in April, August, and October 2011 from the central irrigation pond located southeast of MW 85 on the Meadowbrook Golf Course. Samples were collected from a location near the irrigation water intake (Pond Intake) and also from a location closest to MW 85 (Pond North). Each surface water location was sampled with a clean polyethylene dipper or direct immersion of the sample container. All surface water samples were analyzed for TCL VOCs using U.S. EPA Method 8260B (Table 3-2).

#### **3.3 WATER LEVEL MEASUREMENTS**

Water level measurements were made during both the April (April 18) and October (October 3) monitoring events. The October event was site-wide in nature and involved measurement of water levels at all accessible monitoring wells. A few wells could not be located or were not accessible at this time. Unlocated wells appear to have been covered during the site demolition, and will be recovered from field survey coordinates.

Groundwater level measurements were made using direct reading electronic water level indicators.

#### **3.4 SAMPLE IDENTIFICATION**

Each sample was assigned a unique field sample identification (ID) number in accordance with the *GM REALM/ENCORE Data Management Program Instructions and Procedures for Simplified Scope of Work (SSOW) and Field Sampling Key, November 2004*). All sample ID numbers and corresponding sample locations were recorded in the field logbook. The ID number allowed “blind” sample submittal to the laboratory.

The ID number was comprised of a unique thirteen character sample name for each sample. The nomenclature for this ID used the following “XX-mmddy-AA-bbb” format:

- XX = two-letter acronym designating the sample matrix (e.g. GW – groundwater, SW – surface water and WQ – water quality matrix)
- mmddy = date in month / day / year
- AA = sampler’s first and last initials
- bbb = chronological number for event, starting with 001

Examples of the sample ID number for the site-wide monitoring include:

WG-062508-JD-001 (a groundwater monitoring well sample)

WS-062508-JD-002 (a surface water sample)

WQ-062508-JD-003 (a quality assurance blank sample)

### **3.5 EQUIPMENT DECONTAMINATION**

All non-consumable equipment that contacted contaminated groundwater was decontaminated in accordance with the Field Method Guidelines (FMGs) contained in the final Site-Wide Groundwater Monitoring Plan. All consumable equipment and non-hazardous solid wastes were treated as trash and disposed of off-site.

Each monitoring well was assigned a dedicated length of Teflon-lined pump discharge tubing. Tubing was delivered to the site properly decontaminated and sealed in polyethylene wrapping. Decontamination procedures for sampling pumps and reusable sampling equipment are presented in the conditionally approved Site-Wide Groundwater Monitoring Plan (AECOM, August 15, 2010).

### **3.6 INVESTIGATION DERIVED WASTE**

Monitoring well purge water and decontamination fluid investigative derived waste (IDW) generated during the semiannual and annual site-wide groundwater events was containerized in an on-site bulk polyethylene tank. A new non-hazardous waste profile for the IDW was developed in early 2011. Two bulk samples from the tank contents was analyzed for VOCs and found to be RCRA non-hazardous. The tank contents were removed for appropriate off-site disposal on April 19 and December 8, 2011 by Heritage Environmental Services, Indianapolis.

## 4 Results

This section discusses the results obtained from the site-wide groundwater monitoring program in 2011. A brief discussion regarding data verification and validation is presented in Section 4.1. Section 4.2 presents potentiometric surface mapping results. Groundwater and surface water analytical results are discussed in Sections 4.3 and 4.4.

### 4.1 DATA VERIFICATION AND VALIDATION

External independent verification and validation of analytical data collected during site-wide groundwater monitoring was performed for all samples by Conestoga-Rovers & Associates. Data validation reports are provided in Attachment B.

The validated data are flagged with appropriate external data validation codes. Data were assigned the following codes, as appropriate:

|    |   |
|----|---|
| J  | Estimated value   |
| R  | Rejected value  |
| U  | Non-detect at associated value  |
| UJ | The analyte was not detected above the sample quantitation limit. The reported quantitation is an estimated quantity. |

The data validation codes are included in the analytical data tables and drawings that accompany this report.

### 4.2 POTENTIOMETRIC SURFACE MAPPING

Water level measurement data for each 2011 monitoring event are provided in Table 4-1. A dash (-) in the table indicates that the water level was not measured during that event. Potentiometric surface maps of Unit 3S, Unit 3D, and the bedrock aquifer for April are shown in Figure 4-1 to Figure 4-3. Potentiometric surface maps of Unit 3S, Unit 3D, and the bedrock aquifer for October are shown in Figure 4-4 to Figure 4-6. Water levels in all accessible site monitoring wells were measured during the October event, and these data provide comprehensive site-wide potentiometric detail.

Potentiometric mapping of the Unit 3S data are provided in Figure 4-1 and Figure 4-4. Water levels measured during the April event were generally higher than those measured during October. Data from both events indicate a general northeasterly gradient across the site. The gradient steepens and is directed more to the east or southeast at the eastern edge of the Unit 3 Confining Bed near MW 68. This steepening occurs at the margin of the relict glacial meltwater valley where the Unit 3 confining bed is absent.

Data from the October event again indicates the presence of a prominent groundwater mound, or ridge in Unit 3S that extends in a north-south arc from the MW 46 area on the south to about MW 29 on the north. As discussed in previous annual reports, this groundwater high appears to separate the AOC-1 South Court and WWTP area plumes. The AOC-1 South Court plume extends beneath the former Main Plant Building and affects several monitoring wells including, from south to north, MW 79, MW 60, and MW 51. In contrast, the Unit 3S monitoring wells along the arc including MW 46, MW 16, MW 84, MW 59, and MW 29 have not shown any significant VOC contamination.

Potentiometric mapping for Unit 3D data are provided in Figure 4-2 and Figure 4-5. The Unit 3D map is consistent with previous potentiometric surface mapping. A general eastward gradient is indicated toward former Plant 9 and into the relic meltwater valley east of MLK Boulevard (see Section 2.2.3). Groundwater flow into the meltwater valley also occurs from the east based on water level data from MW 87, MW-3, MW-5, and MW-7. The potentiometric surface elevation at Unit 3D monitoring wells MW 86 and MW 88 within the northern portion of the meltwater valley is lower than that at any of the other Plant 9 or Meadowbrook Golf Course wells.

A low groundwater divide appears to occur in the mid portion of the valley near MW 58, MW 64, and MW 66. Areas to the north ultimately drain toward White River, whereas areas to the south, including the Meadowbrook Golf Course, drain to the south toward Stanley Ditch. The groundwater divide appears to mirror the surface water drainage divided noted in Section 2.2.2.

Water levels at the central irrigation pond at Meadowbrook Golf Course consistently track with water levels in adjacent monitoring wells (Figure 4-2 and Figure 4-5) indicating that the pond is groundwater fed.

There are seven bedrock monitoring wells at the site. Levels in all seven wells were measured during both 2011 monitoring events (Figure 4-3 and Figure 4-6). The bedrock water level data continue to indicate an easterly gradient.

### **4.3 SAMPLING RESULTS**

Analytical results for VOC groundwater sampling in 2011 are presented in Table 4-2. Surface water data for the two Meadowbrook Golf Course pond sampling locations are presented in Table 4-3.

Analytical results for VOC constituents are presented in databox form in Figure 4-7 and Figure 4-8. Data for all sampling events from 2008 to present for wells in the groundwater sampling program are included. Excluding chlorobenzene, styrene, and tetrachloroethene, the VOC parameter list shown in Figure 4-7 and Figure 4-8 includes any VOC compound that has exceeded conservative screening criteria at any well or surface water location during any sampling event. The screening criteria are shown in the figure, and sample results that exceed any of the screening criteria are highlighted in green. The screening procedure is explained in Section 4.3.1

As noted in previous annual reports, chlorobenzene, styrene, and tetrachloroethene were detected in one June 2008 groundwater sample at MW 40 (WG-062608-JD-007) at concentrations over the drinking water criteria. Chlorobenzene and styrene have only been detected in this one sample, and the reported concentrations of 0.15 mg/L (with qualifier J – estimated value below reporting limit) and 0.14 mg/L (also with qualifier J), respectively, are only slightly higher than the drinking water criteria of 0.1 mg/L. Both results were well below the sample reporting limit of 1.0 mg/L. Tetrachloroethene has been detected in only one groundwater sample at the site since 2008. This detected concentration (0.43 mg/L with qualifier J in the June 2008 MW 40 sample) exceeded the drinking water criteria of 0.005 mg/L. Again the reported concentration of 0.43 mg/L was well below the sample reporting limit of 1.0 mg/L. Chlorobenzene, styrene, and tetrachloroethene were not detected in the subsequent events. For these reasons, chlorobenzene, styrene, and tetrachloroethene are not included in Figure 4-7 or Figure 4-8. A note of explanation is provided in Figure 4-8.

#### **4.3.1 Risk-Based Screening**

A conservative risk-based screening was performed on the groundwater and surface water data collected during the site-wide groundwater monitoring program in 2011. The data were compared to

conservative risk-based screening criteria based on potential exposure scenarios that were evaluated in the Final RFI Report even though some of the scenarios, such as potable use of groundwater, do not exist currently and are not reasonably expected in the future. The results of the comparisons are presented in a series of screening summary tables (Table 4-4 to Table 4-9).

The groundwater monitoring data collected from areas where current and reasonably expected future land use is commercial/industrial were screened against the following conservative criteria: 1) state and federal maximum contaminant levels (MCLs) established under the Safe Drinking Water Act and equivalent drinking water limits for constituents without MCLs; 2) occupational and risk-based vapor intrusion criteria for industrial buildings; and 3) risk-based criteria for construction worker contact with groundwater. The equivalent drinking water limits are generic risk-based drinking water concentrations calculated using conservative, standard default exposure factors for estimating high-end exposures through daily drinking water consumption. The groundwater vapor intrusion criteria are calculated using generic industrial building parameters and site-specific soil properties and groundwater depth. The groundwater contact criteria are risk-based criteria calculated using exposure factors for estimating exposure of workers who could contact shallow groundwater during subsurface construction activities. Derivation of these screening criteria is presented in the Final RFI Report. Sampling points screened against these criteria are highlighted in orange in Figure 4-8.

Groundwater data collected from areas where current and reasonably expected future land use is not commercial/industrial were screened against the same drinking water and groundwater contact criteria discussed above, as well as risk-based groundwater vapor intrusion criteria for residential buildings and risk-based groundwater criteria for non-potable residential use (based on a “kiddie” pool exposure scenario which represents a reasonable worst-case among typical non-potable uses). Derivation of these screening criteria is presented in the Final RFI Report. Sampling points screened against these criteria are highlighted in blue in Figure 4-7.

All risk-based groundwater screening criteria are based on a target cancer risk of  $10^{-5}$  and non-carcinogen hazard quotient (HQ) of 1. Derivation of all the screening criteria used to evaluate the 2011 groundwater monitoring data was presented in Section 5 and Attachment C of the Final RFI Report.

As discussed in the Revised Final RFI Report (Earth Tech and ENVIRON, July 8, 2011), a potentially significant release to groundwater is identified when the highest concentrations of constituents detected at each investigative area are higher than any of the screening criteria. The presence of groundwater with constituent concentrations higher than the screening criteria does not mean that the groundwater necessarily poses an unacceptable risk; it only means that the potential for the groundwater to pose an unacceptable risk should be further evaluated considering spatial and temporal distributions of the groundwater data in this area and additional site-specific factors.

Table 4-4 summarizes the 2011 groundwater monitoring data for the areas where current and reasonably expected future land use is commercial/industrial. Table 4-5 summarizes the 2011 groundwater monitoring data for areas where current and reasonably expected future land use is not commercial/industrial. These tables also show the ratios of the highest detected concentrations to the corresponding screening criteria. A potentially significant release to groundwater is identified by ratios of the highest concentrations to the screening criteria that exceed 1. It should be noted that although the screening criteria used for identifying a potentially significant release to groundwater include drinking water criteria, a potable well survey of the area was performed previously and no off-site potable well impacts were identified (see Section 3 of the Final RFI report).

Table 4-6 lists the concentrations of VOCs in samples collected in 2011 that exceed at least one of the screening criteria for areas where current and reasonably expected future land use is commercial/industrial. Seven VOCs (1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, toluene, 1,1,1-TCA, TCE, and VC) have at least one concentration that exceeds the drinking water screening criteria. One VC concentration in groundwater collected at MW 8 in April is slightly higher than the construction worker groundwater contact criteria. No constituent has a concentration in groundwater that is higher than the screening criteria based on vapor intrusion.

Table 4-7 lists the VOC concentrations in samples collected in 2011 that exceed at least one of the screening criteria for areas where current and reasonably expected future land use is not commercial/industrial. Five VOCs (1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, TCE, and VC) have at least one concentration that exceeds the drinking water screening criteria. VC is the only chemical with concentrations above the non-potable groundwater use criterion. These VC concentrations were found at MW-4, MW 58 and MW 85. No constituent has a concentration in groundwater that is higher than the screening criteria based on vapor intrusion or construction worker groundwater contact.

Generic risk-based screening criteria for evaluating the significance of potential exposure to surface water in man-made ponds are not well established. Therefore, as a conservative approach, the surface water monitoring data collected in 2011 from Meadowbrook Golf Course were compared with the groundwater screening criteria for non-industrial/commercial areas described above. The screening results of the surface water data are presented in Table 4-8 and Table 4-9, and are also shown in Figure 4-7.

VC is the only constituent in pond surface water that had concentrations above the drinking water screening criteria in 2011. No constituent has a concentration in pond surface water that exceeds the non-potable groundwater use criterion based on the kiddie-pool scenario or the construction worker contact criteria.

#### **4.4 SIGNIFICANT FINDINGS**

TCE, cis-1,2-DCE and VC remain the primary constituents associated with the VOC plumes, and most of the exceedences noted in Table 4-6 and Table 4-7 relate to these compounds. The only exceedences that occur for BTEX compounds are for toluene at the Unit 1 monitoring well MW 31R. Sub-attachment C-1 presents time-series plots for TCE, cis-1,2-DCE, and VC for all monitoring locations that were sampled in 2011 (a total of 35).

##### **4.4.1 AOC 1 – South Court Plume Wells**

The AOC 1 – South Court plume contains a high proportion of TCE, and most TCE screening exceedences are associated with wells near the AOC 1 – South Court source area (Figure 4-8).

The cis-1,2-DCE concentration at MW 49 in October 2011 was the highest recorded. These data indicate a slight expansion of the plume off-site, however, vinyl chloride results at this well appear to be declining from maximum values recorded in 2007 and 2008. The extent of the AOC 1 – South Court plume remains defined on the north and east sides by non-detect values for all VOC constituents at monitoring wells MW 37, MW 46, MW 75, and MW 76 as observed in October 2011.

MW 12, an intermediate Unit 3 depth monitoring well (Unit 3I), located west of the former Main Plant building, continues to show a long term decline in cis-1,2-DCE concentration, the principal VOC compound in this well. This well is located in an upgradient Unit 3D position Figure 4-2. VOC contamination was likely mobilized to this upgradient position as a result of historic

groundwater production well pumping at PW 11 and PW 12 which acted to reverse the normal eastward gradient. Pumping of these wells ceased in about 1989 when the facility converted to city water. Both production wells were plugged and abandoned in 2007. The decline in cis-1,2-DCE concentration since 1993 is likely attributable to the cessation of pumping.

#### **4.4.2 Former WWTP Area Plume**

The former WWTP Area plume east of MLK Boulevard is composed predominately of cis-1,2-DCE and vinyl chloride, and the most frequent exceedances of screening criteria occur for these compounds.

In 2011, several wells within the tail and marginal areas of the former WWTP area plume had the highest levels of vinyl chloride or cis-1,2-DCE yet reported. These include the Unit 3D wells MW 64, MW 66, and bedrock well MW 81. All of these wells exceed screening criteria.

Perimeter wells MW 56, MW 57, MW 61, MW 86, and MW 88 contained no VOC compounds above the reporting limit in 2011.

#### **4.4.3 Surface Water**

VC exceeding drinking water screening criteria was detected at both the Pond North and Pond Intake sampling locations in August and October. Time-series plots for these compounds are provided in Figure 4-9 and Figure 4-10. VC was previously detected at concentrations above the MCL in 2005, 2007, 2008, 2009, and 2010, and the vinyl chloride detections are consistent with previous monitoring at these locations.

## 5 Nature and Extent of Groundwater Contamination

This section presents an update of the nature and extent of groundwater contamination.

### 5.1 ISOCONCENTRATION MAPS

Figure 5-1 to Figure 5-3 show the concentrations of the principal VOC constituents TCE, cis-1,2-DCE and VC in groundwater for hydrogeologic unit 3S. These isoconcentration maps are based on October 2011 data and update those contained in the 2010 annual report. The October 2011 data for each well are posted on the maps. Each isoconcentration map also shows the relevant Unit 3S potentiometric surface as determined from the site-wide October 3, 2011 water level mapping event. Since the Unit 3S confining unit is absent in the area of former Plant 9 and portions of the Meadowbrook Golf Course, and Unit 3 is relatively thin in these areas, the VOC data from wells in these areas may be shown on the Unit 3S isoconcentration maps. Combining data in this manner provides a useful portrayal of the former WWTP Area plume from its source in the upper part of Unit 3 near MW 68 to its tail area occurrences at former Plant 9 and Meadowbrook Golf Course.

The isoconcentration maps are substantially similar to those generated in 2010. A minor difference occurs for TCE around MW-4 where the October 2011 data indicate a higher concentration. Differences occur for cis-1,2-DCE around MW 42, MW 65, and MW 68 where lower concentrations occur, and around MW 66 where a higher concentration occurs. Minor differences also occur for VC around MW 49 and MW 79 where the October 2011 data indicate lower concentrations, and around MW 64 and MW 66 where the October 2011 data indicate higher concentrations.

The isoconcentration maps continue to suggest that there are two separate VOC plumes (see Section 2.4). One plume is associated with AOC 1 – South Court and the second plume is derived from an apparent source area near MW 68. The plumes are separated by a series of Unit 3S wells where VOCs have not been detected, or have been detected only at very low levels (MW 16, 17, 37, 46, 59 and 84). Of these wells, MW 37 and MW 46 were sampled in 2011 and no VOC compounds were detected (Table 4-2). A persistent groundwater ridge in Unit 3S occurs along this line of wells (Figure 4-4), and this mound appears to serve as a hydraulic barrier separating the two plume areas.

The AOC 1 – South Court plume in Unit 3S extends in a northeast direction from AOC 1 – South Court (Figures 5-1, 5-2, and 5-3). The eastward extent of the plume appears to be limited by the groundwater mound noted in the preceding paragraph. The plume is bounded to the northeast by MW 76 which was sampled in October 2011 and continues to show no VOC compounds.

The former WWTP Area plume extends eastward from the apparent source area near MW 68 towards former Plant 9 and has migrated to the east to the vicinity of MW 64 and to the southeast to the vicinity of MW 85. This VOC plume is composed primarily of cis-1,2-DCE and the highest reported concentrations occur at MW 40, MW 42, MW 68, and MW-4 (Figure 5-2).

Prior to July 2006, MW 68, located just west of MLK Boulevard generally had the highest cis-1,2-DCE concentration in this plume and is inferred to be closest to the VOC source area. From December 2006 until April 2009 the highest cis-1,2-DCE concentration was generally found downgradient at MW 40. Since December 2009, the highest cis-1,2-DCE concentration has generally been found at MW-4, as indicated on the current isoconcentration map (Figure 5-2).

The former WWTP Area plume geometry is unusually wide in the north-south direction compared to its length in the east-west direction. This appears to be the result of the very low hydraulic gradients that occur within the central portion of the meltwater valley and the westward gradient that occurs in the eastern part of the valley (Figure 4-5 and Figure 5-2). The northeastern extent of the WWTP

Area plume is established by monitoring wells MW 86 and MW 88 where no VOC compounds were reported in 2011.

Vinyl chloride and TCE are subordinate components of the former WWTP Area plume. TCE is a relatively minor component even in the source area of this plume (Figure 5-1). The highest reported concentrations for VC occur downgradient at MW 40, MW-4, and MW 85 (Figure 5-3). The east edge of the former WWTP Area plume is marked by persistent occurrences of VC in Unit 3D wells MW 58, 64, 66, and 80.

## 5.2 STATISTICAL DATA EVALUATION

Pursuant to the approved *Site-Wide Groundwater Monitoring Plan* (AECOM, August 15, 2010) a statistical evaluation was conducted to assist in determining how the VOC plumes are changing.

Plume stability may be examined by testing a parameter data set for the presence of a significant increasing or decreasing temporal trend. Statistical trend evaluation was conducted for the three principal constituents of the VOC plumes (TCE, cis-1,2-DCE, and VC). The Mann-Kendall test was utilized in this evaluation. The Mann-Kendall test is frequently used to assess plume stability and long-term trends in monitoring data (Gilbert, 1987; EPA, July 1996), is the “default” method of data analysis utilized for stability monitoring in the IDEM Risk Integrated System of Closure (RISC) technical guidance document (IDEM, February 15, 2001), and is a prescribed method of plume analysis in the draft IDEM Remediation Closure Guidance (IDEM, May 2, 2011). The test is non-parametric, tolerates missing values, and does not rely on population distribution assumptions.

The statistical evaluation was conducted as follows:

3. Identification of wells and data sets
4. Examination of data sets for censored data and outliers
5. Statistical testing
6. Interpretation of test results

The statistical analyses are presented in Attachment C. Sub-attachment C-1 presents time-series plots for TCE, cis-1,2-DCE, and VC for monitoring locations that were sampled for VOCs in 2011 and for which there is more than one data point (a total of 35 locations). The trend analyses for TCE, cis-1,2-DCE, VC are presented in Sub-attachment C-2. Sub-attachment C-2 begins with a summary data table that summarizes the trend analysis results. The summary tables are followed by data plots for parameters at each well or surface water monitoring point sampled in 2011 for which a definite test result (*Increasing*, *Decreasing*, or *No Trend*) could be obtained. Trend test results are presented by compound in the order shown in the summary data table.

### 5.2.1 Identification of Wells and Data Sets

All wells sampled in 2011 for which there are four data points (the minimum necessary for Mann-Kendall analysis) were considered for statistical evaluation. Wells are located in both VOC plume areas. The Mann-Kendall test is most applicable if few non-detect values are present in the dataset (Helsel and Hirsch 1992, Gilbert 1987). Therefore, as outlined in the approved monitoring plan, statistical evaluation of trend was performed only in situations where the frequency of detect values was 75 percent or greater. For each well and constituent the frequency of detect values was determined and is shown on the summary table at the beginning of Sub-attachment C-2.

For the purpose of the trend analysis data from MW 31 and its replacement well MW 31R were pooled into a single data set. Field duplicate values were averaged.

### 5.2.2 Examination of Data Sets

Time-series data plots were examined to identify obvious outlier data points. An outlier test was then conducted to statistically evaluate the data point. To conduct the test, the data were log-transformed and ordered from lowest to highest. Next, an outlier test statistic was calculated by subtracting the sample mean and dividing by the sample standard. The statistic was compared to the critical “t” value at the 5% significance level, and a value of the statistic exceeding the critical “t” value is evidence of an outlier. Outlier test results are provided in Sub-attachment C-2.

Statistical outliers were evident in the TCE, cis-1,2-DCE, and vinyl chloride data for MW 3 collected on October 18, 2005, and for cis-1,2-DCE and VC for the December 2009 monitoring event at MW 8 and MW 14. These data were removed and not considered in the statistical evaluation.

### 5.2.3 Statistical Testing

Non-detect results (“U”-flag) were set at a constant value less than the lowest detected value in the dataset, including detections below the reporting limit (“J”-flag) (Gilbert, 1987). For this analysis, “U”-flag data were fixed at 0.0001 mg/L. This value is lower than any reported “J”-flag value in the data set. Values flagged “J” were considered detections for the purpose of statistical analysis and the estimated parameter value was utilized. For the example data set: 0.001 U, 0.00015 J, 0.002 U, and 0.003, the values used in trend analysis would be: 0.0001, 0.00015, 0.0001, and 0.003.

The Mann-Kendall trend tests were performed using *WQStat Plus v.9* statistical evaluation software. The *WQStat Plus* software utilizes a two-tailed test to detect either an upward or downward data trend and displays test results in terms of a critical value approach. Per the approved site-wide plan, a one-tailed test at a significance level of ( $\alpha$ ) of 0.10 was utilized. An  $\alpha = 0.10$  one-sided significance level is equivalent to a two-sided significance level of 0.2 ( $\alpha = 0.1$  per tail) as shown of the data plots in Sub-attachment C-2. If the computed S value is negative and less than the critical value there is evidence of a significant *decreasing* trend. If the computed S value is positive and greater than the critical value there is evidence of a significant *increasing* trend. Probability values for each test, given by Hollander and Wolfe (1973), are also given for reference in the summary data table at the beginning of Sub-attachment C-2.

### 5.2.4 Interpretation of Statistical Trend Test Results

A summary of the Mann-Kendall statistical analyses is presented in Table 5-1. This table notes whether there are statistically significant increasing or decreasing trends, or alternatively, whether there is no trend, or the trend is not determinable due to the frequency of detect values. This list of locations shown in Table 5-1 includes all wells that were sampled in 2011 and for which a minimum of four independent samples have been collected. At 90 percent confidence, the number of *decreasing* trends (15) predominates over the number of *increasing* trends (12), or *no trend* determinations (12). Overall, the 2011 analysis represents an improvement over 2010 when 10 *decreasing* trends, 13 *increasing* trends, and 16 *no trend* determinations were noted.

The trend analysis results are color-coded on the isoconcentration maps (Figure 5-1 to Figure 5-3). Posted well symbols, designations, and concentration values in red indicate a statistically significant increasing trend, green indicates a statistically significant decreasing trend, and blue indicates that a significant trend does not exist.

Decreasing trends continue to predominate for wells monitoring the AOC 1 – South Court plume. Decreasing trends are apparent for TCE at MW 3, MW 12, MW 31/31R, and MW 8, for cis-1,2-DCE at MW 12, MW 14, and MW 31/31R, and MW 8, and for vinyl chloride at MW 14, MW 31/31R, and MW 79 (Table 5-1). Consistent with 2010, there are two increasing trends in AOC 1 – South Court plume wells. Increasing trends are noted for cis-1,2-DCE at MW 49 and MW 79 (Figure 5-2).

Several increasing trends are apparent in wells monitoring the former WWTP Area plume. Most of the increasing trends relate to VC within and along the tail margin of the plume (Table 5-1 and Figure 5-3, MW 40, MW 41, MW 42, MW 58, MW 64, MW 66, MW 81, and MW 85). An increasing trend for cis-1,2-DCE is also noted MW-4 and for TCE at MW 68.

### **5.3 PLUME STABILITY**

#### **5.3.1 AOC 1 – South Court Plume**

There are significant long term decreasing trends for several wells in and around the AOC 1 – South Court source area (MW 3, 8, 14, and 31/31R). Several of these wells are located in the general area of the 2005 MW 31 IM. Although the IM may have had some impact on VOC levels in these wells, the decreasing trends are long term and predate the IM. MW 8 which is located several hundred feet upgradient of the IM area has shown a consistent decreasing trend for cis-1,2-DCE.

There are also significant decreasing trends associated with the western margin of this plume monitored at Unit 3I monitoring well MW 12 (Table 5-1). This well is located upgradient of the AOC 1 – South Court source area and it appears to have been impacted by VOCs as a result of ground water pumping and hydraulic gradient reversal. This pumping was discontinued about 1989 and the well has shown consistent declines in TCE and cis-1,2-DCE since 2001.

The only significant increasing trends associated with any well monitoring the AOC 1 – South Court plume are for cis-1,2-DCE at MW 49 and MW 79. The October 2011 value is the highest recorded for MW 49. Some water level monitoring events indicate that MW 49 is located in a Unit 3S downgradient position from the southern part of AOC 1 – South Court plume, whereas other events, such as October 2011, indicate a more side gradient position (Figure 5-2) with northeasterly migration of the plume limited by the persistent groundwater high that extends from MW 29 to at least as far south as MW 46. The cis-1,2-DCE data indicate a slight expansion of the plume off site, however, vinyl chloride results at this well appear to be declining from maximum values recorded in 2007 and 2008.

The increasing trend for cis-1,2-DCE at MW 79 was first apparent in 2009 when adequate data for trend testing became available. Results for 2011 are comparable to late 2009 and 2010.

#### **5.3.2 Former WWTP Area Plume**

The principal VOC within the former WWTP Area plume is cis-1,2-DCE. A decreasing trend for the compound continues at the presumed source area plume near MW 68. This decreasing trend is now also noted at MW 42 to the northwest (Figure 5-2). As noted in Section 5.1, the highest concentration of cis-1,2-DCE within the plume is now located downgradient of MW 68 at MW-4. It may also be noted that while MW 68 shows a decreasing trend for cis-1,2-DCE, an increasing trend is noted at MW-4. MW 40, located between these wells, appears to have had a maximum cis-1,2-DCE concentration in late 2007 and early 2008, and values have significantly decreased since that time. Overall, these data suggest that contaminant flux to the former WWTP plume source area has been reduced, or is no longer active, and the zone of maximum cis-1,2-DCE concentration is migrating downgradient in the general direction of the golf course irrigation pond.

The increasing trend noted for VC at several wells monitoring the eastern tail area of the former WWTP Area plume indicates a continued expansion of this plume. The most noteworthy area of plume expansion is near MW 64 and MW 66 on the Plant 9 property. The October 2011 values for VC were the highest ever recorded for these wells. The plume expansion appears to be mainly in an easterly and southeastern direction. A decreasing VC trend is noted at MW 80 in the northern portion of the plume. The plume expansion to the southeast may be facilitated by irrigation pumping on the Meadowbrook Golf Course.

East of MLK Boulevard, the former WWTP Area plume occupies an area characterized by a low and variable hydraulic gradient in the glacial meltwater valley (Figure 4-5). The low gradient likely accounts for the unusual width of the plume compared to its length. The eastern boundary of the plume occurs near the hydraulic axis of the meltwater valley and roughly along a north-south line from MW 58 on the south to MW 86 on the north (Figure 4-2 and Figure 4-5). East of this line, the natural gradient is directed back to the west, as evidenced by the potentiometric surface map. The gradient reversal across the width of the valley may effectively control further significant eastward migration of the plume. Gradient mapping (Figure 4-2) continues to suggest that groundwater within the valley drains both to the northeast toward MW 86 and southwest toward Stanley Ditch. The extent of the former WWTP Area plume remains defined in these downgradient directions by less-than-reporting-limit values for all VOC constituents at monitoring wells MW 56, MW 57, MW 61, MW 86, MW 88, and MW-2 as observed in October 2011.

## 6 Summary and Conclusions

### 6.1 GROUNDWATER MONITORING

Significant conclusions from the 2011 site-wide groundwater monitoring are outlined in the following.

1. Unit 3 and bedrock potentiometric surface mapping was conducted on April 18 and October 3. Water levels measured during the April event were generally higher than those measured during October. Data from both events indicate a general northeasterly gradient in Unit 3S across the site. Data from the October event again indicates the presence of a prominent groundwater mound, or ridge, in Unit 3S that extends in a north-south arc from the MW 46 area on the south to MW 29 on the north. VOCs have not been detected above reporting limit in wells along this arc (MW 46, MW 16, MW 84, MW 59, and MW 29), and the mound appears to explain the separation of the two VOC plumes on site.
2. The Unit 3D potentiometric mapping is consistent with previous mapping. A general eastward gradient is indicated toward former Plant 9 and into the relic meltwater valley east of MLK Boulevard. Groundwater flow into the meltwater valley also occurs from the east based on water level data from MW 87, MW-3, MW-5, and MW-7. The potentiometric surface elevation at Unit 3D monitoring wells MW 86 and MW 88 within the northern portion of the meltwater valley is lower than that at any of the other Plant 9 or Meadowbrook Golf Course wells. This indicates that groundwater flow within the meltwater valley in the north part of the Plant 9 property is toward the northeast. A low groundwater divide appears to occur in the mid portion of the valley near MW 58, MW 64, and MW 66 with more southern areas of the valley draining to the southwest.
3. There are significant long term decreasing concentrations for several wells in and around the AOC 1 – South Court source area (MW 3, 8, 14, and 31/31R). Several of these wells are located in the general area of the 2005 MW 31 IM. Although the IM may have had some impact on VOC levels in these wells, the decreasing trends are long term and predate the IM. MW 8 which is located several hundred feet upgradient of the IM area has shown a consistent decreasing trend for cis-1,2-DCE.
4. There are significant decreasing trends also associated with the western upgradient margin of the AOC 1 – South Court plume monitored at monitoring well MW 12. This decrease is long term and appears to relate to the cessation of groundwater pumping in this area in 1989.
5. The only significant increasing trends associated with any well monitoring the AOC 1 – South Court plume are for cis-1,2-DCE at MW 49 and MW 79. The October 2011 value is the highest recorded for MW 49. The cis-1,2-DCE data at MW 49 indicate a slight expansion of the plume off site, however, vinyl chloride results at this well appear to be declining from maximum values recorded in 2007 and 2008. Results for 2011 at MW 79 are comparable to late 2009 and 2010.
6. The extent of the AOC 1 – South Court plume remains defined on the north and east sides by non-detect values for all VOC constituents at monitoring wells MW 37, MW 46, MW 75, and MW 76 as observed in October 2011.

7. The principal VOC within the former WWTP Area plume is cis-1,2-DCE. A decreasing trend for this compound occurs close to the source area at monitoring wells MW 42 and MW 68. The highest concentration of cis-1,2-DCE now occurs at MW-4 downgradient of the presumed plume source area, and an increasing trend for cis-1,2-DCE at both this well and adjacent well MW 40 is now evident. Overall, these data suggest that contaminant flux to the former WWTP plume source area has been reduced, or is no longer active, and the zone of maximum cis-1,2-DCE concentration is migrating downgradient in the general direction of the golf course irrigation pond.
8. An increasing trend noted for VC occurs at several wells monitoring the eastern tail area of the former WWTP Area plume, and these data indicate continued easterly and southeasterly expansion of this plume. The most noteworthy area of plume expansion is near MW 64 and MW 66 on the Plant 9 property. The plume expansion to the southeast may be facilitated by irrigation pumping on the Meadowbrook Golf Course.
9. The extent of the former WWTP Area plume remains defined in these downgradient directions by less-than-reporting-limit values for all VOC constituents at monitoring wells MW 56, MW 57, MW 61, MW 86, MW 88, and MW-2 as observed in October 2011.

## 6.2 SURFACE WATER MONITORING

Significant findings from the 2011 surface water monitoring at the Meadowbrook Golf Course are outlined in the following.

1. Water levels at the central irrigation pond at Meadowbrook Golf Course track consistently with water levels in adjacent monitoring wells indicating that the pond is groundwater fed.
2. Three sampling events (April, July, and October) occurred at the surface monitoring points Pond Intake and Pond North at the Meadowbrook Golf Course central irrigation pond. VC exceeding drinking water screening criteria was reported at Pond North during each event and at Pond Intake in July and October.
3. Based on monitoring at adjacent monitoring well MW 85, the golf course irrigation pond appears to be within the former WWTP Area plume and the plume is expanding in the direction of the pond.

## 7 Recommendations

The following recommendations provided in the 2010 annual report were implemented in 2011. These included:

1. Perform annual site-wide potentiometric surface monitoring event (all accessible monitoring wells)
2. Perform annual VOC monitoring event at MW 86 and MW 88 to continue to provide delineation of the north end of the former WWTP Area plume.
3. Secure access to and install a soil boring and monitoring well east of MW 49 to assist in plume delineation in that area. Monitoring well MW89-11 was recently installed east of MW 49 to, in part, delineate the groundwater plume in that area. The field and analytical data related to MW89-11 installation and sampling will be reported to IDEM separately.

New recommendations based on 2011 monitoring data are:

1. Perform annual monitoring at new monitoring well MW89-11 for VOCs.
2. Install a staff gauge in the former stormwater pond near MW 54 / MW 55 and monitor the pond level on a semi-annual basis to determine its affect, if any, of shallow groundwater flow.

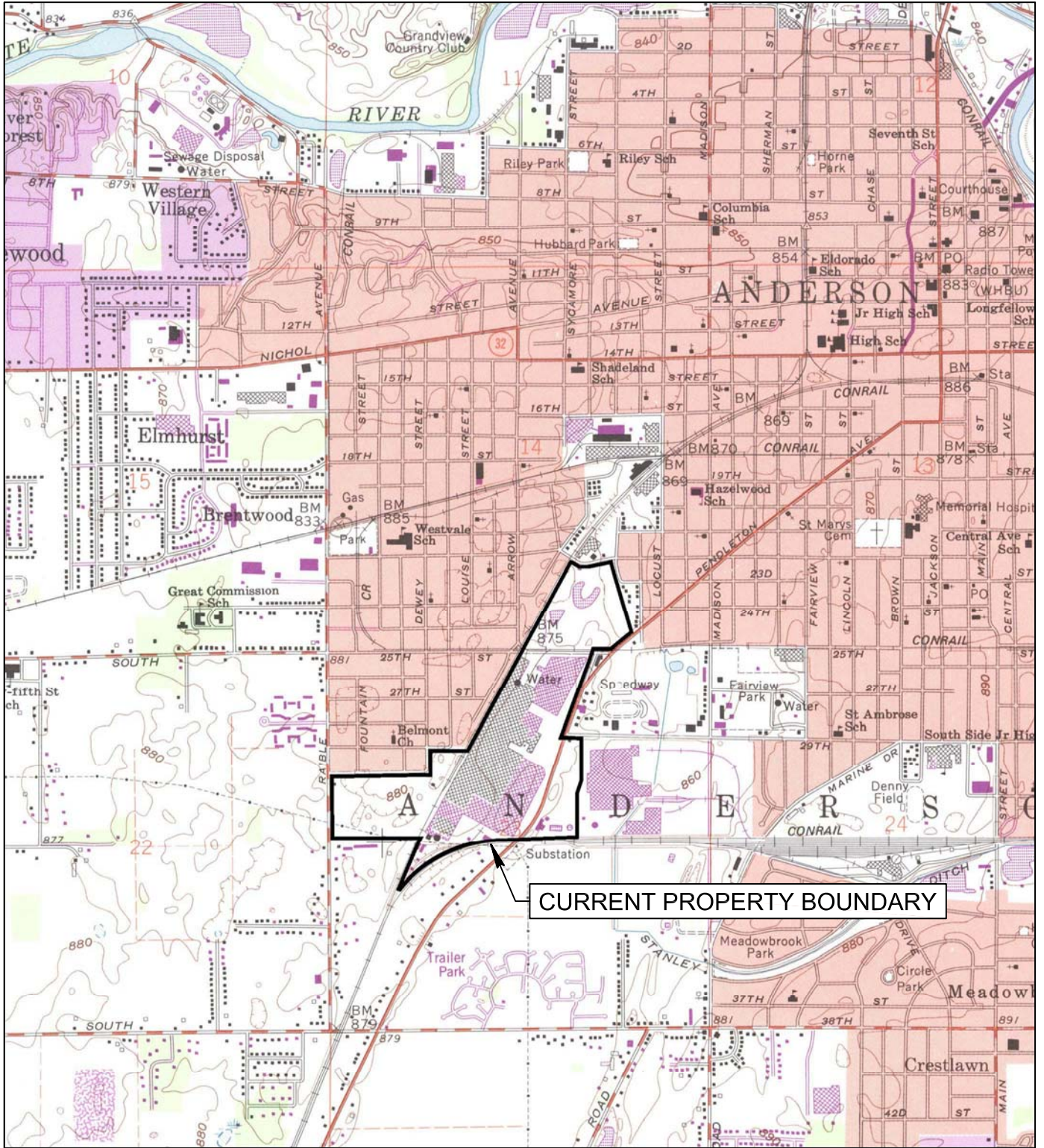
## 8 References

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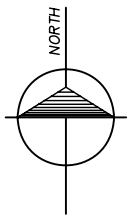
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-----, *Remediation Closure Guidance (Draft)* , May 2, 2011.



BASE TAKEN FROM USGS ANDERSON SOUTH, IND. 7.5' TOPOGRAPHIC QUADRANGLE.



### SITE LOCATION MAP

MOTORS LIQUIDATION COMPANY  
MLK BOULEVARD FACILITY

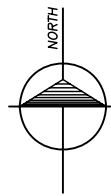
Date 01-11

Project No.  
60135322

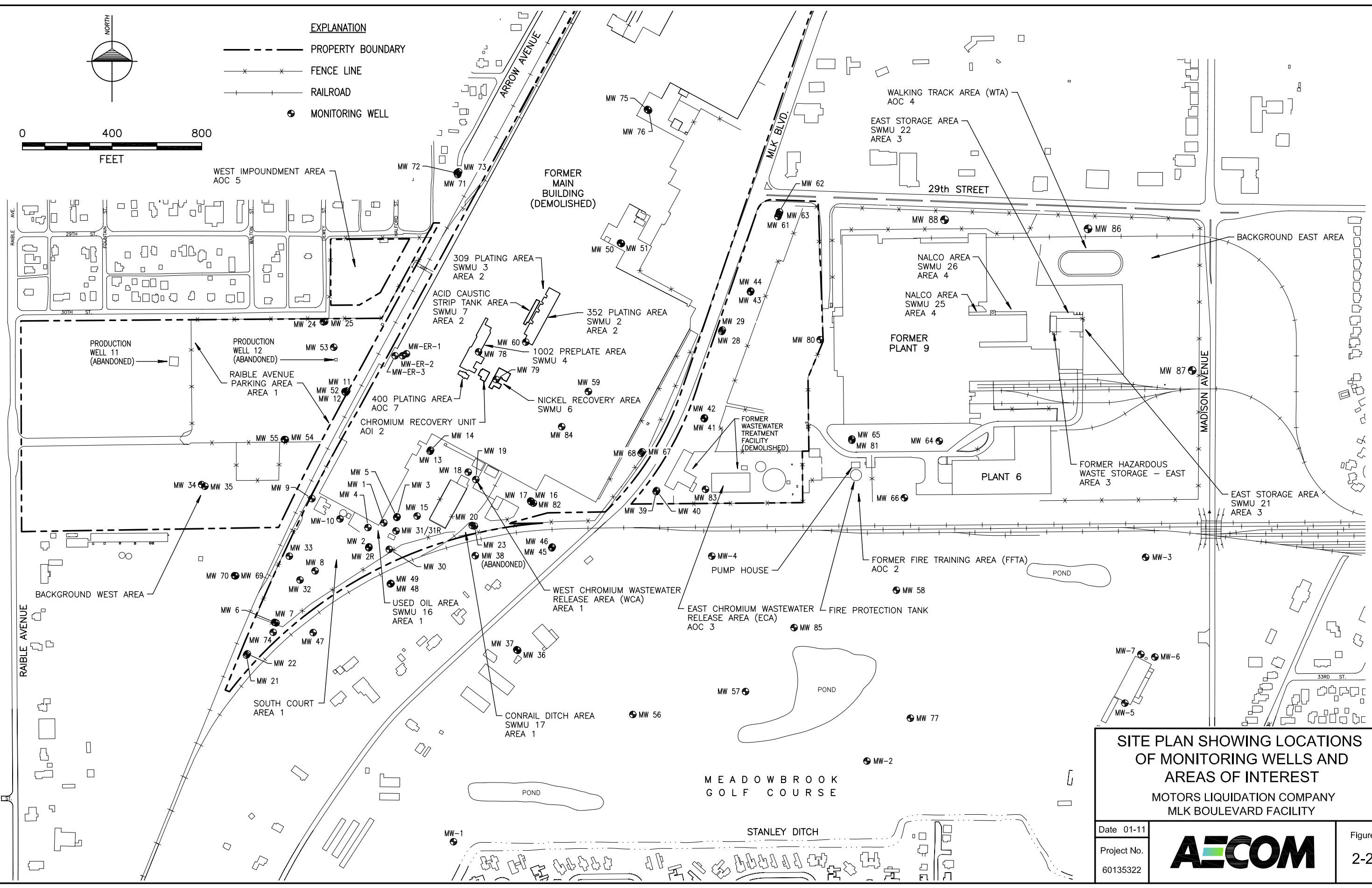


Figure  
2-1

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- EXPLANATION**
- PROPERTY BOUNDARY
  - x-x- FENCE LINE
  - |-|- RAILROAD
  - ⊕ MONITORING WELL



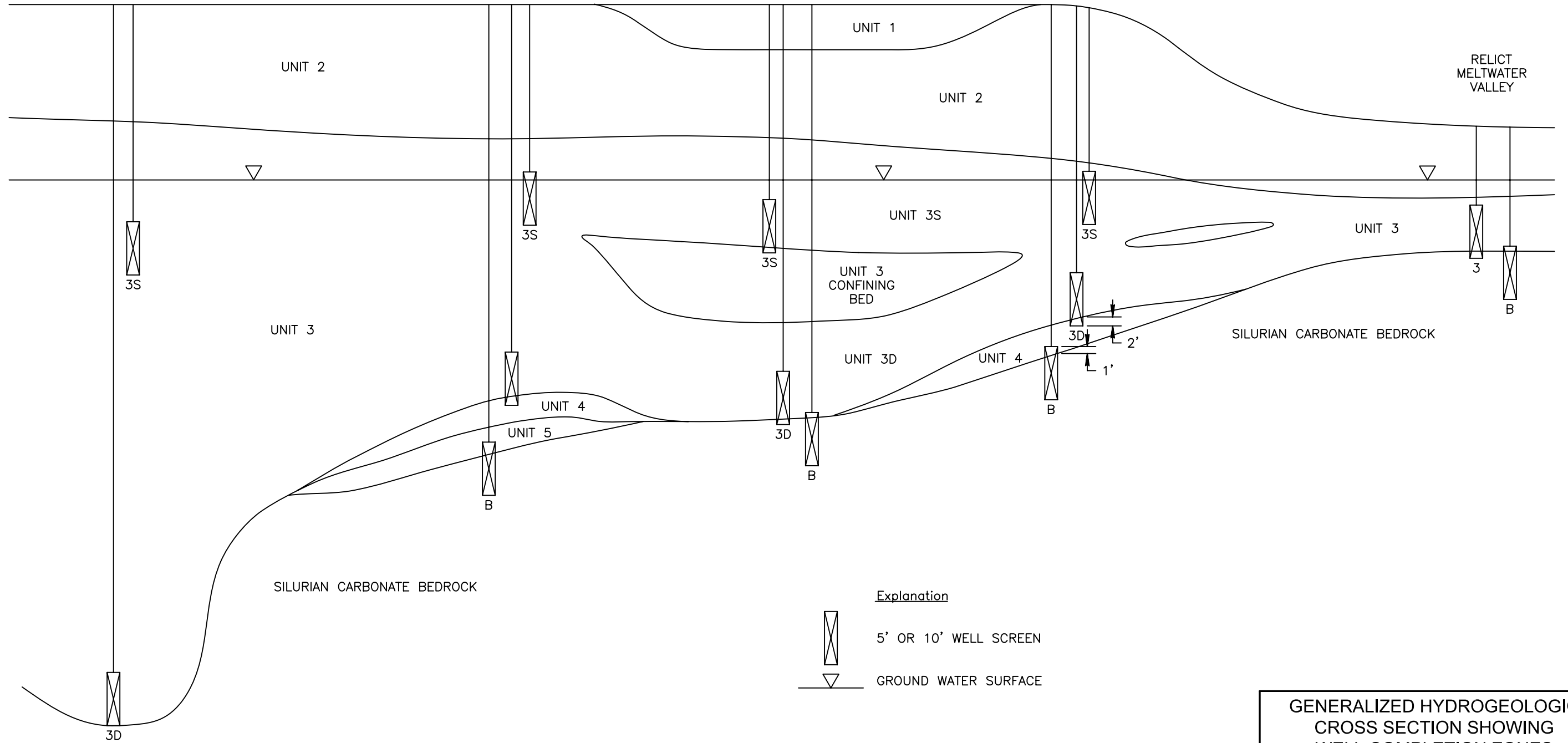
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|--|--|
| <b>SITE PLAN SHOWING LOCATIONS OF MONITORING WELLS AND AREAS OF INTEREST</b> |  |
| MOTORS LIQUIDATION COMPANY<br>MLK BOULEVARD FACILITY                         |  |
| Date 01-11   |  |
| Project No. 60135322   |  |
| Figure 2-2   |  |

WEST



EAST

BURIED  
BEDROCK  
VALLEY

RELICT  
MELT-WATER  
VALLEY



Explanation

-  5' OR 10' WELL SCREEN
-  GROUND WATER SURFACE

GENERALIZED HYDROGEOLOGIC  
CROSS SECTION SHOWING  
WELL COMPLETION ZONES  
MOTORS LIQUIDATION COMPANY  
MLK BOULEVARD FACILITY

Date 01-11

Project No.  
60135322

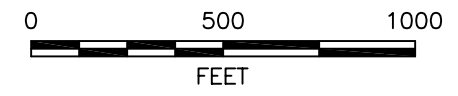
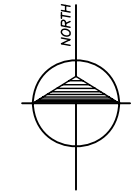
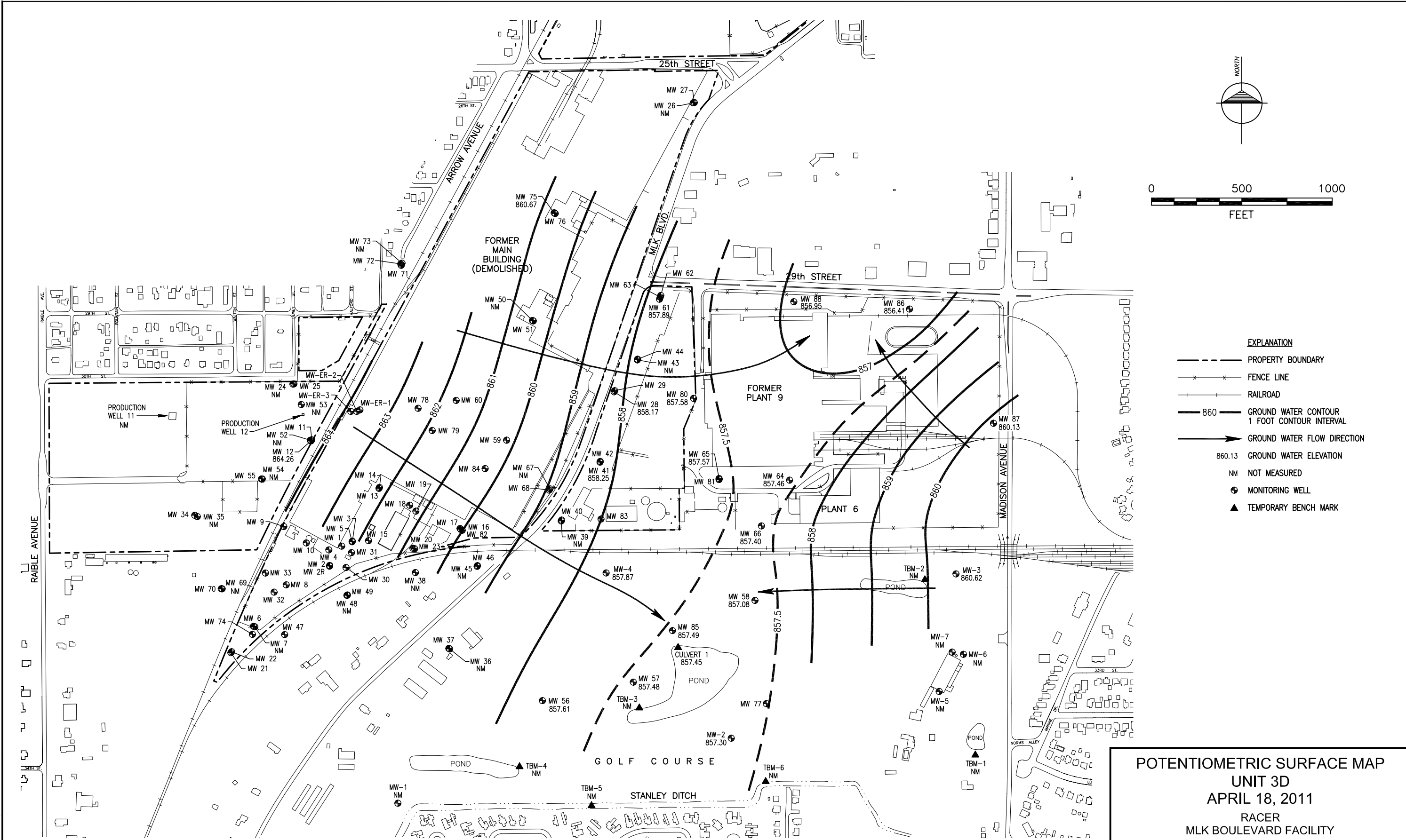


Figure

2-3



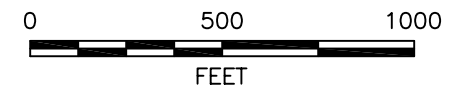
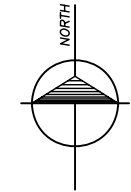
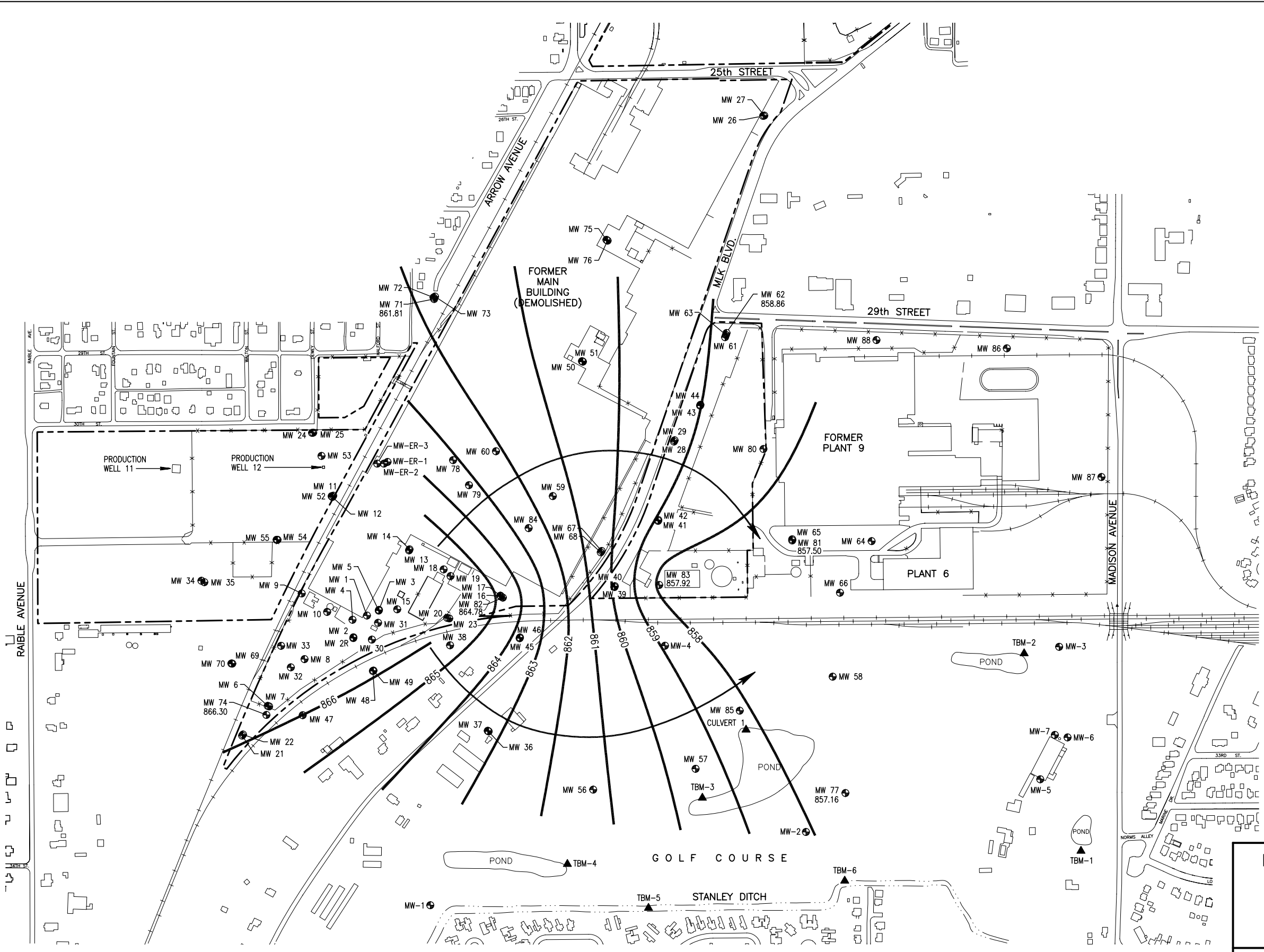
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- EXPLANATION**
- PROPERTY BOUNDARY
  - x-x- FENCE LINE
  - |-|- RAILROAD
  - 860 — GROUND WATER CONTOUR  
1 FOOT CONTOUR INTERVAL
  - GROUND WATER FLOW DIRECTION
  - 860.13 GROUND WATER ELEVATION
  - NM NOT MEASURED
  - ⊕ MONITORING WELL
  - ▲ TEMPORARY BENCH MARK

|   |  |
|---|--|
| <b>POTENTIOMETRIC SURFACE MAP</b><br><b>UNIT 3D</b><br><b>APRIL 18, 2011</b><br><b>RACER</b><br><b>MLK BOULEVARD FACILITY</b> |  |
| Date 12-11  |  |
| Project No.<br>60163563   |  |
| Figure<br>4-2   |  |

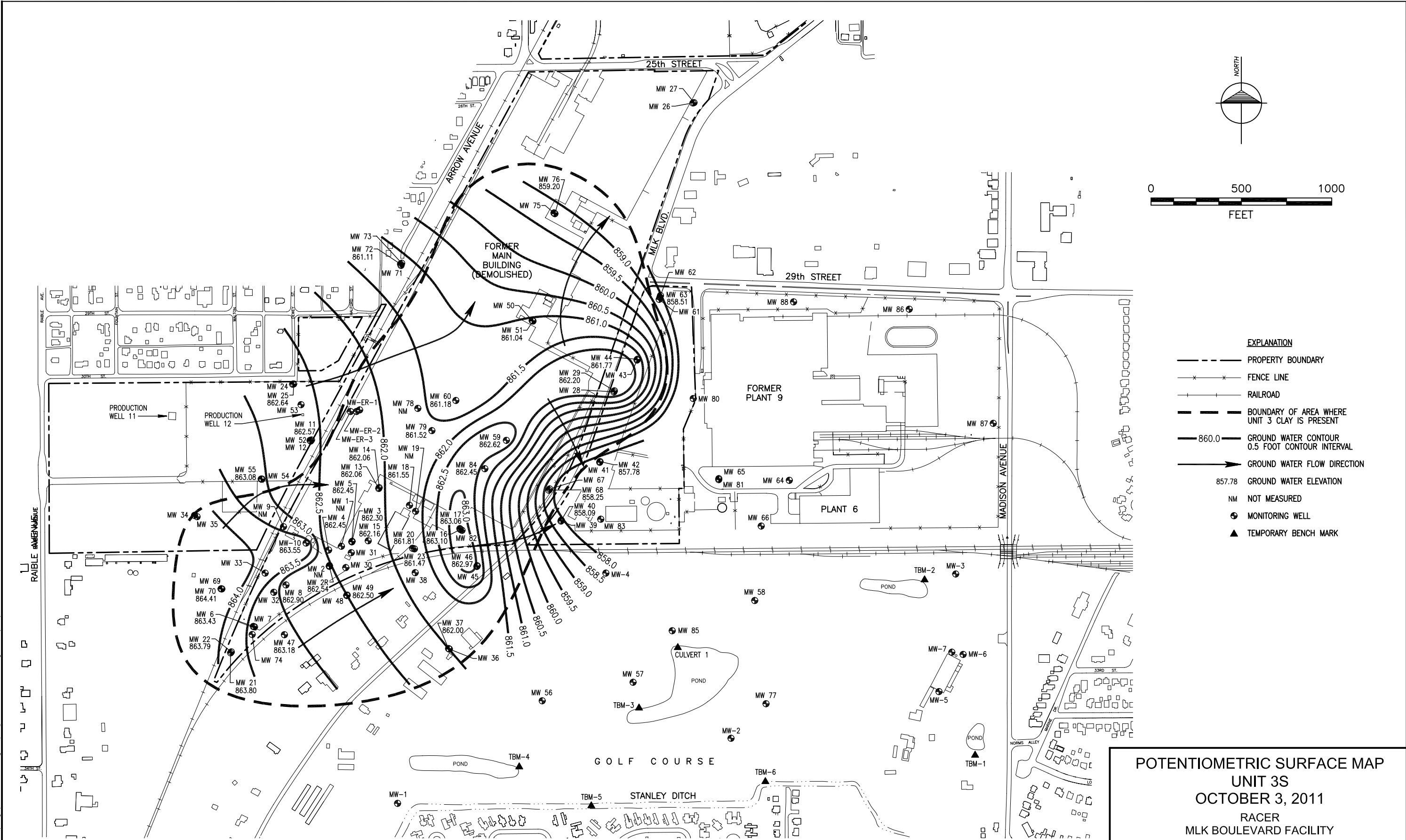
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- EXPLANATION**
- PROPERTY BOUNDARY
  - x-x- FENCE LINE
  - |-|- RAILROAD
  - 860 --- GROUND WATER CONTOUR  
1 FOOT CONTOUR INTERVAL
  - GROUND WATER FLOW DIRECTION
  - 857.50 GROUND WATER ELEVATION
  - ⊕ MONITORING WELL
  - ▲ TEMPORARY BENCH MARK

|   |  |
|---|--|
| <b>POTENTIOMETRIC SURFACE MAP<br/>BEDROCK<br/>APRIL 18, 2011<br/>RACER<br/>MLK BOULEVARD FACILITY</b> |  |
| Date 12-11  |  |
| Project No.<br>60163563   |  |
| Figure<br>4-3   |  |

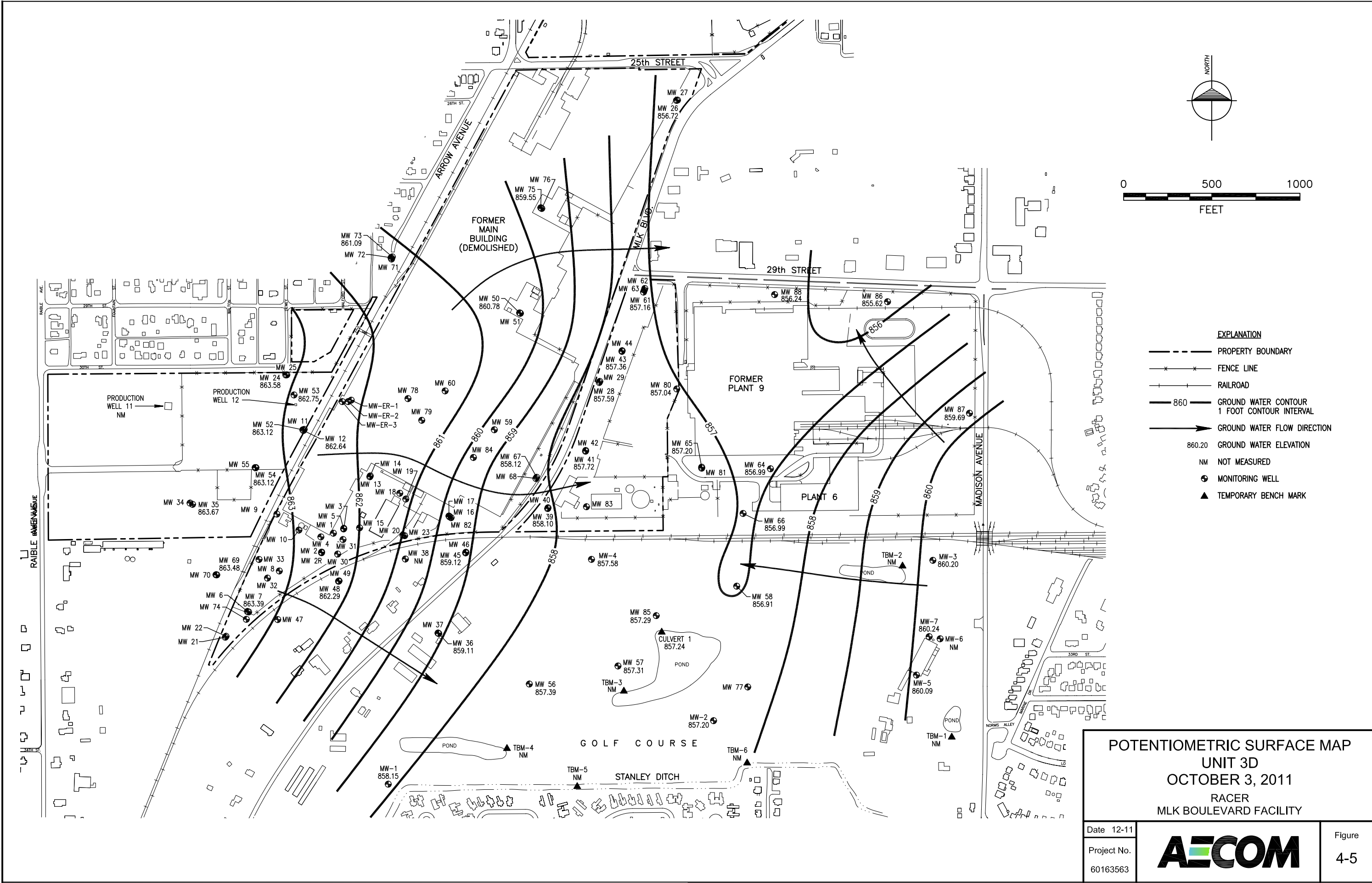
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- EXPLANATION**
- PROPERTY BOUNDARY
  - x-x- FENCE LINE
  - RAILROAD
  - - - BOUNDARY OF AREA WHERE UNIT 3 CLAY IS PRESENT
  - 860.0 — GROUND WATER CONTOUR 0.5 FOOT CONTOUR INTERVAL
  - GROUND WATER FLOW DIRECTION
  - 857.78 GROUND WATER ELEVATION
  - NM NOT MEASURED
  - ⊕ MONITORING WELL
  - ▲ TEMPORARY BENCH MARK

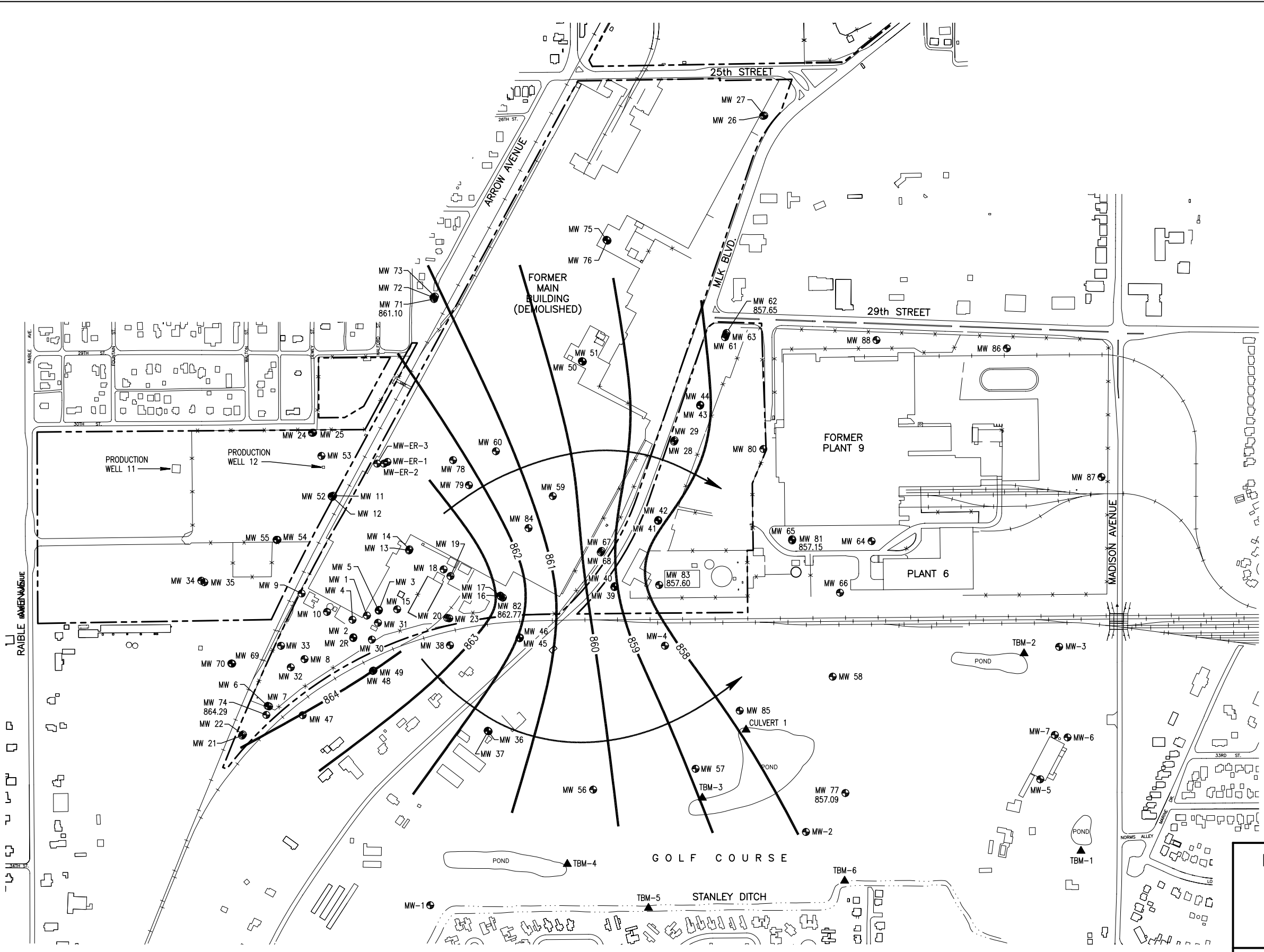
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|--|---|
| <b>POTENTIOMETRIC SURFACE MAP</b><br><b>UNIT 3S</b><br><b>OCTOBER 3, 2011</b><br><b>RACER</b><br><b>MLK BOULEVARD FACILITY</b> |   |
| Date 12-11   |  |
| Project No.  |   |
| 60163563   |   |
| Figure 4-4   |   |

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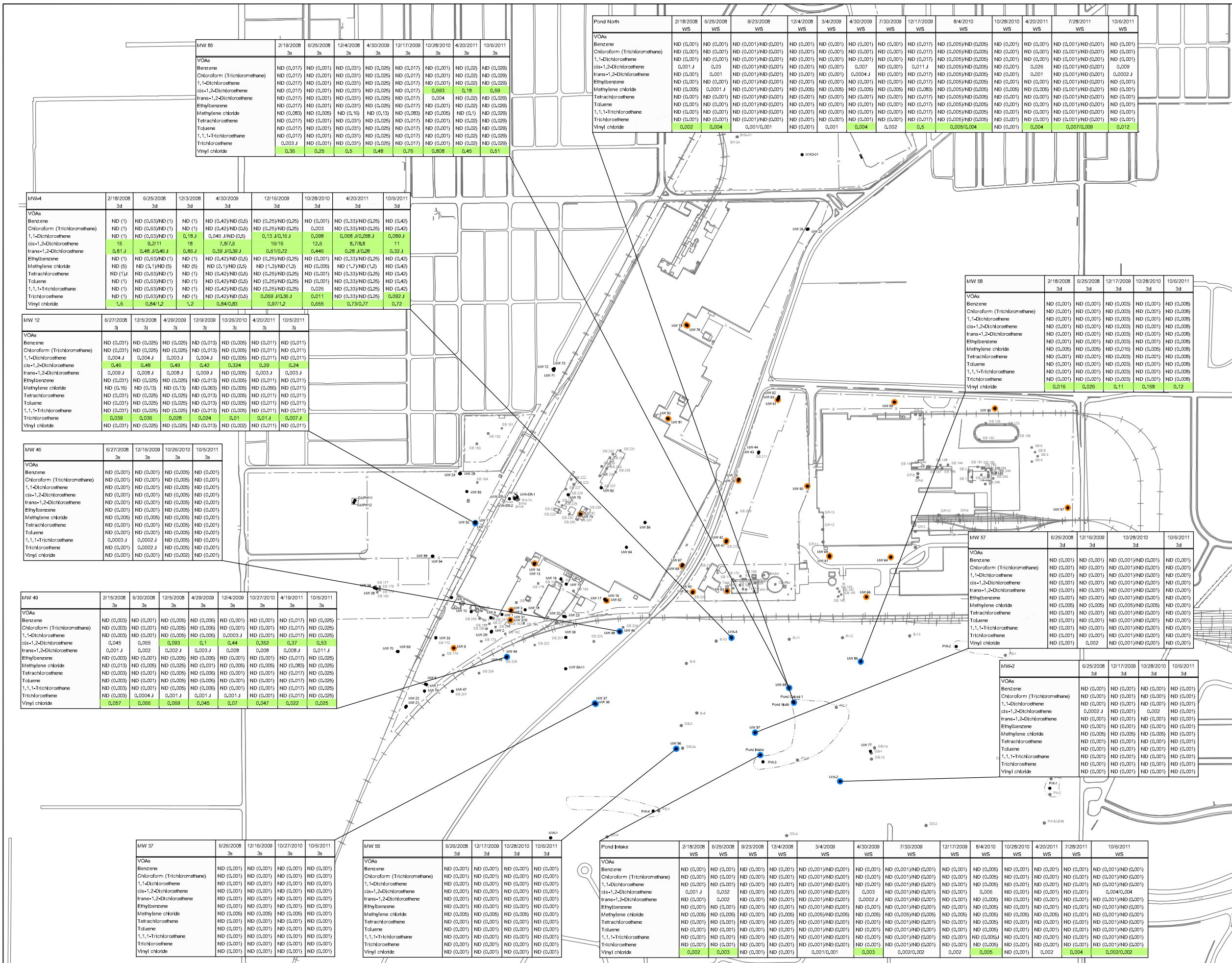
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|--|---|
| <b>POTENTIOMETRIC SURFACE MAP</b><br><b>UNIT 3D</b><br><b>OCTOBER 3, 2011</b><br><b>RACER</b><br><b>MLK BOULEVARD FACILITY</b> |   |
| Date 12-11   |  |
| Project No. 60163563   |   |
| Figure 4-5   |   |

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- EXPLANATION**
- PROPERTY BOUNDARY
  - x-x- FENCE LINE
  - |-|- RAILROAD
  - 860 --- GROUND WATER CONTOUR  
1 FOOT CONTOUR INTERVAL
  - GROUND WATER FLOW DIRECTION
  - 857.15 GROUND WATER ELEVATION
  - ⊕ MONITORING WELL
  - ▲ TEMPORARY BENCH MARK

|  |   |
|--|---|
| <b>POTENTIOMETRIC SURFACE MAP</b><br><b>BEDROCK</b><br><b>OCTOBER 3, 2011</b><br><b>RACER</b><br><b>MLK BOULEVARD FACILITY</b> |   |
| Date 12-11   |  |
| Project No.<br>60163563  |   |
| Figure<br>4-6  |   |



**LEGEND**

- PROPERTY BOUNDARY
- LOT LINE
- RAILROAD
- FENCE LINE
- BUILDING

**SAMPLE LOCATION**

**SAMPLE DATE**

**GEOLOGIC UNIT**

- WS - SURFACE WATER
- 1 - UNIT 1, PERCHED GROUNDWATER INTFL.
- 35 - UNIT 3, SPALLLOW GROUNDWATER IN UPPERMOST AQUIFER
- 31 - UNIT 3 INTERMEDIATE GROUNDWATER IN UPPERMOST AQUIFER
- 30 - UNIT 3 DEEP GROUNDWATER IN UPPERMOST AQUIFER
- B - BEDROCK GROUNDWATER IN BEDROCK AQUIFER

**CONCENTRATION (mg/L)**

**PARAMETER**

- Exceedance
- Sample Results Compared to Criteria A, B, E, and F (See Figure 4-5)
- Sample Results Compared to Criteria A, B, C, and D

**CHEMICAL CRITERIA**

| Chemical name                 | A        | B        | C        | D        | E        | F        |
|-------------------------------|----------|----------|----------|----------|----------|----------|
| 1,1,1-Trichloroethane         | 2.00E+01 | 1.50E+03 | 7.47E+02 | 1.35E+04 | 3.14E+04 | 1.80E+07 |
| 1,1-Dichloroethane            | 7.00E+08 | 1.40E+02 | 1.00E+02 | 9.00E+02 | 2.10E+03 | 1.40E+05 |
| Benzene                       | 5.00E+08 | 4.00E+00 | 1.20E+00 | 3.00E+01 | 9.00E+01 | 3.00E+04 |
| Chloroform (Trichloromethane) | 8.00E+02 | 2.10E+00 | 4.00E+01 | 1.50E+01 | 3.07E+01 | 1.00E+06 |
| cis-1,2-Dichloroethene        | 7.00E+02 | 2.10E+01 | 4.70E+01 | 4.70E+01 | 1.00E+03 | 1.00E+07 |
| Ethylbenzene                  | 7.00E+01 | 4.10E+02 | 8.00E+01 | 9.00E+01 | 2.00E+04 | 6.70E+06 |
| Methylene chloride            | 5.00E+08 | 8.00E+01 | 2.40E+01 | 1.10E+03 | 2.70E+03 | 2.70E+06 |
| Tetrachloroethene             | 3.00E+08 | 1.20E+01 | 1.70E+00 | 4.00E+01 | 1.30E+02 | 6.70E+06 |
| Toluene                       | 1.00E+00 | 2.20E+02 | 2.70E+02 | 4.17E+03 | 9.47E+03 | 1.20E+07 |
| trans-1,2-Dichloroethene      | 1.00E+01 | 4.10E+01 | 7.00E+01 | 3.00E+02 | 1.20E+03 | 9.40E+06 |
| Trichloroethene               | 5.00E+08 | 2.00E+01 | 4.20E+00 | 1.00E+02 | 3.00E+02 | 6.70E+06 |
| Vinyl chloride                | 2.00E+08 | 1.00E+01 | 4.00E+02 | 5.07E+01 | 1.00E+02 | 1.41E+06 |

**NOTES:**

- Parameters that do not appear in the database for a particular sample were not analyzed.
- Sample results rounded to three decimal places.
- Screening criteria and sample results are compared to two significant digits. Results equal to screening criteria are not highlighted as exceedances.
- MW 51, MW 76, and MW 78 were not sampled during the June 2008 event.

**SCALE VERIFICATION**

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

**MOTORS LIQUIDATION COMPANY  
ANDERSON, INDIANA**

**PENDELTON AVE/MLK BLVD SITE**

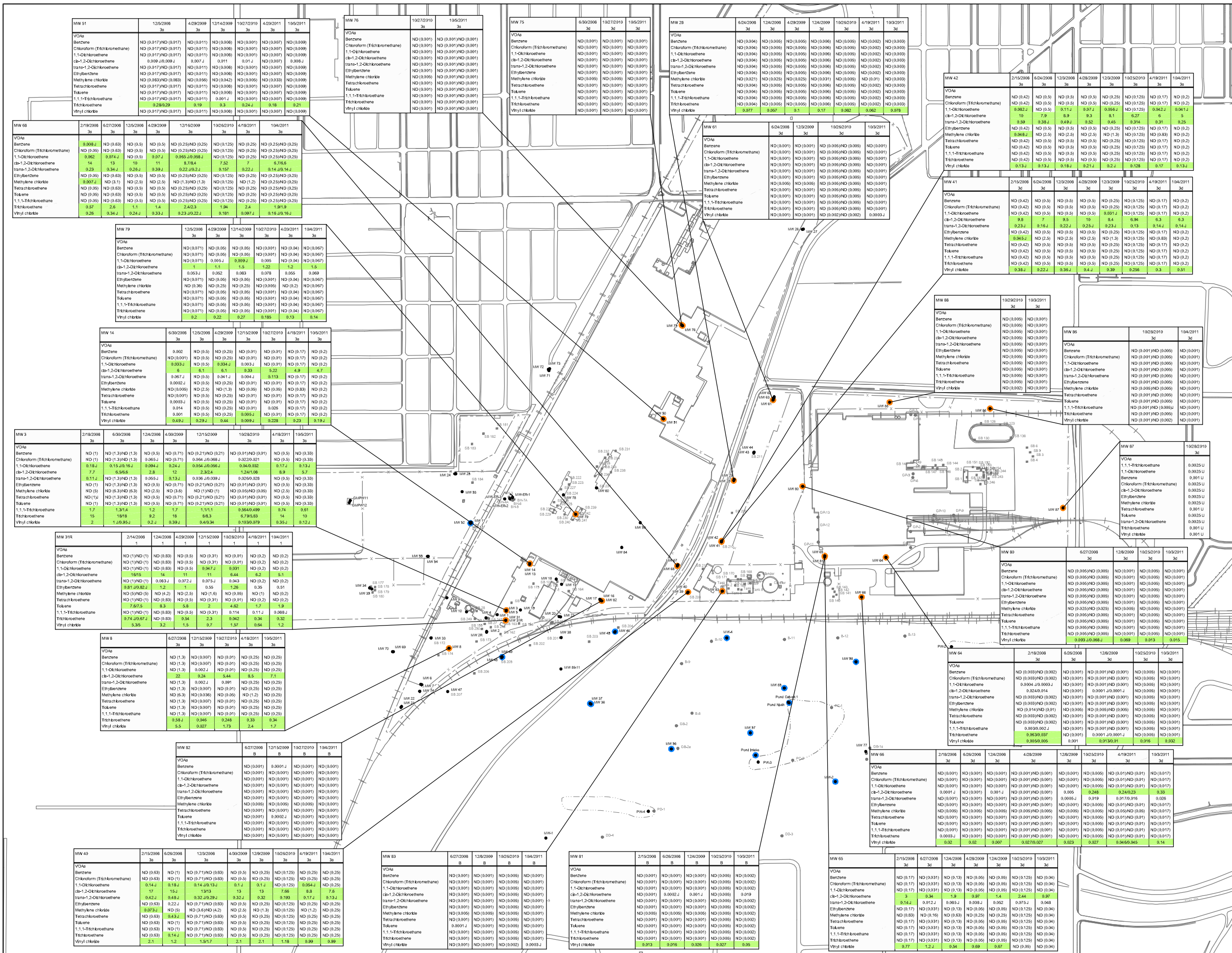
**GROUNDWATER/SURFACE WATER RESULTS  
VOCs - 2008-2011**

**CONESTOGA-ROVERS & ASSOCIATES**

Source Reference:

|                                   |                               |                       |
|-----------------------------------|-------------------------------|-----------------------|
| Project Manager:<br>S. RICHARDSON | Reviewed By:<br>S. RICHARDSON | Date:<br>JANUARY 2012 |
| Scale:<br>1"=300'                 | Project N°:<br>017302-00      | Report N°:<br>MEMO012 |
|                                   |                               | Drawing N°:<br>4-7    |

017302-00(MEMO012)GN-SC001 JAN 30/2012



### LEGEND

- PROPERTY BOUNDARY
- RAILROAD
- FENCE LINE
- BUILDING

**SAMPLE LOCATION**

**SAMPLE DATE**

**GEOLOGIC UNIT**

- W1 - SURFACE WATER
- U1 - UNIT 1, PERCHED GROUNDWATER INTFL.
- U2 - UNIT 2, SHALLOW GROUNDWATER IN UPPERMOST AQUIFER
- U3 - UNIT 3, INTERMEDIATE GROUNDWATER IN UPPERMOST AQUIFER
- U4 - UNIT 4, DEEP GROUNDWATER IN UPPERMOST AQUIFER
- B - BEDROCK GROUNDWATER IN BEDROCK AQUIFER

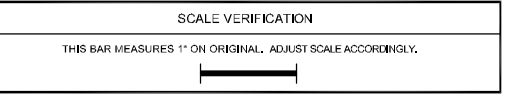
**CONCENTRATION (mg/L)**

**PARAMETER**

- EXCEEDANCE
- SAMPLE RESULTS COMPARED TO CRITERIA A, B, E, AND F
- SAMPLE RESULTS COMPARED TO CRITERIA A, B, C, AND D (SEE FIGURE 4-4)

| Chemical name                 | A        | B        | C        | D        | E        | F        |
|-------------------------------|----------|----------|----------|----------|----------|----------|
| 1,1,1-Trichloroethane         | 2.00E+00 | 1.50E+03 | 7.47E+02 | 1.35E+04 | 3.14E+04 | 1.80E+07 |
| 1,1-Dichloroethane            | 7.00E+00 | 1.40E+02 | 6.08E+02 | 8.90E+02 | 2.10E+03 | 1.42E+05 |
| Benzene                       | 5.00E+00 | 4.50E+00 | 1.22E+00 | 3.45E+01 | 9.02E+01 | 3.00E+04 |
| Chloroform (Trichloromethane) | 8.00E+02 | 2.10E+00 | 4.82E+01 | 1.58E+01 | 3.97E+01 | 1.05E+06 |
| 1,2-Dichloroethane            | 7.00E+02 | 2.10E+01 | 4.70E+01 | 4.48E+02 | 1.06E+03 | 1.84E+07 |
| Ethylbenzene                  | 1.00E+01 | 4.10E+02 | 8.80E+01 | 6.98E+03 | 2.08E+04 | 6.70E+06 |
| Methylene chloride            | 5.00E+00 | 8.20E+01 | 2.48E+01 | 1.10E+03 | 2.70E+03 | 2.70E+06 |
| Tetrahydrofuran               | 5.00E+00 | 1.30E+01 | 1.70E+01 | 4.00E+01 | 1.34E+02 | 6.70E+06 |
| Toluene                       | 1.00E+01 | 2.27E+02 | 2.70E+02 | 4.17E+03 | 8.45E+03 | 1.25E+07 |
| trans-1,2-Dichloroethane      | 1.00E+01 | 4.10E+01 | 7.80E+01 | 3.20E+02 | 1.22E+03 | 9.45E+06 |
| Trichloroethene               | 5.00E+00 | 2.20E+01 | 4.20E+01 | 1.00E+02 | 3.00E+02 | 6.70E+06 |
| Vinyl chloride                | 2.00E+00 | 1.50E+00 | 4.00E+00 | 5.97E+01 | 1.00E+02 | 1.41E+06 |

- NOTES:**
- Parameters that do not appear in the database for a particular sample were not analyzed.
  - Sample results rounded to three decimal places.
  - Screening criteria and sample results are compared to two significant digits. Results equal to screening criteria are not highlighted as exceedances.
  - MW 51, MW 76, and MW 78 were not sampled during the June 2008 event.
  - The concentrations of chlorobenzene (0.15 mg/L), tetrachloroethane (0.43 mg/L), and styrene (5.14 mg/L) in the June 2008 sample from monitoring well MW-40 exceeded the drinking water criteria. However, these VOCs were not detected at MW-40 in December 2008, and have been either not detected (chlorobenzene and styrene) or detected sporadically (tetrachloroethane) at other wells in the groundwater monitoring network. Because these VOCs have been detected so sporadically, they have generally no spatial or temporal distribution, and as such, they have not been added to the databases.



## MOTORS LIQUIDATION COMPANY ANDERSON, INDIANA PENDLETON AVE/MLK BLVD SITE GROUNDWATER RESULTS VOCs - 2008 - 2011



|                  |               |              |
|------------------|---------------|--------------|
| Project Manager: | Reviewed By:  | Date:        |
| S. RICHARDSON    | S. RICHARDSON | JANUARY 2012 |
| Scale:           | Project No.:  | Report No.:  |
| 1"=300'          | 017302-00     | MEMO012      |
|                  |               | Drawing No.: |
|                  |               | 4-8          |

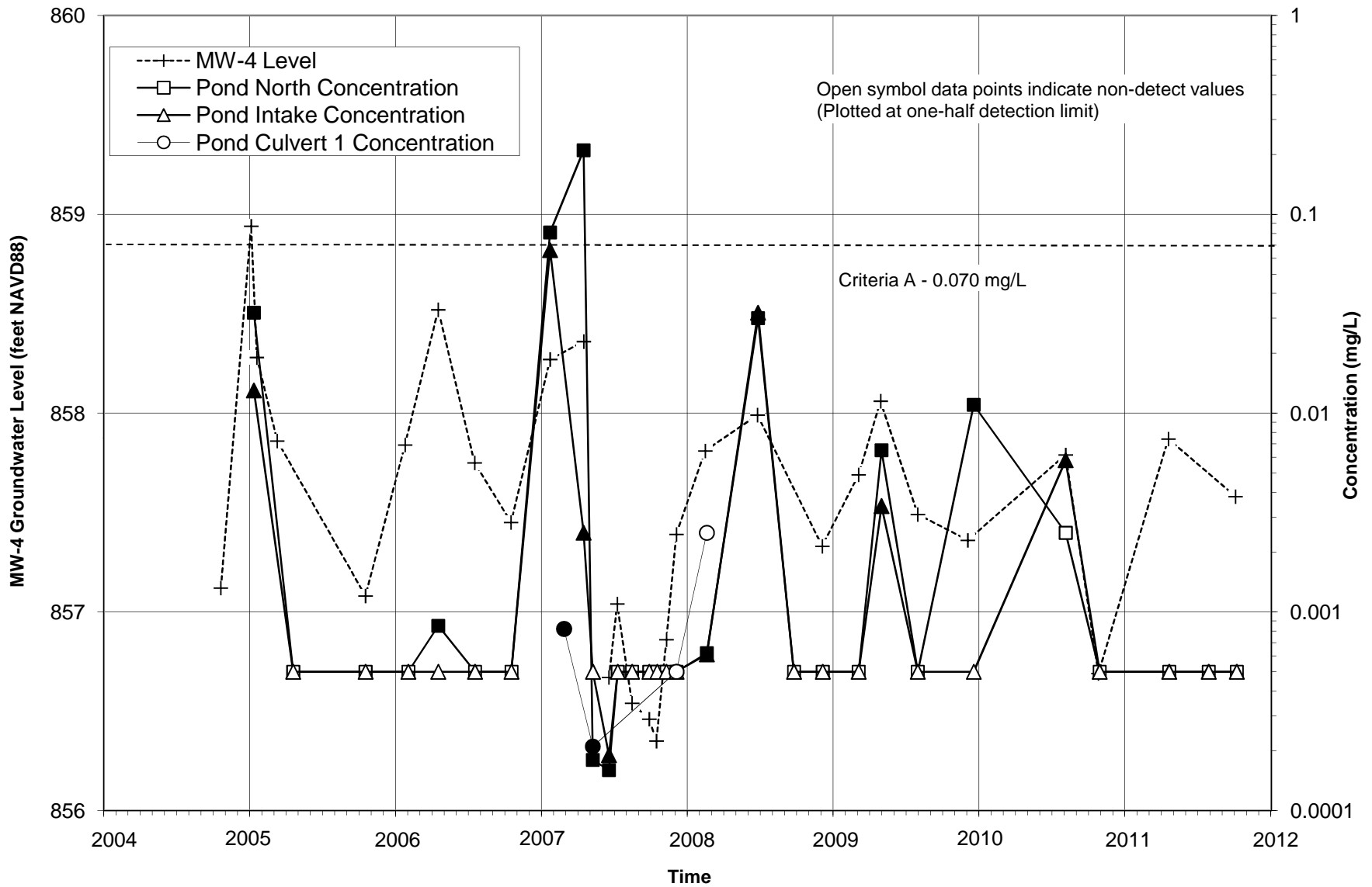


Figure 4-9. Time Series Plots of Cis-1,2-Dichloroethene Concentrations at Pond Sample Locations and Groundwater Level at MW-4.

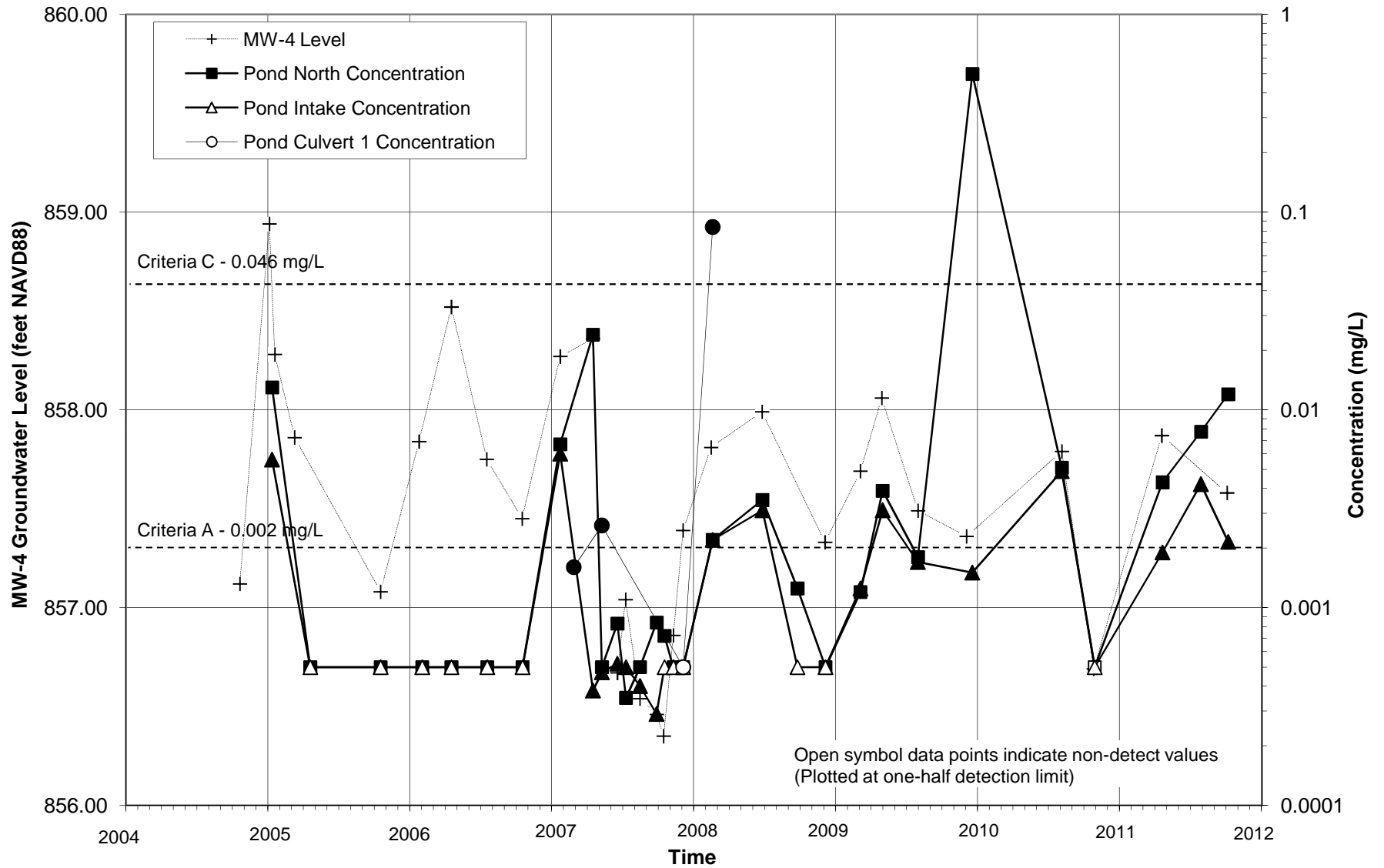
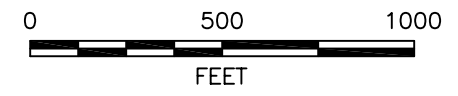
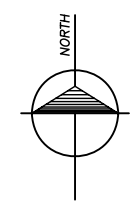
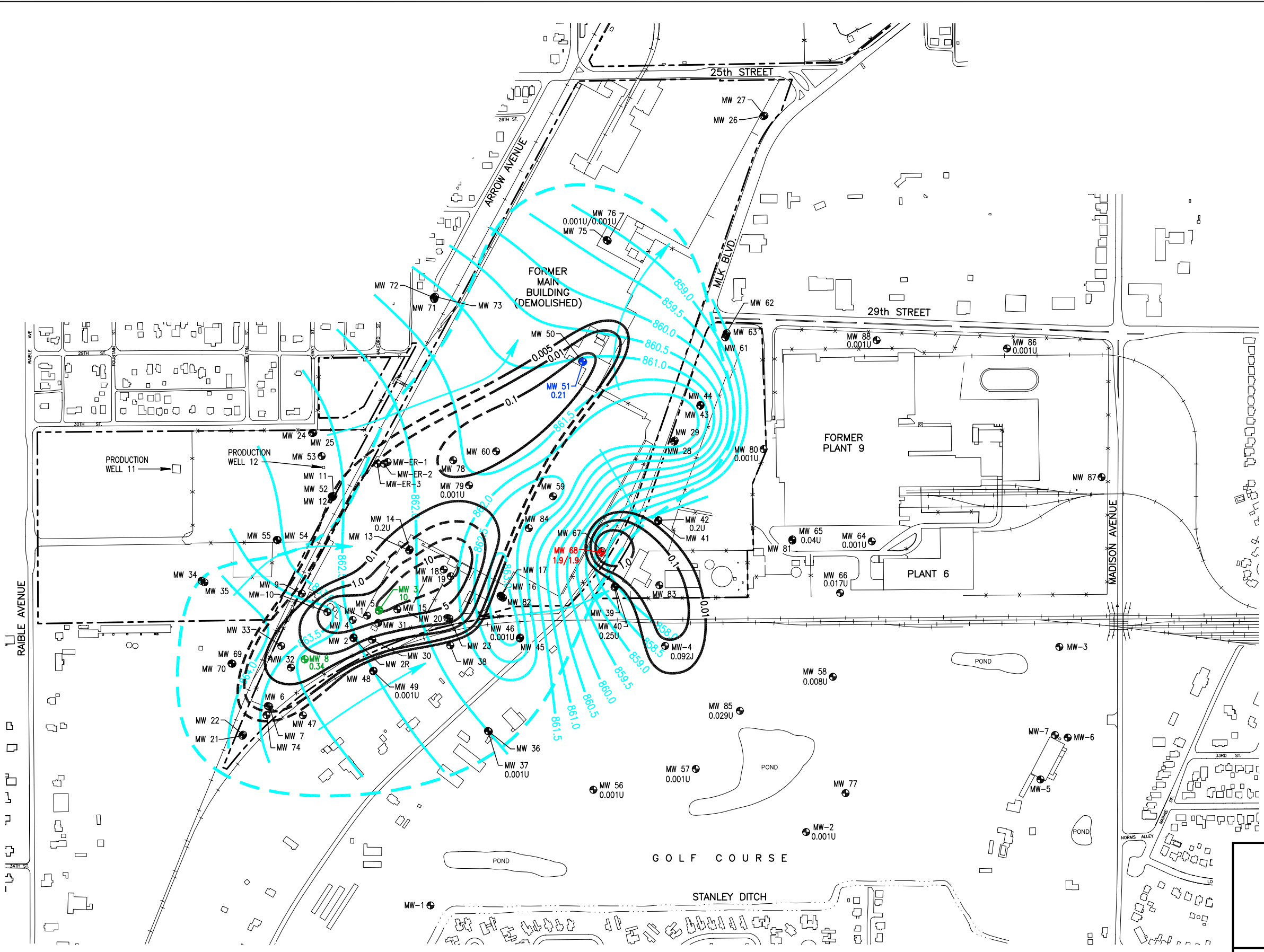


Figure 4-10. Time Series Plots of Vinyl Chloride Concentrations at Pond Sample Locations and Groundwater Level at MW-4.

