



**Worldwide Facilities Group
Remediation Team**

MC 483-520-190
2000 Centerpoint Parkway
Pontiac, Michigan 48341

August 29, 2006

Mr. Daniel Patulski, DP-8J
United States Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3507

Dear Mr. Patulski:

RE: AOI 31 Interim Measures for Groundwater Completion Report
13000 Eckles Road Site (U.S. EPA ID No. MID 005 356 621)
Livonia, Michigan

Enclosed please find the AOI 31 Interim Measures for Groundwater Completion Report. This report describes the Interim Measures which have been completed at the Former Fire Training Area (AOI 31) at the 13000 Eckles Road Site in Livonia, Michigan.

Please feel free to contact me at (248) 753-5800 if you have any questions regarding this document, or if you require any further information.

Yours truly,

GENERAL MOTORS CORPORATION,

A handwritten signature in black ink, reading "Kim D. Tucker-Billingslea".

Kim D. Tucker-Billingslea
Project Manager

CM/cm/12607/Rpt 55/Det.
Encl.

c.c.: Richard Conforti (MDEQ)
Jean Caufield (GM)
Chris Meincke (CRA)
Ian Richardson (CRA)



August 29, 2006

INTERIM MEASURES COMPLETION REPORT AOI 31 – FORMER FIRE TRAINING AREA - GROUNDWATER

**13000 ECKLES ROAD
LIVONIA, MICHIGAN**

U.S. EPA No. MID 005 356 621

**Prepared For:
General Motors Corporation
Remediation and Liability Management Company, Inc.**

**AUGUST 29, 2006
REF. NO. 12607 (55)**

**Prepared by:
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LIST OF ACRONYMS AND TERMS

AOI	Area of Interest
bgs	below ground surface
CCR	Current Conditions Report
cm/sec	centimeters per second
CRA	Conestoga-Rovers & Associates
DO	Dissolved Oxygen
DWSD	Detroit Water and Sewerage Department
feet/yr	feet/year
GM	General Motors Corporation
gpm	gallons per minute
KMnO ₄	Potassium Permanganate
IM	Interim Measure
mg/L	milligrams per liter
ml	milliliter
NOD	Natural Oxidation Demand
ORP	Oxygen Reduction Potential
PCB	Polychlorinated Biphenyls
pcf	pounds per cubic foot
ppm	parts per million
PRB	Permeable Reactive Barrier
REALM	Remediation and Liability Management Company, Inc. (A Subsidiary of GM)
RFI	RCRA Facility Investigation
TCE	trichloroethylene
TDS	Total Dissolved Solids
TSCA	Toxic Substance Control Act
TSS	Total Suspended Solids
U.S. EPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

1.0 INTRODUCTION

This report presents a summary of the activities completed as Interim Measures (IMs) for groundwater at Area of Interest (AOI) 31 at the former General Motors Corporation (GM) property located at 13000 Eckles Road in Livonia, Michigan (Site). AOI 31 is located along the north side of Amrhein Road at the southeastern corner of the Site (see Figures 1.1. and 1.2). The Site was historically used for the production of vehicle bumpers, leaf springs and strut assemblies, with AOI 31 being used as a former fire training area. Environmental decommissioning and demolition of the entire Site occurred during the 2000 to 2001 period. Environmental activities at the Site are being conducted by Conestoga-Rovers & Associates (CRA) under the direction of Remediation and Liability Management Company, Inc. (REALM), an environmental subsidiary of GM.

The interim measures for AOI 31 groundwater have been conducted in accordance with the "Interim Measures Work Plan for AOI 31 (Former Fire Training Area) Groundwater" (CRA, March 2004) (Work Plan) and the "Amendment to Interim Measures Work Plan for AOI 31 Groundwater (Former Fire Training Area)" (CRA, January 2005) (Amendment). Activities conducted on-site consisted of injecting potassium permanganate (KMnO₄) into an existing excavation and a total of 39 injection wells. This report presents the results of potassium permanganate injection activities associated with the pilot study and full-scale on-site interim measures, and evaluates the effectiveness of the completed interim measures.