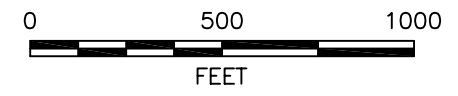
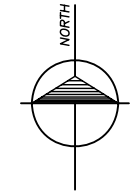
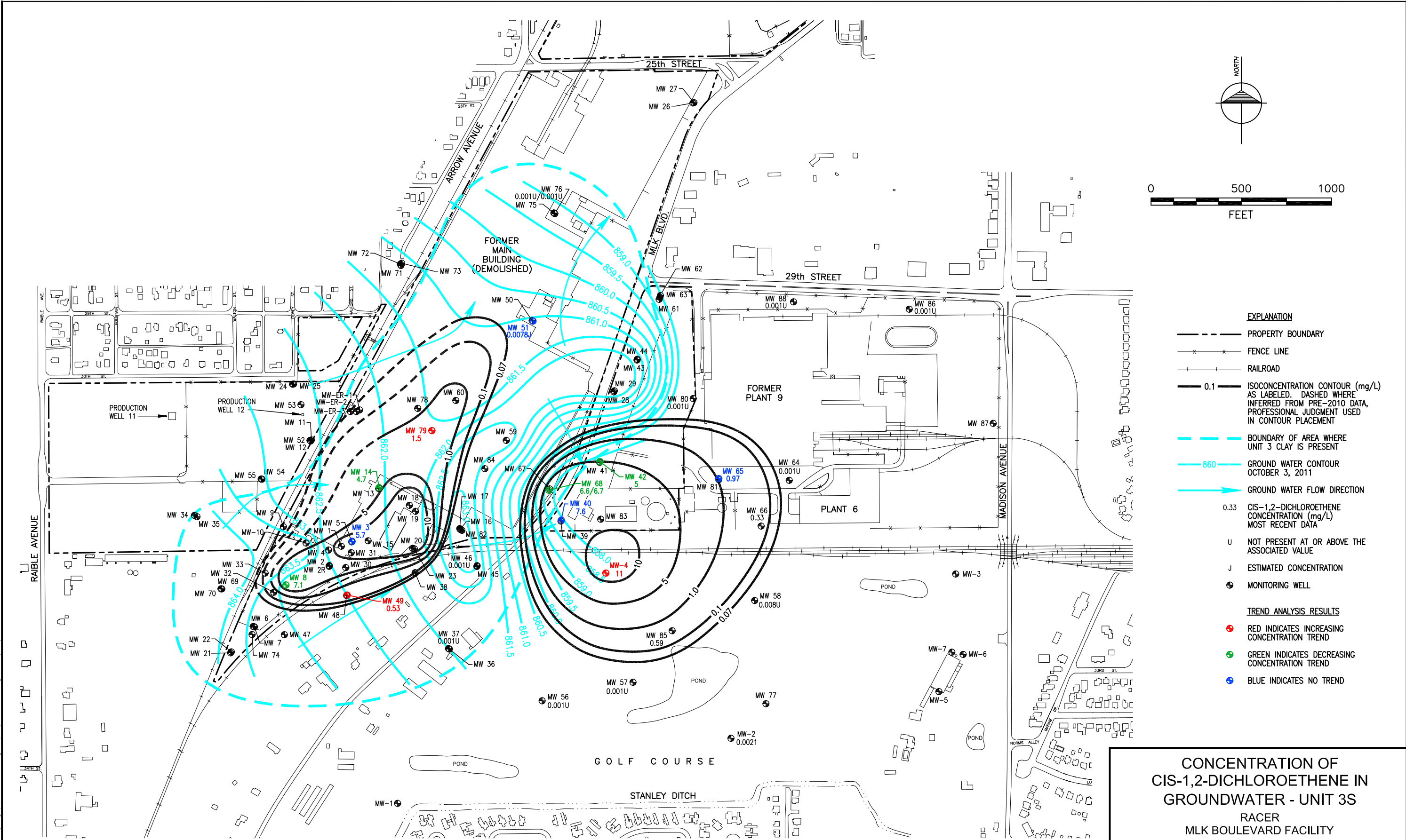
L:\work\62806.01\dwg\2011\annual\_gw\_rpt\TCE-3S.dwg 12/15/11 3:17 PM wilzbachern



- EXPLANATION**
- PROPERTY BOUNDARY
  - x-x- FENCE LINE
  - - - RAILROAD
  - 0.1 ISOCOCONCENTRATION CONTOUR (mg/L) AS LABELED. DASHED WHERE INFERRED FROM PRE-2010 DATA, PROFESSIONAL JUDGMENT USED IN CONTOUR PLACEMENT
  - BOUNDARY OF AREA WHERE UNIT 3 CLAY IS PRESENT
  - 860 GROUND WATER CONTOUR OCTOBER 3, 2011
  - GROUND WATER FLOW DIRECTION
  - 0.34 TRICHLOROETHENE CONCENTRATION (mg/L) MOST RECENT DATA
  - U NOT PRESENT AT OR ABOVE THE ASSOCIATED VALUE
  - J ESTIMATED CONCENTRATION
  - MONITORING WELL
- TREND ANALYSIS RESULTS**
- RED INDICATES INCREASING CONCENTRATION TREND
  - GREEN INDICATES DECREASING CONCENTRATION TREND
  - BLUE INDICATES NO TREND

|  |  |
|--|--|
| <p><b>CONCENTRATION OF TRICHLOROETHENE IN GROUNDWATER - UNIT 3S</b><br/>         RACER<br/>         MLK BOULEVARD FACILITY</p> |  |
| Date 12-11   |  |
| Project No. 60163563   |  |
| Figure 5-1   |  |

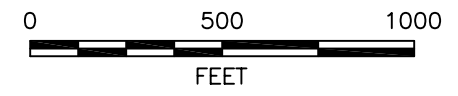
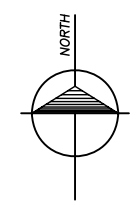
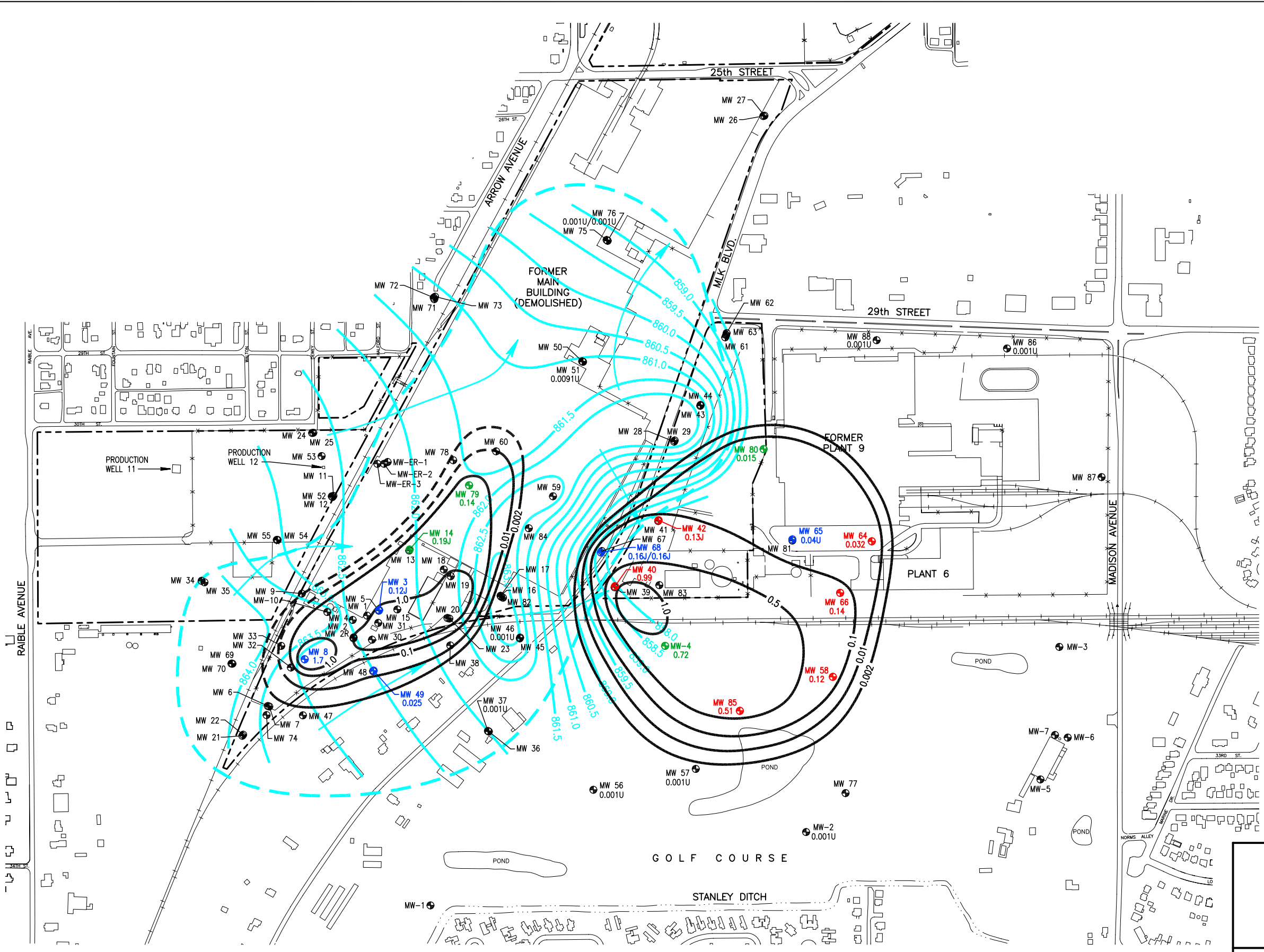
L:\work\62806.01\dwg\2011\annual\_gw\_rpt\DCE-3S.dwg 12/15/11 4:07 PM wilzboehern



- EXPLANATION**
- PROPERTY BOUNDARY
  - x-x- FENCE LINE
  - - - RAILROAD
  - 0.1 ISOCOCONCENTRATION CONTOUR (mg/L) AS LABELED. DASHED WHERE INFERRED FROM PRE-2010 DATA, PROFESSIONAL JUDGMENT USED IN CONTOUR PLACEMENT
  - BOUNDARY OF AREA WHERE UNIT 3 CLAY IS PRESENT
  - 860 GROUND WATER CONTOUR OCTOBER 3, 2011
  - GROUND WATER FLOW DIRECTION
  - 0.33 CIS-1,2-DICHLOROETHENE CONCENTRATION (mg/L) MOST RECENT DATA
  - U NOT PRESENT AT OR ABOVE THE ASSOCIATED VALUE
  - J ESTIMATED CONCENTRATION
  - MONITORING WELL
- TREND ANALYSIS RESULTS**
- RED INDICATES INCREASING CONCENTRATION TREND
  - GREEN INDICATES DECREASING CONCENTRATION TREND
  - BLUE INDICATES NO TREND

|  |  |
|--|--|
| <p><b>CONCENTRATION OF<br/>CIS-1,2-DICHLOROETHENE IN<br/>GROUNDWATER - UNIT 3S</b></p> <p>RACER<br/>MLK BOULEVARD FACILITY</p> |  |
| Date 12-11   |  |
| Project No.<br>60163563  |  |
| Figure<br>5-2  |  |

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- EXPLANATION**
- PROPERTY BOUNDARY
  - x-x- FENCE LINE
  - RAILROAD
  - 0.1 ISOCONCENTRATION CONTOUR (mg/L) AS LABELED. DASHED WHERE INFERRED FROM PRE-2010 DATA, PROFESSIONAL JUDGMENT USED IN CONTOUR PLACEMENT
  - BOUNDARY OF AREA WHERE UNIT 3 CLAY IS PRESENT
  - 860 GROUND WATER CONTOUR OCTOBER 3, 2011
  - GROUND WATER FLOW DIRECTION
  - 0.14 VINYL CHLORIDE CONCENTRATION (mg/L) MOST RECENT DATA
  - U NOT PRESENT AT OR ABOVE THE ASSOCIATED VALUE
  - J ESTIMATED CONCENTRATION
  - MONITORING WELL
- TREND ANALYSIS RESULTS**
- RED INDICATES INCREASING CONCENTRATION TREND
  - GREEN INDICATES DECREASING CONCENTRATION TREND
  - BLUE INDICATES NO TREND

|   |  |
|---|--|
| <p><b>CONCENTRATION OF VINYL CHLORIDE IN GROUNDWATER - UNIT 3S</b><br/>         RACER<br/>         MLK BOULEVARD FACILITY</p> |  |
| Date 12-11  |  |
| Project No. 60163563  |  |
| Figure 5-3  |  |

**TABLE 3-1  
SITE-WIDE GROUNDWATER MONITORING PROGRAM  
RACER MLK BOULEVARD SITE  
ANDERSON, INDIANA**

*Plume Stability and Corrective Measures Monitoring*

| <i>Sample Location</i> | <i>Northing SPCS (Feet) NAD83</i> | <i>Easting SPCS (Feet) NAD83</i> | <i>TOC Elevation (Feet) NAVD88</i> | <i>Year Installed</i> | <i>Unit Monitored</i> | <i>Plume Position (2)</i> | <i>3X Per Year Monitoring (3)</i> | <i>Semiannual Monitoring</i> | <i>Annual Monitoring</i> |
|------------------------|-----------------------------------|----------------------------------|------------------------------------|-----------------------|-----------------------|---------------------------|-----------------------------------|------------------------------|--------------------------|
| MW 3                   | 1761137.6                         | 317370.2                         | 880.51                             | 1992                  | 3S                    | AOC 1, Source             |                                   | X <sup>(4)</sup>             |                          |
| MW-4 <sup>(1)</sup>    | 1760961.9                         | 318774.8                         | 861.67                             | 2003                  | 3D                    | WWTP, Tail                |                                   | X <sup>(4)</sup>             |                          |
| MW-2                   | 1760047.1                         | 319467.3                         | 860.08                             | 2003                  | 3D                    | WWTP, Margin              |                                   |                              | X <sup>(4)</sup>         |
| MW 8                   | 1760896.0                         | 317004.4                         | 878.41                             | 1993                  | 3S                    | AOC 1, Source             |                                   | X <sup>(4)</sup>             |                          |
| MW 12                  | 1761692.8                         | 317141.2                         | 882.78                             | 1993                  | 3I                    | AOC 1, Tail               |                                   | X <sup>(4)</sup>             |                          |
| MW 14                  | 1761435.2                         | 317520.1                         | 881.36                             | 1993                  | 3S                    | AOC 1, Tail               |                                   | X <sup>(4)</sup>             |                          |
| MW 28                  | 1761964.9                         | 318819.0                         | 877.44                             | 2000                  | 3D                    | WWTP, Tail                |                                   | X <sup>(4)</sup>             |                          |
| MW 31R <sup>(1)</sup>  | 1761074.5                         | 317365.6                         | 879.71                             | 2000                  | 1                     | AOC 1, Source             |                                   | X <sup>(4)</sup>             |                          |
| MW 37 <sup>(1)</sup>   | 1760543.9                         | 317904.2                         | 869.95                             | 2001                  | 3S                    | AOC 1, Margin             |                                   |                              | X <sup>(4)</sup>         |
| MW 40                  | 1761254.5                         | 318528.4                         | 879.51                             | 2003                  | 3S                    | WWTP, Source              |                                   | X <sup>(4)</sup>             |                          |
| MW 41                  | 1761575.0                         | 318740.7                         | 878.58                             | 2003                  | 3D                    | WWTP, Source              |                                   | X <sup>(4)</sup>             |                          |
| MW 42                  | 1761579.2                         | 318742.2                         | 878.54                             | 2003                  | 3S                    | WWTP, Source              |                                   | X <sup>(4)</sup>             |                          |
| MW 46 <sup>(1)</sup>   | 1761002.5                         | 318062.7                         | 873.64                             | 2003                  | 3S                    | AOC 1, Margin             |                                   |                              | X <sup>(4)</sup>         |
| MW 49                  | 1760839.9                         | 317343.2                         | 877.93                             | 2003                  | 3S                    | AOC 1, Tail               |                                   | X <sup>(4)</sup>             |                          |
| MW 51                  | 1762357.2                         | 318371.7                         | 878.19                             | 2003                  | 3S                    | AOC 1, Tail               |                                   | X <sup>(4)</sup>             |                          |
| MW 56                  | 1760254.8                         | 318422.3                         | 859.32                             | 2004                  | 3D                    | WWTP, Margin              |                                   |                              | X <sup>(4)</sup>         |
| MW 57                  | 1760357.4                         | 318925.2                         | 862.52                             | 2004                  | 3D                    | WWTP, Margin              |                                   |                              | X <sup>(4)</sup>         |
| MW 58                  | 1760809.8                         | 319598.5                         | 861.46                             | 2004                  | 3D                    | WWTP, Margin              |                                   |                              | X <sup>(4)</sup>         |
| MW 61                  | 1762477.5                         | 319069.9                         | 876.57                             | 2004                  | 3D                    | WWTP, Margin              |                                   |                              | X <sup>(4)</sup>         |
| MW 64                  | 1761475.5                         | 319789.9                         | 863.97                             | 2004                  | 3D                    | WWTP, Margin              |                                   |                              | X <sup>(4)</sup>         |
| MW 65                  | 1761484.8                         | 319399.8                         | 864.22                             | 2004                  | 3D                    | WWTP, Margin              |                                   |                              | X <sup>(4)</sup>         |
| MW 66                  | 1761222.3                         | 319634.4                         | 861.67                             | 2004                  | 3D                    | WWTP, Tail                |                                   | X <sup>(4)</sup>             |                          |
| MW 68                  | 1761420.8                         | 318459.3                         | 876.98                             | 2004                  | 3S                    | WWTP, Source              |                                   | X <sup>(4)</sup>             |                          |
| MW 75                  | 1762956.0                         | 318487.3                         | 881.42                             | 2004                  | 3D                    | AOC 1, Margin             |                                   |                              | X <sup>(4)</sup>         |
| MW 76                  | 1762951.8                         | 318492.8                         | 881.11                             | 2004                  | 3S                    | AOC 1, Margin             |                                   |                              | X <sup>(4)</sup>         |
| MW 79                  | 1761750.5                         | 317812.0                         | 881.92                             | 2004                  | 3S                    | AOC 1, Tail               |                                   | X <sup>(4)</sup>             |                          |
| MW 80                  | 1761928.3                         | 319258.3                         | 865.49                             | 2005                  | 3D                    | WWTP, Margin              |                                   |                              | X <sup>(4)</sup>         |
| MW 81                  | 1761479.0                         | 319399.6                         | 864.38                             | 2005                  | Bedrock               | WWTP, Margin              |                                   |                              | X <sup>(4)</sup>         |
| MW 82                  | 1761198.3                         | 317978.6                         | 878.55                             | 2005                  | Bedrock               | AOC 1, Margin             |                                   |                              | X <sup>(4)</sup>         |
| MW 83                  | 1761260.1                         | 318746.5                         | 876.23                             | 2005                  | Bedrock               | WWTP, Margin              |                                   |                              | X <sup>(4)</sup>         |
| MW 85                  | 1760642.5                         | 319142.0                         | 866.11                             | 2007                  | 3D                    | WWTP, Tail                |                                   | X <sup>(4)</sup>             |                          |
| MW 86                  | 1762422.9                         | 320453.9                         | 859.12                             | 2010                  | 3D                    | WWTP, Tail                |                                   |                              | X <sup>(4)</sup>         |
| MW 88                  | 1762463.4                         | 319813.5                         | 859.59                             | 1010                  | 3D                    | WWTP, Tail                |                                   |                              | X <sup>(4)</sup>         |
| POND (Intake)          | 1760214.4                         | 318958.4                         | NA                                 | N/A                   | Surface Water         |                           | X <sup>(4)</sup>                  |                              |                          |
| POND (North)           | 1760549.0                         | 319173.0                         | 857.79                             | N/A                   | Surface Water         |                           | X <sup>(4)</sup>                  |                              |                          |

Notes:

- (1) Well added to the monitoring program based on IDEM review comments 5/2/08
- (2) AOC 1 = VOC plume originating at AOC 1 - South Court  
WWTP = VOC plume originating from former WWTP Area  
Source = VOC source area well
- (3) Locations to be sampled Spring, Summer, and Fall
- (4) TCL VOCs: Target Compound List Volatile Organic Compounds

**TABLE 3-2  
FIELD AND LABORATORY ANALYTICAL PROCEDURES  
RACER MLK BOULEVARD SITE  
ANDERSON, INDIANA**

| Parameter                              | Method Number |
|--|---------------|
| <i>Field Parameters</i> <sup>(1)</sup> |               |
| pH                                     | (2)           |
| Temperature                            | (2)           |
| Conductivity                           | (2)           |
| Oxidation/Reduction Potential (ORP)    | (2)           |
| Dissolved Oxygen                       | (2)           |
| Turbidity                              | (2)           |
| <i>Laboratory Parameters</i>           |               |
| TCL VOCs                               | Method 8260B  |

**Notes:**

- Method Refers to U.S. Environmental Protection Agency SW 846.
- EPA Refers to Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, rev. Mar. 1983
- SSPL Site-specific parameter list.
- VOCs Volatile Organic Compounds
- (1) Field parameters are listed in the order that they are generally expected to stabilize while purging.
- (2) Field parameters measured using a multi-parameter meter and flow-through cell or field test kit.  
The calibration of meters is checked each day prior to use.

**TABLE 4-1  
 STATIC WATER LEVEL DATA  
 RACER MLK BOULEVARD SITE  
 ANDERSON, INDIANA**

| Monitoring Well No. | Hydro-Geologic Unit | Northing (1) | Easting (1) | Datum El. <sup>(2,3)</sup> | 2010 Revised Datum El. <sup>(2,3)</sup> | Screen Top <sup>(2)</sup> | Screen Bottom <sup>(2)</sup> | Static Water Level (ft. NAVD 88) |          |          |
|---------------------|---------------------|--------------|-------------|----------------------------|---|---------------------------|------------------------------|----------------------------------|----------|----------|
|                     |                     |              |             |                            |   |                           |                              | 10/25/10                         | 04/18/11 | 10/03/11 |
| 1                   | 3s                  | 1761110.3    | 317311.1    | 880.70                     | 880.86                                  | 864.50                    | 860.21                       | 861.56                           | -        | -        |
| 2R                  | 3s                  | 1760999.3    | 317243.9    | 879.68                     | 879.25                                  | 864.46                    | 860.18                       | 861.58                           | -        | 862.54   |
| 3                   | 3s                  | 1761137.6    | 317370.2    | 880.51                     | 880.41                                  | 864.53                    | 860.25                       | 861.46                           | 863.69   | 862.30   |
| 4                   | 3s                  | 1761089.4    | 317240.2    | 880.78                     |   | 865.97                    | 861.48                       | 861.63                           | -        | 862.45   |
| 5                   | 3s                  | 1761134.5    | 317368.7    | 880.54                     |   | 852.93                    | 843.53                       | 861.59                           | -        | 862.45   |
| 6                   | 3s                  | 1760666.3    | 316823.5    | 878.22                     |   | 864.80                    | 855.18                       | 862.22                           | -        | 863.43   |
| 7                   | 3d                  | 1760663.6    | 316830.5    | 878.18                     |   | 835.40                    | 830.82                       | 862.15                           | -        | 863.39   |
| 8                   | 3s                  | 1760896.0    | 317004.4    | 878.41                     |   | 863.33                    | 853.74                       | 861.87                           | 864.51   | 862.90   |
| 9                   | 3s                  | 1761218.5    | 316990.4    | 881.65                     |   | 866.31                    | 856.70                       | -                                | -        | -        |
| 10                  | 3s                  | 1761128.0    | 317115.5    | 880.88                     |   | 866.30                    | 856.67                       | 861.74                           | -        | 863.55   |
| 11                  | 3s                  | 1761699.0    | 317145.5    | 882.68                     |   | 861.51                    | 851.88                       | 861.77                           | -        | 862.57   |
| 12                  | 3d                  | 1761692.8    | 317141.2    | 882.78                     |   | 833.84                    | 829.26                       | 861.84                           | 864.26   | 862.64   |
| 13                  | 3s                  | 1761430.2    | 317517.7    | 881.25                     |   | 866.13                    | 856.50                       | 861.29                           | -        | 862.06   |
| 14                  | 3s                  | 1761435.2    | 317520.1    | 881.36                     |   | 852.63                    | 848.06                       | 861.22                           | 863.36   | 862.06   |
| 15                  | 3s                  | 1761140.7    | 317459.5    | 879.67                     |   | 864.76                    | 855.13                       | 861.29                           | -        | 862.16   |
| 16                  | 3s                  | 1761203.4    | 317969.5    | 878.65                     | 879.83                                  | 864.01                    | 854.40                       | 862.14                           | 862.88   | 863.10   |
| 17                  | 3s                  | 1761207.9    | 317966.4    | 878.30                     | 879.86                                  | 853.30                    | 848.72                       | 862.19                           | -        | 863.06   |
| 18                  | 3s                  | 1761337.0    | 317687.7    | 878.88                     |   | 858.88                    | 854.15                       | 860.69                           | -        | 861.55   |
| 19                  | 3s                  | 1761304.0    | 317721.7    | 878.54                     |   | 858.75                    | 854.04                       | -                                | -        | -        |
| 20                  | 3s                  | 1761098.7    | 317705.5    | 877.70                     |   | 852.50                    | 847.76                       | 860.94                           | -        | 861.81   |
| 21                  | 3s                  | 1760520.1    | 316698.0    | 878.74                     |   | 850.92                    | 846.20                       | 862.38                           | -        | 863.80   |
| 22                  | 3s                  | 1760525.5    | 316702.1    | 879.11                     |   | 861.67                    | 856.92                       | 862.37                           | -        | 863.79   |
| 23                  | 3s                  | 1761096.0    | 317715.2    | 877.68                     |   | 860.71                    | 855.97                       | 860.54                           | -        | 861.47   |
| 24                  | 3d                  | 1762007.5    | 317041.2    | 882.77                     |   | 803.78                    | 794.03                       | 861.99                           | -        | 863.58   |
| 25                  | 3s                  | 1762008.7    | 317047.0    | 882.85                     |   | 853.75                    | 844.00                       | 861.86                           | -        | 862.64   |
| 26                  | 3d                  | 1763564.6    | 319256.7    | 883.09                     |   | 840.65                    | 830.82                       | 856.41                           | -        | 856.72   |
| 27                  | 1                   | 1763566.5    | 319262.7    | 883.04                     |   | 853.15                    | 848.42                       | 859.06                           | -        | 858.82   |

**TABLE 4-1  
STATIC WATER LEVEL DATA  
RACER MLK BOULEVARD SITE  
ANDERSON, INDIANA**

| Monitoring Well No. | Hydro-Geologic Unit | Northing (1) | Easting (1) | Datum El. <sup>(2,3)</sup> | 2010 Revised Datum El. <sup>(2,3)</sup> | Screen Top <sup>(2)</sup> | Screen Bottom <sup>(2)</sup> | Static Water Level (ft. NAVD 88) |          |          |
|---------------------|---------------------|--------------|-------------|----------------------------|---|---------------------------|------------------------------|----------------------------------|----------|----------|
|                     |                     |              |             |                            |   |                           |                              | 10/25/10                         | 04/18/11 | 10/03/11 |
| 28                  | 3d                  | 1761964.9    | 318819.0    | 877.44                     |   | 834.40                    | 824.66                       | 856.54                           | 858.17   | 857.59   |
| 29                  | 3s                  | 1761971.1    | 318822.0    | 877.53                     |   | 862.21                    | 852.49                       | 861.65                           | 861.87   | 862.20   |
| 30                  | 1                   | 1760992.0    | 317335.2    | 878.50                     |   | 868.64                    | 863.95                       | -                                | -        | -        |
| 31R                 | 1                   | 1761074.5    | 317365.6    | 879.71                     |   | 871.58                    | 866.90                       | 870.43                           | 872.36   | 872.16   |
| 32                  | 1                   | 1760855.5    | 316937.0    | 878.88                     |   | 871.99                    | 867.71                       | -                                | -        | -        |
| 33                  | 1                   | 1760961.5    | 316889.2    | 880.01                     |   | 873.05                    | 868.76                       | -                                | -        | -        |
| 34                  | 1                   | 1761281.2    | 316498.1    | 883.67                     |   | 858.38                    | 849.03                       | -                                | -        | -        |
| 35                  | 3d                  | 1761273.9    | 316512.3    | 883.96                     |   | 828.90                    | 819.56                       | 862.74                           | -        | 863.67   |
| 36                  | 3d                  | 1760540.9    | 317908.8    | 870.09                     |   | 850.97                    | 846.24                       | 858.34                           | -        | 859.11   |
| 37                  | 3s                  | 1760543.9    | 317904.2    | 869.95                     |   | 860.74                    | 856.00                       | 860.68                           | 862.60   | 862.00   |
| 38                  | 3d                  | 1760964.00   | 317719.32   | 877.65                     |   | 846.42                    | 836.74                       | -                                | -        | -        |
| 39                  | 3d                  | 1761249.83   | 318526.24   | 879.51                     |   | 836.29                    | 826.56                       | 857.21                           | -        | 858.10   |
| 40                  | 3s                  | 1761254.51   | 318528.40   | 879.51                     |   | 851.37                    | 841.64                       | 857.20                           | 858.58   | 858.09   |
| 41                  | 3d                  | 1761575.05   | 318740.73   | 878.58                     |   | 839.63                    | 834.92                       | 856.95                           | 858.25   | 857.72   |
| 42                  | 3s                  | 1761579.24   | 318742.21   | 878.54                     |   | 854.93                    | 845.20                       | 856.95                           | 858.32   | 857.78   |
| 43                  | 3d                  | 1762141.24   | 318947.24   | 876.00                     |   | 818.86                    | 814.13                       | 856.45                           | -        | 857.36   |
| 44                  | 3s                  | 1762145.28   | 318948.82   | 876.02                     |   | 853.74                    | 844.02                       | 861.59                           | -        | 861.77   |
| 45                  | 3d                  | 1760998.51   | 318060.78   | 873.72                     |   | 833.77                    | 824.04                       | 858.25                           | -        | 859.12   |
| 46                  | 3s                  | 1761002.51   | 318062.71   | 873.64                     |   | 859.63                    | 854.92                       | 862.02                           | 862.99   | 862.97   |
| 47                  | 3s                  | 1760620.47   | 316995.56   | 880.27                     |   | 856.99                    | 852.27                       | 862.00                           | -        | 863.18   |
| 48                  | 3d                  | 1760837.68   | 317340.18   | 877.96                     |   | 838.96                    | 834.25                       | 861.34                           | -        | 862.29   |
| 49                  | 3s                  | 1760839.93   | 317343.16   | 877.93                     |   | 855.69                    | 845.98                       | 861.48                           | 863.88   | 862.50   |
| 50                  | 3d                  | 1762359.73   | 318367.08   | 878.27                     |   | 839.92                    | 835.20                       | 860.25                           | -        | 860.78   |
| 51                  | 3s                  | 1762357.18   | 318371.66   | 878.19                     |   | 855.93                    | 851.20                       | 862.53                           | 861.61   | 861.04   |
| 52                  | 3d                  | 1761696.65   | 317137.65   | 882.69                     |   | 797.11                    | 787.39                       | 862.17                           | -        | 863.12   |
| 53                  | 3d                  | 1761894.20   | 317087.64   | 881.43                     |   | 758.27                    | 748.62                       | 861.83                           | -        | 862.75   |
| 54                  | 3d                  | 1761482.29   | 316871.62   | 880.37                     |   | 820.55                    | 810.82                       | 862.26                           | -        | 863.12   |

**TABLE 4-1  
 STATIC WATER LEVEL DATA  
 RACER MLK BOULEVARD SITE  
 ANDERSON, INDIANA**

| Monitoring Well No. | Hydro-Geologic Unit | Northing (1) | Easting (1) | Datum El. <sup>(2,3)</sup> | 2010 Revised Datum El. <sup>(2,3)</sup> | Screen Top <sup>(2)</sup> | Screen Bottom <sup>(2)</sup> | Static Water Level (ft. NAVD 88) |          |          |
|---------------------|---------------------|--------------|-------------|----------------------------|---|---------------------------|------------------------------|----------------------------------|----------|----------|
|                     |                     |              |             |                            |   |                           |                              | 10/25/10                         | 04/18/11 | 10/03/11 |
| 55                  | 3s                  | 1761482.41   | 316867.16   | 880.28                     |   | 851.42                    | 841.69                       | 862.23                           | -        | 863.08   |
| 56                  | 3d                  | 1760254.76   | 318422.25   | 859.32                     |   | 847.93                    | 838.27                       | 856.64                           | 857.61   | 857.39   |
| 57                  | 3d                  | 1760357.35   | 318925.21   | 862.52                     |   | 842.68                    | 833.38                       | 856.44                           | 857.48   | 857.31   |
| 58                  | 3d                  | 1760809.76   | 319598.52   | 861.46                     |   | 854.35                    | 849.69                       | 856.32                           | 857.08   | 856.91   |
| 59                  | 3s                  | 1761696.70   | 318223.89   | 882.00                     |   | 852.77                    | 848.03                       | 862.12                           | 862.29   | 862.62   |
| 60                  | 3s                  | 1761917.38   | 317944.64   | 881.77                     |   | 847.95                    | 843.24                       | 860.49                           | -        | 861.18   |
| 61                  | 3d                  | 1762477.48   | 319069.90   | 876.57                     |   | 823.11                    | 813.40                       | 856.56                           | 857.89   | 857.16   |
| 62                  | B                   | 1762498.26   | 319076.96   | 876.70                     |   | 783.65                    | 773.95                       | 857.18                           | 858.86   | 857.65   |
| 63                  | 3s                  | 1762488.77   | 319074.19   | 876.53                     |   | 846.17                    | 841.45                       | 858.83                           | -        | 858.51   |
| 64                  | 3d                  | 1761475.47   | 319789.86   | 863.97                     |   | 853.22                    | 843.56                       | 856.28                           | 857.46   | 856.99   |
| 65                  | 3d                  | 1761484.84   | 319399.81   | 864.22                     |   | 853.47                    | 843.80                       | 856.45                           | 857.57   | 857.20   |
| 66                  | 3d                  | 1761222.31   | 319634.36   | 861.67                     |   | 853.73                    | 844.02                       | 856.38                           | 857.40   | 856.99   |
| 67                  | 3d                  | 1761427.43   | 318463.83   | 877.03                     |   | 835.69                    | 831.02                       | 857.26                           | -        | 858.12   |
| 68                  | 3s                  | 1761420.80   | 318459.32   | 876.98                     |   | 846.75                    | 842.09                       | 857.39                           | 858.81   | 858.25   |
| 69                  | 3d                  | 1760874.10   | 316649.68   | 882.08                     |   | 833.90                    | 829.23                       | 862.26                           | -        | 863.48   |
| 70                  | 3s                  | 1760874.50   | 316644.87   | 881.82                     |   | 849.98                    | 840.32                       | 863.14                           | -        | 864.41   |
| 71                  | B                   | 1762665.14   | 317640.98   | 878.16                     |   | 761.95                    | 752.31                       | 860.97                           | 861.81   | 861.10   |
| 72                  | 3s                  | 1762672.70   | 317638.05   | 877.74                     |   | 847.86                    | 838.06                       | 860.51                           | -        | 861.11   |
| 73                  | 3d                  | 1762677.33   | 317644.90   | 877.96                     |   | 797.57                    | 787.91                       | 860.49                           | -        | 861.09   |
| 74                  | B                   | 1760621.78   | 316817.18   | 881.10                     |   | 818.81                    | 809.07                       | 862.80                           | 866.30   | 864.29   |
| 75                  | 3d                  | 1762956.02   | 318487.35   | 881.42                     |   | 801.31                    | 791.63                       | 859.06                           | 860.67   | 859.55   |
| 76                  | 3s                  | 1762951.84   | 318492.81   | 881.11                     |   | 831.97                    | 822.34                       | 858.88                           | 860.30   | 859.20   |
| 77                  | B                   | 1760238.33   | 319661.11   | 862.77                     |   | 851.67                    | 842.04                       | 856.39                           | 857.16   | 857.09   |
| 78                  | 3s                  | 1761873.71   | 317734.00   | 882.25                     |   | 855.48                    | 850.75                       | -                                | -        | -        |
| 79                  | 3s                  | 1761750.49   | 317811.99   | 881.92                     |   | 841.69                    | 836.96                       | 860.80                           | 862.85   | 861.52   |
| 80                  | 3d                  | 1761928.33   | 319258.30   | 865.49                     |   | 841.54                    | 836.84                       | 856.33                           | 857.58   | 857.04   |
| 81                  | B                   | 1761479.01   | 319399.60   | 864.38                     |   | 839.58                    | 829.88                       | 856.41                           | 857.50   | 857.15   |

**TABLE 4-1  
 STATIC WATER LEVEL DATA  
 RACER MLK BOULEVARD SITE  
 ANDERSON, INDIANA**

| Monitoring Well No.                  | Hydro-Geologic Unit | Northing (1) | Easting (1) | Datum El. <sup>(2,3)</sup> | 2010 Revised Datum El. <sup>(2,3)</sup> | Screen Top <sup>(2)</sup> | Screen Bottom <sup>(2)</sup> | Static Water Level (ft. NAVD 88) |          |          |
|--------------------------------------|---------------------|--------------|-------------|----------------------------|---|---------------------------|------------------------------|----------------------------------|----------|----------|
|                                      |                     |              |             |                            |   |                           |                              | 10/25/10                         | 04/18/11 | 10/03/11 |
| 82                                   | B                   | 1761198.31   | 317978.59   | 878.55                     | 879.70                                  | 782.27                    | 772.54                       | 861.80                           | 864.78   | 862.77   |
| 83                                   | B                   | 1761260.12   | 318746.50   | 876.23                     |   | 801.58                    | 791.93                       | 856.72                           | 857.92   | 857.60   |
| 84                                   | 3s                  | 1761539.65   | 318105.07   | 881.95                     |   | 848.97                    | 844.25                       | 861.78                           | 862.31   | 862.45   |
| 85                                   | 3d                  | 1760642.54   | 319141.95   | 866.11                     |   | 851.62                    | 842.11                       | 856.44                           | 857.49   | 857.29   |
| 86                                   | 3d                  | 1762422.91   | 320453.85   | 859.12                     |   | 841.15                    | 836.67                       | 855.16                           | 856.41   | 855.62   |
| 87                                   | 3d                  | 1761790.75   | 320918.50   | 861.51                     |   | 848.4                     | 843.91                       | 858.28                           | 860.13   | 859.69   |
| 88                                   | 3d                  | 1762463.35   | 319813.49   | 859.59                     |   | 829.41                    | 819.91                       | 855.71                           | 856.95   | 856.24   |
| ER-1                                 | 1                   | 1761864.90   | 317412.04   | 881.93                     |   | 868.16                    | 858.16                       | -                                | -        | 873.30   |
| ER-2                                 | 1                   | 1761856.43   | 317394.55   | 881.96                     |   | 872.19                    | 862.19                       | 868.59                           | -        | 870.76   |
| ER-3                                 | 1                   | 1761856.37   | 317361.47   | 882.09                     |   | 872.28                    | 862.28                       | 869.63                           | -        | -        |
| <b>Meadowbrook Golf Course Wells</b> |                     |              |             |                            |   |                           |                              |                                  |          |          |
| MW-1                                 | 3d                  | 1759686.91   | 317622.12   | 859.18                     |   | 855.67                    | 847.67                       | 857.51                           | -        | 858.15   |
| MW-2                                 | 3d                  | 1760047.06   | 319467.27   | 860.08                     |   | 857.31                    | 851.31                       | 856.39                           | 857.30   | 857.20   |
| MW-3                                 | 3d                  | 1760956.57   | 320710.96   | 862.68                     |   | 860.06                    | 851.36                       | 858.85                           | 860.62   | 860.20   |
| MW-4                                 | 3d                  | 1760961.86   | 318774.81   | 861.67                     |   | 859.08                    | 839.08                       | 856.69                           | 857.87   | 857.58   |
| MW-5                                 | 3d                  | 1760305.51   | 320618.11   | 871.01                     |   | 866.49                    | 853.49                       | 858.93                           | -        | 860.09   |
| MW-6                                 | 3d                  | 1760511.36   | 320752.07   | 868.92                     |   | 862.30                    | 844.30                       | -                                | -        | -        |
| MW-7                                 | 3d                  | 1760523.65   | 320689.67   | 869.69                     |   | 864.01                    | 844.01                       | 858.96                           | -        | 860.24   |
| <b>Surface Water</b>                 |                     |              |             |                            |   |                           |                              |                                  |          |          |
| Culvert 1                            | 3d                  | 1760552.00   | 319168.00   | 857.79                     |   |                           |                              | 856.38                           | 857.45   | 857.24   |

Notes:

- (1) Coordinates are Indiana State Plane Coordinate System, 1301 East, NAD 83, US Survey Feet.
- (2) Elevation based on level survey relative to USGS Monument PID LA1429 = 882.61 NAVD88.
- (3) Datum for elevation and depth is marked on top of PVC riser pipe.
- (4) Blank table entries indicate that reference location was not installed at the time measurements were taken. A dash (-) indicates that the location was not measured.

**TABLE 4-2**  
**GROUNDWATER TCL ANALYTICAL RESULTS (2011)**  
**RACER MLK BOULEVARD**  
**ANDERSON, INDIANA**

| Sample Location:                                     | MW 3             | MW 3             | MW 8             | MW 8             | MW 12            | MW 12            | MW 14            | MW 14            |         |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---------|
| Sample ID:   | WG-041811-KD-002 | WG-100511-RM-011 | WG-041811-SM-001 | WG-100511-SM-011 | WG-042011-KD-008 | WG-100511-RM-014 | WG-041811-SM-002 | WG-100511-SM-012 |         |
| Sample Date:   | 4/18/2011        | 10/5/2011        | 4/18/2011        | 10/5/2011        | 4/20/2011        | 10/5/2011        | 4/18/2011        | 10/5/2011        |         |
| Matrix_Type  | WG-N             | WG-N             | WG-N             | WG-N             | WG-N             | WG-N             | WG-N             | WG-N             |         |
| Parameters:  | Units            |                  |                  |                  |                  |                  |                  |                  |         |
| <b>Volatile Organic Compounds</b>                    |                  |                  |                  |                  |                  |                  |                  |                  |         |
| 1,1,1-Trichloroethane                                | mg/L             | 0.74             | 0.61             | 0.25 U           | 0.25 U           | 0.011 U          | 0.011 U          | 0.17 U           | 0.2 U   |
| 1,1,2,2-Tetrachloroethane                            | mg/L             | 0.5 U            | 0.33 U           | 0.25 U           | 0.25 U           | 0.011 U          | 0.011 U          | 0.17 U           | 0.2 U   |
| 1,1,2-Trichloroethane                                | mg/L             | 0.5 U            | 0.33 U           | 0.25 U           | 0.25 U           | 0.011 U          | 0.011 U          | 0.17 U           | 0.2 U   |
| 1,1-Dichloroethane                                   | mg/L             | 0.39 J           | 0.27 J           | 0.061 J          | 0.062 J          | 0.011 U          | 0.011 U          | 0.062 J          | 0.051 J |
| 1,1-Dichloroethene                                   | mg/L             | 0.17 J           | 0.13 J           | 0.25 U           | 0.25 U           | 0.011 U          | 0.011 U          | 0.17 U           | 0.2 U   |
| 1,2-Dichloroethane                                   | mg/L             | 0.5 U            | 0.33 U           | 0.25 U           | 0.25 U           | 0.011 U          | 0.011 U          | 0.17 U           | 0.2 U   |
| 1,2-Dichloropropane                                  | mg/L             | 0.5 U            | 0.33 U           | 0.25 U           | 0.25 U           | 0.011 U          | 0.011 U          | 0.17 U           | 0.2 U   |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | mg/L             | 10 U             | 3.3 U            | 5 U              | 2.5 U            | 0.22 U           | 0.11 U           | 3.3 U            | 2 U     |
| 2-Hexanone   | mg/L             | 10 U             | 3.3 U            | 5 U              | 2.5 U            | 0.22 U           | 0.11 U           | 3.3 U            | 2 U     |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | mg/L             | 10 U             | 3.3 U            | 5 U              | 2.5 U            | 0.22 U           | 0.11 U           | 3.3 U            | 2 U     |
| Acetone  | mg/L             | 10 U             | 3.3 U            | 5 U              | 2.5 U            | 0.22 U           | 0.11 U           | 3.3 U            | 2 U     |
| Benzene  | mg/L             | 0.5 U            | 0.33 U           | 0.25 U           | 0.25 U           | 0.011 U          | 0.011 U          | 0.17 U           | 0.2 U   |
| Bromodichloromethane                                 | mg/L             | 0.5 U            | 0.33 U           | 0.25 U           | 0.25 U           | 0.011 U          | 0.011 U          | 0.17 U           | 0.2 U   |
| Bromoform  | mg/L             | 0.5 U            | 0.33 U           | 0.25 U           | 0.25 U           | 0.011 U          | 0.011 U          | 0.17 U           | 0.2 U   |
| Bromomethane (Methyl bromide)                        | mg/L             | 0.5 U            | 0.33 U           | 0.25 U           | 0.25 U           | 0.011 U          | 0.011 U          | 0.17 U           | 0.2 U   |
| Carbon disulfide                                     | mg/L             | 2.5 U            | 0.33 U           | 1.2 U            | 0.25 U           | 0.056 U          | 0.011 U          | 0.83 U           | 0.2 U   |
| Carbon tetrachloride                                 | mg/L             | 0.5 U            | 0.33 U           | 0.25 U           | 0.25 U           | 0.011 U          | 0.011 U          | 0.17 U           | 0.2 U   |
| Chlorobenzene  | mg/L             | 0.5 U            | 0.33 U           | 0.25 U           | 0.25 U           | 0.011 U          | 0.011 U          | 0.17 U           | 0.2 U   |
| Chloroethane   | mg/L             | 0.5 U            | 0.33 U           | 0.25 U           | 0.25 U           | 0.011 U          | 0.011 U          | 0.17 U           | 0.2 U   |
| Chloroform (Trichloromethane)                        | mg/L             | 0.5 U            | 0.33 U           | 0.25 U           | 0.25 U           | 0.011 U          | 0.011 U          | 0.17 U           | 0.2 U   |
| Chloromethane (Methyl chloride)                      | mg/L             | 0.5 U            | 0.33 U           | 0.25 U           | 0.25 U           | 0.011 U          | 0.011 U          | 0.17 U           | 0.2 U   |
| cis-1,2-Dichloroethene                               | mg/L             | 8.9              | 5.7              | 8.5              | 7.1              | 0.29             | 0.24             | 4.9              | 4.7     |
| cis-1,3-Dichloropropene                              | mg/L             | 0.5 U            | 0.33 U           | 0.25 U           | 0.25 U           | 0.011 U          | 0.011 U          | 0.17 U           | 0.2 U   |
| Dibromochloromethane                                 | mg/L             | 0.5 U            | 0.33 U           | 0.25 U           | 0.25 U           | 0.011 U          | 0.011 U          | 0.17 U           | 0.2 U   |
| Ethylbenzene   | mg/L             | 0.5 U            | 0.33 U           | 0.25 U           | 0.25 U           | 0.011 U          | 0.011 U          | 0.17 U           | 0.2 U   |
| Methylene chloride                                   | mg/L             | 2.5 U            | 0.33 U           | 1.2 U            | 0.25 U           | 0.056 U          | 0.011 U          | 0.83 U           | 0.2 U   |
| Styrene  | mg/L             | 0.5 U            | 0.33 U           | 0.25 U           | 0.25 U           | 0.011 U          | 0.011 U          | 0.17 U           | 0.2 U   |
| Tetrachloroethene                                    | mg/L             | 0.5 U            | 0.33 U           | 0.25 U           | 0.25 U           | 0.011 U          | 0.011 U          | 0.17 U           | 0.2 U   |
| Toluene  | mg/L             | 0.5 U            | 0.33 U           | 0.25 U           | 0.25 U           | 0.011 U          | 0.011 U          | 0.17 U           | 0.2 U   |
| trans-1,2-Dichloroethene                             | mg/L             | 0.5 U            | 0.33 U           | 0.25 U           | 0.25 U           | 0.0031 J         | 0.0033 J         | 0.17 U           | 0.2 U   |
| trans-1,3-Dichloropropene                            | mg/L             | 0.5 U            | 0.33 U           | 0.25 U           | 0.25 U           | 0.011 U          | 0.011 U          | 0.17 U           | 0.2 U   |
| Trichloroethene                                      | mg/L             | 14               | 10               | 0.33             | 0.34             | 0.0098 J         | 0.0073 J         | 0.17 U           | 0.2 U   |
| Vinyl chloride                                       | mg/L             | 0.35 J           | 0.12 J           | 2.4              | 1.7              | 0.011 U          | 0.011 U          | 0.23             | 0.19 J  |
| Xylenes (total)                                      | mg/L             | 1 U              | 0.67 U           | 0.5 U            | 0.5 U            | 0.022 U          | 0.022 U          | 0.33 U           | 0.4 U   |

## Notes:

J - Estimated concentration.

U - Not present at or above the associated value.

-- Not analyzed.

**TABLE 4-2**  
**GROUNDWATER TCL ANALYTICAL RESULTS (2011)**  
**RACER MLK BOULEVARD**  
**ANDERSON, INDIANA**

| Sample Location:                                     | MW 28            | MW 28            | MW 37            | MW 40            | MW 40            | MW 41            | MW 41            | MW 42            |         |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---------|
| Sample ID:   | WG-041911-KD-004 | WG-100311-RM-004 | WG-100511-RM-015 | WG-041911-SM-005 | WG-100411-SM-007 | WG-041911-KD-006 | WG-100411-RM-005 | WG-041911-KD-005 |         |
| Sample Date:   | 4/19/2011        | 10/3/2011        | 10/5/2011        | 4/19/2011        | 10/4/2011        | 4/19/2011        | 10/4/2011        | 4/19/2011        |         |
| Matrix_Type  | WG-N             | WG-N             | WG-N             | WG-N             | WG-N             | WG-N             | WG-N             | WG-N             |         |
| Parameters:  | Units            |                  |                  |                  |                  |                  |                  |                  |         |
| <b>Volatile Organic Compounds</b>                    |                  |                  |                  |                  |                  |                  |                  |                  |         |
| 1,1,1-Trichloroethane                                | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.25 U           | 0.25 U           | 0.17 U           | 0.2 U            | 0.17 U  |
| 1,1,2,2-Tetrachloroethane                            | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.25 U           | 0.25 U           | 0.17 U           | 0.2 U            | 0.17 U  |
| 1,1,2-Trichloroethane                                | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.25 U           | 0.25 U           | 0.17 U           | 0.2 U            | 0.17 U  |
| 1,1-Dichloroethane                                   | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.33             | 0.29             | 0.17 U           | 0.2 U            | 0.1 J   |
| 1,1-Dichloroethene                                   | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.054 J          | 0.25 U           | 0.17 U           | 0.2 U            | 0.042 J |
| 1,2-Dichloroethane                                   | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.25 U           | 0.25 U           | 0.17 U           | 0.2 U            | 0.17 U  |
| 1,2-Dichloropropane                                  | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.25 U           | 0.25 U           | 0.17 U           | 0.2 U            | 0.17 U  |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | mg/L             | 0.04 U           | 0.033 U          | 0.01 U           | 5 U              | 2.5 U            | 3.3 U            | 2 U              | 3.3 U   |
| 2-Hexanone   | mg/L             | 0.04 U           | 0.033 U          | 0.01 U           | 5 U              | 2.5 U            | 3.3 U            | 2 U              | 3.3 U   |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | mg/L             | 0.04 U           | 0.033 U          | 0.01 U           | 5 U              | 2.5 U            | 3.3 U            | 2 U              | 3.3 U   |
| Acetone  | mg/L             | 0.04 U           | 0.033 U          | 0.01 U           | 5 U              | 2.5 U            | 3.3 U            | 2 U              | 3.3 U   |
| Benzene  | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.25 U           | 0.25 U           | 0.17 U           | 0.2 U            | 0.17 U  |
| Bromodichloromethane                                 | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.25 U           | 0.25 U           | 0.17 U           | 0.2 U            | 0.17 U  |
| Bromoform  | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.25 U           | 0.25 U           | 0.17 U           | 0.2 U            | 0.17 U  |
| Bromomethane (Methyl bromide)                        | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.25 U           | 0.25 U           | 0.17 U           | 0.2 U            | 0.17 U  |
| Carbon disulfide                                     | mg/L             | 0.01 U           | 0.0033 U         | 0.001 U          | 1.2 U            | 0.25 U           | 0.83 U           | 0.2 U            | 0.83 U  |
| Carbon tetrachloride                                 | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.25 U           | 0.25 U           | 0.17 U           | 0.2 U            | 0.17 U  |
| Chlorobenzene  | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.25 U           | 0.25 U           | 0.17 U           | 0.2 U            | 0.17 U  |
| Chloroethane   | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.25 U           | 0.25 U           | 0.17 U           | 0.2 U            | 0.17 U  |
| Chloroform (Trichloromethane)                        | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.25 U           | 0.25 U           | 0.17 U           | 0.2 U            | 0.17 U  |
| Chloromethane (Methyl chloride)                      | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.25 U           | 0.25 U           | 0.17 U           | 0.2 U            | 0.17 U  |
| cis-1,2-Dichloroethene                               | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 8.8              | 7.6              | 6.3              | 6.3              | 6       |
| cis-1,3-Dichloropropene                              | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.25 U           | 0.25 U           | 0.17 U           | 0.2 U            | 0.17 U  |
| Dibromochloromethane                                 | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.25 U           | 0.25 U           | 0.17 U           | 0.2 U            | 0.17 U  |
| Ethylbenzene   | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.25 U           | 0.25 U           | 0.17 U           | 0.2 U            | 0.17 U  |
| Methylene chloride                                   | mg/L             | 0.01 U           | 0.0033 U         | 0.001 U          | 1.2 U            | 0.25 U           | 0.83 U           | 0.2 U            | 0.83 U  |
| Styrene  | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.25 U           | 0.25 U           | 0.17 U           | 0.2 U            | 0.17 U  |
| Tetrachloroethene                                    | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.25 U           | 0.25 U           | 0.17 U           | 0.2 U            | 0.17 U  |
| Toluene  | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.25 U           | 0.25 U           | 0.17 U           | 0.2 U            | 0.17 U  |
| trans-1,2-Dichloroethene                             | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.17 J           | 0.13 J           | 0.14 J           | 0.14 J           | 0.31    |
| trans-1,3-Dichloropropene                            | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.25 U           | 0.25 U           | 0.17 U           | 0.2 U            | 0.17 U  |
| Trichloroethene                                      | mg/L             | 0.002 U          | 0.0033 U         | 0.001 U          | 0.25 U           | 0.25 U           | 0.17 U           | 0.2 U            | 0.17 U  |
| Vinyl chloride                                       | mg/L             | 0.062            | 0.078            | 0.001 U          | 0.99             | 0.99             | 0.3              | 0.51             | 0.17    |
| Xylenes (total)                                      | mg/L             | 0.004 U          | 0.0067 U         | 0.002 U          | 0.5 U            | 0.5 U            | 0.33 U           | 0.4 U            | 0.33 U  |

## Notes:

J - Estimated concentration.

U - Not present at or above the associated value.

-- Not analyzed.

**TABLE 4-2**  
**GROUNDWATER TCL ANALYTICAL RESULTS (2011)**  
**RACER MLK BOULEVARD**  
**ANDERSON, INDIANA**

| Sample Location:                                     | MW 42            | MW 46            | MW 49            | MW 49            | MW 51            | MW 51            | MW 56            | MW 57            |         |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---------|
| Sample ID:   | WG-100411-RM-006 | WG-100511-RM-013 | WG-041911-SM-006 | WG-100511-RM-012 | WG-042011-SM-007 | WG-100511-SM-013 | WG-100611-RM-016 | WG-100611-RM-017 |         |
| Sample Date:   | 10/4/2011        | 10/5/2011        | 4/19/2011        | 10/5/2011        | 4/20/2011        | 10/5/2011        | 10/6/2011        | 10/6/2011        |         |
| Matrix_Type  | WG-N             | WG-N             | WG-N             | WG-N             | WG-N             | WG-N             | WG-N             | WG-N             |         |
| Parameters:  | Units            |                  |                  |                  |                  |                  |                  |                  |         |
| <b>Volatile Organic Compounds</b>                    |                  |                  |                  |                  |                  |                  |                  |                  |         |
| 1,1,1-Trichloroethane                                | mg/L             | 0.2 U            | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| 1,1,2,2-Tetrachloroethane                            | mg/L             | 0.2 U            | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| 1,1,2-Trichloroethane                                | mg/L             | 0.2 U            | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| 1,1-Dichloroethane                                   | mg/L             | 0.091 J          | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| 1,1-Dichloroethene                                   | mg/L             | 0.041 J          | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| 1,2-Dichloroethane                                   | mg/L             | 0.2 U            | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| 1,2-Dichloropropane                                  | mg/L             | 0.2 U            | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | mg/L             | 2 U              | 0.01 U           | 0.33 U           | 0.25 U           | 0.13 U           | 0.091 U          | 0.01 U           | 0.01 U  |
| 2-Hexanone   | mg/L             | 2 U              | 0.01 U           | 0.33 U           | 0.25 U           | 0.13 U           | 0.091 U          | 0.01 U           | 0.01 U  |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | mg/L             | 2 U              | 0.01 U           | 0.33 U           | 0.25 U           | 0.13 U           | 0.091 U          | 0.01 U           | 0.01 U  |
| Acetone  | mg/L             | 2 U              | 0.01 U           | 0.33 U           | 0.25 U           | 0.13 U           | 0.091 U          | 0.01 U           | 0.01 U  |
| Benzene  | mg/L             | 0.2 U            | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| Bromodichloromethane                                 | mg/L             | 0.2 U            | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| Bromoform  | mg/L             | 0.2 U            | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| Bromomethane (Methyl bromide)                        | mg/L             | 0.2 U            | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| Carbon disulfide                                     | mg/L             | 0.2 U            | 0.001 U          | 0.083 U          | 0.025 U          | 0.033 U          | 0.0091 U         | 0.001 U          | 0.001 U |
| Carbon tetrachloride                                 | mg/L             | 0.2 U            | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| Chlorobenzene  | mg/L             | 0.2 U            | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| Chloroethane   | mg/L             | 0.2 U            | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| Chloroform (Trichloromethane)                        | mg/L             | 0.2 U            | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| Chloromethane (Methyl chloride)                      | mg/L             | 0.2 U            | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| cis-1,2-Dichloroethene                               | mg/L             | 5                | 0.001 U          | 0.37             | 0.53             | 0.0067 U         | 0.0078 J         | 0.001 U          | 0.001 U |
| cis-1,3-Dichloropropene                              | mg/L             | 0.2 U            | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| Dibromochloromethane                                 | mg/L             | 0.2 U            | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| Ethylbenzene   | mg/L             | 0.2 U            | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| Methylene chloride                                   | mg/L             | 0.2 U            | 0.001 U          | 0.083 U          | 0.025 U          | 0.033 U          | 0.0091 U         | 0.001 U          | 0.001 U |
| Styrene  | mg/L             | 0.2 U            | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| Tetrachloroethene                                    | mg/L             | 0.2 U            | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| Toluene  | mg/L             | 0.2 U            | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| trans-1,2-Dichloroethene                             | mg/L             | 0.25             | 0.001 U          | 0.0078 J         | 0.011 J          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| trans-1,3-Dichloropropene                            | mg/L             | 0.2 U            | 0.001 U          | 0.017 U          | 0.025 U          | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| Trichloroethene                                      | mg/L             | 0.2 U            | 0.001 U          | 0.017 U          | 0.025 U          | 0.18             | 0.21             | 0.001 U          | 0.001 U |
| Vinyl chloride                                       | mg/L             | 0.13 J           | 0.001 U          | 0.022            | 0.025            | 0.0067 U         | 0.0091 U         | 0.001 U          | 0.001 U |
| Xylenes (total)                                      | mg/L             | 0.4 U            | 0.002 U          | 0.033 U          | 0.05 U           | 0.013 U          | 0.018 U          | 0.002 U          | 0.002 U |

## Notes:

J - Estimated concentration.

U - Not present at or above the associated value.

-- Not analyzed.

**TABLE 4-2**  
**GROUNDWATER TCL ANALYTICAL RESULTS (2011)**  
**RACER MLK BOULEVARD**  
**ANDERSON, INDIANA**

| Sample Location:                                     | MW 58            | MW 61            | MW 64            | MW 65            | MW 66            | MW 66            | MW 66            | MW 68            |         |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---------|
| Sample ID:   | WG-100611-SM-017 | WG-100311-SM-004 | WG-100311-SM-002 | WG-100311-RM-002 | WG-041911-SM-003 | WG-041911-SM-004 | WG-100311-SM-001 | WG-041811-KD-003 |         |
| Sample Date:   | 10/6/2011        | 10/3/2011        | 10/3/2011        | 10/3/2011        | 4/19/2011        | 4/19/2011        | 10/3/2011        | 4/18/2011        |         |
| Matrix_Type  | WG-N             | WG-N             | WG-N             | WG-N             | WG-N             | WG-FD            | WG-N             | WG-N             |         |
| Parameters:  | Units            |                  |                  |                  |                  |                  |                  |                  |         |
| <b>Volatile Organic Compounds</b>                    |                  |                  |                  |                  |                  |                  |                  |                  |         |
| 1,1,1-Trichloroethane                                | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 0.25 U  |
| 1,1,2,2-Tetrachloroethane                            | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 0.25 U  |
| 1,1,2-Trichloroethane                                | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 0.25 U  |
| 1,1-Dichloroethane                                   | mg/L             | 0.008 U          | 0.001 U          | 0.00074 J        | 0.031 J          | 0.01             | 0.011            | 0.016 J          | 0.22 J  |
| 1,1-Dichloroethene                                   | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 0.25 U  |
| 1,2-Dichloroethane                                   | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 0.25 U  |
| 1,2-Dichloropropane                                  | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 0.25 U  |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | mg/L             | 0.08 U           | 0.01 U           | 0.01 U           | 0.4 U            | 0.2 U            | 0.2 U            | 0.17 U           | 5 U     |
| 2-Hexanone   | mg/L             | 0.08 U           | 0.01 U           | 0.01 U           | 0.4 U            | 0.2 U            | 0.2 U            | 0.17 U           | 5 U     |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | mg/L             | 0.08 U           | 0.01 U           | 0.01 U           | 0.4 U            | 0.2 U            | 0.2 U            | 0.17 U           | 5 U     |
| Acetone  | mg/L             | 0.08 U           | 0.01 U           | 0.01 U           | 0.4 U            | 0.2 U            | 0.2 U            | 0.17 U           | 5 U     |
| Benzene  | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 0.25 U  |
| Bromodichloromethane                                 | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 0.25 U  |
| Bromoform  | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 0.25 U  |
| Bromomethane (Methyl bromide)                        | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 0.25 U  |
| Carbon disulfide                                     | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.05 U           | 0.05 U           | 0.017 U          | 1.2 U   |
| Carbon tetrachloride                                 | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 0.25 U  |
| Chlorobenzene  | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 0.25 U  |
| Chloroethane   | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 0.25 U  |
| Chloroform (Trichloromethane)                        | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 0.25 U  |
| Chloromethane (Methyl chloride)                      | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 0.25 U  |
| cis-1,2-Dichloroethene                               | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.97             | 0.23             | 0.24             | 0.33             | 7       |
| cis-1,3-Dichloropropene                              | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 0.25 U  |
| Dibromochloromethane                                 | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 0.25 U  |
| Ethylbenzene   | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 0.25 U  |
| Methylene chloride                                   | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.05 U           | 0.05 U           | 0.017 U          | 1.2 U   |
| Styrene  | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 0.25 U  |
| Tetrachloroethene                                    | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 0.25 U  |
| Toluene  | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 0.25 U  |
| trans-1,2-Dichloroethene                             | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.048            | 0.016            | 0.017            | 0.026            | 0.22 J  |
| trans-1,3-Dichloropropene                            | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 0.25 U  |
| Trichloroethene                                      | mg/L             | 0.008 U          | 0.001 U          | 0.001 U          | 0.04 U           | 0.01 U           | 0.01 U           | 0.017 U          | 2.4     |
| Vinyl chloride                                       | mg/L             | 0.12             | 0.00029 J        | 0.032            | 0.04 U           | 0.045            | 0.046            | 0.14             | 0.097 J |
| Xylenes (total)                                      | mg/L             | 0.016 U          | 0.002 U          | 0.002 U          | 0.08 U           | 0.02 U           | 0.02 U           | 0.033 U          | 0.5 U   |

## Notes:

J - Estimated concentration.

U - Not present at or above the associated value.

-- Not analyzed.

**TABLE 4-2**  
**GROUNDWATER TCL ANALYTICAL RESULTS (2011)**  
**RACER MLK BOULEVARD**  
**ANDERSON, INDIANA**

| Sample Location:                                     | MW 68            | MW 68            | MW 75            | MW 76            | MW 76            | MW 80            | MW 81            | MW 82            |         |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---------|
| Sample ID:   | WG-100411-RM-008 | WG-100411-RM-009 | WG-100511-SM-014 | WG-100511-SM-015 | WG-100511-SM-016 | WG-100311-SM-003 | WG-100311-RM-001 | WG-100411-RM-010 |         |
| Sample Date:   | 10/4/2011        | 10/4/2011        | 10/5/2011        | 10/5/2011        | 10/5/2011        | 10/3/2011        | 10/3/2011        | 10/4/2011        |         |
| Matrix_Type  | WG-N             | WG-FD            | WG-N             | WG-N             | WG-FD            | WG-N             | WG-N             | WG-N             |         |
| Parameters:  | Units            |                  |                  |                  |                  |                  |                  |                  |         |
| <b>Volatile Organic Compounds</b>                    |                  |                  |                  |                  |                  |                  |                  |                  |         |
| 1,1,1-Trichloroethane                                | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U |
| 1,1,2,2-Tetrachloroethane                            | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U |
| 1,1,2-Trichloroethane                                | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| 1,1-Dichloroethane                                   | mg/L             | 0.22 J           | 0.23 J           | 0.001 U          | 0.001 U          | 0.001 U          | 0.00054 J        | 0.001 U          | 0.001 U |
| 1,1-Dichloroethene                                   | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| 1,2-Dichloroethane                                   | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| 1,2-Dichloropropane                                  | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | mg/L             | 2.5 U            | 2.5 U            | 0.01 U           | 0.01 U           | 0.01 U           | 0.02 U           | 0.01 U           | 0.01 U  |
| 2-Hexanone   | mg/L             | 2.5 U            | 2.5 U            | 0.01 U           | 0.01 U           | 0.01 U           | 0.02 U           | 0.01 U           | 0.01 U  |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | mg/L             | 2.5 U            | 2.5 U            | 0.01 U           | 0.01 U           | 0.01 U           | 0.02 U           | 0.01 U           | 0.01 U  |
| Acetone  | mg/L             | 2.5 U            | 2.5 U            | 0.01 U           | 0.01 U           | 0.01 U           | 0.02 U           | 0.01 U           | 0.01 U  |
| Benzene  | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| Bromodichloromethane                                 | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| Bromoform  | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| Bromomethane (Methyl bromide)                        | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| Carbon disulfide                                     | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| Carbon tetrachloride                                 | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| Chlorobenzene  | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| Chloroethane   | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| Chloroform (Trichloromethane)                        | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| Chloromethane (Methyl chloride)                      | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| cis-1,2-Dichloroethene                               | mg/L             | 6.6              | 6.7              | 0.001 U          | 0.001 U          | 0.001 U          | 0.019            | 0.001 U          | 0.001 U |
| cis-1,3-Dichloropropene                              | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| Dibromochloromethane                                 | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| Ethylbenzene   | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| Methylene chloride                                   | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| Styrene  | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| Tetrachloroethene                                    | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| Toluene  | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| trans-1,2-Dichloroethene                             | mg/L             | 0.14 J           | 0.14 J           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| trans-1,3-Dichloropropene                            | mg/L             | 0.25 U           | 0.25 U           | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| Trichloroethene                                      | mg/L             | 1.9              | 1.9              | 0.001 U          | 0.001 U          | 0.001 U          | 0.002 U          | 0.001 U          | 0.001 U |
| Vinyl chloride                                       | mg/L             | 0.16 J           | 0.16 J           | 0.001 U          | 0.001 U          | 0.001 U          | 0.015            | 0.05             | 0.001 U |
| Xylenes (total)                                      | mg/L             | 0.5 U            | 0.5 U            | 0.002 U          | 0.002 U          | 0.002 U          | 0.004 U          | 0.002 U          | 0.002 U |

## Notes:

J - Estimated concentration.

U - Not present at or above the associated value.

-- Not analyzed.

**TABLE 4-2**  
**GROUNDWATER TCL ANALYTICAL RESULTS (2011)**  
**RACER MLK BOULEVARD**  
**ANDERSON, INDIANA**

| Sample Location:                                     | MW 83            | MW 85            | MW 85            | MW 86            | MW 88            | MW 31R           | MW 31R           | MW 79            |        |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------|
| Sample ID:   | WG-100411-SM-006 | WG-042011-KD-012 | WG-100611-RM-018 | WG-100411-RM-007 | WG-100311-RM-003 | WG-041811-KD-001 | WG-100411-SM-009 | WG-042011-KD-010 |        |
| Sample Date:   | 10/4/2011        | 4/20/2011        | 10/6/2011        | 10/4/2011        | 10/3/2011        | 4/18/2011        | 10/4/2011        | 4/20/2011        |        |
| Matrix_Type  | WG-N             | WG-N             | WG-N             | WG-N             | WG-N             | WG-N             | WG-N             | WG-N             |        |
| Parameters:  | Units            |                  |                  |                  |                  |                  |                  |                  |        |
| <b>Volatile Organic Compounds</b>                    |                  |                  |                  |                  |                  |                  |                  |                  |        |
| 1,1,1-Trichloroethane                                | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.11 J           | 0.088 J          | 0.04 U |
| 1,1,2,2-Tetrachloroethane                            | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.2 U            | 0.2 U            | 0.04 U |
| 1,1,2-Trichloroethane                                | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.2 U            | 0.2 U            | 0.04 U |
| 1,1-Dichloroethane                                   | mg/L             | 0.001 U          | 0.0077 J         | 0.023 J          | 0.001 U          | 0.001 U          | 0.28             | 0.33             | 0.04 U |
| 1,1-Dichloroethene                                   | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.2 U            | 0.2 U            | 0.04 U |
| 1,2-Dichloroethane                                   | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.2 U            | 0.2 U            | 0.04 U |
| 1,2-Dichloropropane                                  | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.2 U            | 0.2 U            | 0.04 U |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | mg/L             | 0.01 U           | 0.4 U            | 0.29 U           | 0.01 U           | 0.01 U           | 4 U              | 2 U              | 0.8 U  |
| 2-Hexanone   | mg/L             | 0.01 U           | 0.4 U            | 0.29 U           | 0.01 U           | 0.01 U           | 4 U              | 2 U              | 0.8 U  |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | mg/L             | 0.01 U           | 0.4 U            | 0.29 U           | 0.01 U           | 0.01 U           | 4 U              | 2 U              | 0.8 U  |
| Acetone  | mg/L             | 0.01 U           | 0.4 U            | 0.29 U           | 0.01 U           | 0.01 U           | 4 U              | 2 U              | 0.8 U  |
| Benzene  | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.2 U            | 0.2 U            | 0.04 U |
| Bromodichloromethane                                 | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.2 U            | 0.2 U            | 0.04 U |
| Bromoform  | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.2 U            | 0.2 U            | 0.04 U |
| Bromomethane (Methyl bromide)                        | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.2 U            | 0.2 U            | 0.04 U |
| Carbon disulfide                                     | mg/L             | 0.001 U          | 0.1 U            | 0.029 U          | 0.001 U          | 0.001 U          | 1 U              | 0.2 U            | 0.2 U  |
| Carbon tetrachloride                                 | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.2 U            | 0.2 U            | 0.04 U |
| Chlorobenzene  | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.2 U            | 0.2 U            | 0.04 U |
| Chloroethane   | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.2 U            | 0.09 J           | 0.04 U |
| Chloroform (Trichloromethane)                        | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.2 U            | 0.2 U            | 0.04 U |
| Chloromethane (Methyl chloride)                      | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.2 U            | 0.2 U            | 0.04 U |
| cis-1,2-Dichloroethene                               | mg/L             | 0.001 U          | 0.18             | 0.59             | 0.001 U          | 0.001 U          | 6.2              | 5.1              | 1.2    |
| cis-1,3-Dichloropropene                              | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.2 U            | 0.2 U            | 0.04 U |
| Dibromochloromethane                                 | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.2 U            | 0.2 U            | 0.04 U |
| Ethylbenzene   | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.35             | 0.51             | 0.04 U |
| Methylene chloride                                   | mg/L             | 0.001 U          | 0.1 U            | 0.029 U          | 0.001 U          | 0.001 U          | 1 U              | 0.2 U            | 0.2 U  |
| Styrene  | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.2 U            | 0.2 U            | 0.04 U |
| Tetrachloroethene                                    | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.2 U            | 0.2 U            | 0.04 U |
| Toluene  | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 1.7              | 1.9              | 0.04 U |
| trans-1,2-Dichloroethene                             | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.2 U            | 0.2 U            | 0.055  |
| trans-1,3-Dichloropropene                            | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.2 U            | 0.2 U            | 0.04 U |
| Trichloroethene                                      | mg/L             | 0.001 U          | 0.02 U           | 0.029 U          | 0.001 U          | 0.001 U          | 0.34             | 0.32             | 0.04 U |
| Vinyl chloride                                       | mg/L             | 0.0003 J         | 0.45             | 0.51             | 0.001 U          | 0.001 U          | 0.64             | 1.2              | 0.13   |
| Xylenes (total)                                      | mg/L             | 0.002 U          | 0.04 U           | 0.057 U          | 0.002 U          | 0.002 U          | 1.1              | 1.1              | 0.08 U |

## Notes:

J - Estimated concentration.

U - Not present at or above the associated value.

-- Not analyzed.

**TABLE 4-2**  
**GROUNDWATER TCL ANALYTICAL RESULTS (2011)**  
**RACER MLK BOULEVARD**  
**ANDERSON, INDIANA**

| Sample Location:                                     | MW 79            | MW-2             | MW-4             | MW-4             | MW-4             | Equipment Blank  | Equipment Blank  | Equipment Blank  |          |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------|
| Sample ID:   | WG-100411-SM-008 | WG-100611-SM-018 | WG-042011-SM-008 | WG-042011-SM-009 | WG-100611-SM-016 | WQ-041911-KD-007 | WQ-042011-KD-009 | WQ-100411-SM-005 |          |
| Sample Date:   | 10/4/2011        | 10/6/2011        | 4/20/2011        | 4/20/2011        | 10/6/2011        | 4/19/2011        | 4/20/2011        | 10/4/2011        |          |
| Matrix_Type  | WG-N             | WG-N             | WG-N             | WG-FD            | WG-N             | WQ-Q-EB          | WQ-Q-EB          | WQ-Q-EB          |          |
| Parameters:  | Units            |                  |                  |                  |                  |                  |                  |                  |          |
| <b>Volatile Organic Compounds</b>                    |                  |                  |                  |                  |                  |                  |                  |                  |          |
| 1,1,1-Trichloroethane                                | mg/L             | 0.067 U          | 0.001 U          | 0.25 U           | 0.33 U           | 0.42 U           | 0.001 U          | 0.001 U          | 0.001 U  |
| 1,1,2,2-Tetrachloroethane                            | mg/L             | 0.067 U          | 0.001 U          | 0.25 U           | 0.33 U           | 0.42 U           | 0.001 U          | 0.001 U          | 0.001 U  |
| 1,1,2-Trichloroethane                                | mg/L             | 0.067 U          | 0.001 U          | 0.25 U           | 0.33 U           | 0.42 U           | 0.001 U          | 0.001 U          | 0.001 U  |
| 1,1-Dichloroethane                                   | mg/L             | 0.067 U          | 0.001 U          | 0.4              | 0.38             | 0.47             | 0.001 U          | 0.001 U          | 0.001 U  |
| 1,1-Dichloroethene                                   | mg/L             | 0.067 U          | 0.001 U          | 0.058 J          | 0.068 J          | 0.089 J          | 0.001 U          | 0.001 U          | 0.001 U  |
| 1,2-Dichloroethane                                   | mg/L             | 0.067 U          | 0.001 U          | 0.25 U           | 0.33 U           | 0.42 U           | 0.001 U          | 0.001 U          | 0.001 U  |
| 1,2-Dichloropropane                                  | mg/L             | 0.067 U          | 0.001 U          | 0.25 U           | 0.33 U           | 0.42 U           | 0.001 U          | 0.001 U          | 0.001 U  |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | mg/L             | 0.67 U           | 0.01 U           | 5 U              | 6.7 U            | 4.2 U            | 0.02 U           | 0.02 U           | 0.01 U   |
| 2-Hexanone   | mg/L             | 0.67 U           | 0.01 U           | 5 U              | 6.7 U            | 4.2 U            | 0.02 U           | 0.02 U           | 0.01 U   |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | mg/L             | 0.67 U           | 0.01 U           | 5 U              | 6.7 U            | 4.2 U            | 0.02 U           | 0.02 U           | 0.01 U   |
| Acetone  | mg/L             | 0.67 U           | 0.01 U           | 5 U              | 6.7 U            | 4.2 U            | 0.0011 J         | 0.0011 J         | 0.01 U   |
| Benzene  | mg/L             | 0.067 U          | 0.001 U          | 0.25 U           | 0.33 U           | 0.42 U           | 0.001 U          | 0.001 U          | 0.001 U  |
| Bromodichloromethane                                 | mg/L             | 0.067 U          | 0.001 U          | 0.25 U           | 0.33 U           | 0.42 U           | 0.001 U          | 0.001 U          | 0.001 U  |
| Bromoform  | mg/L             | 0.067 U          | 0.001 U          | 0.25 U           | 0.33 U           | 0.42 U           | 0.001 U          | 0.001 U          | 0.001 U  |
| Bromomethane (Methyl bromide)                        | mg/L             | 0.067 U          | 0.001 U          | 0.25 U           | 0.33 U           | 0.42 U           | 0.001 U          | 0.001 U          | 0.001 U  |
| Carbon disulfide                                     | mg/L             | 0.067 U          | 0.001 U          | 1.2 U            | 1.7 U            | 0.42 U           | 0.005 U          | 0.005 U          | 0.001 U  |
| Carbon tetrachloride                                 | mg/L             | 0.067 U          | 0.001 U          | 0.25 U           | 0.33 U           | 0.42 U           | 0.001 U          | 0.001 U          | 0.001 U  |
| Chlorobenzene  | mg/L             | 0.067 U          | 0.001 U          | 0.25 U           | 0.33 U           | 0.42 U           | 0.001 U          | 0.001 U          | 0.001 U  |
| Chloroethane   | mg/L             | 0.067 U          | 0.001 U          | 0.25 U           | 0.33 U           | 0.42 U           | 0.001 U          | 0.001 U          | 0.001 U  |
| Chloroform (Trichloromethane)                        | mg/L             | 0.067 U          | 0.001 U          | 0.25 U           | 0.33 U           | 0.42 U           | 0.001 U          | 0.001 U          | 0.0006 J |
| Chloromethane (Methyl chloride)                      | mg/L             | 0.067 U          | 0.001 U          | 0.25 U           | 0.33 U           | 0.42 U           | 0.001 U          | 0.001 U          | 0.001 U  |
| cis-1,2-Dichloroethene                               | mg/L             | 1.5              | 0.001 U          | 8.8              | 8.7              | 11               | 0.00022 J        | 0.0014           | 0.001 U  |
| cis-1,3-Dichloropropene                              | mg/L             | 0.067 U          | 0.001 U          | 0.25 U           | 0.33 U           | 0.42 U           | 0.001 U          | 0.001 U          | 0.001 U  |
| Dibromochloromethane                                 | mg/L             | 0.067 U          | 0.001 U          | 0.25 U           | 0.33 U           | 0.42 U           | 0.001 U          | 0.001 U          | 0.001 U  |
| Ethylbenzene   | mg/L             | 0.067 U          | 0.001 U          | 0.25 U           | 0.33 U           | 0.42 U           | 0.001 U          | 0.001 U          | 0.001 U  |
| Methylene chloride                                   | mg/L             | 0.067 U          | 0.001 U          | 1.2 U            | 1.7 U            | 0.42 U           | 0.005 U          | 0.005 U          | 0.001 U  |
| Styrene  | mg/L             | 0.067 U          | 0.001 U          | 0.25 U           | 0.33 U           | 0.42 U           | 0.001 U          | 0.001 U          | 0.001 U  |
| Tetrachloroethene                                    | mg/L             | 0.067 U          | 0.001 U          | 0.25 U           | 0.33 U           | 0.42 U           | 0.001 U          | 0.001 U          | 0.001 U  |
| Toluene  | mg/L             | 0.067 U          | 0.001 U          | 0.25 U           | 0.33 U           | 0.42 U           | 0.001 U          | 0.001 U          | 0.001 U  |
| trans-1,2-Dichloroethene                             | mg/L             | 0.069            | 0.001 U          | 0.28             | 0.28 J           | 0.32 J           | 0.001 U          | 0.001 U          | 0.001 U  |
| trans-1,3-Dichloropropene                            | mg/L             | 0.067 U          | 0.001 U          | 0.25 U           | 0.33 U           | 0.42 U           | 0.001 U          | 0.001 U          | 0.001 U  |
| Trichloroethene                                      | mg/L             | 0.067 U          | 0.001 U          | 0.25 U           | 0.33 U           | 0.092 J          | 0.001 U          | 0.001 U          | 0.001 U  |
| Vinyl chloride                                       | mg/L             | 0.14             | 0.001 U          | 0.77             | 0.73             | 0.72             | 0.001 U          | 0.001 U          | 0.001 U  |
| Xylenes (total)                                      | mg/L             | 0.13 U           | 0.002 U          | 0.5 U            | 0.67 U           | 0.83 U           | 0.002 U          | 0.002 U          | 0.002 U  |

## Notes:

J - Estimated concentration.

U - Not present at or above the associated value.

-- Not analyzed.

**TABLE 4-2**  
**GROUNDWATER TCL ANALYTICAL RESULTS (2011)**  
**RACER MLK BOULEVARD**  
**ANDERSON, INDIANA**

| <i>Sample Location:</i>                              |              | <i>Equipment Blank</i> | <i>Equipment Blank</i> | <i>Trip Blank</i> | <i>Trip Blank</i> | <i>Trip Blank</i> |
|--|--------------|------------------------|------------------------|-------------------|-------------------|-------------------|
| <i>Sample ID:</i>                                    |              | WQ-100511-SM-010       | WQ-100611-SM-022       | WQ-042011-KD-014  | WQ-100411-TA-001  | WQ-100611-TA-002  |
| <i>Sample Date:</i>                                  |              | 10/5/2011              | 10/6/2011              | 4/20/2011         | 10/4/2011         | 10/6/2011         |
| <i>Matrix_Type</i>                                   |              | WGQ-EB                 | WGQ-EB                 | WGQ-TB            | WGQ-TB            | WGQ-TB            |
| <i>Parameters:</i>                                   | <i>Units</i> |                        |                        |                   |                   |                   |
| <i>Volatile Organic Compounds</i>                    |              |                        |                        |                   |                   |                   |
| 1,1,1-Trichloroethane                                | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| 1,1,2,2-Tetrachloroethane                            | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| 1,1,2-Trichloroethane                                | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| 1,1-Dichloroethane                                   | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| 1,1-Dichloroethene                                   | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| 1,2-Dichloroethane                                   | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| 1,2-Dichloropropane                                  | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | mg/L         | 0.01 U                 | 0.01 U                 | 0.02 U            | 0.01 U            | 0.00089 J         |
| 2-Hexanone   | mg/L         | 0.01 U                 | 0.01 U                 | 0.02 U            | 0.01 U            | 0.01 U            |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | mg/L         | 0.01 U                 | 0.01 U                 | 0.02 U            | 0.01 U            | 0.01 U            |
| Acetone  | mg/L         | 0.01 U                 | 0.01 U                 | 0.0012 J          | 0.01 U            | 0.013             |
| Benzene  | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| Bromodichloromethane                                 | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| Bromoform  | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| Bromomethane (Methyl bromide)                        | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| Carbon disulfide                                     | mg/L         | 0.001 U                | 0.001 U                | 0.005 U           | 0.001 U           | 0.001 U           |
| Carbon tetrachloride                                 | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| Chlorobenzene  | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| Chloroethane   | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| Chloroform (Trichloromethane)                        | mg/L         | 0.00042 J              | 0.00039 J              | 0.00022 J         | 0.001 U           | 0.001 U           |
| Chloromethane (Methyl chloride)                      | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| cis-1,2-Dichloroethene                               | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| cis-1,3-Dichloropropene                              | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| Dibromochloromethane                                 | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| Ethylbenzene   | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| Methylene chloride                                   | mg/L         | 0.001 U                | 0.001 U                | 0.005 U           | 0.001 U           | 0.0076            |
| Styrene  | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| Tetrachloroethene                                    | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| Toluene  | mg/L         | 0.001 U                | 0.00048 J              | 0.001 U           | 0.001 U           | 0.0002 J          |
| trans-1,2-Dichloroethene                             | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| trans-1,3-Dichloropropene                            | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| Trichloroethene                                      | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| Vinyl chloride                                       | mg/L         | 0.001 U                | 0.001 U                | 0.001 U           | 0.001 U           | 0.001 U           |
| Xylenes (total)                                      | mg/L         | 0.002 U                | 0.002 U                | 0.002 U           | 0.002 U           | 0.002 U           |

## Notes:

J - Estimated concentration.

U - Not present at or above the associated value.

-- Not analyzed.

**TABLE 4-3**  
**SURFACE WATER TCL ANALYTICAL RESULTS (2011)**  
**RACER MLK BOULEVARD**  
**ANDERSON, INDIANA**

| <i>Sample Location:</i>                              | <i>Pond Intake</i> | <i>Pond Intake</i> | <i>Pond Intake</i> | <i>Pond Intake</i> | <i>Pond North</i> | <i>Pond North</i> | <i>Pond North</i> |
|--|--------------------|--------------------|--------------------|--------------------|-------------------|-------------------|-------------------|
| <i>Sample ID:</i>                                    | WS-042011-KD-013   | WS-072811-JB-002   | WS-100611-SM-020   | WS-100611-SM-021   | WS-042011-KD-011  | WS-072811-JB-001  | WS-072811-JB-003  |
| <i>Sample Date:</i>                                  | 4/20/2011          | 7/28/2011          | 10/6/2011          | 10/6/2011          | 4/20/2011         | 7/28/2011         | 7/28/2011         |
| <i>Matrix_Type</i>                                   | WS-N               | WS-N               | WS-N               | WS-FD              | WS-N              | WS-FD             | WS-N              |
| <i>Parameters:</i>                                   | <i>Units</i>       |                    |                    |                    |                   |                   |                   |
| <i>Volatile Organic Compounds</i>                    |                    |                    |                    |                    |                   |                   |                   |
| 1,1,1-Trichloroethane                                | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| 1,1,2,2-Tetrachloroethane                            | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| 1,1,2-Trichloroethane                                | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| 1,1-Dichloroethane                                   | mg/L               | 0.001 U            | 0.001 U            | 0.0002 J           | 0.0002 J          | 0.0013            | 0.001 U           |
| 1,1-Dichloroethene                                   | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| 1,2-Dichloroethane                                   | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| 1,2-Dichloropropane                                  | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | mg/L               | 0.02 U             | 0.01 U             | 0.01 U             | 0.01 U            | 0.02 U            | 0.01 U            |
| 2-Hexanone   | mg/L               | 0.02 U             | 0.01 U             | 0.01 U             | 0.01 U            | 0.02 U            | 0.01 U            |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | mg/L               | 0.02 U             | 0.01 U             | 0.01 U             | 0.01 U            | 0.02 U            | 0.01 U            |
| Acetone  | mg/L               | 0.02 U             | 0.01 U             | 0.01 U             | 0.01 U            | 0.02 U            | 0.01 U            |
| Benzene  | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| Bromodichloromethane                                 | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| Bromoform  | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| Bromomethane (Methyl bromide)                        | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| Carbon disulfide                                     | mg/L               | 0.005 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.005 U           | 0.001 U           |
| Carbon tetrachloride                                 | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| Chlorobenzene  | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| Chloroethane   | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| Chloroform (Trichloromethane)                        | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| Chloromethane (Methyl chloride)                      | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| cis-1,2-Dichloroethene                               | mg/L               | 0.001 U            | 0.001 U            | 0.004              | 0.004             | 0.026             | 0.001 U           |
| cis-1,3-Dichloropropene                              | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| Dibromochloromethane                                 | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| Ethylbenzene   | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| Methylene chloride                                   | mg/L               | 0.005 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.005 U           | 0.001 U           |
| Styrene  | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| Tetrachloroethene                                    | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| Toluene  | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| trans-1,2-Dichloroethene                             | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.0012            | 0.001 U           |
| trans-1,3-Dichloropropene                            | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| Trichloroethene                                      | mg/L               | 0.001 U            | 0.001 U            | 0.001 U            | 0.001 U           | 0.001 U           | 0.001 U           |
| Vinyl chloride                                       | mg/L               | 0.0019             | 0.0042             | 0.0022             | 0.0021            | 0.0043            | 0.0067            |
| Xylenes (total)                                      | mg/L               | 0.002 U            | 0.002 U            | 0.002 U            | 0.002 U           | 0.002 U           | 0.002 U           |

## Notes:

J - Estimated concentration.

U - Not present at or above the associated value.

**TABLE 4-3**  
**SURFACE WATER TCL ANALYTICAL RESULTS (2011)**  
**RACER MLK BOULEVARD**  
**ANDERSON, INDIANA**

|                         |                   |                   |
|-------------------------|-------------------|-------------------|
| <i>Sample Location:</i> | <i>Pond North</i> | <i>Trip Blank</i> |
| <i>Sample ID:</i>       | WS-100611-SM-019  | WQ-072811-TA-001  |
| <i>Sample Date:</i>     | 10/6/2011         | 7/28/2011         |
| <i>Matrix_Type</i>      | WS-N              | WSQ-TB            |

|                    |              |
|--------------------|--------------|
| <i>Parameters:</i> | <i>Units</i> |
|--------------------|--------------|

*Volatile Organic Compounds*

|  |      |           |           |
|--|------|-----------|-----------|
| 1,1,1-Trichloroethane                                | mg/L | 0.001 U   | 0.001 U   |
| 1,1,2,2-Tetrachloroethane                            | mg/L | 0.001 U   | 0.001 U   |
| 1,1,2-Trichloroethane                                | mg/L | 0.001 U   | 0.001 U   |
| 1,1-Dichloroethane                                   | mg/L | 0.00043 J | 0.001 U   |
| 1,1-Dichloroethene                                   | mg/L | 0.001 U   | 0.001 U   |
| 1,2-Dichloroethane                                   | mg/L | 0.001 U   | 0.001 U   |
| 1,2-Dichloropropane                                  | mg/L | 0.001 U   | 0.001 U   |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | mg/L | 0.01 U    | 0.0011 J  |
| 2-Hexanone   | mg/L | 0.01 U    | 0.01 U    |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | mg/L | 0.01 U    | 0.01 U    |
| Acetone  | mg/L | 0.01 U    | 0.02      |
| Benzene  | mg/L | 0.001 U   | 0.001 U   |
| Bromodichloromethane                                 | mg/L | 0.001 U   | 0.001 U   |
| Bromoform  | mg/L | 0.001 U   | 0.001 U   |
| Bromomethane (Methyl bromide)                        | mg/L | 0.001 U   | 0.001 U   |
| Carbon disulfide                                     | mg/L | 0.001 U   | 0.001 U   |
| Carbon tetrachloride                                 | mg/L | 0.001 U   | 0.001 U   |
| Chlorobenzene  | mg/L | 0.001 U   | 0.001 U   |
| Chloroethane   | mg/L | 0.001 U   | 0.001 U   |
| Chloroform (Trichloromethane)                        | mg/L | 0.001 U   | 0.001 U   |
| Chloromethane (Methyl chloride)                      | mg/L | 0.001 U   | 0.001 U   |
| cis-1,2-Dichloroethene                               | mg/L | 0.0089    | 0.001 U   |
| cis-1,3-Dichloropropene                              | mg/L | 0.001 U   | 0.001 U   |
| Dibromochloromethane                                 | mg/L | 0.001 U   | 0.001 U   |
| Ethylbenzene   | mg/L | 0.001 U   | 0.001 U   |
| Methylene chloride                                   | mg/L | 0.001 U   | 0.015     |
| Styrene  | mg/L | 0.001 U   | 0.001 U   |
| Tetrachloroethene                                    | mg/L | 0.001 U   | 0.001 U   |
| Toluene  | mg/L | 0.001 U   | 0.00043 J |
| trans-1,2-Dichloroethene                             | mg/L | 0.00024 J | 0.001 U   |
| trans-1,3-Dichloropropene                            | mg/L | 0.001 U   | 0.001 U   |
| Trichloroethene                                      | mg/L | 0.001 U   | 0.001 U   |
| Vinyl chloride                                       | mg/L | 0.012     | 0.001 U   |
| Xylenes (total)                                      | mg/L | 0.002 U   | 0.002 U   |

Notes:

J - Estimated concentration.

U - Not present at or above the associated value.

**Table 4-4: Groundwater Data Summary at Industrial / Commercial Areas (2011)  
GMC - MLK Boulevard Facility, Anderson, Indiana**

| Area  | Chem Group | Chemical                 | CASRN     | Meas Basis | Carc Class | Analyzed | Detected | Min Detected (mg/L) | Max Detected (mg/L) | Drinking Water Criteria (MCL or TR=10 <sup>-5</sup> & THQ=1) (mg/L) | Ratio of Max Detect to Drinking Water Criteria | Construction Worker GW Contact Criteria (TR=10 <sup>-5</sup> & THQ=1) (mg/L) | Ratio of Max Detect to Construction Worker GW Contact Criteria | Occupational GW Volatilization of Indoor Air Criteria (mg/L) | Ratio of Max Detect to Occupational GW Volatilization to Indoor Air Criteria | Industrial GW Volatilization to Indoor Air Criteria (TR=10 <sup>-5</sup> & THQ=1) (mg/L) | Ratio of Max Detect to Industrial GW Volatilization to Indoor Air Criteria |
|---|------------|--------------------------|-----------|------------|------------|----------|----------|---------------------|---------------------|---|--|--|--|--|--|--|--|
| Area 1 (Plant 6/9)  | VOC        | 1,1-Dichloroethane       | 75-34-3   | T          | SC         | 7        | 5        | 5.40E-04            | 3.10E-02            | 3.65E+00 NC   | 8.5E-03  | 3.01E+02   | 1.0E-04  | 6.82E+06   | 4.5E-09  | 1.24E+04   | 2.5E-06  |
| Area 1 (Plant 6/9)  | VOC        | cis-1,2-Dichloroethene   | 156-59-2  | T          | ID         | 7        | 4        | 1.90E-02            | 9.70E-01            | 7.00E-02 SMCL   | 1.4E+01  | 2.12E+01   | 4.6E-02  | 1.64E+07   | 5.9E-08  | 1.06E+03   | 9.2E-04  |
| Area 1 (Plant 6/9)  | VOC        | trans-1,2-Dichloroethene | 156-60-5  | T          | ID         | 7        | 3        | 1.65E-02            | 4.80E-02            | 1.00E-01 SMCL   | 4.8E-01  | 4.13E+01   | 1.2E-03  | 9.43E+06   | 5.1E-09  | 1.22E+03   | 3.9E-05  |
| Area 1 (Plant 6/9)  | VOC        | Vinyl Chloride           | 75-01-4   | T          | A          | 7        | 4        | 3.20E-02            | 1.40E-01            | 2.00E-03 SMCL   | 7.0E+01  | 1.95E+00   | 7.2E-02  | 1.41E+06   | 1.0E-07  | 1.85E+02   | 7.5E-04  |
| Area 1 (South Court)  | VOC        | Chloroethane             | 75-00-3   | T          | LC         | 28       | 1        | 9.00E-02            | 9.00E-02            | 1.46E+01 NC   | 6.2E-03  | 2.09E+03   | 4.3E-05  | 2.75E+07   | 3.3E-09  | 1.54E+05   | 5.8E-07  |
| Area 1 (South Court)  | VOC        | 1,1-Dichloroethane       | 75-34-3   | T          | SC         | 28       | 14       | 5.10E-02            | 3.90E-01            | 3.65E+00 NC   | 1.1E-01  | 3.01E+02   | 1.3E-03  | 6.82E+06   | 5.7E-08  | 1.24E+04   | 3.1E-05  |
| Area 1 (South Court)  | VOC        | 1,1-Dichloroethene       | 75-35-4   | T          | C          | 28       | 5        | 4.10E-02            | 1.70E-01            | 7.00E-03 SMCL   | 2.4E+01  | 1.16E+02   | 1.5E-03  | 1.42E+05   | 1.2E-06  | 2.10E+03   | 8.1E-05  |
| Area 1 (South Court)  | VOC        | cis-1,2-Dichloroethene   | 156-59-2  | T          | ID         | 28       | 19       | 7.80E-03            | 8.90E+00            | 7.00E-02 SMCL   | 1.3E+02  | 2.12E+01   | 4.2E-01  | 1.64E+07   | 5.4E-07  | 1.06E+03   | 8.4E-03  |
| Area 1 (South Court)  | VOC        | trans-1,2-Dichloroethene | 156-60-5  | T          | ID         | 28       | 10       | 5.50E-02            | 3.10E-01            | 1.00E-01 SMCL   | 3.1E+00  | 4.13E+01   | 7.5E-03  | 9.43E+06   | 3.3E-08  | 1.22E+03   | 2.6E-04  |
| Area 1 (South Court)  | VOC        | Ethyl Benzene            | 100-41-4  | T          | D          | 28       | 2        | 3.50E-01            | 5.10E-01            | 7.00E-01 SMCL   | 7.3E-01  | 4.19E+02   | 1.2E-03  | 6.79E+06   | 7.5E-08  | 2.28E+04   | 2.2E-05  |
| Area 1 (South Court)  | VOC        | Toluene                  | 108-88-3  | T          | ID         | 28       | 2        | 1.70E+00            | 1.90E+00            | 1.00E+00 SMCL   | 1.9E+00  | 2.27E+02   | 8.4E-03  | 1.22E+07   | 1.6E-07  | 9.47E+03   | 2.0E-04  |
| Area 1 (South Court)  | VOC        | 1,1,1-Trichloroethane    | 71-55-6   | T          | ID         | 28       | 4        | 8.80E-02            | 7.40E-01            | 2.00E-01 SMCL   | 3.7E+00  | 1.37E+03   | 5.4E-04  | 1.86E+07   | 4.0E-08  | 3.14E+04   | 2.4E-05  |
| Area 1 (South Court)  | VOC        | Trichloroethene          | 79-01-6   | T          | C-B2       | 28       | 10       | 1.80E-01            | 1.40E+01            | 5.00E-03 SMCL   | 2.8E+03  | 2.51E+01   | 5.6E-01  | 6.70E+06   | 2.1E-06  | 3.00E+02   | 4.7E-02  |
| Area 1 (South Court)  | VOC        | Vinyl Chloride           | 75-01-4   | T          | A          | 28       | 23       | 2.90E-04            | 2.40E+00            | 2.00E-03 SMCL   | 1.2E+03  | 1.95E+00   | 1.2E+00  | 1.41E+06   | 1.7E-06  | 1.85E+02   | 1.3E-02  |
| Area 1 (South Court)  | VOC        | Xylenes (total)          | 1330-20-7 | T          | ID         | 28       | 2        | 1.10E+00            | 1.10E+00            | 1.00E+01 SMCL   | 1.1E-01  | 6.30E+01   | 1.7E-02  | 7.05E+06   | 1.6E-07  | 2.37E+03   | 4.7E-04  |
| <b>Notes:</b>   |            |                          |           |            |            |          |          |                     |                     |   |  |  |  |  |  |  |  |
| Only detected constituents are shown.   |            |                          |           |            |            |          |          |                     |                     |   |  |  |  |  |  |  |  |
| The Drinking Criteria hierarchy is IDEM MCL, Fed MCL, the lower of the integrated Screening Criteria at:      |            |                          |           |            |            |          |          |                     |                     |   |  |  |  |  |  |  |  |
| target cancer risk = 1E-05  |            |                          |           |            |            |          |          |                     |                     |   |  |  |  |  |  |  |  |
| target hazard quotient = 1  |            |                          |           |            |            |          |          |                     |                     |   |  |  |  |  |  |  |  |
| The Screening Criteria for Chromium VI was used as a surrogate for Chromium (total).                          |            |                          |           |            |            |          |          |                     |                     |   |  |  |  |  |  |  |  |
| The concentrations for the Xylene isomers (m/p and o) were summed before comparing to the Screening Criteria. |            |                          |           |            |            |          |          |                     |                     |   |  |  |  |  |  |  |  |
| SMCL - The Drinking Water Criterion is the State MCL.   |            |                          |           |            |            |          |          |                     |                     |   |  |  |  |  |  |  |  |
| NC - The Drinking Water Criterion is based on noncancer effects.  |            |                          |           |            |            |          |          |                     |                     |   |  |  |  |  |  |  |  |
| Chem Group - Chemical Group   |            |                          |           |            |            |          |          |                     |                     |   |  |  |  |  |  |  |  |
| Meas Basis - Measured Basis; T = Total, D = Dissolved   |            |                          |           |            |            |          |          |                     |                     |   |  |  |  |  |  |  |  |
| Carc Class - EPA Weight-of-Evidence Cancer Classification   |            |                          |           |            |            |          |          |                     |                     |   |  |  |  |  |  |  |  |

**Table 4-5: Groundwater Data Summary at Area 1 (West of AOC 5 and Meadowbrook Golf Course) (2011)  
GMC - MLK Boulevard Facility, Anderson, Indiana**

| Area   | Chem Group | Chemical                 | CASRN    | Meas Basis | Carc Class | Analyzed | Detected | Min Detected (mg/L) | Max Detected (mg/L) | Drinking Water Criteria (MCL or TR=10 <sup>-5</sup> & THQ=1) (mg/L) |      | Ratio of Max Detect to Drinking Water Criteria | Construction Worker GW Contact Criteria (TR=10 <sup>-5</sup> & THQ=1) (mg/L) | Ratio of Max Detect to Construction Worker GW Contact Criteria | Residential GW Volatilization to Indoor Air Criteria (TR=10 <sup>-5</sup> & THQ=1) (mg/L) | Ratio of Max Detect to Residential GW Volatilization to Indoor Air Criteria | Residential Non Potable GW Use Criteria (TR=10 <sup>-5</sup> & THQ=1) (mg/L) | Ratio of Max Detect to Non Potable GW Use Criteria |
|--|------------|--------------------------|----------|------------|------------|----------|----------|---------------------|---------------------|---|------|--|--|--|---|---|--|--|
| Area 1 (Golf Course)   | VOC        | 1,1-Dichloroethane       | 75-34-3  | T          | SC         | 12       | 4        | 7.70E-03            | 4.70E-01            | 3.65E+00  | NC   | 1.3E-01  | 3.01E+02   | 1.6E-03  | 5.50E+03  | 8.5E-05   | 5.00E+02   | 9.4E-04  |
| Area 1 (Golf Course)   | VOC        | 1,1-Dichloroethene       | 75-35-4  | T          | C          | 12       | 2        | 6.30E-02            | 8.90E-02            | 7.00E-03  | SMCL | <b>1.3E+01</b>                                 | 1.16E+02   | 7.7E-04  | 8.90E+02  | 1.0E-04   | 1.69E+02   | 5.3E-04  |
| Area 1 (Golf Course)   | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | T          | ID         | 12       | 6        | 1.80E-01            | 1.10E+01            | 7.00E-02  | SMCL | <b>1.6E+02</b>                                 | 2.12E+01   | 5.2E-01  | 4.76E+02  | 2.3E-02   | 4.70E+01   | 2.3E-01  |
| Area 1 (Golf Course)   | VOC        | trans-1,2-Dichloroethene | 156-60-5 | T          | ID         | 12       | 4        | 7.80E-03            | 3.20E-01            | 1.00E-01  | SMCL | <b>3.2E+00</b>                                 | 4.13E+01   | 7.7E-03  | 5.26E+02  | 6.1E-04   | 7.65E+01   | 4.2E-03  |
| Area 1 (Golf Course)   | VOC        | Trichloroethene          | 79-01-6  | T          | C-B2       | 12       | 1        | 9.20E-02            | 9.20E-02            | 5.00E-03  | SMCL | <b>1.8E+01</b>                                 | 2.51E+01   | 3.7E-03  | 1.08E+02  | 8.5E-04   | 4.23E+00   | 2.2E-02  |
| Area 1 (Golf Course)   | VOC        | Vinyl Chloride           | 75-01-4  | T          | A          | 12       | 7        | 2.20E-02            | 7.50E-01            | 2.00E-03  | SMCL | <b>3.8E+02</b>                                 | 1.95E+00   | 3.9E-01  | 5.97E+01  | 1.3E-02   | 4.63E-02   | <b>1.6E+01</b>                                     |
| Area 1 (West of AOC 5)   | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | T          | ID         | 2        | 2        | 2.40E-01            | 2.90E-01            | 7.00E-02  | SMCL | <b>4.1E+00</b>                                 | 2.12E+01   | 1.4E-02  | 4.76E+02  | 6.1E-04   | 4.70E+01   | 6.2E-03  |
| Area 1 (West of AOC 5)   | VOC        | trans-1,2-Dichloroethene | 156-60-5 | T          | ID         | 2        | 2        | 3.10E-03            | 3.30E-03            | 1.00E-01  | SMCL | 3.3E-02  | 4.13E+01   | 8.0E-05  | 5.26E+02  | 6.3E-06   | 7.65E+01   | 4.3E-05  |
| Area 1 (West of AOC 5)   | VOC        | Trichloroethene          | 79-01-6  | T          | C-B2       | 2        | 2        | 7.30E-03            | 9.80E-03            | 5.00E-03  | SMCL | <b>2.0E+00</b>                                 | 2.51E+01   | 3.9E-04  | 1.08E+02  | 9.1E-05   | 4.23E+00   | 2.3E-03  |
| <b>Notes:</b>  |            |                          |          |            |            |          |          |                     |                     |   |      |  |  |  |   |   |  |  |
| Only detected constituents are shown.  |            |                          |          |            |            |          |          |                     |                     |   |      |  |  |  |   |   |  |  |
| The Drinking Criteria hierarchy is IDEM MCL, Fed MCL, the lower of the integrated Screening Criteria at: |            |                          |          |            |            |          |          |                     |                     |   |      |  |  |  |   |   |  |  |
| target cancer risk = <b>1E-05</b>  |            |                          |          |            |            |          |          |                     |                     |   |      |  |  |  |   |   |  |  |
| target hazard quotient = <b>1</b>  |            |                          |          |            |            |          |          |                     |                     |   |      |  |  |  |   |   |  |  |
| SMCL - The Drinking Water Criterion is the State MCL.  |            |                          |          |            |            |          |          |                     |                     |   |      |  |  |  |   |   |  |  |
| NC - The Drinking Water Criterion is based on noncancer effects.   |            |                          |          |            |            |          |          |                     |                     |   |      |  |  |  |   |   |  |  |
| Chem Group - Chemical Group  |            |                          |          |            |            |          |          |                     |                     |   |      |  |  |  |   |   |  |  |
| Meas Basis - Measured Basis; T = Total, D = Dissolved  |            |                          |          |            |            |          |          |                     |                     |   |      |  |  |  |   |   |  |  |
| Carc Class - EPA Weight-of-Evidence Cancer Classification  |            |                          |          |            |            |          |          |                     |                     |   |      |  |  |  |   |   |  |  |

**Table 4-6: Groundwater Samples Exceeding TCL VOC Screening Criteria at Industrial / Commercial Areas (2011)  
GMC - MLK Boulevard Facility, Anderson, Indiana**

| Area                 | Well Zone | Location | Sample ID        | Sample Type | Sample Date | Meas Basis | Chem Group | Chemical                 | CASRN    | Conc (mg/L) | Qual | Drinking Water Criteria (MCL or TR=10 <sup>-5</sup> & THQ=1) (mg/L) | Ratio of Conc to Drinking Water Criteria | Construction Worker GW Contact Criteria (TR=10 <sup>-5</sup> & THQ=1) (mg/L) | Ratio of Conc to Occupational GW Volatilization to Indoor Air Criteria (mg/L) | Ratio of Conc to Occupational Volatilization to Indoor Air Criteria | GW Industrial Volatilization to Indoor Air Criteria (TR=10 <sup>-5</sup> & THQ=1) (mg/L) | Ratio of Conc to Industrial Volatilization to Indoor Air Criteria |         |
|----------------------|-----------|----------|------------------|-------------|-------------|------------|------------|--------------------------|----------|-------------|------|---|--|--|---|---|--|---|---------|
| Area 1 (Plant 6/9)   | 3d        | MW 64    | WG-100311-SM-002 | N           | 10/03/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 3.20E-02    |      | 2.00E-03  | 1.6E+01                                  | 1.95E+00   | 1.6E-02   | 1.41E+06  | 2.3E-08  | 1.85E+02  | 1.7E-04 |
| Area 1 (Plant 6/9)   | 3d        | MW 65    | WG-100311-RM-002 | N           | 10/03/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 9.70E-01    |      | 7.00E-02  | 1.4E+01                                  | 2.12E+01   | 4.6E-02   | 1.64E+07  | 5.9E-08  | 1.06E+03  | 9.2E-04 |
| Area 1 (Plant 6/9)   | 3d        | MW 66    | WG-041911-SM-003 | N           | 04/19/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 2.35E-01    |      | 7.00E-02  | 3.4E+00                                  | 2.12E+01   | 1.1E-02   | 1.64E+07  | 1.4E-08  | 1.06E+03  | 2.2E-04 |
| Area 1 (Plant 6/9)   | 3d        | MW 66    | WG-041911-SM-003 | N           | 04/19/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 4.55E-02    |      | 2.00E-03  | 2.3E+01                                  | 1.95E+00   | 2.3E-02   | 1.41E+06  | 3.2E-08  | 1.85E+02  | 2.5E-04 |
| Area 1 (Plant 6/9)   | 3d        | MW 66    | WG-100311-SM-001 | N           | 10/03/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 3.30E-01    |      | 7.00E-02  | 4.7E+00                                  | 2.12E+01   | 1.6E-02   | 1.64E+07  | 2.0E-08  | 1.06E+03  | 3.1E-04 |
| Area 1 (Plant 6/9)   | 3d        | MW 66    | WG-100311-SM-001 | N           | 10/03/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 1.40E-01    |      | 2.00E-03  | 7.0E+01                                  | 1.95E+00   | 7.2E-02   | 1.41E+06  | 1.0E-07  | 1.85E+02  | 7.5E-04 |
| Area 1 (Plant 6/9)   | B         | MW 81    | WG-100311-RM-001 | N           | 10/03/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 5.00E-02    |      | 2.00E-03  | 2.5E+01                                  | 1.95E+00   | 2.6E-02   | 1.41E+06  | 3.6E-08  | 1.85E+02  | 2.7E-04 |
| Area 1 (South Court) | 1         | MW 31R   | WG-041811-KD-001 | N           | 04/18/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 6.20E+00    |      | 7.00E-02  | 8.9E+01                                  | 2.12E+01   | 2.9E-01   | 1.64E+07  | 3.8E-07  | 1.06E+03  | 5.9E-03 |
| Area 1 (South Court) | 1         | MW 31R   | WG-041811-KD-001 | N           | 04/18/11    | T          | VOC        | Toluene                  | 108-88-3 | 1.70E+00    |      | 1.00E+00  | 1.7E+00                                  | 2.27E+02   | 7.5E-03   | 1.22E+07  | 1.4E-07  | 9.47E+03  | 1.8E-04 |
| Area 1 (South Court) | 1         | MW 31R   | WG-041811-KD-001 | N           | 04/18/11    | T          | VOC        | Trichloroethene          | 79-01-6  | 3.40E-01    |      | 5.00E-03  | 6.8E+01                                  | 2.51E+01   | 1.4E-02   | 6.70E+06  | 5.1E-08  | 3.00E+02  | 1.1E-03 |
| Area 1 (South Court) | 1         | MW 31R   | WG-041811-KD-001 | N           | 04/18/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 6.40E-01    |      | 2.00E-03  | 3.2E+02                                  | 1.95E+00   | 3.3E-01   | 1.41E+06  | 4.6E-07  | 1.85E+02  | 3.5E-03 |
| Area 1 (South Court) | 1         | MW 31R   | WG-100411-SM-009 | N           | 10/04/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 5.10E+00    |      | 7.00E-02  | 7.3E+01                                  | 2.12E+01   | 2.4E-01   | 1.64E+07  | 3.1E-07  | 1.06E+03  | 4.8E-03 |
| Area 1 (South Court) | 1         | MW 31R   | WG-100411-SM-009 | N           | 10/04/11    | T          | VOC        | Toluene                  | 108-88-3 | 1.90E+00    |      | 1.00E+00  | 1.9E+00                                  | 2.27E+02   | 8.4E-03   | 1.22E+07  | 1.6E-07  | 9.47E+03  | 2.0E-04 |
| Area 1 (South Court) | 1         | MW 31R   | WG-100411-SM-009 | N           | 10/04/11    | T          | VOC        | Trichloroethene          | 79-01-6  | 3.20E-01    |      | 5.00E-03  | 6.4E+01                                  | 2.51E+01   | 1.3E-02   | 6.70E+06  | 4.8E-08  | 3.00E+02  | 1.1E-03 |
| Area 1 (South Court) | 1         | MW 31R   | WG-100411-SM-009 | N           | 10/04/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 1.20E+00    |      | 2.00E-03  | 6.0E+02                                  | 1.95E+00   | 6.2E-01   | 1.41E+06  | 8.5E-07  | 1.85E+02  | 6.5E-03 |
| Area 1 (South Court) | 3d        | MW 28    | WG-041911-KD-004 | N           | 04/19/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 6.20E-02    |      | 2.00E-03  | 3.1E+01                                  | 1.95E+00   | 3.2E-02   | 1.41E+06  | 4.4E-08  | 1.85E+02  | 3.3E-04 |
| Area 1 (South Court) | 3d        | MW 28    | WG-100311-RM-004 | N           | 10/03/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 7.80E-02    |      | 2.00E-03  | 3.9E+01                                  | 1.95E+00   | 4.0E-02   | 1.41E+06  | 5.5E-08  | 1.85E+02  | 4.2E-04 |
| Area 1 (South Court) | 3d        | MW 41    | WG-041911-KD-006 | N           | 04/19/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 6.30E+00    |      | 7.00E-02  | 9.0E+01                                  | 2.12E+01   | 3.0E-01   | 1.64E+07  | 3.8E-07  | 1.06E+03  | 6.0E-03 |
| Area 1 (South Court) | 3d        | MW 41    | WG-041911-KD-006 | N           | 04/19/11    | T          | VOC        | trans-1,2-Dichloroethene | 156-60-5 | 1.40E-01    | J    | 1.00E-01  | 1.4E+00                                  | 4.13E+01   | 3.4E-03   | 9.43E+06  | 1.5E-08  | 1.22E+03  | 1.2E-04 |
| Area 1 (South Court) | 3d        | MW 41    | WG-041911-KD-006 | N           | 04/19/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 3.00E-01    |      | 2.00E-03  | 1.5E+02                                  | 1.95E+00   | 1.5E-01   | 1.41E+06  | 2.1E-07  | 1.85E+02  | 1.6E-03 |
| Area 1 (South Court) | 3d        | MW 41    | WG-100411-RM-005 | N           | 10/04/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 6.30E+00    |      | 7.00E-02  | 9.0E+01                                  | 2.12E+01   | 3.0E-01   | 1.64E+07  | 3.8E-07  | 1.06E+03  | 6.0E-03 |
| Area 1 (South Court) | 3d        | MW 41    | WG-100411-RM-005 | N           | 10/04/11    | T          | VOC        | trans-1,2-Dichloroethene | 156-60-5 | 1.40E-01    | J    | 1.00E-01  | 1.4E+00                                  | 4.13E+01   | 3.4E-03   | 9.43E+06  | 1.5E-08  | 1.22E+03  | 1.2E-04 |
| Area 1 (South Court) | 3d        | MW 41    | WG-100411-RM-005 | N           | 10/04/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 5.10E-01    |      | 2.00E-03  | 2.6E+02                                  | 1.95E+00   | 2.6E-01   | 1.41E+06  | 3.6E-07  | 1.85E+02  | 2.7E-03 |
| Area 1 (South Court) | 3d        | MW 80    | WG-100311-SM-003 | N           | 10/03/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 1.50E-02    |      | 2.00E-03  | 7.5E+00                                  | 1.95E+00   | 7.7E-03   | 1.41E+06  | 1.1E-08  | 1.85E+02  | 8.1E-05 |
| Area 1 (South Court) | 3s        | MW 14    | WG-041811-SM-002 | N           | 04/18/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 4.90E+00    |      | 7.00E-02  | 7.0E+01                                  | 2.12E+01   | 2.3E-01   | 1.64E+07  | 3.0E-07  | 1.06E+03  | 4.6E-03 |
| Area 1 (South Court) | 3s        | MW 14    | WG-041811-SM-002 | N           | 04/18/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 2.30E-01    |      | 2.00E-03  | 1.2E+02                                  | 1.95E+00   | 1.2E-01   | 1.41E+06  | 1.6E-07  | 1.85E+02  | 1.2E-03 |
| Area 1 (South Court) | 3s        | MW 14    | WG-100511-SM-012 | N           | 10/05/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 4.70E+00    |      | 7.00E-02  | 6.7E+01                                  | 2.12E+01   | 2.2E-01   | 1.64E+07  | 2.9E-07  | 1.06E+03  | 4.4E-03 |
| Area 1 (South Court) | 3s        | MW 14    | WG-100511-SM-012 | N           | 10/05/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 1.90E-01    | J    | 2.00E-03  | 9.5E+01                                  | 1.95E+00   | 9.8E-02   | 1.41E+06  | 1.4E-07  | 1.85E+02  | 1.0E-03 |
| Area 1 (South Court) | 3s        | MW 3     | WG-041811-KD-002 | N           | 04/18/11    | T          | VOC        | 1,1-Dichloroethene       | 75-35-4  | 1.70E-01    | J    | 7.00E-03  | 2.4E+01                                  | 1.16E+02   | 1.5E-03   | 1.42E+05  | 1.2E-06  | 2.10E+03  | 8.1E-05 |
| Area 1 (South Court) | 3s        | MW 3     | WG-041811-KD-002 | N           | 04/18/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 8.90E+00    |      | 7.00E-02  | 1.3E+02                                  | 2.12E+01   | 4.2E-01   | 1.64E+07  | 5.4E-07  | 1.06E+03  | 8.4E-03 |
| Area 1 (South Court) | 3s        | MW 3     | WG-041811-KD-002 | N           | 04/18/11    | T          | VOC        | 1,1,1-Trichloroethane    | 71-55-6  | 7.40E-01    |      | 2.00E-01  | 3.7E+00                                  | 1.37E+03   | 5.4E-04   | 1.86E+07  | 4.0E-08  | 3.14E+04  | 2.4E-05 |
| Area 1 (South Court) | 3s        | MW 3     | WG-041811-KD-002 | N           | 04/18/11    | T          | VOC        | Trichloroethene          | 79-01-6  | 1.40E+01    |      | 5.00E-03  | 2.8E+03                                  | 2.51E+01   | 5.6E-01   | 6.70E+06  | 2.1E-06  | 3.00E+02  | 4.7E-02 |
| Area 1 (South Court) | 3s        | MW 3     | WG-041811-KD-002 | N           | 04/18/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 3.50E-01    | J    | 2.00E-03  | 1.8E+02                                  | 1.95E+00   | 1.8E-01   | 1.41E+06  | 2.5E-07  | 1.85E+02  | 1.9E-03 |
| Area 1 (South Court) | 3s        | MW 3     | WG-100511-RM-011 | N           | 10/05/11    | T          | VOC        | 1,1-Dichloroethene       | 75-35-4  | 1.30E-01    | J    | 7.00E-03  | 1.9E+01                                  | 1.16E+02   | 1.1E-03   | 1.42E+05  | 9.1E-07  | 2.10E+03  | 6.2E-05 |
| Area 1 (South Court) | 3s        | MW 3     | WG-100511-RM-011 | N           | 10/05/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 5.70E+00    |      | 7.00E-02  | 8.1E+01                                  | 2.12E+01   | 2.7E-01   | 1.64E+07  | 3.5E-07  | 1.06E+03  | 5.4E-03 |
| Area 1 (South Court) | 3s        | MW 3     | WG-100511-RM-011 | N           | 10/05/11    | T          | VOC        | 1,1,1-Trichloroethane    | 71-55-6  | 6.10E-01    |      | 2.00E-01  | 3.1E+00                                  | 1.37E+03   | 4.4E-04   | 1.86E+07  | 3.3E-08  | 3.14E+04  | 1.9E-05 |
| Area 1 (South Court) | 3s        | MW 3     | WG-100511-RM-011 | N           | 10/05/11    | T          | VOC        | Trichloroethene          | 79-01-6  | 1.00E+01    |      | 5.00E-03  | 2.0E+03                                  | 2.51E+01   | 4.0E-01   | 6.70E+06  | 1.5E-06  | 3.00E+02  | 3.3E-02 |
| Area 1 (South Court) | 3s        | MW 3     | WG-100511-RM-011 | N           | 10/05/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 1.20E-01    | J    | 2.00E-03  | 6.0E+01                                  | 1.95E+00   | 6.2E-02   | 1.41E+06  | 8.5E-08  | 1.85E+02  | 6.5E-04 |
| Area 1 (South Court) | 3s        | MW 40    | WG-041911-SM-005 | N           | 04/19/11    | T          | VOC        | 1,1-Dichloroethene       | 75-35-4  | 5.40E-02    | J    | 7.00E-03  | 7.7E+00                                  | 1.16E+02   | 4.7E-04   | 1.42E+05  | 3.8E-07  | 2.10E+03  | 2.6E-05 |
| Area 1 (South Court) | 3s        | MW 40    | WG-041911-SM-005 | N           | 04/19/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 8.80E+00    |      | 7.00E-02  | 1.3E+02                                  | 2.12E+01   | 4.2E-01   | 1.64E+07  | 5.4E-07  | 1.06E+03  | 8.3E-03 |
| Area 1 (South Court) | 3s        | MW 40    | WG-041911-SM-005 | N           | 04/19/11    | T          | VOC        | trans-1,2-Dichloroethene | 156-60-5 | 1.70E-01    | J    | 1.00E-01  | 1.7E+00                                  | 4.13E+01   | 4.1E-03   | 9.43E+06  | 1.8E-08  | 1.22E+03  | 1.4E-04 |
| Area 1 (South Court) | 3s        | MW 40    | WG-041911-SM-005 | N           | 04/19/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 9.90E-01    |      | 2.00E-03  | 5.0E+02                                  | 1.95E+00   | 5.1E-01   | 1.41E+06  | 7.0E-07  | 1.85E+02  | 5.3E-03 |
| Area 1 (South Court) | 3s        | MW 40    | WG-100411-SM-007 | N           | 10/04/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 7.60E+00    |      | 7.00E-02  | 1.1E+02                                  | 2.12E+01   | 3.6E-01   | 1.64E+07  | 4.6E-07  | 1.06E+03  | 7.2E-03 |
| Area 1 (South Court) | 3s        | MW 40    | WG-100411-SM-007 | N           | 10/04/11    | T          | VOC        | trans-1,2-Dichloroethene | 156-60-5 | 1.30E-01    | J    | 1.00E-01  | 1.3E+00                                  | 4.13E+01   | 3.1E-03   | 9.43E+06  | 1.4E-08  | 1.22E+03  | 1.1E-04 |
| Area 1 (South Court) | 3s        | MW 40    | WG-100411-SM-007 | N           | 10/04/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 9.90E-01    |      | 2.00E-03  | 5.0E+02                                  | 1.95E+00   | 5.1E-01   | 1.41E+06  | 7.0E-07  | 1.85E+02  | 5.3E-03 |
| Area 1 (South Court) | 3s        | MW 42    | WG-041911-KD-005 | N           | 04/19/11    | T          | VOC        | 1,1-Dichloroethene       | 75-35-4  | 4.20E-02    | J    | 7.00E-03  | 6.0E+00                                  | 1.16E+02   | 3.6E-04   | 1.42E+05  | 3.0E-07  | 2.10E+03  | 2.0E-05 |
| Area 1 (South Court) | 3s        | MW 42    | WG-041911-KD-005 | N           | 04/19/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 6.00E+00    |      | 7.00E-02  | 8.6E+01                                  | 2.12E+01   | 2.8E-01   | 1.64E+07  | 3.7E-07  | 1.06E+03  | 5.7E-03 |
| Area 1 (South Court) | 3s        | MW 42    | WG-041911-KD-005 | N           | 04/19/11    | T          | VOC        | trans-1,2-Dichloroethene | 156-60-5 | 3.10E-01    |      | 1.00E-01  | 3.1E+00                                  | 4.13E+01   | 7.5E-03   | 9.43E+06  | 3.3E-08  | 1.22E+03  | 2.6E-04 |
| Area 1 (South Court) | 3s        | MW 42    | WG-041911-KD-005 | N           | 04/19/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 1.70E-01    |      | 2.00E-03  | 8.5E+01                                  | 1.95E+00   | 8.7E-02   | 1.41E+06  | 1.2E-07  | 1.85E+02  | 9.2E-04 |
| Area 1 (South Court) | 3s        | MW 42    | WG-100411-RM-006 | N           | 10/04/11    | T          | VOC        | 1,1-Dichloroethene       | 75-35-4  | 4.10E-02    | J    | 7.00E-03  | 5.9E+00                                  | 1.16E+02   | 3.5E-04   | 1.42E+05  | 2.9E-07  | 2.10E+03  | 2.0E-05 |
| Area 1 (South Court) | 3s        | MW 42    | WG-100411-RM-006 | N           | 10/04/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 5.00E+00    |      | 7.00E-02  | 7.1E+01                                  | 2.12E+01   | 2.4E-01   | 1.64E+07  | 3.0E-07  | 1.06E+03  | 4.7E-03 |
| Area 1 (South Court) | 3s        | MW 42    | WG-100411-RM-006 | N           | 10/04/11    | T          | VOC        | trans-1,2-Dichloroethene | 156-60-5 | 2.50E-01    |      | 1.00E-01  | 2.5E+00                                  | 4.13E+01   | 6.1E-03   | 9.43E+06  | 2.7E-08  | 1.22E+03  | 2.1E-04 |
| Area 1 (South Court) | 3s        | MW 42    | WG-100411-RM-006 | N           | 10/04/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 1.30E-01    | J    | 2.00E-03  | 6.5E+01                                  | 1.95E+00   | 6.7E-02   | 1.41E+06  | 9.2E-08  | 1.85E+02  | 7.0E-04 |
| Area 1 (South Court) | 3s        | MW 51    | WG-042011-SM-007 | N           | 04/20/11    | T          | VOC        | Trichloroethene          | 79-01-6  | 1.80E-01    |      | 5.00E-03  | 3.6E+01                                  | 2.51E+01   | 7.2E-03   | 6.70E+06  | 2  |   |         |

**Table 4-6: Groundwater Samples Exceeding TCL VOC Screening Criteria at Industrial / Commercial Areas (2011)  
GMC - MLK Boulevard Facility, Anderson, Indiana**

| Area                 | Well Zone | Location | Sample ID        | Sample Type | Sample Date | Meas Basis | Chem Group | Chemical                 | CASRN    | Conc (mg/L) | Qual | Drinking Water Criteria (MCL or TR=10 <sup>-5</sup> & THQ=1) (mg/L) | Ratio of Conc to Drinking Water Criteria | Construction Worker GW Contact Criteria (TR=10 <sup>-5</sup> & THQ=1) (mg/L) | Ratio of Conc to Construction Worker GW Contact Criteria | Occupational GW Volatilization to Indoor Air Criteria (mg/L) | Ratio of Conc to Occupational Volatilization to Indoor Air Criteria | GW Industrial Volatilization to Indoor Air Criteria (TR=10 <sup>-5</sup> & THQ=1) (mg/L) | Ratio of Conc to GW Industrial Volatilization to Indoor Air Criteria |
|----------------------|-----------|----------|------------------|-------------|-------------|------------|------------|--------------------------|----------|-------------|------|---|--|--|--|--|---|--|--|
| Area 1 (South Court) | 3s        | MW 68    | WG-041811-KD-003 | N           | 04/18/11    | T          | VOC        | Trichloroethene          | 79-01-6  | 2.40E+00    |      | 5.00E-03  | <b>4.8E+02</b>                           | 2.51E+01   | 9.6E-02  | 6.70E+06   | 3.6E-07   | 3.00E+02   | 8.0E-03  |
| Area 1 (South Court) | 3s        | MW 68    | WG-041811-KD-003 | N           | 04/18/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 9.70E-02    | J    | 2.00E-03  | <b>4.9E+01</b>                           | 1.95E+00   | 5.0E-02  | 1.41E+06   | 6.9E-08   | 1.85E+02   | 5.2E-04  |
| Area 1 (South Court) | 3s        | MW 68    | WG-100411-RM-008 | N           | 10/04/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 6.65E+00    |      | 7.00E-02  | <b>9.5E+01</b>                           | 2.12E+01   | 3.1E-01  | 1.64E+07   | 4.1E-07   | 1.06E+03   | 6.3E-03  |
| Area 1 (South Court) | 3s        | MW 68    | WG-100411-RM-008 | N           | 10/04/11    | T          | VOC        | trans-1,2-Dichloroethene | 156-60-5 | 1.40E-01    | J    | 1.00E-01  | <b>1.4E+00</b>                           | 4.13E+01   | 3.4E-03  | 9.43E+06   | 1.5E-08   | 1.22E+03   | 1.2E-04  |
| Area 1 (South Court) | 3s        | MW 68    | WG-100411-RM-008 | N           | 10/04/11    | T          | VOC        | Trichloroethene          | 79-01-6  | 1.90E+00    |      | 5.00E-03  | <b>3.8E+02</b>                           | 2.51E+01   | 7.6E-02  | 6.70E+06   | 2.8E-07   | 3.00E+02   | 6.3E-03  |
| Area 1 (South Court) | 3s        | MW 68    | WG-100411-RM-008 | N           | 10/04/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 1.60E-01    | J    | 2.00E-03  | <b>8.0E+01</b>                           | 1.95E+00   | 8.2E-02  | 1.41E+06   | 1.1E-07   | 1.85E+02   | 8.6E-04  |
| Area 1 (South Court) | 3s        | MW 79    | WG-042011-KD-010 | N           | 04/20/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 1.20E+00    |      | 7.00E-02  | <b>1.7E+01</b>                           | 2.12E+01   | 5.7E-02  | 1.64E+07   | 7.3E-08   | 1.06E+03   | 1.1E-03  |
| Area 1 (South Court) | 3s        | MW 79    | WG-042011-KD-010 | N           | 04/20/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 1.30E-01    |      | 2.00E-03  | <b>6.5E+01</b>                           | 1.95E+00   | 6.7E-02  | 1.41E+06   | 9.2E-08   | 1.85E+02   | 7.0E-04  |
| Area 1 (South Court) | 3s        | MW 79    | WG-100411-SM-008 | N           | 10/04/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 1.50E+00    |      | 7.00E-02  | <b>2.1E+01</b>                           | 2.12E+01   | 7.1E-02  | 1.64E+07   | 9.1E-08   | 1.06E+03   | 1.4E-03  |
| Area 1 (South Court) | 3s        | MW 79    | WG-100411-SM-008 | N           | 10/04/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 1.40E-01    |      | 2.00E-03  | <b>7.0E+01</b>                           | 1.95E+00   | 7.2E-02  | 1.41E+06   | 1.0E-07   | 1.85E+02   | 7.5E-04  |
| Area 1 (South Court) | 3s        | MW 8     | WG-041811-SM-001 | N           | 04/18/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 8.50E+00    |      | 7.00E-02  | <b>1.2E+02</b>                           | 2.12E+01   | 4.0E-01  | 1.64E+07   | 5.2E-07   | 1.06E+03   | 8.0E-03  |
| Area 1 (South Court) | 3s        | MW 8     | WG-041811-SM-001 | N           | 04/18/11    | T          | VOC        | Trichloroethene          | 79-01-6  | 3.30E-01    |      | 5.00E-03  | <b>6.6E+01</b>                           | 2.51E+01   | 1.3E-02  | 6.70E+06   | 4.9E-08   | 3.00E+02   | 1.1E-03  |
| Area 1 (South Court) | 3s        | MW 8     | WG-041811-SM-001 | N           | 04/18/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 2.40E+00    |      | 2.00E-03  | <b>1.2E+03</b>                           | 1.95E+00   | <b>1.2E+00</b>   | 1.41E+06   | 1.7E-06   | 1.85E+02   | 1.3E-02  |
| Area 1 (South Court) | 3s        | MW 8     | WG-100511-SM-011 | N           | 10/05/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 7.10E+00    |      | 7.00E-02  | <b>1.0E+02</b>                           | 2.12E+01   | 3.3E-01  | 1.64E+07   | 4.3E-07   | 1.06E+03   | 6.7E-03  |
| Area 1 (South Court) | 3s        | MW 8     | WG-100511-SM-011 | N           | 10/05/11    | T          | VOC        | Trichloroethene          | 79-01-6  | 3.40E-01    |      | 5.00E-03  | <b>6.8E+01</b>                           | 2.51E+01   | 1.4E-02  | 6.70E+06   | 5.1E-08   | 3.00E+02   | 1.1E-03  |
| Area 1 (South Court) | 3s        | MW 8     | WG-100511-SM-011 | N           | 10/05/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 1.70E+00    |      | 2.00E-03  | <b>8.5E+02</b>                           | 1.95E+00   | 8.7E-01  | 1.41E+06   | 1.2E-06   | 1.85E+02   | 9.2E-03  |

**Table 4-7: Groundwater Samples Exceeding TCL VOC Screening Criteria at Area 1 (West of AOC 5 and Meadowbrook Golf Course) (2011)  
GMC - MLK Boulevard Facility, Anderson, Indiana**

| On/Off-Site           | Area                   | Well Zone | Location | Sample ID        | Sample Type | Sample Date | Meas Basis | Chem Group | Chemical                 | CASRN    | Conc (mg/L) | Qual | Reg 9 Based   | 12                                       | ENVIRON  | ENVIRON  | ENVIRON   | 3   |  |  |
|-----------------------|------------------------|-----------|----------|------------------|-------------|-------------|------------|------------|--------------------------|----------|-------------|------|---|--|--|--|---|---|--|--|
|                       |                        |           |          |                  |             |             |            |            |                          |          |             |      | Drinking Water Criteria (MCL or TR=10 <sup>-5</sup> & THQ=1) (mg/L) | Ratio of Conc to Drinking Water Criteria | Construction Worker GW Contact Criteria (TR=10 <sup>-5</sup> & THQ=1) (mg/L) | Ratio of Conc to Construction Worker GW Contact Criteria | ENVIRON Residential GW Volatilization to Indoor Air Criteria (TR=10 <sup>-5</sup> & THQ=1) (mg/L) | Ratio of Conc to Residential GW Volatilization to Indoor Air Criteria | Residential Non-Potable GW Use Criteria (TR=10 <sup>-5</sup> & THQ=1) (mg/L) | Ratio of Conc to Residential Non-Potable GW Use Criteria |
| Offsite nonrestricted | Area 1 (Golf Course)   | 3d        | MW 58    | WG-100611-SM-017 | N           | 10/06/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 1.20E-01    |      | 2.0E-03   | 6.0E+01                                  | 1.9E+00  | 6.2E-02  | 6.0E+01   | 2.0E-03   | 4.6E-02  | 2.6E+00  |
| Offsite nonrestricted | Area 1 (Golf Course)   | 3d        | MW-4     | WG-042011-SM-008 | N           | 04/20/11    | T          | VOC        | 1,1-Dichloroethene       | 75-35-4  | 6.30E-02    | J    | 7.0E-03   | 9.0E+00                                  | 1.2E+02  | 5.4E-04  | 8.9E+02   | 7.1E-05   | 1.7E+02  | 3.7E-04  |
| Offsite nonrestricted | Area 1 (Golf Course)   | 3d        | MW-4     | WG-042011-SM-008 | N           | 04/20/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 8.75E+00    |      | 7.0E-02   | 1.3E+02                                  | 2.1E+01  | 4.1E-01  | 4.8E+02   | 1.8E-02   | 4.7E+01  | 1.9E-01  |
| Offsite nonrestricted | Area 1 (Golf Course)   | 3d        | MW-4     | WG-042011-SM-008 | N           | 04/20/11    | T          | VOC        | trans-1,2-Dichloroethene | 156-60-5 | 2.80E-01    | J    | 1.0E-01   | 2.8E+00                                  | 4.1E+01  | 6.8E-03  | 5.3E+02   | 5.3E-04   | 7.6E+01  | 3.7E-03  |
| Offsite nonrestricted | Area 1 (Golf Course)   | 3d        | MW-4     | WG-042011-SM-008 | N           | 04/20/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 7.50E-01    |      | 2.0E-03   | 3.8E+02                                  | 1.9E+00  | 3.9E-01  | 6.0E+01   | 1.3E-02   | 4.6E-02  | 1.6E+01  |
| Offsite nonrestricted | Area 1 (Golf Course)   | 3d        | MW-4     | WG-100611-SM-016 | N           | 10/06/11    | T          | VOC        | 1,1-Dichloroethene       | 75-35-4  | 8.90E-02    | J    | 7.0E-03   | 1.3E+01                                  | 1.2E+02  | 7.7E-04  | 8.9E+02   | 1.0E-04   | 1.7E+02  | 5.3E-04  |
| Offsite nonrestricted | Area 1 (Golf Course)   | 3d        | MW-4     | WG-100611-SM-016 | N           | 10/06/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 1.10E+01    |      | 7.0E-02   | 1.6E+02                                  | 2.1E+01  | 5.2E-01  | 4.8E+02   | 2.3E-02   | 4.7E+01  | 2.3E-01  |
| Offsite nonrestricted | Area 1 (Golf Course)   | 3d        | MW-4     | WG-100611-SM-016 | N           | 10/06/11    | T          | VOC        | trans-1,2-Dichloroethene | 156-60-5 | 3.20E-01    | J    | 1.0E-01   | 3.2E+00                                  | 4.1E+01  | 7.7E-03  | 5.3E+02   | 6.1E-04   | 7.6E+01  | 4.2E-03  |
| Offsite nonrestricted | Area 1 (Golf Course)   | 3d        | MW-4     | WG-100611-SM-016 | N           | 10/06/11    | T          | VOC        | Trichloroethene          | 79-01-6  | 9.20E-02    | J    | 5.0E-03   | 1.8E+01                                  | 2.5E+01  | 3.7E-03  | 1.1E+02   | 8.5E-04   | 4.2E+00  | 2.2E-02  |
| Offsite nonrestricted | Area 1 (Golf Course)   | 3d        | MW-4     | WG-100611-SM-016 | N           | 10/06/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 7.20E-01    |      | 2.0E-03   | 3.6E+02                                  | 1.9E+00  | 3.7E-01  | 6.0E+01   | 1.2E-02   | 4.6E-02  | 1.6E+01  |
| Offsite nonrestricted | Area 1 (Golf Course)   | 3s        | MW 49    | WG-041911-SM-006 | N           | 04/19/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 3.70E-01    |      | 7.0E-02   | 5.3E+00                                  | 2.1E+01  | 1.7E-02  | 4.8E+02   | 7.8E-04   | 4.7E+01  | 7.9E-03  |
| Offsite nonrestricted | Area 1 (Golf Course)   | 3s        | MW 49    | WG-041911-SM-006 | N           | 04/19/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 2.20E-02    |      | 2.0E-03   | 1.1E+01                                  | 1.9E+00  | 1.1E-02  | 6.0E+01   | 3.7E-04   | 4.6E-02  | 4.8E-01  |
| Offsite nonrestricted | Area 1 (Golf Course)   | 3s        | MW 49    | WG-100511-RM-012 | N           | 10/05/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 5.30E-01    |      | 7.0E-02   | 7.6E+00                                  | 2.1E+01  | 2.5E-02  | 4.8E+02   | 1.1E-03   | 4.7E+01  | 1.1E-02  |
| Offsite nonrestricted | Area 1 (Golf Course)   | 3s        | MW 49    | WG-100511-RM-012 | N           | 10/05/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 2.50E-02    |      | 2.0E-03   | 1.3E+01                                  | 1.9E+00  | 1.3E-02  | 6.0E+01   | 4.2E-04   | 4.6E-02  | 5.4E-01  |
| Offsite nonrestricted | Area 1 (Golf Course)   | 3s        | MW 85    | WG-042011-KD-012 | N           | 04/20/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 1.80E-01    |      | 7.0E-02   | 2.6E+00                                  | 2.1E+01  | 8.5E-03  | 4.8E+02   | 3.8E-04   | 4.7E+01  | 3.8E-03  |
| Offsite nonrestricted | Area 1 (Golf Course)   | 3s        | MW 85    | WG-042011-KD-012 | N           | 04/20/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 4.50E-01    |      | 2.0E-03   | 2.3E+02                                  | 1.9E+00  | 2.3E-01  | 6.0E+01   | 7.5E-03   | 4.6E-02  | 9.7E+00  |
| Offsite nonrestricted | Area 1 (Golf Course)   | 3s        | MW 85    | WG-100611-RM-018 | N           | 10/06/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 5.90E-01    |      | 7.0E-02   | 8.4E+00                                  | 2.1E+01  | 2.8E-02  | 4.8E+02   | 1.2E-03   | 4.7E+01  | 1.3E-02  |
| Offsite nonrestricted | Area 1 (Golf Course)   | 3s        | MW 85    | WG-100611-RM-018 | N           | 10/06/11    | T          | VOC        | Vinyl Chloride           | 75-01-4  | 5.10E-01    |      | 2.0E-03   | 2.6E+02                                  | 1.9E+00  | 2.6E-01  | 6.0E+01   | 8.5E-03   | 4.6E-02  | 1.1E+01  |
| Onsite non-industrial | Area 1 (West of AOC 5) | 3i        | MW 12    | WG-042011-KD-008 | N           | 04/20/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 2.90E-01    |      | 7.0E-02   | 4.1E+00                                  | 2.1E+01  | 1.4E-02  | 4.8E+02   | 6.1E-04   | 4.7E+01  | 6.2E-03  |
| Onsite non-industrial | Area 1 (West of AOC 5) | 3i        | MW 12    | WG-042011-KD-008 | N           | 04/20/11    | T          | VOC        | Trichloroethene          | 79-01-6  | 9.80E-03    | J    | 5.0E-03   | 2.0E+00                                  | 2.5E+01  | 3.9E-04  | 1.1E+02   | 9.1E-05   | 4.2E+00  | 2.3E-03  |
| Onsite non-industrial | Area 1 (West of AOC 5) | 3i        | MW 12    | WG-100511-RM-014 | N           | 10/05/11    | T          | VOC        | cis-1,2-Dichloroethene   | 156-59-2 | 2.40E-01    |      | 7.0E-02   | 3.4E+00                                  | 2.1E+01  | 1.1E-02  | 4.8E+02   | 5.0E-04   | 4.7E+01  | 5.1E-03  |
| Onsite non-industrial | Area 1 (West of AOC 5) | 3i        | MW 12    | WG-100511-RM-014 | N           | 10/05/11    | T          | VOC        | Trichloroethene          | 79-01-6  | 7.30E-03    | J    | 5.0E-03   | 1.5E+00                                  | 2.5E+01  | 2.9E-04  | 1.1E+02   | 6.8E-05   | 4.2E+00  | 1.7E-03  |

**Table 4-8: Surface Water Data Summary (2011)  
GMC - MLK Boulevard Facility, Anderson, Indiana**

| Chem Group   | Chemical                 | CASRN        | Meas Basis | Carc Class | Analyzed | Detected | Min Detected (mg/L) | Max Detected (mg/L) | Drinking Water Criteria (MCL or TR=10 <sup>-5</sup> & THQ=1) (mg/L) | Ratio of Max Detect to Drinking Water Criteria | Construction GCC (TR=10 <sup>-5</sup> & THQ=1) (mg/L) | Ratio of Max Detect to Construction GCC | Residential Non Potable GW Use Criteria (TR=10 <sup>-5</sup> & THQ=1) (mg/L) | Ratio of Max Detect to Non Potable GW Use Criteria |
|--|--------------------------|--------------|------------|------------|----------|----------|---------------------|---------------------|---|--|---|---|--|--|
| VOC  | 1,1-Dichloroethane       | 75-34-3      | T          | SC         | 6        | 3        | 2.00E-04            | 1.30E-03            | 3.7E+00 NC  | 3.6E-04  | 3.0E+02   | 4.3E-06                                 | 5.0E+02  | 2.6E-06  |
| VOC  | cis-1,2-Dichloroethene   | 156-59-2     | T          | ID         | 6        | 3        | 4.00E-03            | 2.60E-02            | 7.0E-02 SMCL  | 3.7E-01  | 2.1E+01   | 1.2E-03                                 | 4.7E+01  | 5.5E-04  |
| VOC  | trans-1,2-Dichloroethene | 156-60-5     | T          | ID         | 6        | 2        | 2.40E-04            | 1.20E-03            | 1.0E-01 SMCL  | 1.2E-02  | 4.1E+01   | 2.9E-05                                 | 7.6E+01  | 1.6E-05  |
| VOC  | Vinyl Chloride           | 75-01-4      | T          | A          | 6        | 6        | 1.90E-03            | 1.20E-02            | 2.0E-03 SMCL  | <b>6.0E+00</b>                                 | 1.9E+00   | 6.2E-03                                 | 4.6E-02  | 2.6E-01  |
| <b>Notes:</b>  |                          |              |            |            |          |          |                     |                     |   |  |   |   |  |  |
| Only detected constituents are shown.  |                          |              |            |            |          |          |                     |                     |   |  |   |   |  |  |
| The Drinking Criteria hierarchy is IDEM MCL, Fed MCL, the lower of the integrated Screening Criteria at: |                          |              |            |            |          |          |                     |                     |   |  |   |   |  |  |
|  | target cancer risk =     | <b>1E-05</b> |            |            |          |          |                     |                     |   |  |   |   |  |  |
|  | target hazard quotient = | <b>1</b>     |            |            |          |          |                     |                     |   |  |   |   |  |  |
| GCC - Groundwater Contact Criteria   |                          |              |            |            |          |          |                     |                     |   |  |   |   |  |  |
| SMCL - The Drinking Water Criterion is the State MCL.  |                          |              |            |            |          |          |                     |                     |   |  |   |   |  |  |
| NC - The Drinking Water Criterion is based on noncancer effects.   |                          |              |            |            |          |          |                     |                     |   |  |   |   |  |  |
| Chem Group - Chemical Group  |                          |              |            |            |          |          |                     |                     |   |  |   |   |  |  |
| Meas Basis - Measured Basis; T = Total, D = Dissolved  |                          |              |            |            |          |          |                     |                     |   |  |   |   |  |  |
| Carc Class - EPA Weight-of-Evidence Cancer Classification  |                          |              |            |            |          |          |                     |                     |   |  |   |   |  |  |

**Table 4-9: Surface Water Samples Exceeding Screening Criteria at the Golf Course Areas (2011)  
GMC - MLK Boulevard Facility, Anderson, Indiana**

| Location    | Sample ID        | Sample Type | Sample Date | Meas Basis | Chem Group | Chemical       | CASRN   | Conc (mg/L) | Qual | Drinking Water Criteria (MCL or TR=10 <sup>-5</sup> & THQ=1) (mg/L) | Ratio of Conc to Drinking Water Criteria | Construction Worker GW Contact Criteria (TR=10 <sup>-5</sup> & THQ=1) (mg/L) | Ratio of Conc to Construction Worker GW Contact Criteria | Residential Non-Potable GW Use Criteria (TR=10 <sup>-5</sup> & THQ=1) (mg/L) | Ratio of Conc to Residential Non-Potable GW Use Criteria |
|-------------|------------------|-------------|-------------|------------|------------|----------------|---------|-------------|------|---|--|--|--|--|--|
| POND INTAKE | WS-072811-JB-002 | N           | 07/28/11    | T          | VOC        | Vinyl Chloride | 75-01-4 | 4.20E-03    |      | 2.0E-03   | <b>2.1E+00</b>                           | 1.9E+00  | 2.2E-03  | 4.6E-02  | 9.1E-02  |
| POND INTAKE | WS-100611-SM-020 | N           | 10/06/11    | T          | VOC        | Vinyl Chloride | 75-01-4 | 2.15E-03    |      | 2.0E-03   | <b>1.1E+00</b>                           | 1.9E+00  | 1.1E-03  | 4.6E-02  | 4.6E-02  |
| POND NORTH  | WS-042011-KD-011 | N           | 04/20/11    | T          | VOC        | Vinyl Chloride | 75-01-4 | 4.30E-03    |      | 2.0E-03   | <b>2.2E+00</b>                           | 1.9E+00  | 2.2E-03  | 4.6E-02  | 9.3E-02  |
| POND NORTH  | WS-072811-JB-003 | N           | 07/28/11    | T          | VOC        | Vinyl Chloride | 75-01-4 | 7.75E-03    |      | 2.0E-03   | <b>3.9E+00</b>                           | 1.9E+00  | 4.0E-03  | 4.6E-02  | 1.7E-01  |
| POND NORTH  | WS-100611-SM-019 | N           | 10/06/11    | T          | VOC        | Vinyl Chloride | 75-01-4 | 1.20E-02    |      | 2.0E-03   | <b>6.0E+00</b>                           | 1.9E+00  | 6.2E-03  | 4.6E-02  | 2.6E-01  |

**Table 5-1  
Mann-Kendall Statistical Analysis Summary  
(1992-2011)**

| Location    | Unit | Latest Sample Date | Compound   |             |                |
|-------------|------|--------------------|------------|-------------|----------------|
|             |      |                    | TCE        | cis-1,2-DCE | Vinyl chloride |
| MW 12       | 3I   | 10/5/2011          | Decreasing | Decreasing  | -              |
| MW 14       | 3S   | 10/5/2011          | -          | Decreasing  | Decreasing     |
| MW 28       | 3D   | 10/3/2011          | -          | -           | No Trend       |
| MW 3        | 3S   | 10/5/2011          | Decreasing | No Trend    | No Trend       |
| MW 31/31R   | 1    | 10/4/2011          | Decreasing | Decreasing  | Decreasing     |
| MW 37       | 3S   | 10/5/2011          | -          | -           | -              |
| MW 40       | 3S   | 10/4/2011          | -          | No Trend    | Increasing     |
| MW 41       | 3D   | 10/4/2011          | -          | No Trend    | Increasing     |
| MW 42       | 3S   | 10/4/2011          | -          | Decreasing  | Increasing     |
| MW 46       | 3S   | 10/5/2011          | -          | -           | -              |
| MW 49       | 3S   | 10/5/2011          | -          | Increasing  | No Trend       |
| MW 51       | 3S   | 10/5/2011          | No Trend   | No Trend    | -              |
| MW 56       | 3D   | 10/6/2011          | -          | -           | -              |
| MW 57       | 3D   | 10/6/2011          | -          | -           | -              |
| MW 58       | 3D   | 10/6/2011          | -          | -           | Increasing     |
| MW 61       | 3D   | 10/3/2011          | -          | -           | -              |
| MW 64       | 3D   | 10/3/2011          | -          | -           | Increasing     |
| MW 65       | 3D   | 10/3/2011          | -          | No Trend    | No Trend       |
| MW 66       | 3D   | 10/3/2011          | -          | -           | Increasing     |
| MW 68       | 3S   | 10/4/2011          | Increasing | Decreasing  | No Trend       |
| MW 75       | 3D   | 10/5/2011          | -          | -           | -              |
| MW 76       | 3S   | 10/5/2011          | -          | -           | -              |
| MW 79       | 3S   | 10/4/2011          | -          | Increasing  | Decreasing     |
| MW 8        | 3S   | 10/5/2011          | Decreasing | Decreasing  | No Trend       |
| MW 80       | 3D   | 10/3/2011          | -          | -           | Decreasing     |
| MW 81       | B    | 10/3/2011          | -          | -           | Increasing     |
| MW 82       | B    | 10/4/2011          | -          | -           | -              |
| MW 83       | B    | 10/4/2011          | -          | -           | -              |
| MW 85       | 3D   | 10/6/2011          | -          | -           | Increasing     |
| MW-2        | 3D   | 10/6/2011          | -          | -           | -              |
| MW-4        | 3D   | 10/6/2011          | -          | Increasing  | Decreasing     |
| Pond Intake | WS   | 10/6/2011          | -          | -           | -              |
| Pond North  | WS   | 10/6/2011          | -          | -           | -              |

Notes:

*Increasing* means increasing trend based on Mann-Kendall nonparametric test for trend at 0.1 significance level.

*Decreasing* means decreasing trend based on Mann-Kendall nonparametric test for trend at 0.1 significance level.

*No Trend* means no significant data trend at the 0.1 significance level.

"-" means trend not determined due to frequency of non-detect values exceeding 25 percent.

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**Attachment A**  
**Field Sampling Forms**

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**Attachment A-1  
April 2011 Sampling Event**

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 4/18/11 PERSONNEL Kate

### WELL DATA (from records)

Well I.D. MW 3 Datum Id. TOC Total Depth 21.01'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 880.51 Top Screen 15.98'

### WELL DATA (field-determined)

Tapedown 16.72 Time 1346 Operator KRD  
 Screen Vol. 3.33 L Csg. Vol. 2.18 L Total Depth 20.44'

### SETUP

Intake Depth ~19' Equipment Typhoon 1250(2), GDO2778, Heron 14927, controller 6  
 Operator KRD Decon record office

### INSTRUMENT CALIBRATION RECORD

| Time | Std. Lot No. | Standard Value | Conductivity             |  | pH                    |  | Turbidity              |  | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|--------------------------|--|-----------------------|--|------------------------|--|----------|-----------|--------|--------------------------|
|      |              |                | Initial / Recal. (mS/cm) |  | Init. / Recal. (s.u.) |  | Initial / Recal. (NTU) |  |          |           |        |                          |
|      |              |                |                          |  |                       |  |                        |  |          |           |        |                          |
|      |              |                |                          |  |                       |  |                        |  |          |           |        |                          |
|      |              |                |                          |  |                       |  |                        |  |          |           |        |                          |
|      |              |                |                          |  |                       |  |                        |  |          |           |        |                          |
|      |              |                |                          |  |                       |  |                        |  |          |           |        |                          |

### PURGE WATER QUALITY RECORD

| Time | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |              |
|------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|--------------|
| 1355 | 16.72     | —              | START PURGING        |           |                 |          |           |        |                          | 300 mL/min * |
| 1406 | 16.76     | 1              | 0.991                | 6.80      | 160             | 14.12    | 0.83      | -8     | 450 mL/min *             |              |
| 1410 | 16.82     | 2              | 0.988                | 6.85      | 102             | 13.30    | 0.47      | 1      | ↓                        |              |
| 1414 | 16.79     | 3              | 1.000                | 6.85      | 84.0            | 13.29    | 0.47      | 6      |                          |              |
| 1419 | 16.80     | 4              | 0.999                | 6.85      | 71.4            | 13.11    | 0.25      | 10     | ↓                        |              |
| 1425 | 16.75     | 5              | 1.002                | 6.85      | 65.4            | 13.67    | 0.23      | 8      |                          | 300 mL/min   |
| 1435 | 16.76     | 6              | 1.003                | 6.85      | 57.0            | 14.00    | 0.22      | 9      | 200 mL/min               |              |
|      |           |                |                      |           |                 |          |           |        |                          |              |
|      |           |                |                      |           |                 |          |           |        |                          |              |
|      |           |                |                      |           |                 |          |           |        |                          |              |
|      |           |                |                      |           |                 |          |           |        |                          |              |
|      |           |                |                      |           |                 |          |           |        |                          |              |

### FIELD WATER QUALITY RECORD

|   |                    |  |
|---|--------------------|--|
|   | START SAMPLING     |  |
| 1435  | COMPLETED SAMPLING |  |
| CONDITION OF SAMPLE WATER: <u>clear + colorless</u> |                    |  |
| REACTION TO PRESERVATIVE: <u>nom</u>                |                    |  |

Discharged water: volume 13 L

disposition poly tank on site

sample ID: WG-041811-KD-002

\*very erratic flow rate, well behaves very badly w/ typhoon pump. will stop pumping and then pump w/ L/min



MONITORING WELL PURGING AND SAMPLING  
FIELD DATA

PROJECT RACER DATE 4/18/11 PERSONNEL Stacey

**WELL DATA (from records)**

Well I.D. MW 8 Datum Id. TOC Total Depth 24.25'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 878.41 Top Screen 14.26'

**WELL DATA (field-determined)**

Tapedown 13.90 Time 12:45 Operator SM  
 Screen Vol. 6.61 L | 1.6 gal Csg. Vol. 1.6 gal Total Depth \_\_\_\_\_

**SETUP**

Intake Depth \_\_\_\_\_ Equipment Typhoon #6, controller #5, QD 2783, Hecon 14929  
 Operator \_\_\_\_\_ Decon record OFFICE

INSTRUMENT CALIBRATION RECORD

| Time | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |

PURGE WATER QUALITY RECORD

| Time  | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|-------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| 12:55 | 13.91     | —              | START PURGING        |           |                 |          |           |        | 260 ml/min               |
| 13:20 | 13.91     | 1              | 0.954                | 7.01      | 45.2            | 13.21    | 1.02      | -57    | 400 ml/min               |
| 13:38 | 13.91     | 2              | 0.962                | 7.14      | 31.4            | 13.08    | 0.60      | -59    |                          |
| 13:55 | 13.92     | 3              | 0.956                | 7.10      | 25.5            | 12.77    | 0.20      | -63    |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |

FIELD WATER QUALITY RECORD

1400 START SAMPLING

COMPLETED SAMPLING

CONDITION OF SAMPLE WATER:

REACTION TO PRESERVATIVE:

Discharged water: volume 6 gal disposition POLY TANK

WG-041811-SM-001



MONITORING WELL PURGING AND SAMPLING  
FIELD DATA

PROJECT RACER DATE 4/20/11 PERSONNEL Katie

WELL DATA (from records)

Well I.D. MW 12 Datum Id. TOC Total Depth 54.01'  
Csg. Vol./Ft. 0.662 L Datum Elev. 882.78 Top Screen 48.94'

WELL DATA (field-determined)

Tapedown 18.53 Time 1025 Operator KRD  
Screen Vol. 8.36 L Csg. Vol. 23.5 L Total Depth

SETUP

Intake Depth ~ 50' Equipment Typhoon 1256(4), QD02778, Heron 14927, controller 4  
Operator KRD Decon record field (pump), office (tubing)

INSTRUMENT CALIBRATION RECORD

| Time | Std. Lot No. | Standard Value | Conductivity             |                       | pH                     |  | Turbidity |  | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|--------------------------|-----------------------|------------------------|--|-----------|--|----------|-----------|--------|--------------------------|
|      |              |                | Initial / Recal. (mS/cm) | Init. / Recal. (s.u.) | Initial / Recal. (NTU) |  |           |  |          |           |        |                          |
|      |              |                |                          |                       |                        |  |           |  |          |           |        |                          |
|      |              |                |                          |                       |                        |  |           |  |          |           |        |                          |
|      |              |                |                          |                       |                        |  |           |  |          |           |        |                          |
|      |              |                |                          |                       |                        |  |           |  |          |           |        |                          |
|      |              |                |                          |                       |                        |  |           |  |          |           |        |                          |

PURGE WATER QUALITY RECORD

| Time | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| 1035 | 18.53     | —              | START PURGING        |           |                 |          |           |        | 440 mL/min               |
| 1043 | 18.81     | 1              | 0.916                | 6.81      | 25.2            | 13.65    | 1.06      | -108   | ↓                        |
| 1051 | 18.75     | 2              | 0.917                | 6.92      | 20.7            | 13.37    | 0.74      | -117   | ↓                        |
| 1059 | 18.64     | 3              | 0.919                | 6.95      | 25.0            | 12.81    | 0.64      | -118   | ↓                        |
| 1107 | 18.70     | 4              | 0.916                | 6.96      | 23.3            | 13.26    | 0.63      | -118   | ↓                        |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |

FIELD WATER QUALITY RECORD

|   |                    |  |
|---|--------------------|--|
|   | START SAMPLING     |  |
| 1110  | COMPLETED SAMPLING |  |
| CONDITION OF SAMPLE WATER: <u>clear + colorless</u> |                    |  |
| REACTION TO PRESERVATIVE: <u>none</u>               |                    |  |

Discharged water: volume 13.5 L disposition poly tank on site

sample ID: WG-042011-KD-008

# AECOM

## MONITORING WELL PURGING AND SAMPLING

### FIELD DATA

4/18/11

Stacey

PROJECT RACER DATE 4/18/11 PERSONNEL Stacey

**WELL DATA (from records)**

Well I.D. MW 14 Datum Id. TOC Total Depth 33.69'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 881.36 Top Screen 28.73'

**WELL DATA (field-determined)**

Tapedown 17.98 Time 14:34 Operator \_\_\_\_\_  
 Screen Vol. 3.28 L / 0.8 gal Csg. Vol. 2.5 gal Total Depth \_\_\_\_\_

**SETUP**

Intake Depth \_\_\_\_\_ Equipment Typhoon #1, Controller #5, QD 2783, Heum 14429  
 Operator \_\_\_\_\_ Decon record OFFICE

#### INSTRUMENT CALIBRATION RECORD

| Time | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |

#### PURGE WATER QUALITY RECORD

| Time  | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|-------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| 14:44 | 18.01     | —              | START PURGING        |           |                 |          |           |        | 300 ml/min               |
| 14:55 | 18.01     | 1              | 0.963                | 7.03      | 56.3            | 14.66    | 0.55      | -176   | 400 ml/min               |
| 15:05 | 18.01     | 2              | 0.954                | 7.03      | 48.2            | 14.70    | 0.24      | -186   | 400 ml/min               |
| 15:15 | 18.01     | 3              | 0.954                | 7.02      | 49.5            | 15.69    | 0.21      | -179   |                          |
| 15:27 | 18.01     | 4              | 0.949                | 7.02      | 49.8            | 15.36    | 0.20      | -185   |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |

#### FIELD WATER QUALITY RECORD

15:30 START SAMPLING

COMPLETED SAMPLING

CONDITION OF SAMPLE WATER:

REACTION TO PRESERVATIVE:

Discharged water: volume 6 gal disposition POLY TANK

WG-041811-SM-002

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 4/19/11 PERSONNEL Kati

### WELL DATA (from records)

Well I.D. MW 28 Datum Id. TOC Total Depth 52.78'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 877.44 Top Screen 43.04'

### WELL DATA (field-determined)

Tapedown 19.21 Time 10:34 Operator KRD  
 Screen Vol. 6.45 L / 1.7 gal Csg. Vol. 22.2 L Total Depth 53.6'

### SETUP

Intake Depth \_\_\_\_\_ Equipment Typhoon 1254 (6) QDO2778, Heron 14927, controller  
 Operator KRD Decon record fluid (pump) + office (tubing)

### INSTRUMENT CALIBRATION RECORD

| Time | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |

### PURGE WATER QUALITY RECORD

| Time                               | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------------------------------------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| 1120                               | 19.21     | —              | START PURGING        |           |                 |          |           |        | 340 mL/min               |
| — stopped due to lightning storm — |           |                |                      |           |                 |          |           |        |                          |
| 1225                               | 19.12     | 1              | start purging again  |           |                 |          |           |        |                          |
| 1245                               | 19.06     | 2              | 1.066                | 6.88      | 213P            | 14.01    | 2.16      | -64    |                          |
| 1305                               | 19.14     | 3              | 1.214                | 6.85      | 46.0            | 15.91    | 0.81      | -83    | ~400 mL/min              |
| 1319                               | 19.17     | 4              | 1.223                | 6.87      | 22.4            | 16.61    | 0.44      | -93    |                          |
| 1335                               | 19.15     | 5              | 1.235                | 6.88      | 24.5            | 16.75    | 0.44      | -99    |                          |
|                                    |           |                |                      |           |                 |          |           |        |                          |
|                                    |           |                |                      |           |                 |          |           |        |                          |
|                                    |           |                |                      |           |                 |          |           |        |                          |
|                                    |           |                |                      |           |                 |          |           |        |                          |
|                                    |           |                |                      |           |                 |          |           |        |                          |

### FIELD WATER QUALITY RECORD

|   |                    |  |
|---|--------------------|--|
|   | START SAMPLING     |  |
| 1340  | COMPLETED SAMPLING |  |
| CONDITION OF SAMPLE WATER: <u>clear/sl. silty + colorless</u> |                    |  |
| REACTION TO PRESERVATIVE: <u>none</u>                         |                    |  |

Discharged water: volume 34 L / 9 gal disposition poly tank on site

sample ID : WG-041911-KD-004 (ms/msd)

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 4/18/11 PERSONNEL Xati

### WELL DATA (from records)

Well I.D. MW-31R Datum Id. TOC Total Depth 12.86'  
Csg. Vol./Ft. 0.662 L Datum Elev. \_\_\_\_\_ Top Screen 8.13'

### WELL DATA (field-determined)

Tapedown 7.38 Time 1230 Operator KRD  
Screen Vol. 3.13' Csg. Vol. \_\_\_\_\_ Total Depth \_\_\_\_\_

### SETUP

Intake Depth ~10' Equipment Typhoon 1256(#4), Heron 14927, QDOZ778, controller 6  
Operator KRD Decon record office

### INSTRUMENT CALIBRATION RECORD

| Time | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |

### PURGE WATER QUALITY RECORD

| Time  | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|-------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| 12:38 | 7.38      | —              | START PURGING        |           |                 |          |           |        | 200 ml/min               |
| 12:51 | 7.39      | 1              | 1.60                 | 6.66      | 52.6            | 12.27    | 0.87      | -144   | 300ml/min                |
| 13:02 | 7.39      | 2              | 1.57                 | 6.78      | 39.8            | 13.70    | 0.52      | -150   | 350ml/min                |
| 13:10 | 7.39      | 3              | 1.51                 | 6.97      | 43.3            | 12.09    | 0.27      | -158   | 300ml/min                |
| 13:21 | 7.39      | 4              | 1.500                | 6.95      | 35.0            | 12.01    | 0.20      | -163   |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |

### FIELD WATER QUALITY RECORD

|   |                    |  |
|---|--------------------|--|
|   | START SAMPLING     |  |
| 13:25   | COMPLETED SAMPLING |  |
| CONDITION OF SAMPLE WATER: <u>Clear + colorless</u> |                    |  |
| REACTION TO PRESERVATIVE: <u>none</u>               |                    |  |

Discharged water: volume \_\_\_\_\_ disposition poly tank on site

sample ID: WG-041811-KD-001

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 4/19/11 PERSONNEL Stacey

**WELL DATA (from records)**

Well I.D. MW 40 Datum Id. TOC Total Depth 37.92'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 879.51 Top Screen 28.14'

**WELL DATA (field-determined)**

Tapedown 20.71 Time 13:44 Operator SLM  
 Screen Vol. 6.47 L / 1.69 gal Csg. Vol. 2.79 gal Total Depth \_\_\_\_\_

**SETUP**

Intake Depth 33.0' Equipment Typhoon #4, Controller #5, HERON 14929, QD 2783  
 Operator \_\_\_\_\_ Decon record FIELD

| INSTRUMENT CALIBRATION RECORD |              |                |                                       |                          |                                  |          |           |        |                          |
|-------------------------------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
| Time                          | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |

| PURGE WATER QUALITY RECORD |           |                |                      |           |                 |          |           |        |                          |
|----------------------------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| Time                       | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
| 13:57                      | 20.70     | —              | START PURGING        |           |                 |          |           |        | 420 ml/min               |
| 14:12                      | 20.66     | 1              | 1.135                | 7.07      | 235             | 14.73    | 0.51      | -116   | 250 ml/min               |
| 14:37                      | 20.66     | 2              | 1.134                | 7.03      | 46.6            | 15.51    | 0.26      | -108   | 250 ml/min               |
| 14:51                      | 20.66     | 3              | 1.136                | 7.03      | 42.9            | 15:57    | 0.19      | -113   |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |

**FIELD WATER QUALITY RECORD**

1500 START SAMPLING  
 \_\_\_\_\_ COMPLETED SAMPLING

CONDITION OF SAMPLE WATER: \_\_\_\_\_

REACTION TO PRESERVATIVE: \_\_\_\_\_

Discharged water: volume 10 8 gal disposition POLY TANK

WG-041911-SM-005

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 4/19/11 PERSONNEL Katie

### WELL DATA (from records)

Well I.D. MW 41 Datum Id. TOC Total Depth 43.71'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 878.58 Top Screen 38.95'

### WELL DATA (field-determined)

Tapedown 20.18 Time 1608 Operator KRD  
 Screen Vol. 3.15 L / .8 gal Csg. Vol. 15.6 L Total Depth \_\_\_\_\_

### SETUP

Intake Depth 41.3' Equipment Typhoon 1255(S), QD02778, Heron 14927, controller 3  
 Operator KRD Decon record office

### INSTRUMENT CALIBRATION RECORD

| Time | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |

### PURGE WATER QUALITY RECORD

| Time | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |  |
|------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|--|
| 1615 | 20.18     | —              | START PURGING        |           |                 |          |           |        |                          |  |
| 1620 | 20.44     | 1              | 1.057                | 6.90      | 11.2            | 16.36    | 1.33      | -114   | 880mL/min                |  |
| 1626 | 20.40     | 2              | 1.056                | 6.90      | 19.7            | 16.17    | 0.47      | -122   |                          |  |
| 1632 | 20.34     | 3              | 1.056                | 6.90      | 17.7            | 16.16    | 0.40      | -124   |                          |  |
| 1638 | 20.41     | 4              | 1.058                | 6.90      | 12.6            | 16.27    | 0.31      | -127   |                          |  |
|      |           |                |                      |           |                 |          |           |        |                          |  |
|      |           |                |                      |           |                 |          |           |        |                          |  |
|      |           |                |                      |           |                 |          |           |        |                          |  |
|      |           |                |                      |           |                 |          |           |        |                          |  |
|      |           |                |                      |           |                 |          |           |        |                          |  |
|      |           |                |                      |           |                 |          |           |        |                          |  |
|      |           |                |                      |           |                 |          |           |        |                          |  |
|      |           |                |                      |           |                 |          |           |        |                          |  |
|      |           |                |                      |           |                 |          |           |        |                          |  |
|      |           |                |                      |           |                 |          |           |        |                          |  |

### FIELD WATER QUALITY RECORD

|                            |                    |                   |
|----------------------------|--------------------|-------------------|
|                            | START SAMPLING     |                   |
| 1640                       | COMPLETED SAMPLING |                   |
| CONDITION OF SAMPLE WATER: |                    | clear + colorless |
| REACTION TO PRESERVATIVE:  |                    | none              |

Discharged water: volume 12.6 L disposition poly tank on site

sample ID: WG-041911-KD-006

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 4/19/11 PERSONNEL Xotia

**WELL DATA (from records)**

Well I.D. MW 42 Datum Id. TOC Total Depth 33.39'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 878.54 Top Screen 23.61'

**WELL DATA (field-determined)**

Tapedown 20.11 Time 1430 Operator KRD  
 Screen Vol. 6.47 L / 1.7 gal Csg. Vol. 8.7 L Total Depth 33.3

**SETUP**

Intake Depth 28.5' Equipment Typhoon 1250(2), QD02778, Heron 14927, controller 3  
 Operator KRD Decon record field (pump), office (tubing)

**INSTRUMENT CALIBRATION RECORD**

| Time | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |

**PURGE WATER QUALITY RECORD**

| Time   | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|--------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| * 1440 | 20.11     | —              | START PURGING        |           |                 |          |           |        | 480 mL/min               |
| 1454   | 20.13     | 1              | 0.923                | 6.99      | 282             | 16.00    | 0.83      | -55    |                          |
| 1513   | 20.11     | 2              | 0.922                | 6.95      | 80.2            | 16.09    | 0.24      | -55    |                          |
| 1531   | 20.11     | 3              | 0.920                | 6.95      | 25.0            | 15.80    | 0.26      | -52    |                          |
| 1550   | 20.11     | 4              | 0.920                | 6.95      | 15.7            | 15.63    | 0.21      | -49    |                          |
|        |           |                |                      |           |                 |          |           |        |                          |
|        |           |                |                      |           |                 |          |           |        |                          |
|        |           |                |                      |           |                 |          |           |        |                          |
|        |           |                |                      |           |                 |          |           |        |                          |
|        |           |                |                      |           |                 |          |           |        |                          |
|        |           |                |                      |           |                 |          |           |        |                          |
|        |           |                |                      |           |                 |          |           |        |                          |
|        |           |                |                      |           |                 |          |           |        |                          |
|        |           |                |                      |           |                 |          |           |        |                          |

**FIELD WATER QUALITY RECORD**

START SAMPLING

1555 COMPLETED SAMPLING

CONDITION OF SAMPLE WATER: clear + colorless

REACTION TO PRESERVATIVE: none

Discharged water: volume 26 L disposition poly tank on site

\* water was initially orange

sample ID: WG-041911-KD-005      WG-041911-KD-007 4/19/11 17:00

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 4/19/11 PERSONNEL Stacey

**WELL DATA (from records)**

Well I.D. MW-49 Datum Id. TOC Total Depth 32.00'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 877.93 Top Screen 22.24'

**WELL DATA (field-determined)**

Tapedown 13.9' Time 15:45 Operator \_\_\_\_\_  
 Screen Vol. 6.46 L / 1.5 gal Csg. Vol. 2.9 gal Total Depth \_\_\_\_\_

**SETUP**

Intake Depth 27.1' Equipment Typhoon #1, Controller #5, HERON 14929, QD 2783  
 Operator \_\_\_\_\_ Decon record FIELD

### INSTRUMENT CALIBRATION RECORD

| Time | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |

### PURGE WATER QUALITY RECORD

| Time | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| 1546 | 13.90     | —              | START PURGING        |           |                 |          |           |        | 480ml/min                |
| 1559 | 13.89     | 1              | 0.861                | 7.09      | 316             | 12.64    | 0.76      | -26    | 480ml/min                |
| 1610 | 13.90     | 2              | 0.862                | 7.08      | 62.1            | 12.58    | 0.19      | -38    | 480ml/min                |
| 1621 | 13.90     | 3              | 0.864                | 7.08      | 48.0            | 12.60    | 0.16      | -40    | 500ml/min                |
| 1637 | 13.90     | 4              | 0.863                | 7.08      | 45.3            | 12.69    | 0.19      | -35    | 450ml/min                |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |

### FIELD WATER QUALITY RECORD

1640 START SAMPLING

COMPLETED SAMPLING

CONDITION OF SAMPLE WATER:

REACTION TO PRESERVATIVE:

Discharged water: volume 8 gal disposition POLY TANK

\* 1ST VOLUME LT. BROWN

\* V. FINE SAND IN TUBING WG-041911-SM-006

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 4/20/11 PERSONNEL Stacey

**WELL DATA (from records)**

Well I.D. MW-51 Datum Id. TOC Total Depth 27.04'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 878.19 Top Screen 22.26'

**WELL DATA (field-determined)**

Tapedown 16.61 Time 10:47 Operator \_\_\_\_\_  
 Screen Vol. 3.16 L / 0.7 gal Csg. Vol. 1.7 gal Total Depth \_\_\_\_\_

**SETUP**

Intake Depth 24.6' Equipment Typhoon # 2, controller #6, Heron 14929, QD 2783, PATTER #1  
 Operator \_\_\_\_\_ Decon record FIELD

**INSTRUMENT CALIBRATION RECORD**

| Time | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |

**PURGE WATER QUALITY RECORD**

| Time             | Tape-Down | No. of Volumes | Conductivity (mS/cm)      | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |  |
|------------------|-----------|----------------|---------------------------|-----------|-----------------|----------|-----------|--------|--------------------------|--|
| <del>11:09</del> |           |                | START PURGING             |           |                 |          |           |        |                          |  |
| 11:09            | 16.65     | 1              | 1.042                     | 7.04      | 244             | 14.94    | 0.72      | 114    | 400 ml/min               |  |
| 11:18            | 16.65     | 2              | 1.037                     | 7.04      | 31.8            | 14.66    | 0.60      | 92     | 300 ml/min               |  |
| 11:28            | 16.65     | 3              | <del>1.028</del><br>1.028 | 7.05      | 31.7            | 14.82    | 0.40      | 82     | EVERY<br>UNSTABLE        |  |
|                  |           |                |                           |           |                 |          |           |        |                          |  |
|                  |           |                |                           |           |                 |          |           |        |                          |  |
|                  |           |                |                           |           |                 |          |           |        |                          |  |
|                  |           |                |                           |           |                 |          |           |        |                          |  |
|                  |           |                |                           |           |                 |          |           |        |                          |  |
|                  |           |                |                           |           |                 |          |           |        |                          |  |
|                  |           |                |                           |           |                 |          |           |        |                          |  |
|                  |           |                |                           |           |                 |          |           |        |                          |  |

**FIELD WATER QUALITY RECORD**

11:40 START SAMPLING  
 COMPLETED SAMPLING

CONDITION OF SAMPLE WATER:  
 REACTION TO PRESERVATIVE:

Discharged water: volume 5 gal disposition POLY TANK

\* 1st VOLUME BROWN + TURBID  
 \* FINE SAND IN TUBING  
 WG-042011-SM-007

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

DUP

|                              |                  |              |   |  |             |        |  |  |
|------------------------------|------------------|--------------|---|--|-------------|--------|--|--|
| PROJECT                      | RACER            | DATE         | 4/19/11   |  | PERSONNEL   | Stacey |  |  |
| WELL DATA (from records)     |                  |              |   |  |             |        |  |  |
| Well I.D.                    | MW 66            | Datum Id.    | TOC   |  | Total Depth | 17.70' |  |  |
| Csg. Vol./Ft.                | 0.662 L          | Datum Elev.  | 861.67  |  | Top Screen  | 9.94'  |  |  |
| WELL DATA (field-determined) |                  |              |   |  |             |        |  |  |
| Tapedown                     | 4.23             | Time         | 10:15   |  | Operator    | SLW    |  |  |
| Screen Vol.                  | 6.46 L / 1.2 gal | Csg. Vol.    | 2 gal   |  | Total Depth |        |  |  |
| SETUP                        |                  |              |   |  |             |        |  |  |
| Intake Depth                 |                  | Equipment    | Typhoon #3, controller #5, HERON 14929, QD 2783 |  |             |        |  |  |
| Operator                     |                  | Decon record | FIELD   |  |             |        |  |  |

### INSTRUMENT CALIBRATION RECORD

| Time | Std. Lot No. | Standard Value | Conductivity             |                       | pH                     |  | Turbidity |  | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|--------------------------|-----------------------|------------------------|--|-----------|--|----------|-----------|--------|--------------------------|
|      |              |                | Initial / Recal. (mS/cm) | Init. / Recal. (s.u.) | Initial / Recal. (NTU) |  |           |  |          |           |        |                          |
|      |              |                |                          |                       |                        |  |           |  |          |           |        |                          |
|      |              |                |                          |                       |                        |  |           |  |          |           |        |                          |
|      |              |                |                          |                       |                        |  |           |  |          |           |        |                          |
|      |              |                |                          |                       |                        |  |           |  |          |           |        |                          |
|      |              |                |                          |                       |                        |  |           |  |          |           |        |                          |

### PURGE WATER QUALITY RECORD

| Time    | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|---------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| 10:20   | 4.23      | —              | START PURGING        |           |                 |          |           |        | 400 ml/min               |
| 10:32   | 4.23      | 1              | 8.935                | 7.10      | 65.8            | 9.69     | 1.55      | -46    | 400 ml/min               |
| * 11:20 | 4.23      | 2              | 0.906                | 7.13      | 39.7            | 9.45     | 0.87      | -31    | 340 ml/min               |
| 11:48   | 4.23      | 3              | 0.912                | 7.16      | 34.4            | 8.28     | 0.59      | -32    | 340 ml/min               |
| 12:29   | 4.23      | 4              | 0.899                | 7.13      | 24.9            | 8.15     | 0.67      | -13    | 340 ml/min               |
|         |           |                |                      |           |                 |          |           |        |                          |
|         |           |                |                      |           |                 |          |           |        |                          |
|         |           |                |                      |           |                 |          |           |        |                          |
|         |           |                |                      |           |                 |          |           |        |                          |
|         |           |                |                      |           |                 |          |           |        |                          |
|         |           |                |                      |           |                 |          |           |        |                          |
|         |           |                |                      |           |                 |          |           |        |                          |
|         |           |                |                      |           |                 |          |           |        |                          |

### FIELD WATER QUALITY RECORD

|                            |                    |                         |
|----------------------------|--------------------|-------------------------|
| 12:30                      | START SAMPLING     | WATER IS CLEAR, NO ODOR |
|                            | COMPLETED SAMPLING |                         |
| CONDITION OF SAMPLE WATER: |                    |                         |
| REACTION TO PRESERVATIVE:  |                    |                         |

Discharged water: volume ~ 5 gal disposition POLY TANK

\* STOPPED FOR STORM  
 WG - 041911 - SM - 003 12:30  
 WG - 041911 - SM - 004 13:00

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 4/18/11 PERSONNEL Xu

### WELL DATA (from records)

Well I.D. MW 68 Datum Id. TOC Total Depth 35.24'  
Csg. Vol./Ft. 0.662 L Datum Elev. 876.98 Top Screen 30.23'

### WELL DATA (field-determined)

Tapedown 18.20 Time 1528 Operator KRD  
Screen Vol 3.32 L Csg. Vol. 11.3 L Total Depth 35.3'

### SETUP

Intake Depth \_\_\_\_\_ Equipment Typhoon 1252(5), GDO2778, Heron 14927, controller 6  
Operator KRD Decon record office

### INSTRUMENT CALIBRATION RECORD

| Time | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |

### PURGE WATER QUALITY RECORD

| Time | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |  |
|------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|--|
| 1540 | 18.20     | —              | START PURGING        |           |                 |          |           |        |                          |  |
| 1554 | 18.20     | 1              | 1.015                | 6.91      | 114             | 16.48    | 1.18      | -95    | 360 mL/min               |  |
| 1604 | 18.20     | 2              | 1.012                | 6.91      | 58.3            | 16.72    | 0.61      | -95    |                          |  |
| 1614 | 18.20     | 3              | 1.008                | 6.91      | 42.5            | 16.83    | 0.39      | -96    |                          |  |
| 1624 | 18.20     | 4              | 1.007                | 6.91      | 37.4            | 17.46    | 0.31      | -99    |                          |  |
| 1634 | 18.20     | 5              | 1.008                | 6.91      | 39.7            | 17.12    | 0.34      | -89    |                          |  |
|      |           |                |                      |           |                 |          |           |        |                          |  |
|      |           |                |                      |           |                 |          |           |        |                          |  |
|      |           |                |                      |           |                 |          |           |        |                          |  |
|      |           |                |                      |           |                 |          |           |        |                          |  |
|      |           |                |                      |           |                 |          |           |        |                          |  |
|      |           |                |                      |           |                 |          |           |        |                          |  |
|      |           |                |                      |           |                 |          |           |        |                          |  |
|      |           |                |                      |           |                 |          |           |        |                          |  |
|      |           |                |                      |           |                 |          |           |        |                          |  |

### FIELD WATER QUALITY RECORD

|                            |                    |                           |
|----------------------------|--------------------|---------------------------|
|                            | START SAMPLING     |                           |
| 1635                       | COMPLETED SAMPLING | clear/sl. silty/colorless |
| CONDITION OF SAMPLE WATER: |                    | ↪                         |
| REACTION TO PRESERVATIVE:  |                    | none                      |

Discharged water: volume \_\_\_\_\_ disposition poly tank on site

\*pump shut off temporarily

sample ID: WG-041811-KD-003

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 4/20/11 PERSONNEL Katia

### WELL DATA (from records)

Well I.D. MW-79 Datum Id. TOC Total Depth 45.01'  
Csg. Vol./Ft. 0.662 L Datum Elev. \_\_\_\_\_ Top Screen 40.28'

### WELL DATA (field-determined)

Tapedown 19.08 Time 1310 Operator KRD  
Screen Vol. 3.13 L Csg. Vol. \_\_\_\_\_ Total Depth \_\_\_\_\_

### SETUP

Intake Depth ~43' Equipment Typhoon 1255 (#5), QD02778, Controller 4  
Operator KRD Decon record field (pump), office (tubing) Heron 14927

### INSTRUMENT CALIBRATION RECORD

| Time | Std. Lot No. | Standard Value | Conductivity             |                       | pH                     |          | Turbidity |  | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|--------------------------|-----------------------|------------------------|----------|-----------|--|----------|-----------|--------|--------------------------|
|      |              |                | Initial / Recal. (mS/cm) | Init. / Recal. (s.u.) | Initial / Recal. (NTU) | Temp. C° |           |  |          |           |        |                          |
|      |              |                |                          |                       |                        |          |           |  |          |           |        |                          |
|      |              |                |                          |                       |                        |          |           |  |          |           |        |                          |
|      |              |                |                          |                       |                        |          |           |  |          |           |        |                          |
|      |              |                |                          |                       |                        |          |           |  |          |           |        |                          |
|      |              |                |                          |                       |                        |          |           |  |          |           |        |                          |

### PURGE WATER QUALITY RECORD

| Time | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| 1315 | 19.08     | —              | START PURGING        |           |                 |          |           |        | 240 mL/min               |
| 1331 | 19.21     | 1              | 0.933                | 7.08      | 261             | 13.02    | 1.65      | -61    | 405 mL/min               |
| 1339 | 19.34     | 2              | 0.932                | 7.03      | 71.6            | 14.36    | 0.89      | -82    |                          |
| 1346 | 19.31     | 3              | 0.928                | 7.01      | 30.9            | 14.21    | 0.54      | -90    |                          |
| 1353 | 19.29     | 4              | 0.926                | 7.01      | 22.8            | 14.39    | 0.50      | -97    |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |

### FIELD WATER QUALITY RECORD

|   |                    |  |
|---|--------------------|--|
|   | START SAMPLING     |  |
| 1355  | COMPLETED SAMPLING |  |
| CONDITION OF SAMPLE WATER: <u>clear + colorless</u> |                    |  |
| REACTION TO PRESERVATIVE: <u>none</u>               |                    |  |

Discharged water: volume 12.5 L disposition poly tank on site

sample ID: WG-042011-KRD-010

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 4/20/11 PERSONNEL Kati

**WELL DATA (from records)**

Well I.D. MW 85 Datum Id. TOC Total Depth 24.00'  
 Csg. Vol./Ft. 0.662 L Datum Elev. \_\_\_\_\_ Top Screen 14.92'

**WELL DATA (field-determined)**

Tapedown 8.06 Time 1455 Operator KRD  
 Screen Vol. 6.43 L Csg. Vol. \_\_\_\_\_ Total Depth \_\_\_\_\_

**SETUP**

Intake Depth \_\_\_\_\_ Equipment Typhoon 1254 (#6), Q1002778, Heron 14927, controller 4  
 Operator KRD Decon record field (pump), office (tubing)

**INSTRUMENT CALIBRATION RECORD**

| Time | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |

**PURGE WATER QUALITY RECORD**

| Time | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| 1505 | 8.06      | —              | START PURGING        |           |                 |          |           |        | erratic                  |
| 1522 | 8.06      | 1              | 1.251                | 6.92      | 1631            | 12.13    | 0.60      | -96    |                          |
| 1541 | 8.06      | 2              | 1.257                | 7.02      | 290             | 11.98    | 0.99      | -93    |                          |
| 1554 | 8.06      | 3              | 1.259                | 6.94      | 89.7            | 11.60    | 0.28      | -97    |                          |
| 1615 | 8.06      | 4              | 1.256                | 6.94      | 72.5            | 11.67    | 0.30      | -99    |                          |
| 1627 | 8.06      | 5              | 1.257                | 6.93      | 45.9            | 11.52    | 0.22      | -100   |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |

**FIELD WATER QUALITY RECORD**

START SAMPLING \_\_\_\_\_

1636 COMPLETED SAMPLING \_\_\_\_\_

CONDITION OF SAMPLE WATER: clear + colorless

REACTION TO PRESERVATIVE: none

Discharged water: volume 32.5 L disposition poly tank on site

\* water is initially cloudy + orange (iron bacteria)

sample ID: WG-042011-KD-012

# AECOM

DUP

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 4/20/11 PERSONNEL Stacey

**WELL DATA (from records)**

Well I.D. MW-4 (Golf Course) Datum Id. TOC Total Depth 22.59'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 861.67 Top Screen 2.59'

**WELL DATA (field-determined)**

Tapedown 3.08 Time 3:08 13:35 Operator SM  
 Screen Vol. 13.24 L / 3.2 gal Csg. Vol. 3.12 gal Total Depth \_\_\_\_\_

**SETUP**

Intake Depth \_\_\_\_\_ Equipment Typhoon #  
 Operator \_\_\_\_\_ Decon record \_\_\_\_\_

| INSTRUMENT CALIBRATION RECORD |              |                |                                       |                          |                                  |          |           |        |                          |
|-------------------------------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
| Time                          | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |

| PURGE WATER QUALITY RECORD |           |                |                      |           |                 |          |           |        |                          |
|----------------------------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| Time                       | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
| 13:47                      | 3.09      | —              | START PURGING        |           |                 |          |           |        | 400ml/mi                 |
| 14:20                      | 3.09      | 1              | 1.159                | 7.08      | 308             | 9.99     | 0.64      | -78    | 460ml/mi                 |
| 15:06                      | 3.09      | 2              | 1.159                | 7.12      | 250             | 10.04    | 0.62      | -79    |                          |
| 15:44                      | 3.10      | 3              | 1.159                | 7.08      | 222             | 9.98     | 0.46      | -87    |                          |
| 16:14                      | 3.10      | 4              | 1.163                | 7.02      | 19.5            | 9.80     | 0.17      | -87    |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |

| FIELD WATER QUALITY RECORD |                    |  |  |  |  |  |  |  |  |
|----------------------------|--------------------|--|--|--|--|--|--|--|--|
| 16:15                      | START SAMPLING     |  |  |  |  |  |  |  |  |
|                            | COMPLETED SAMPLING |  |  |  |  |  |  |  |  |
| CONDITION OF SAMPLE WATER: |                    |  |  |  |  |  |  |  |  |
| REACTION TO PRESERVATIVE:  |                    |  |  |  |  |  |  |  |  |

Discharged water: volume 13 gal disposition POLY TANK

\* ORANGE SLIMY BACTERIA  
 \* FINE SAND IN TUBING

WG-042011-SM-008 16:15  
 WG-042011-SM-009 12:00

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**Attachment A-2**  
**October 2011 Sampling Event**

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 10/5/11 PERSONNEL Ray McKIBEN

**WELL DATA (from records)**

Well I.D. MW 3 Datum Id. TOC Total Depth 21.01'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 880.51 Top Screen 15.98'

**WELL DATA (field-determined)**

Tapedown 18.15 Time 1040 Operator RM  
 Screen Vol. 3.33 L Csg. Vol. 1.89 L Total Depth \_\_\_\_\_

**SETUP**

Intake Depth 19.5' Equipment TYPHOON #6, CONTROLLER 5, QUANTA QD02778  
 Operator RM Decon record Dedicated tubing

| INSTRUMENT CALIBRATION RECORD |              |                |                                       |                          |                                  |          |           |        |                          |
|-------------------------------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
| Time                          | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |

| PURGE WATER QUALITY RECORD |           |                |                      |           |                 |          |           |        |                          |  |
|----------------------------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|--|
| Time                       | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |  |
| 1055                       |           |                | START PURGING        |           |                 |          |           |        |                          |  |
| 1103                       | 18.19     | 1              | 0.932                | 7.01      | 76.4            | 17.19    | 0.19      | -25    | 300 mL/min               |  |
| 1111                       | 18.19     | 2              | 0.931                | 7.00      | 107             | 16.82    | 0.47      | -16    | 300                      |  |
| 1119                       | 18.19     | 3              | 0.927                | 6.99      | 62.6            | 16.88    | 0.48      | -8     | 300                      |  |
| 1124                       | 18.19     |                | 0.930                | 6.98      | 54.5            | 16.91    | 0.47      | -7     | 300                      |  |
| 1129                       | 18.19     | 4              | 0.931                | 6.98      | 53.3            | 16.92    | 0.47      | -6     | 300                      |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |

| FIELD WATER QUALITY RECORD |  |  |  |  |  |  |  |  |  |
|----------------------------|--|--|--|--|--|--|--|--|--|
|                            | START SAMPLING <u>1130</u>                                   |  |  |  |  |  |  |  |  |
|                            | COMPLETED SAMPLING <u>1135</u>                               |  |  |  |  |  |  |  |  |
|                            | CONDITION OF SAMPLE WATER: <u>Clear, colorless, odorless</u> |  |  |  |  |  |  |  |  |
|                            | REACTION TO PRESERVATIVE: <u>NONE</u>                        |  |  |  |  |  |  |  |  |

Discharged water: volume ~8 L disposition POLY-TANK

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER      DATE 10/5/11      PERSONNEL Steen

**WELL DATA (from records)**

Well I.D. MW 8      Datum Id. TOC      Total Depth 24.25'  
 Csg. Vol./Ft. 0.662 L      Datum Elev. 878.41      Top Screen 14.26'

**WELL DATA (field-determined)**

Tapedown 15.53      Time 11:00      Operator \_\_\_\_\_  
 Screen Vol. 6.61 L 1.6 gal      Csg. Vol. 1.39 gal      Total Depth \_\_\_\_\_

**SETUP**

Intake Depth \_\_\_\_\_      Equipment TYPHOON # 2, CONTROLLER # 2, HERON 14934, QD 33 19  
 Operator \_\_\_\_\_      Decon record FIELD

**INSTRUMENT CALIBRATION RECORD**

| Time | Std. Lot No. | Standard Value | Conductivity             | pH                    | Turbidity              | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|--------------------------|-----------------------|------------------------|----------|-----------|--------|--------------------------|
|      |              |                | Initial / Recal. (mS/cm) | Init. / Recal. (s.u.) | Initial / Recal. (NTU) |          |           |        |                          |
|      |              |                |                          |                       |                        |          |           |        |                          |
|      |              |                |                          |                       |                        |          |           |        |                          |
|      |              |                |                          |                       |                        |          |           |        |                          |
|      |              |                |                          |                       |                        |          |           |        |                          |
|      |              |                |                          |                       |                        |          |           |        |                          |

**PURGE WATER QUALITY RECORD**

| Time  | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|-------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| 11:09 | 15.50     | —              | START PURGING        |           |                 |          |           |        | 400 ml/min               |
| 11:26 | 15.50     | 1              | 1.060                | 6.93      | 91.7            | 15.96    | 0.54      | -123   | ↓                        |
| 11:42 | 15.51     | 2              | 1.089                | 6.96      | 20.0            | 14.79    | 0.16      | -120   | ↓                        |
| 11:55 | 15.53     | 3              | 1.107                | 6.95      | 12.8            | 14.86    | 0.15      | -121   | ↓                        |
| 12:09 | 15.50     | 4              | 1.114                | 6.95      | 9.9             | 15.04    | 0.17      | -122   | ↓                        |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |

**FIELD WATER QUALITY RECORD**

12:10 START SAMPLING  
 12:15 COMPLETED SAMPLING  
 CONDITION OF SAMPLE WATER: CLEAR, ODORLESS  
 REACTION TO PRESERVATIVE: NONE

Discharged water: volume ~ 7 gal      disposition POLY TANK



**MONITORING WELL PURGING AND SAMPLING  
FIELD DATA**

PROJECT RACER      DATE 10/5/11      PERSONNEL Ray McKIBREN

**WELL DATA (from records)**

Well I.D. MW 12      Datum Id. TOC      Total Depth 54.01'  
 Csg. Vol./Ft. 0.662 L      Datum Elev. 882.78      Top Screen 48.94'

**WELL DATA (field-determined)**

Tapedown 20.16      Time 1445      Operator RM  
 Screen Vol. 3.36 L      Csg. Vol. 22.41 L      Total Depth \_\_\_\_\_

**SETUP**

Intake Depth \_\_\_\_\_      Equipment Fu112# 30524 controller ET 127203, Quantia QD02779  
 Operator RM      Decon record Dedicated tubing

| INSTRUMENT CALIBRATION RECORD |              |                |                                       |                          |                                  |          |           |        |                          |
|-------------------------------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
| Time                          | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |

| PURGE WATER QUALITY RECORD |           |                |                      |           |                 |          |           |        |                          |  |
|----------------------------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|--|
| Time                       | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |  |
| 1450                       |           |                | START PURGING        |           |                 |          |           |        |                          |  |
| 1502                       | 20.32     | 1              | 0.901                | 7.05      | 113             | 16.05    | 0.47      | -127   | 280 ML/MIN               |  |
| 1511                       | 20.32     | 2              | 0.900                | 7.07      | 95.3            | 16.01    | 0.31      | -136   | 300                      |  |
| 1521                       | 20.32     | 3              | 0.894                | 7.07      | 102             | 15.98    | 0.21      | -139   | 340 ML(MW)               |  |
| 1525                       | 20.32     |                | 0.897                | 7.02      | 98.1            | 15.96    | 0.19      | -137   | 340                      |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |

| FIELD WATER QUALITY RECORD     |  |  |  |  |  |  |  |  |  |
|--------------------------------|--|--|--|--|--|--|--|--|--|
| START SAMPLING <u>1530</u>     |  |  |  |  |  |  |  |  |  |
| COMPLETED SAMPLING <u>1535</u> |  |  |  |  |  |  |  |  |  |
| CONDITION OF SAMPLE WATER:     |  |  |  |  |  |  |  |  |  |
| REACTION TO PRESERVATIVE:      |  |  |  |  |  |  |  |  |  |

Discharged water: volume ~12L      disposition POLY-TANK

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 10/5/11 PERSONNEL Stacy

**WELL DATA (from records)**

Well I.D. MW 14 Datum Id. TOC Total Depth 33.69'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 881.36 Top Screen 28.73'

**WELL DATA (field-determined)**

Tapedown 19.39 Time 1240 Operator SLM  
 Screen Vol. 3.28 L 0.8 gal Csg. Vol. 0.3 gal Total Depth           

**SETUP**

Intake Depth            Equipment TYPHOON # 3, CONTROLLER # 2, QD3319, HERON 14934  
 Operator            Decon record FIELD

**INSTRUMENT CALIBRATION RECORD**

| Time | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |

**PURGE WATER QUALITY RECORD**

| Time  | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|-------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| 12:55 | 19.41     | —              | START PURGING        |           |                 |          |           |        | 240 ml/min               |
| 13:06 | 19.41     | 1              | 0.979                | 6.97      | 121             | 16.43    | 0.31      | -143   | 300 ml/min               |
| 13:17 | 19.41     | 2              | 0.974                | 6.96      | 94.5            | 17.27    | 0.23      | -145   |                          |
| 13:23 | 19.42     | 3              | 0.980                | 6.96      | 69.9            | 16.43    | 0.24      | -145   |                          |
| 13:30 | 19.42     | 4              | 0.986                | 6.96      | 24.5            | 16.01    | 0.15      | -135   |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |

**FIELD WATER QUALITY RECORD**

13:35 START SAMPLING  
 13:40 COMPLETED SAMPLING  
 CONDITION OF SAMPLE WATER: SL. CLOUDY, ODORLESS  
 REACTION TO PRESERVATIVE: NONE

Discharged water: volume ~5 gal disposition POLY TANK

WG-100511-SM-012

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

|                              |         |              |  |             |              |
|------------------------------|---------|--------------|--|-------------|--------------|
| PROJECT                      | RACER   | DATE         | 10/3/11  | PERSONNEL   | Ray McKIBBEN |
| WELL DATA (from records)     |         |              |  |             |              |
| Well I.D.                    | MW 28   | Datum Id.    | TOC  | Total Depth | 52.78'       |
| Csg. Vol./Ft.                | 0.662 L | Datum Elev.  | 877.44   | Top Screen  | 43.04'       |
| WELL DATA (field-determined) |         |              |  |             |              |
| Tapedown                     | 19.85   | Time         | 1725   | Operator    | Rm           |
| Screen Vol.                  | 6.45 L  | Csg. Vol.    | 21.78 L  | Total Depth |              |
| SETUP                        |         |              |  |             |              |
| Intake Depth                 |         | Equipment    | Fultz 30524, Controller ET127204, Quanta QD02783 |             |              |
| Operator                     | Rm      | Decon record | Dedicated tubing                                 |             |              |

| INSTRUMENT CALIBRATION RECORD |              |                |                                       |                          |                                  |          |           |        |                          |
|-------------------------------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
| Time                          | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |

| PURGE WATER QUALITY RECORD |           |                |                      |           |                 |          |           |        |                          |
|----------------------------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| Time                       | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
| 1730                       |           |                | START PURGING        |           |                 |          |           |        | 300 mL/MW                |
| 1747                       | 19.90     | 1              | 1.158                | 8.14      | 121             | 18.04    | 0.56      | -141   | 380 mL/MW                |
| 1802                       | 19.90     | 2              | 1.168                | 7.21      | 99.9            | 17.98    | 0.33      | -97    | 430 mL/MW                |
| 1817                       | 19.90     | 3              | 1.161                | 7.23      | 101             | 18.02    | 0.36      | -95    | 440 mL/MW                |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |

| FIELD WATER QUALITY RECORD                                |                         |  |  |  |  |  |  |  |  |
|---|-------------------------|--|--|--|--|--|--|--|--|
|   | START SAMPLING 1820     |  |  |  |  |  |  |  |  |
|   | COMPLETED SAMPLING 1825 |  |  |  |  |  |  |  |  |
| CONDITION OF SAMPLE WATER: Sl turbid, colorless, odorless |                         |  |  |  |  |  |  |  |  |
| REACTION TO PRESERVATIVE: NONE                            |                         |  |  |  |  |  |  |  |  |

Discharged water: volume 270 L disposition Poly TANK



**MONITORING WELL PURGING AND SAMPLING  
FIELD DATA**

PROJECT RACER DATE 10/4/11 PERSONNEL Stacey

**WELL DATA (from records)**

Well I.D. MW-31R Datum Id. TOC Total Depth 12.86'  
 Csg. Vol./Ft. 0.662 L Datum Elev. \_\_\_\_\_ Top Screen 8.13'

**WELL DATA (field-determined)**

Tapedown 7.58 Time 16:35 Operator \_\_\_\_\_  
 Screen Vol. 3.13' 0.7 gal Csg. Vol. 0.84 gal Total Depth \_\_\_\_\_

**SETUP**

Intake Depth \_\_\_\_\_ Equipment TYphoon #6, QD 3319, HERON 14934, CONTROLLER #2  
 Operator \_\_\_\_\_ Decon record FIELD

| INSTRUMENT CALIBRATION RECORD |              |                |                                       |                          |                                  |          |           |        |                          |  |
|-------------------------------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|--|
| Time                          | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |  |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |  |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |  |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |  |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |  |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |  |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |  |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |  |

| PURGE WATER QUALITY RECORD |           |                |                      |           |                 |          |           |        |                          |            |  |
|----------------------------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|------------|--|
| Time                       | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |            |  |
| 16:37                      | 7.58      | —              | START PURGING        |           |                 |          |           |        |                          | 340 ml/min |  |
| 16:46                      | 7.59      | 1              | 1.326                | 6.94      | 140             | 19.37    | 0.47      | -173   | ↓                        |            |  |
| 16:55                      | 7.60      | 2              | 1.191                | 7.01      | 23.8            | 18.59    | 0.21      | -184   | ↓                        |            |  |
| 17:04                      | 7.60      | 3              | 1.169                | 7.02      | 16.2            | 18.27    | 0.15      | -189   | ↓                        |            |  |
| 17:13                      | 7.60      | 4              | 1.202                | 6.98      | 22.5            | 18.40    | 0.16      | -182   | ↓                        |            |  |
|                            |           |                |                      |           |                 |          |           |        |                          |            |  |
|                            |           |                |                      |           |                 |          |           |        |                          |            |  |
|                            |           |                |                      |           |                 |          |           |        |                          |            |  |
|                            |           |                |                      |           |                 |          |           |        |                          |            |  |
|                            |           |                |                      |           |                 |          |           |        |                          |            |  |
|                            |           |                |                      |           |                 |          |           |        |                          |            |  |
|                            |           |                |                      |           |                 |          |           |        |                          |            |  |
|                            |           |                |                      |           |                 |          |           |        |                          |            |  |

| FIELD WATER QUALITY RECORD |                    |  |  |  |  |  |  |  |  |  |
|----------------------------|--------------------|--|--|--|--|--|--|--|--|--|
| 17:15                      | START SAMPLING     |  |  |  |  |  |  |  |  |  |
| 17:20                      | COMPLETED SAMPLING |  |  |  |  |  |  |  |  |  |
| CONDITION OF SAMPLE WATER: |                    |  |  |  |  |  |  |  |  |  |
| REACTION TO PRESERVATIVE:  |                    |  |  |  |  |  |  |  |  |  |

Discharged water: volume ~5 gal disposition POLY TANK

\* BLACK PARTICLES  
 \* HYDROCARBON ODOR

WG-100411-SM-009

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 10/5/11 PERSONNEL Ray McKIBBEN

**WELL DATA (from records)**

Well I.D. MW-37 Datum Id. TOC Total Depth 14.42'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 869.95 Top Screen 9.68'

**WELL DATA (field-determined)**

Tapedown 8.04 Time 1620 Operator RM  
 Screen Vol. 3.14 L Csg. Vol. 4.20 L Total Depth \_\_\_\_\_

**SETUP**

Intake Depth \_\_\_\_\_ Equipment Fulizer # 30524, CONTROLLER EST 127203 Quanta QN02778  
 Operator RM Decon record Dedicated tubing

| INSTRUMENT CALIBRATION RECORD |              |                |                                       |                          |                                  |          |           |        |                          |
|-------------------------------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
| Time                          | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |

| PURGE WATER QUALITY RECORD |           |                |                      |           |                 |          |           |        |                          |  |
|----------------------------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|--|
| Time                       | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |  |
| 1625                       |           |                | START PURGING        |           |                 |          |           |        |                          |  |
| 1637                       | 8.34      | 1              | 0.747                | 7.06      | 158             | 17.09    | 0.25      | 18     | 260 ML/MIN               |  |
| 1650                       | 8.34      | 2              | 0.750                | 7.05      | 133             | 17.67    | 0.39      | 16     | 240 ML/MIN               |  |
| 1702                       | 8.34      | 3              | 0.749                | 7.05      | 133             | 17.70    | 0.38      | 16     | 260 ML/MIN               |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |

| FIELD WATER QUALITY RECORD |                    |      |  |  |  |  |  |  |  |
|----------------------------|--------------------|------|--|--|--|--|--|--|--|
|                            | START SAMPLING     | 1705 |  |  |  |  |  |  |  |
|                            | COMPLETED SAMPLING | 1710 |  |  |  |  |  |  |  |
| CONDITION OF SAMPLE WATER: |                    |      |  |  |  |  |  |  |  |
| REACTION TO PRESERVATIVE:  |                    |      |  |  |  |  |  |  |  |

Discharged water: volume ~ 10.0L disposition POLYBARK

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 10/4/11 PERSONNEL Stacy

**WELL DATA (from records)**

Well I.D. MW 40 Datum Id. TOC Total Depth 37.92'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 879.51 Top Screen 28.14'

**WELL DATA (field-determined)**

Tapedown 21.47 Time 12:20 Operator \_\_\_\_\_  
 Screen Vol. 6.47 L 1.5 gal Csg. Vol. 2.6 gal Total Depth \_\_\_\_\_

**SETUP**

Intake Depth 33.0' Equipment TRIPPOON #5, QD 3319, HERON 14934, CONTROLLER #2  
 Operator \_\_\_\_\_ Decon record FIELD

### INSTRUMENT CALIBRATION RECORD

| Time | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |

### PURGE WATER QUALITY RECORD

| Time  | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|-------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| 12:29 | 21.50     | —              | START PURGING        |           |                 |          |           |        | 300 ml/min               |
| 12:50 | 21.50     | 1              | 1.078                | 6.96      | 139             | 15.73    | 0.19      | -136   | " "                      |
| 13:02 | 21.51     | 2              | 1.076                | 6.96      | 107             | 15.81    | 0.16      | -135   | 400 ml/min               |
| 13:14 | 21.51     | 3              | 1.073                | 6.96      | 95.7            | 16.06    | 0.21      | -131   | " "                      |
| 13:33 |           | 4              | 1.073                | 6.96      | ** 21.1         | 16.33    | 0.19      | -129   |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |

### FIELD WATER QUALITY RECORD

1335 | START SAMPLING

1340 | COMPLETED SAMPLING

CONDITION OF SAMPLE WATER: CLEAR, ODORLESS

REACTION TO PRESERVATIVE: NONE

Discharged water: volume ~7 gal disposition POLY TANK

\* Sand in tubing \* SOME IRON BACTERIA

WG-100411-SM-007

\*\* CLEANED QUANTA CUP

WG-100411-RM-005

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

|                                     |   |                                |
|-------------------------------------|---|--------------------------------|
| PROJECT <u>RACER</u>                | DATE <u>10/4/11</u>                                       | PERSONNEL <u>Ray McILIBREN</u> |
| <b>WELL DATA (from records)</b>     |   |                                |
| Well I.D. <u>MW 41</u>              | Datum Id. <u>TOC</u>                                      | Total Depth <u>43.71'</u>      |
| Csg. Vol./Ft. <u>0.662 L</u>        | Datum Elev. <u>878.58</u>                                 | Top Screen <u>38.95'</u>       |
| <b>WELL DATA (field-determined)</b> |   |                                |
| Tapedown <u>20.91</u>               | Time <u>0915</u>  | Operator <u>RM</u>             |
| Screen Vol. <u>3.15 L</u>           | Csg. Vol. <u>15.09 L</u>                                  | Total Depth                    |
| <b>SETUP</b>                        |   |                                |
| Intake Depth <u>41.3'</u>           | Equipment <u>HYPRO 24, CONTROLLER 45, Quanta QDO 2783</u> |                                |
| Operator <u>RM</u>                  | Decon record <u>Dedicated tubing</u>                      |                                |

| INSTRUMENT CALIBRATION RECORD |              |                |                                       |                          |                                  |          |           |        |                          |
|-------------------------------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
| Time                          | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
| <u>0925</u>                   |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |

| PURGE WATER QUALITY RECORD |              |                |                      |             |                 |              |             |             |                          |
|----------------------------|--------------|----------------|----------------------|-------------|-----------------|--------------|-------------|-------------|--------------------------|
| Time                       | Tape-Down    | No. of Volumes | Conductivity (mS/cm) | pH (s.u.)   | Turbidity (NTU) | Temp. C°     | D.O. mg/L   | ORP mV      | Discharge (record units) |
| <u>0925</u>                |              |                | START PURGING        |             |                 |              |             |             |                          |
| <u>0935</u>                | <u>21.19</u> | <u>1</u>       | <u>1.033</u>         | <u>7.63</u> | <u>39.4</u>     | <u>16.64</u> | <u>0.73</u> | <u>-135</u> | <u>320 ML/MW</u>         |
| <u>0945</u>                | <u>21.19</u> | <u>2</u>       | <u>1.046</u>         | <u>7.70</u> | <u>41.6</u>     | <u>16.59</u> | <u>0.35</u> | <u>-144</u> | <u>320 ML/MW</u>         |
| <u>0955</u>                | <u>21.19</u> | <u>3</u>       | <u>1.046</u>         | <u>6.85</u> | <u>43.1</u>     | <u>16.63</u> | <u>0.37</u> | <u>-131</u> | <u>320 ML/MW</u>         |
| <u>1000</u>                | <u>21.19</u> |                | <u>1.048</u>         | <u>6.79</u> | <u>41.9</u>     | <u>16.68</u> | <u>0.34</u> | <u>-129</u> | <u>320</u>               |
| <u>1005</u>                | <u>21.19</u> |                | <u>1.048</u>         | <u>6.78</u> | <u>43.9</u>     | <u>16.71</u> | <u>0.34</u> | <u>-126</u> | <u>320</u>               |
|                            |              |                |                      |             |                 |              |             |             |                          |
|                            |              |                |                      |             |                 |              |             |             |                          |
|                            |              |                |                      |             |                 |              |             |             |                          |
|                            |              |                |                      |             |                 |              |             |             |                          |
|                            |              |                |                      |             |                 |              |             |             |                          |
|                            |              |                |                      |             |                 |              |             |             |                          |

| FIELD WATER QUALITY RECORD                                   |  |
|--|--|
| START SAMPLING <u>1010</u>                                   |  |
| COMPLETED SAMPLING <u>1015</u>                               |  |
| CONDITION OF SAMPLE WATER: <u>Clear, colorless, odorless</u> |  |
| REACTION TO PRESERVATIVE: <u>NONE</u>                        |  |

Discharged water: volume ~17 L disposition POLY-TANK

WG-100411-RM-006



**MONITORING WELL PURGING AND SAMPLING  
FIELD DATA**

|                                     |         |              |   |  |             |              |  |  |
|-------------------------------------|---------|--------------|---|--|-------------|--------------|--|--|
| PROJECT                             | RACER   | DATE         | 10/4/11   |  | PERSONNEL   | Ray McKIBBEN |  |  |
| <b>WELL DATA (from records)</b>     |         |              |   |  |             |              |  |  |
| Well I.D.                           | MW 42   | Datum Id.    | TOC   |  | Total Depth | 33.39'       |  |  |
| Csg. Vol./Ft.                       | 0.662 L | Datum Elev.  | 878.54  |  | Top Screen  | 23.61'       |  |  |
| <b>WELL DATA (field-determined)</b> |         |              |   |  |             |              |  |  |
| Tapedown                            | 20.79   | Time         | 0949  |  | Operator    | RM           |  |  |
| Screen Vol.                         | 6.47 L  | Csg. Vol.    | 4.34 L  |  | Total Depth |              |  |  |
| <b>SETUP</b>                        |         |              |   |  |             |              |  |  |
| Intake Depth                        | 28.5'   | Equipment    | TYPHOON # 3, CONTROLLER #5, Quanta <del>2502753</del> QDO2778 |  |             |              |  |  |
| Operator                            | RM      | Decon record | Dedicated tubing  |  |             |              |  |  |

| INSTRUMENT CALIBRATION RECORD |              |                |                          |                       |                        |          |           |        |                          |
|-------------------------------|--------------|----------------|--------------------------|-----------------------|------------------------|----------|-----------|--------|--------------------------|
| Time                          | Std. Lot No. | Standard Value | Conductivity             | pH                    | Turbidity              | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|                               |              |                | Initial / Recal. (mS/cm) | Init. / Recal. (s.u.) | Initial / Recal. (NTU) |          |           |        |                          |
|                               |              |                |                          |                       |                        |          |           |        |                          |
|                               |              |                |                          |                       |                        |          |           |        |                          |
|                               |              |                |                          |                       |                        |          |           |        |                          |
|                               |              |                |                          |                       |                        |          |           |        |                          |
|                               |              |                |                          |                       |                        |          |           |        |                          |

| PURGE WATER QUALITY RECORD |           |                |                      |           |                 |          |           |        |                          |  |
|----------------------------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|--|
| Time                       | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |  |
| 1015                       |           |                | START PURGING        |           |                 |          |           |        |                          |  |
| 1030                       | 20.83     | 1              | 0.891                | 6.93      | 116             | 17.40    | 0.20      | -96    | 430 ML/MIN               |  |
| 1049                       | 20.83     | 2              | 0.888                | 6.97      | 96.8            | 17.95    | 0.21      | -98    | 340 ML/MIN               |  |
| 1105                       | 20.83     | 3              | 0.890                | 6.94      | 100             | 17.89    | 0.15      | -97    | 400 ML/MIN               |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |

| FIELD WATER QUALITY RECORD |                                 |
|----------------------------|---------------------------------|
| START SAMPLING             | 1110                            |
| COMPLETED SAMPLING         | 1115                            |
| CONDITION OF SAMPLE WATER: | sl. cloudy, colorless, odorless |
| REACTION TO PRESERVATIVE:  | NONE                            |

Discharged water: volume ~22L disposition POLY + ANK

WG-100511-RM-013



**MONITORING WELL PURGING AND SAMPLING  
FIELD DATA**

|                                     |         |              |   |             |             |
|-------------------------------------|---------|--------------|---|-------------|-------------|
| PROJECT                             | RACER   | DATE         | 10/5/11                                   | PERSONNEL   | Ray McKIBEN |
| <b>WELL DATA (from records)</b>     |         |              |   |             |             |
| Well I.D.                           | MW-46   | Datum Id.    | TOC                                       | Total Depth | 18.77'      |
| Csg. Vol./Ft.                       | 0.662 L | Datum Elev.  | 873.64                                    | Top Screen  | 14.01'      |
| <b>WELL DATA (field-determined)</b> |         |              |   |             |             |
| Tapedown                            | 10.73   | Time         | 1320                                      | Operator    | RM          |
| Screen Vol.                         | 3.15 L  | Csg. Vol.    | 5.32 L                                    | Total Depth |             |
| <b>SETUP</b>                        |         |              |   |             |             |
| Intake Depth                        | 16.4'   | Equipment    | TYPHOON #4, CONTROLLER #5, Quanta QD02778 |             |             |
| Operator                            | RAA     | Decon record | Dedicated tubing                          |             |             |

| INSTRUMENT CALIBRATION RECORD |              |                |                          |                       |                        |          |           |        |                          |
|-------------------------------|--------------|----------------|--------------------------|-----------------------|------------------------|----------|-----------|--------|--------------------------|
| Time                          | Std. Lot No. | Standard Value | Conductivity             | pH                    | Turbidity              | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|                               |              |                | Initial / Recal. (mS/cm) | Init. / Recal. (s.u.) | Initial / Recal. (NTU) |          |           |        |                          |
|                               |              |                |                          |                       |                        |          |           |        |                          |
|                               |              |                |                          |                       |                        |          |           |        |                          |
|                               |              |                |                          |                       |                        |          |           |        |                          |
|                               |              |                |                          |                       |                        |          |           |        |                          |
|                               |              |                |                          |                       |                        |          |           |        |                          |
|                               |              |                |                          |                       |                        |          |           |        |                          |

| PURGE WATER QUALITY RECORD |           |                |                      |           |                 |          |           |        |                          |  |
|----------------------------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|--|
| Time                       | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |  |
| 1330                       |           |                | START PURGING        |           |                 |          |           |        |                          |  |
| 1340                       | 10.77     | 1              | 1.51                 | 6.74      | 208             | 15.42    | 0.17      | 57     | 315 mL/MIN               |  |
| 1353                       | 10.77     | 2              | 1.53                 | 6.76      | 151             | 15.39    | 0.14      | 62     | 240                      |  |
| 1404                       | 10.77     | 3              | 1.54                 | 6.79      | 140             | 15.41    | 0.16      | 64     | 280                      |  |
| 1410                       | 10.77     |                | 1.52                 | 6.75      | 99.6            | 15.34    | 0.16      | 65     | 280                      |  |
| 1418                       | 10.77     |                | 1.52                 | 6.75      | 101             | 15.39    | 0.15      | 65     | 280                      |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |

| FIELD WATER QUALITY RECORD |      |
|----------------------------|------|
| START SAMPLING             | 1420 |
| COMPLETED SAMPLING         | 1425 |
| CONDITION OF SAMPLE WATER: |      |
| REACTION TO PRESERVATIVE:  |      |

Discharged water: volume ~ 15L

disposition POLY tank

WG-100511-RM-012



MONITORING WELL PURGING AND SAMPLING  
FIELD DATA

PROJECT RACER DATE 10/5/11 PERSONNEL Ray McKIBBEN

**WELL DATA (from records)**

Well I.D. MW-49 Datum Id. TOC Total Depth 32.00'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 877.93 Top Screen 22.24'

**WELL DATA (field-determined)**

Tapedown 15.50 Time 1140 Operator RM  
 Screen Vol. 6.46 L Csg. Vol. 10.92 Total Depth \_\_\_\_\_

**SETUP**

Intake Depth 27.1' Equipment TYPHOON# 1, CONTROLLER 05, Quanta QD02778  
 Operator \_\_\_\_\_ Decon record Dedicated tubing

| INSTRUMENT CALIBRATION RECORD |              |                |                                       |                          |                                  |          |           |        |                          |
|-------------------------------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
| Time                          | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |

| PURGE WATER QUALITY RECORD |           |                |                      |           |                 |          |           |        |                          |  |
|----------------------------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|--|
| Time                       | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |  |
| 1150                       |           |                | START PURGING        |           |                 |          |           |        |                          |  |
| 1207                       | 15.53     | 1              | 0.905                | 7.01      | 423             | 14.26    | 0.27      | -82    | 375 mL/min               |  |
| 1226                       | 15.53     | 2              | 0.916                | 7.01      | 127             | 14.80    | 0.24      | -83    | 340 mL/min               |  |
| 1245                       | 15.53     | 3              | 0.912                | 6.98      | 119             | 15.46    | 0.16      | -82    | 340                      |  |
| 1250                       | 15.53     |                | 0.911                | 6.98      | 121             | 15.51    | 0.17      | -83    | 340                      |  |
| 1255                       | 15.53     |                | 0.910                | 6.98      | 118             | 15.50    | 0.16      | -82    | 340                      |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |

**FIELD WATER QUALITY RECORD**

START SAMPLING 1300

COMPLETED SAMPLING 1305

CONDITION OF SAMPLE WATER: S1 turbid, colorless, odorless

REACTION TO PRESERVATIVE: \_\_\_\_\_

Discharged water: volume 23L disposition POLYTANK

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 10/5/11 PERSONNEL Stacy

**WELL DATA (from records)**

Well I.D. MW-51 Datum Id. TOC Total Depth 27.04'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 878.19 Top Screen 22.26'

**WELL DATA (field-determined)**

Tapedown 17.13 Time 1408 Operator \_\_\_\_\_  
 Screen Vol. 3.16 L 0.8 gal Csg. Vol. 1.6 gal Total Depth \_\_\_\_\_

**SETUP**

Intake Depth 24.6' Equipment TYphoon #5, CONTROLLER #2, QD3319, HERON 14934  
 Operator \_\_\_\_\_ Decon record FIELD

| INSTRUMENT CALIBRATION RECORD |              |                |                                       |                          |                                  |          |           |        |                          |
|-------------------------------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
| Time                          | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |

| PURGE WATER QUALITY RECORD |           |                |                      |           |                 |          |           |        |                          |
|----------------------------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| Time                       | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
| 14:19                      | 17.16     | —              | START PURGING        |           |                 |          |           |        | 260 gal                  |
| 14:31                      | 17.19     | 1              | 1.190                | 6.90      | 203             | 18.04    | 0.44      | 47     | 320 gal                  |
| 14:43                      | 17.19     | 2              | 1.185                | 6.90      | 63.3            | 18.18    | 0.41      | 46     | 320 gal                  |
| 14:54                      | 17.19     | 3              | 1.183                | 6.90      | 27.9            | 17.23    | 0.15      | 40     |                          |
| 15:00                      | 17.18     |                | 1.182                | 6.90      | 20.1            | 17.05    | 0.13      | 35     |                          |
| 15:05                      | 17.16     |                | 1.183                | 6.90      | 17.1            | 17.60    | 0.11      | 31     |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |

| FIELD WATER QUALITY RECORD                        |                    |  |  |  |  |  |  |  |  |
|---|--------------------|--|--|--|--|--|--|--|--|
| 15:05   | START SAMPLING     |  |  |  |  |  |  |  |  |
| 15:10   | COMPLETED SAMPLING |  |  |  |  |  |  |  |  |
| CONDITION OF SAMPLE WATER: <u>CLEAR, ODORLESS</u> |                    |  |  |  |  |  |  |  |  |
| REACTION TO PRESERVATIVE: _____                   |                    |  |  |  |  |  |  |  |  |

Discharged water: volume ~4 1/2 gal disposition POLY TANK  
 \* FINE SAND IN TUBING  
 WG-100511-SM-013

WG-100611-RM-016



**MONITORING WELL PURGING AND SAMPLING  
FIELD DATA**

|                                     |         |              |   |  |             |              |  |  |
|-------------------------------------|---------|--------------|---|--|-------------|--------------|--|--|
| PROJECT                             | RACER   | DATE         | 10/6/11                                   |  | PERSONNEL   | Ray McKIBBEN |  |  |
| <b>WELL DATA (from records)</b>     |         |              |   |  |             |              |  |  |
| Well I.D.                           | MW 56   | Datum Id.    | TOC                                       |  | Total Depth | 21.33'       |  |  |
| Csg. Vol./Ft.                       | 0.662 L | Datum Elev.  | 859.32                                    |  | Top Screen  | 11.39'       |  |  |
| <b>WELL DATA (field-determined)</b> |         |              |   |  |             |              |  |  |
| Tapedown                            | 1.99    | Time         | 1030                                      |  | Operator    | RM           |  |  |
| Screen Vol.                         | 6.58 L  | Csg. Vol.    | 12.90 L                                   |  | Total Depth |              |  |  |
| <b>SETUP</b>                        |         |              |   |  |             |              |  |  |
| Intake Depth                        |         | Equipment    | Typhoon #1, Controller 25, Quanta QD02778 |  |             |              |  |  |
| Operator                            | RM      | Decon record | Dedicated tubing                          |  |             |              |  |  |

| INSTRUMENT CALIBRATION RECORD |              |                |                          |                       |                        |          |           |        |                          |
|-------------------------------|--------------|----------------|--------------------------|-----------------------|------------------------|----------|-----------|--------|--------------------------|
| Time                          | Std. Lot No. | Standard Value | Conductivity             | pH                    | Turbidity              | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|                               |              |                | Initial / Recal. (mS/cm) | Init. / Recal. (s.u.) | Initial / Recal. (NTU) |          |           |        |                          |
|                               |              |                |                          |                       |                        |          |           |        |                          |
|                               |              |                |                          |                       |                        |          |           |        |                          |
|                               |              |                |                          |                       |                        |          |           |        |                          |
|                               |              |                |                          |                       |                        |          |           |        |                          |
|                               |              |                |                          |                       |                        |          |           |        |                          |
|                               |              |                |                          |                       |                        |          |           |        |                          |

| PURGE WATER QUALITY RECORD |           |                |                      |           |                 |          |           |        |                          |  |
|----------------------------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|--|
| Time                       | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |  |
| 1035                       |           |                | START PURGING        |           |                 |          |           |        |                          |  |
| 1100                       | 2.03      | 1              | 0.828                | 7.12      | 163             | 15.18    | 0.20      | -134   | 260 ML/MIN               |  |
| 1113                       | 2.03      | 2              | 0.828                | 7.11      | 139             | 15.64    | 0.18      | -135   | 500 ML/MIN               |  |
| 1128                       | 2.03      | 3              | 0.828                | 7.10      | 234             | 15.67    | 0.17      | -135   | 400 ML/MIN               |  |
| 1133                       | 2.03      |                | 0.828                | 7.10      | 137             | 15.64    | 0.18      | -135   | 400                      |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |

| FIELD WATER QUALITY RECORD |      |
|----------------------------|------|
| START SAMPLING             | 1135 |
| COMPLETED SAMPLING         | 1140 |
| CONDITION OF SAMPLE WATER: |      |
| REACTION TO PRESERVATIVE:  |      |

Discharged water: volume ~ 21L disposition POLYTANK



**MONITORING WELL PURGING AND SAMPLING  
FIELD DATA**

WG-100611-RM-017

|                                     |         |              |  |             |              |
|-------------------------------------|---------|--------------|--|-------------|--------------|
| PROJECT                             | RACER   | DATE         | 10/6/11                                | PERSONNEL   | Ray McKIBBEN |
| <b>WELL DATA (from records)</b>     |         |              |  |             |              |
| Well I.D.                           | MW 57   | Datum Id.    | TOC                                    | Total Depth | 29.49'       |
| Csg. Vol./Ft.                       | 0.662 L | Datum Elev.  | 862.52                                 | Top Screen  | 19.98'       |
| <b>WELL DATA (field-determined)</b> |         |              |  |             |              |
| Tapedown                            | 5.25    | Time         | 12:01                                  | Operator    | RM           |
| Screen Vol.                         | 6.30 L  | Csg. Vol.    | 16.05 L                                | Total Depth |              |
| <b>SETUP</b>                        |         |              |  |             |              |
| Intake Depth                        |         | Equipment    | HYDRONAS CONTROLLER AS, Quanta QDU2778 |             |              |
| Operator                            | RM      | Decon record | Dedicated tubing                       |             |              |

| INSTRUMENT CALIBRATION RECORD |              |                |                                       |                          |                                  |          |           |        |                          |
|-------------------------------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
| Time                          | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |

| PURGE WATER QUALITY RECORD |           |                |                      |           |                 |          |           |        |                          |  |
|----------------------------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|--|
| Time                       | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |  |
| 1211                       |           |                | START PURGING        |           |                 |          |           |        |                          |  |
| 1242                       | 5.29      | 1              | 0.869                | 6.85      | 137             | 18.90    | 0.38      | -101   | 200 mL/MIN               |  |
| 1303                       | 5.29      | 2              | 0.868                | 6.85      | 105             | 17.53    | 0.26      | -97    | 300 mL/MIN               |  |
| 1323                       | 5.29      | 3              | 0.849                | 6.85      | 90.9            | 17.96    | 0.24      | -97    | 300 mL/MIN               |  |
| 1327                       | 5.29      |                | 0.853                | 6.85      | 91.4            | 17.49    | 0.23      | -96    | 300                      |  |
| 1331                       | 5.29      |                | 0.851                | 6.85      | 90.5            | 17.52    | 0.23      | -96    | 300                      |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |

| FIELD WATER QUALITY RECORD                            |  |  |      |  |  |  |  |  |  |
|---|--|--|------|--|--|--|--|--|--|
| START SAMPLING  |  |  | 1335 |  |  |  |  |  |  |
| COMPLETED SAMPLING                                    |  |  | 1340 |  |  |  |  |  |  |
| CONDITION OF SAMPLE WATER: Clear, colorless, odorless |  |  |      |  |  |  |  |  |  |
| REACTION TO PRESERVATIVE: none                        |  |  |      |  |  |  |  |  |  |

Discharged water: volume ~21L disposition POLYBANK

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 10/6/11 PERSONNEL Stacy

**WELL DATA (from records)**

Well I.D. MW-58 Datum Id. TOC Total Depth 12.16'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 861.46 Top Screen 7.11'

**WELL DATA (field-determined)**

Tapedown 4.64 Time 13:44 Operator SLM  
 Screen Vol. 3.34 L 0.8 gal Csg. Vol. 1.2 gal Total Depth \_\_\_\_\_

**SETUP**

Intake Depth \_\_\_\_\_ Equipment TYPHOON #2, CONTROLLER #2, HERON 14934, QD 3319  
 Operator \_\_\_\_\_ Decon record FIELD MEGA BATTERY #2

| INSTRUMENT CALIBRATION RECORD |              |                |                                       |                          |                                  |          |           |        |                          |
|-------------------------------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
| Time                          | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |

| PURGE WATER QUALITY RECORD |           |                |                      |           |                 |          |           |        |                          |
|----------------------------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| Time                       | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
| 14:00                      | 4.64      | ←              | START PURGING        |           |                 |          |           |        | 240 gpm                  |
| 14:13                      | 4.65      | 1              | 1.055                | 6.84      | 419             | 17.74    | 0.76      | -80    | ↓                        |
| 14:26                      | 4.65      | 2              | 1.053                | 6.80      | 94.4            | 17.26    | 0.23      | -75    |                          |
| 14:39                      | 4.66      | 3              | 1.052                | 6.80      | 50.8            | 17.06    | 0.16      | -75    |                          |
| 14:52                      | 4.66      | 4              | 1.053                | 6.80      | 28.1            | 16.91    | 0.14      | -74    |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |

| FIELD WATER QUALITY RECORD |                    |  |                 |  |  |  |  |  |  |
|----------------------------|--------------------|--|-----------------|--|--|--|--|--|--|
| 14:55                      | START SAMPLING     |  |                 |  |  |  |  |  |  |
| 15:00                      | COMPLETED SAMPLING |  |                 |  |  |  |  |  |  |
| CONDITION OF SAMPLE WATER: |                    |  | CLEAR, ODORLESS |  |  |  |  |  |  |
| REACTION TO PRESERVATIVE:  |                    |  | NONE            |  |  |  |  |  |  |

Discharged water: volume ~ 4 gal disposition POLY TANK

\* IRON BACTERIA  
 WG-100611-SM-017

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 10/3/11 PERSONNEL Stacy

**WELL DATA (from records)**

Well I.D. MW-61 Datum Id. TOC Total Depth 63.52'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 876.57 Top Screen 53.46'

**WELL DATA (field-determined)**

Tapedown 19.4 Time 16:07 Operator \_\_\_\_\_  
 Screen Vol. 6.66 L 1.6 gal Csg. Vol. 7 gal Total Depth \_\_\_\_\_

**SETUP**

Intake Depth \_\_\_\_\_ Equipment FULTZ 30295, ET127201, QD 3219, HERON 14934  
 Operator \_\_\_\_\_ Decon record office

### INSTRUMENT CALIBRATION RECORD

| Time | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |

### PURGE WATER QUALITY RECORD

| Time  | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|-------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| 16:20 | 19.4      | —              | START PURGING        |           |                 |          |           |        | 400 m <sup>3</sup> /min  |
| 16:36 | 19.41     | 1              | 0.998                | 6.94      | 25.0            | 17.43    | 0.40      | -131   | ↓                        |
| 16:52 | 19.41     | 2              | 0.975                | 6.93      | 27.7            | 17.41    | 0.25      | -132   | ↓                        |
| 17:13 |           | 3              | 0.961                | 6.92      | 26.5            | 17.4     | 0.18      | -134   | ↓                        |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |

### FIELD WATER QUALITY RECORD

17:15 START SAMPLING  
 17:20 COMPLETED SAMPLING

CONDITION OF SAMPLE WATER: CLEAR, O DOORLESS

REACTION TO PRESERVATIVE: NONE

Discharged water: volume ~ 7 gal disposition POLY TANK  
 \* BUBBLES IN QUANTA  
 WG-100311-3M-004

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 10/3/11 PERSONNEL Stacey

**WELL DATA (from records)**

Well I.D. MW-64 Datum Id. TOC Total Depth 20.76'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 863.97 Top Screen 10.75'

**WELL DATA (field-determined)**

Tapedown 6.88 Time 13:20 Operator SLM  
 Screen Vol. 6.63 L 1.6 gal Csg. Vol. 2.2 gal Total Depth \_\_\_\_\_

**SETUP**

Intake Depth \_\_\_\_\_ Equipment HERON 14934, @D 3319, TYPHOON # 5, CONTROLLER #2  
 Operator \_\_\_\_\_ Decon record OFFICE

**INSTRUMENT CALIBRATION RECORD**

| Time | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |

**PURGE WATER QUALITY RECORD**

| Time  | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|-------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| 13:30 | 6.88      | —              | START PURGING        |           |                 |          |           |        | 300 ml/min               |
| 13:52 | 6.98      | 1              | 0.776                | 6.90      | 17.5            | 20.51    | 0.82      | -41    | ↓                        |
| 14:14 | 6.98      | 2              | 0.776                | 6.92      | 5.7             | 20.59    | 0.41      | -51    | ↓                        |
| 14:36 | 6.98      | 3              | 0.779                | 6.91      | 5.9             | 20.39    | 0.23      | -53    | ↓                        |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |

**FIELD WATER QUALITY RECORD**

1440 START SAMPLING

1445 COMPLETED SAMPLING

CONDITION OF SAMPLE WATER: CLEAR, ODOORLESS

REACTION TO PRESERVATIVE: NONE

Discharged water: volume ~ 6 1/2 gal disposition POLY TANK

\* SOME IRON BACTERIA  
 WG-100311-SM-002

SAMPLE ID:

WG-100311-RM-002



MONITORING WELL PURGING AND SAMPLING  
FIELD DATA

PROJECT RACER DATE 10/3/11 PERSONNEL Ray McKIBBEN

**WELL DATA (from records)**

Well I.D. MW 65 Datum Id. TOC Total Depth 20.77'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 864.22 Top Screen 10.75'

**WELL DATA (field-determined)**

Tapedown 7.02 Time 1220 Operator RM  
 Screen Vol. 6.63 L Csg. Vol. 9.10 L Total Depth

**SETUP**

Intake Depth \_\_\_\_\_ Equipment TYPHOON #4, CONTROLLER #1, QUANTA QD02753  
 Operator RM Decon record Dedicated tubing

| INSTRUMENT CALIBRATION RECORD |              |                |                                       |                          |                                  |          |           |        |                          |
|-------------------------------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
| Time                          | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |

| PURGE WATER QUALITY RECORD |           |                |                      |           |                 |          |           |        |                          |
|----------------------------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| Time                       | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
| 1255                       |           |                | START PURGING        |           |                 |          |           |        | 300 ML/MIN               |
| 1312                       | 7.05      | 1              | 0.847                | 7.55      | 144             | 18.64    | 0.31      | -78    | 400 ML/MIN               |
| 1329                       | 7.05      | 2              | 0.844                | 8.30      | 23.8            | 19.15    | 0.14      | -114   | 390 ML/MIN               |
| 1347                       | 7.05      | 3              | 0.850                | 8.28      | 19.8            | 19.17    | 0.15      | -113   | 380 ML/MIN               |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |

**FIELD WATER QUALITY RECORD**

START SAMPLING 1350

COMPLETED SAMPLING 1355

CONDITION OF SAMPLE WATER: CLEAR, COLORLESS, ODORLESS

REACTION TO PRESERVATIVE: NONE

Discharged water: volume ~20 L disposition POLY TANK

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 10/3/11 PERSONNEL Stacey

**WELL DATA (from records)**

Well I.D. MW 66 Datum Id. TOC Total Depth 17.70'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 861.67 Top Screen 9.94'

**WELL DATA (field-determined)**

Tapedown 4.68 Time 1130 Operator SLM  
 Screen Vol. 6.46 L / 1.2 gal Csg. Vol. 2.08 gal Total Depth \_\_\_\_\_

**SETUP**

Intake Depth \_\_\_\_\_ Equipment HERON 14934, MD 3319, TYPHOON #6, CONTROLLER #2  
 Operator \_\_\_\_\_ Decon record OFFICE

| INSTRUMENT CALIBRATION RECORD |              |                |                                       |                          |                                  |          |           |        |                          |
|-------------------------------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
| Time                          | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |

| PURGE WATER QUALITY RECORD |           |                |                      |           |                 |          |           |        |                          |  |
|----------------------------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|--|
| Time                       | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |  |
| 1145                       |           |                | START PURGING        |           |                 |          |           |        |                          |  |
| 1211                       | 4.68      | 1              | 0.950                | 6.85      | 46.9            | 16.52    | 0.36      | -107   | 450ml/min                |  |
| 1236                       | 4.68      | 2              | 0.934                | 6.88      | 14.5            | 16.87    | 0.20      | -100   | ↓                        |  |
| 1254                       | 4.68      | 3              | 0.920                | 6.89      | 4.4             | 16.84    | 0.15      | -101   | ↓                        |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |

| FIELD WATER QUALITY RECORD                       |                    |  |  |  |  |  |  |  |  |
|--|--------------------|--|--|--|--|--|--|--|--|
| 12:55  | START SAMPLING     |  |  |  |  |  |  |  |  |
| 13:00  | COMPLETED SAMPLING |  |  |  |  |  |  |  |  |
| CONDITION OF SAMPLE WATER: <u>CLEAR, ODRLESS</u> |                    |  |  |  |  |  |  |  |  |
| REACTION TO PRESERVATIVE: <u>NONE</u>            |                    |  |  |  |  |  |  |  |  |

Discharged water: volume ~ 8 gal disposition POLY TANK

WG - 100311-SU-001

# AECOM

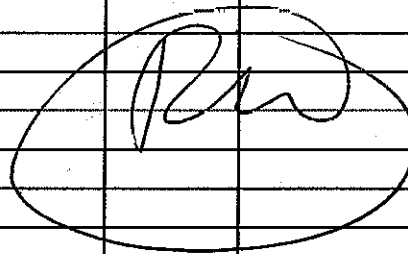
WG-100411-RM-009

## MONITORING WELL PURGING AND SAMPLING

WG-100411-RM-009 → Duplicate @ 1445 FIELD DATA

|                                     |         |              |   |             |              |
|-------------------------------------|---------|--------------|---|-------------|--------------|
| PROJECT                             | RACER   | DATE         | 10/4/11                                   | PERSONNEL   | Ray McKIBSEN |
| <b>WELL DATA (from records)</b>     |         |              |   |             |              |
| Well I.D.                           | MW 68   | Datum Id.    | TOC                                       | Total Depth | 35.24'       |
| Csg. Vol./Ft.                       | 0.662 L | Datum Elev.  | 876.98                                    | Top Screen  | 30.23'       |
| <b>WELL DATA (field-determined)</b> |         |              |   |             |              |
| Tapedown                            | 18.82   | Time         | 1315                                      | Operator    | RM           |
| Screen Vol.                         | 3.32 L  | Csg. Vol.    |   | Total Depth |              |
| <b>SETUP</b>                        |         |              |   |             |              |
| Intake Depth                        |         | Equipment    | TYPHOON #1, CONTROLLER #5, Quanta WDO2778 |             |              |
| Operator                            | RM      | Decon record | Dedicated tubing                          |             |              |

| INSTRUMENT CALIBRATION RECORD |              |                |                                       |                          |                                  |          |           |        |                          |
|-------------------------------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
| Time                          | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |

| PURGE WATER QUALITY RECORD  |           |                |                      |           |                 |          |           |        |                          |  |
|---|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|--|
| Time  | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |  |
| 1320  |           |                | START PURGING        |           |                 |          |           |        |                          |  |
| 1330  | 18.94     | 1              | 0.958                | 6.98      | 60.1            | 16.57    | 0.16      | -124   | 200 ML/MIN               |  |
| 1351  | 18.94     | 2              | 0.959                | 6.98      | 61.6            | 17.14    | 0.24      | -124   | 220 ML/MIN               |  |
| 1408  | 18.94     | 3              | 0.954                | 6.98      | 63.6            | 17.15    | 0.20      | -125   | 200 ML/MIN               |  |
|  |           |                |                      |           |                 |          |           |        |                          |  |
|   |           |                |                      |           |                 |          |           |        |                          |  |
|   |           |                |                      |           |                 |          |           |        |                          |  |
|   |           |                |                      |           |                 |          |           |        |                          |  |
|   |           |                |                      |           |                 |          |           |        |                          |  |
|   |           |                |                      |           |                 |          |           |        |                          |  |
|   |           |                |                      |           |                 |          |           |        |                          |  |
|   |           |                |                      |           |                 |          |           |        |                          |  |
|   |           |                |                      |           |                 |          |           |        |                          |  |
|   |           |                |                      |           |                 |          |           |        |                          |  |

| FIELD WATER QUALITY RECORD                                |  |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|--|
| START SAMPLING 1415                                       |  |  |  |  |  |  |  |  |  |
| COMPLETED SAMPLING 1420                                   |  |  |  |  |  |  |  |  |  |
| CONDITION OF SAMPLE WATER: SI turbid, colorless, odorless |  |  |  |  |  |  |  |  |  |
| REACTION TO PRESERVATIVE: NONE                            |  |  |  |  |  |  |  |  |  |

Discharged water: volume -10L disposition POLYTANK

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 10/5/11 PERSONNEL Stacey

**WELL DATA (from records)**

Well I.D. MW 75 Datum Id. TOC Total Depth 90.33'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 881.42 Top Screen 80.11'

**WELL DATA (field-determined)**

Tapedown 21.83 Time 15:39 Operator \_\_\_\_\_  
 Screen Vol. 6.63 L 1.6 gal Csg. Vol. 11 gal Total Depth \_\_\_\_\_

**SETUP**

Intake Depth \_\_\_\_\_ Equipment \_\_\_\_\_  
 Operator \_\_\_\_\_ Decon record \_\_\_\_\_

### INSTRUMENT CALIBRATION RECORD

| Time | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |

### PURGE WATER QUALITY RECORD

| Time  | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|-------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| 16:15 | 21.88     | —              | START PURGING        |           |                 |          |           |        | 260 mg/L                 |
| 16:31 | 21.89     | 1              | 1.065                | 6.96      | 1107            | 18.27    | 1.14      | -125   | 340 mg/L                 |
| 16:52 | 21.88     | 2              | 1.066                | 6.94      | 646             | 17.97    | 0.28      | -130   | ↓                        |
| 17:11 | 21.89     | 3              | 1.067                | 6.95      | 571             | 17.88    | 0.20      | -134   |                          |
| 17:16 | 21.89     |                | 1.065                | 6.95      | 207             | 17.99    | 0.24      | -133   |                          |
| 17:21 | 21.88     |                | 1.065                | 6.95      | 193             | 17.74    | 0.27      | -131   |                          |
| 17:26 | 21.88     | 4              | 1.065                | 6.95      | 172             | 17.75    | 0.21      | -133   | ↓                        |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |

### FIELD WATER QUALITY RECORD

17:30 START SAMPLING

17:35 COMPLETED SAMPLING

CONDITION OF SAMPLE WATER: SL. CLOUDY, ODORLESS

REACTION TO PRESERVATIVE: \_\_\_\_\_

Discharged water: volume ~ 8 1/2 disposition POLY TANK

\*PINE SAND IN TUBING  
 WG-100511-SM-014

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 10/5/11 PERSONNEL Stacy

**WELL DATA (from records)**

Well I.D. MW 76 Datum Id. TOC Total Depth 59.12'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 881.11 Top Screen 49.14'

**WELL DATA (field-determined)**

Tapedown 21.89 Time 16:20 Operator \_\_\_\_\_  
 Screen Vol. 6.61 L 1.6 gal Csg. Vol. 5.9 gal Total Depth \_\_\_\_\_

**SETUP**

Intake Depth \_\_\_\_\_ Equipment FULTZ 30525, QD 3319, HERON 8900, ET127204  
 Operator \_\_\_\_\_ Decon record \_\_\_\_\_

| INSTRUMENT CALIBRATION RECORD |              |                |                                       |                          |                                  |          |           |        |                          |
|-------------------------------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
| Time                          | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |

| PURGE WATER QUALITY RECORD |           |                |                      |           |                 |          |           |        |                          |
|----------------------------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| Time                       | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
| 17:35                      | 21.88     | —              | START PURGING        |           |                 |          |           |        | 340ml/min                |
| 17:54                      | 21.90     | 1              | 0.989                | 6.92      | 530             | 17.87    | 0.28      | -117   | ↓                        |
| 18:13                      | 21.89     | 2              | 0.990                | 6.92      | 195             | 17.83    | 0.26      | -118   |                          |
| 18:32                      | 21.89     | 3              | 0.992                | 6.93      | 102             | 17.74    | 0.19      | -119   |                          |
| 18:37                      | 21.89     |                | 0.993                | 6.93      | 98.6            | 17.68    | 0.19      | -120   |                          |
| 18:42                      | 21.89     |                | 0.994                | 6.93      | 91.4            | 17.60    | 0.18      | -121   |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |

| FIELD WATER QUALITY RECORD |                    |  |  |  |  |  |  |  |  |
|----------------------------|--------------------|--|--|--|--|--|--|--|--|
| 18:45                      | START SAMPLING     |  |  |  |  |  |  |  |  |
| 18:50                      | COMPLETED SAMPLING |  |  |  |  |  |  |  |  |
| CONDITION OF SAMPLE WATER: |                    |  |  |  |  |  |  |  |  |
| REACTION TO PRESERVATIVE:  |                    |  |  |  |  |  |  |  |  |

Discharged water: volume \_\_\_\_\_ disposition POLY TANK

\* FINE SAND IN TUBING

WG-100511-SM-015  
 WG-100511-SM-016 @ 1900

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 10/4/11 PERSONNEL Stacey

### WELL DATA (from records)

Well I.D. MW-79 Datum Id. TOC Total Depth 45.01'  
 Csg. Vol./Ft. 0.662 L Datum Elev. \_\_\_\_\_ Top Screen 40.28'

### WELL DATA (field-determined)

Tapedown 20.45 Time 14:32 Operator \_\_\_\_\_  
 Screen Vol. 3.13 L 0.8 gal Csg. Vol. 3.9 gal Total Depth \_\_\_\_\_

### SETUP

Intake Depth \_\_\_\_\_ Equipment TYPHON #2, QD 3319, HERON 14934, CONTROLLER #2  
 Operator \_\_\_\_\_ Decon record FIELD

### INSTRUMENT CALIBRATION RECORD

| Time | Std. Lot No. | Standard Value | Conductivity             |                       | pH                     |  | Turbidity |  | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|--------------------------|-----------------------|------------------------|--|-----------|--|----------|-----------|--------|--------------------------|
|      |              |                | Initial / Recal. (mS/cm) | Init. / Recal. (s.u.) | Initial / Recal. (NTU) |  |           |  |          |           |        |                          |
|      |              |                |                          |                       |                        |  |           |  |          |           |        |                          |
|      |              |                |                          |                       |                        |  |           |  |          |           |        |                          |
|      |              |                |                          |                       |                        |  |           |  |          |           |        |                          |
|      |              |                |                          |                       |                        |  |           |  |          |           |        |                          |
|      |              |                |                          |                       |                        |  |           |  |          |           |        |                          |

### PURGE WATER QUALITY RECORD

| Time  | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|-------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| 14:43 | 20.43     | —              | START PURGING        |           |                 |          |           |        | 320 m <sup>3</sup> /min  |
| 14:52 | 20.63     | 1              | 0.922                | 7.08      | 663             | 16.57    | 0.46      | -104   |                          |
| 15:01 | 20.62     | 2              | 0.917                | 7.04      | 133             | 16.95    | 0.33      | -115   |                          |
| 15:20 | 20.58     | 3              | 0.911                | 7.04      | 65.1            | 16.53    | 0.47      | -107   |                          |
| 15:33 | 20.62     | 4              | 0.911                | 7.01      | 31.8            | 16.63    | 0.26      | -115   |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |

### FIELD WATER QUALITY RECORD

|                            |  |  |  |  |  |  |  |  |  |
|----------------------------|--|--|--|--|--|--|--|--|--|
| 15:35                      | START SAMPLING                           |  |  |  |  |  |  |  |  |
| 15:40                      | COMPLETED SAMPLING <u>CLEAR, ODDLESS</u> |  |  |  |  |  |  |  |  |
| CONDITION OF SAMPLE WATER: |  |  |  |  |  |  |  |  |  |
| REACTION TO PRESERVATIVE:  |  |  |  |  |  |  |  |  |  |

Discharged water: volume ~4 gal disposition POLY TANK  
# SAND IN TUBING  
 WG-100411-SM-008

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

PROJECT RACER DATE 10/3/11 PERSONNEL Stacey

**WELL DATA (from records)**

Well I.D. MW 80 Datum Id. TOC Total Depth 29.00'  
 Csg. Vol./Ft. 0.662 L Datum Elev. \_\_\_\_\_ Top Screen 23.95'

**WELL DATA (field-determined)**

Tapedown 8.44 Time 15:15 Operator \_\_\_\_\_  
 Screen Vol. 3.34 L / 0.8 gal Csg. Vol. 3.29 gal Total Depth \_\_\_\_\_

**SETUP**

Intake Depth \_\_\_\_\_ Equipment TYPHOON #2, CONTROLLER #2, QD 3319, HERON 14934  
 Operator \_\_\_\_\_ Decon record OFFICE

| INSTRUMENT CALIBRATION RECORD |              |                |                                       |                          |                                  |          |           |        |                          |
|-------------------------------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
| Time                          | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |

| PURGE WATER QUALITY RECORD |           |                |                      |           |                 |          |           |        |                          |
|----------------------------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| Time                       | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
| 15:21                      | 8.46      | —              | START PURGING        |           |                 |          |           |        | 460 gal/min              |
| 15:29                      | 8.45      | 1              | 1.155                | 6.86      | 27.9            | 18.09    | 0.42      | -103   | ↓                        |
| 15:36                      | 8.44      | 2              | 1.155                | 6.87      | 13.5            | 17.79    | 0.23      | -107   | ↓                        |
| 15:43                      | 8.45      | 3              | 1.153                | 6.85      | 10.4            | 18.09    | 0.20      | -109   | ↓                        |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |
|                            |           |                |                      |           |                 |          |           |        |                          |

| FIELD WATER QUALITY RECORD                        |                    |  |  |  |  |  |  |  |  |
|---|--------------------|--|--|--|--|--|--|--|--|
| 15:45   | START SAMPLING     |  |  |  |  |  |  |  |  |
| 15:50   | COMPLETED SAMPLING |  |  |  |  |  |  |  |  |
| CONDITION OF SAMPLE WATER: <u>CLEAR, ODORLESS</u> |                    |  |  |  |  |  |  |  |  |
| REACTION TO PRESERVATIVE: <u>NONE</u>             |                    |  |  |  |  |  |  |  |  |

Discharged water: volume ~ 3 gal disposition POLY TANK

WG-10034-SM-003

SAMPLE ID:



WG-100311-RM-001

MONITORING WELL PURGING AND SAMPLING  
FIELD DATA

PROJECT RACER DATE 10/3/11 PERSONNEL Ray McKIBEN

**WELL DATA (from records)**

Well I.D. MW 81 Datum Id. TOC Total Depth 34.55'  
 Csg. Vol./Ft. 0.662 L Datum Elev. \_\_\_\_\_ Top Screen 24.80'

**WELL DATA (field-determined)**

Tapedown 7.23 Time 1140 Operator RM  
 Screen Vol. 6.45 L Csg. Vol. 18.09 L Total Depth \_\_\_\_\_

**SETUP**

Intake Depth \_\_\_\_\_ Equipment TYPHOON #3, CONTROLLER #1, Quanta QD02783  
 Operator RM Decon record Dedicated tubing

INSTRUMENT CALIBRATION RECORD

| Time | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |

PURGE WATER QUALITY RECORD

| Time | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| 1150 |           |                | START PURGING        |           |                 |          |           |        | 300 ML/MIN               |
| 1211 | 7.26      | 1              | 0.975                | 7.04      | 196             | 16.44    | 0.33      | -15    | 300 ML/MIN               |
| 1228 | 7.26      | 2              | 0.972                | 8.09      | 191             | 17.36    | 0.31      | -19    | 380 ML/MIN               |
| 1244 | 7.26      | 3              | 0.979                | 8.12      | 185             | 17.39    | 0.37      | -14    | 400 ML/MIN               |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |

FIELD WATER QUALITY RECORD

START SAMPLING 1245

COMPLETED SAMPLING 1250

CONDITION OF SAMPLE WATER: SL TURBID, odorless, colorless

REACTION TO PRESERVATIVE: NONE

Discharged water: volume ~20L disposition POLY TANK

WG-100411-RM-010



**MONITORING WELL PURGING AND SAMPLING  
FIELD DATA**

PROJECT RACER      DATE 10/4/11      PERSONNEL Ray McKIBBEN

**WELL DATA (from records)**

Well I.D. MW 82      Datum Id. TOC      Total Depth 106.06'  
 Csg. Vol./Ft. 0.662 L      Datum Elev. \_\_\_\_\_      Top Screen 96.28'

**WELL DATA (field-determined)**

Tapedown 16.99      Time 1545      Operator Rm  
 Screen Vol. 6.47 L      Csg. Vol. 58.96 L      Total Depth \_\_\_\_\_

**SETUP**

Intake Depth \_\_\_\_\_      Equipment Fultz #30295, Controller ET127201, Quanta QDC2773  
 Operator Rm      Decon record Dedicated tubing

**INSTRUMENT CALIBRATION RECORD**

| Time | Std. Lot No. | Standard Value | Conductivity             | pH                    | Turbidity              | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|--------------------------|-----------------------|------------------------|----------|-----------|--------|--------------------------|
|      |              |                | Initial / Recal. (mS/cm) | Init. / Recal. (s.u.) | Initial / Recal. (NTU) |          |           |        |                          |
|      |              |                |                          |                       |                        |          |           |        |                          |
|      |              |                |                          |                       |                        |          |           |        |                          |
|      |              |                |                          |                       |                        |          |           |        |                          |
|      |              |                |                          |                       |                        |          |           |        |                          |
|      |              |                |                          |                       |                        |          |           |        |                          |
|      |              |                |                          |                       |                        |          |           |        |                          |

**PURGE WATER QUALITY RECORD**

| Time | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| 1619 |           |                | START PURGING        |           |                 |          |           |        |                          |
| 1640 | 17.05     | 1              | 0.851                | 7.16      | 231             | 14.52    | 0.44      | -149   | 300 mL/min               |
| 1653 | 17.05     | 2              | 0.850                | 7.16      | 171             | 14.64    | 0.39      | -147   | 450 mL/min               |
| 1709 | 17.05     | 3              | 0.853                | 7.16      | 209             | 14.53    | 0.29      | -149   | 400 mL/min               |
| 1715 | 17.05     |                | 0.853                | 7.16      | 198             | 14.52    | 0.29      | -149   | 400                      |
| 1720 | 17.05     |                | 0.853                | 7.16      | 204             | 14.55    | 0.31      | -149   | 400                      |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |

**FIELD WATER QUALITY RECORD**

START SAMPLING 1725  
 COMPLETED SAMPLING 1730  
 CONDITION OF SAMPLE WATER: S1 turbid, colorless, odorless  
 REACTION TO PRESERVATIVE: NONE

Discharged water: volume ~ 21 L      disposition POLY TANK

# AECOM

## MONITORING WELL PURGING AND SAMPLING

### FIELD DATA

PROJECT RACER DATE 10/4/11 PERSONNEL Stacey

**WELL DATA (from records)**

Well I.D. MW 83 Datum Id. TOC Total Depth 84.35'  
 Csg. Vol./Ft. 0.662 L Datum Elev. \_\_\_\_\_ Top Screen 74.65'

**WELL DATA (field-determined)**

Tapedown 18.7 Time 10:18 Operator slu  
 Screen Vol. 6.42 L 1.5gal Csg. Vol. 10.5gal Total Depth \_\_\_\_\_

**SETUP**

Intake Depth \_\_\_\_\_ Equipment FULTZ 30295, HERON 14934, QD 3319, ET 127201  
 Operator \_\_\_\_\_ Decon record FIELD

### INSTRUMENT CALIBRATION RECORD

| Time | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |

### PURGE WATER QUALITY RECORD

| Time  | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|-------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| 10:38 | 18.7      | —              | START PURGING        |           |                 |          |           |        | 200ml/min                |
| 11:03 | 18.72     | 1              | 0.935                | 7.01      | 95.7            | 14.81    | 0.47      | -154   | ↓                        |
| 11:27 | 18.72     | 2              | 0.926                | 7.03      | 90.8            | 14.78    | 0.29      | -150   | ↓                        |
| 11:48 | 18.72     | 3              | 0.933                | 7.03      | 94.6            | 14.95    | 0.26      | -144   | ↓                        |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |

### FIELD WATER QUALITY RECORD

11:50 START SAMPLING

11:55 COMPLETED SAMPLING

CONDITION OF SAMPLE WATER: CLEAR, ODORLESS

REACTION TO PRESERVATIVE: \_\_\_\_\_

Discharged water: volume ~ 7gal disposition POLY TANK

\* BUBBLES IN TUBING + QUANTA

UG-100411-SM-006

# AECOM

## MONITORING WELL PURGING AND SAMPLING FIELD DATA

|                              |         |              |   |             |              |
|------------------------------|---------|--------------|---|-------------|--------------|
| PROJECT                      | RACER   | DATE         | 10/6/11                                   | PERSONNEL   | Ray McKIBBEN |
| WELL DATA (from records)     |         |              |   |             |              |
| Well I.D.                    | MW 85   | Datum Id.    | TOC                                       | Total Depth | 24.00'       |
| Csg. Vol./Ft.                | 0.662 L | Datum Elev.  |   | Top Screen  | 14.92'       |
| WELL DATA (field-determined) |         |              |   |             |              |
| Tapedown                     | 8.89    | Time         | 1400                                      | Operator    | RM           |
| Screen Vol.                  | 6.43 L  | Csg. Vol.    | 10.00 L                                   | Total Depth |              |
| SETUP                        |         |              |   |             |              |
| Intake Depth                 |         | Equipment    | TYphoon #2, Controller #5, Quanta QD02778 |             |              |
| Operator                     | RM      | Decon record |   |             |              |

| INSTRUMENT CALIBRATION RECORD |              |                |                                       |                          |                                  |          |           |        |                          |
|-------------------------------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
| Time                          | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |

| PURGE WATER QUALITY RECORD |           |                |                      |           |                 |          |           |        |                          |  |
|----------------------------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|--|
| Time                       | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |  |
| 1410                       |           |                | START PURGING        |           |                 |          |           |        |                          |  |
| 1430                       | 8.91      | 1              | 1.156                | 6.96      | 350             | 15.36    | 0.12      | -115   | 320 mL/min               |  |
| 1450                       | 8.91      | 2              | 1.137                | 6.95      | 131             | 16.10    | 0.16      | -117   | 320 mL/min               |  |
| 1507                       | 8.91      | 3              | 1.165                | 6.94      | 109             | 16.08    | 0.16      | -117   | 380 mL/min               |  |
| 1501                       | 8.91      |                | 1.153                | 6.95      | 111             | 15.98    | 0.14      | -117   | 250 mL/min               |  |
| 1505                       | 8.91      |                | 1.153                | 6.95      | 108             | 15.94    | 0.14      | -117   | 250 mL/min               |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |

| FIELD WATER QUALITY RECORD                            |      |
|---|------|
| START SAMPLING  | 1520 |
| COMPLETED SAMPLING                                    | 1525 |
| CONDITION OF SAMPLE WATER: CLEAR, COLORLESS, ODORLESS |      |
| REACTION TO PRESERVATIVE: NONE                        |      |

Discharged water: volume ~ 21L disposition POLYTANK



**MONITORING WELL PURGING AND SAMPLING  
FIELD DATA**

PROJECT RACER      DATE 10/4/11      PERSONNEL Ray McKIBSEN

**WELL DATA (from records)**

Well I.D. MW 86      Datum Id. TOC      Total Depth \_\_\_\_\_  
 Csg. Vol./Ft. 0.662 L      Datum Elev. \_\_\_\_\_      Top Screen \_\_\_\_\_

**WELL DATA (field-determined)**

Tapedown 3.51      Time 1135      Operator RM  
 Screen Vol. 6.43 L      Csg. Vol. \_\_\_\_\_      Total Depth \_\_\_\_\_

**SETUP**

Intake Depth \_\_\_\_\_      Equipment Fultz # 30525 CONTROLLER 127204, Quanta QD0278  
 Operator RM      Decon record Dedicated tubing

| INSTRUMENT CALIBRATION RECORD |              |                |                                       |                          |                                  |          |           |        |                          |
|-------------------------------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
| Time                          | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |
|                               |              |                |                                       |                          |                                  |          |           |        |                          |

| PURGE WATER QUALITY RECORD |           |                |                      |           |                 |          |           |        |                          |  |
|----------------------------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|--|
| Time                       | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |  |
| 1145                       |           |                | START PURGING        |           |                 |          |           |        |                          |  |
| 1202                       | 3.59      | 1              | 1.130                | 6.87      | 58.7            | 15.10    | 0.21      | -117   | 380 ML/MIN               |  |
| 1223                       | 3.59      | 2              | 1.142                | 6.88      | 59.2            | 15.10    | 0.13      | -113   | 300 ML/MIN               |  |
| 1238                       | 3.59      | 3              | 1.146                | 6.88      | 59.7            | 15.06    | 0.13      | -112   | 400 ML/MIN               |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |
|                            |           |                |                      |           |                 |          |           |        |                          |  |

**FIELD WATER QUALITY RECORD**

START SAMPLING 1240  
 COMPLETED SAMPLING 1245

CONDITION OF SAMPLE WATER: clear, colorless, odorless

REACTION TO PRESERVATIVE: None

Discharged water: volume ~ 20L      disposition POLY TANK

SAMPLE ID:  
WG-100311-RM-003



MONITORING WELL PURGING AND SAMPLING  
FIELD DATA

PROJECT RACER DATE 10/3/11 PERSONNEL Ray McKIBBEN

WELL DATA (from records)

Well I.D. MW 88 Datum Id. TOC Total Depth  
Csg. Vol./Ft. 0.662 L Datum Elev. Top Screen

WELL DATA (field-determined)

Tapedown 3.35 Time 1415 Operator RM  
Screen Vol. 6.43 L Csg. Vol. Total Depth

SETUP

Intake Depth Equipment TYPHOON #1, CONTROLLER #16, Quanta QD02783  
Operator RM Decon record Dedicated tubing

INSTRUMENT CALIBRATION RECORD

| Time | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |

PURGE WATER QUALITY RECORD

| Time | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| 1425 |           |                | START PURGING        |           |                 |          |           |        | 300 mL/MIN               |
| 1445 | 3.39      | 1              | 1.170                | 7.57      | 366             | 17.05    | 0.28      | -140   | 300 mL/MIN               |
| 1506 | 3.39      | 2              | 1.207                | 7.65      | 224             | 16.01    | 0.15      | -144   | 300 mL/MIN               |
| 1527 | 3.39      | 3              | 1.245                | 7.62      | 129             | 16.57    | 0.15      | -143   | 300 mL/MIN               |
| 1532 | 3.39      |                | 1.237                | 7.63      | 123             | 16.53    | 0.15      | -143   | 300                      |
| 1537 | 3.39      |                | 1.237                | 7.63      | 124             | 16.57    | 0.15      | -142   | 300                      |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |
|      |           |                |                      |           |                 |          |           |        |                          |

FIELD WATER QUALITY RECORD

START SAMPLING 1540  
COMPLETED SAMPLING 1545  
CONDITION OF SAMPLE WATER: MOD TURBID, COLORLESS, ODORLESS  
REACTION TO PRESERVATIVE: NONE

Discharged water: volume 22.0 L disposition POLY TANK



### MONITORING WELL PURGING AND SAMPLING

#### FIELD DATA

PROJECT RACER DATE 10/6/11 PERSONNEL Stacey

#### WELL DATA (from records)

Well I.D. MW-2 (Golf Course) Datum Id. TOC Total Depth 8.77'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 860.08 Top Screen 2.77'

#### WELL DATA (field-determined)

Tapedown 2.93 Time 15:26 Operator \_\_\_\_\_  
 Screen Vol. 3.97 L 0.96 gal Csg. Vol. 0.93 Total Depth \_\_\_\_\_

#### SETUP

Intake Depth \_\_\_\_\_ Equipment \_\_\_\_\_  
 Operator \_\_\_\_\_ Decon record \_\_\_\_\_

#### INSTRUMENT CALIBRATION RECORD

| Time | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |

#### PURGE WATER QUALITY RECORD

| Time  | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|-------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| 15:24 | 298       | —              | START PURGING        |           |                 |          |           |        | 360 L/min                |
| 15:45 | 3.02      | 1              | 0.962                | 6.79      | 81.3            | 19.80    | 0.39      | -61    |                          |
| 15:56 | 3.01      | 2              | 0.894                | 6.82      | 42.9            | 19.33    | 0.25      | -64    |                          |
| 16:07 | 3.01      | 3              | 0.885                | 6.82      | 29.6            | 19.22    | 0.27      | -63    |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |

#### FIELD WATER QUALITY RECORD

|                            |                    |  |  |  |  |  |  |  |  |
|----------------------------|--------------------|--|--|--|--|--|--|--|--|
| 16:10                      | START SAMPLING     |  |  |  |  |  |  |  |  |
| 16:15                      | COMPLETED SAMPLING |  |  |  |  |  |  |  |  |
| CONDITION OF SAMPLE WATER: |                    |  |  |  |  |  |  |  |  |
| REACTION TO PRESERVATIVE:  |                    |  |  |  |  |  |  |  |  |

Discharged water: volume \_\_\_\_\_

disposition POLY TANK

WG-100611-SM-018

# AECOM

## MONITORING WELL PURGING AND SAMPLING

### FIELD DATA

PROJECT RACER DATE 10/6/11 PERSONNEL Stacey

**WELL DATA (from records)**

Well I.D. MW-4 (Golf Course) Datum Id. TOC Total Depth 22.59'  
 Csg. Vol./Ft. 0.662 L Datum Elev. 861.67 Top Screen 2.59'

**WELL DATA (field-determined)**

Tapedown 4.22 Time 10:50 Operator SLM  
 Screen Vol. 13.24 L 3.2 gal Csg. Vol. 2.9 gal Total Depth \_\_\_\_\_

**SETUP**

Intake Depth \_\_\_\_\_ Equipment TYPHOON #6, CONTROLLER #2, QD 3319, HERON 14934  
 Operator \_\_\_\_\_ Decon record FIELD MEGA BATTERY #2

#### INSTRUMENT CALIBRATION RECORD

| Time | Std. Lot No. | Standard Value | Conductivity Initial / Recal. (mS/cm) | pH Init. / Recal. (s.u.) | Turbidity Initial / Recal. (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|------|--------------|----------------|---------------------------------------|--------------------------|----------------------------------|----------|-----------|--------|--------------------------|
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |
|      |              |                |                                       |                          |                                  |          |           |        |                          |

#### PURGE WATER QUALITY RECORD

| Time  | Tape-Down | No. of Volumes | Conductivity (mS/cm) | pH (s.u.) | Turbidity (NTU) | Temp. C° | D.O. mg/L | ORP mV | Discharge (record units) |
|-------|-----------|----------------|----------------------|-----------|-----------------|----------|-----------|--------|--------------------------|
| 11:15 | 4.20      | —              | START PURGING        |           |                 |          |           |        | 220ml/min                |
| 12:08 | 4.20      | 1              | 1.097                | 6.88      | 169             | 17.44    | 0.53      | -81    | " "                      |
| 12:25 | 4.20      | 2              | 1.104                | 6.96      | 117             | 16.94    | 0.38      | -88    | 400ml/min                |
| 13:06 | 4.20      | 3              | 1.109                | 6.90      | 26.1            | 16.67    | 0.20      | -86    | " "                      |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |
|       |           |                |                      |           |                 |          |           |        |                          |

#### FIELD WATER QUALITY RECORD

|   |                    |  |
|---|--------------------|--|
| 13:10   | START SAMPLING     |  |
| 13:15   | COMPLETED SAMPLING |  |
| CONDITION OF SAMPLE WATER: <u>CLEAR, ODORLESS</u> |                    |  |
| REACTION TO PRESERVATIVE: <u>NONE</u>             |                    |  |

Discharged water: volume ~ 9 1/2 gal disposition POLY TANK

\* FINE SAND IN TUBING

WG-100611-SM-016

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**Attachment B**  
**Analytical Data Review Reports**

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**Attachment B-1**  
**April 2011 Data Validation**



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## MEMORANDUM

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TO: John Bassett REF. NO.: 017302-T07

FROM: Deborah Andrasko/bjw/32 *MDX* DATE: June 1, 2011  
REVISED: August 11, 2011

C.C.: Shannon Richardson E-Mail and Hard Copy if Requested

RE: **Data Quality Assessment and Validation  
Site-Wide Groundwater Monitoring  
Motors Liquidation Company - MLK Boulevard Facility  
Anderson, Indiana  
April 2011**

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### INTRODUCTION

The following details a quality assessment and validation of the analytical data resulting from the collection of groundwaters and quality control (QC) samples from the MLK Boulevard Facility in Anderson, Indiana, in April 2011. The sample summary detailing sample identification, sample location, QC samples, and analytical parameter is presented in Table 1.

The samples were analyzed for volatile organic compounds (VOCs) using SW-846 Method 8260B referenced from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986, with all subsequent revisions. Sample analysis was performed at TestAmerica, North Canton, Ohio, in accordance with the method. Summaries of the analytical results are presented in Table 2.

The quality control (QC) criteria used to assess the data were established by the method and the documents entitled "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review", United States Environmental Protection Agency (USEPA) 540/R-99/008, October 1999 and "Quality Assurance Project Plan (QAPP) for the Resource Conservation and Recovery Act (RCRA) Facility Investigation at GM Anderson, Indiana Facility", IND 980 700 801, Revision 2, October 14, 1997.

Full Contract Laboratory Program (CLP)-equivalent raw data deliverables were provided by the laboratory. Data assessment was based on information obtained from final data sheets, blank data, surrogate recoveries, spike recoveries, and duplicate results; raw data was not reviewed or assessed.

### HOLDING TIME PERIOD AND SAMPLE ANALYSIS

The holding time period is presented in the analytical method. The samples were properly preserved and cooled to 4°C (±2°C) after collection. The samples were prepared and analyzed within the method-required holding times.

### METHOD BLANK SAMPLE

Method blanks are prepared and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the procedures.

For this study, method blanks were analyzed in the analytical batch with the samples. The blank results were non-detect with the exception of low concentrations of acetone and 2-butanone. All samples with similar concentrations were qualified as non-detect (see Table 3).

### SURROGATE COMPOUND PERCENT RECOVERIES

In accordance with the method employed, all samples, blanks, and standards analyzed for VOCs are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of individual sample matrices on analytical efficiency and are assessed against method control limits.

All surrogate recoveries were within the laboratory generated control limits, indicating acceptable analytical efficiency.

### LABORATORY CONTROL SAMPLE (LCS) ANALYSIS

The LCS serves as a measure of overall analytical performance. LCSs are prepared with all analytes of interest and analyzed with each sample batch.

LCS were prepared and analyzed for VOCs. The LCS recoveries were within the control limits for all analytes of interest, indicating good analytical accuracy.

### MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) ANALYSES

MS/MSD samples are prepared with all analytes of interest and analyzed with the sample batch. The recoveries of MS analyses are used to assess the analytical accuracy achieved on individual sample matrices. If the original sample concentration is significantly greater than the spike concentration, the recovery is not assessed. The relative percent difference (RPD) between the MS and MSD are used to assess analytical precision.

MS/MSD analyses were performed on the samples as indicated in Table 1 and all recoveries were acceptable, indicating good analytical accuracy and precision.

### FIELD QA/QC

The field QA/QC consisted of two equipment rinse blank samples, one trip blank sample, and two field duplicate samples.

Equipment Rinse Blanks

Equipment rinse blanks were collected as shown in Table 1 and analyzed with the investigative samples to identify potential cross-contamination during sample collection. All results were non-detect for the analytes of interest, with the exception of low concentrations of acetone and cis-1,2-dichloroethene. All associated samples with similar concentrations were qualified as non-detect (see Table 4).

Trip Blanks

Trip blanks are transported, stored, and analyzed with the investigative samples to identify potential cross-contamination of VOCs. The trip blank results were non-detect for the analytes of interest, with the exception of low concentrations of acetone and chloroform. All associated samples with similar concentrations were qualified as non-detect (see Table 5).

Field Duplicates

Samples were collected in duplicate as summarized in Table 1 and submitted "blind" to the laboratory for analysis. All sample results outside of estimated ranges of detection showed acceptable sampling and analytical precision.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision, based on the provided information, and may be used as reported with the qualifications noted.

TABLE 1

SAMPLE AND ANALYSIS SUMMARY  
 SITE-WIDE GROUNDWATER MONITORING  
 MOTORS LIQUIDATION COMPANY  
 MLK BOULEVARD FACILITY  
 ANDERSON, INDIANA  
 APRIL 2011

| Sample I.D.      | Location I.D. | Collection Date<br>(mm/dd/yy) | Collection Time<br>(hr:min) | Analysis  |  | Comment                  |
|------------------|---------------|-------------------------------|-----------------------------|-----------|--|--------------------------|
|                  |               |                               |                             | Volatiles |  |                          |
| WG-041811-SM-001 | MW 8          | 04/18/11                      | 14:00                       | X         |  |                          |
| WG-041811-SM-002 | MW 14         | 04/18/11                      | 15:30                       | X         |  |                          |
| WG-041811-KD-001 | MW 31R        | 04/18/11                      | 13:25                       | X         |  |                          |
| WG-041811-KD-002 | MW 3          | 04/18/11                      | 14:35                       | X         |  |                          |
| WG-041811-KD-003 | MW 68         | 04/18/11                      | 16:35                       | X         |  |                          |
| WG-041911-SM-003 | MW 66         | 04/19/11                      | 12:30                       | X         |  |                          |
| WG-041911-SM-004 | MW 66         | 04/19/11                      | 13:00                       | X         |  | Field duplicate of MW 66 |
| WG-041911-SM-005 | MW 40         | 04/19/11                      | 15:00                       | X         |  |                          |
| WG-041911-SM-006 | MW 49         | 04/19/11                      | 16:40                       | X         |  |                          |
| WQ-041911-KD-007 | -             | 04/19/11                      | 17:00                       | X         |  | Equipment Blank          |
| WG-041911-KD-006 | MW 41         | 04/19/11                      | 16:40                       | X         |  |                          |
| WG-041911-KD-005 | MW 42         | 04/19/11                      | 15:55                       | X         |  |                          |
| WG-041911-KD-004 | MW 28         | 04/19/11                      | 13:40                       | X         |  | MS/MSD                   |
| WG-042011-SM-007 | MW 51         | 04/20/11                      | 11:40                       | X         |  |                          |
| WG-042011-SM-008 | MW 4          | 04/20/11                      | 16:15                       | X         |  | MS/MSD                   |
| WG-042011-SM-009 | MW-4          | 04/20/11                      | 12:00                       | X         |  | Field duplicate of MW 4  |
| WQ-042011-KD-009 | -             | 04/20/11                      | 11:30                       | X         |  | Equipment Blank          |
| WG-042011-KD-008 | MW 12         | 04/20/11                      | 11:10                       | X         |  |                          |
| WG-043011-KD-010 | MW 79         | 04/20/11                      | 13:55                       | X         |  |                          |
| WS-042011-KD-011 | Pond North    | 04/20/11                      | 15:35                       | X         |  |                          |
| WG-042011-KD-012 | MW 85         | 04/20/11                      | 16:30                       | X         |  |                          |
| WS-042011-KD-013 | Pond Intake   | 04/20/11                      | 16:50                       | X         |  |                          |
| WQ-042011-KD-014 | -             | 04/20/11                      | 12:00                       | X         |  | Trip Blank               |

## Notes:

- Not applicable.
- MS Matrix spike.
- MSD Matrix spike duplicate.

TABLE 2

**ANALYTICAL RESULTS SUMMARY  
SITE-WIDE GROUNDWATER MONITORING  
MOTORS LIQUIDATION COMPANY  
MLK BOULEVARD FACILITY  
ANDERSON, INDIANA  
APRIL 2011**

|  | <i>Sample Location:</i> |                         | <i>MW 3</i>             | <i>MW 8</i>             | <i>MW 12</i>            | <i>MW 14</i>            | <i>MW 28</i> |
|--|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------|
|  | <i>Sample ID:</i>       | <i>WG-041811-KD-002</i> | <i>WG-041811-SM-001</i> | <i>WG-042011-KD-008</i> | <i>WG-041811-SM-002</i> | <i>WG-041911-KD-004</i> |              |
|  | <i>Sample Date:</i>     | <i>4/18/2011</i>        | <i>4/18/2011</i>        | <i>4/20/2011</i>        | <i>4/18/2011</i>        | <i>4/19/2011</i>        |              |
| <i>Parameters</i>                                    | <i>Units</i>            |                         |                         |                         |                         |                         |              |
| <i>Volatile Organic Compounds</i>                    |                         |                         |                         |                         |                         |                         |              |
| 1,1,1-Trichloroethane                                | µg/L                    | 740                     | 250 U                   | 11 U                    | 170 U                   | 2.0 U                   |              |
| 1,1,2,2-Tetrachloroethane                            | µg/L                    | 500 U                   | 250 U                   | 11 U                    | 170 U                   | 2.0 U                   |              |
| 1,1,2-Trichloroethane                                | µg/L                    | 500 U                   | 250 U                   | 11 U                    | 170 U                   | 2.0 U                   |              |
| 1,1-Dichloroethane                                   | µg/L                    | 390 J                   | 61 J                    | 11 U                    | 62 J                    | 2.0 U                   |              |
| 1,1-Dichloroethene                                   | µg/L                    | 170 J                   | 250 U                   | 11 U                    | 170 U                   | 2.0 U                   |              |
| 1,2-Dichloroethane                                   | µg/L                    | 500 U                   | 250 U                   | 11 U                    | 170 U                   | 2.0 U                   |              |
| 1,2-Dichloropropane                                  | µg/L                    | 500 U                   | 250 U                   | 11 U                    | 170 U                   | 2.0 U                   |              |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | µg/L                    | 10000 U                 | 5000 U                  | 220 U                   | 3300 U                  | 40 U                    |              |
| 2-Hexanone   | µg/L                    | 10000 U                 | 5000 U                  | 220 U                   | 3300 U                  | 40 U                    |              |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | µg/L                    | 10000 U                 | 5000 U                  | 220 U                   | 3300 U                  | 40 U                    |              |
| Acetone  | µg/L                    | 10000 U                 | 5000 U                  | 220 U                   | 3300 U                  | 40 U                    |              |
| Benzene  | µg/L                    | 500 U                   | 250 U                   | 11 U                    | 170 U                   | 2.0 U                   |              |
| Bromodichloromethane                                 | µg/L                    | 500 U                   | 250 U                   | 11 U                    | 170 U                   | 2.0 U                   |              |
| Bromoform  | µg/L                    | 500 U                   | 250 U                   | 11 U                    | 170 U                   | 2.0 U                   |              |
| Bromomethane (Methyl bromide)                        | µg/L                    | 500 U                   | 250 U                   | 11 U                    | 170 U                   | 2.0 U                   |              |
| Carbon disulfide                                     | µg/L                    | 2500 U                  | 1200 U                  | 56 U                    | 830 U                   | 10 U                    |              |
| Carbon tetrachloride                                 | µg/L                    | 500 U                   | 250 U                   | 11 U                    | 170 U                   | 2.0 U                   |              |
| Chlorobenzene  | µg/L                    | 500 U                   | 250 U                   | 11 U                    | 170 U                   | 2.0 U                   |              |
| Chloroethane   | µg/L                    | 500 U                   | 250 U                   | 11 U                    | 170 U                   | 2.0 U                   |              |
| Chloroform (Trichloromethane)                        | µg/L                    | 500 U                   | 250 U                   | 11 U                    | 170 U                   | 2.0 U                   |              |
| Chloromethane (Methyl chloride)                      | µg/L                    | 500 U                   | 250 U                   | 11 U                    | 170 U                   | 2.0 U                   |              |
| cis-1,2-Dichloroethene                               | µg/L                    | 8900                    | 8500                    | 290                     | 4900                    | 2.0 U                   |              |
| cis-1,3-Dichloropropene                              | µg/L                    | 500 U                   | 250 U                   | 11 U                    | 170 U                   | 2.0 U                   |              |
| Dibromochloromethane                                 | µg/L                    | 500 U                   | 250 U                   | 11 U                    | 170 U                   | 2.0 U                   |              |
| Ethylbenzene   | µg/L                    | 500 U                   | 250 U                   | 11 U                    | 170 U                   | 2.0 U                   |              |
| Methylene chloride                                   | µg/L                    | 2500 U                  | 1200 U                  | 56 U                    | 830 U                   | 10 U                    |              |

TABLE 2

**ANALYTICAL RESULTS SUMMARY  
SITE-WIDE GROUNDWATER MONITORING  
MOTORS LIQUIDATION COMPANY  
MLK BOULEVARD FACILITY  
ANDERSON, INDIANA  
APRIL 2011**

|   | <i>Sample Location:</i> | MW 3             | MW 8             | MW 12            | MW 14            | MW 28            |
|---|-------------------------|------------------|------------------|------------------|------------------|------------------|
|   | <i>Sample ID:</i>       | WG-041811-KD-002 | WG-041811-SM-001 | WG-042011-KD-008 | WG-041811-SM-002 | WG-041911-KD-004 |
|   | <i>Sample Date:</i>     | 4/18/2011        | 4/18/2011        | 4/20/2011        | 4/18/2011        | 4/19/2011        |
| <i>Parameters</i>                           | <i>Units</i>            |                  |                  |                  |                  |                  |
| <i>Volatile Organic Compounds (Cont'd.)</i> |                         |                  |                  |                  |                  |                  |
| Styrene                                     | µg/L                    | 500 U            | 250 U            | 11 U             | 170 U            | 2.0 U            |
| Tetrachloroethene                           | µg/L                    | 500 U            | 250 U            | 11 U             | 170 U            | 2.0 U            |
| Toluene                                     | µg/L                    | 500 U            | 250 U            | 11 U             | 170 U            | 2.0 U            |
| trans-1,2-Dichloroethene                    | µg/L                    | 500 U            | 250 U            | 3.1 J            | 170 U            | 2.0 U            |
| trans-1,3-Dichloropropene                   | µg/L                    | 500 U            | 250 U            | 11 U             | 170 U            | 2.0 U            |
| Trichloroethene                             | µg/L                    | 14000            | 330              | 9.8 J            | 170 U            | 2.0 U            |
| Vinyl chloride                              | µg/L                    | 350 J            | 2400             | 11 U             | 230              | 62               |
| Xylenes (total)                             | µg/L                    | 1000 U           | 500 U            | 22 U             | 330 U            | 4.0 U            |

TABLE 2

**ANALYTICAL RESULTS SUMMARY  
SITE-WIDE GROUNDWATER MONITORING  
MOTORS LIQUIDATION COMPANY  
MLK BOULEVARD FACILITY  
ANDERSON, INDIANA  
APRIL 2011**

|  | <i>Sample Location:</i> | <i>MW 40</i>            | <i>MW 41</i>            | <i>MW 42</i>            | <i>MW 49</i>            | <i>MW 51</i>            |
|--|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|  | <i>Sample ID:</i>       | <i>WG-041911-SM-005</i> | <i>WG-041911-KD-006</i> | <i>WG-041911-KD-005</i> | <i>WG-041911-SM-006</i> | <i>WG-042011-SM-007</i> |
|  | <i>Sample Date:</i>     | <i>4/19/2011</i>        | <i>4/19/2011</i>        | <i>4/19/2011</i>        | <i>4/19/2011</i>        | <i>4/20/2011</i>        |
| <i>Parameters</i>                                    | <i>Units</i>            |                         |                         |                         |                         |                         |
| <i>Volatile Organic Compounds</i>                    |                         |                         |                         |                         |                         |                         |
| 1,1,1-Trichloroethane                                | µg/L                    | 250 U                   | 170 U                   | 170 U                   | 17 U                    | 6.7 U                   |
| 1,1,2,2-Tetrachloroethane                            | µg/L                    | 250 U                   | 170 U                   | 170 U                   | 17 U                    | 6.7 U                   |
| 1,1,2-Trichloroethane                                | µg/L                    | 250 U                   | 170 U                   | 170 U                   | 17 U                    | 6.7 U                   |
| 1,1-Dichloroethane                                   | µg/L                    | 330                     | 170 U                   | 100 J                   | 17 U                    | 6.7 U                   |
| 1,1-Dichloroethene                                   | µg/L                    | 54 J                    | 170 U                   | 42 J                    | 17 U                    | 6.7 U                   |
| 1,2-Dichloroethane                                   | µg/L                    | 250 U                   | 170 U                   | 170 U                   | 17 U                    | 6.7 U                   |
| 1,2-Dichloropropane                                  | µg/L                    | 250 U                   | 170 U                   | 170 U                   | 17 U                    | 6.7 U                   |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | µg/L                    | 5000 U                  | 3300 U                  | 3300 U                  | 330 U                   | 130 U                   |
| 2-Hexanone   | µg/L                    | 5000 U                  | 3300 U                  | 3300 U                  | 330 U                   | 130 U                   |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | µg/L                    | 5000 U                  | 3300 U                  | 3300 U                  | 330 U                   | 130 U                   |
| Acetone  | µg/L                    | 5000 U                  | 3300 U                  | 3300 U                  | 330 U                   | 130 U                   |
| Benzene  | µg/L                    | 250 U                   | 170 U                   | 170 U                   | 17 U                    | 6.7 U                   |
| Bromodichloromethane                                 | µg/L                    | 250 U                   | 170 U                   | 170 U                   | 17 U                    | 6.7 U                   |
| Bromoform  | µg/L                    | 250 U                   | 170 U                   | 170 U                   | 17 U                    | 6.7 U                   |
| Bromomethane (Methyl bromide)                        | µg/L                    | 250 U                   | 170 U                   | 170 U                   | 17 U                    | 6.7 U                   |
| Carbon disulfide                                     | µg/L                    | 1200 U                  | 830 U                   | 830 U                   | 83 U                    | 33 U                    |
| Carbon tetrachloride                                 | µg/L                    | 250 U                   | 170 U                   | 170 U                   | 17 U                    | 6.7 U                   |
| Chlorobenzene  | µg/L                    | 250 U                   | 170 U                   | 170 U                   | 17 U                    | 6.7 U                   |
| Chloroethane   | µg/L                    | 250 U                   | 170 U                   | 170 U                   | 17 U                    | 6.7 U                   |
| Chloroform (Trichloromethane)                        | µg/L                    | 250 U                   | 170 U                   | 170 U                   | 17 U                    | 6.7 U                   |
| Chloromethane (Methyl chloride)                      | µg/L                    | 250 U                   | 170 U                   | 170 U                   | 17 U                    | 6.7 U                   |
| cis-1,2-Dichloroethene                               | µg/L                    | 8800                    | 6300                    | 6000                    | 370                     | 6.7 U                   |
| cis-1,3-Dichloropropene                              | µg/L                    | 250 U                   | 170 U                   | 170 U                   | 17 U                    | 6.7 U                   |
| Dibromochloromethane                                 | µg/L                    | 250 U                   | 170 U                   | 170 U                   | 17 U                    | 6.7 U                   |
| Ethylbenzene   | µg/L                    | 250 U                   | 170 U                   | 170 U                   | 17 U                    | 6.7 U                   |
| Methylene chloride                                   | µg/L                    | 1200 U                  | 830 U                   | 830 U                   | 83 U                    | 33 U                    |

TABLE 2

**ANALYTICAL RESULTS SUMMARY  
SITE-WIDE GROUNDWATER MONITORING  
MOTORS LIQUIDATION COMPANY  
MLK BOULEVARD FACILITY  
ANDERSON, INDIANA  
APRIL 2011**

|  | <i>Sample Location:</i> | <i>MW 40</i>     | <i>MW 41</i>     | <i>MW 42</i>     | <i>MW 49</i>     | <i>MW 51</i>     |
|--|-------------------------|------------------|------------------|------------------|------------------|------------------|
|  | <i>Sample ID:</i>       | WG-041911-SM-005 | WG-041911-KD-006 | WG-041911-KD-005 | WG-041911-SM-006 | WG-042011-SM-007 |
|  | <i>Sample Date:</i>     | 4/19/2011        | 4/19/2011        | 4/19/2011        | 4/19/2011        | 4/20/2011        |
| <i>Parameters</i>                            | <i>Units</i>            |                  |                  |                  |                  |                  |
| <i>Volatile Organic Compounds (Cont' d.)</i> |                         |                  |                  |                  |                  |                  |
| Styrene                                      | µg/L                    | 250 U            | 170 U            | 170 U            | 17 U             | 6.7 U            |
| Tetrachloroethene                            | µg/L                    | 250 U            | 170 U            | 170 U            | 17 U             | 6.7 U            |
| Toluene                                      | µg/L                    | 250 U            | 170 U            | 170 U            | 17 U             | 6.7 U            |
| trans-1,2-Dichloroethene                     | µg/L                    | 170 J            | 140 J            | 310              | 7.8 J            | 6.7 U            |
| trans-1,3-Dichloropropene                    | µg/L                    | 250 U            | 170 U            | 170 U            | 17 U             | 6.7 U            |
| Trichloroethene                              | µg/L                    | 250 U            | 170 U            | 170 U            | 17 U             | 180              |
| Vinyl chloride                               | µg/L                    | 990              | 300              | 170              | 22               | 6.7 U            |
| Xylenes (total)                              | µg/L                    | 500 U            | 330 U            | 330 U            | 33 U             | 13 U             |

TABLE 2

**ANALYTICAL RESULTS SUMMARY  
SITE-WIDE GROUNDWATER MONITORING  
MOTORS LIQUIDATION COMPANY  
MLK BOULEVARD FACILITY  
ANDERSON, INDIANA  
APRIL 2011**

|  | <i>Sample Location:</i> | <i>MW 66</i>     | <i>MW 66</i>             | <i>MW 68</i>     | <i>MW 85</i>     | <i>MW 31R</i>    |
|--|-------------------------|------------------|--------------------------|------------------|------------------|------------------|
|  | <i>Sample ID:</i>       | WG-041911-SM-003 | WG-041911-SM-004         | WG-041811-KD-003 | WG-042011-KD-012 | WG-041811-KD-001 |
|  | <i>Sample Date:</i>     | 4/19/2011        | 4/19/2011<br>(Duplicate) | 4/18/2011        | 4/20/2011        | 4/18/2011        |
| <i>Parameters</i>                                    | <i>Units</i>            |                  |                          |                  |                  |                  |
| <i>Volatile Organic Compounds</i>                    |                         |                  |                          |                  |                  |                  |
| 1,1,1-Trichloroethane                                | µg/L                    | 10 U             | 10 U                     | 250 U            | 20 U             | 110 J            |
| 1,1,2,2-Tetrachloroethane                            | µg/L                    | 10 U             | 10 U                     | 250 U            | 20 U             | 200 U            |
| 1,1,2-Trichloroethane                                | µg/L                    | 10 U             | 10 U                     | 250 U            | 20 U             | 200 U            |
| 1,1-Dichloroethane                                   | µg/L                    | 10               | 11                       | 220 J            | 7.7 J            | 280              |
| 1,1-Dichloroethene                                   | µg/L                    | 10 U             | 10 U                     | 250 U            | 20 U             | 200 U            |
| 1,2-Dichloroethane                                   | µg/L                    | 10 U             | 10 U                     | 250 U            | 20 U             | 200 U            |
| 1,2-Dichloropropane                                  | µg/L                    | 10 U             | 10 U                     | 250 U            | 20 U             | 200 U            |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | µg/L                    | 200 U            | 200 U                    | 5000 U           | 400 U            | 4000 U           |
| 2-Hexanone   | µg/L                    | 200 U            | 200 U                    | 5000 U           | 400 U            | 4000 U           |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | µg/L                    | 200 U            | 200 U                    | 5000 U           | 400 U            | 4000 U           |
| Acetone  | µg/L                    | 200 U            | 200 U                    | 5000 U           | 400 U            | 4000 U           |
| Benzene  | µg/L                    | 10 U             | 10 U                     | 250 U            | 20 U             | 200 U            |
| Bromodichloromethane                                 | µg/L                    | 10 U             | 10 U                     | 250 U            | 20 U             | 200 U            |
| Bromoform  | µg/L                    | 10 U             | 10 U                     | 250 U            | 20 U             | 200 U            |
| Bromomethane (Methyl bromide)                        | µg/L                    | 10 U             | 10 U                     | 250 U            | 20 U             | 200 U            |
| Carbon disulfide                                     | µg/L                    | 50 U             | 50 U                     | 1200 U           | 100 U            | 1000 U           |
| Carbon tetrachloride                                 | µg/L                    | 10 U             | 10 U                     | 250 U            | 20 U             | 200 U            |
| Chlorobenzene  | µg/L                    | 10 U             | 10 U                     | 250 U            | 20 U             | 200 U            |
| Chloroethane   | µg/L                    | 10 U             | 10 U                     | 250 U            | 20 U             | 200 U            |
| Chloroform (Trichloromethane)                        | µg/L                    | 10 U             | 10 U                     | 250 U            | 20 U             | 200 U            |
| Chloromethane (Methyl chloride)                      | µg/L                    | 10 U             | 10 U                     | 250 U            | 20 U             | 200 U            |
| cis-1,2-Dichloroethene                               | µg/L                    | 230              | 240                      | 7000             | 180              | 6200             |
| cis-1,3-Dichloropropene                              | µg/L                    | 10 U             | 10 U                     | 250 U            | 20 U             | 200 U            |
| Dibromochloromethane                                 | µg/L                    | 10 U             | 10 U                     | 250 U            | 20 U             | 200 U            |
| Ethylbenzene   | µg/L                    | 10 U             | 10 U                     | 250 U            | 20 U             | 350              |
| Methylene chloride                                   | µg/L                    | 50 U             | 50 U                     | 1200 U           | 100 U            | 1000 U           |

TABLE 2

**ANALYTICAL RESULTS SUMMARY  
SITE-WIDE GROUNDWATER MONITORING  
MOTORS LIQUIDATION COMPANY  
MLK BOULEVARD FACILITY  
ANDERSON, INDIANA  
APRIL 2011**

|   | <i>Sample Location:</i> | <i>MW 66</i>     | <i>MW 66</i>             | <i>MW 68</i>     | <i>MW 85</i>     | <i>MW 31R</i>    |
|---|-------------------------|------------------|--------------------------|------------------|------------------|------------------|
|   | <i>Sample ID:</i>       | WG-041911-SM-003 | WG-041911-SM-004         | WG-041811-KD-003 | WG-042011-KD-012 | WG-041811-KD-001 |
|   | <i>Sample Date:</i>     | 4/19/2011        | 4/19/2011<br>(Duplicate) | 4/18/2011        | 4/20/2011        | 4/18/2011        |
| <i>Parameters</i>                           | <i>Units</i>            |                  |                          |                  |                  |                  |
| <i>Volatile Organic Compounds (Cont'd.)</i> |                         |                  |                          |                  |                  |                  |
| Styrene                                     | µg/L                    | 10 U             | 10 U                     | 250 U            | 20 U             | 200 U            |
| Tetrachloroethene                           | µg/L                    | 10 U             | 10 U                     | 250 U            | 20 U             | 200 U            |
| Toluene                                     | µg/L                    | 10 U             | 10 U                     | 250 U            | 20 U             | 1700             |
| trans-1,2-Dichloroethene                    | µg/L                    | 16               | 17                       | 220 J            | 20 U             | 200 U            |
| trans-1,3-Dichloropropene                   | µg/L                    | 10 U             | 10 U                     | 250 U            | 20 U             | 200 U            |
| Trichloroethene                             | µg/L                    | 10 U             | 10 U                     | 2400             | 20 U             | 340              |
| Vinyl chloride                              | µg/L                    | 45               | 46                       | 97 J             | 450              | 640              |
| Xylenes (total)                             | µg/L                    | 20 U             | 20 U                     | 500 U            | 40 U             | 1100             |

TABLE 2

**ANALYTICAL RESULTS SUMMARY  
SITE-WIDE GROUNDWATER MONITORING  
MOTORS LIQUIDATION COMPANY  
MLK BOULEVARD FACILITY  
ANDERSON, INDIANA  
APRIL 2011**

|  | <i>Sample Location:</i> | MW 79            | MW-4             | MW-4                     | <i>Pond Intake</i> | <i>Pond North</i> |
|--|-------------------------|------------------|------------------|--------------------------|--------------------|-------------------|
|  | <i>Sample ID:</i>       | WG-042011-KD-010 | WG-042011-SM-008 | WG-042011-SM-009         | WS-042011-KD-013   | WS-042011-KD-011  |
|  | <i>Sample Date:</i>     | 4/20/2011        | 4/20/2011        | 4/20/2011<br>(Duplicate) | 4/20/2011          | 4/20/2011         |
| <i>Parameters</i>                                    | <i>Units</i>            |                  |                  |                          |                    |                   |
| <i>Volatile Organic Compounds</i>                    |                         |                  |                  |                          |                    |                   |
| 1,1,1-Trichloroethane                                | µg/L                    | 40 U             | 250 U            | 330 U                    | 1.0 U              | 1.0 U             |
| 1,1,2,2-Tetrachloroethane                            | µg/L                    | 40 U             | 250 U            | 330 U                    | 1.0 U              | 1.0 U             |
| 1,1,2-Trichloroethane                                | µg/L                    | 40 U             | 250 U            | 330 U                    | 1.0 U              | 1.0 U             |
| 1,1-Dichloroethane                                   | µg/L                    | 40 U             | 400              | 380                      | 1.0 U              | 1.3               |
| 1,1-Dichloroethene                                   | µg/L                    | 40 U             | 58 J             | 68 J                     | 1.0 U              | 1.0 U             |
| 1,2-Dichloroethane                                   | µg/L                    | 40 U             | 250 U            | 330 U                    | 1.0 U              | 1.0 U             |
| 1,2-Dichloropropane                                  | µg/L                    | 40 U             | 250 U            | 330 U                    | 1.0 U              | 1.0 U             |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | µg/L                    | 800 U            | 5000 U           | 6700 U                   | 20 U               | 20 U              |
| 2-Hexanone   | µg/L                    | 800 U            | 5000 U           | 6700 U                   | 20 U               | 20 U              |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | µg/L                    | 800 U            | 5000 U           | 6700 U                   | 20 U               | 20 U              |
| Acetone  | µg/L                    | 800 U            | 5000 U           | 6700 U                   | 20 U               | 20 U              |
| Benzene  | µg/L                    | 40 U             | 250 U            | 330 U                    | 1.0 U              | 1.0 U             |
| Bromodichloromethane                                 | µg/L                    | 40 U             | 250 U            | 330 U                    | 1.0 U              | 1.0 U             |
| Bromoform  | µg/L                    | 40 U             | 250 U            | 330 U                    | 1.0 U              | 1.0 U             |
| Bromomethane (Methyl bromide)                        | µg/L                    | 40 U             | 250 U            | 330 U                    | 1.0 U              | 1.0 U             |
| Carbon disulfide                                     | µg/L                    | 200 U            | 1200 U           | 1700 U                   | 5.0 U              | 5.0 U             |
| Carbon tetrachloride                                 | µg/L                    | 40 U             | 250 U            | 330 U                    | 1.0 U              | 1.0 U             |
| Chlorobenzene  | µg/L                    | 40 U             | 250 U            | 330 U                    | 1.0 U              | 1.0 U             |
| Chloroethane   | µg/L                    | 40 U             | 250 U            | 330 U                    | 1.0 U              | 1.0 U             |
| Chloroform (Trichloromethane)                        | µg/L                    | 40 U             | 250 U            | 330 U                    | 1.0 U              | 1.0 U             |
| Chloromethane (Methyl chloride)                      | µg/L                    | 40 U             | 250 U            | 330 U                    | 1.0 U              | 1.0 U             |
| cis-1,2-Dichloroethene                               | µg/L                    | 1200             | 8800             | 8700                     | 1.0 U              | 26                |
| cis-1,3-Dichloropropene                              | µg/L                    | 40 U             | 250 U            | 330 U                    | 1.0 U              | 1.0 U             |
| Dibromochloromethane                                 | µg/L                    | 40 U             | 250 U            | 330 U                    | 1.0 U              | 1.0 U             |
| Ethylbenzene   | µg/L                    | 40 U             | 250 U            | 330 U                    | 1.0 U              | 1.0 U             |
| Methylene chloride                                   | µg/L                    | 200 U            | 1200 U           | 1700 U                   | 5.0 U              | 5.0 U             |

TABLE 2

**ANALYTICAL RESULTS SUMMARY  
SITE-WIDE GROUNDWATER MONITORING  
MOTORS LIQUIDATION COMPANY  
MLK BOULEVARD FACILITY  
ANDERSON, INDIANA  
APRIL 2011**

|   | <i>Sample Location:</i> | <i>MW 79</i>            | <i>MW-4</i>             | <i>MW-4</i>             | <i>Pond Intake</i>      | <i>Pond North</i>       |
|---|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|   | <i>Sample ID:</i>       | <i>WG-042011-KD-010</i> | <i>WG-042011-SM-008</i> | <i>WG-042011-SM-009</i> | <i>WS-042011-KD-013</i> | <i>WS-042011-KD-011</i> |
|   | <i>Sample Date:</i>     | <i>4/20/2011</i>        | <i>4/20/2011</i>        | <i>4/20/2011</i>        | <i>4/20/2011</i>        | <i>4/20/2011</i>        |
|   |                         |                         |                         | <i>(Duplicate)</i>      |                         |                         |
| <i>Parameters</i>                           | <i>Units</i>            |                         |                         |                         |                         |                         |
| <i>Volatile Organic Compounds (Cont'd.)</i> |                         |                         |                         |                         |                         |                         |
| Styrene                                     | µg/L                    | 40 U                    | 250 U                   | 330 U                   | 1.0 U                   | 1.0 U                   |
| Tetrachloroethene                           | µg/L                    | 40 U                    | 250 U                   | 330 U                   | 1.0 U                   | 1.0 U                   |
| Toluene                                     | µg/L                    | 40 U                    | 250 U                   | 330 U                   | 1.0 U                   | 1.0 U                   |
| trans-1,2-Dichloroethene                    | µg/L                    | 55                      | 280                     | 280 J                   | 1.0 U                   | 1.2                     |
| trans-1,3-Dichloropropene                   | µg/L                    | 40 U                    | 250 U                   | 330 U                   | 1.0 U                   | 1.0 U                   |
| Trichloroethene                             | µg/L                    | 40 U                    | 250 U                   | 330 U                   | 1.0 U                   | 1.0 U                   |
| Vinyl chloride                              | µg/L                    | 130                     | 770                     | 730                     | 1.9                     | 4.3                     |
| Xylenes (total)                             | µg/L                    | 80 U                    | 500 U                   | 670 U                   | 2.0 U                   | 2.0 U                   |

## Notes:

J - Estimated concentration.

U - Not present at or above the associated value.

TABLE 3

**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE METHOD BLANKS**  
**SITE-WIDE GROUNDWATER MONITORING**  
**MOTORS LIQUIDATION COMPANY**  
**MLK BOULEVARD FACILITY**  
**ANDERSON, INDIANA**  
**APRIL 2011**

| <i>Parameter</i> | <i>Analysis Date</i> | <i>Analyte</i> | <i>Blank Result (1)</i> | <i>Sample ID</i> | <i>Qualified Sample Result</i> | <i>Units</i> |
|------------------|----------------------|----------------|-------------------------|------------------|--------------------------------|--------------|
| Volatiles        | 04/29/11             | Acetone        | 1.1 J                   | WG-041811-KD-001 | 4000 U                         | µg/L         |
|                  |                      |                | 1.7 J                   | WG-041811-SM-002 | 3300 U                         | µg/L         |
|                  |                      |                |                         | WG-041911-KD-004 | 40 U                           | µg/L         |
|                  |                      |                |                         | WG-041911-KD-005 | 3300 U                         | µg/L         |
|                  |                      |                |                         | WG-042011-KD-008 | 220 U                          | µg/L         |
|                  |                      |                |                         | WG-042011-KD-012 | 400 U                          | µg/L         |
|                  |                      |                |                         | WG-042011-SM-008 | 5000 U                         | µg/L         |
|                  |                      |                |                         | WG-042011-SM-009 | 6700 U                         | µg/L         |
|                  |                      |                |                         | WS-042011-KD-013 | 20 U                           | µg/L         |
|                  |                      |                |                         | WG-042011-KD-010 | 800 U                          | µg/L         |

## Notes:

- (1) Blank results were adjusted for sample factors to determine sample qualification.  
J Estimated.  
U Non-detect at the associated value.

TABLE 4

**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE RINSE BLANKS  
SITE-WIDE GROUNDWATER MONITORING  
MOTORS LIQUIDATION COMPANY  
MLK BOULEVARD FACILITY  
ANDERSON, INDIANA  
APRIL 2011**

| <i>Parameter</i> | <i>Rinse Blank Date</i> | <i>Analyte</i> | <i>Blank Result</i>    | <i>Sample ID</i> | <i>Qualified Sample Result</i> | <i>Units</i> |      |
|------------------|-------------------------|----------------|------------------------|------------------|--------------------------------|--------------|------|
| Volatiles        | 04/19/11                | Acetone        | 1.1 J                  | WG-041911-KD-004 | 40 U                           | µg/L         |      |
|                  | 04/20/11                | Acetone        | 1.1 J                  | WG-042011-KD-008 | 220 U                          | µg/L         |      |
|                  |                         |                |                        | WS-042011-KD-013 | 20 U                           | µg/L         |      |
|                  |                         |                | cis-1,2-Dichloroethene | 1.4              | WG-042011-SM-007               | 6.7 U        | µg/L |
|                  |                         |                |                        |                  | WS-042011-KD-013               | 1.0 U        | µg/L |

## Notes:

- J Estimated.  
U Non-detect at the associated value.

TABLE 5

**QUALIFIED SAMPLE DATA DUE TO ANALYTE CONCENTRATIONS IN THE TRIP BLANK**  
**SITE-WIDE GROUNDWATER MONITORING**  
**MOTORS LIQUIDATION COMPANY**  
**MLK BOULEVARD FACILITY**  
**ANDERSON, INDIANA**  
**APRIL 2011**

| <i>Parameter</i> | <i>Blank Date</i> | <i>Analyte</i> | <i>Blank Result</i> | <i>Associated Sample ID</i> | <i>Qualified Sample Result</i> | <i>Units</i> |
|------------------|-------------------|----------------|---------------------|-----------------------------|--------------------------------|--------------|
| Volatiles        | 04/20/11          | Acetone        | 1.2 J               | WG-041911-KD-004            | 40 U                           | µg/L         |
|                  |                   |                |                     | WS-042011-KD-013            | 20 U                           | µg/L         |

## Notes:

- J Estimated.  
 U Non-detect at the associated value.

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**Attachment B-2**  
**July 2011 Data Validation**



**CONESTOGA-ROVERS  
& ASSOCIATES**

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## MEMORANDUM

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TO: John Bassett [john.bassett@aecom.com]

REF. NO.: 017302-T07

FROM: Deborah Andrasko/bjw/33 *DEK*

DATE: August 24, 2011

C.C.: Shannon Richardson

E-Mail and Hard Copy if Requested

RE: **Data Quality Assessment and Validation  
Surface Water Sampling  
RACER Trust - MLK Boulevard Facility  
Anderson, Indiana  
July 2011**

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### INTRODUCTION

The following details a quality assessment and validation of the analytical data resulting from the collection of surface waters from the MLK Boulevard Facility in Anderson, Indiana, in July 2011. The sample summary detailing sample identification, sample location, and analytical parameter is presented in Table 1.

The samples were analyzed for volatile organic compounds (VOCs) using SW-846 Method 8260B referenced from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986, with all subsequent revisions. Sample analysis was performed at TestAmerica, North Canton, Ohio, in accordance with the method. Summaries of the analytical results are presented in Table 2.

The quality control (QC) criteria used to assess the data were established by the method and the documents entitled "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review", United States Environmental Protection Agency (USEPA) 540/R-99/008, October 1999 and "Quality Assurance Project Plan (QAPP) for the Resource Conservation and Recovery Act (RCRA) Facility Investigation at GM Anderson, Indiana Facility", IND 980 700 801, Revision 2, October 14, 1997.

Full Contract Laboratory Program (CLP)-equivalent raw data deliverables were provided by the laboratory. The data quality assessment and validation presented in the following subsections were performed based on the sample results and supporting quality assurance/quality control (QA/QC) results provided; raw data was not assessed.

### HOLDING TIME PERIOD AND SAMPLE ANALYSIS

The holding time period is presented in the analytical method. The samples were properly preserved and cooled to 4°C ( $\pm 2^\circ\text{C}$ ) after collection. The samples were prepared and analyzed within the method-required holding times.

### METHOD BLANK SAMPLE

Method blanks are prepared and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the procedures.

For this study, method blanks were analyzed in the analytical batch with the samples. The blank results were non-detect with the exception of a low concentration of methylene chloride. All associated samples were non-detect for methylene chloride and did not require qualification.

### SURROGATE COMPOUND PERCENT RECOVERIES

In accordance with the method employed, all samples, blanks, and standards analyzed for VOCs are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of individual sample matrices on analytical efficiency and are assessed against method control limits.

All surrogate recoveries were within the laboratory generated control limits, demonstrating acceptable analytical accuracy.

### LABORATORY CONTROL SAMPLE (LCS) ANALYSIS

The LCS serves as a measure of overall analytical performance. LCSs are prepared with all analytes of interest and analyzed with each sample batch. The LCS are used to assess analytical accuracy.

An LCS was prepared with the samples and analyzed for VOCs. The recoveries were within the control limits for all analytes of interest, indicating good analytical accuracy.

### MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) ANALYSES

MS/MSD samples are prepared with all analytes of interest and analyzed with the sample batch. The recoveries of MS analyses are used to assess the analytical accuracy achieved on individual sample matrices. If the original sample concentration is significantly greater than the spike concentration, the recovery is not assessed. The relative percent difference (RPD) between the MS and MSD are used to assess analytical precision.

MS/MSD analyses were performed at the proper frequency and all recoveries met criteria, indicating good analytical accuracy and precision.

### TRIP BLANKS

Trip blanks are transported, stored, and analyzed with the investigative samples to identify potential cross-contamination of VOCs. The trip blank results were non-detect for the analytes of interest, with the exception of low concentrations of acetone, 2-butanone, methylene chloride and toluene. Most associated

sample results were non-detect for these compounds and were not impacted; samples with similar acetone concentrations were qualified as non-detect (see Table 3).

#### FIELD DUPLICATES

Samples were collected in duplicate as summarized in Table 1 and submitted "blind" to the laboratory for analysis. All sample results outside of estimated ranges of detection showed acceptable sampling and analytical precision.

#### OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision, based on the provided information, and may be used as reported with the qualifications noted.

**TABLE 1**  
**SAMPLE AND ANALYSIS SUMMARY**  
**SURFACE WATER SAMPLING**  
**RACER TRUST - MLK BOULEVARD FACILITY**  
**ANDERSON, INDIANA**  
**JULY 2011**

| <i>Sample I.D.</i> | <i>Location I.D.</i> | <i>Matrix</i> | <i>Collection Date<br/>(mm/dd/yy)</i> | <i>Collection Time<br/>(hr:min)</i> | <u><i>Analysis</i></u> | <i>Comments</i>                     |
|--------------------|----------------------|---------------|---------------------------------------|-------------------------------------|------------------------|-------------------------------------|
| WS-072811-JB-001   | Pond North           | Water         | 7/28/2011                             | 7:10:00 PM                          | Volatiles              | Field duplicate of WS-072811-JB-003 |
| WS-072811-JB-002   | Pond Intake          | Water         | 7/28/2011                             | 7:30:00 PM                          | Volatiles              |                                     |
| WS-072811-JB-003   | Pond North           | Water         | 7/28/2011                             | 7:10:00 PM                          | Volatiles              | MS/MSD                              |
| WQ-072811-TA-001   | -                    | Water         | 7/28/2011                             | -                                   | Volatiles              | Trip Blank                          |

## Notes:

- Not applicable.  
MS Matrix spike.  
MSD Matrix spike duplicate.

TABLE 2

**ANALYTICAL RESULTS SUMMARY  
SURFACE WATER SAMPLING  
RACER TRUST, MLK BOULEVARD FACILITY  
ANDERSON, INDIANA  
JULY 2011**

|  | <i>Sample Location:</i> | <i>Pond Intake</i> | <i>Pond North</i> | <i>Pond North</i>        |
|--|-------------------------|--------------------|-------------------|--------------------------|
|  | <i>Sample ID:</i>       | WS-072811-JB-002   | WS-072811-JB-003  | WS-072811-JB-001         |
|  | <i>Sample Date:</i>     | 7/28/2011          | 7/28/2011         | 7/28/2011<br>(Duplicate) |
| <i>Parameters</i>                                    |                         | <i>Units</i>       |                   |                          |
| <i>Volatile Organic Compounds</i>                    |                         |                    |                   |                          |
| 1,1,1-Trichloroethane                                |                         | µg/L               | 1.0 U             | 1.0 U                    |
| 1,1,2,2-Tetrachloroethane                            |                         | µg/L               | 1.0 U             | 1.0 U                    |
| 1,1,2-Trichloroethane                                |                         | µg/L               | 1.0 U             | 1.0 U                    |
| 1,1-Dichloroethane                                   |                         | µg/L               | 1.0 U             | 1.0 U                    |
| 1,1-Dichloroethene                                   |                         | µg/L               | 1.0 U             | 1.0 U                    |
| 1,2-Dichloroethane                                   |                         | µg/L               | 1.0 U             | 1.0 U                    |
| 1,2-Dichloropropane                                  |                         | µg/L               | 1.0 U             | 1.0 U                    |
| 2-Butanone (Methyl ethyl ketone) (MEK)               |                         | µg/L               | 10 U              | 10 U                     |
| 2-Hexanone   |                         | µg/L               | 10 U              | 10 U                     |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) |                         | µg/L               | 10 U              | 10 U                     |
| Acetone  |                         | µg/L               | 10 U              | 10 U                     |
| Benzene  |                         | µg/L               | 1.0 U             | 1.0 U                    |
| Bromodichloromethane                                 |                         | µg/L               | 1.0 U             | 1.0 U                    |
| Bromoform  |                         | µg/L               | 1.0 U             | 1.0 U                    |
| Bromomethane (Methyl bromide)                        |                         | µg/L               | 1.0 U             | 1.0 U                    |
| Carbon disulfide                                     |                         | µg/L               | 1.0 U             | 1.0 U                    |
| Carbon tetrachloride                                 |                         | µg/L               | 1.0 U             | 1.0 U                    |
| Chlorobenzene  |                         | µg/L               | 1.0 U             | 1.0 U                    |
| Chloroethane   |                         | µg/L               | 1.0 U             | 1.0 U                    |
| Chloroform (Trichloromethane)                        |                         | µg/L               | 1.0 U             | 1.0 U                    |
| Chloromethane (Methyl chloride)                      |                         | µg/L               | 1.0 U             | 1.0 U                    |
| cis-1,2-Dichloroethene                               |                         | µg/L               | 1.0 U             | 1.0 U                    |
| cis-1,3-Dichloropropene                              |                         | µg/L               | 1.0 U             | 1.0 U                    |
| Dibromochloromethane                                 |                         | µg/L               | 1.0 U             | 1.0 U                    |
| Ethylbenzene   |                         | µg/L               | 1.0 U             | 1.0 U                    |
| Methylene chloride                                   |                         | µg/L               | 1.0 U             | 1.0 U                    |
| Styrene  |                         | µg/L               | 1.0 U             | 1.0 U                    |
| Tetrachloroethene                                    |                         | µg/L               | 1.0 U             | 1.0 U                    |
| Toluene  |                         | µg/L               | 1.0 U             | 1.0 U                    |
| trans-1,2-Dichloroethene                             |                         | µg/L               | 1.0 U             | 1.0 U                    |
| trans-1,3-Dichloropropene                            |                         | µg/L               | 1.0 U             | 1.0 U                    |
| Trichloroethene                                      |                         | µg/L               | 1.0 U             | 1.0 U                    |
| Vinyl chloride                                       |                         | µg/L               | 4.2               | 8.8                      |
| Xylenes (total)                                      |                         | µg/L               | 2.0 U             | 2.0 U                    |

## Notes:

U - Not present at or above the associated value.

TABLE 3

**QUALIFIED SAMPLE DATA DUE TO ANALYTE CONCENTRATIONS IN THE TRIP BLANK**  
**SURFACE WATER SAMPLING**  
**RACER TRUST - MLK BOULEVARD FACILITY**  
**ANDERSON, INDIANA**  
**JULY 2011**

| <i>Parameter</i> | <i>Blank Date</i> | <i>Analyte</i> | <i>Blank Result</i> | <i>Associated Sample ID</i> | <i>Qualified Sample Result</i> | <i>Units</i> |
|------------------|-------------------|----------------|---------------------|-----------------------------|--------------------------------|--------------|
| Volatiles        | 07/28/11          | Acetone        | 20                  | WS-072811-JB-001            | 10 U                           | µg/L         |
|                  |                   |                |                     | WS-072811-JB-003            | 10 U                           | µg/L         |

## Notes:

U Non-detect at the associated value.

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**Attachment B-3**  
**October 2011 Data Validation**



**CONESTOGA-ROVERS  
& ASSOCIATES**

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## MEMORANDUM

TO: John Bassett REF. NO.: 017302-T07

FROM: Deborah Andrasko/adh/34 *DAH* DATE: November 15, 2011

C.C.: Shannon Richardson E-Mail and Hard Copy if Requested

RE: **Data Quality Assessment and Validation  
Site-Wide Groundwater Monitoring  
RACER Trust - MLK Boulevard Facility  
Anderson, Indiana  
October 2011**

### INTRODUCTION

The following details a quality assessment and validation of the analytical data resulting from the collection of groundwaters and quality control (QC) samples from the MLK Boulevard Facility in Anderson, Indiana, in October 2011. The sample summary detailing sample identification, sample location, QC samples, and analytical parameter is presented in Table 1.

The samples were analyzed for volatile organic compounds (VOCs) using SW-846 Method 8260B referenced from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," Third Edition, November 1986, with all subsequent revisions. Sample analysis was performed at TestAmerica, North Canton, Ohio, in accordance with the method. Summaries of the analytical results are presented in Table 2.

The QC criteria used to assess the data were established by the method and the documents entitled "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," United States Environmental Protection Agency (USEPA) 540/R-99/008, October 1999 and "Quality Assurance Project Plan (QAPP) for the Resource Conservation and Recovery Act (RCRA) Facility Investigation at GM Anderson, Indiana Facility," IND 980 700 801, Revision 2, October 14, 1997.

Full Contract Laboratory Program (CLP)-equivalent raw data deliverables were provided by the laboratory. Data assessment was based on information obtained from final data sheets, blank data, surrogate recoveries, spike recoveries, and duplicate results; raw data was not reviewed or assessed.

### METHOD BLANK SAMPLE

Method blanks are prepared and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the procedures.

For this study, method blanks were analyzed in the analytical batch with the samples. The blank results were non-detect with the exception of low concentrations of methylene chloride. All associated samples were non-detect and were not impacted.

### SURROGATE COMPOUND PERCENT RECOVERIES

In accordance with the method employed, all samples, blanks, and standards analyzed for VOCs are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of individual sample matrices on analytical efficiency and are assessed against method control limits.

All surrogate recoveries were within the laboratory generated control limits, indicating acceptable analytical efficiency.

### LABORATORY CONTROL SAMPLE (LCS) ANALYSIS

The LCS serves as a measure of overall analytical performance. LCSs are prepared with all analytes of interest and analyzed with each sample batch.

LCS were prepared and analyzed for VOCs. The LCS recoveries were within the control limits for all analytes of interest, indicating good analytical accuracy.

### MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) ANALYSES

MS/MSD samples are prepared with all analytes of interest and analyzed with the sample batch. The recoveries of MS analyses are used to assess the analytical accuracy achieved on individual sample matrices. If the original sample concentration is significantly greater than the spike concentration, the recovery is not assessed. The relative percent difference (RPD) between the MS and MSD are used to assess analytical precision.

MS/MSD analyses were performed on the samples as indicated in Table 1 and all recoveries were acceptable, indicating good analytical accuracy and precision.

### FIELD QA/QC

The field QA/QC consisted of three equipment rinse blank samples, two trip blank samples, and two field duplicate samples.

Equipment Rinse Blanks

Equipment rinse blanks were collected as shown in Table 1 and analyzed with the investigative samples to identify potential cross-contamination during sample collection. All results were non-detect for the analytes of interest, with the exception of low concentrations of chloroform and toluene. All associated samples were non-detect or significantly higher in concentration and would not be impacted.

Trip Blanks

Trip blanks are transported, stored, and analyzed with the investigative samples to identify potential cross-contamination of VOCs. The trip blank results were non-detect for the analytes of interest, with the exception of low concentrations of 2-butanone, methylene chloride, and toluene. All associated samples were non-detect or significantly higher in concentration and would not be impacted.

Field Duplicates

Samples were collected in duplicate as summarized in Table 1 and submitted "blind" to the laboratory for analysis. All sample results outside of estimated ranges of detection showed acceptable sampling and analytical precision.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision, based on the provided information, and may be used as reported without qualification.

TABLE 1

**SAMPLE AND ANALYSIS SUMMARY  
SITE-WIDE GROUNDWATER MONITORING  
RACER TRUST  
MLK BOULEVARD FACILITY  
ANDERSON, INDIANA  
OCTOBER 2011**

| Sample I.D.      | Location I.D. | Collection<br>Date<br>(mm/dd/yy) | Collection<br>Time<br>(hr:min) | Analysis  |  | Comment                             |
|------------------|---------------|----------------------------------|--------------------------------|-----------|--|-------------------------------------|
|                  |               |                                  |                                | Volatiles |  |                                     |
| WG-100311-SM-001 | MW 66         | 10/3/2011                        | 12:55:00 PM                    | X         |  |                                     |
| WG-100411-SM-006 | MW 83         | 10/4/2011                        | 11:50:00 AM                    | X         |  |                                     |
| WG-100411-SM-007 | MW 40         | 10/4/2011                        | 1:35:00 PM                     | X         |  |                                     |
| WG-100411-RM-005 | MW 41         | 10/4/2011                        | 10:10:00 AM                    | X         |  |                                     |
| WG-100411-RM-006 | MW 42         | 10/4/2011                        | 11:10:00 AM                    | X         |  |                                     |
| WG-100411-RM-007 | MW 86         | 10/4/2011                        | 12:40:00 PM                    | X         |  |                                     |
| WG-100411-RM-008 | MW 68         | 10/4/2011                        | 2:15:00 PM                     | X         |  |                                     |
| WG-100411-RM-009 | MW 68         | 10/4/2011                        | 2:45:00 PM                     | X         |  | Field duplicate of WG-100411-RM-008 |
| WG-100411-SM-008 | MW 79         | 10/4/2011                        | 3:35:00 PM                     | X         |  |                                     |
| WG-100411-SM-009 | MW 31R        | 10/4/2011                        | 5:15:00 PM                     | X         |  |                                     |
| WG-100411-RM-010 | MW 82         | 10/4/2011                        | 5:25:00 PM                     | X         |  |                                     |
| WG-100311-SM-002 | MW 64         | 10/3/2011                        | 2:40:00 PM                     | X         |  |                                     |
| WQ-100411-TA-001 | -             | 10/4/2011                        | 9:00:00 AM                     | X         |  | Trip Blank                          |
| WG-100311-RM-001 | MW 81         | 10/3/2011                        | 12:45:00 PM                    | X         |  |                                     |
| WG-100311-RM-002 | MW 65         | 10/3/2011                        | 1:50:00 PM                     | X         |  | MS/MSD                              |
| WG-100311-SM-003 | MW 80         | 10/3/2011                        | 3:45:00 PM                     | X         |  |                                     |
| WG-100311-SM-004 | MW 61         | 10/3/2011                        | 5:15:00 PM                     | X         |  |                                     |
| WG-100311-RM-003 | MW 88         | 10/3/2011                        | 3:40:00 PM                     | X         |  |                                     |
| WG-100311-RM-004 | MW 28         | 10/3/2011                        | 6:20:00 PM                     | X         |  |                                     |
| WQ-100411-SM-005 | -             | 10/4/2011                        | 11:20:00 AM                    | X         |  | Equipment Blank                     |
| WQ-100511-SM-010 | -             | 10/5/2011                        | 10:00:00 AM                    | X         |  | Equipment Blank                     |
| WG-100511-RM-013 | MW 46         | 10/5/2011                        | 2:20:00 PM                     | X         |  |                                     |
| WG-100511-RM-014 | MW 12         | 10/5/2011                        | 3:30:00 PM                     | X         |  |                                     |
| WG-100511-RM-015 | MW 37         | 10/5/2011                        | 5:05:00 PM                     | X         |  |                                     |
| WG-100611-RM-016 | MW 56         | 10/6/2011                        | 11:35:00 AM                    | X         |  |                                     |
| WG-100611-RM-017 | MW 57         | 10/6/2011                        | 1:35:00 PM                     | X         |  |                                     |
| WG-100611-RM-018 | MW 85         | 10/6/2011                        | 3:20:00 PM                     | X         |  |                                     |
| WG-100611-SM-016 | MW-4          | 10/6/2011                        | 1:10:00 PM                     | X         |  |                                     |
| WG-100611-SM-017 | MW 58         | 10/6/2011                        | 2:55:00 PM                     | X         |  |                                     |
| WG-100611-SM-018 | MW-2          | 10/6/2011                        | 4:10:00 PM                     | X         |  |                                     |
| WS-100611-SM-019 | Pond North    | 10/6/2011                        | 4:40:00 PM                     | X         |  |                                     |
| WG-100511-SM-011 | MW 8          | 10/5/2011                        | 12:10:00 PM                    | X         |  | MS/MSD                              |
| WS-100611-SM-020 | Pond Intake   | 10/6/2011                        | 4:50:00 PM                     | X         |  |                                     |
| WS-100611-SM-021 | Pond Intake   | 10/6/2011                        | 5:00:00 PM                     | X         |  | Field duplicate of WS-100611-SM-020 |
| WQ-100611-TA-002 | -             | 10/6/2011                        | 9:00:00 AM                     | X         |  | Trip Blank                          |
| WQ-100611-SM-022 | -             | 10/6/2011                        | 5:15:00 PM                     | X         |  | Equipment Blank                     |
| WG-100511-RM-011 | MW 3          | 10/5/2011                        | 11:30:00 AM                    | X         |  |                                     |
| WG-100511-RM-012 | MW 49         | 10/5/2011                        | 1:00:00 PM                     | X         |  |                                     |
| WG-100511-SM-012 | MW 14         | 10/5/2011                        | 1:35:00 PM                     | X         |  |                                     |
| WG-100511-SM-013 | MW 51         | 10/5/2011                        | 3:05:00 PM                     | X         |  |                                     |
| WG-100511-SM-014 | MW 75         | 10/5/2011                        | 5:30:00 PM                     | X         |  |                                     |
| WG-100511-SM-015 | MW 76         | 10/5/2011                        | 6:45:00 PM                     | X         |  |                                     |
| WG-100511-SM-016 | MW 76         | 10/5/2011                        | 7:00:00 PM                     | X         |  | Field duplicate of WG-100511-SM-015 |

## Notes:

- Not applicable.

TABLE 2

ANALYTICAL RESULTS SUMMARY  
SITE-WIDE GROUNDWATER MONITORING  
RACER TRUST  
MLK BOULEVARD FACILITY  
ANDERSON, INDIANA  
OCTOBER 2011

| Sample Location:                                     | MW 3             | MW 8             | MW 12            | MW 14            | MW 28            | MW 37            | MW 40            | MW 41            |        |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------|
| Sample ID:   | WG-100511-RM-011 | WG-100511-SM-011 | WG-100511-RM-014 | WG-100511-SM-012 | WG-100311-RM-004 | WG-100511-RM-015 | WG-100411-SM-007 | WG-100411-RM-005 |        |
| Sample Date:   | 10/5/2011        | 10/5/2011        | 10/5/2011        | 10/5/2011        | 10/3/2011        | 10/5/2011        | 10/4/2011        | 10/4/2011        |        |
|  | WG               | WG               | WG               | WG               | WG               | WG               | WG               | WG               |        |
| <b>Parameters:</b>                                   | <b>Units</b>     |                  |                  |                  |                  |                  |                  |                  |        |
| <b>Volatile Organic Compounds</b>                    |                  |                  |                  |                  |                  |                  |                  |                  |        |
| 1,1,1-Trichloroethane                                | µg/L             | 610              | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| 1,1,2,2-Tetrachloroethane                            | µg/L             | 330 U            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| 1,1,2-Trichloroethane                                | µg/L             | 330 U            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| 1,1-Dichloroethane                                   | µg/L             | 270 J            | 62 J             | 11 U             | 51 J             | 3.3 U            | 1.0 U            | 290              | 200 U  |
| 1,1-Dichloroethene                                   | µg/L             | 130 J            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| 1,2-Dichloroethane                                   | µg/L             | 330 U            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| 1,2-Dichloropropane                                  | µg/L             | 330 U            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | µg/L             | 3300 U           | 2500 U           | 110 U            | 2000 U           | 33 U             | 10 U             | 2500 U           | 2000 U |
| 2-Hexanone   | µg/L             | 3300 U           | 2500 U           | 110 U            | 2000 U           | 33 U             | 10 U             | 2500 U           | 2000 U |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | µg/L             | 3300 U           | 2500 U           | 110 U            | 2000 U           | 33 U             | 10 U             | 2500 U           | 2000 U |
| Acetone  | µg/L             | 3300 U           | 2500 U           | 110 U            | 2000 U           | 33 U             | 10 U             | 2500 U           | 2000 U |
| Benzene  | µg/L             | 330 U            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| Bromodichloromethane                                 | µg/L             | 330 U            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| Bromoform  | µg/L             | 330 U            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| Bromomethane (Methyl bromide)                        | µg/L             | 330 U            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| Carbon disulfide                                     | µg/L             | 330 U            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| Carbon tetrachloride                                 | µg/L             | 330 U            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| Chlorobenzene  | µg/L             | 330 U            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| Chloroethane   | µg/L             | 330 U            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| Chloroform (Trichloromethane)                        | µg/L             | 330 U            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| Chloromethane (Methyl chloride)                      | µg/L             | 330 U            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| cis-1,2-Dichloroethene                               | µg/L             | 5700             | 7100             | 240              | 4700             | 3.3 U            | 1.0 U            | 7600             | 6300   |
| cis-1,3-Dichloropropene                              | µg/L             | 330 U            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| Dibromochloromethane                                 | µg/L             | 330 U            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| Ethylbenzene   | µg/L             | 330 U            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| Methylene chloride                                   | µg/L             | 330 U            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| Styrene  | µg/L             | 330 U            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| Tetrachloroethene                                    | µg/L             | 330 U            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| Toluene  | µg/L             | 330 U            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| trans-1,2-Dichloroethene                             | µg/L             | 330 U            | 250 U            | 3.3 J            | 200 U            | 3.3 U            | 1.0 U            | 130 J            | 140 J  |
| trans-1,3-Dichloropropene                            | µg/L             | 330 U            | 250 U            | 11 U             | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| Trichloroethene                                      | µg/L             | 10000            | 340              | 7.3 J            | 200 U            | 3.3 U            | 1.0 U            | 250 U            | 200 U  |
| Vinyl chloride                                       | µg/L             | 120 J            | 1700             | 11 U             | 190 J            | 78               | 1.0 U            | 990              | 510    |
| Xylenes (total)                                      | µg/L             | 670 U            | 500 U            | 22 U             | 400 U            | 6.7 U            | 2.0 U            | 500 U            | 400 U  |

## Notes:

J - Estimated concentration.

U - Not present at or above the associated value.

TABLE 2

ANALYTICAL RESULTS SUMMARY  
SITE-WIDE GROUNDWATER MONITORING  
RACER TRUST  
MLK BOULEVARD FACILITY  
ANDERSON, INDIANA  
OCTOBER 2011

| Sample Location:                                     | MW 42            | MW 46            | MW 49            | MW 51            | MW 56            | MW 57            | MW 58            | MW 61            |        |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------|
| Sample ID:   | WG-100411-RM-006 | WG-100511-RM-013 | WG-100511-RM-012 | WG-100511-SM-013 | WG-100611-RM-016 | WG-100611-RM-017 | WG-100611-SM-017 | WG-100311-SM-004 |        |
| Sample Date:   | 10/4/2011        | 10/5/2011        | 10/5/2011        | 10/5/2011        | 10/6/2011        | 10/6/2011        | 10/6/2011        | 10/3/2011        |        |
|  | WG               | WG               | WG               | WG               | WG               | WG               | WG               | WG               |        |
| <b>Parameters:</b>                                   | <b>Units</b>     |                  |                  |                  |                  |                  |                  |                  |        |
| <b>Volatile Organic Compounds</b>                    |                  |                  |                  |                  |                  |                  |                  |                  |        |
| 1,1,1-Trichloroethane                                | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| 1,1,2,2-Tetrachloroethane                            | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| 1,1,2-Trichloroethane                                | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| 1,1-Dichloroethane                                   | µg/L             | 91 J             | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| 1,1-Dichloroethene                                   | µg/L             | 41 J             | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| 1,2-Dichloroethane                                   | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| 1,2-Dichloropropane                                  | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | µg/L             | 2000 U           | 10 U             | 250 U            | 91 U             | 10 U             | 10 U             | 80 U             | 10 U   |
| 2-Hexanone   | µg/L             | 2000 U           | 10 U             | 250 U            | 91 U             | 10 U             | 10 U             | 80 U             | 10 U   |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | µg/L             | 2000 U           | 10 U             | 250 U            | 91 U             | 10 U             | 10 U             | 80 U             | 10 U   |
| Acetone  | µg/L             | 2000 U           | 10 U             | 250 U            | 91 U             | 10 U             | 10 U             | 80 U             | 10 U   |
| Benzene  | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| Bromodichloromethane                                 | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| Bromoform  | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| Bromomethane (Methyl bromide)                        | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| Carbon disulfide                                     | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| Carbon tetrachloride                                 | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| Chlorobenzene  | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| Chloroethane   | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| Chloroform (Trichloromethane)                        | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| Chloromethane (Methyl chloride)                      | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| cis-1,2-Dichloroethene                               | µg/L             | 5000             | 1.0 U            | 530              | 7.8 J            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| cis-1,3-Dichloropropene                              | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| Dibromochloromethane                                 | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| Ethylbenzene   | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| Methylene chloride                                   | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| Styrene  | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| Tetrachloroethene                                    | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| Toluene  | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| trans-1,2-Dichloroethene                             | µg/L             | 250              | 1.0 U            | 11 J             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| trans-1,3-Dichloropropene                            | µg/L             | 200 U            | 1.0 U            | 25 U             | 9.1 U            | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| Trichloroethene                                      | µg/L             | 200 U            | 1.0 U            | 25 U             | 210              | 1.0 U            | 1.0 U            | 8.0 U            | 1.0 U  |
| Vinyl chloride                                       | µg/L             | 130 J            | 1.0 U            | 25               | 9.1 U            | 1.0 U            | 1.0 U            | 120              | 0.29 J |
| Xylenes (total)                                      | µg/L             | 400 U            | 2.0 U            | 50 U             | 18 U             | 2.0 U            | 2.0 U            | 16 U             | 2.0 U  |

## Notes:

J - Estimated concentration.

U - Not present at or above the associated value.

TABLE 2

ANALYTICAL RESULTS SUMMARY  
SITE-WIDE GROUNDWATER MONITORING  
RACER TRUST  
MLK BOULEVARD FACILITY  
ANDERSON, INDIANA  
OCTOBER 2011

| Sample Location:                                     | MW 64            | MW 65            | MW 66            | MW 68            | MW 68            | MW 75            | MW 76            | MW 76            |       |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------|
| Sample ID:   | WG-100311-SM-002 | WG-100311-RM-002 | WG-100311-SM-001 | WG-100411-RM-008 | WG-100411-RM-009 | WG-100511-SM-014 | WG-100511-SM-015 | WG-100511-SM-016 |       |
| Sample Date:   | 10/3/2011        | 10/3/2011        | 10/3/2011        | 10/4/2011        | 10/4/2011        | 10/5/2011        | 10/5/2011        | 10/5/2011        |       |
|  | WG               | WG               | WG               | WG               | WG               | WG               | WG               | WG               |       |
| Parameters:  | Units            |                  |                  |                  | (Duplicate)      |                  |                  | (Duplicate)      |       |
| <b>Volatile Organic Compounds</b>                    |                  |                  |                  |                  |                  |                  |                  |                  |       |
| 1,1,1-Trichloroethane                                | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| 1,1,2,2-Tetrachloroethane                            | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| 1,1,2-Trichloroethane                                | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| 1,1-Dichloroethane                                   | µg/L             | 0.74 J           | 31 J             | 16 J             | 220 J            | 230 J            | 1.0 U            | 1.0 U            | 1.0 U |
| 1,1-Dichloroethene                                   | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| 1,2-Dichloroethane                                   | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| 1,2-Dichloropropane                                  | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | µg/L             | 10 U             | 400 U            | 170 U            | 2500 U           | 2500 U           | 10 U             | 10 U             | 10 U  |
| 2-Hexanone   | µg/L             | 10 U             | 400 U            | 170 U            | 2500 U           | 2500 U           | 10 U             | 10 U             | 10 U  |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | µg/L             | 10 U             | 400 U            | 170 U            | 2500 U           | 2500 U           | 10 U             | 10 U             | 10 U  |
| Acetone  | µg/L             | 10 U             | 400 U            | 170 U            | 2500 U           | 2500 U           | 10 U             | 10 U             | 10 U  |
| Benzene  | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| Bromodichloromethane                                 | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| Bromoform  | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| Bromomethane (Methyl bromide)                        | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| Carbon disulfide                                     | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| Carbon tetrachloride                                 | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| Chlorobenzene  | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| Chloroethane   | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| Chloroform (Trichloromethane)                        | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| Chloromethane (Methyl chloride)                      | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| cis-1,2-Dichloroethene                               | µg/L             | 1.0 U            | 970              | 330              | 6600             | 6700             | 1.0 U            | 1.0 U            | 1.0 U |
| cis-1,3-Dichloropropene                              | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| Dibromochloromethane                                 | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| Ethylbenzene   | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| Methylene chloride                                   | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| Styrene  | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| Tetrachloroethene                                    | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| Toluene  | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| trans-1,2-Dichloroethene                             | µg/L             | 1.0 U            | 48               | 26               | 140 J            | 140 J            | 1.0 U            | 1.0 U            | 1.0 U |
| trans-1,3-Dichloropropene                            | µg/L             | 1.0 U            | 40 U             | 17 U             | 250 U            | 250 U            | 1.0 U            | 1.0 U            | 1.0 U |
| Trichloroethene                                      | µg/L             | 1.0 U            | 40 U             | 17 U             | 1900             | 1900             | 1.0 U            | 1.0 U            | 1.0 U |
| Vinyl chloride                                       | µg/L             | 32               | 40 U             | 140              | 160 J            | 160 J            | 1.0 U            | 1.0 U            | 1.0 U |
| Xylenes (total)                                      | µg/L             | 2.0 U            | 80 U             | 33 U             | 500 U            | 500 U            | 2.0 U            | 2.0 U            | 2.0 U |

## Notes:

J - Estimated concentration.

U - Not present at or above the associated value.

TABLE 2

ANALYTICAL RESULTS SUMMARY  
SITE-WIDE GROUNDWATER MONITORING  
RACER TRUST  
MLK BOULEVARD FACILITY  
ANDERSON, INDIANA  
OCTOBER 2011

| Sample Location:                                     | MW 80            | MW 81            | MW 82            | MW 83            | MW 85            | MW 86            | MW 88            | MW 31R           |        |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------|
| Sample ID:   | WG-100311-SM-003 | WG-100311-RM-001 | WG-100411-RM-010 | WG-100411-SM-006 | WG-100611-RM-018 | WG-100411-RM-007 | WG-100311-RM-003 | WG-100411-SM-009 |        |
| Sample Date:   | 10/3/2011        | 10/3/2011        | 10/4/2011        | 10/4/2011        | 10/6/2011        | 10/4/2011        | 10/3/2011        | 10/4/2011        |        |
|  | WG               | WG               | WG               | WG               | WG               | WG               | WG               | WG               |        |
| <b>Parameters:</b>                                   | <b>Units</b>     |                  |                  |                  |                  |                  |                  |                  |        |
| <b>Volatile Organic Compounds</b>                    |                  |                  |                  |                  |                  |                  |                  |                  |        |
| 1,1,1-Trichloroethane                                | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 88 J   |
| 1,1,2,2-Tetrachloroethane                            | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 200 U  |
| 1,1,2-Trichloroethane                                | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 200 U  |
| 1,1-Dichloroethane                                   | µg/L             | 1.0 U            | 0.54 J           | 1.0 U            | 1.0 U            | 23 J             | 1.0 U            | 1.0 U            | 330    |
| 1,1-Dichloroethene                                   | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 200 U  |
| 1,2-Dichloroethane                                   | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 200 U  |
| 1,2-Dichloropropane                                  | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 200 U  |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | µg/L             | 10 U             | 20 U             | 10 U             | 10 U             | 290 U            | 10 U             | 10 U             | 2000 U |
| 2-Hexanone   | µg/L             | 10 U             | 20 U             | 10 U             | 10 U             | 290 U            | 10 U             | 10 U             | 2000 U |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | µg/L             | 10 U             | 20 U             | 10 U             | 10 U             | 290 U            | 10 U             | 10 U             | 2000 U |
| Acetone  | µg/L             | 10 U             | 20 U             | 10 U             | 10 U             | 290 U            | 10 U             | 10 U             | 2000 U |
| Benzene  | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 200 U  |
| Bromodichloromethane                                 | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 200 U  |
| Bromoform  | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 200 U  |
| Bromomethane (Methyl bromide)                        | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 200 U  |
| Carbon disulfide                                     | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 200 U  |
| Carbon tetrachloride                                 | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 200 U  |
| Chlorobenzene  | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 200 U  |
| Chloroethane   | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 90 J   |
| Chloroform (Trichloromethane)                        | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 200 U  |
| Chloromethane (Methyl chloride)                      | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 200 U  |
| cis-1,2-Dichloroethene                               | µg/L             | 1.0 U            | 19               | 1.0 U            | 1.0 U            | 590              | 1.0 U            | 1.0 U            | 5100   |
| cis-1,3-Dichloropropene                              | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 200 U  |
| Dibromochloromethane                                 | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 200 U  |
| Ethylbenzene   | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 510    |
| Methylene chloride                                   | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 200 U  |
| Styrene  | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 200 U  |
| Tetrachloroethene                                    | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 200 U  |
| Toluene  | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 1900   |
| trans-1,2-Dichloroethene                             | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 200 U  |
| trans-1,3-Dichloropropene                            | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 200 U  |
| Trichloroethene                                      | µg/L             | 1.0 U            | 2.0 U            | 1.0 U            | 1.0 U            | 29 U             | 1.0 U            | 1.0 U            | 320    |
| Vinyl chloride                                       | µg/L             | 15               | 50               | 1.0 U            | 0.30 J           | 510              | 1.0 U            | 1.0 U            | 1200   |
| Xylenes (total)                                      | µg/L             | 2.0 U            | 4.0 U            | 2.0 U            | 2.0 U            | 57 U             | 2.0 U            | 2.0 U            | 1100   |

## Notes:

J - Estimated concentration.

U - Not present at or above the associated value.

**TABLE 2**  
**ANALYTICAL RESULTS SUMMARY**  
**SITE-WIDE GROUNDWATER MONITORING**  
**RACER TRUST**  
**MLK BOULEVARD FACILITY**  
**ANDERSON, INDIANA**  
**OCTOBER 2011**

| <i>Sample Location:</i>                              |              | <i>MW 79</i>            | <i>MW-2</i>             | <i>MW-4</i>             | <i>Pond Intake</i>      | <i>Pond Intake</i>      | <i>Pond North</i>       |
|--|--------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <i>Sample ID:</i>                                    |              | <i>WG-100411-SM-008</i> | <i>WG-100611-SM-018</i> | <i>WG-100611-SM-016</i> | <i>WS-100611-SM-020</i> | <i>WS-100611-SM-021</i> | <i>WS-100611-SM-019</i> |
| <i>Sample Date:</i>                                  |              | <i>10/4/2011</i>        | <i>10/6/2011</i>        | <i>10/6/2011</i>        | <i>10/6/2011</i>        | <i>10/6/2011</i>        | <i>10/6/2011</i>        |
|  |              | <i>WG</i>               | <i>WG</i>               | <i>WG</i>               | <i>WS</i>               | <i>WS</i>               | <i>WS</i>               |
|  |              |                         |                         |                         |                         | <i>(Duplicate)</i>      |                         |
| <i>Parameters:</i>                                   | <i>Units</i> |                         |                         |                         |                         |                         |                         |
| <i>Volatile Organic Compounds</i>                    |              |                         |                         |                         |                         |                         |                         |
| 1,1,1-Trichloroethane                                | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1,2,2-Tetrachloroethane                            | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1,2-Trichloroethane                                | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1-Dichloroethane                                   | µg/L         | 67 U                    | 1.0 U                   | 470                     | 0.20 J                  | 0.20 J                  | 0.43 J                  |
| 1,1-Dichloroethene                                   | µg/L         | 67 U                    | 1.0 U                   | 89 J                    | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichloroethane                                   | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichloropropane                                  | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | µg/L         | 670 U                   | 10 U                    | 4200 U                  | 10 U                    | 10 U                    | 10 U                    |
| 2-Hexanone   | µg/L         | 670 U                   | 10 U                    | 4200 U                  | 10 U                    | 10 U                    | 10 U                    |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | µg/L         | 670 U                   | 10 U                    | 4200 U                  | 10 U                    | 10 U                    | 10 U                    |
| Acetone  | µg/L         | 670 U                   | 10 U                    | 4200 U                  | 10 U                    | 10 U                    | 10 U                    |
| Benzene  | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromodichloromethane                                 | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromoform  | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromomethane (Methyl bromide)                        | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Carbon disulfide                                     | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Carbon tetrachloride                                 | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Chlorobenzene  | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Chloroethane   | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Chloroform (Trichloromethane)                        | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Chloromethane (Methyl chloride)                      | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| cis-1,2-Dichloroethene                               | µg/L         | 1500                    | 1.0 U                   | 11000                   | 4.0                     | 4.0                     | 8.9                     |
| cis-1,3-Dichloropropene                              | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Dibromochloromethane                                 | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Ethylbenzene   | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Methylene chloride                                   | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Styrene  | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Tetrachloroethene                                    | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Toluene  | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| trans-1,2-Dichloroethene                             | µg/L         | 69                      | 1.0 U                   | 320 J                   | 1.0 U                   | 1.0 U                   | 0.24 J                  |
| trans-1,3-Dichloropropene                            | µg/L         | 67 U                    | 1.0 U                   | 420 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Trichloroethene                                      | µg/L         | 67 U                    | 1.0 U                   | 92 J                    | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Vinyl chloride                                       | µg/L         | 140                     | 1.0 U                   | 720                     | 2.2                     | 2.1                     | 12                      |
| Xylenes (total)                                      | µg/L         | 130 U                   | 2.0 U                   | 830 U                   | 2.0 U                   | 2.0 U                   | 2.0 U                   |

## Notes:

J - Estimated concentration.

U - Not present at or above the associated value.

---

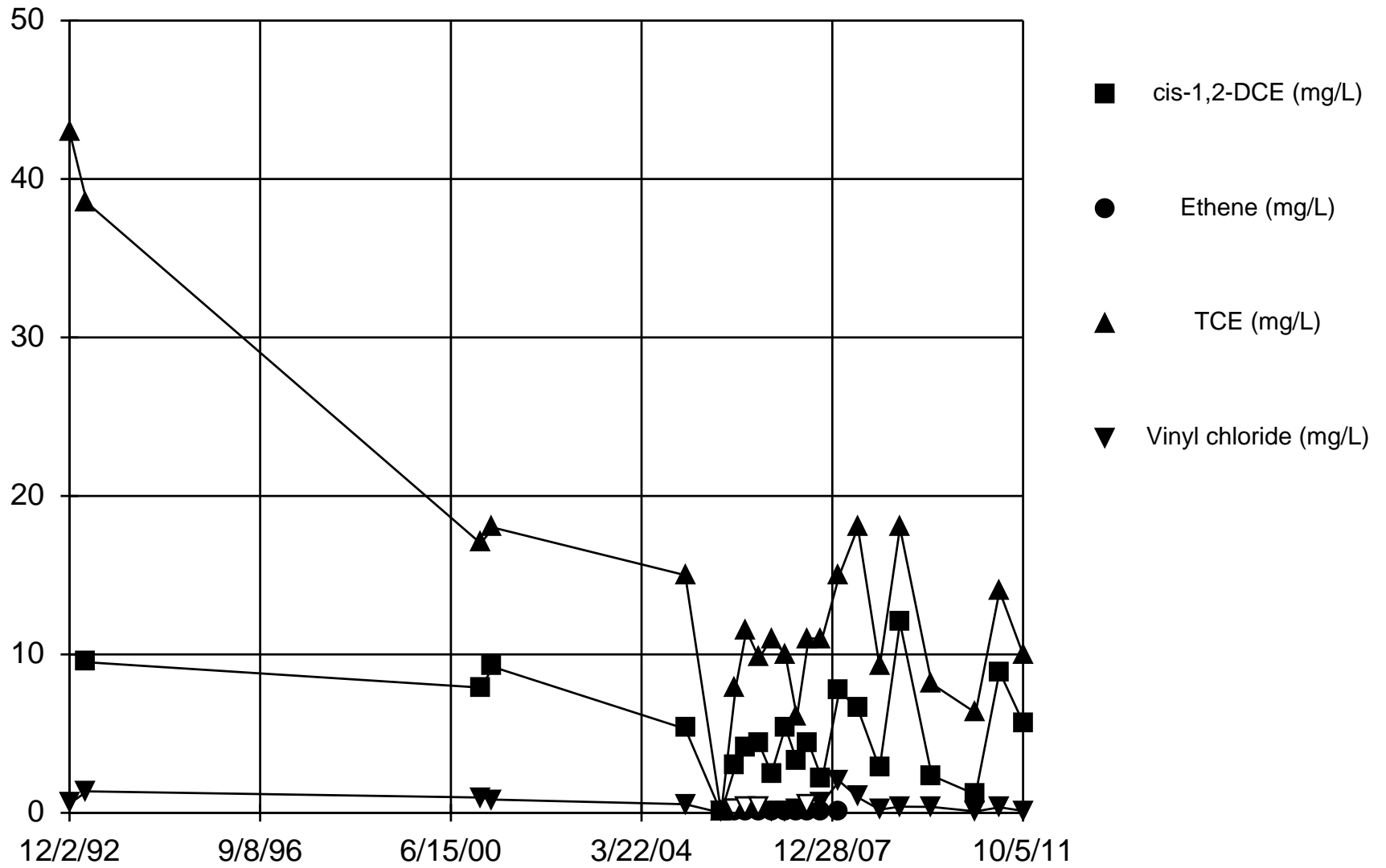
**Attachment C**  
**Statistical Analysis**

---

**Attachment C-1  
Time Series Plots**

# Time Series

MW3

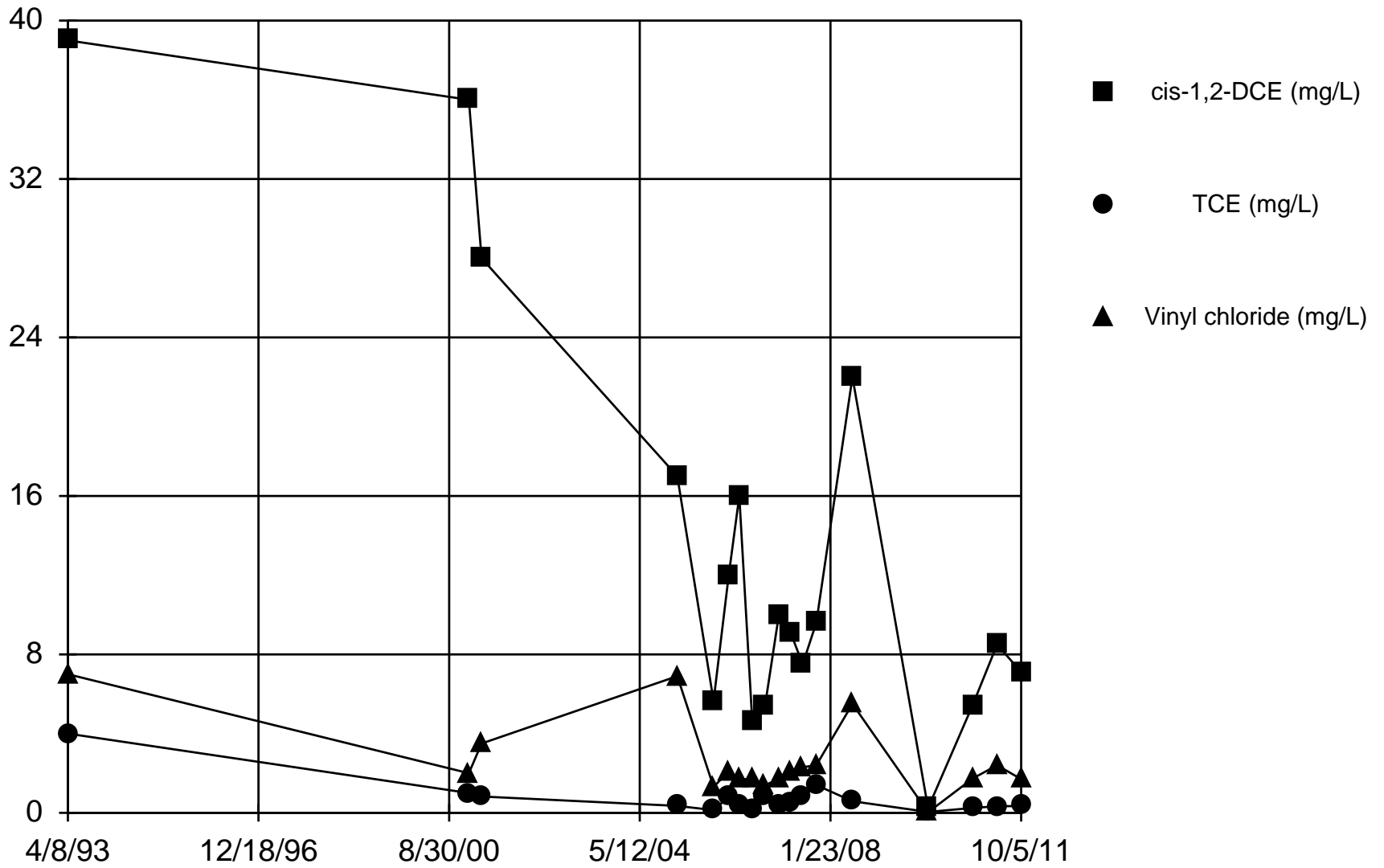


Analysis Run 11/28/2011 1:33 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW8

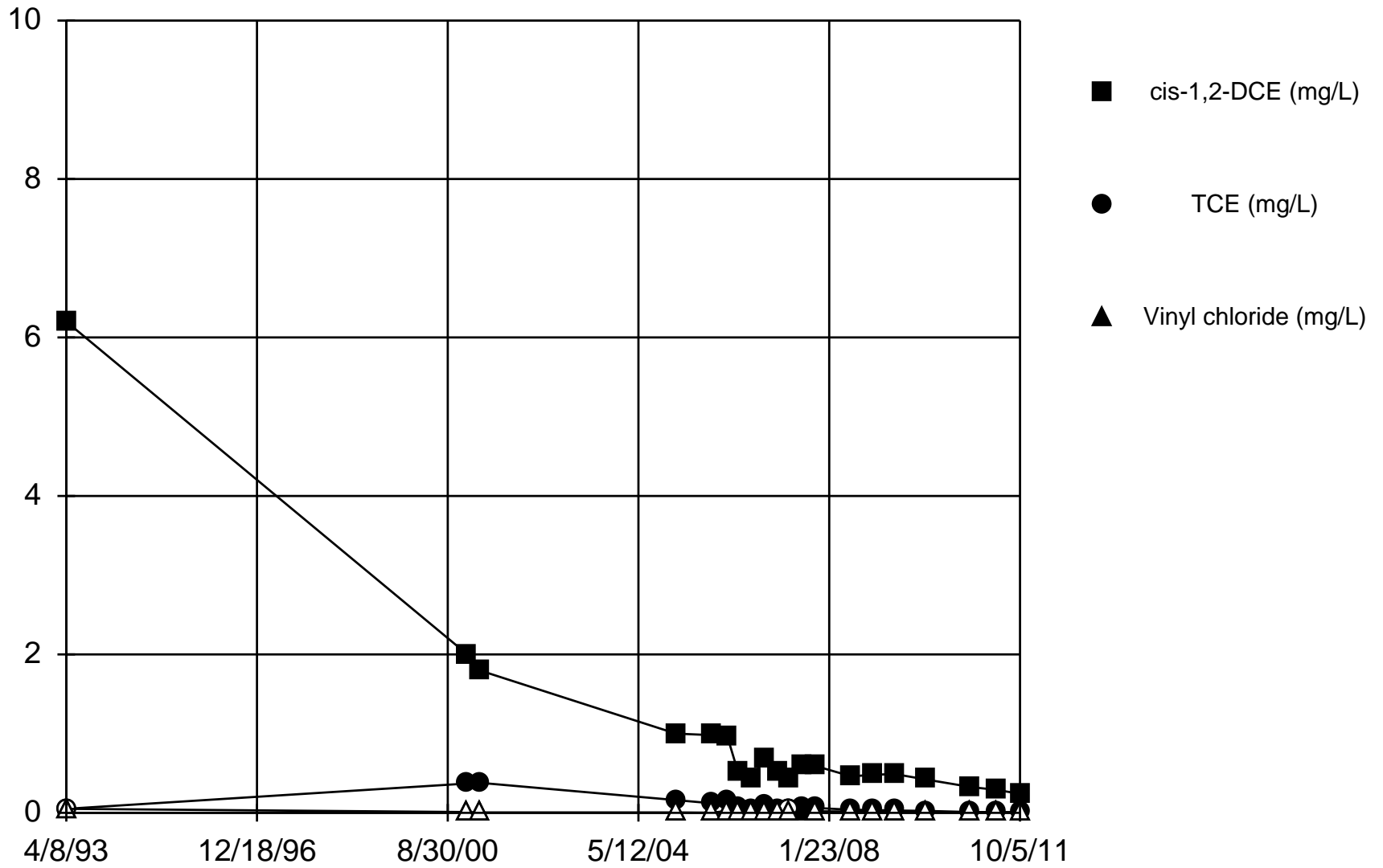


Analysis Run 11/28/2011 3:49 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW12

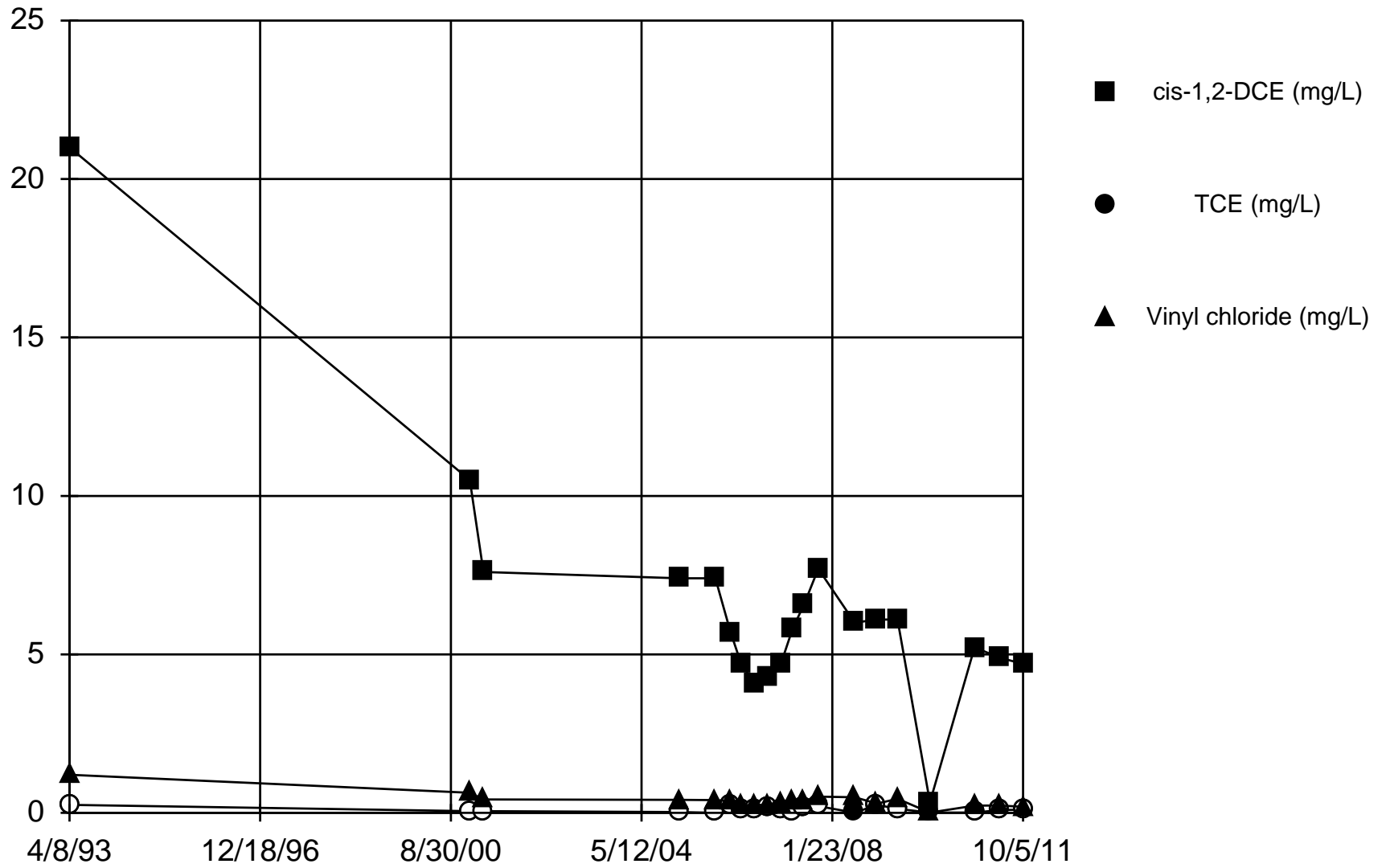


Analysis Run 11/28/2011 11:23 AM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW14

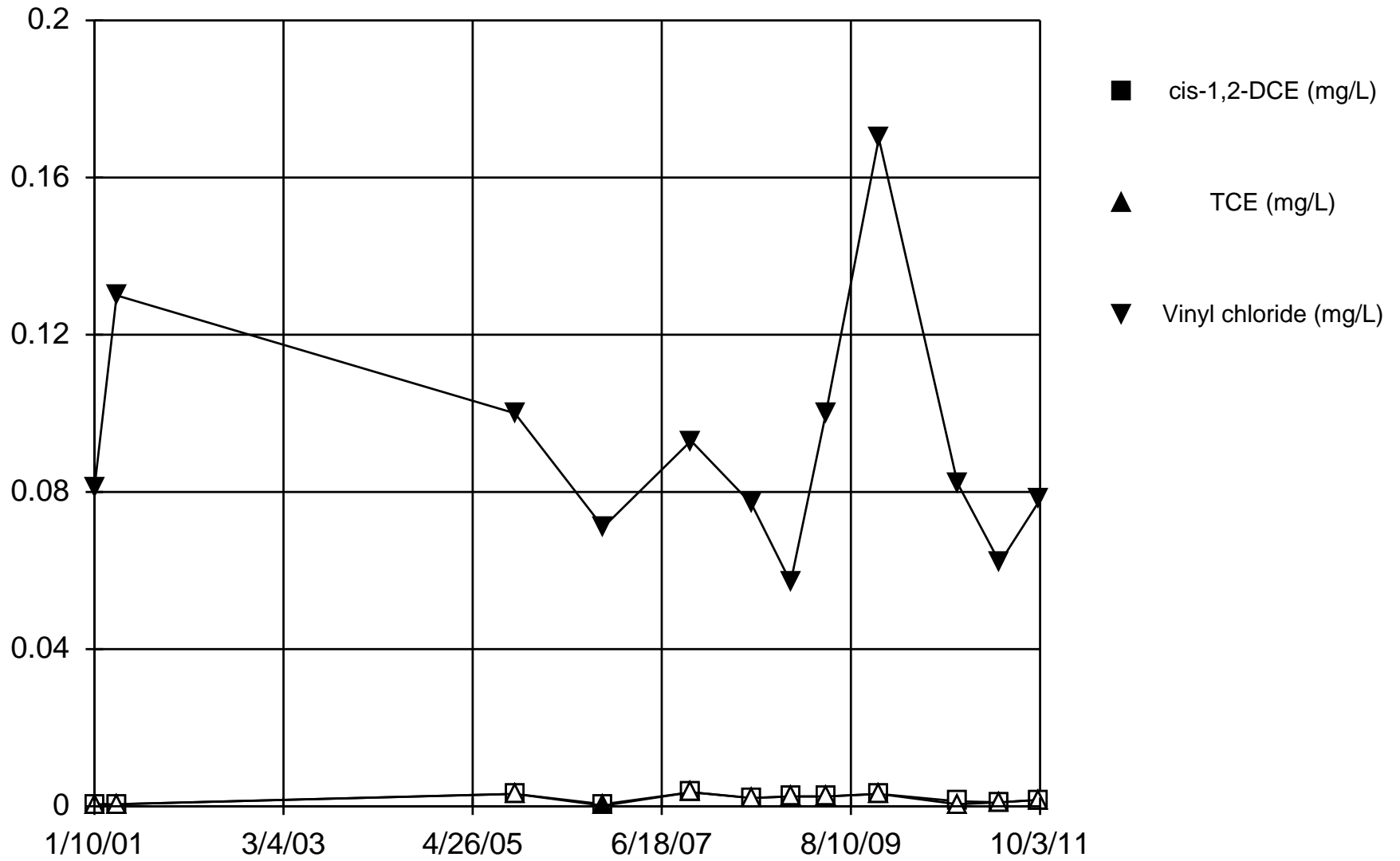


Analysis Run 11/28/2011 11:29 AM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW28



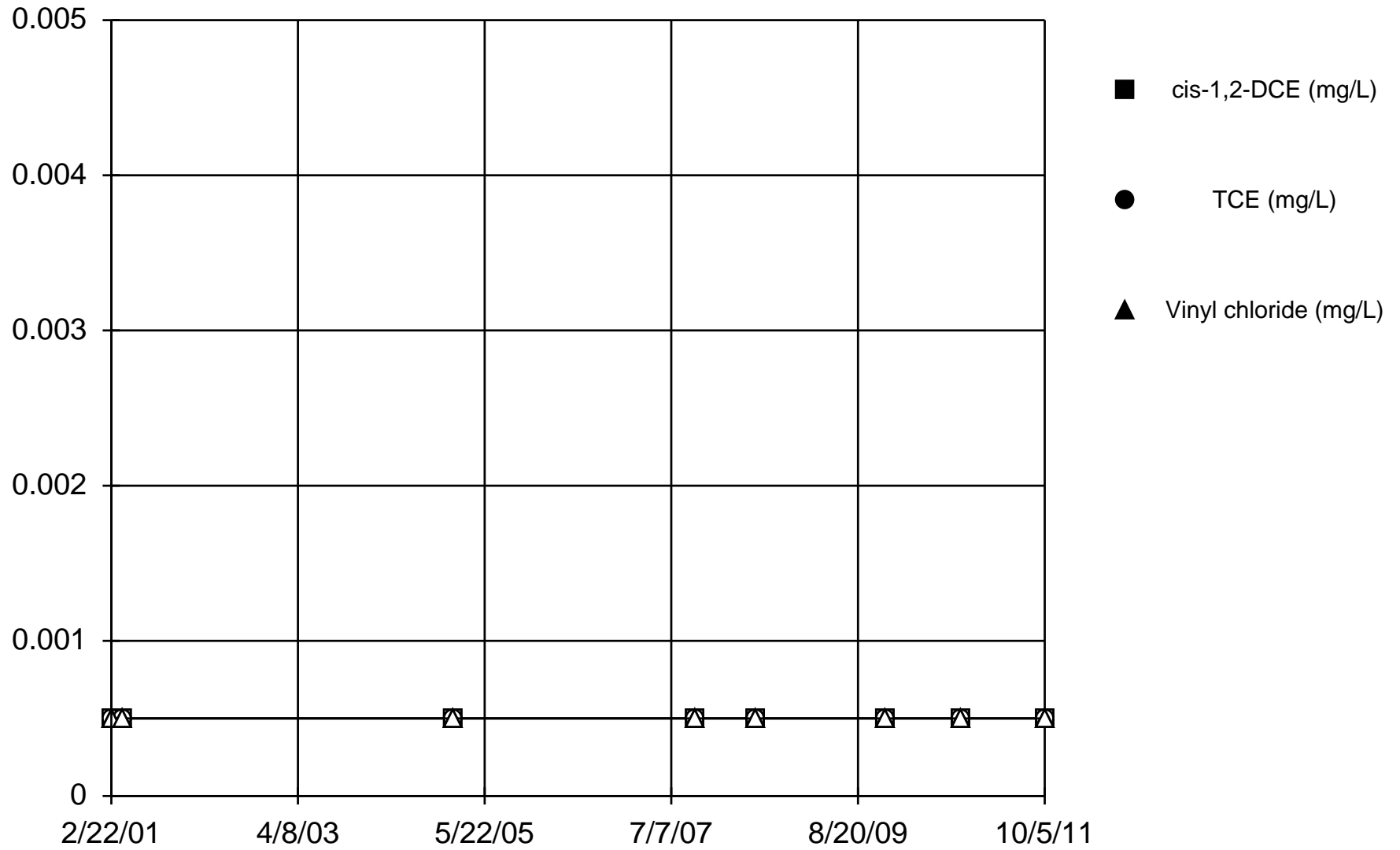
Analysis Run 11/28/2011 1:28 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011



# Time Series

MW37

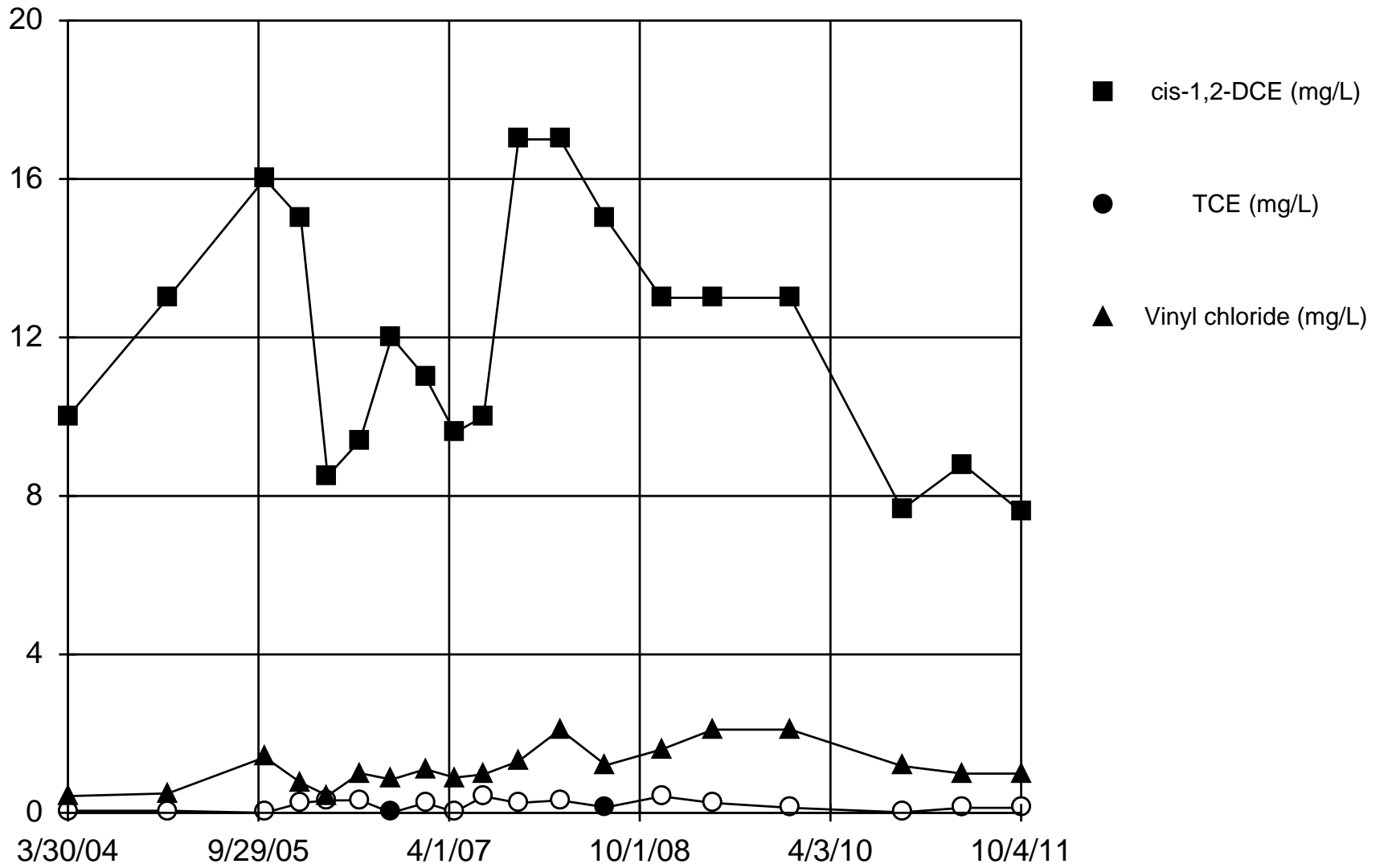


Analysis Run 11/28/2011 1:47 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW40

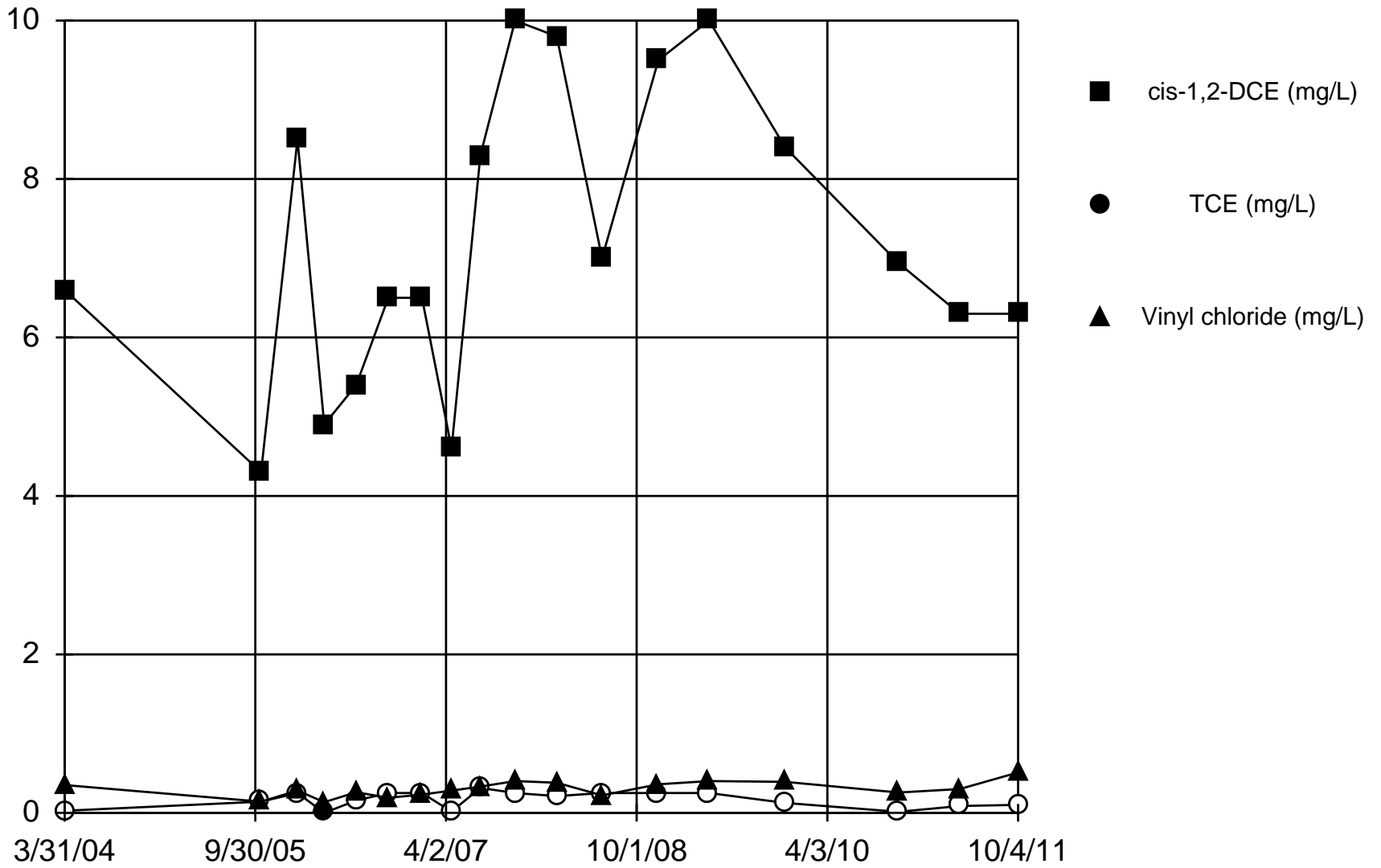


Analysis Run 11/28/2011 1:49 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW41

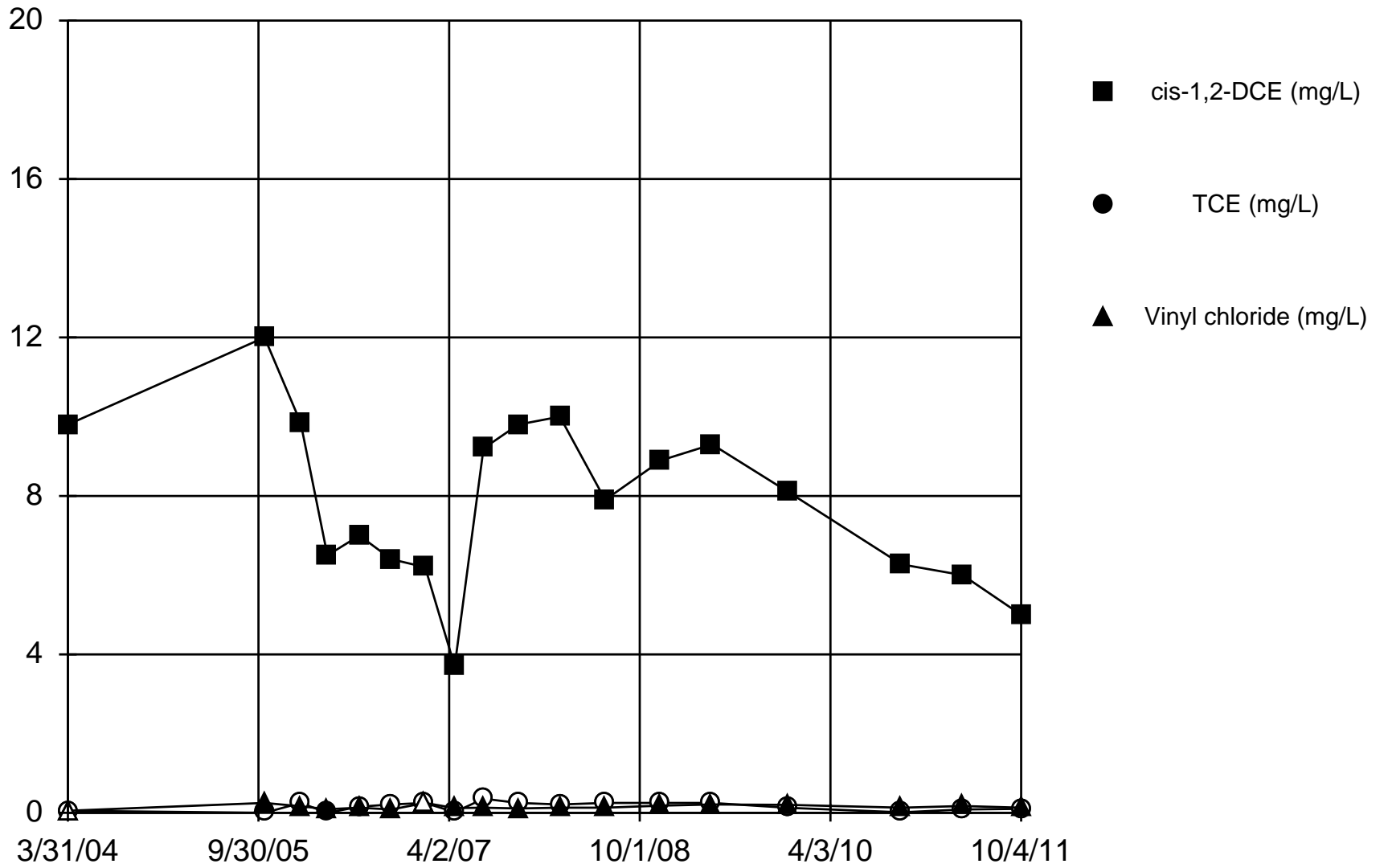


Analysis Run 11/28/2011 1:50 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW42

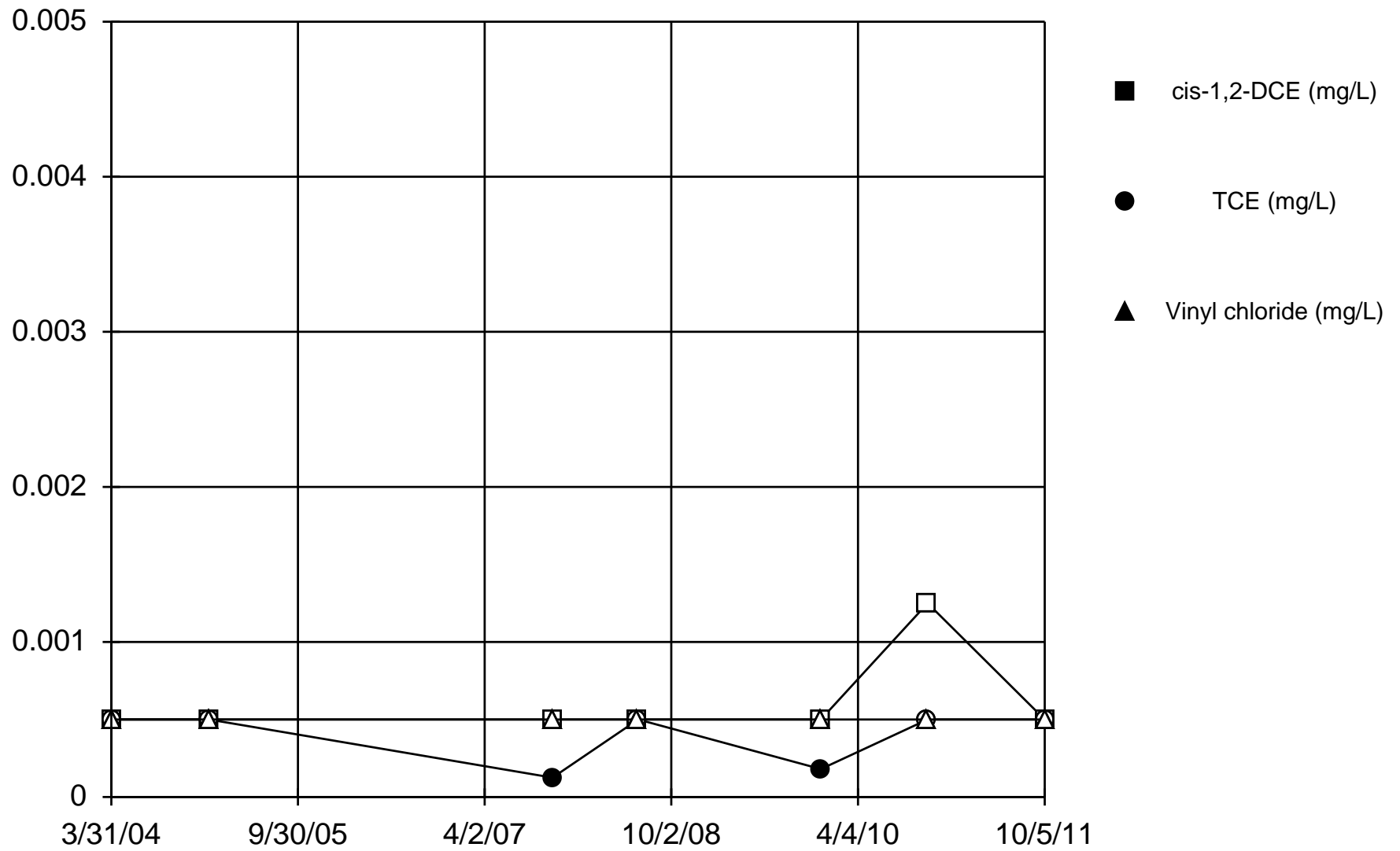


Analysis Run 11/28/2011 1:51 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW46

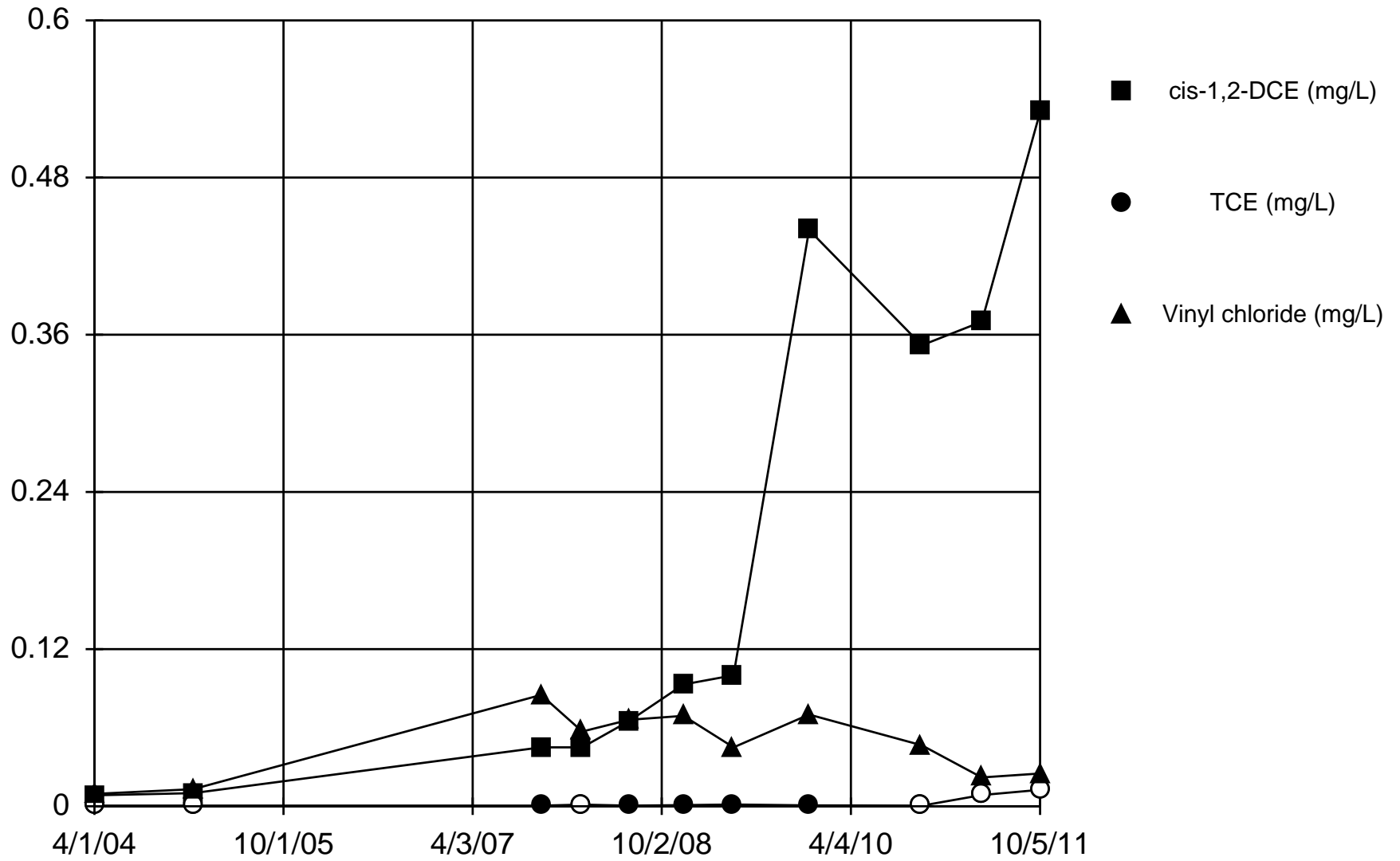


Analysis Run 11/28/2011 3:27 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW49

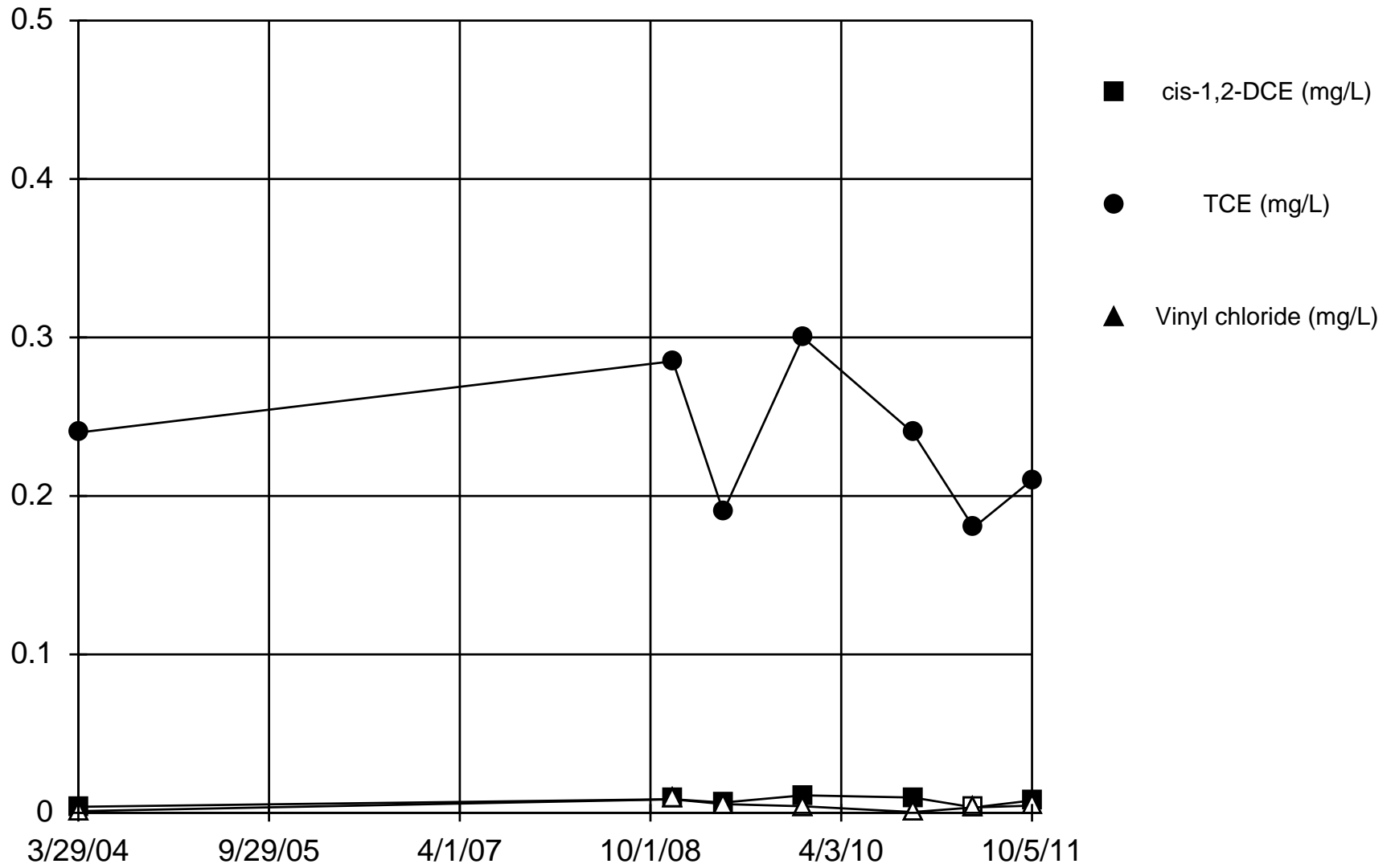


Analysis Run 11/28/2011 3:30 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW51

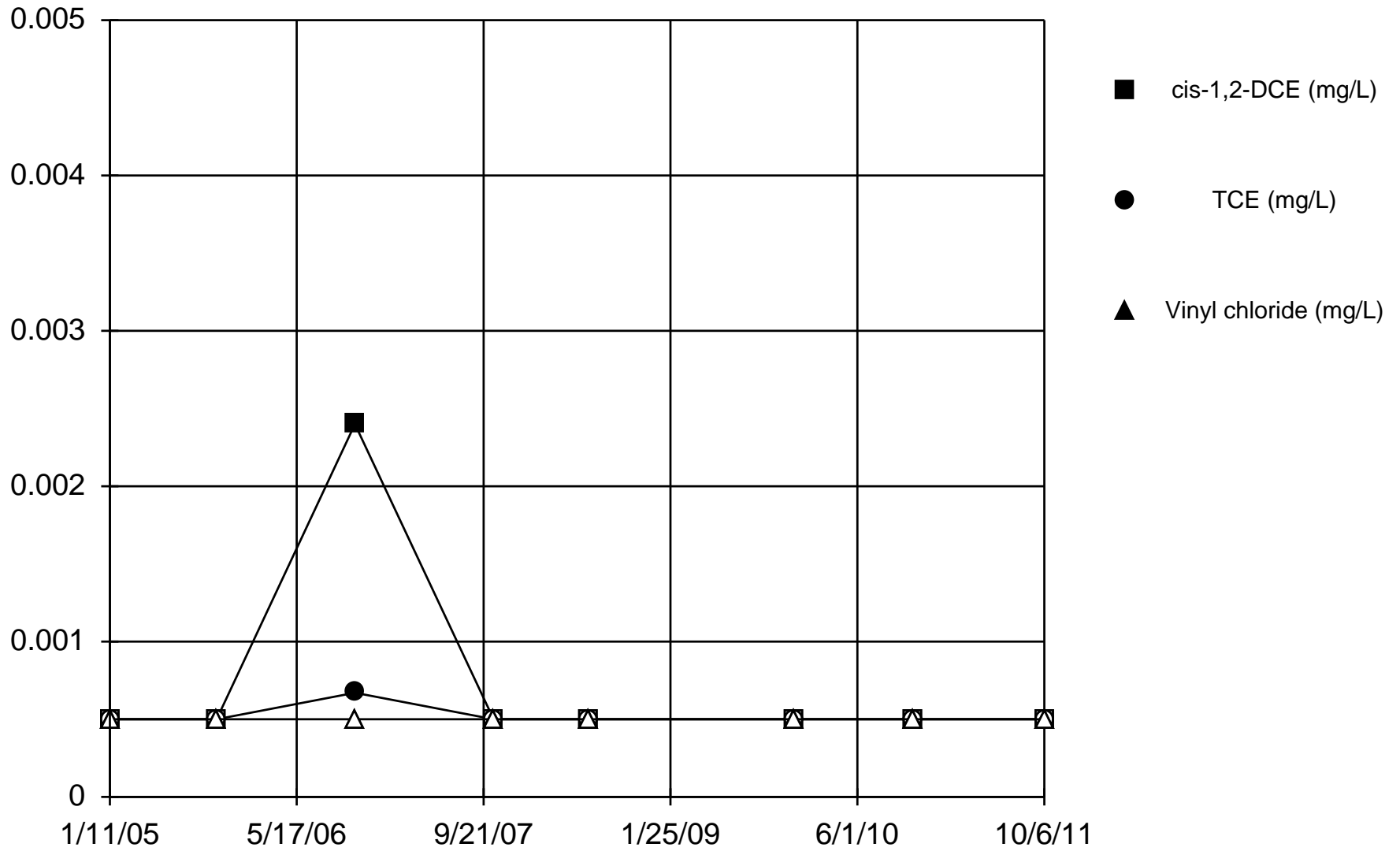


Analysis Run 11/28/2011 3:33 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW56

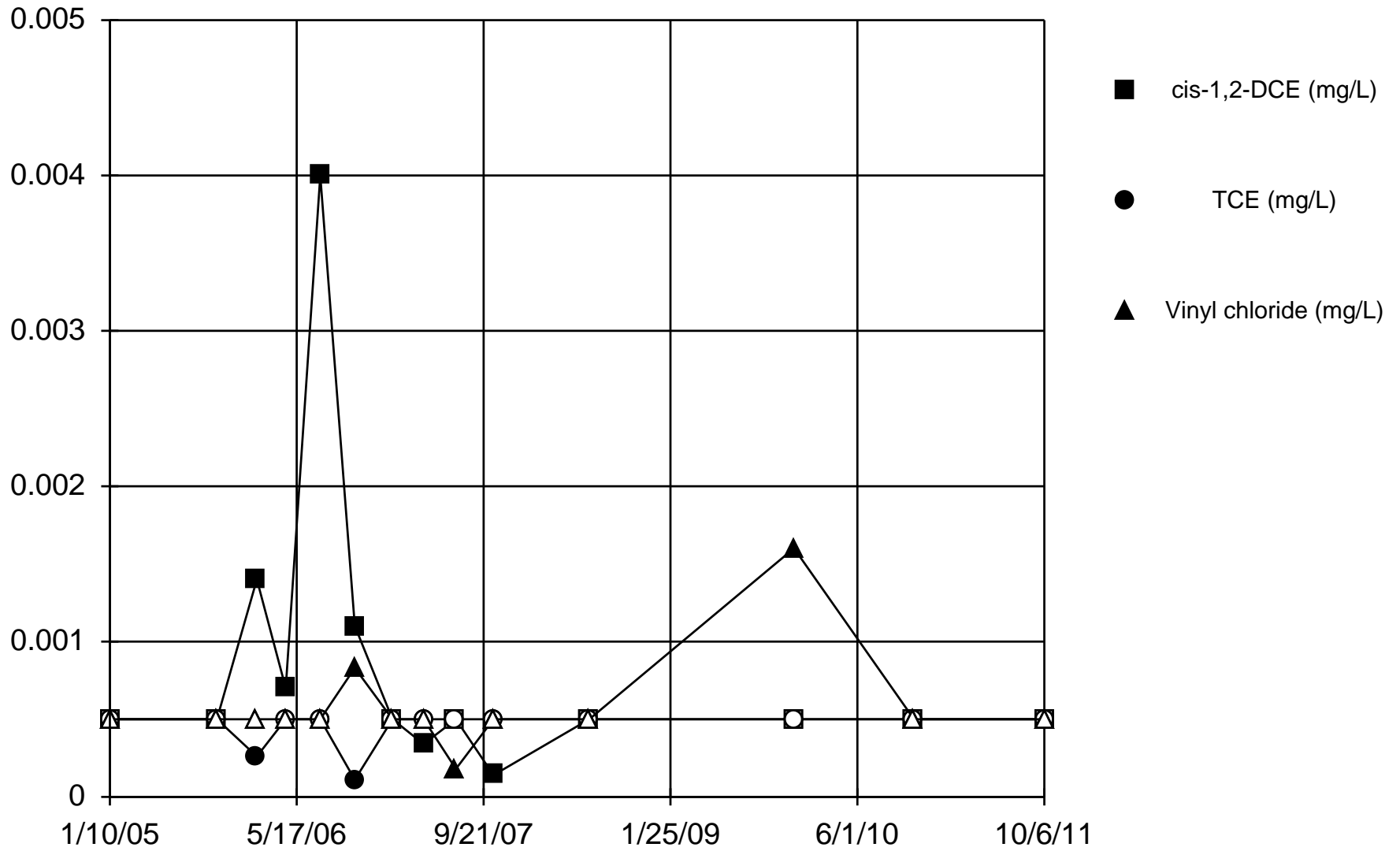


Analysis Run 11/28/2011 3:34 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW57

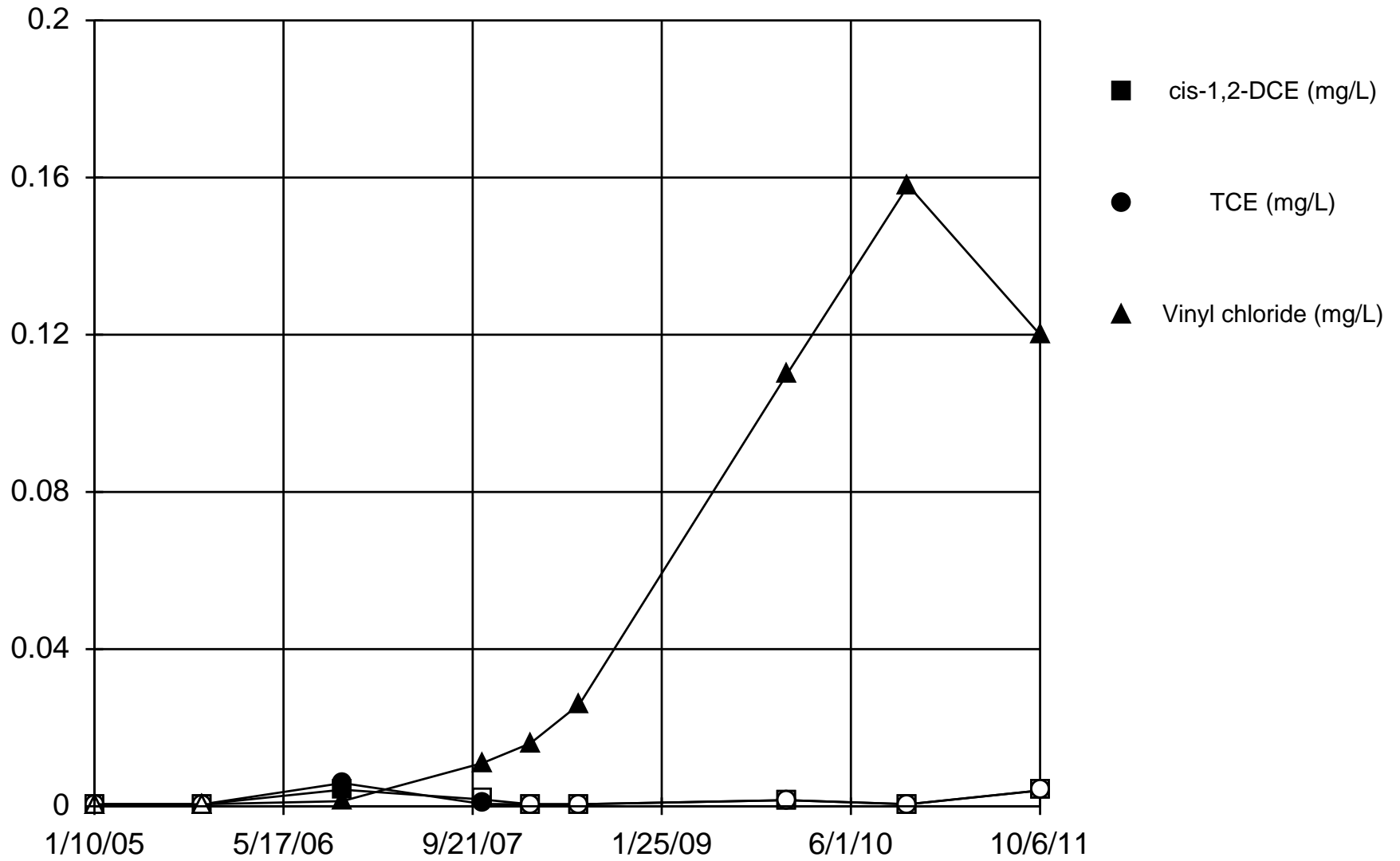


Analysis Run 11/28/2011 3:35 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW58

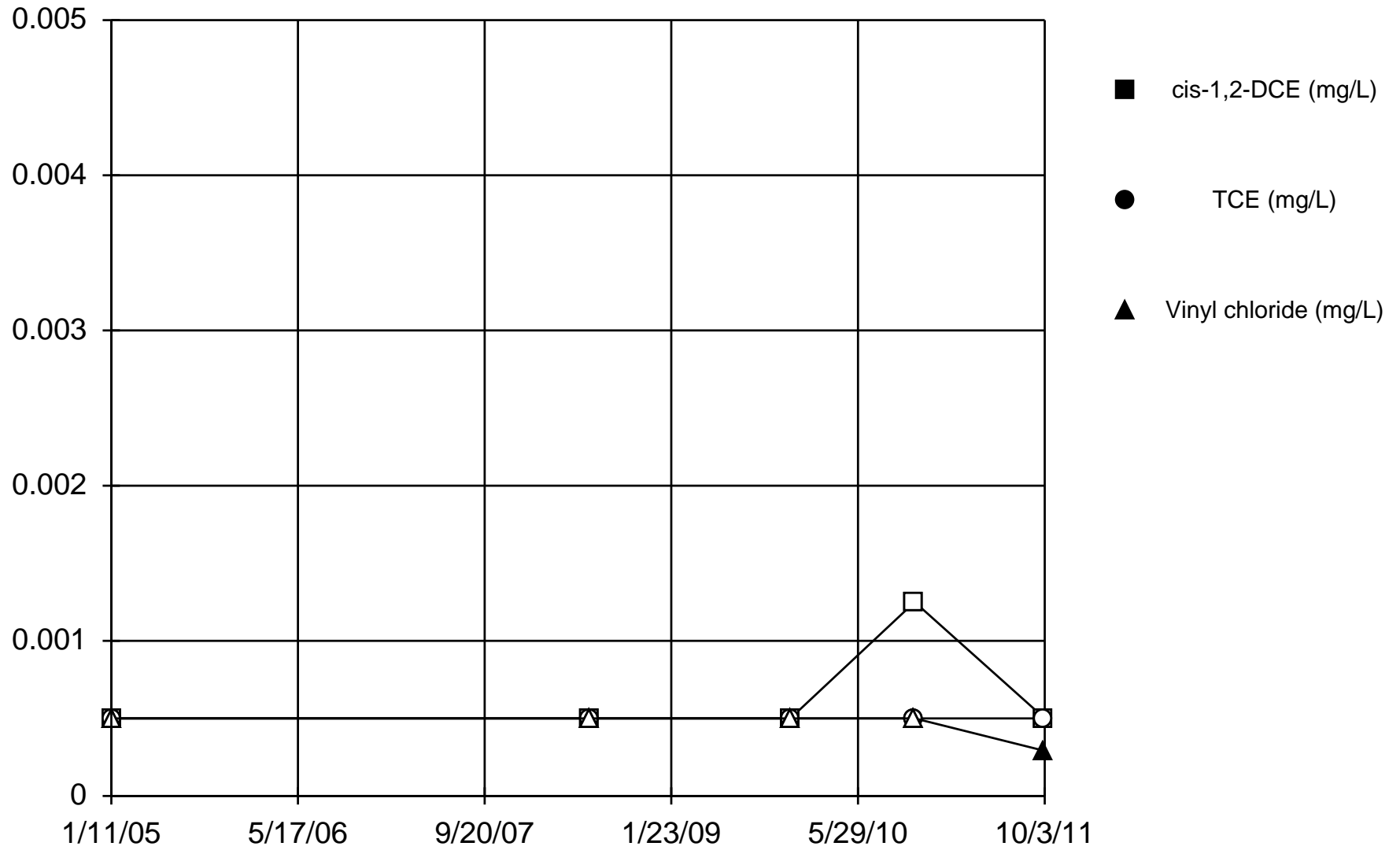


Analysis Run 11/28/2011 3:36 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW61

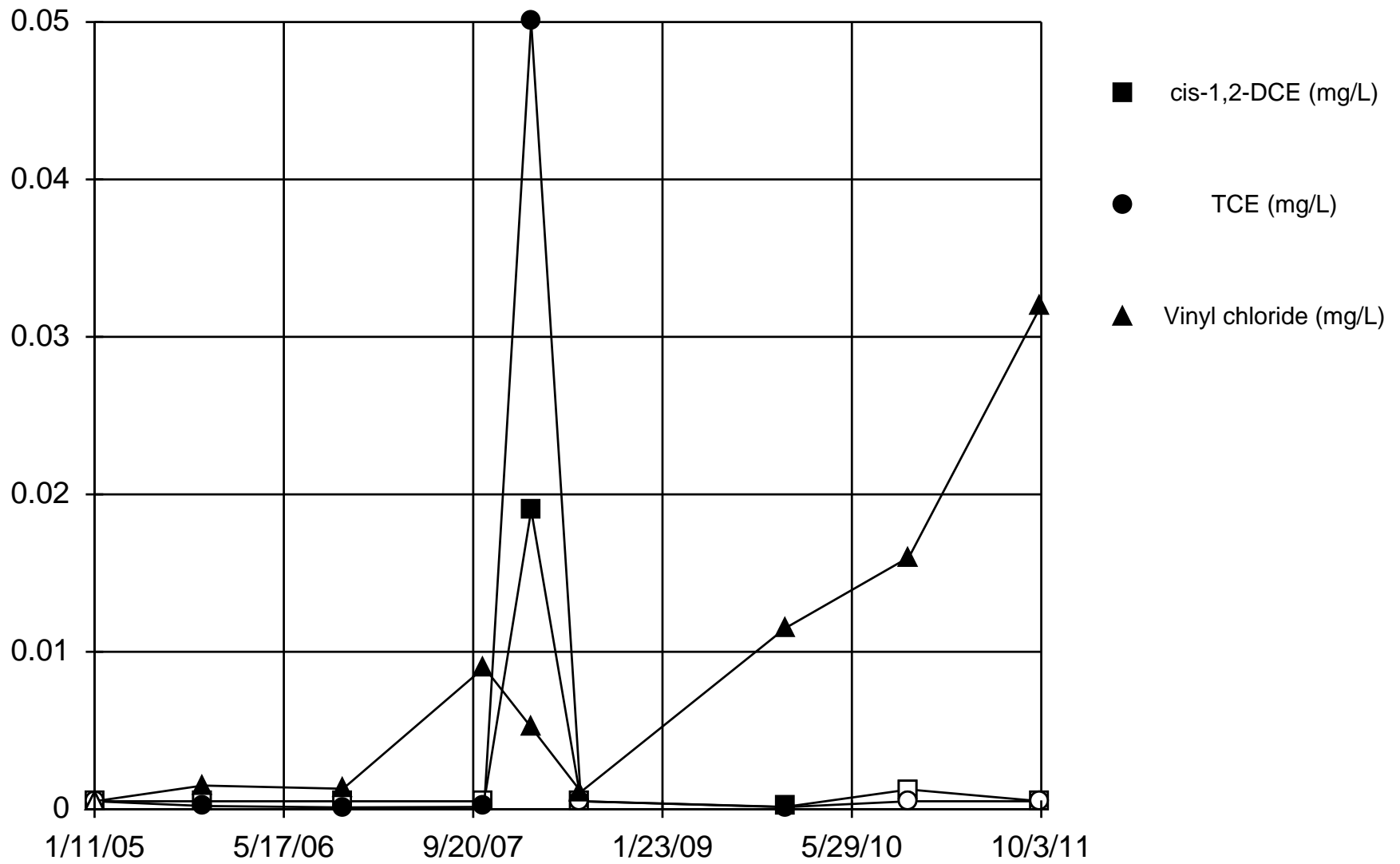


Analysis Run 11/28/2011 3:37 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW64

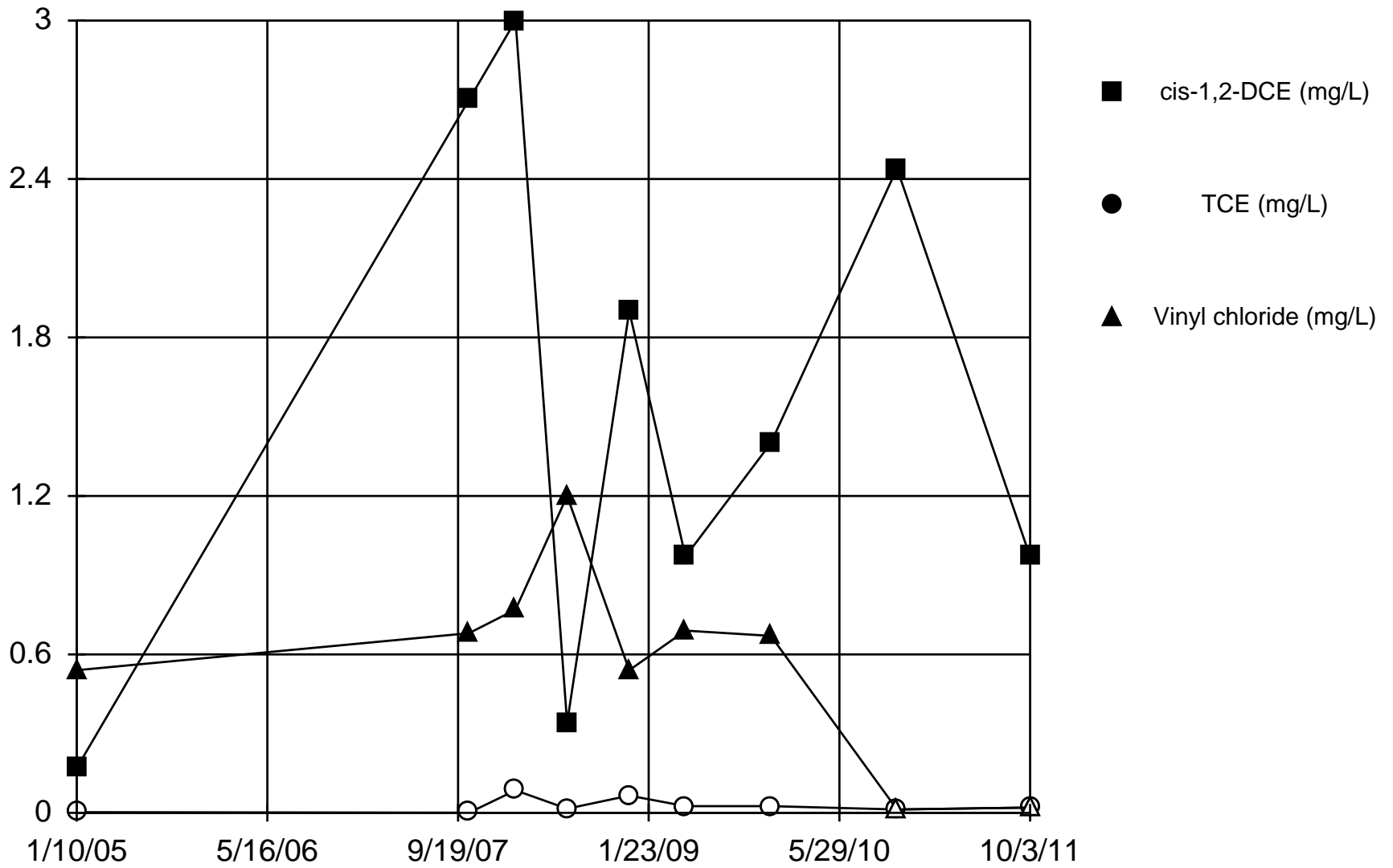


Analysis Run 11/28/2011 3:39 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW65

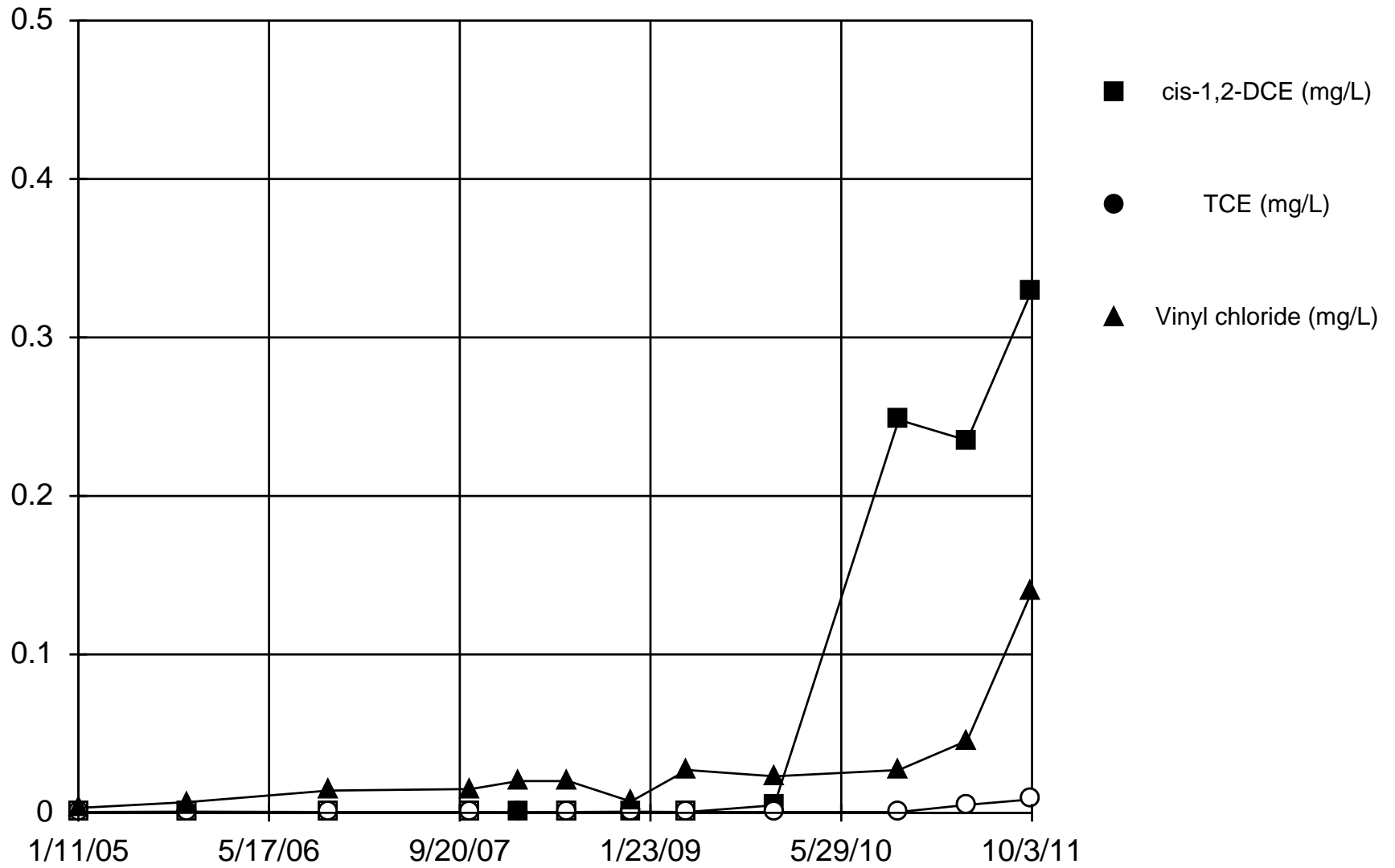


Analysis Run 11/28/2011 3:40 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW66

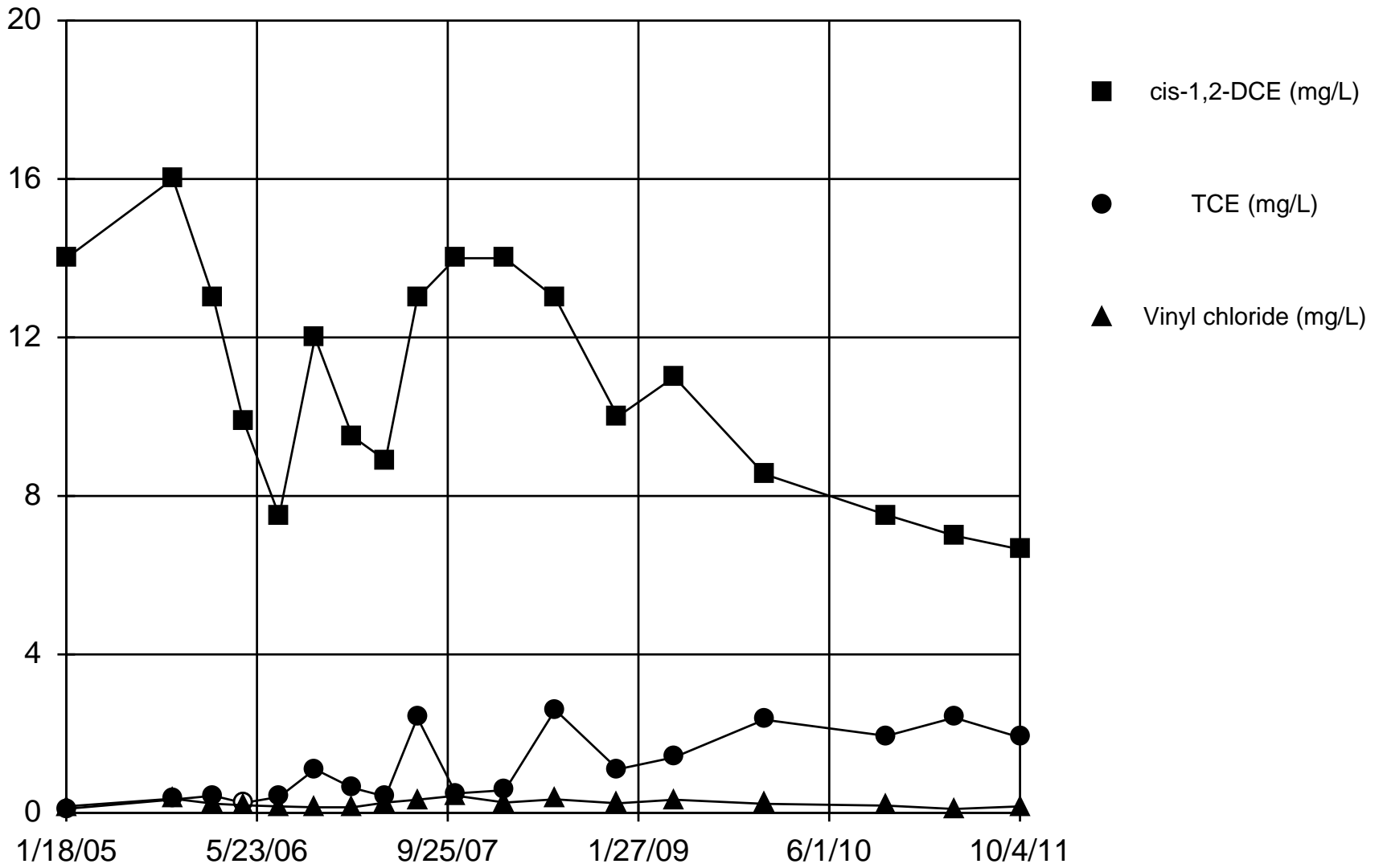


Analysis Run 11/28/2011 3:42 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW68

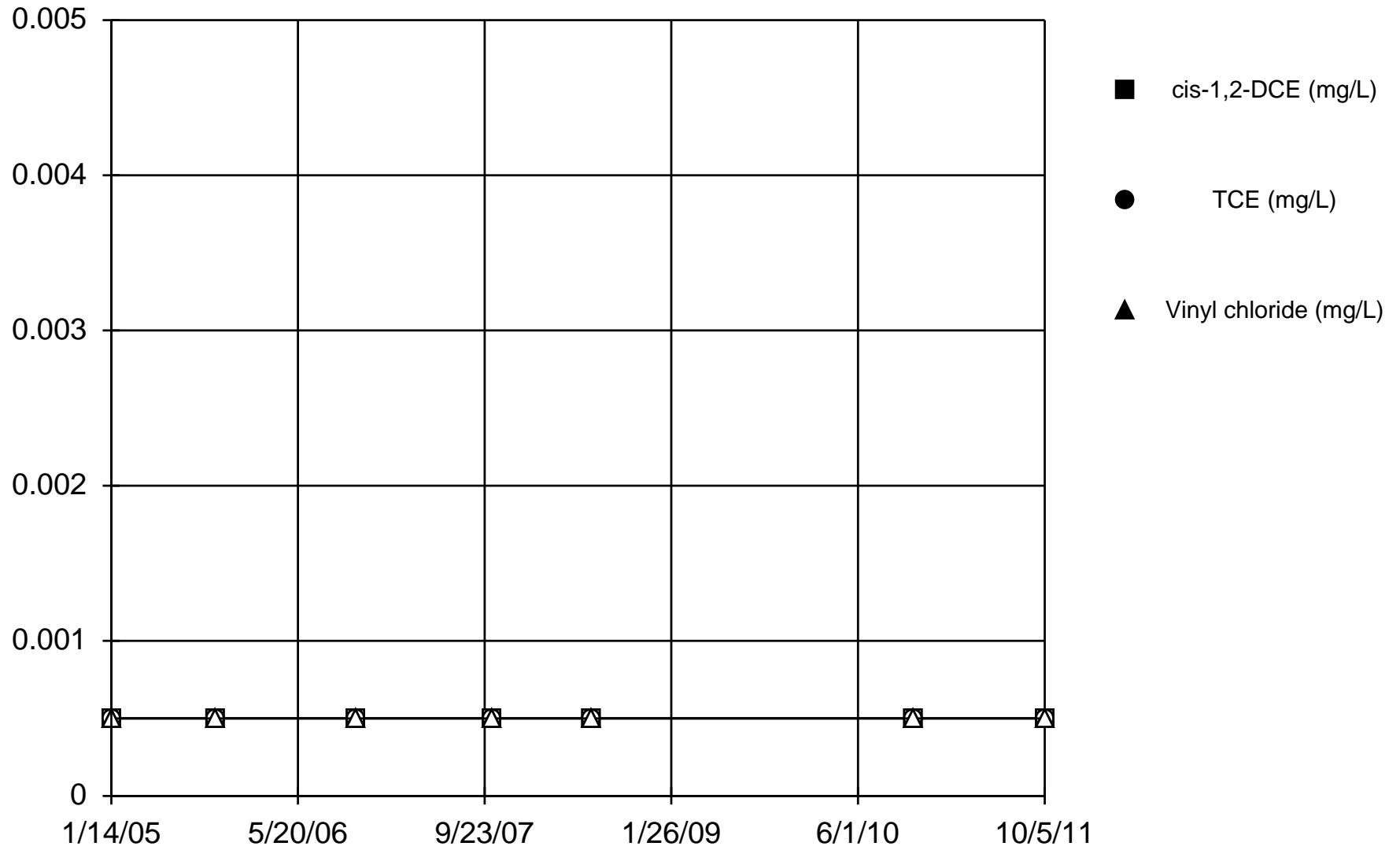


Analysis Run 11/28/2011 3:43 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW75

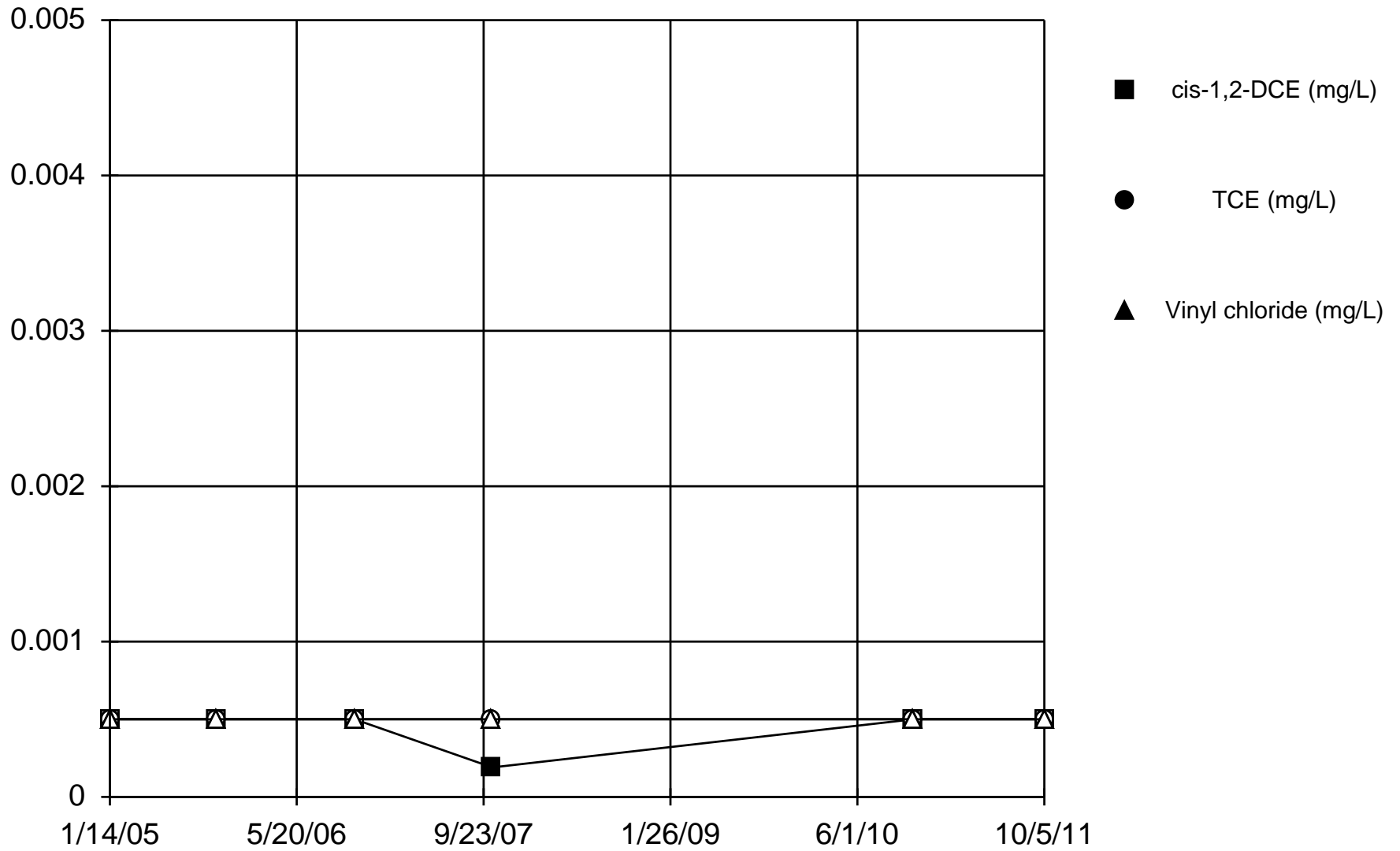


Analysis Run 11/28/2011 3:46 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW76

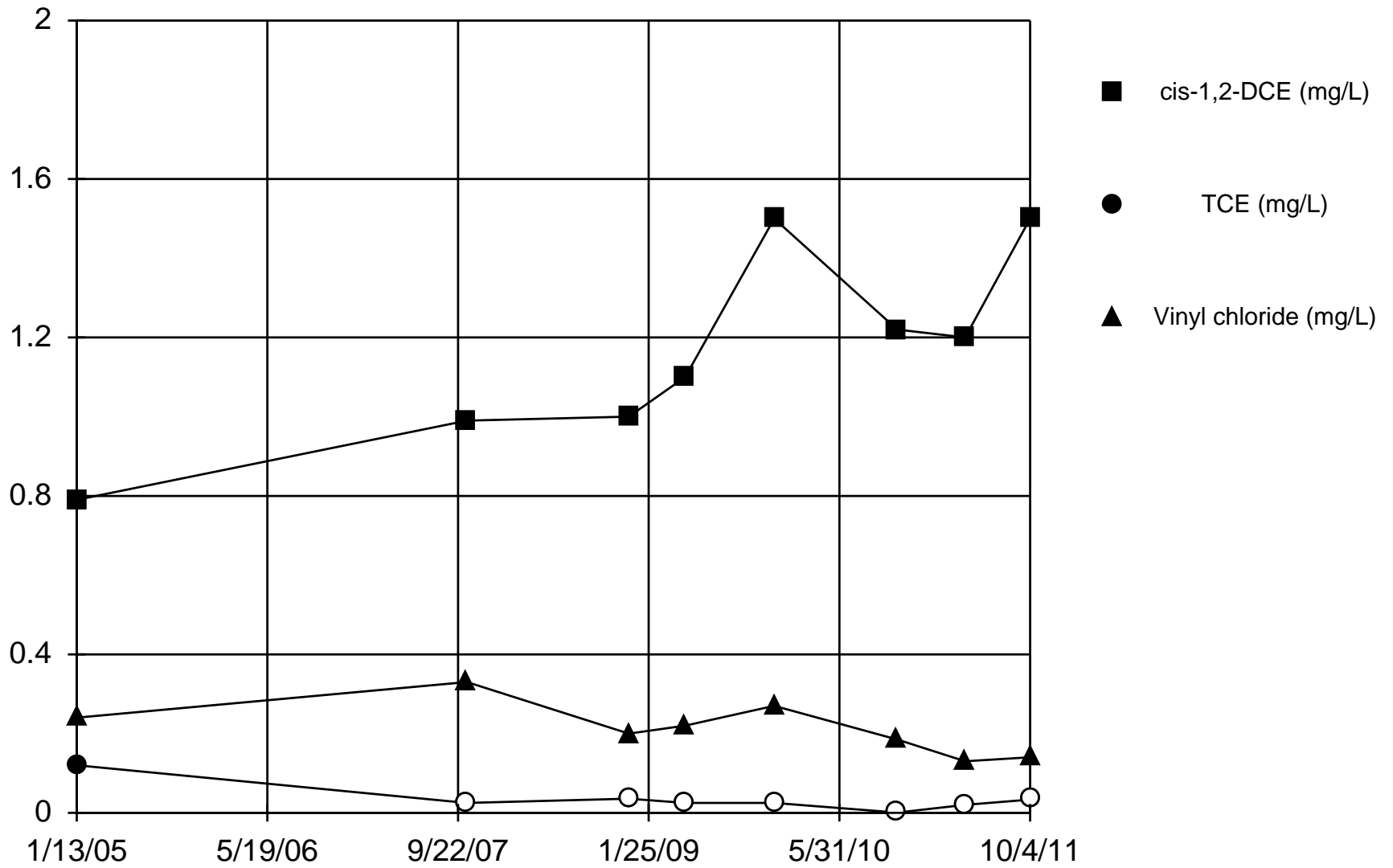


Analysis Run 11/28/2011 3:47 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW79

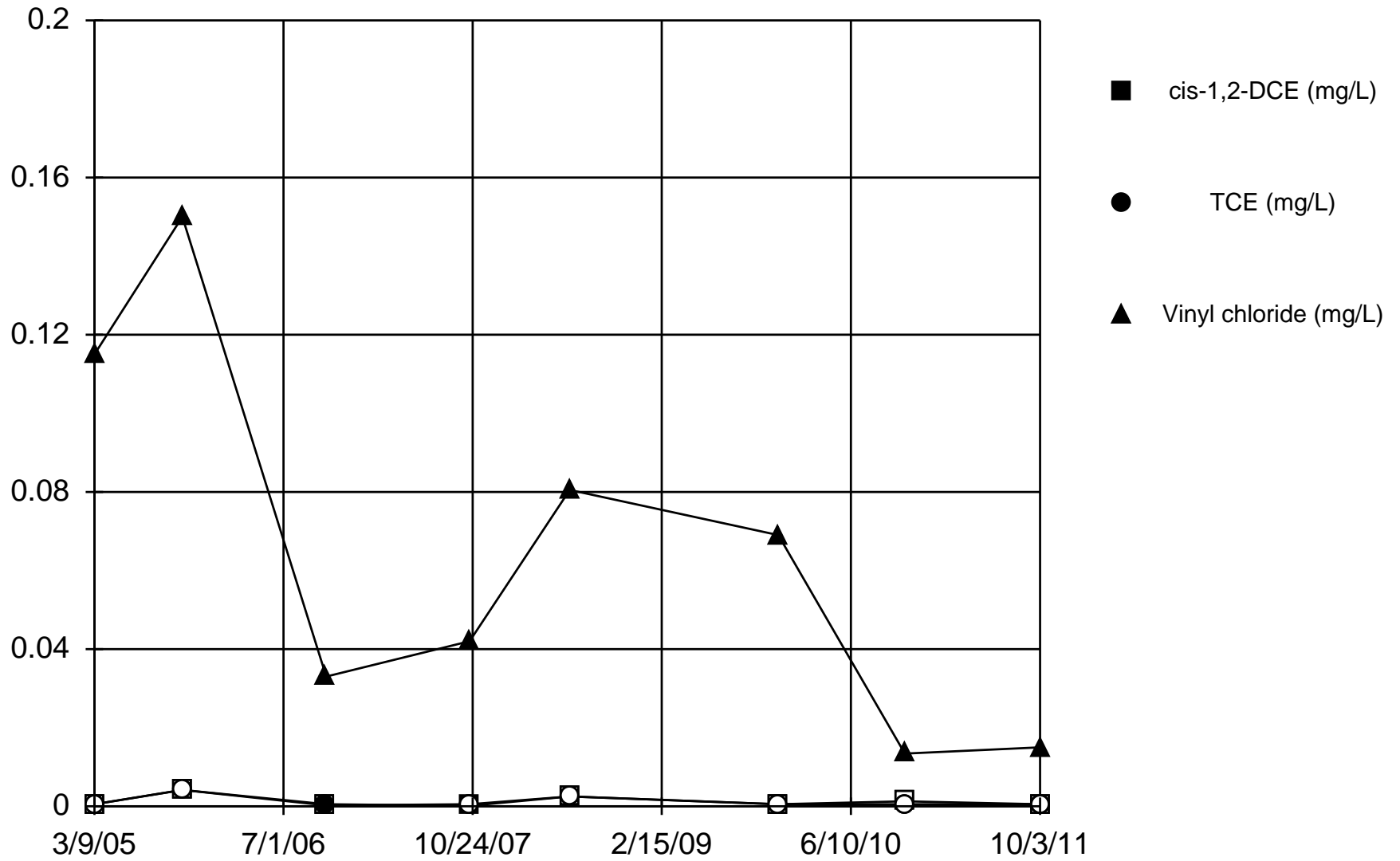


Analysis Run 11/28/2011 3:48 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW80

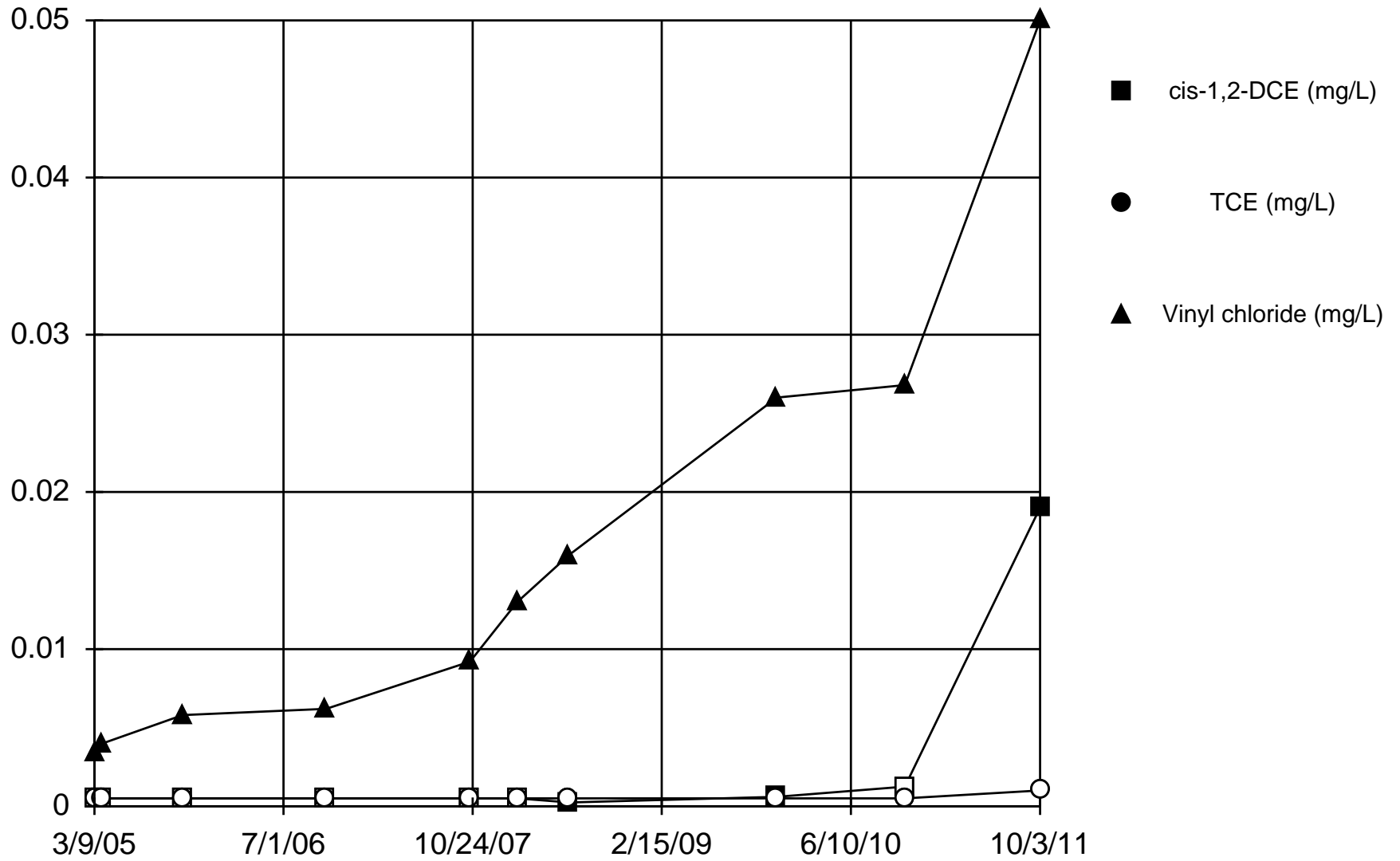


Analysis Run 11/28/2011 3:50 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW81

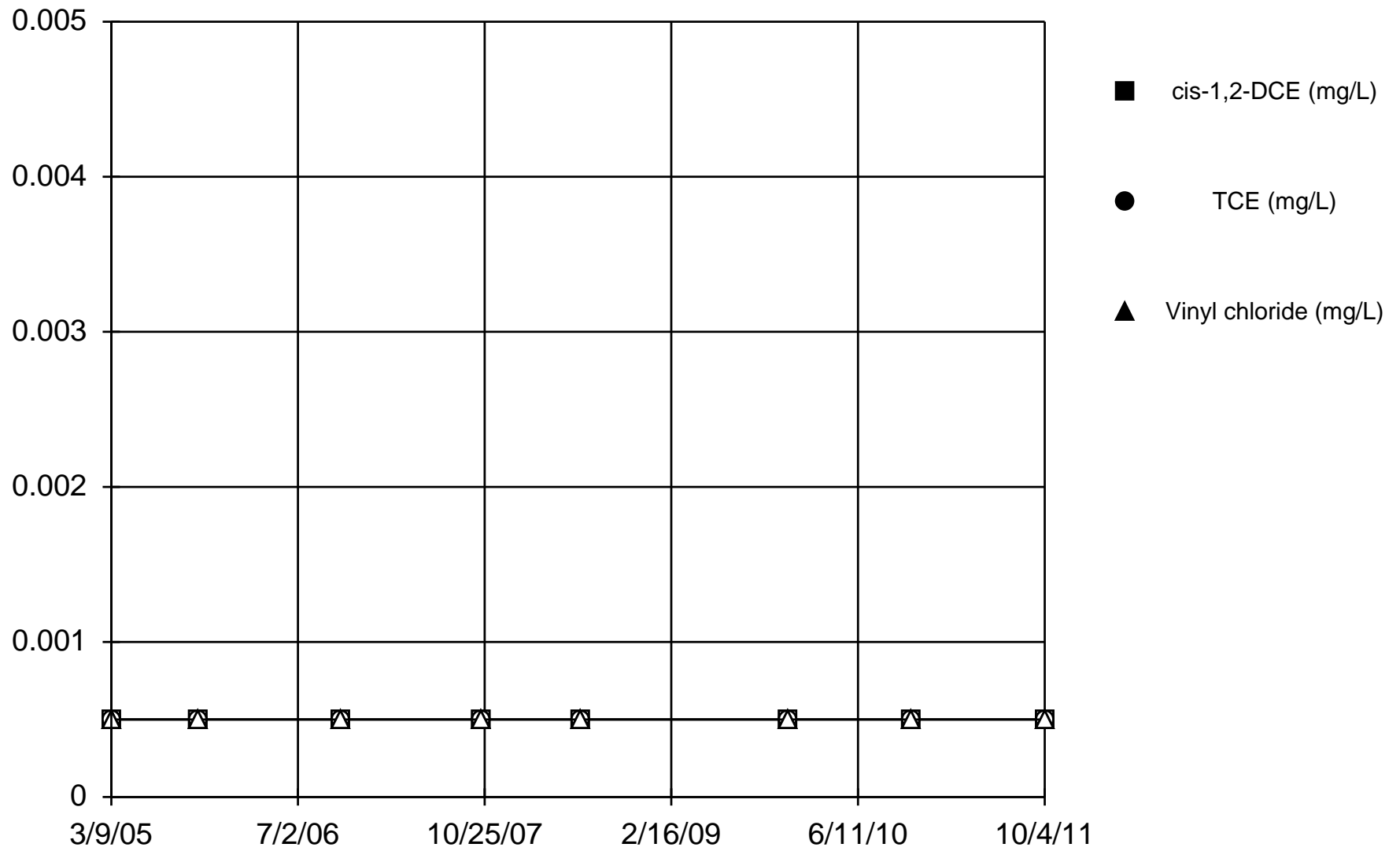


Analysis Run 11/28/2011 3:53 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW82

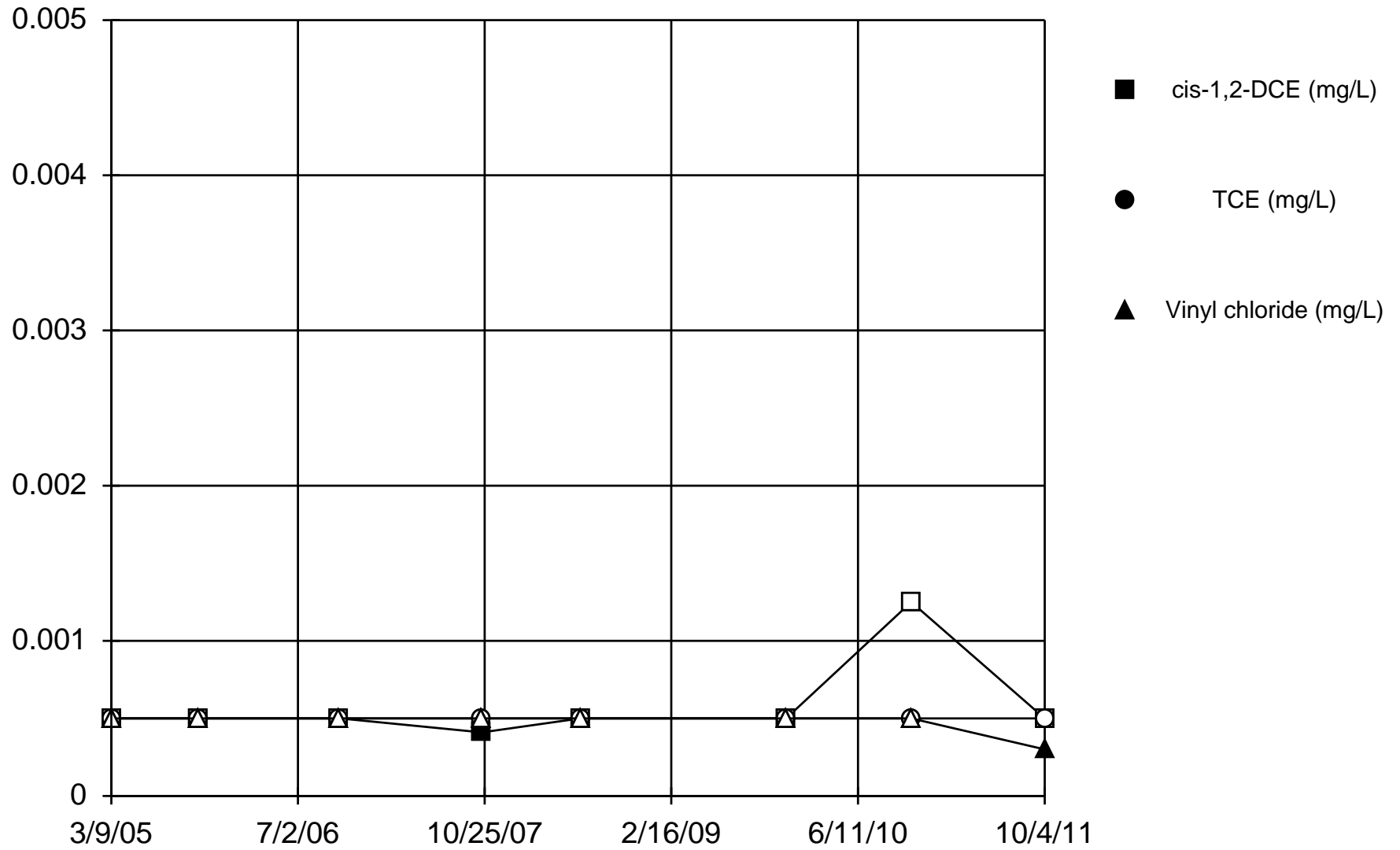


Analysis Run 11/28/2011 3:56 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW83

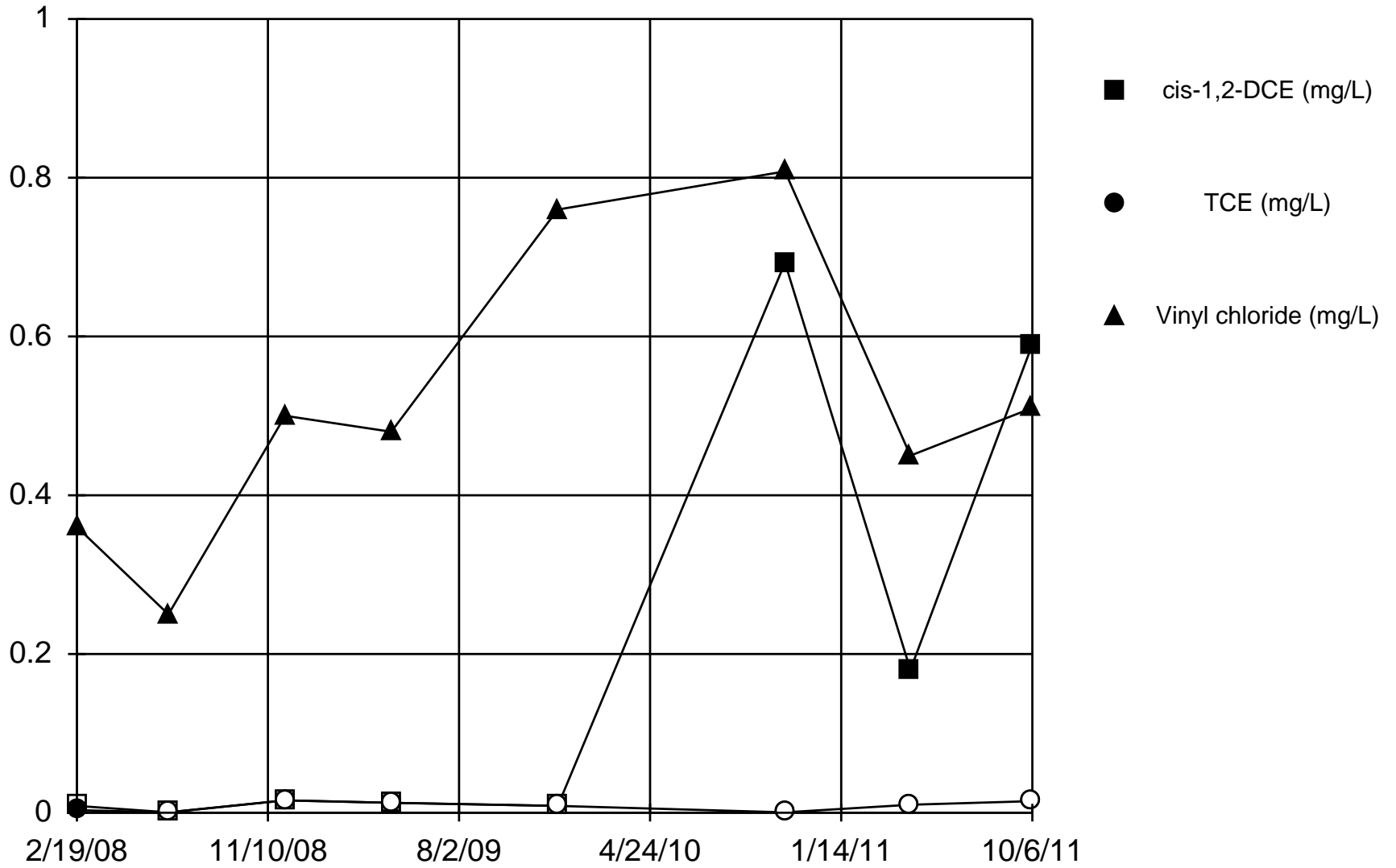


Analysis Run 11/28/2011 3:56 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW85

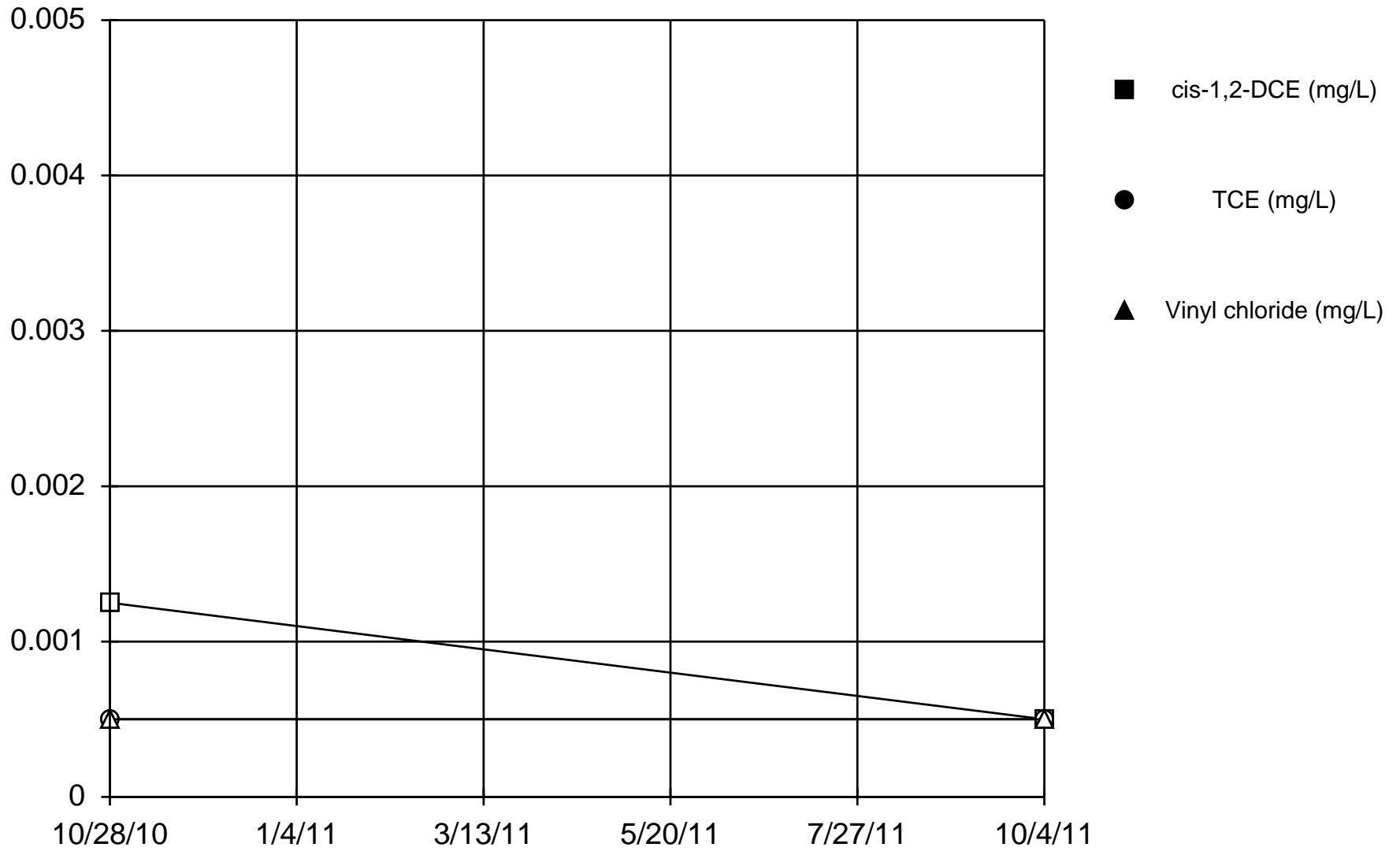


Analysis Run 11/28/2011 3:58 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW86

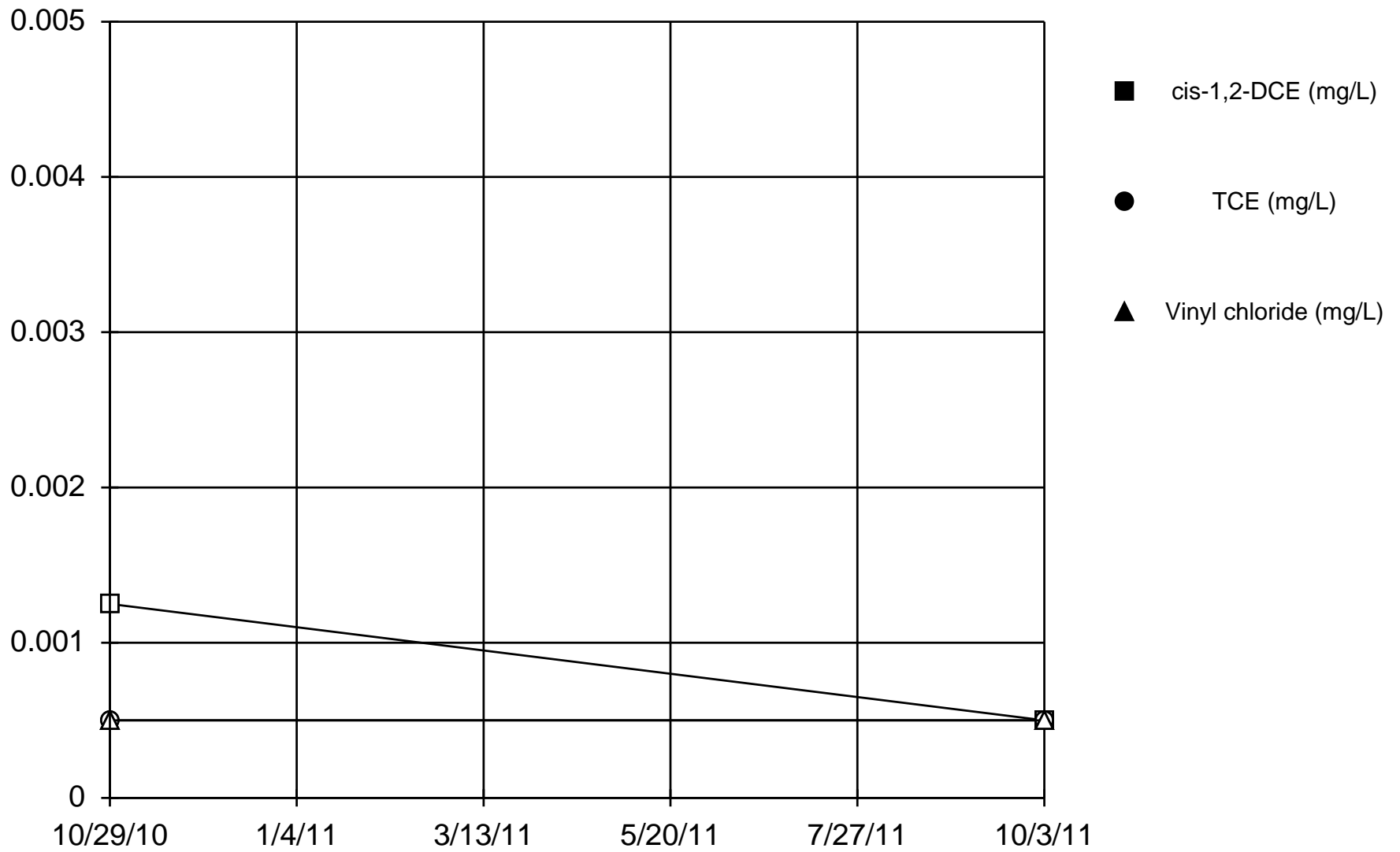


Analysis Run 11/28/2011 4:11 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW88

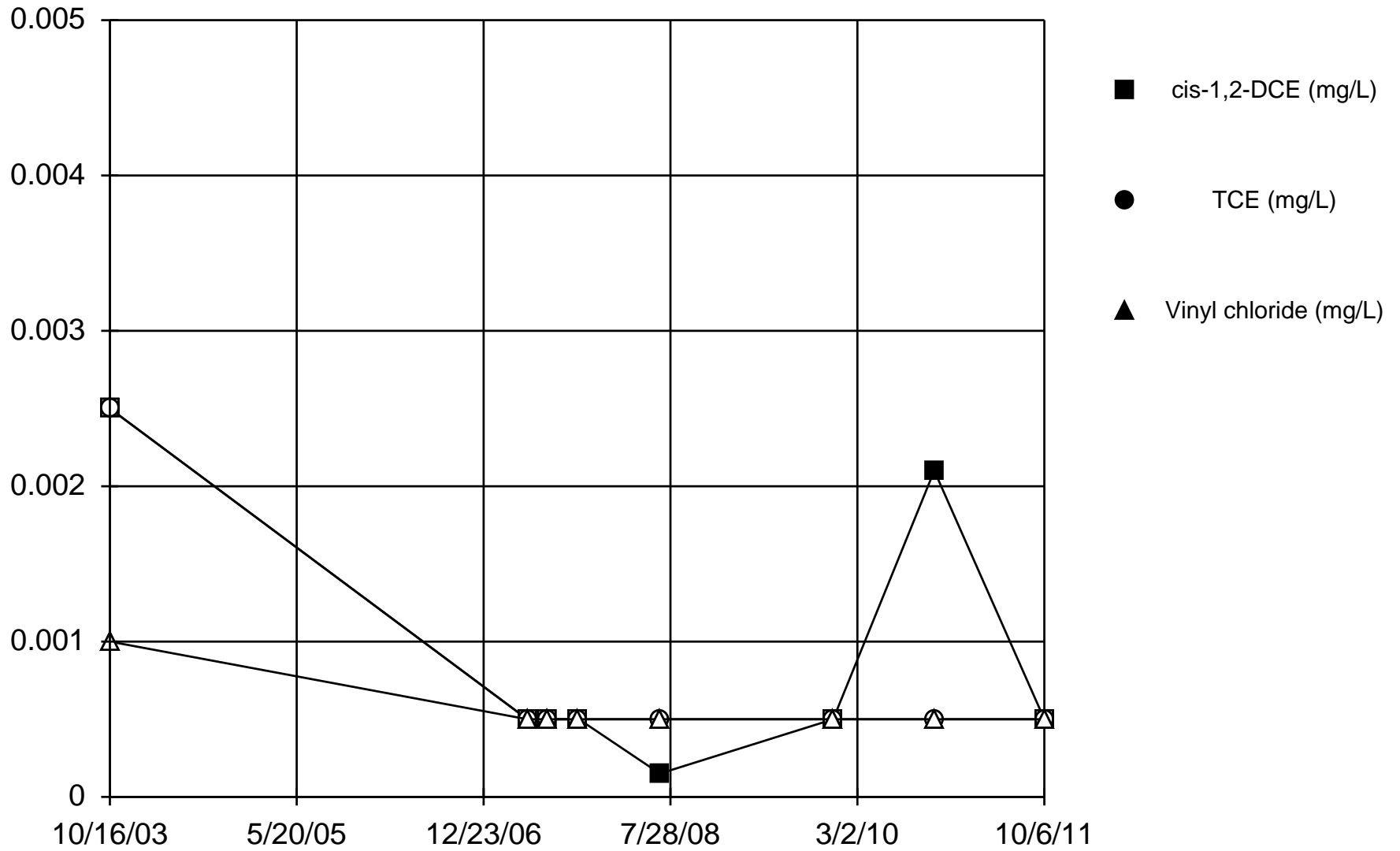


Analysis Run 11/28/2011 4:12 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW-2

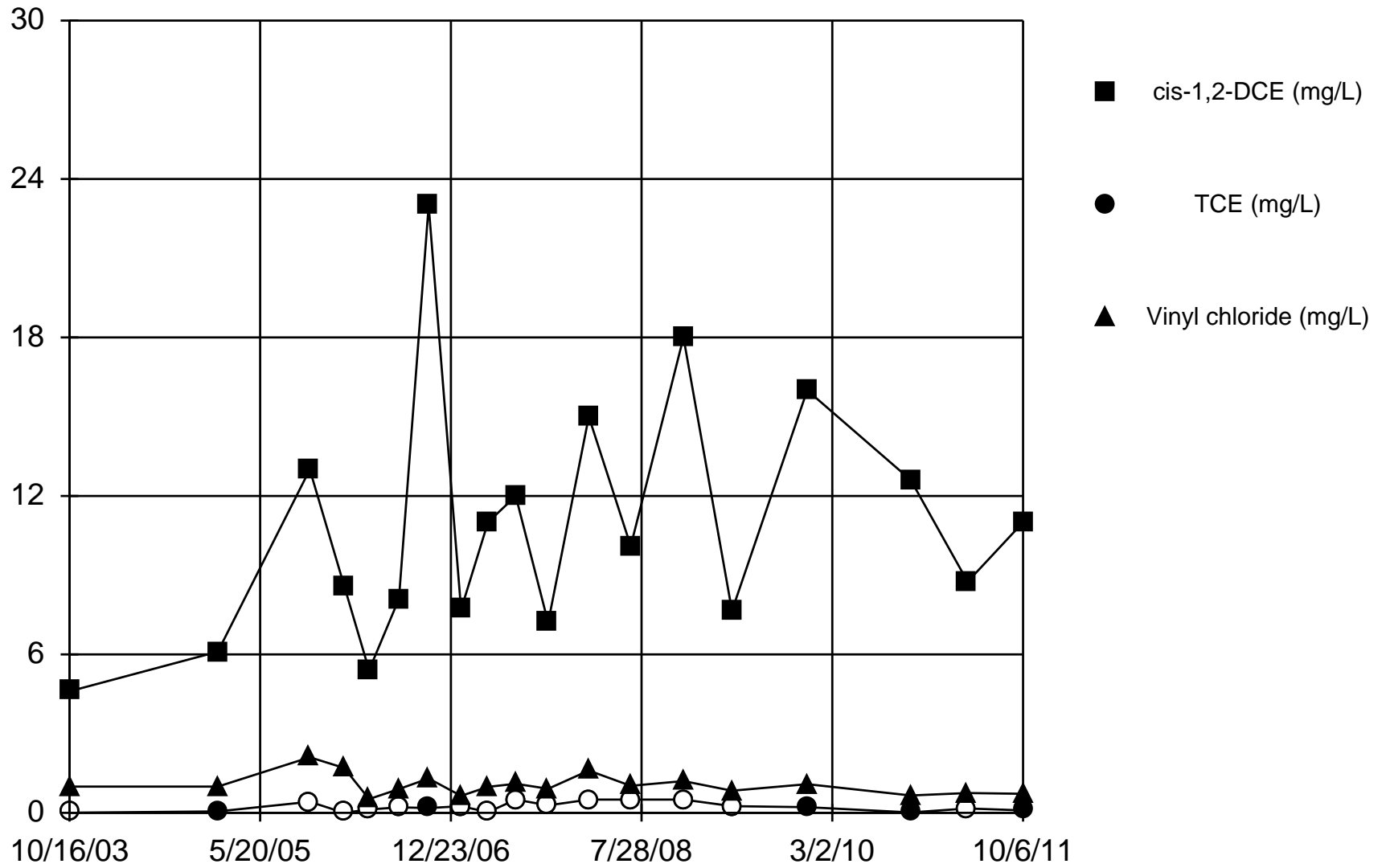


Analysis Run 11/28/2011 4:00 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

MW-4

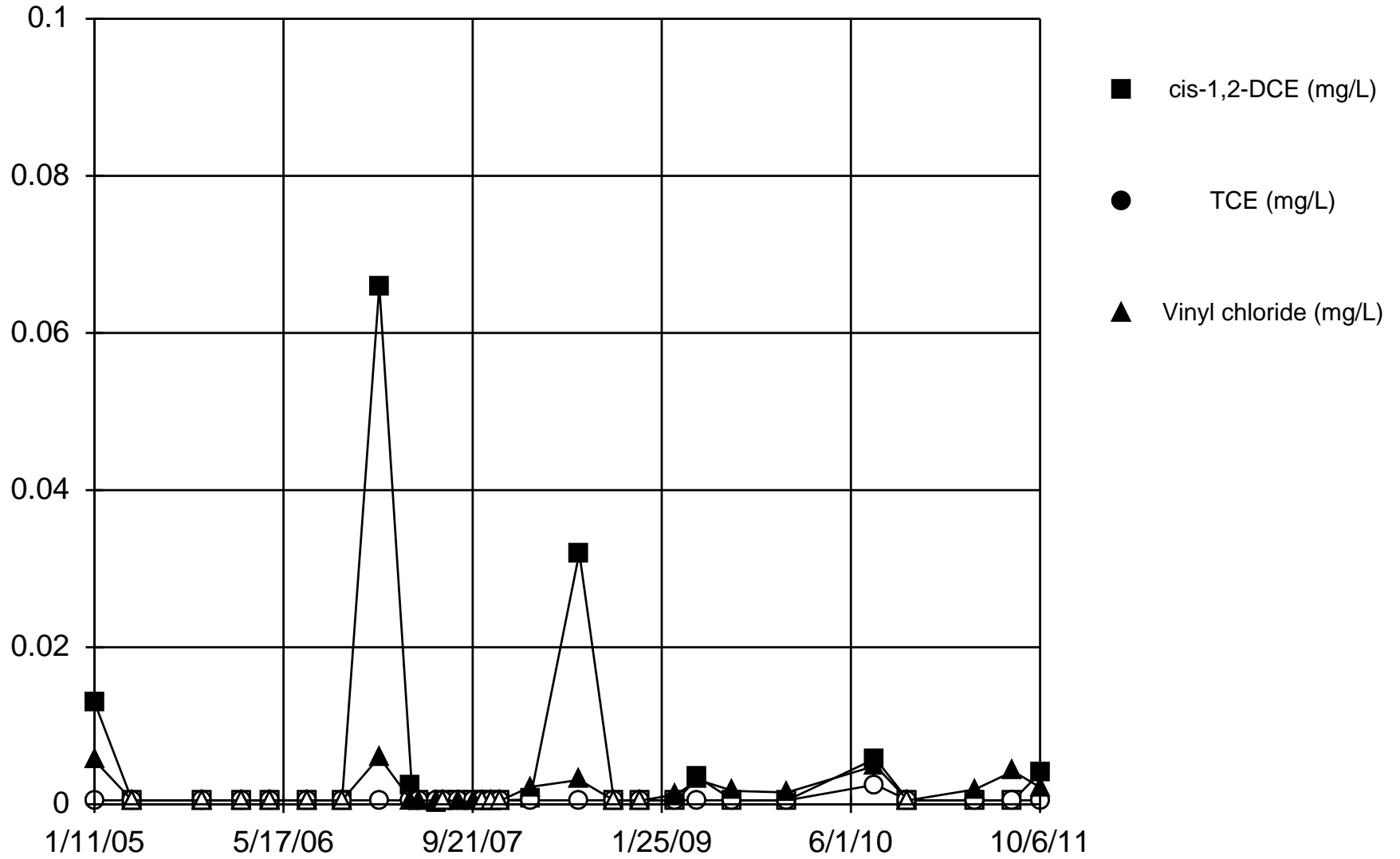


Analysis Run 11/28/2011 4:01 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

PondIntake

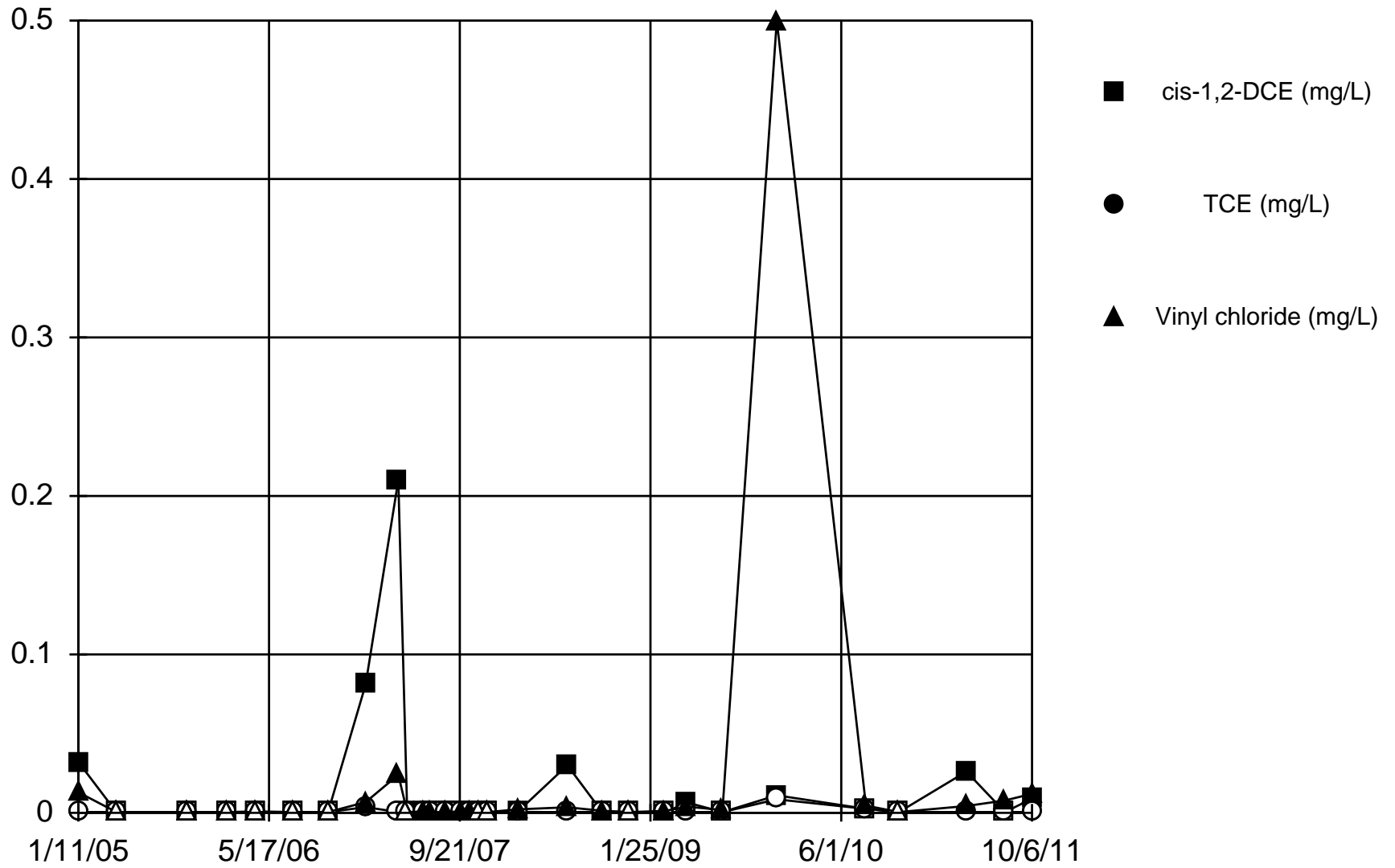


Analysis Run 11/28/2011 4:02 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Time Series

PondNorth



Analysis Run 11/28/2011 4:10 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

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**Attachment C-2  
Trend Analysis Results**

Attachment C-2  
Mann-Kendall Test Results  
(1992-2011)

| Location    | Unit | Number Samples | Number Detects | Percent Detects | Coefficient of Variation | Mann-Kendall Statistic (S) | Confidence in Trend | Compound    | MK Trend   | Latest Sample Date |
|-------------|------|----------------|----------------|-----------------|--------------------------|----------------------------|---------------------|-------------|------------|--------------------|
| MW 12       | 3I   | 20             | 20             | 100.0%          | 1.36                     | -147                       | 100.00%             | cis-1,2-DCE | Decreasing | 10/5/2011          |
| MW 14       | 3S   | 19             | 19             | 100.0%          | 0.547                    | -58                        | 97.70%              | cis-1,2-DCE | Decreasing | 10/5/2011          |
| MW 28       | 3D   | 12             | 0              | 0.0%            | 0                        | 0                          | 47.30%              | cis-1,2-DCE | -          | 10/3/2011          |
| MW 3        | 3S   | 20             | 20             | 100.0%          | 0.549                    | -32                        | 84.10%              | cis-1,2-DCE | No Trend   | 10/5/2011          |
| MW 31/31R   | 1    | 19             | 19             | 100.0%          | 1.53                     | -95                        | 100.00%             | cis-1,2-DCE | Decreasing | 10/4/2011          |
| MW 37       | 3S   | 8              | 0              | 0.0%            | 0                        | 0                          | 45.20%              | cis-1,2-DCE | -          | 10/5/2011          |
| MW 40       | 3S   | 19             | 19             | 100.0%          | 0.26                     | -26                        | 80.70%              | cis-1,2-DCE | No Trend   | 10/4/2011          |
| MW 41       | 3D   | 18             | 18             | 100.0%          | 0.26                     | 30                         | 86.20%              | cis-1,2-DCE | No Trend   | 10/4/2011          |
| MW 42       | 3S   | 18             | 18             | 100.0%          | 0.27                     | -48                        | 96.30%              | cis-1,2-DCE | Decreasing | 10/4/2011          |
| MW 46       | 3S   | 7              | 0              | 0.0%            | 0                        | 0                          | 43.70%              | cis-1,2-DCE | -          | 10/5/2011          |
| MW 49       | 3S   | 11             | 11             | 100.0%          | 1.04                     | 50                         | 100.00%             | cis-1,2-DCE | Increasing | 10/5/2011          |
| MW 51       | 3S   | 7              | 6              | 85.7%           | 0.56                     | 1                          | 50.00%              | cis-1,2-DCE | No Trend   | 10/5/2011          |
| MW 56       | 3D   | 8              | 1              | 12.5%           | 2.74                     | -3                         | 59.40%              | cis-1,2-DCE | -          | 10/6/2011          |
| MW 57       | 3D   | 14             | 6              | 42.9%           | 1.97                     | -27                        | 92.10%              | cis-1,2-DCE | -          | 10/6/2011          |
| MW 58       | 3D   | 9              | 1              | 11.1%           | 2.94                     | -4                         | 61.90%              | cis-1,2-DCE | -          | 10/6/2011          |
| MW 61       | 3D   | 5              | 0              | 0.0%            | 0                        | 0                          | 40.80%              | cis-1,2-DCE | -          | 10/3/2011          |
| MW 64       | 3D   | 9              | 2              | 22.2%           | 2.96                     | 3                          | 58.00%              | cis-1,2-DCE | -          | 10/3/2011          |
| MW 65       | 3D   | 9              | 9              | 100.0%          | 0.66                     | 1                          | 50.00%              | cis-1,2-DCE | No Trend   | 10/3/2011          |
| MW 66       | 3D   | 12             | 6              | 50.0%           | 1.82                     | 43                         | 99.90%              | cis-1,2-DCE | -          | 10/3/2011          |
| MW 68       | 3S   | 18             | 18             | 100.0%          | 0.26                     | -67                        | 99.50%              | cis-1,2-DCE | Decreasing | 10/4/2011          |
| MW 75       | 3D   | 7              | 0              | 0.0%            | 0                        | 0                          | 43.70%              | cis-1,2-DCE | -          | 10/5/2011          |
| MW 76       | 3S   | 6              | 1              | 16.7%           | 1.84                     | 1                          | 50.00%              | cis-1,2-DCE | -          | 10/5/2011          |
| MW 79       | 3S   | 8              | 8              | 100.0%          | 0.21                     | 21                         | 99.60%              | cis-1,2-DCE | Increasing | 10/4/2011          |
| MW 8        | 3S   | 17             | 17             | 100.0%          | 0.756                    | -58                        | 99.10%              | cis-1,2-DCE | Decreasing | 10/5/2011          |
| MW 80       | 3D   | 8              | 1              | 12.5%           | 1.7                      | -1                         | 50.00%              | cis-1,2-DCE | -          | 10/3/2011          |
| MW 81       | B    | 10             | 3              | 30.0%           | 3                        | 20                         | 95.50%              | cis-1,2-DCE | -          | 10/3/2011          |
| MW 82       | B    | 8              | 0              | 0.0%            | 0                        | 0                          | 45.20%              | cis-1,2-DCE | -          | 10/4/2011          |
| MW 83       | B    | 8              | 1              | 12.5%           | 2.36                     | -1                         | 50.00%              | cis-1,2-DCE | -          | 10/4/2011          |
| MW 85       | 3D   | 8              | 3              | 37.5%           | 1.59                     | 14                         | 94.60%              | cis-1,2-DCE | -          | 10/6/2011          |
| MW-2        | 3D   | 8              | 2              | 25.0%           | 2.54                     | 7                          | 76.40%              | cis-1,2-DCE | -          | 10/6/2011          |
| MW-4        | 3D   | 19             | 19             | 100.0%          | 0.43                     | 48                         | 95.00%              | cis-1,2-DCE | Increasing | 10/6/2011          |
| Pond Intake | WS   | 30             | 9              | 30.0%           | 3.11                     | 9                          | 55.60%              | cis-1,2-DCE | -          | 10/6/2011          |
| Pond North  | WS   | 30             | 11             | 36.7%           | 3                        | 16                         | 60.50%              | cis-1,2-DCE | -          | 10/6/2011          |
| MW 12       | 3I   | 20             | 18             | 90.0%           | 1.3                      | -117                       | 100.00%             | TCE         | Decreasing | 10/5/2011          |
| MW 14       | 3S   | 20             | 2              | 10.0%           | 3.69                     | 21                         | 74.00%              | TCE         | -          | 10/5/2011          |
| MW 28       | 3D   | 12             | 1              | 8.3%            | 1.87                     | -5                         | 60.60%              | TCE         | -          | 10/3/2011          |
| MW 3        | 3S   | 21             | 21             | 100.0%          | 0.645                    | -66                        | 93.60%              | TCE         | Decreasing | 10/5/2011          |
| MW 31/31R   | 1    | 19             | 16             | 84.2%           | 3.55                     | -74                        | 99.60%              | TCE         | Decreasing | 10/4/2011          |
| MW 37       | 3S   | 8              | 0              | 0.0%            | 0                        | 0                          | 45.20%              | TCE         | -          | 10/5/2011          |
| MW 40       | 3S   | 19             | 2              | 10.5%           | 4.32                     | 1                          | 50.00%              | TCE         | -          | 10/4/2011          |
| MW 41       | 3D   | 18             | 1              | 5.6%            | 1.93                     | -11                        | 64.60%              | TCE         | -          | 10/4/2011          |
| MW 42       | 3S   | 18             | 1              | 5.6%            | 1.52                     | -11                        | 64.60%              | TCE         | -          | 10/4/2011          |
| MW 46       | 3S   | 7              | 2              | 28.6%           | 1.41                     | 1                          | 50.00%              | TCE         | -          | 10/5/2011          |
| MW 49       | 3S   | 11             | 5              | 45.5%           | 1.31                     | 2                          | 53.00%              | TCE         | -          | 10/5/2011          |
| MW 51       | 3S   | 7              | 7              | 100.0%          | 0.19                     | -6                         | 76.40%              | TCE         | No Trend   | 10/5/2011          |
| MW 56       | 3D   | 8              | 1              | 12.5%           | 2.52                     | -3                         | 59.40%              | TCE         | -          | 10/6/2011          |
| MW 57       | 3D   | 14             | 2              | 14.3%           | 2                        | -13                        | 74.10%              | TCE         | -          | 10/6/2011          |
| MW 58       | 3D   | 9              | 2              | 22.2%           | 2.67                     | -7                         | 72.80%              | TCE         | -          | 10/6/2011          |
| MW 61       | 3D   | 5              | 0              | 0.0%            | 0                        | 0                          | 40.80%              | TCE         | -          | 10/3/2011          |
| MW 64       | 3D   | 9              | 5              | 55.6%           | 2.96                     | -8                         | 76.20%              | TCE         | -          | 10/3/2011          |
| MW 65       | 3D   | 9              | 0              | 0.0%            | 0                        | 0                          | 46.00%              | TCE         | -          | 10/3/2011          |
| MW 66       | 3D   | 12             | 1              | 8.3%            | 2.54                     | -3                         | 55.40%              | TCE         | -          | 10/3/2011          |
| MW 68       | 3S   | 18             | 17             | 94.4%           | 0.79                     | 93                         | 100.00%             | TCE         | Increasing | 10/4/2011          |

Attachment C-2  
Mann-Kendall Test Results  
(1992-2011)

| Location    | Unit | Number Samples | Number Detects | Percent Detects | Coefficient of Variation | Mann-Kendall Statistic (S) | Confidence in Trend | Compound | MK Trend   | Latest Sample Date |
|-------------|------|----------------|----------------|-----------------|--------------------------|----------------------------|---------------------|----------|------------|--------------------|
| MW 75       | 3D   | 7              | 0              | 0.0%            | 0                        | 0                          | 43.70%              | TCE      | -          | 10/5/2011          |
| MW 76       | 3S   | 6              | 0              | 0.0%            | 0                        | 0                          | 42.30%              | TCE      | -          | 10/5/2011          |
| MW 79       | 3S   | 8              | 1              | 12.5%           | 2.83                     | -7                         | 76.40%              | TCE      | -          | 10/4/2011          |
| MW 8        | 3S   | 18             | 18             | 100.0%          | 1.21                     | -40                        | 92.90%              | TCE      | Decreasing | 10/5/2011          |
| MW 80       | 3D   | 8              | 1              | 12.5%           | 2.02                     | -3                         | 59.40%              | TCE      | -          | 10/3/2011          |
| MW 81       | B    | 10             | 0              | 0.0%            | 0                        | 0                          | 46.40%              | TCE      | -          | 10/3/2011          |
| MW 82       | B    | 8              | 0              | 0.0%            | 0                        | 0                          | 45.20%              | TCE      | -          | 10/4/2011          |
| MW 83       | B    | 8              | 0              | 0.0%            | 0                        | 0                          | 45.20%              | TCE      | -          | 10/4/2011          |
| MW 85       | 3D   | 8              | 1              | 12.5%           | 2.76                     | -7                         | 76.40%              | TCE      | -          | 10/6/2011          |
| MW-2        | 3D   | 8              | 0              | 0.0%            | 0                        | 0                          | 45.20%              | TCE      | -          | 10/6/2011          |
| MW-4        | 3D   | 19             | 5              | 26.3%           | 2.22                     | 22                         | 76.60%              | TCE      | -          | 10/6/2011          |
| Pond Intake | WS   | 30             | 0              | 0.0%            | 0                        | 0                          | 49.30%              | TCE      | -          | 10/6/2011          |
| Pond North  | WS   | 30             | 0              | 0.0%            | 0                        | 0                          | 49.30%              | TCE      | -          | 10/6/2011          |
| MW 12       | 3I   | 20             | 1              | 5.0%            | 3.49                     | 3                          | 52.60%              | VC       | -          | 10/5/2011          |
| MW 14       | 3S   | 19             | 19             | 100.0%          | 0.564                    | -67                        | 99.00%              | VC       | Decreasing | 10/5/2011          |
| MW 28       | 3D   | 12             | 12             | 100.0%          | 0.34                     | -11                        | 74.90%              | VC       | No Trend   | 10/3/2011          |
| MW 3        | 3S   | 21             | 17             | 81.0%           | 0.792                    | -19                        | 70.45%              | VC       | No Trend   | 10/5/2011          |
| MW 31/31R   | 1    | 19             | 17             | 89.5%           | 0.87                     | -42                        | 92.30%              | VC       | Decreasing | 10/4/2011          |
| MW 37       | 3S   | 8              | 0              | 0.0%            | 0                        | 0                          | 45.20%              | VC       | -          | 10/5/2011          |
| MW 40       | 3S   | 19             | 19             | 100.0%          | 0.45                     | 75                         | 99.60%              | VC       | Increasing | 10/4/2011          |
| MW 41       | 3D   | 18             | 18             | 100.0%          | 0.33                     | 61                         | 98.90%              | VC       | Increasing | 10/4/2011          |
| MW 42       | 3S   | 18             | 16             | 88.9%           | 0.49                     | 40                         | 92.90%              | VC       | Increasing | 10/4/2011          |
| MW 46       | 3S   | 7              | 0              | 0.0%            | 0                        | 0                          | 43.70%              | VC       | -          | 10/5/2011          |
| MW 49       | 3S   | 11             | 11             | 100.0%          | 0.56                     | 1                          | 50.00%              | VC       | No Trend   | 10/5/2011          |
| MW 51       | 3S   | 7              | 0              | 0.0%            | 0                        | 0                          | 43.70%              | VC       | -          | 10/5/2011          |
| MW 56       | 3D   | 8              | 0              | 0.0%            | 0                        | 0                          | 45.20%              | VC       | -          | 10/6/2011          |
| MW 57       | 3D   | 14             | 3              | 21.4%           | 2.37                     | 10                         | 68.60%              | VC       | -          | 10/6/2011          |
| MW 58       | 3D   | 9              | 7              | 77.8%           | 1.26                     | 33                         | 100.00%             | VC       | Increasing | 10/6/2011          |
| MW 61       | 3D   | 5              | 1              | 20.0%           | 1.9                      | 4                          | 75.80%              | VC       | -          | 10/3/2011          |
| MW 64       | 3D   | 9              | 8              | 88.9%           | 1.2                      | 24                         | 99.40%              | VC       | Increasing | 10/3/2011          |
| MW 65       | 3D   | 9              | 7              | 77.8%           | 0.66                     | -12                        | 87.00%              | VC       | No Trend   | 10/3/2011          |
| MW 66       | 3D   | 12             | 12             | 100.0%          | 1.27                     | 54                         | 100.00%             | VC       | Increasing | 10/3/2011          |
| MW 68       | 3S   | 18             | 18             | 100.0%          | 0.39                     | -13                        | 67.30%              | VC       | No Trend   | 10/4/2011          |
| MW 75       | 3D   | 7              | 0              | 0.0%            | 0                        | 0                          | 43.70%              | VC       | -          | 10/5/2011          |
| MW 76       | 3S   | 6              | 0              | 0.0%            | 0                        | 0                          | 42.30%              | VC       | -          | 10/5/2011          |
| MW 79       | 3S   | 8              | 8              | 100.0%          | 0.31                     | -16                        | 96.90%              | VC       | Decreasing | 10/4/2011          |
| MW 8        | 3S   | 17             | 17             | 100.0%          | 0.662                    | -6                         | 58.00%              | VC       | No Trend   | 10/5/2011          |
| MW 80       | 3D   | 8              | 8              | 100.0%          | 0.75                     | -14                        | 94.60%              | VC       | Decreasing | 10/3/2011          |
| MW 81       | B    | 10             | 10             | 100.0%          | 0.91                     | 45                         | 100.00%             | VC       | Increasing | 10/3/2011          |
| MW 82       | B    | 8              | 0              | 0.0%            | 0                        | 0                          | 45.20%              | VC       | -          | 10/4/2011          |
| MW 83       | B    | 8              | 1              | 12.5%           | 2.22                     | 7                          | 76.40%              | VC       | -          | 10/4/2011          |
| MW 85       | 3D   | 8              | 8              | 100.0%          | 0.36                     | 12                         | 91.10%              | VC       | Increasing | 10/6/2011          |
| MW-2        | 3D   | 8              | 0              | 0.0%            | 0                        | 0                          | 45.20%              | VC       | -          | 10/6/2011          |
| MW-4        | 3D   | 19             | 19             | 100.0%          | 0.38                     | -38                        | 90.10%              | VC       | Decreasing | 10/6/2011          |
| Pond Intake | WS   | 30             | 17             | 56.7%           | 1.37                     | 118                        | 98.20%              | VC       | -          | 10/6/2011          |
| Pond North  | WS   | 30             | 19             | 63.3%           | 4.62                     | 154                        | 99.70%              | VC       | -          | 10/6/2011          |

Notes:

*Increasing* means increasing trend based on Mann-Kendall nonparametric test for trend at 0.1 significance level.

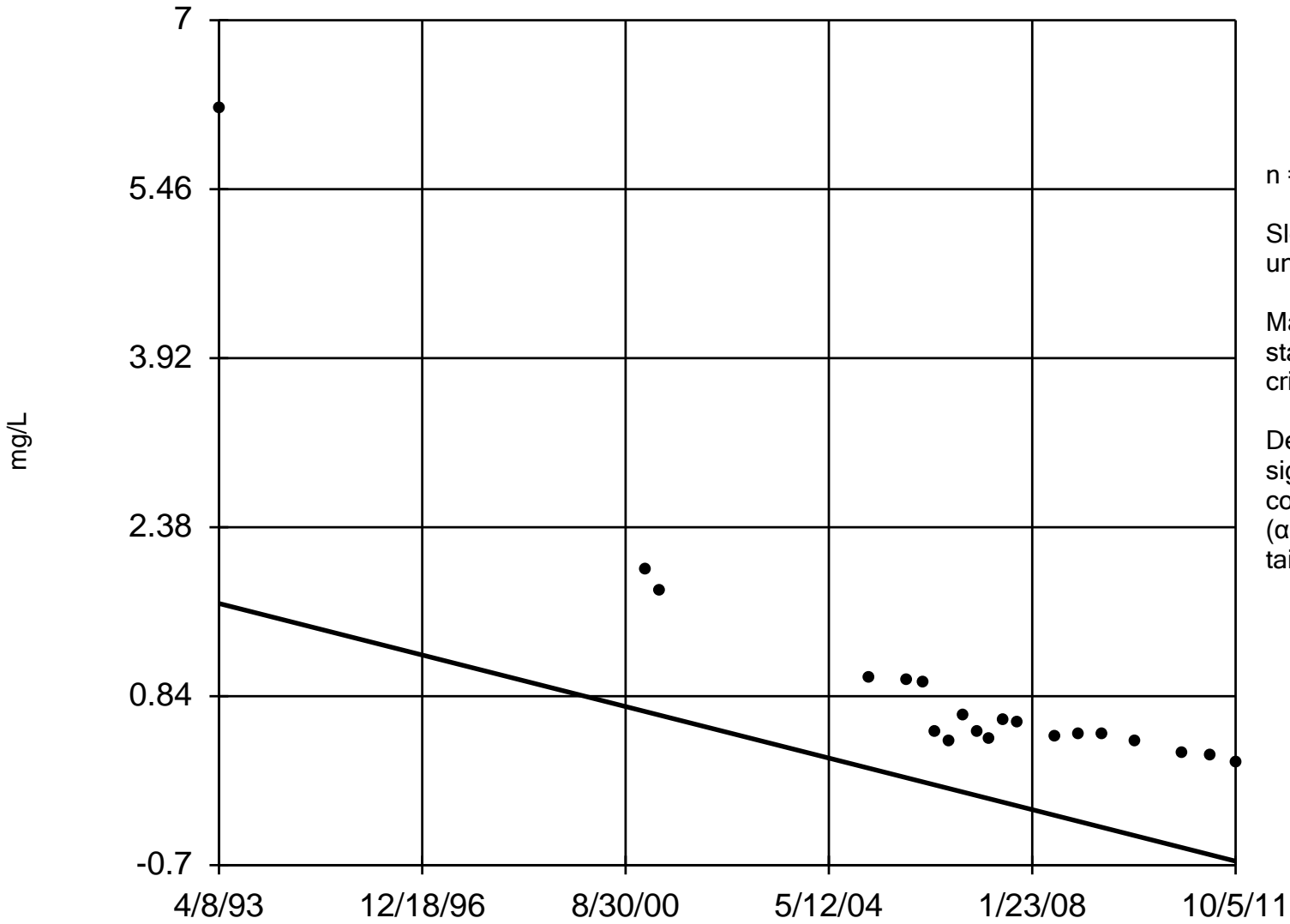
*Decreasing* means decreasing trend based on Mann-Kendall nonparametric test for trend at 0.1 significance level.

*No data* means no significant data trend at the 0.1 significance level.

"-" means trend not determinable (frequency of non-detect values exceeds 25 percent, or fewer than four data points).

# Sen's Slope Estimator

MW12

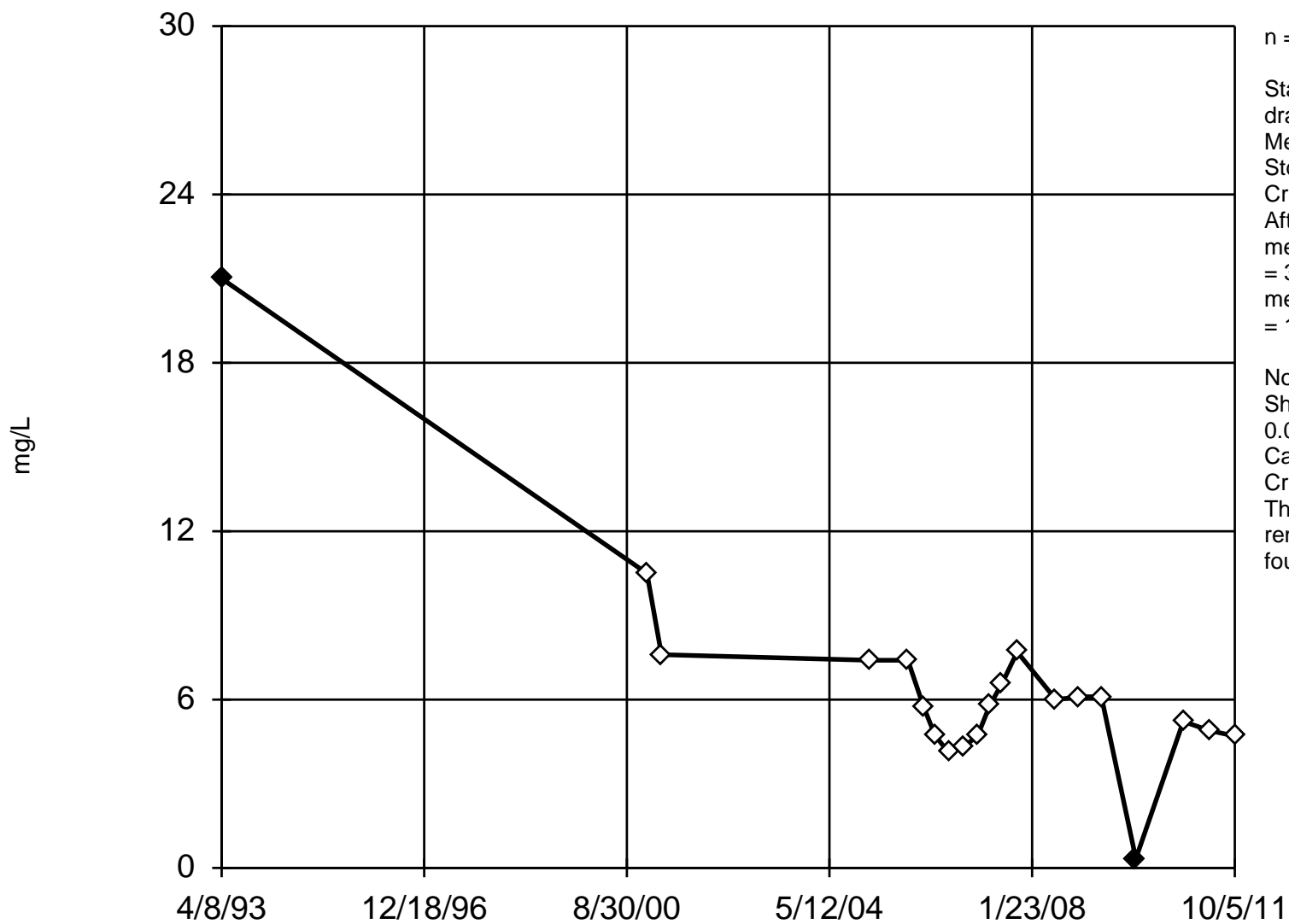


Constituent: cis-1,2-DCE Analysis Run 11/29/2011 2:46 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

## EPA 1989 Outlier Test

MW14



n = 20

Statistical outliers are drawn as solid.

Mean = 6.543

Std. dev. = 3.939

Critical Tn = 2.557.

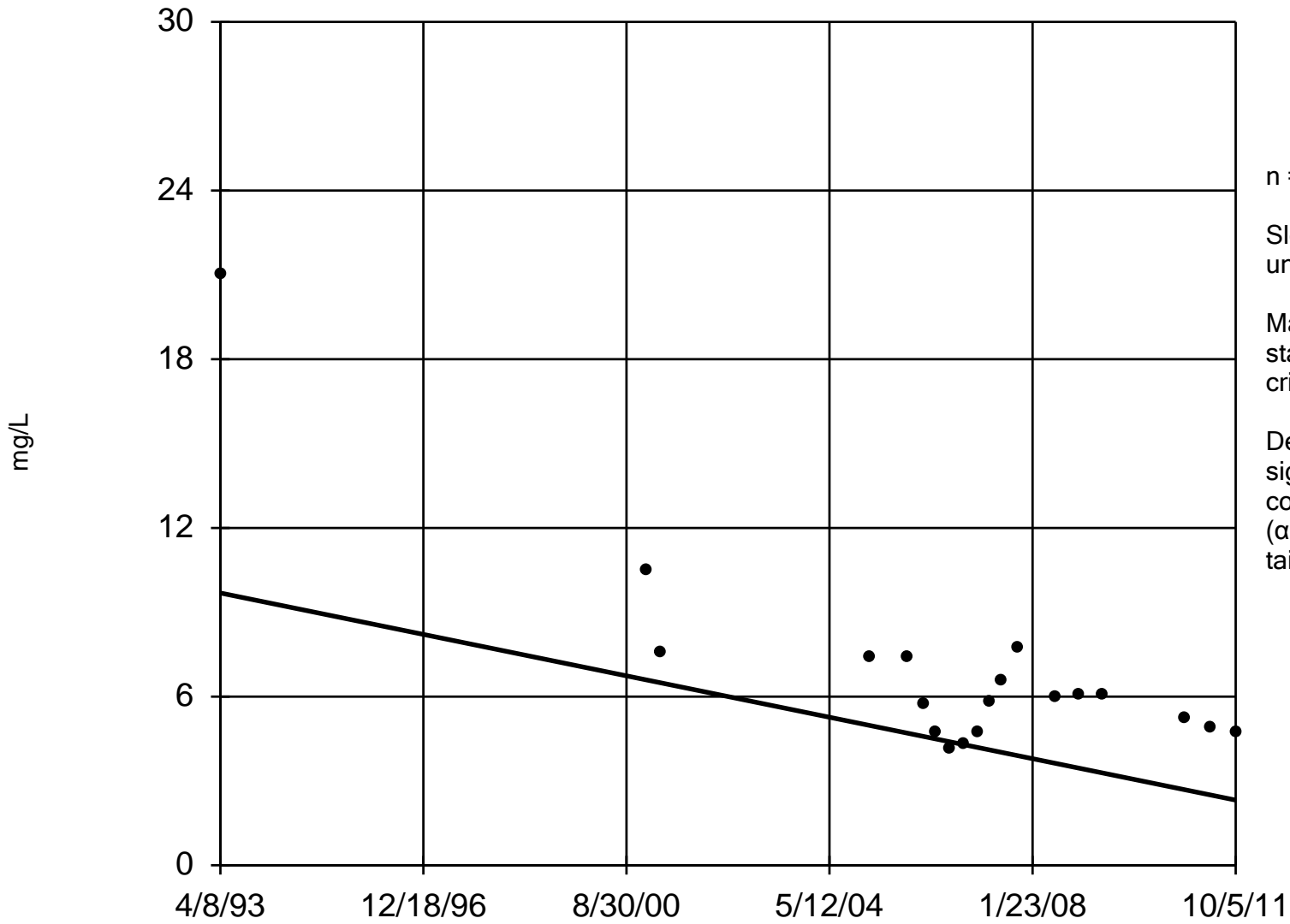
After outlier removal:  
mean = 6.869, std. dev. = 3.758, critical = 2.532;  
mean = 6.084, std. dev. = 1.598, critical = 2.504.Normality test used:  
Shapiro Wilk@alpha = 0.05  
Calculated = 0.9001  
Critical = 0.897  
The distribution, after removal of outliers, was found to be normal.

Constituent: cis-1,2-DCE Analysis Run 11/29/2011 2:50 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW14

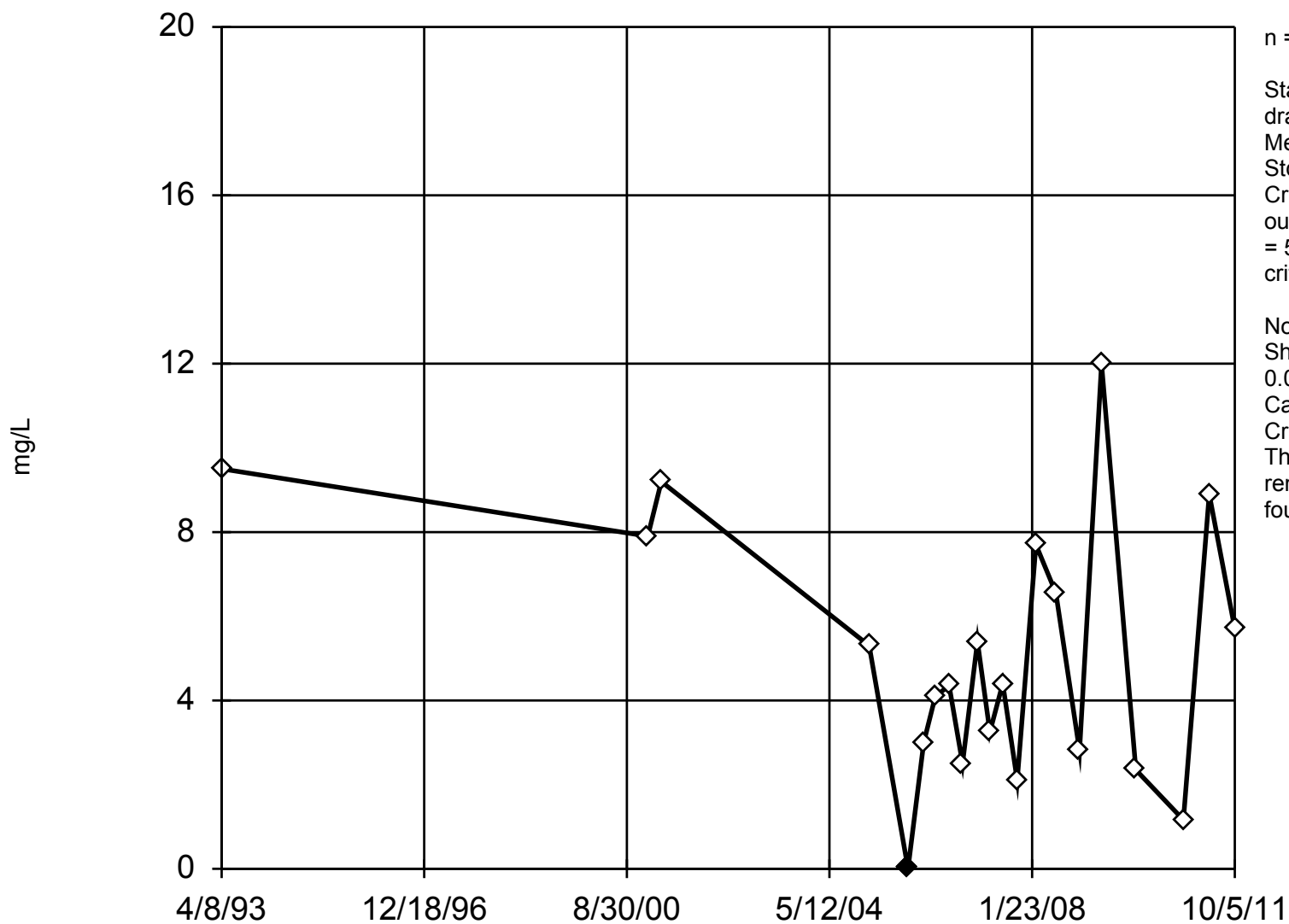


Constituent: cis-1,2-DCE Analysis Run 11/29/2011 2:54 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

## EPA 1989 Outlier Test

MW3



n = 21

Statistical outlier is drawn as solid.

Mean = 5.15

Std. dev. = 3.126

Critical Tn = 2.58. After

outlier removal: mean

= 5.408, std. dev. = 2.969,

critical = 2.557.

Normality test used:

Shapiro Wilk@alpha = 0.05

Calculated = 0.9463

Critical = 0.905

The distribution, after

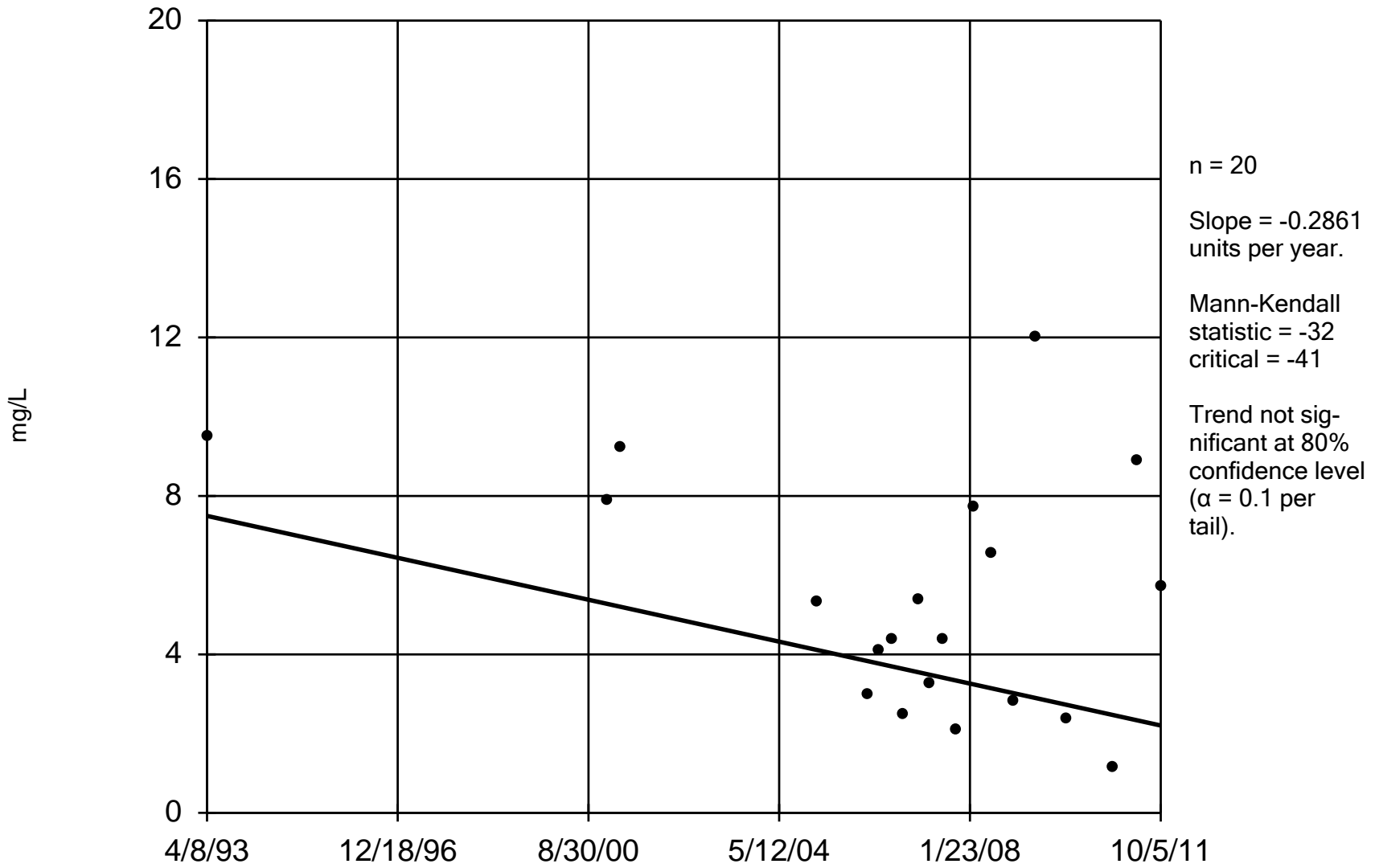
removal of outlier, was found to be normal.

Constituent: cis-1,2-DCE Analysis Run 11/29/2011 3:26 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW3

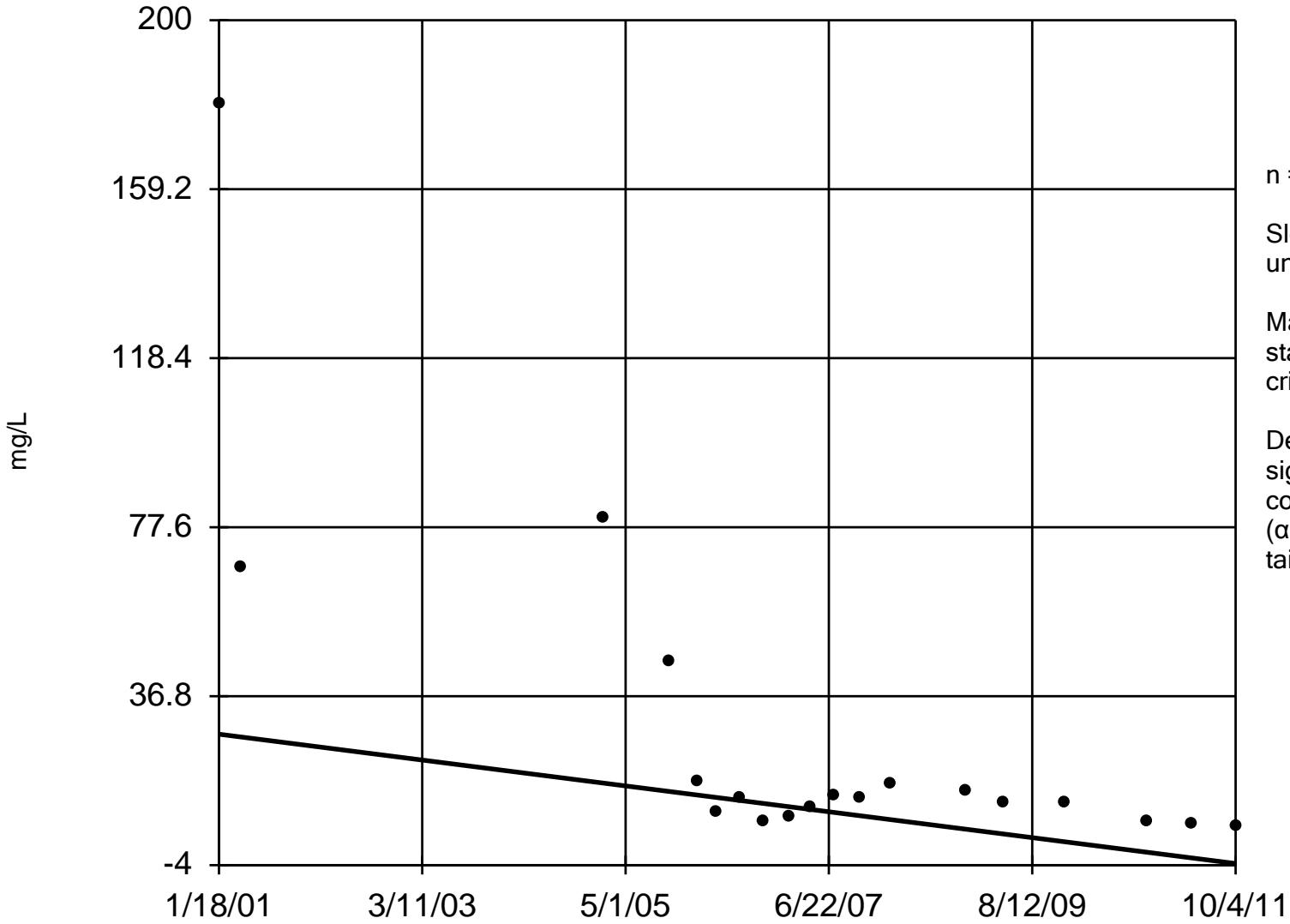


Constituent: cis-1,2-DCE Analysis Run 11/29/2011 3:29 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW31/31R

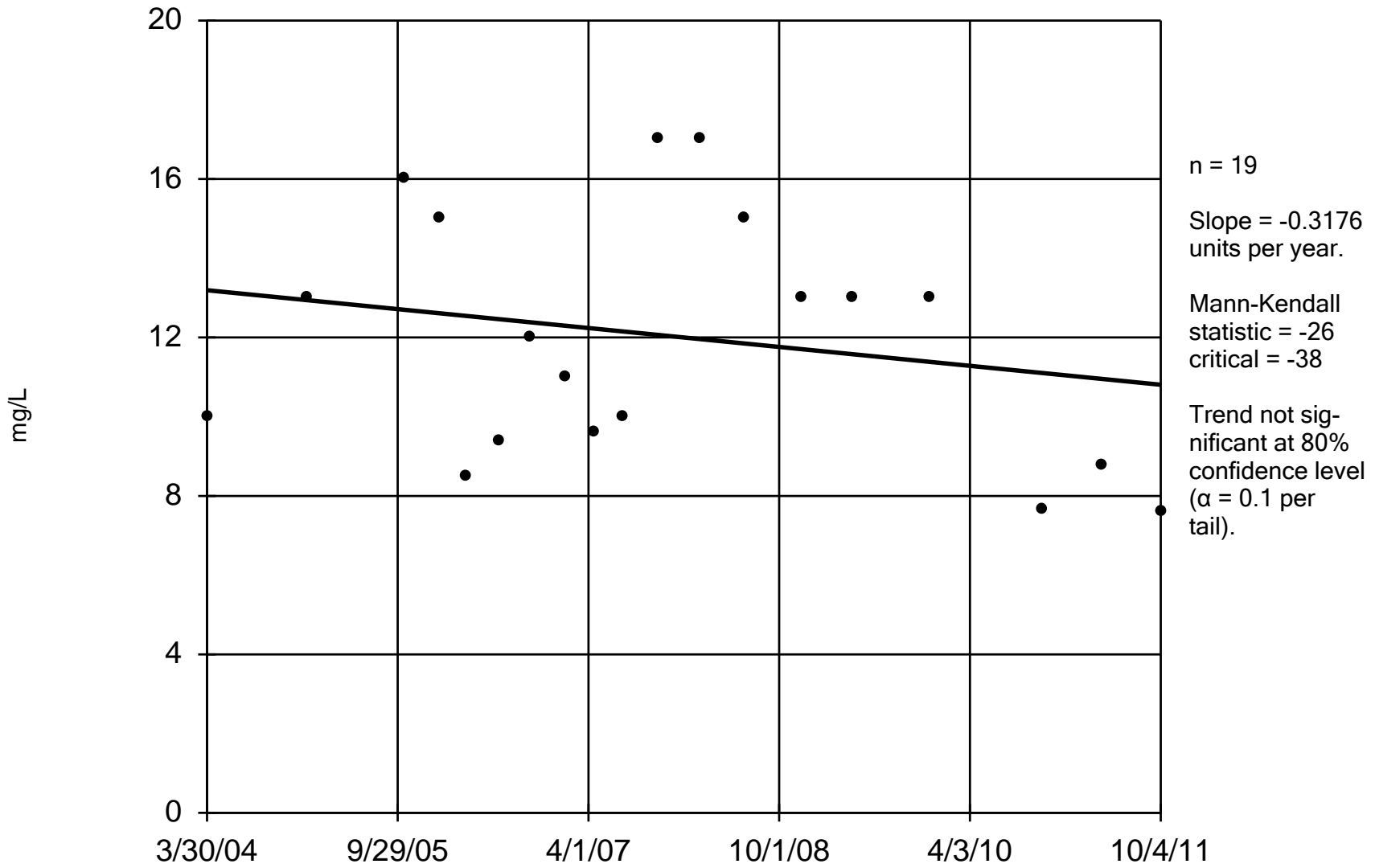


Constituent: cis-1,2-DCE Analysis Run 11/29/2011 4:05 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW40

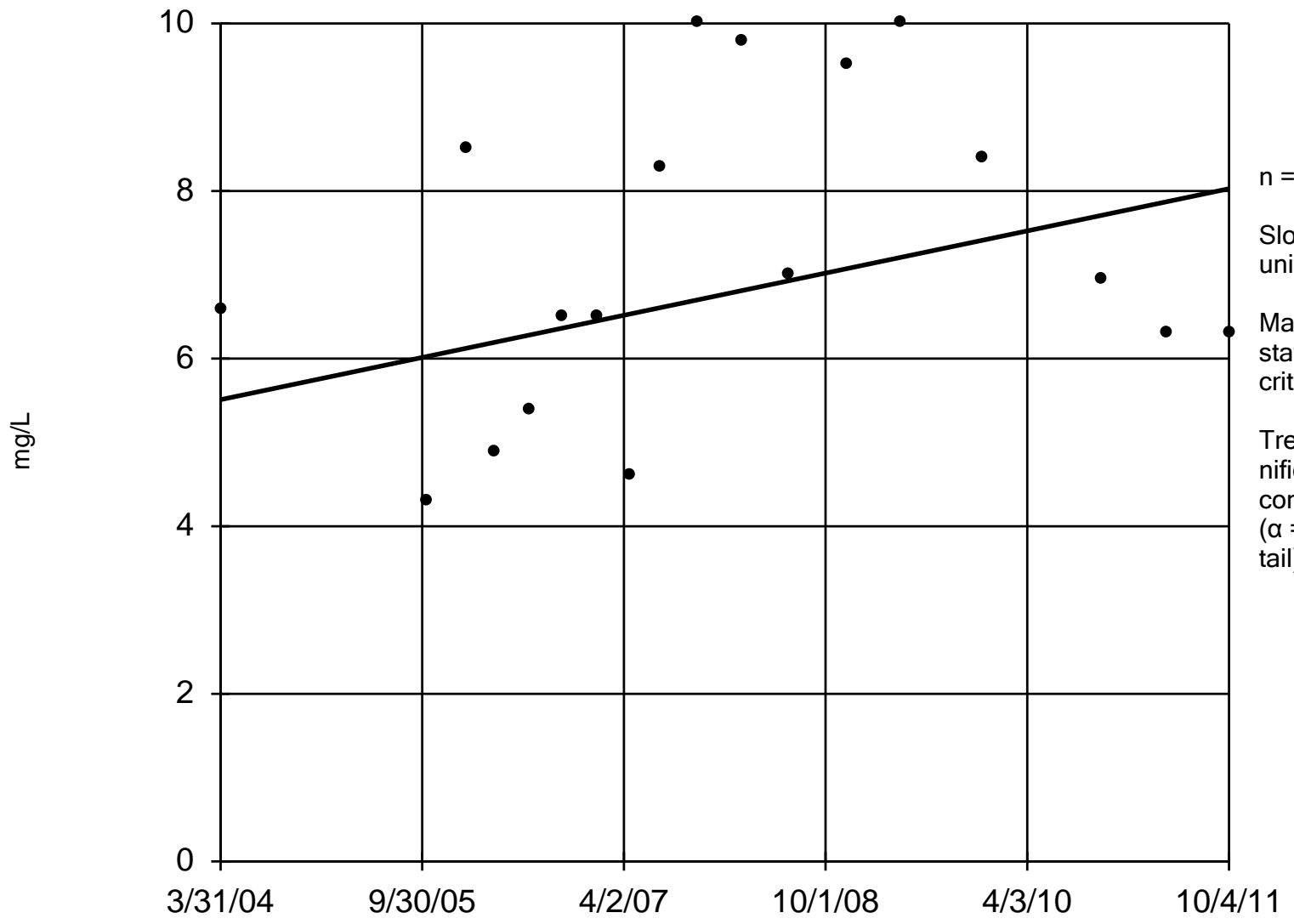


Constituent: cis-1,2-DCE Analysis Run 11/29/2011 3:34 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW41

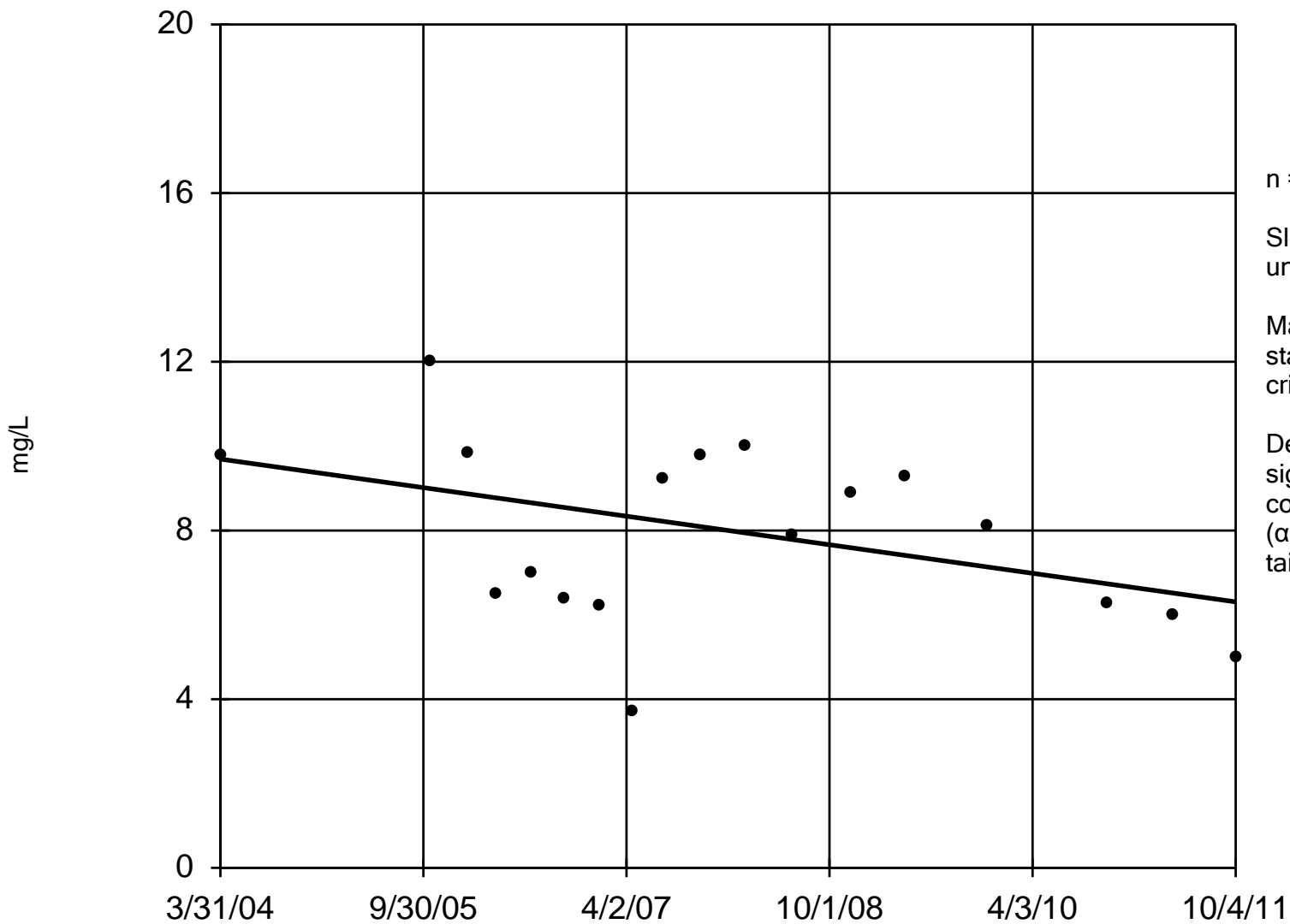


n = 18  
Slope = 0.3352 units per year.  
Mann-Kendall statistic = 30  
critical = 36  
Trend not significant at 80% confidence level ( $\alpha = 0.1$  per tail).

Constituent: cis-1,2-DCE    Analysis Run 11/29/2011 3:35 PM  
Facility: Racer\_MLK    Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW42



n = 18

Slope = -0.451  
units per year.

Mann-Kendall  
statistic = -48  
critical = -36

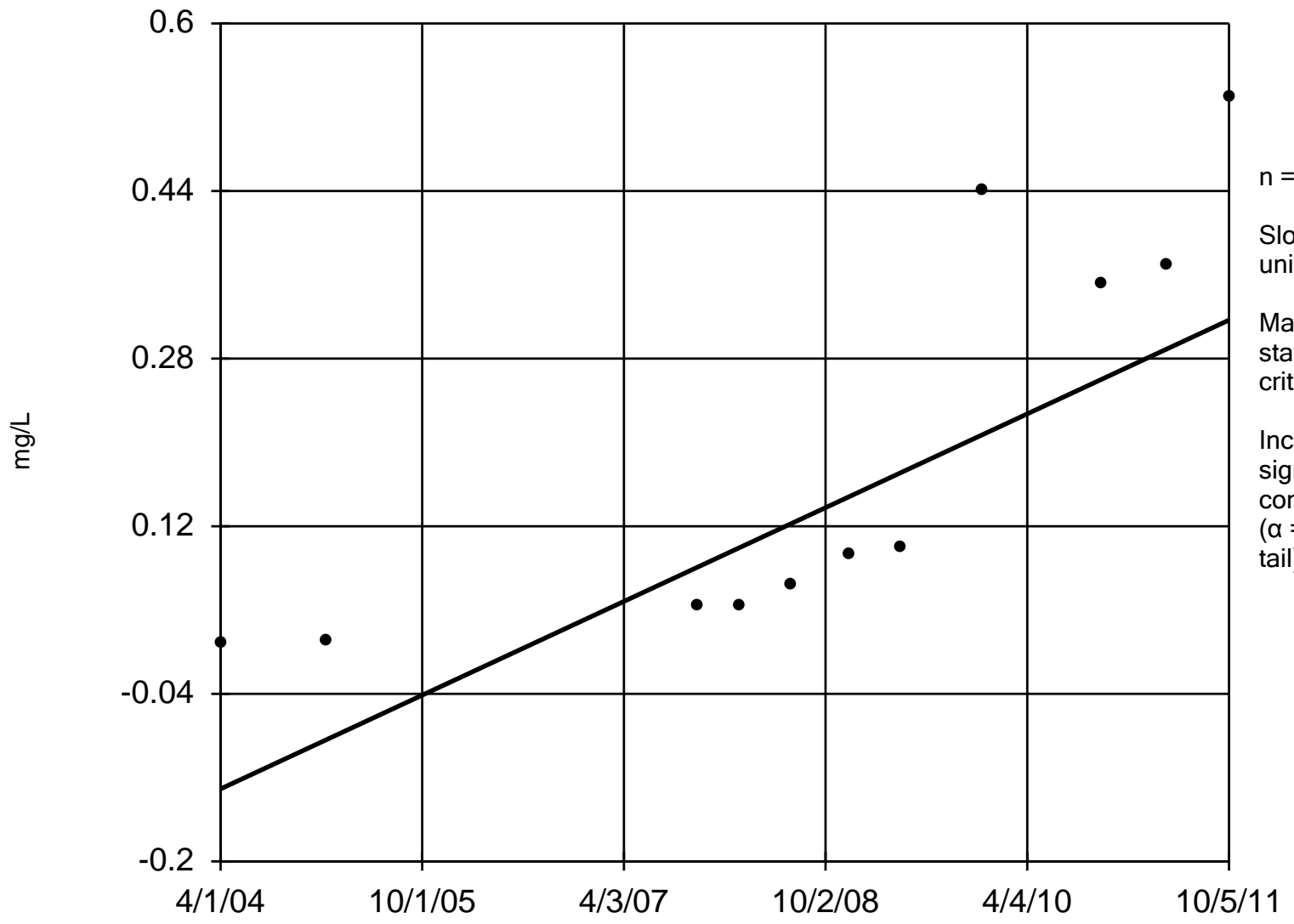
Decreasing trend  
significant at 80%  
confidence level  
( $\alpha = 0.1$  per  
tail).

Constituent: cis-1,2-DCE Analysis Run 11/29/2011 3:36 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW49



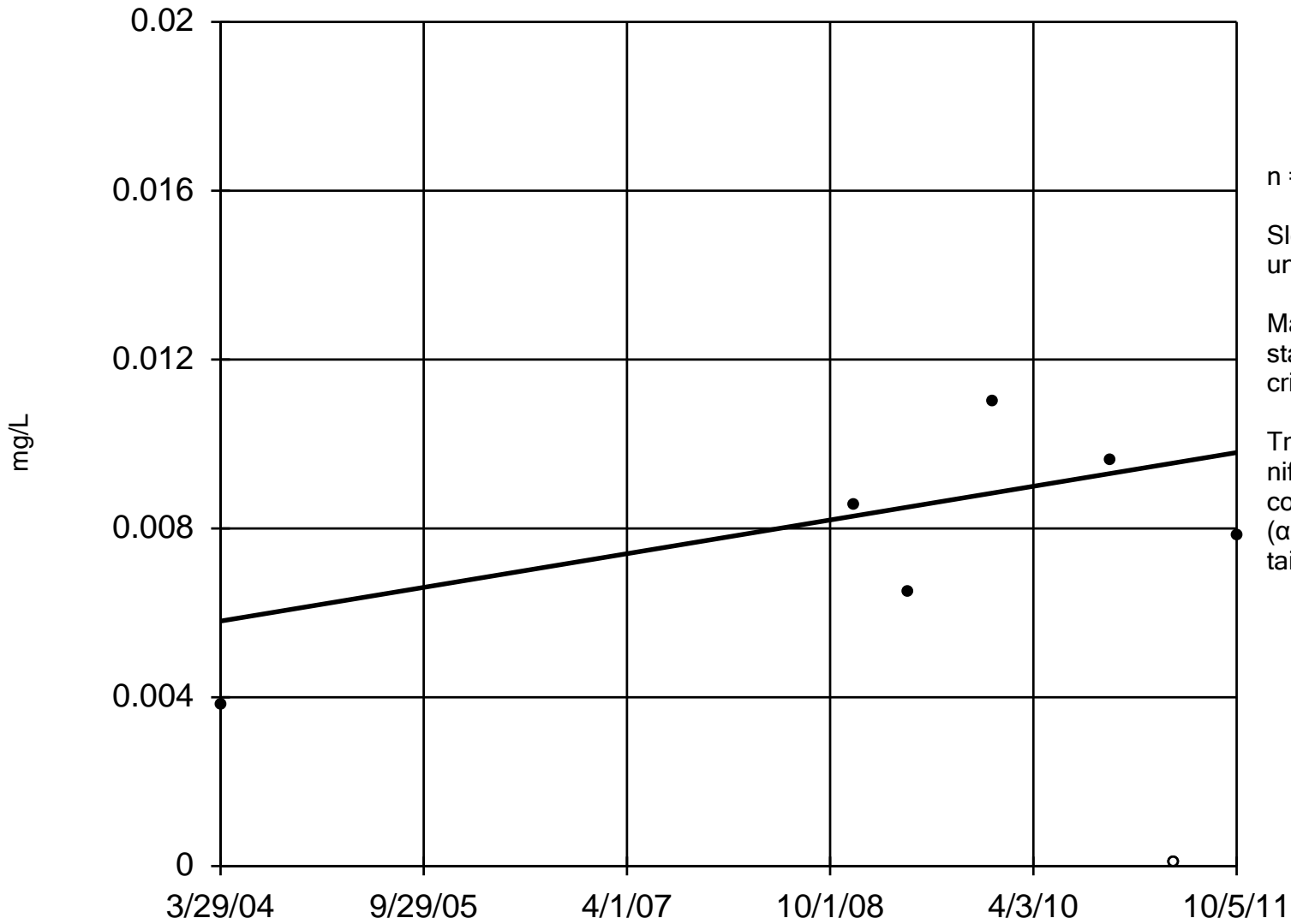
n = 11  
Slope = 0.05959 units per year.  
Mann-Kendall statistic = 50  
critical = 18  
Increasing trend significant at 80% confidence level ( $\alpha = 0.1$  per tail).

Constituent: cis-1,2-DCE Analysis Run 11/29/2011 3:38 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW51



n = 7

Slope = 0.0005307  
units per year.

Mann-Kendall  
statistic = 1  
critical = 10

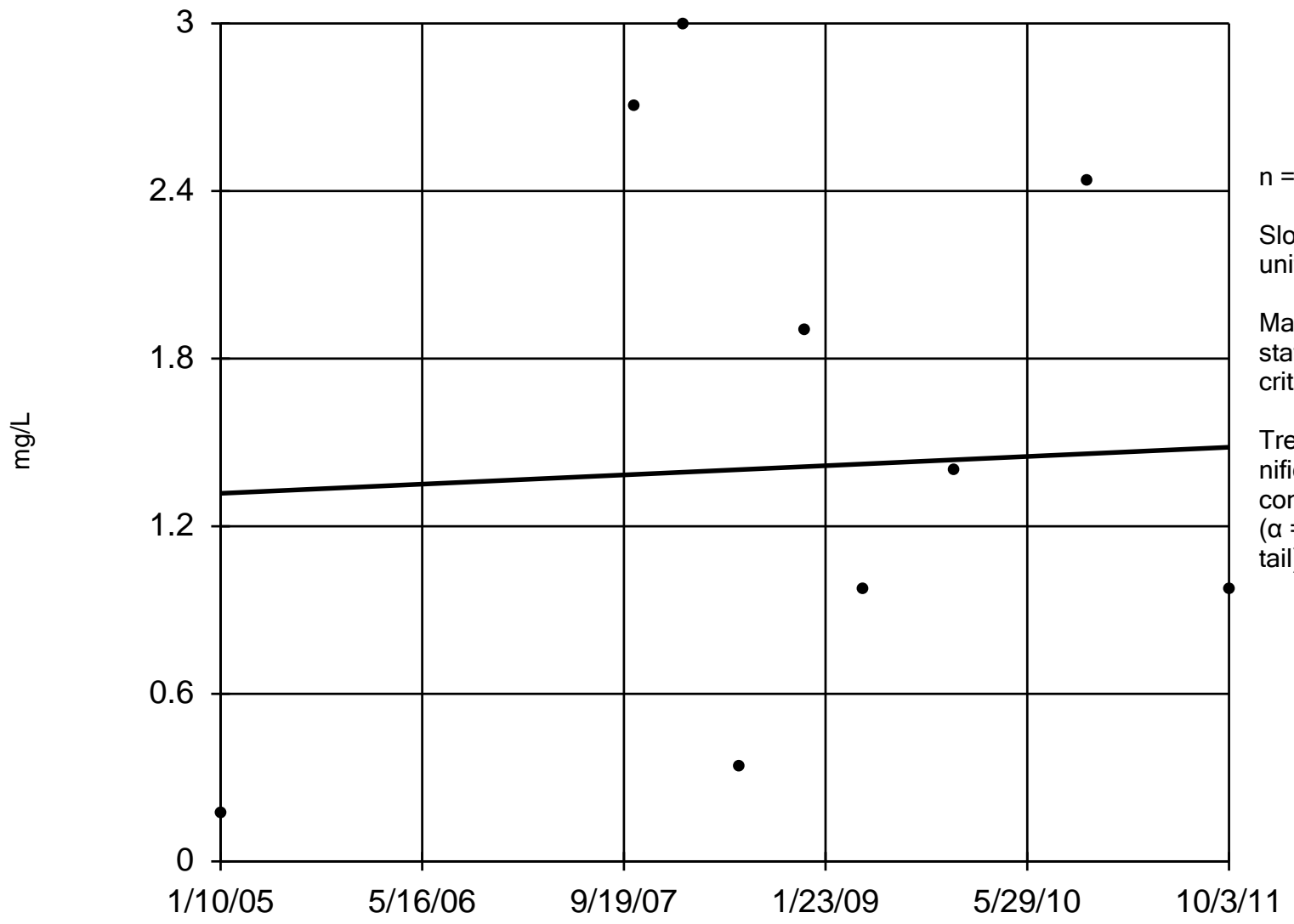
Trend not sig-  
nificant at 80%  
confidence level  
( $\alpha = 0.1$  per  
tail).

Constituent: cis-1,2-DCE Analysis Run 11/29/2011 3:49 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW65

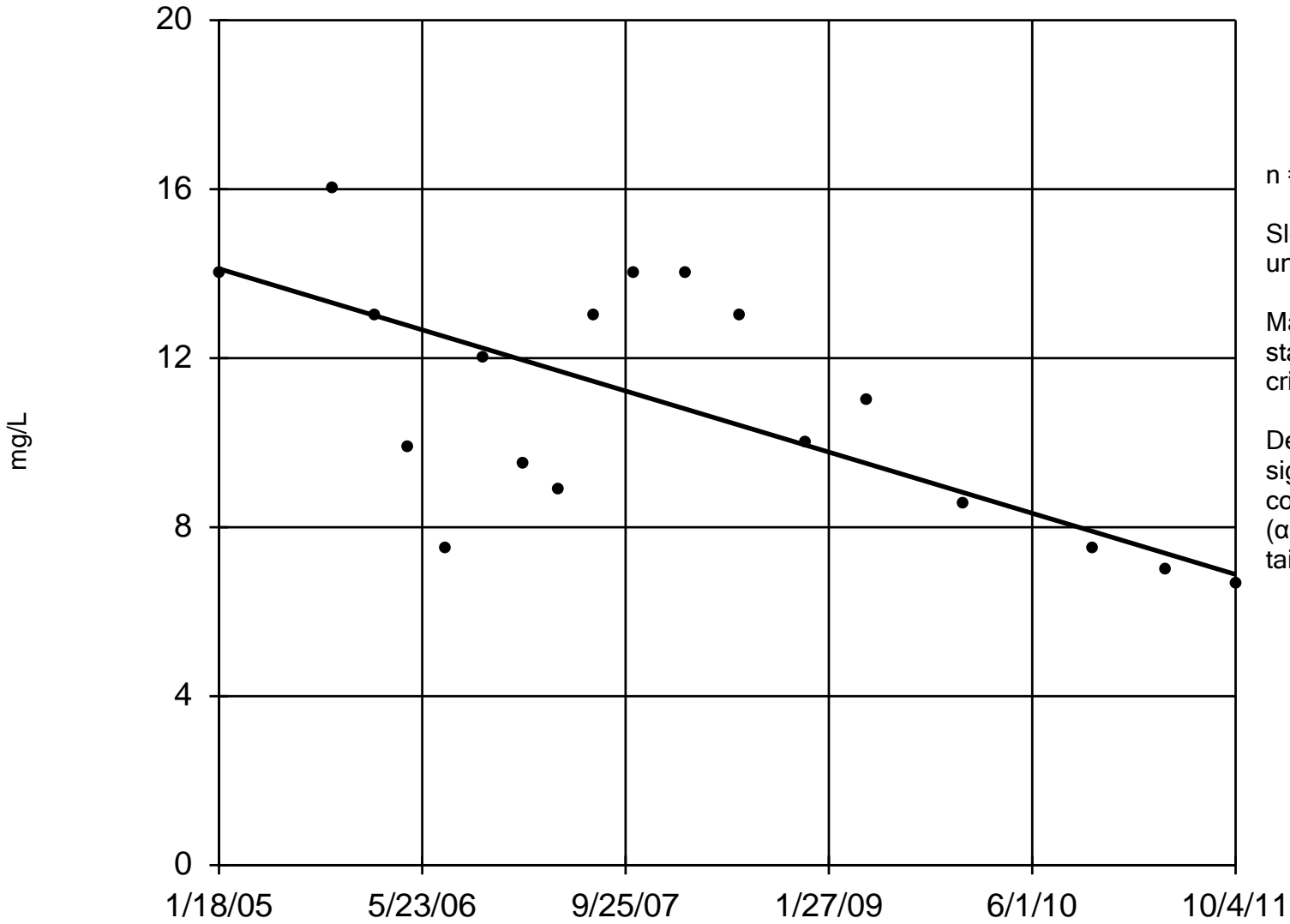


n = 9  
Slope = 0.02455  
units per year.  
Mann-Kendall  
statistic = 1  
critical = 14  
Trend not sig-  
nificant at 80%  
confidence level  
( $\alpha = 0.1$  per  
tail).

Constituent: cis-1,2-DCE    Analysis Run 11/29/2011 3:51 PM  
Facility: Racer\_MLK    Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW68



n = 18

Slope = -1.078  
units per year.

Mann-Kendall  
statistic = -67  
critical = -36

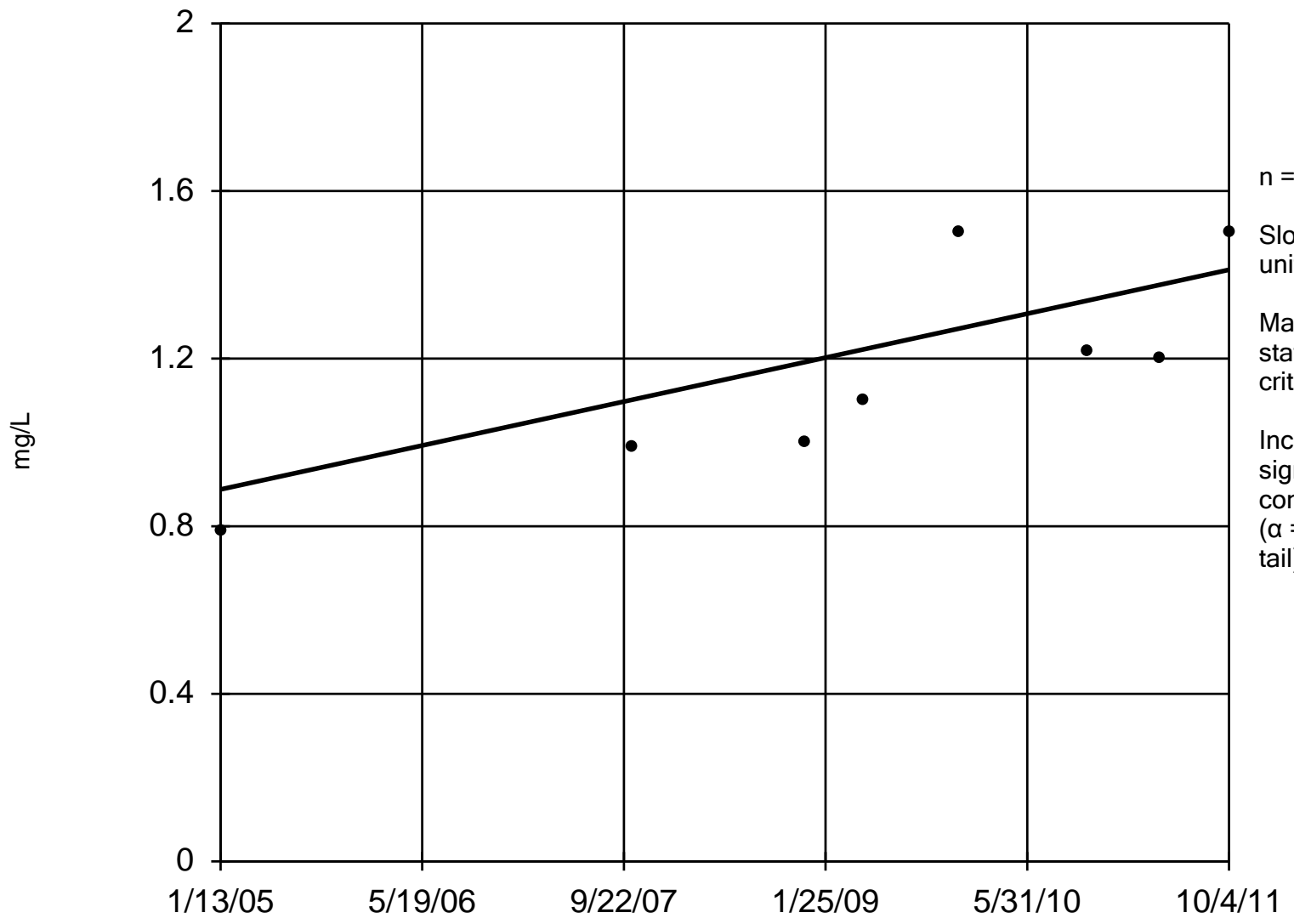
Decreasing trend  
significant at 80%  
confidence level  
( $\alpha = 0.1$  per  
tail).

Constituent: cis-1,2-DCE Analysis Run 11/29/2011 4:15 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW79



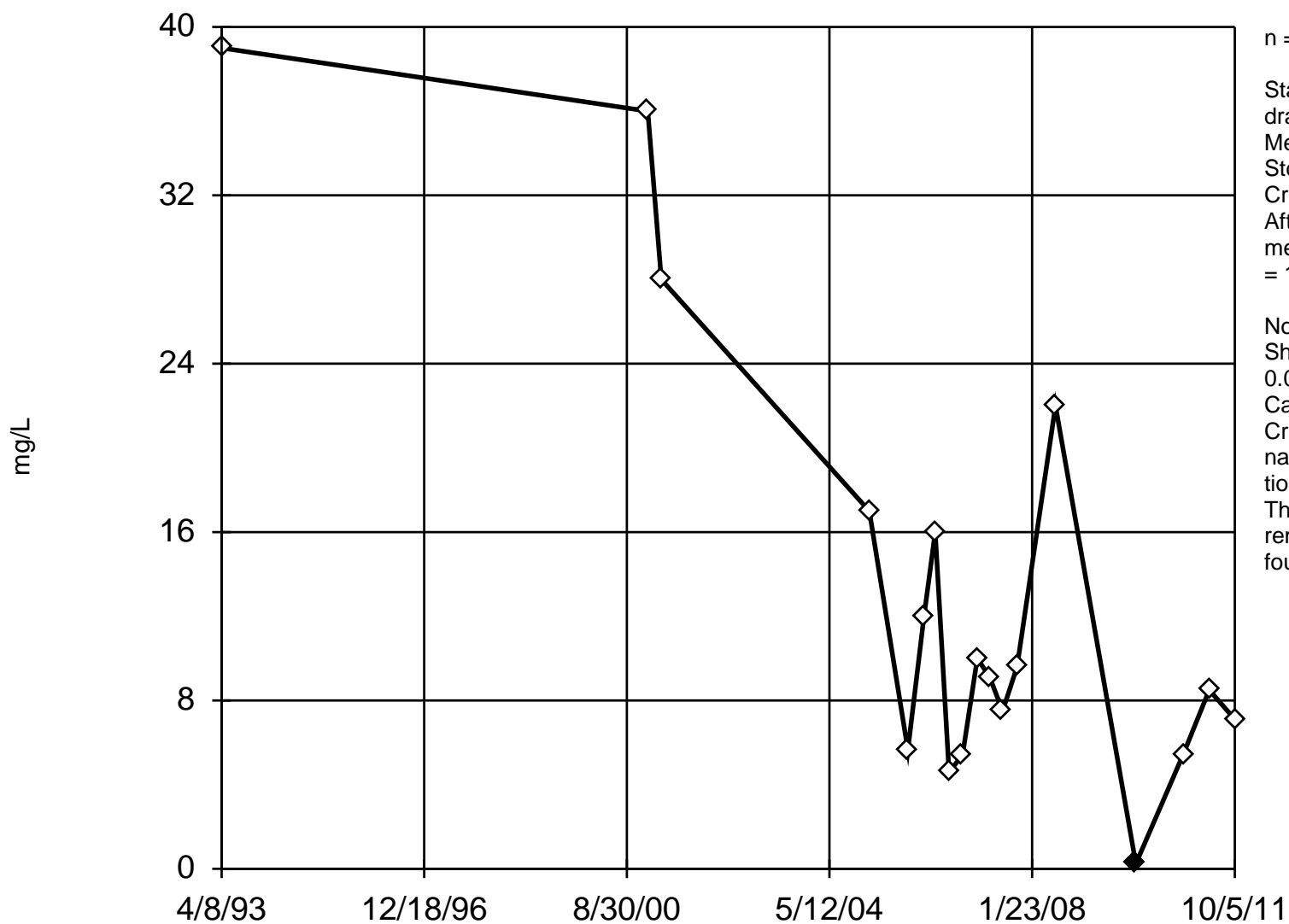
n = 8  
Slope = 0.07799 units per year.  
Mann-Kendall statistic = 21  
critical = 12  
Increasing trend significant at 80% confidence level ( $\alpha = 0.1$  per tail).

Constituent: cis-1,2-DCE Analysis Run 11/29/2011 4:17 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

## EPA 1989 Outlier Test

MW8



n = 18

Statistical outlier is drawn as solid.

Mean = 13.51

Std. dev. = 11

Critical Tn = 2.504.

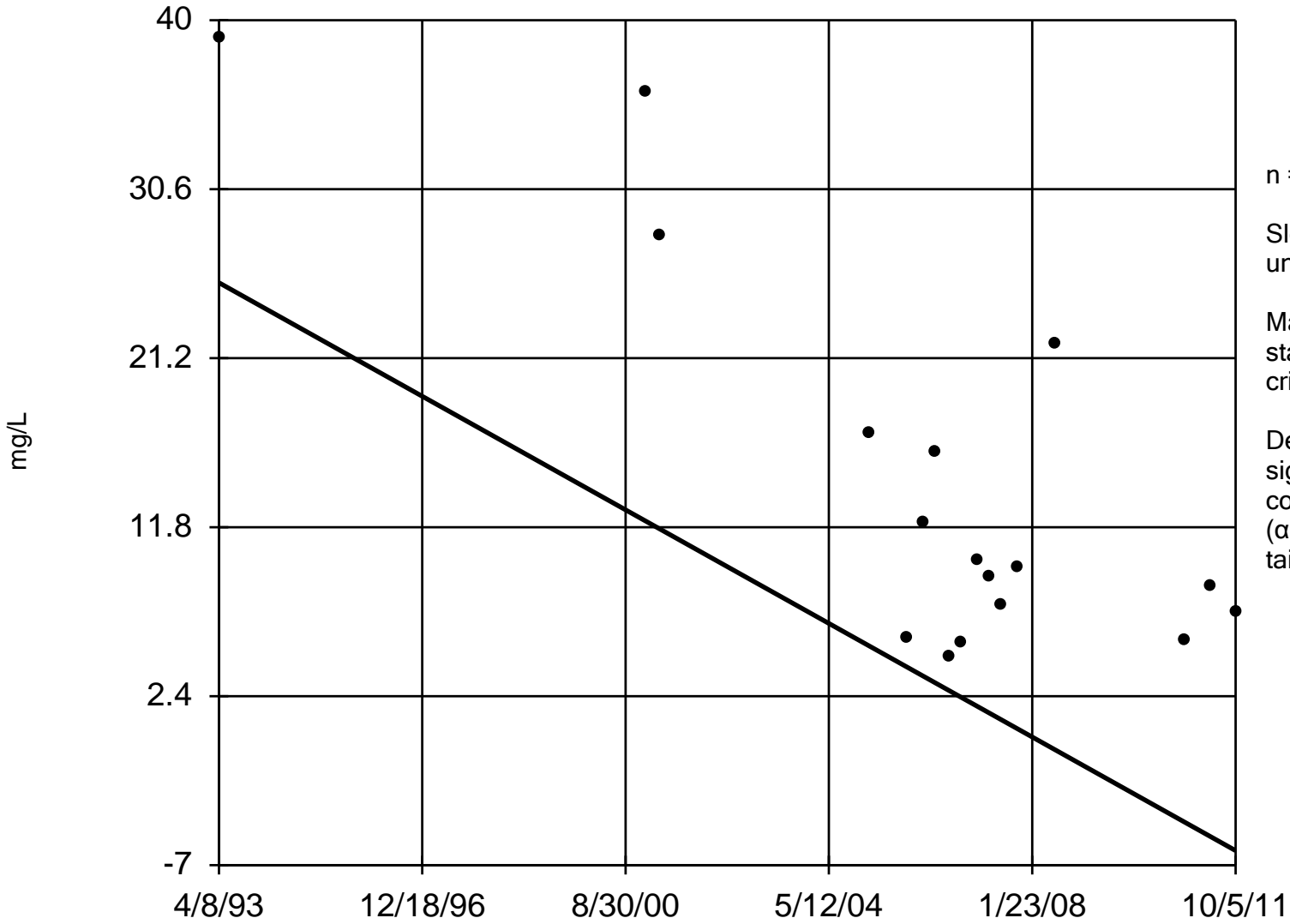
After outlier removal:  
mean = 14.29, std. dev.  
= 10.81, critical = 2.475.Normality test used:  
Shapiro Wilk@alpha =  
0.05Calculated = 0.9293  
Critical = 0.892 (after  
natural log transforma-  
tion)The distribution, after  
removal of outlier, was  
found to be log-normal.

Constituent: cis-1,2-DCE Analysis Run 11/29/2011 4:19 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW8



n = 17

Slope = -1.707  
units per year.

Mann-Kendall  
statistic = -58  
critical = -33

Decreasing trend  
significant at 80%  
confidence level  
( $\alpha = 0.1$  per  
tail).

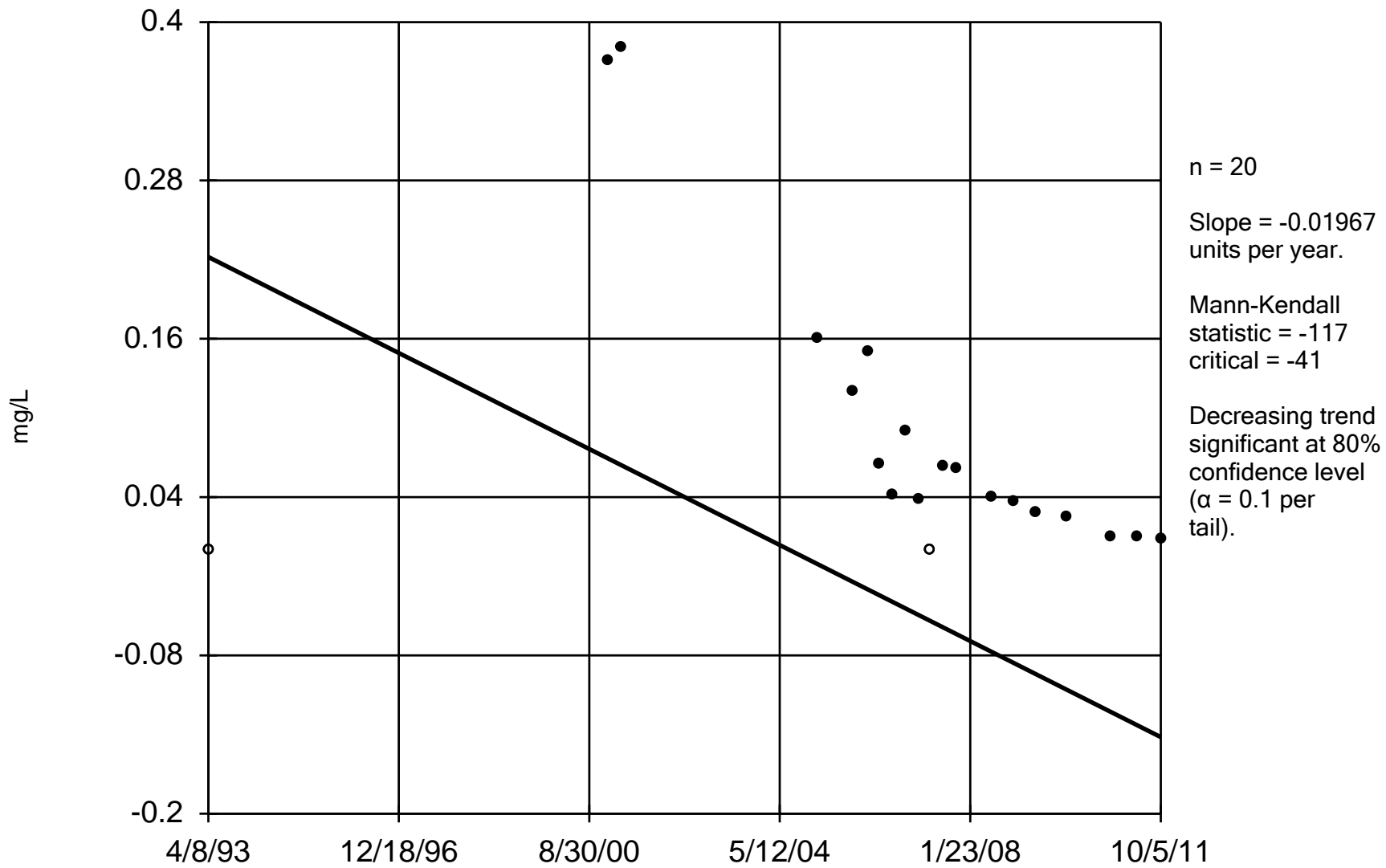
Constituent: cis-1,2-DCE Analysis Run 11/29/2011 4:47 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011



# Sen's Slope Estimator

MW12

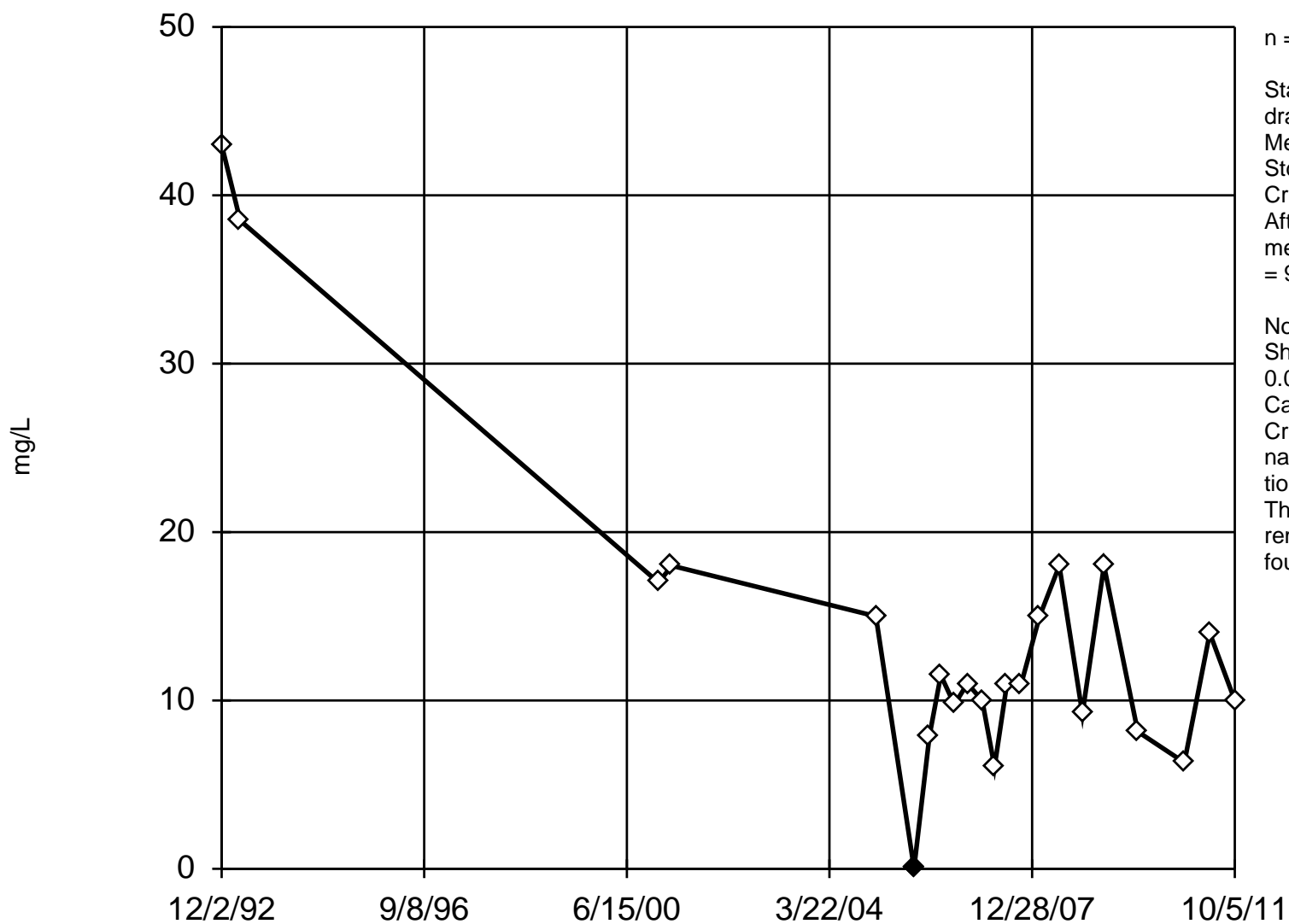


Constituent: TCE Analysis Run 11/30/2011 8:27 AM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

## EPA 1989 Outlier Test

MW3



n = 22

Statistical outlier is  
drawn as solid.

Mean = 14.02

Std. dev. = 9.749

Critical Tn = 2.603.

After outlier removal:  
mean = 14.68, std. dev.  
= 9.462, critical = 2.58.

Normality test used:  
Shapiro Wilk@alpha =  
0.05

Calculated = 0.9165  
Critical = 0.908 (after  
natural log transforma-  
tion)

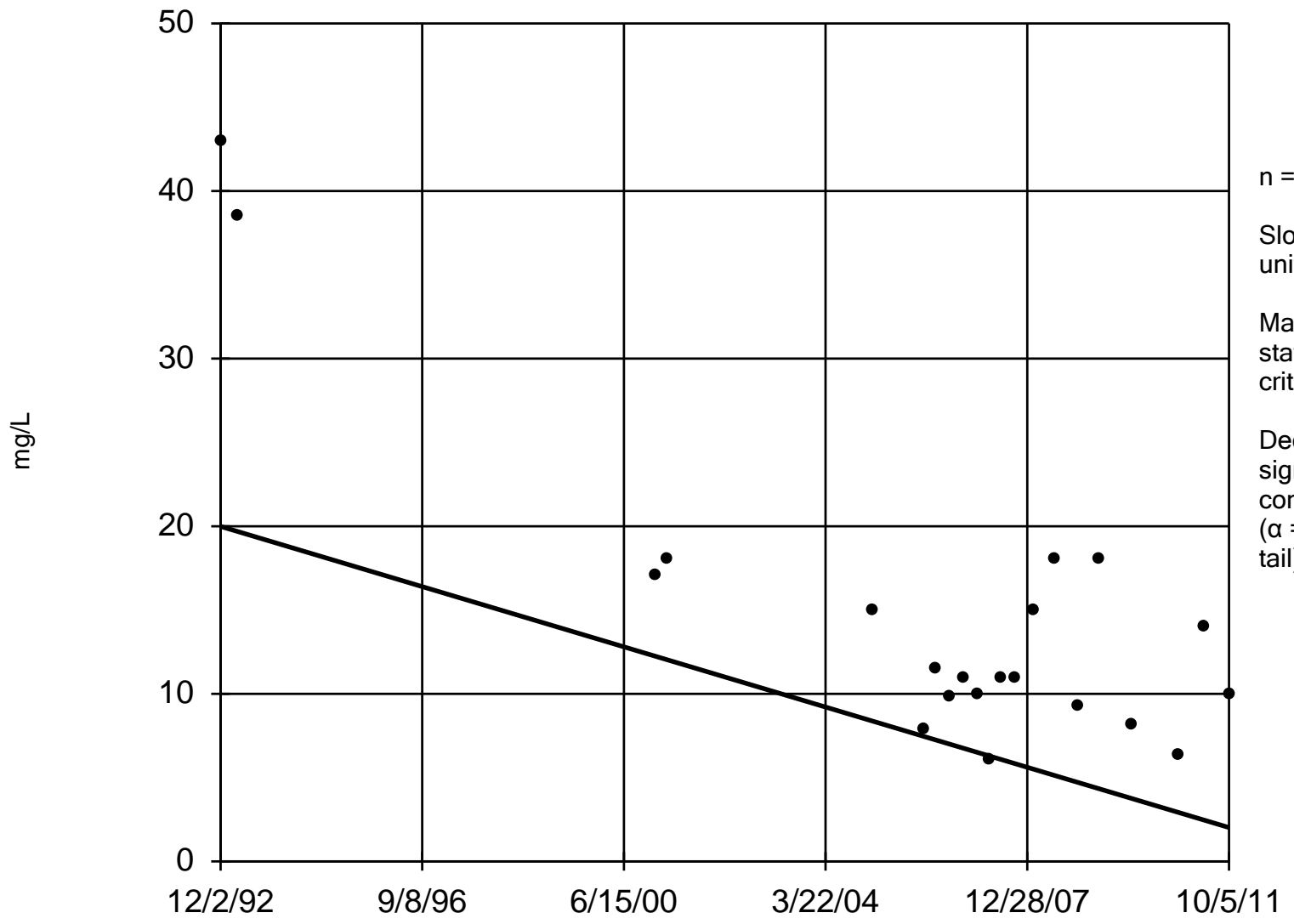
The distribution, after  
removal of outlier, was  
found to be log-normal.

Constituent: TCE Analysis Run 11/30/2011 8:31 AM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW3

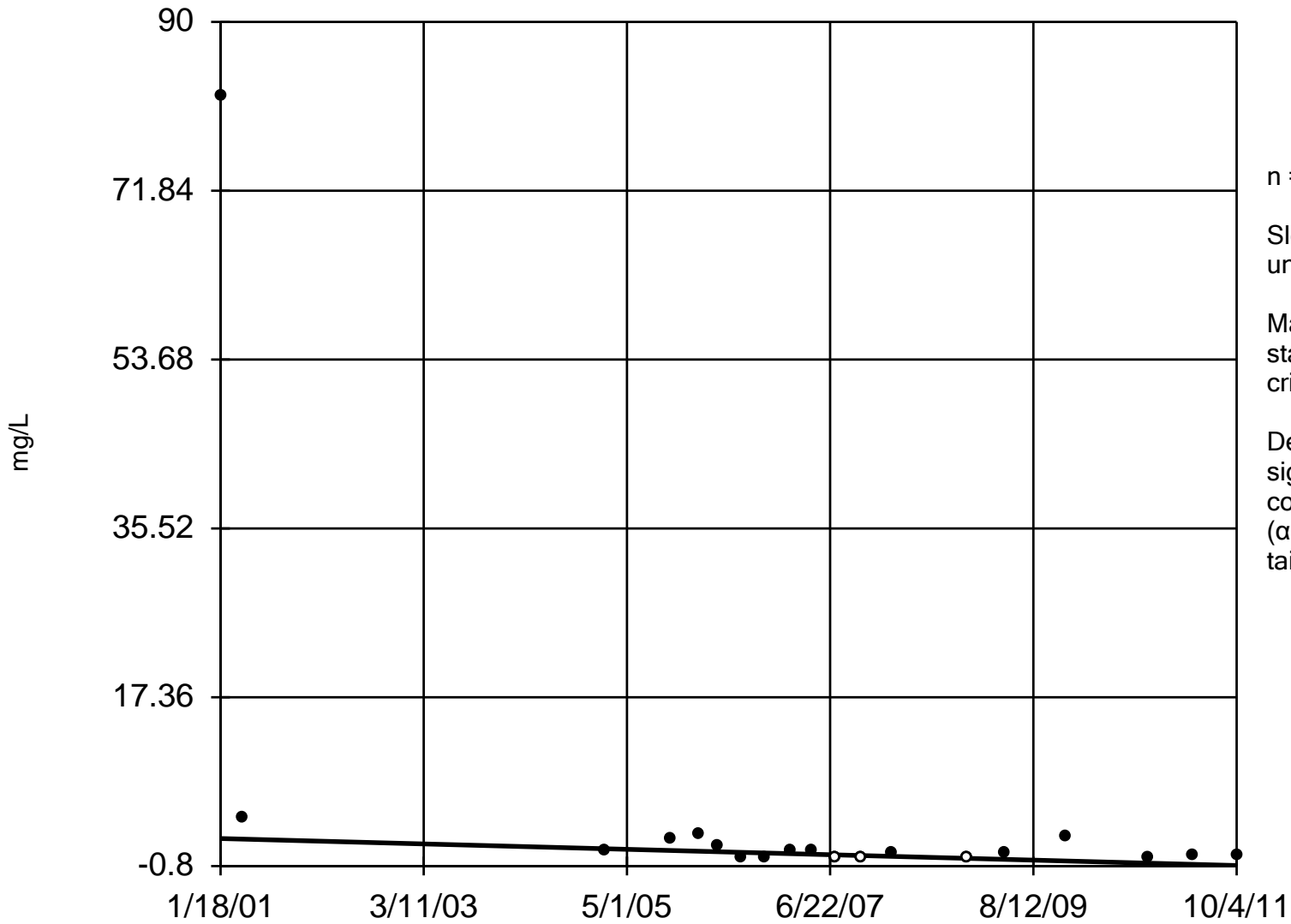


Constituent: TCE Analysis Run 11/30/2011 8:33 AM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW31/31R



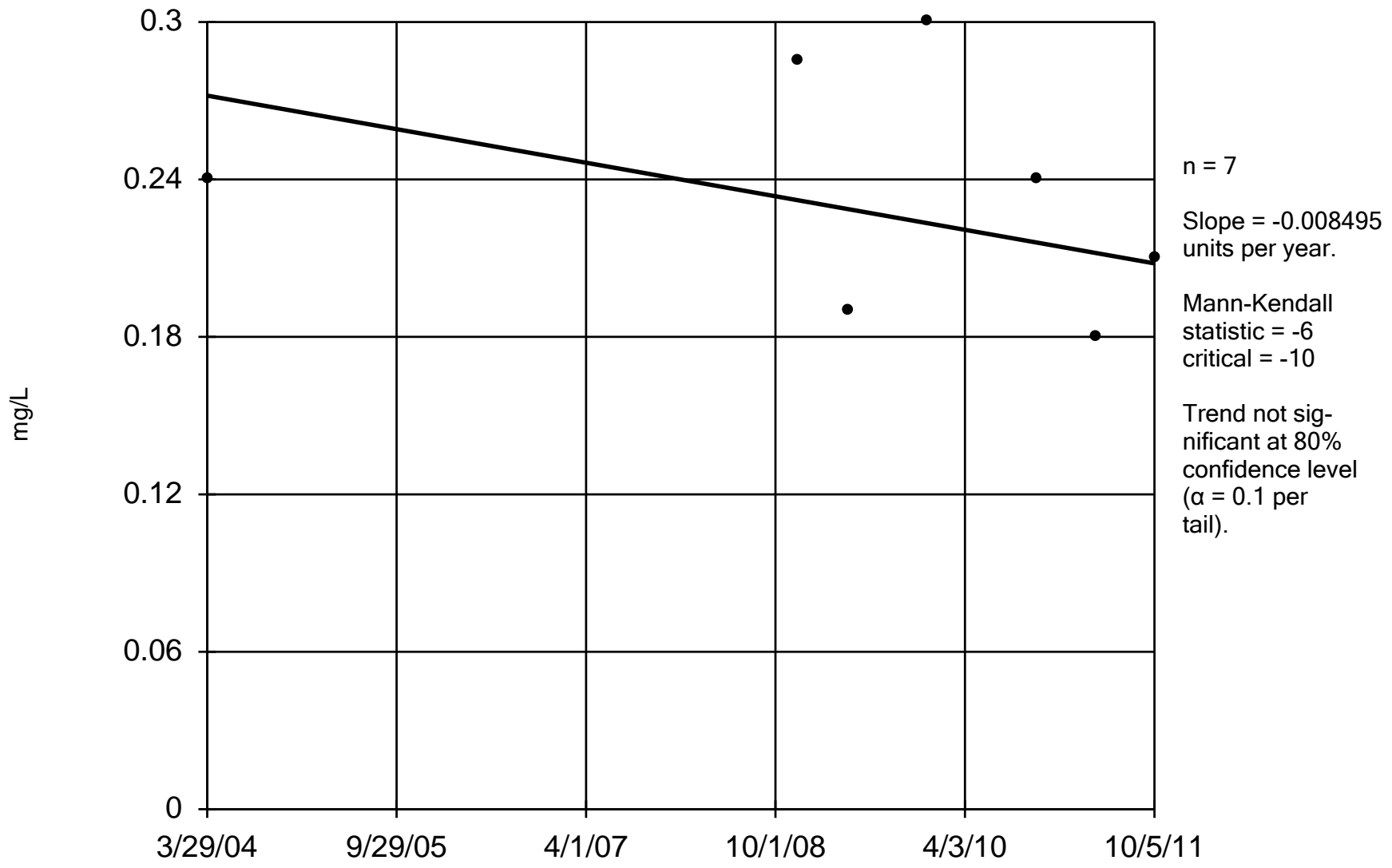
n = 19  
Slope = -0.271  
units per year.  
Mann-Kendall  
statistic = -74  
critical = -38  
Decreasing trend  
significant at 80%  
confidence level  
( $\alpha = 0.1$  per  
tail).

Constituent: TCE Analysis Run 11/30/2011 10:04 AM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW51

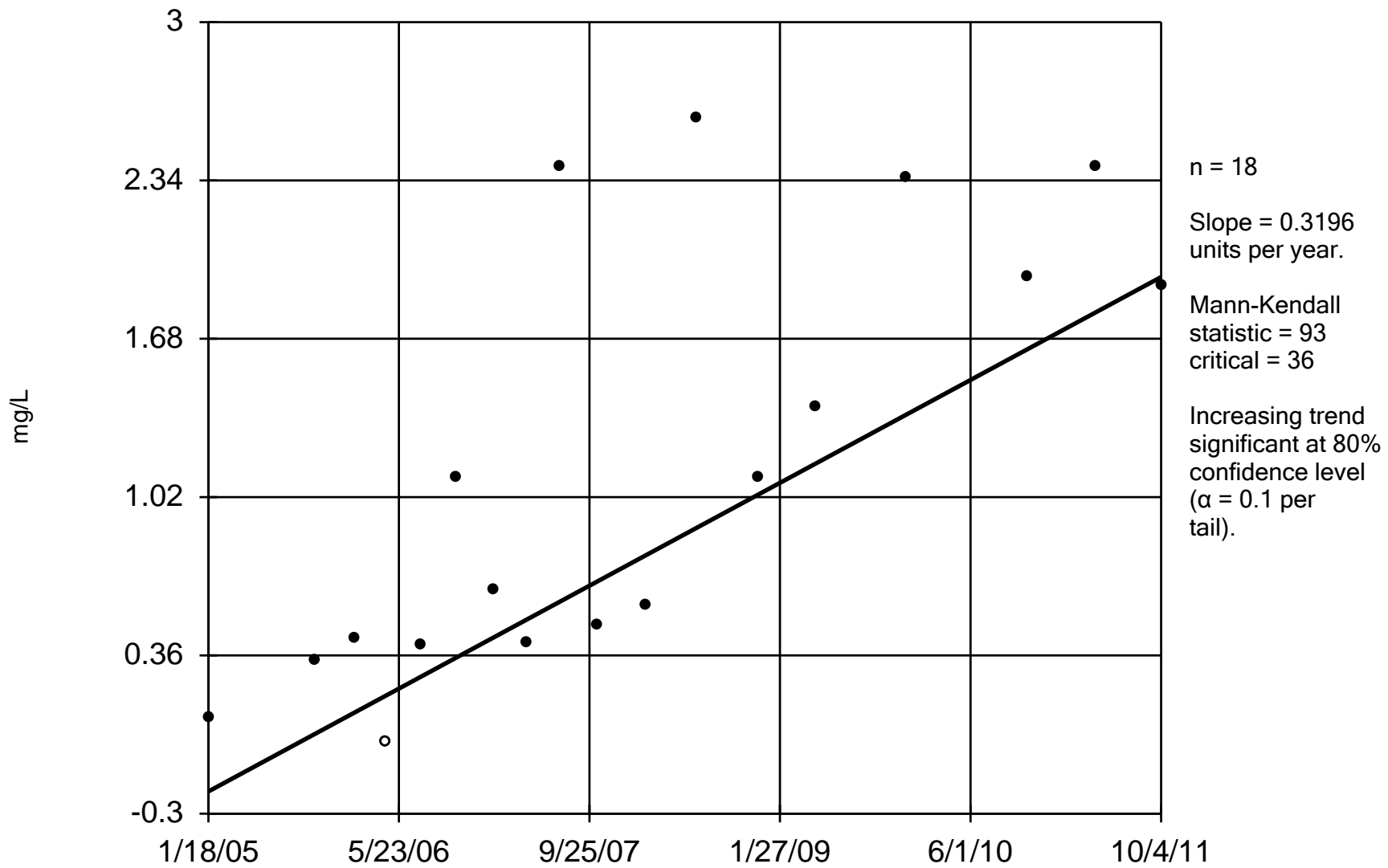


Constituent: TCE Analysis Run 11/30/2011 10:09 AM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW68

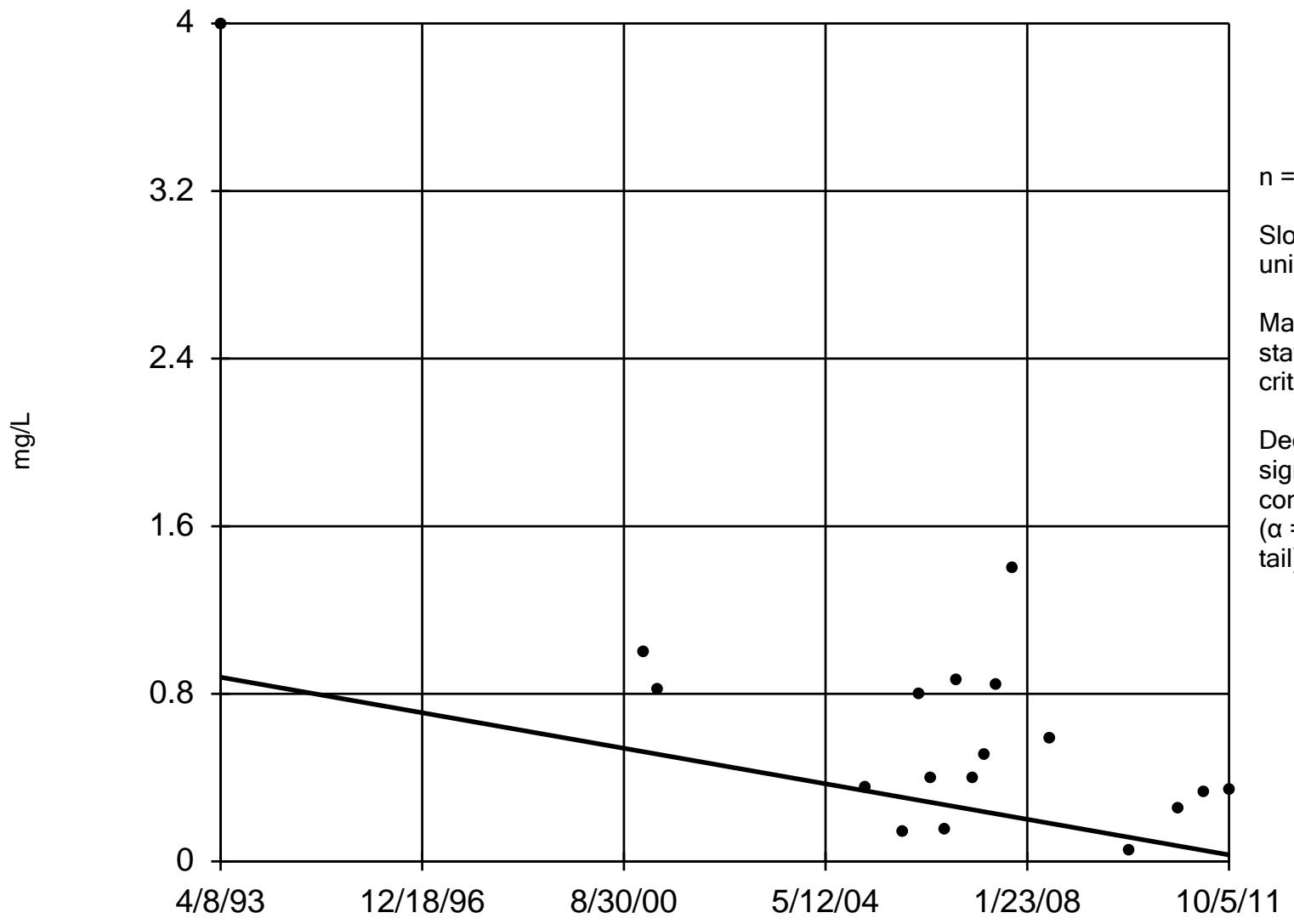


Constituent: TCE Analysis Run 11/30/2011 10:11 AM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW8

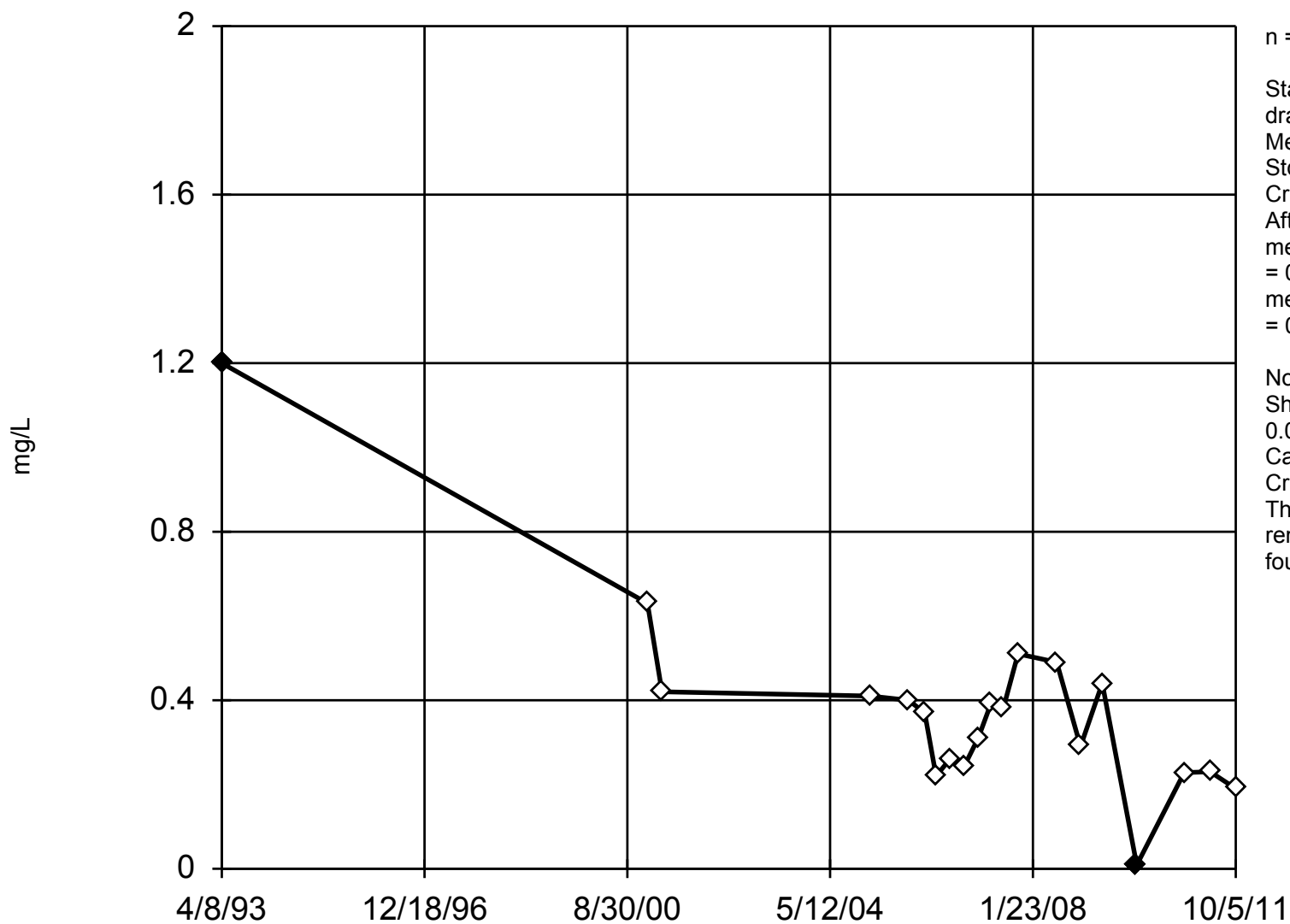


Constituent: TCE Analysis Run 11/30/2011 10:49 AM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

## EPA 1989 Outlier Test

MW14



n = 20

Statistical outliers are drawn as solid.

Mean = 0.3808

Std. dev. = 0.2365

Critical Tn = 2.557.

After outlier removal:

mean = 0.4004, std. dev.

= 0.2257, critical = 2.532;

mean = 0.356, std. dev.

= 0.1193, critical = 2.504.

Normality test used:

Shapiro Wilk@alpha =

0.05

Calculated = 0.9461

Critical = 0.897

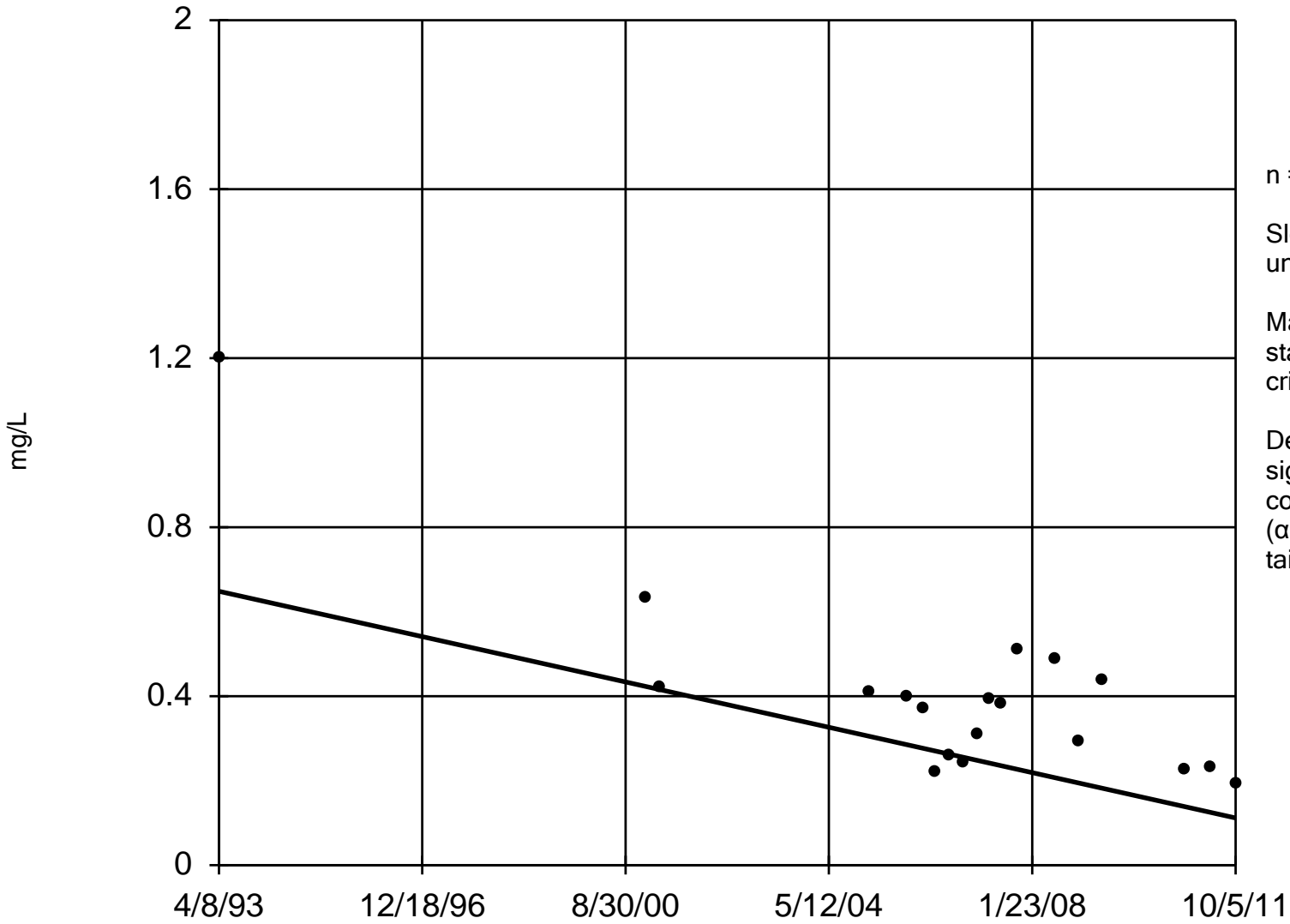
The distribution, after removal of outliers, was found to be normal.

Constituent: Vinyl chloride Analysis Run 11/30/2011 10:53 AM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW14

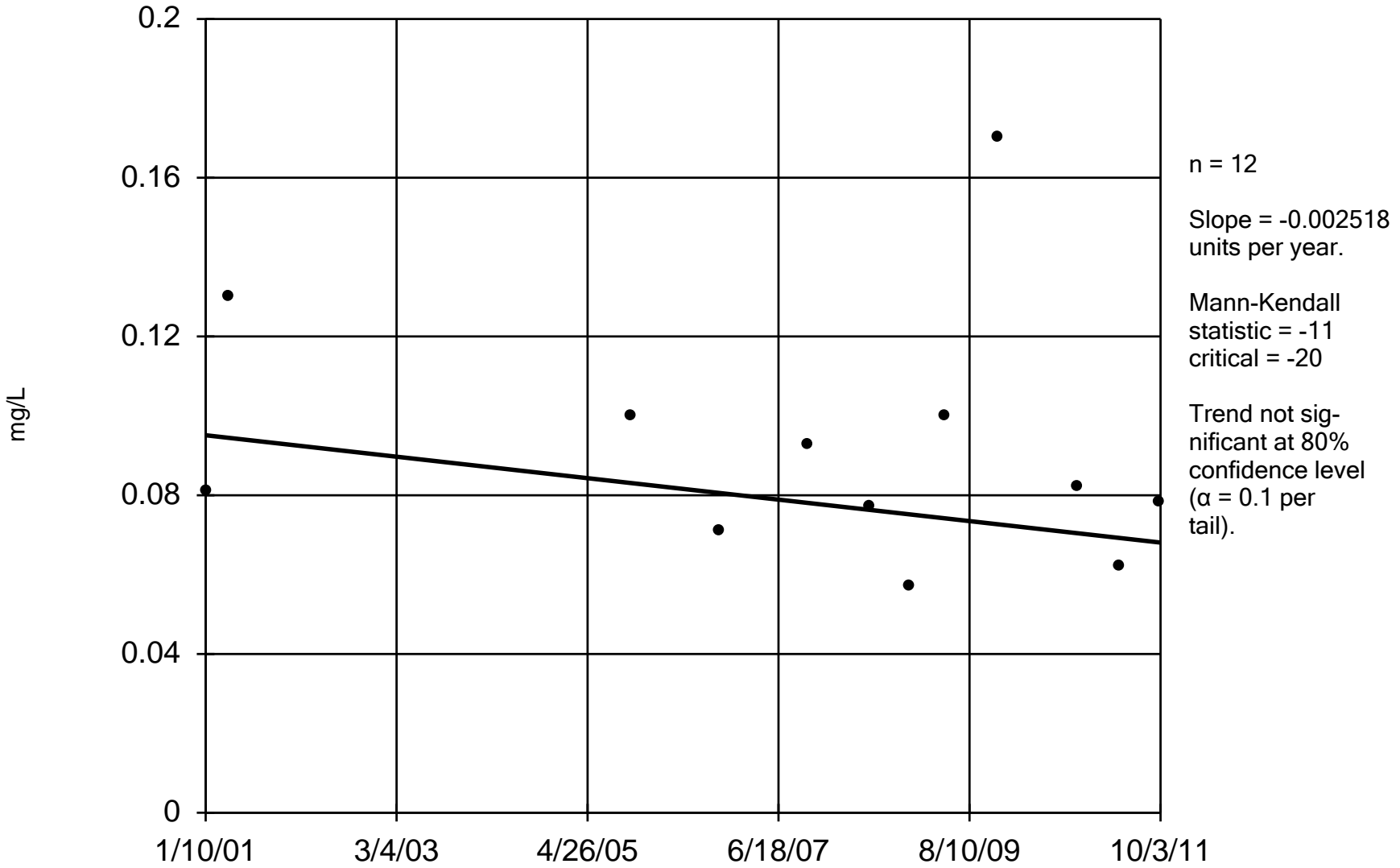


Constituent: Vinyl chloride Analysis Run 11/30/2011 11:12 AM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW28

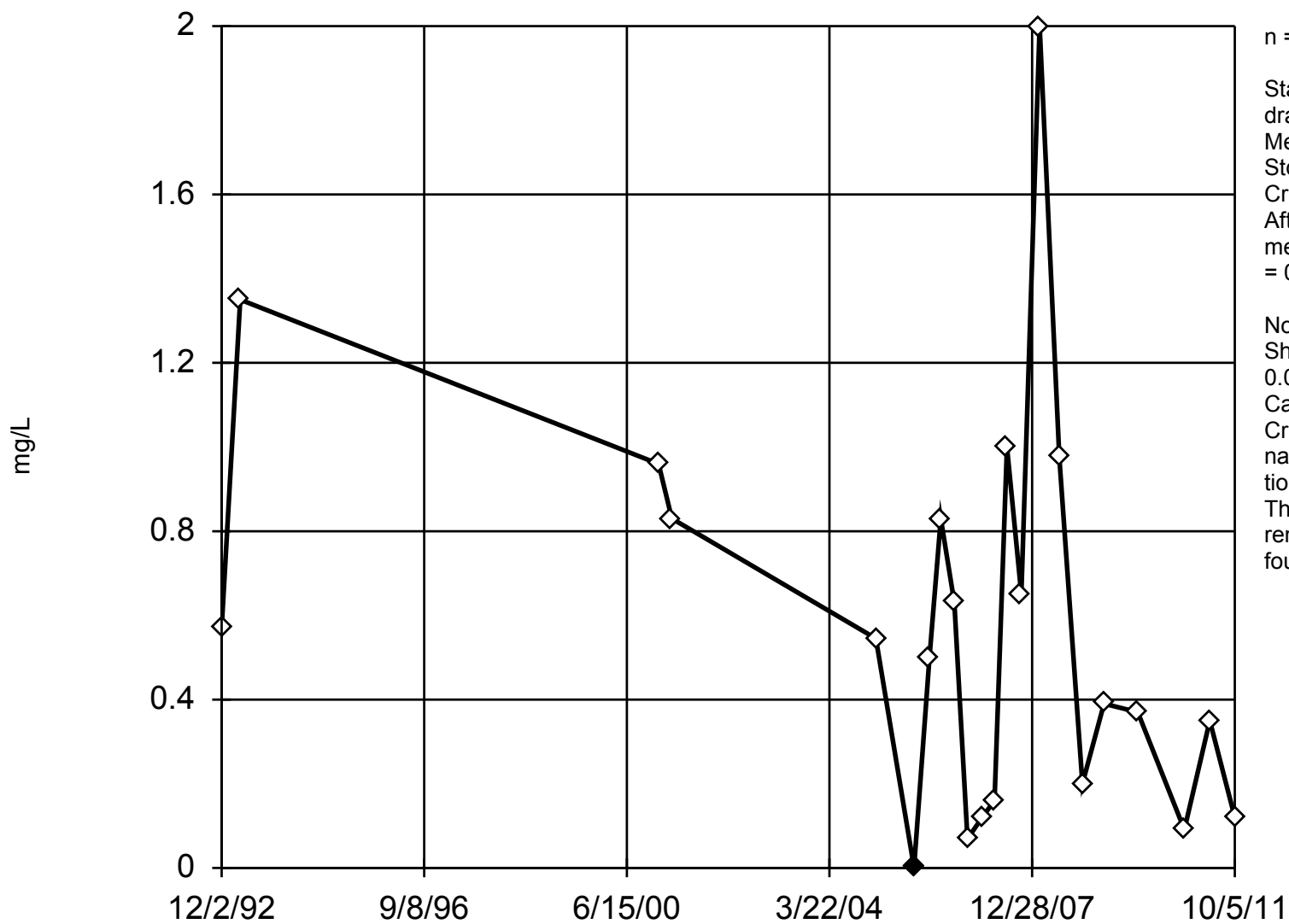


Constituent: Vinyl chloride Analysis Run 11/30/2011 11:17 AM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

## EPA 1989 Outlier Test

MW3



n = 22

Statistical outlier is  
drawn as solid.

Mean = 0.5777

Std. dev. = 0.485

Critical Tn = 2.603.

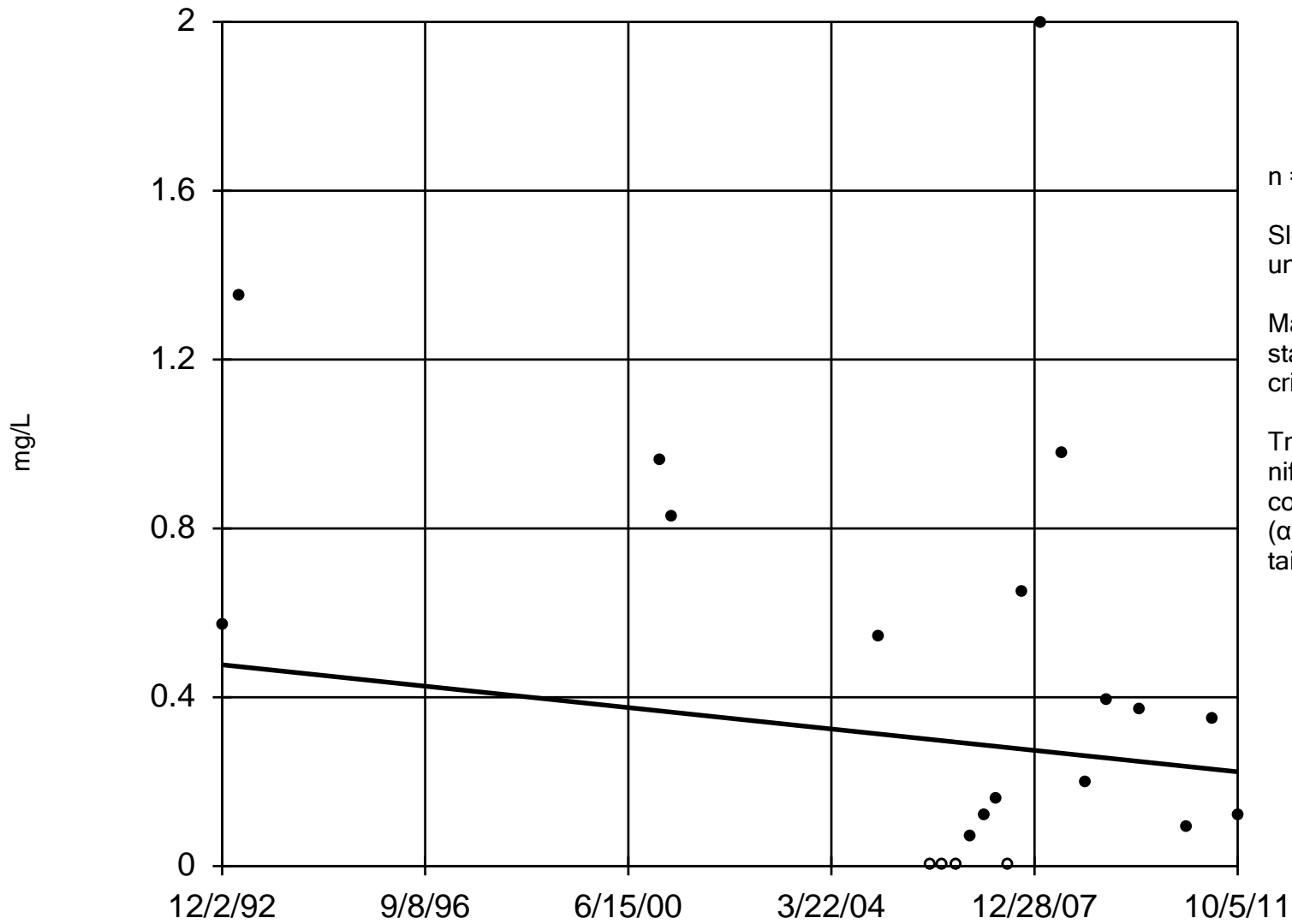
After outlier removal:  
mean = 0.6052, std. dev.  
= 0.4791, critical = 2.58.Normality test used:  
Shapiro Wilk@alpha =  
0.05Calculated = 0.9461  
Critical = 0.908 (after  
natural log transforma-  
tion)The distribution, after  
removal of outlier, was  
found to be log-normal.

Constituent: Vinyl chloride Analysis Run 11/30/2011 11:21 AM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW3

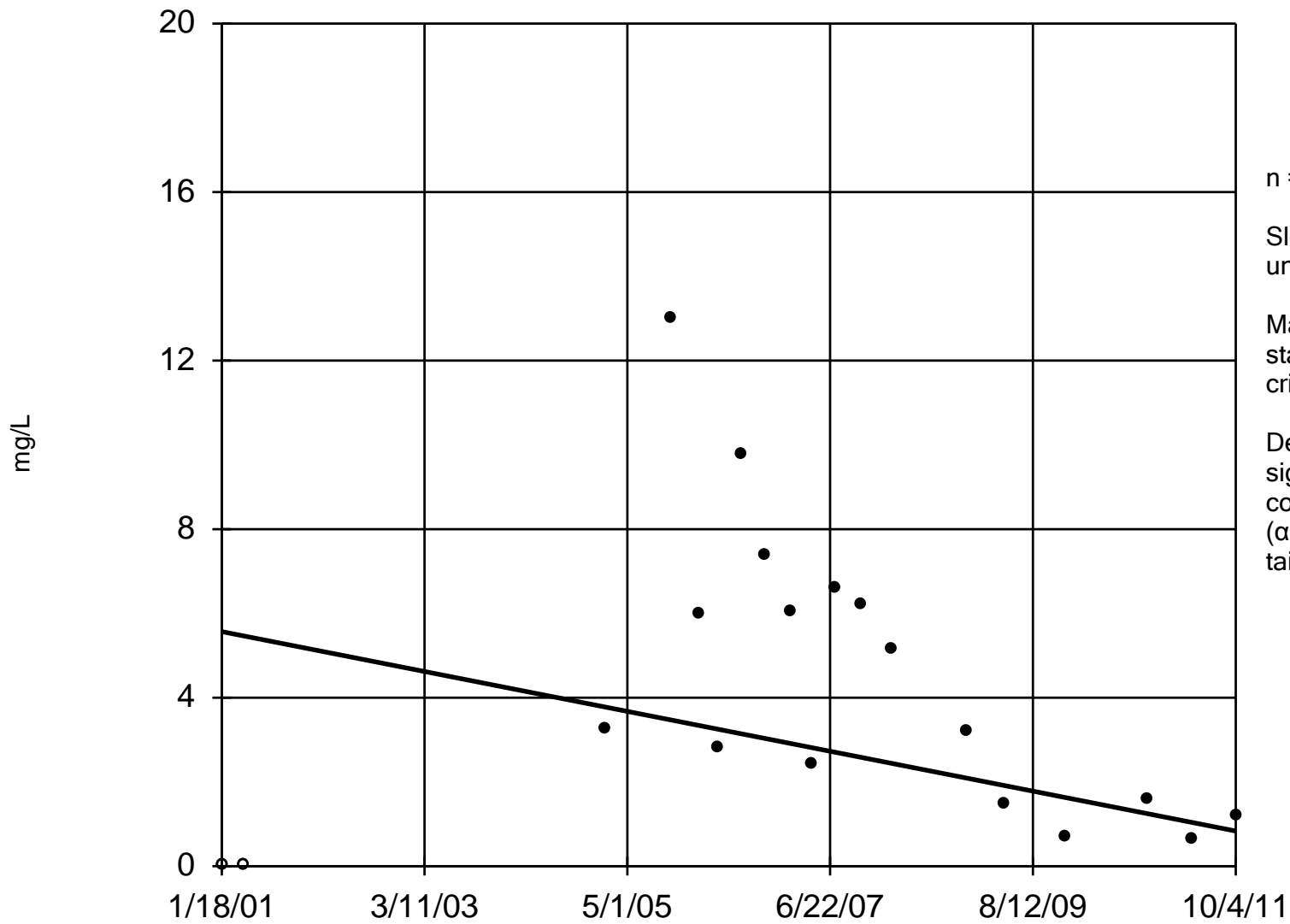


Constituent: Vinyl chloride Analysis Run 11/30/2011 11:27 AM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW31/31R



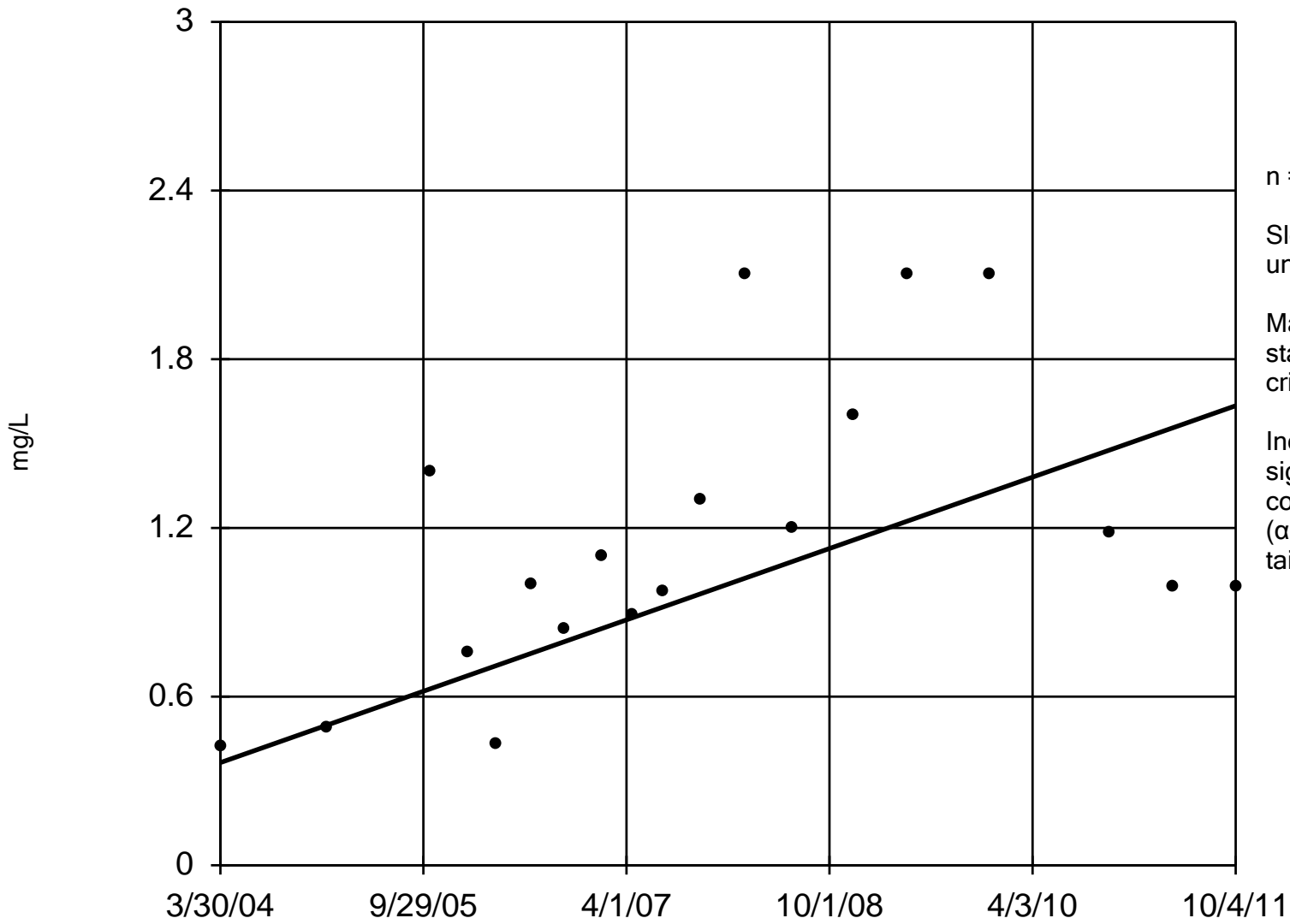
n = 19  
Slope = -0.4421  
units per year.  
Mann-Kendall  
statistic = -42  
critical = -38  
Decreasing trend  
significant at 80%  
confidence level  
( $\alpha = 0.1$  per  
tail).

Constituent: Vinyl chloride Analysis Run 11/30/2011 11:32 AM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW40

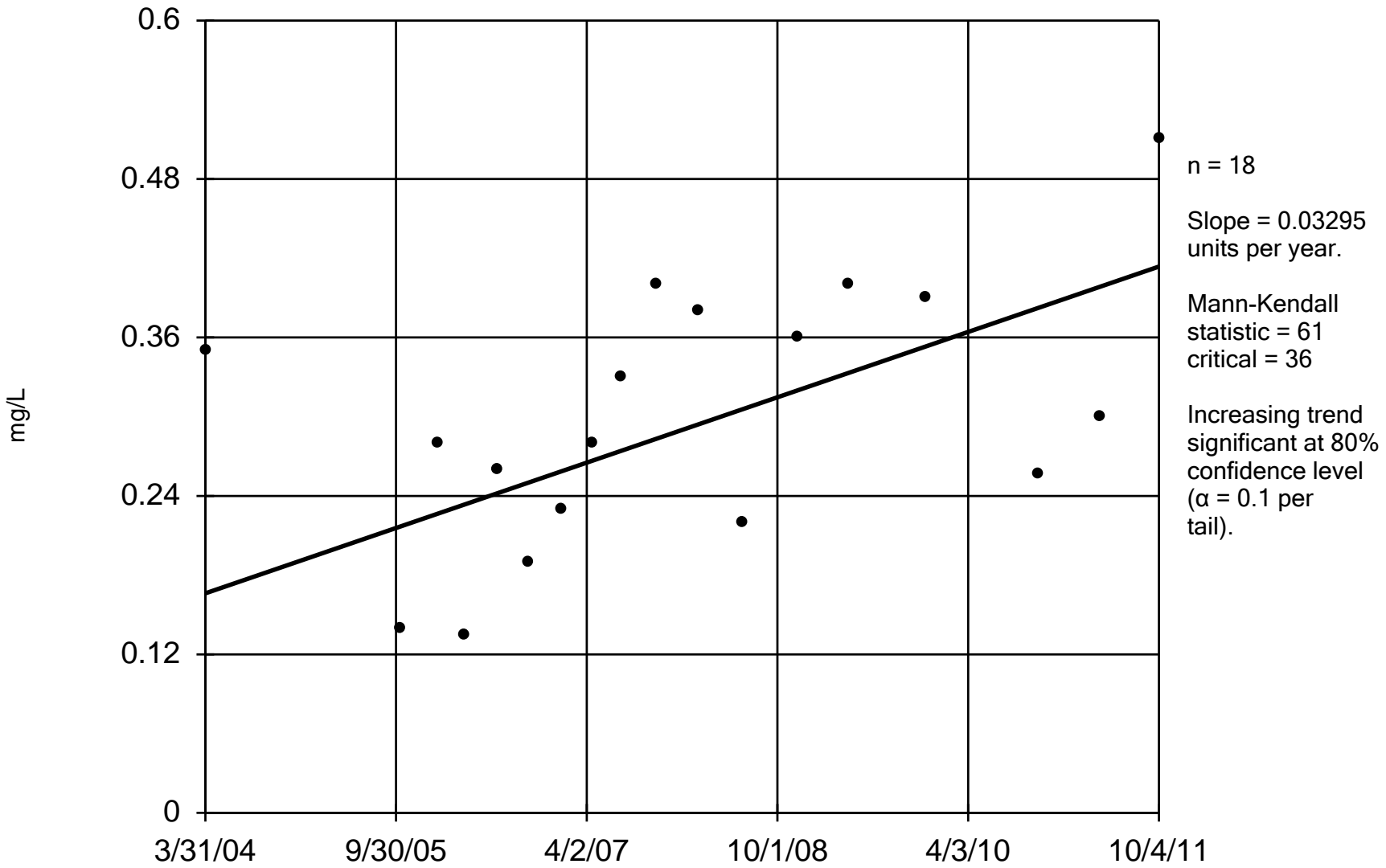


Constituent: Vinyl chloride Analysis Run 11/30/2011 11:36 AM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW41

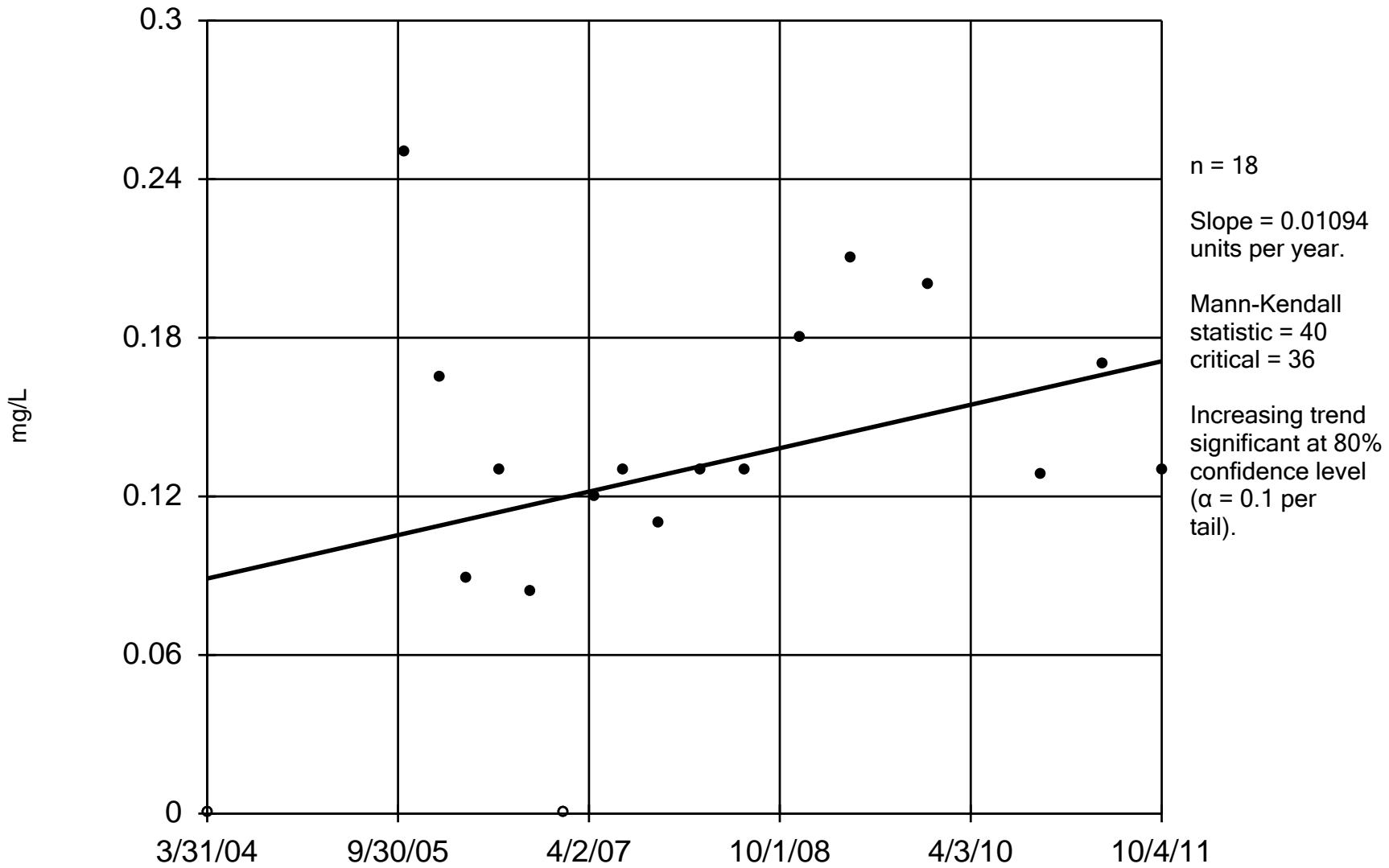


Constituent: Vinyl chloride Analysis Run 11/30/2011 1:35 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW42

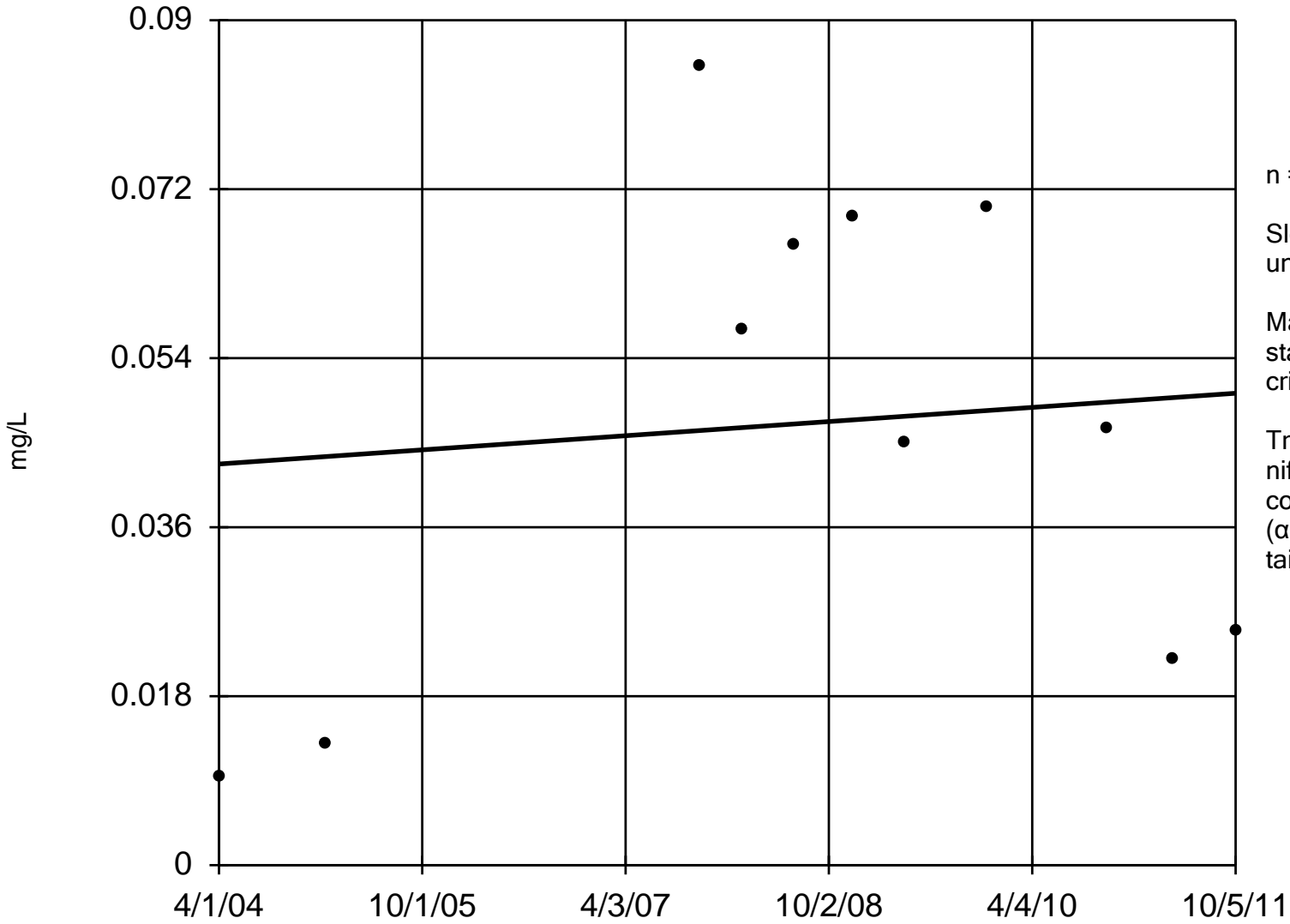


Constituent: Vinyl chloride Analysis Run 11/30/2011 1:40 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW49



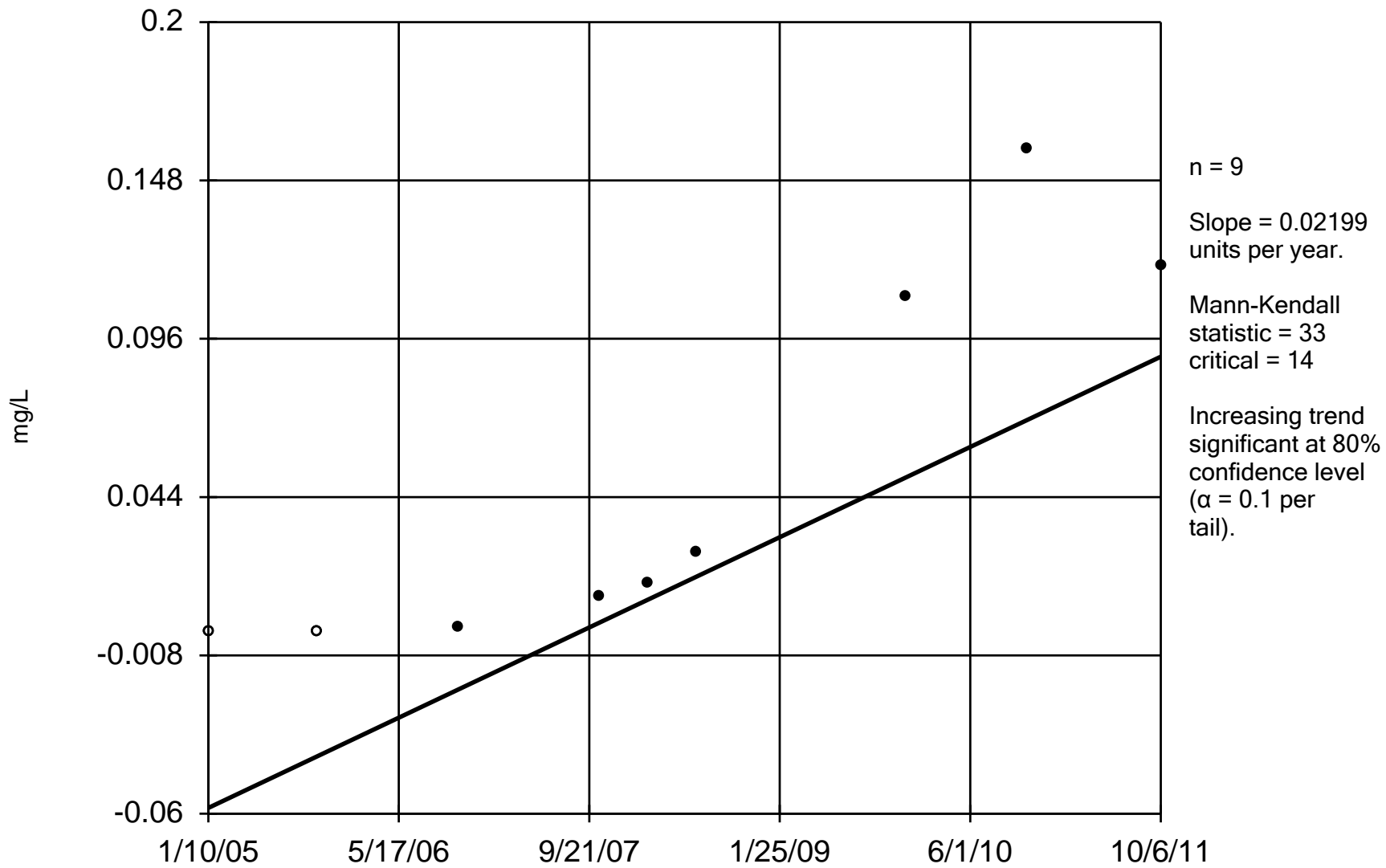
n = 11  
Slope = 0.001003  
units per year.  
Mann-Kendall  
statistic = 1  
critical = 18  
Trend not sig-  
nificant at 80%  
confidence level  
( $\alpha = 0.1$  per  
tail).

Constituent: Vinyl chloride Analysis Run 11/30/2011 1:58 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW58

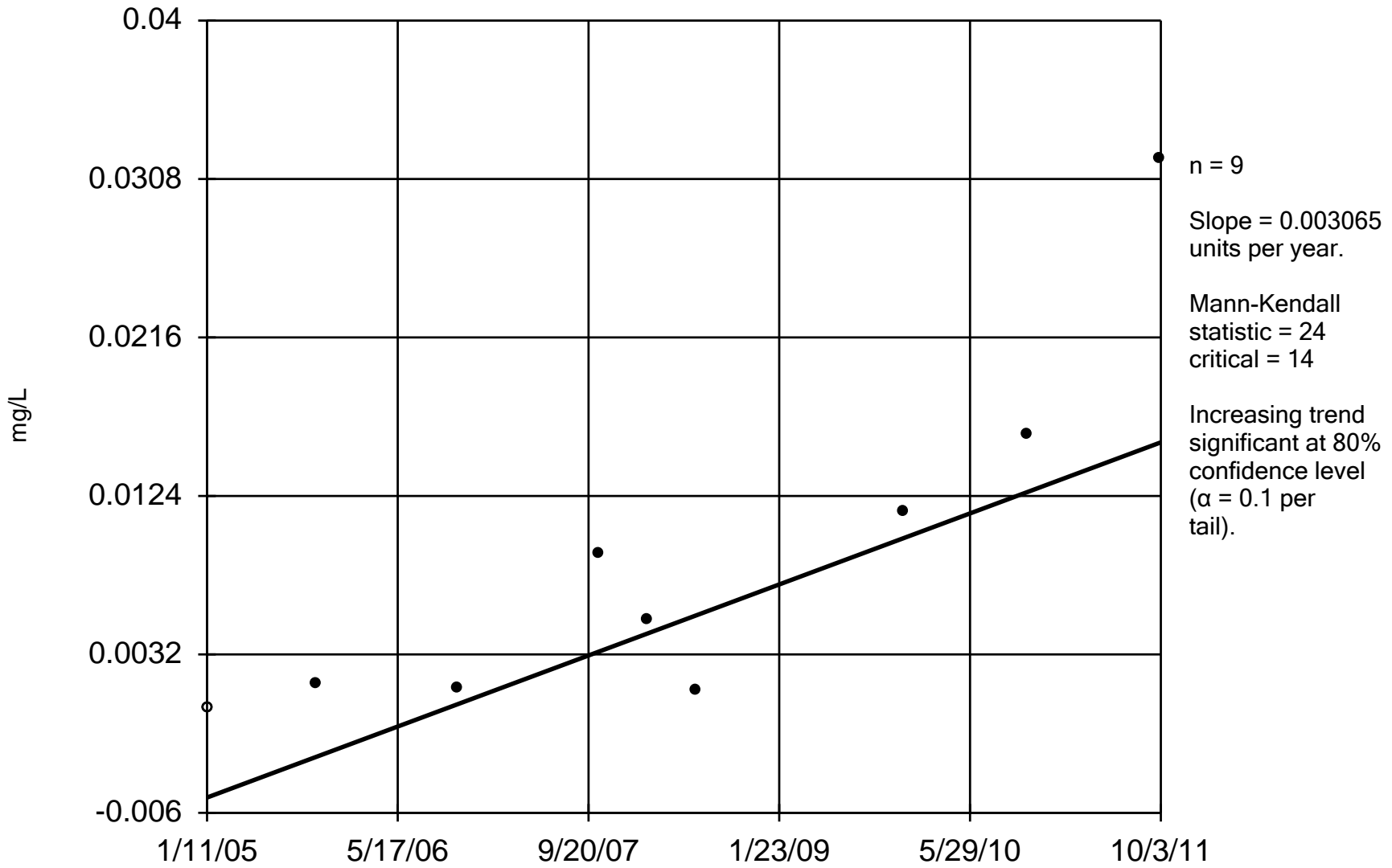


Constituent: Vinyl chloride Analysis Run 11/30/2011 2:01 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW64

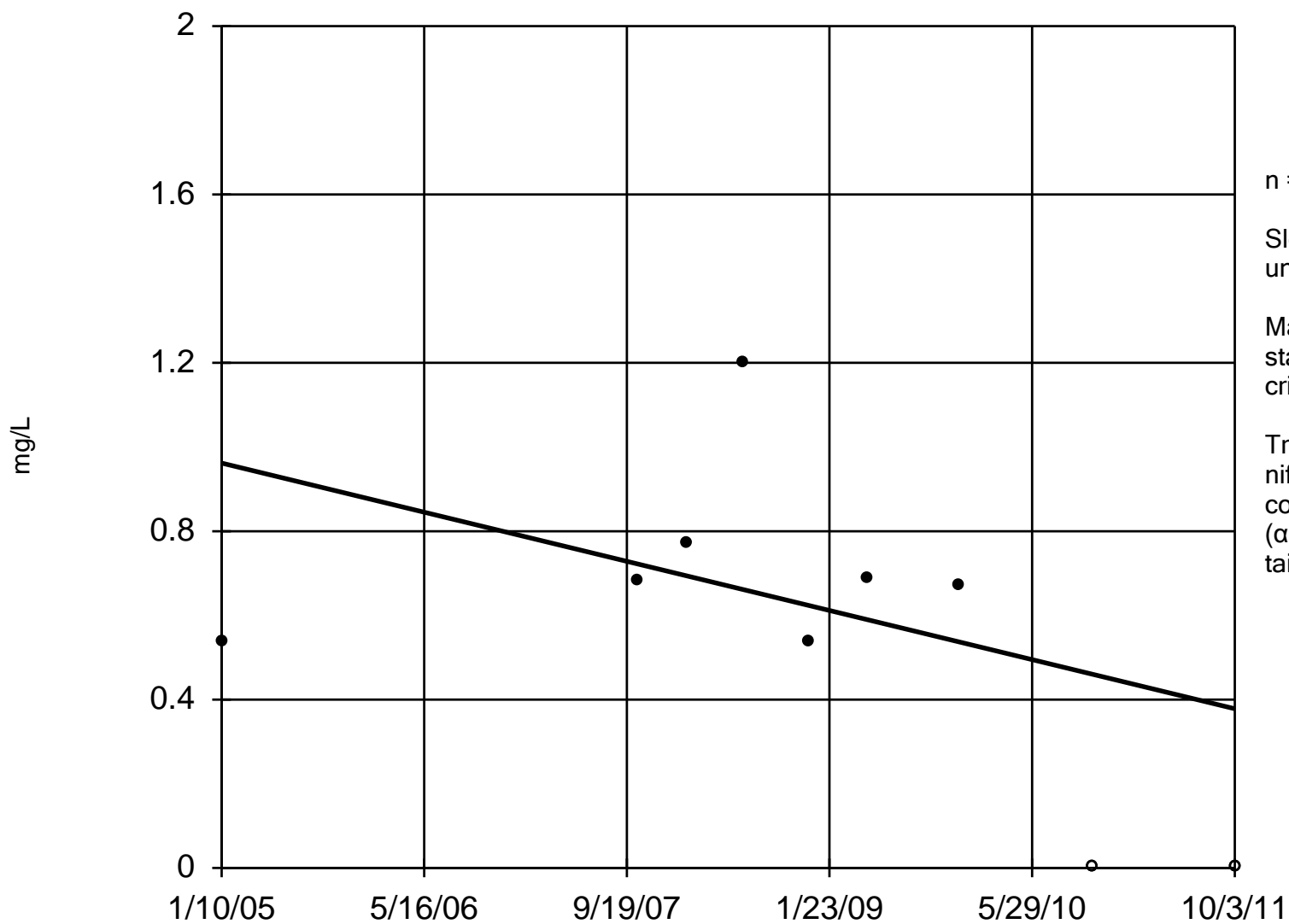


Constituent: Vinyl chloride Analysis Run 11/30/2011 2:11 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW65



n = 9

Slope = -0.08671  
units per year.

Mann-Kendall  
statistic = -12  
critical = -14

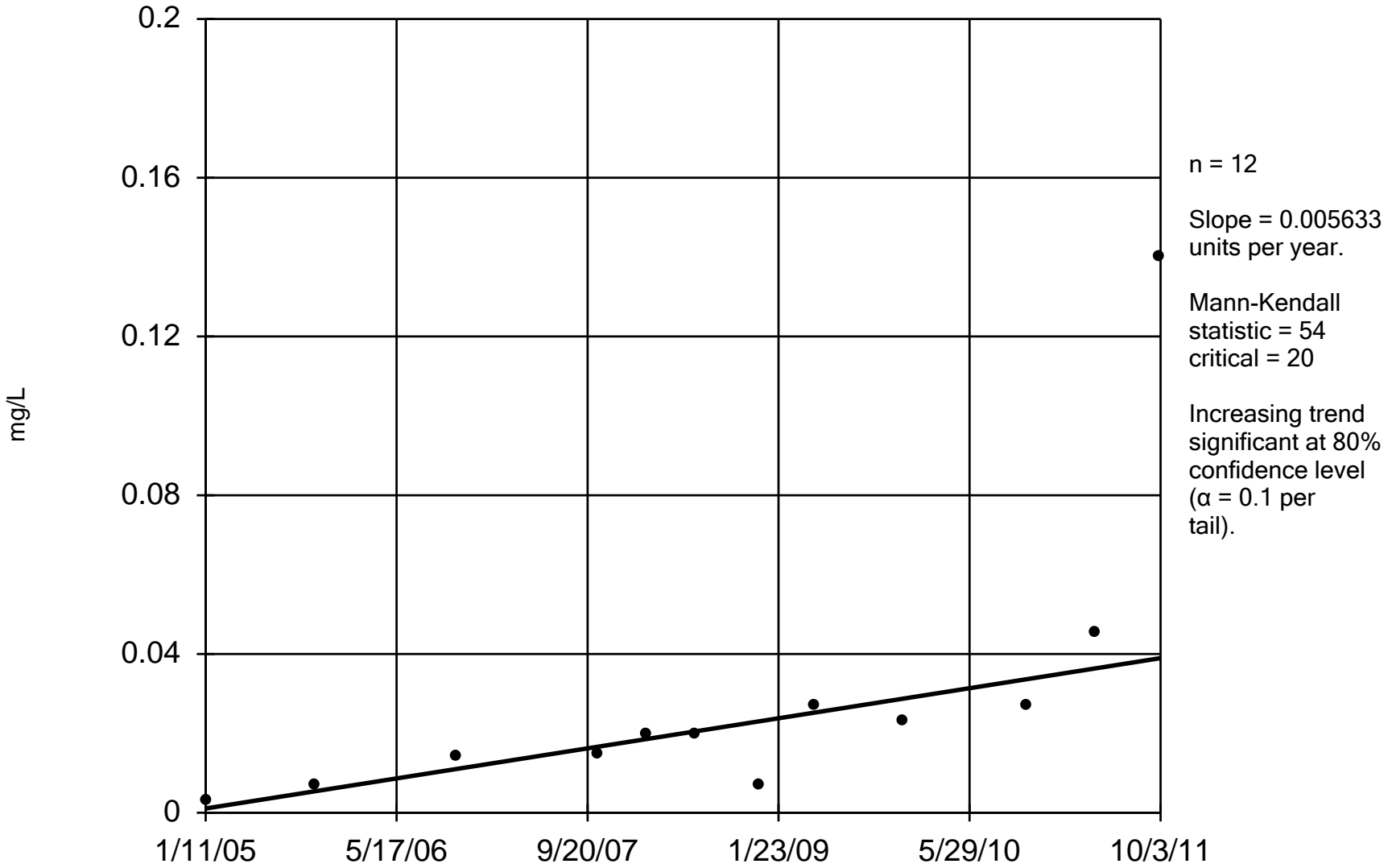
Trend not sig-  
nificant at 80%  
confidence level  
( $\alpha = 0.1$  per  
tail).

Constituent: Vinyl chloride Analysis Run 11/30/2011 2:13 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW66

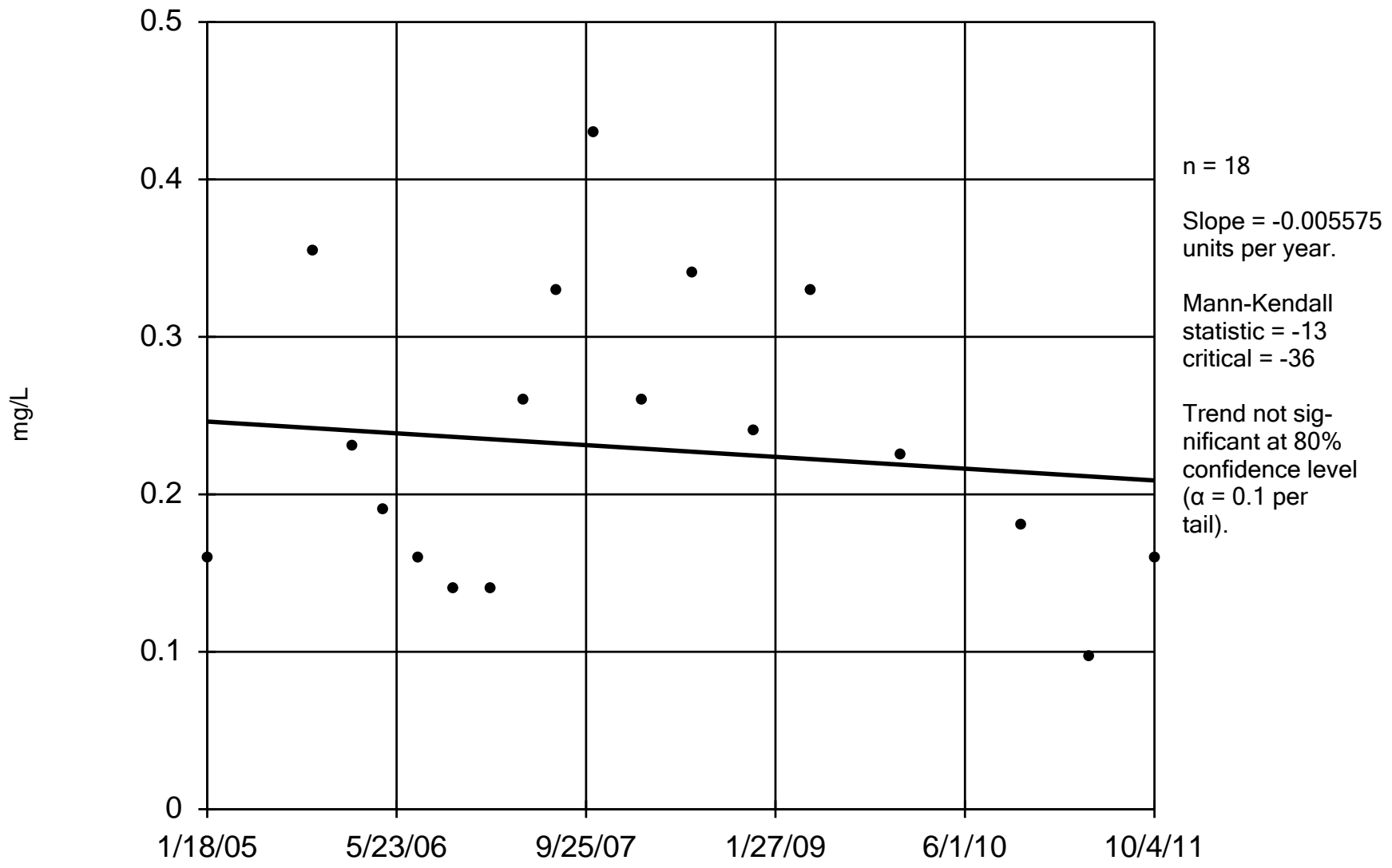


Constituent: Vinyl chloride Analysis Run 11/30/2011 2:17 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW68

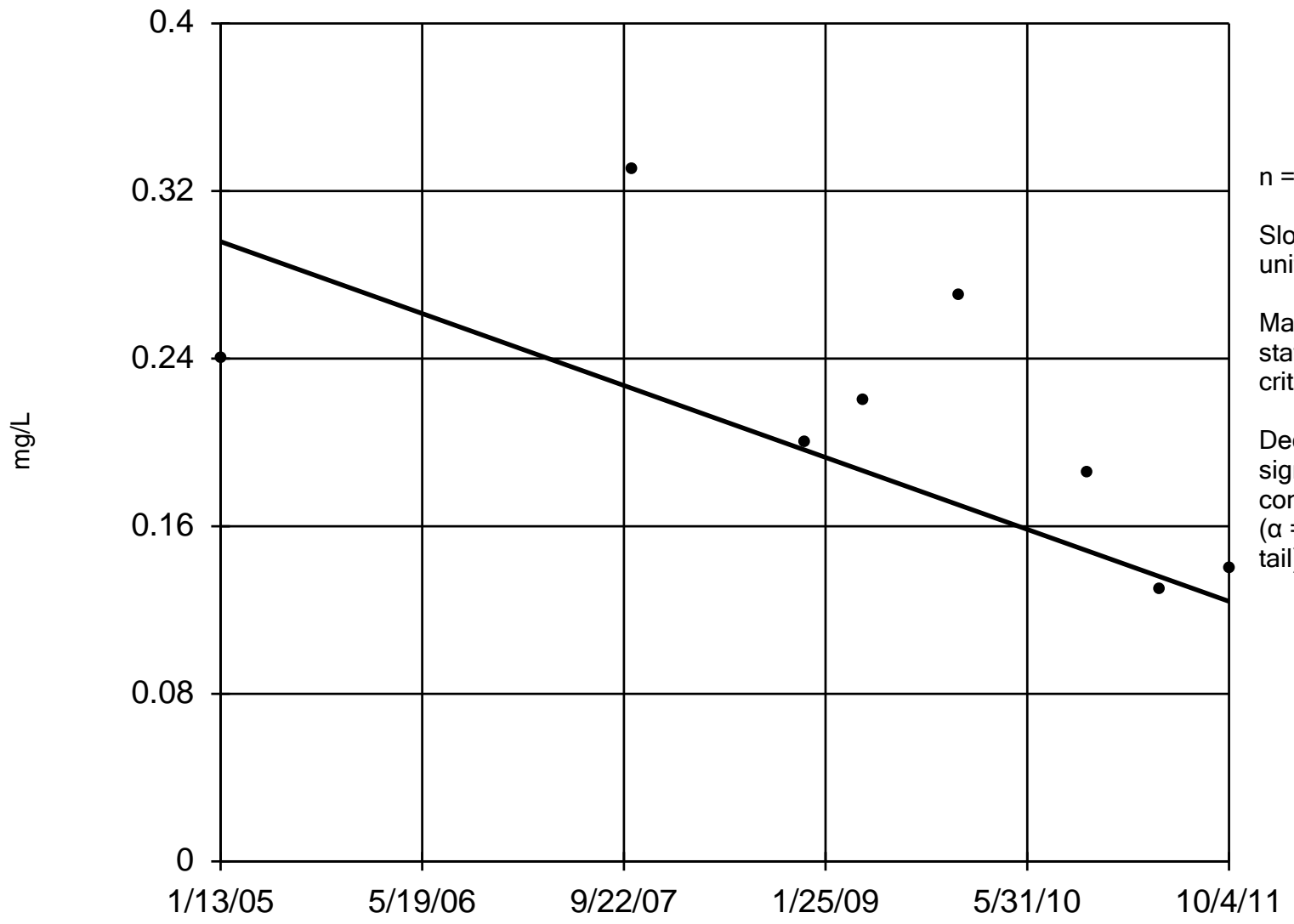


Constituent: Vinyl chloride Analysis Run 11/30/2011 2:18 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW79



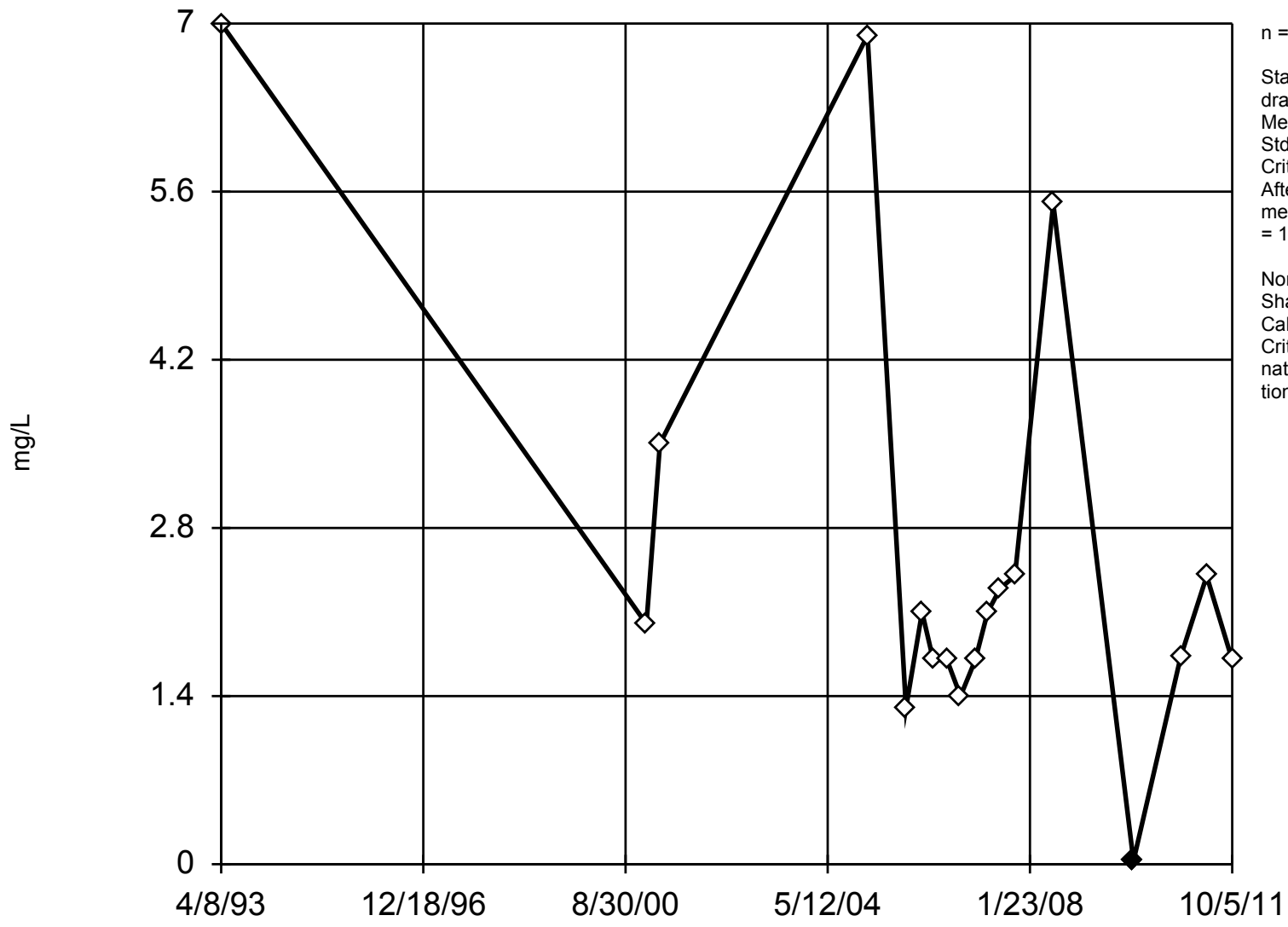
n = 8  
Slope = -0.02554 units per year.  
Mann-Kendall statistic = -16  
critical = -12  
Decreasing trend significant at 80% confidence level ( $\alpha = 0.1$  per tail).

Constituent: Vinyl chloride Analysis Run 11/30/2011 2:20 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# EPA 1989 Outlier Test

MW8



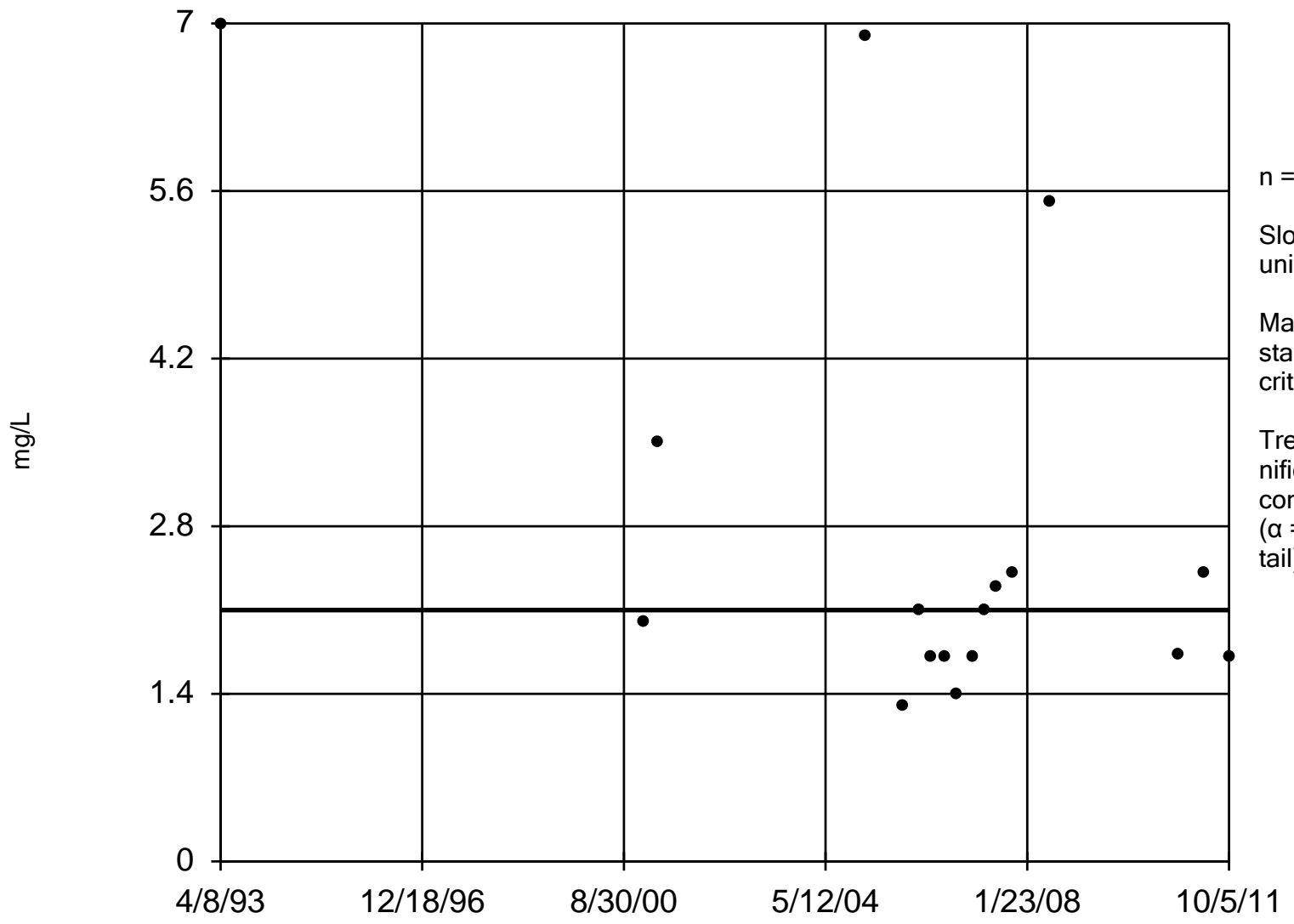
n = 18  
Statistical outlier is drawn as solid.  
Mean = 2.637  
Std. dev. = 1.907  
Critical Tn = 2.504.  
After outlier removal:  
mean = 2.79, std. dev. = 1.848, critical = 2.475.  
  
Normality test used:  
Shapiro Wilk@alpha = 0.05  
Calculated = 0.83  
Critical = 0.892 (after natural log transformation)

Constituent: Vinyl chloride Analysis Run 11/30/2011 2:28 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW8



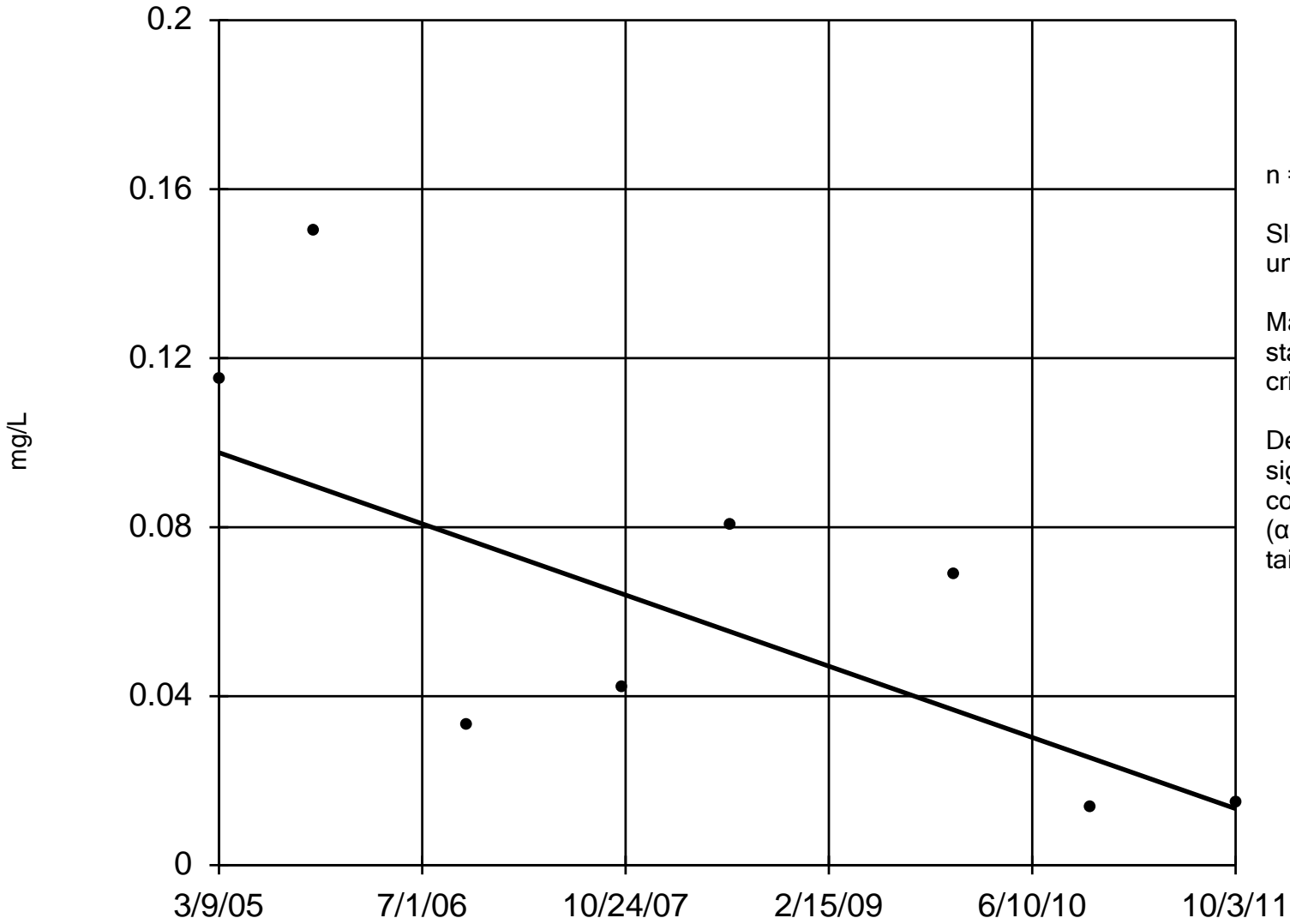
n = 17  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -6  
critical = -33  
Trend not sig-  
nificant at 80%  
confidence level  
( $\alpha = 0.1$  per  
tail).

Constituent: Vinyl chloride Analysis Run 11/30/2011 2:31 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW80

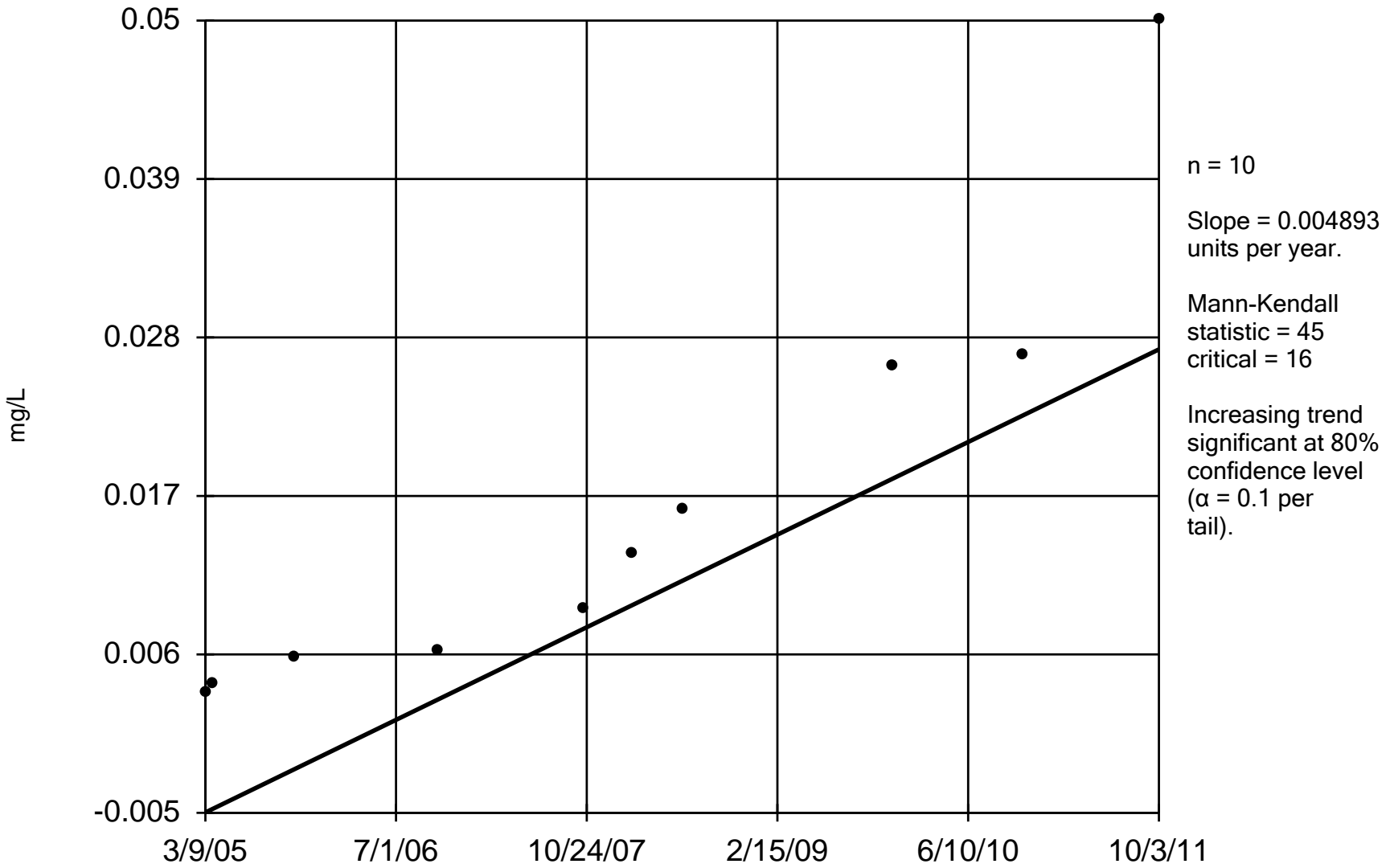


Constituent: Vinyl chloride Analysis Run 11/30/2011 2:37 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW81

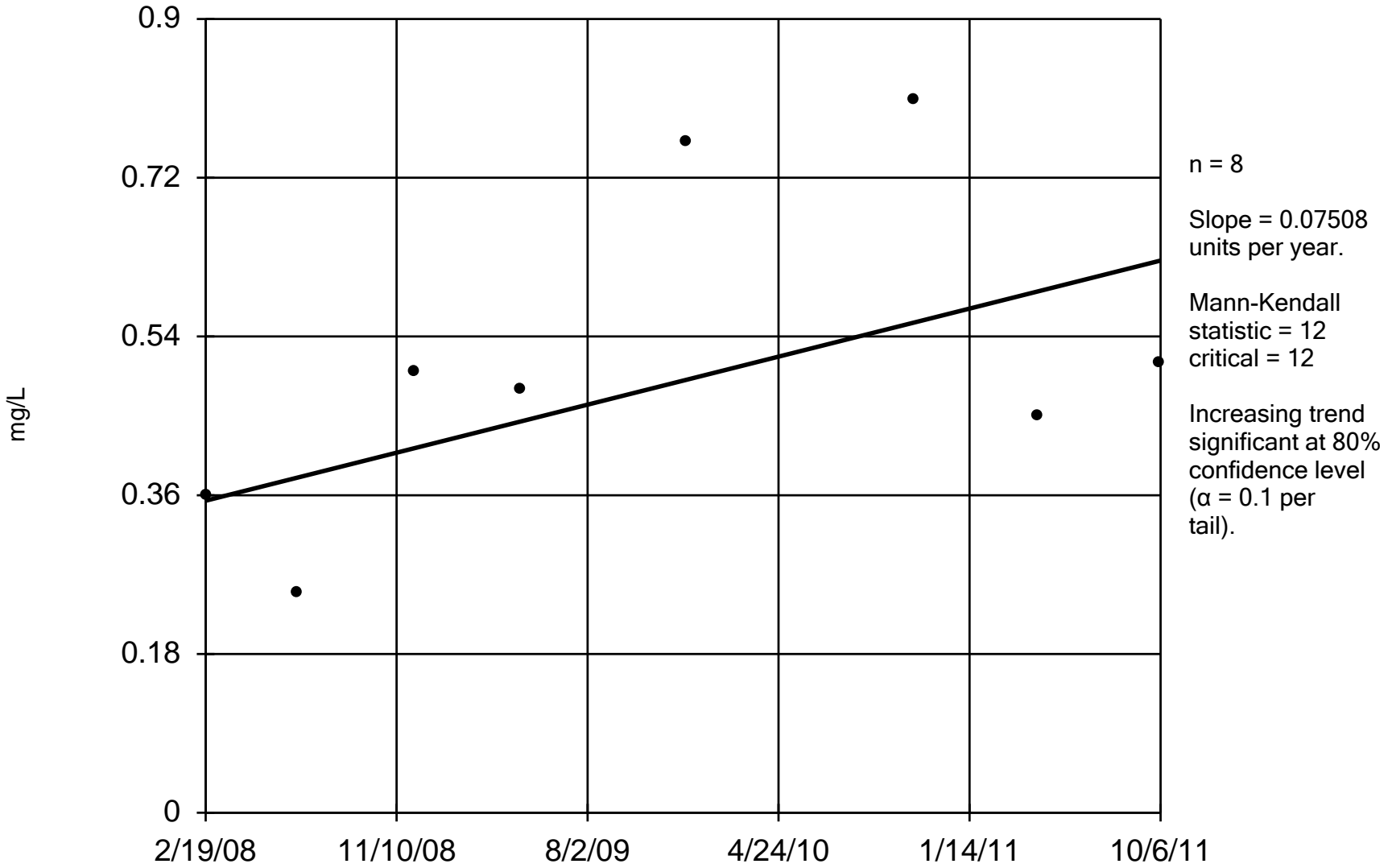


Constituent: Vinyl chloride Analysis Run 11/30/2011 2:43 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW85

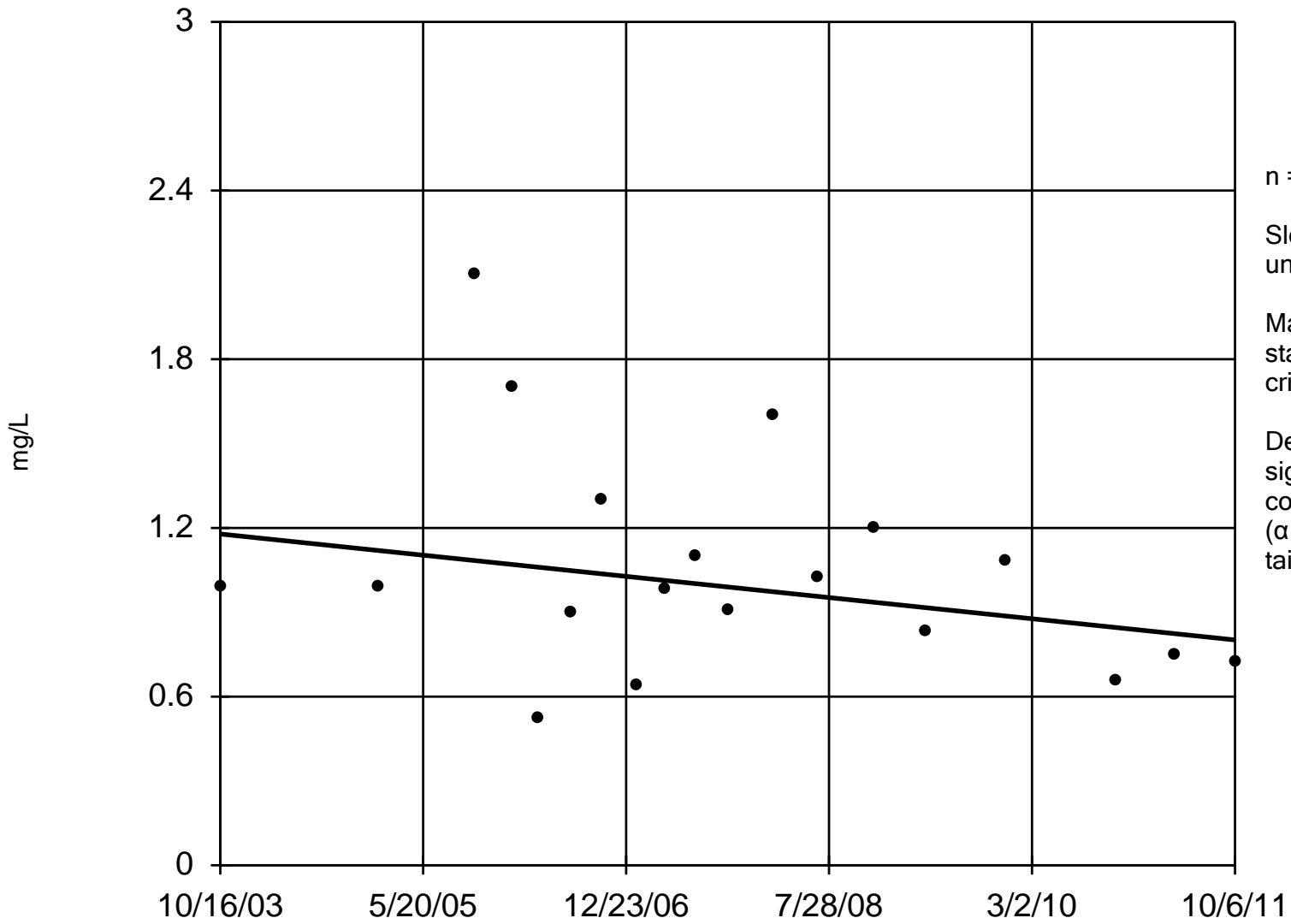


Constituent: Vinyl chloride Analysis Run 11/30/2011 2:44 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011

# Sen's Slope Estimator

MW-4



Constituent: Vinyl chloride Analysis Run 11/30/2011 2:47 PM

Facility: Racer\_MLK Data File: MLK\_WQStat\_2011