1.1 BACKGROUND

This section presents a brief summary of the activities that preceded the implementation of the interim measures.

The Fire Training Area was located at the southeast corner of the Site. Activities conducted in AOI 31 consisted of placing metal pans filled with flammable liquids on the ground surface, and igniting the liquid to train personnel in fire fighting techniques. Two metal storage buildings constructed on concrete slabs were also present in the vicinity of AOI 31. Only the concrete slabs remain.

During the RFI, polychlorinated biphenyls (PCB) and trichloroethylene (TCE)-impacted soil and TCE-impacted groundwater were identified at AOI 31. Approximately 715 tons of PCB-impacted soil was excavated and disposed off-site during 2003. This soil that was removed also contained elevated concentrations of TCE. The excavation was extended

to remove additional TCE-impacted soil in two areas. Complete documentation of the activities conducted as part of the PCB Investigation Summary and Self-Implementing Cleanup Plan (CRA, July 2003) is presented in the PCB Cleanup Report – AOI 31 – Fire Training Area (CRA, April 2005) (PCB Cleanup Report).

Based on results of the RFI, TCE has been identified in groundwater samples collected from monitoring wells at on-site and off-site locations at concentrations greater than levels protective of drinking water use even though groundwater is not used for drinking water in the area. As described in the RFI Report and Supplement to the RFI Report, extensive investigations have been conducted in and downgradient of AOI 31 to characterize the extent of TCE-impacted groundwater, which includes an area of the residential neighborhood located southeast of the Site. However, all residents located southeast of the Site are connected to municipal water supply and are not using the groundwater for drinking water.

Concentrations of volatile organic compounds (VOCs) in groundwater samples are lower than the site-specific, risk-based criteria for non-potable groundwater exposures that are reasonably expected for this area (i.e., construction worker contact, vapor intrusion, and residential non-potable uses such as swimming pools and gardening), as discussed in the RFI Report. Additionally, TCE is the only VOC detected at concentrations higher than the drinking water criteria. There are no known uses of groundwater for drinking water at the Site or downgradient of AOI 31.

Even though the concentrations of TCE were well below a level that would be expected to pose any significant risk under current and reasonably expected future use of groundwater in the vicinity, CRA was retained by REALM to conduct laboratory and field treatability studies to determine the feasibility of in-situ remedial technologies, such as chemical oxidation, to further reduce the mass and concentration of TCE in the subsurface at AOI 31 and to implement subsequent interim measures as described below.

2.0 INTERIM MEASURES PERFORMED

2.1 LABORATORY TREATABILITY STUDY

A treatability study was performed in the laboratory during March/April 2003 to determine if chemical oxidation would be effective in reducing the mass and concentrations of dissolved TCE in on-site groundwater at AOI 31 and to determine which chemical oxidant would be most effective. Site groundwater was collected and jar tests were performed to determine the preferred oxidant and recommended dosage for in-situ treatment. The results of the treatability study are presented in the Work Plan. Based on the results of the treatability study, potassium permanganate was chosen as the preferred oxidant due to its effectiveness in the laboratory and its relative ease of use in the field.

2.2 PILOT STUDY

2.2.1 PHASE I - INTRODUCTION OF KMNO₄ INTO EXCAVATION

A field pilot test was conducted in AOI 31 to optimize the dosage and spacing required for the injection of the selected chemical oxidant, potassium permanganate. Phase I of the field pilot test consisted of placing 1,800 gallons of potassium permanganate solution (1 percent) into an existing excavation via gravity drainage from a storage tank. A summary of injections is presented on Table 2.1.

One soil sample was collected from the base of the excavation prior to discharging the solution and one soil sample was collected following the application. The soil samples were analyzed for VOCs. In addition, groundwater samples were collected prior to the introduction at one existing monitoring well (MW3-02) and one temporary monitoring well (TMW1-03). Additional groundwater samples were collected from the two wells 2 weeks after the application. This timing of the second sampling coincided with when groundwater flow was expected to reach the midpoint between the two downgradient monitoring wells (groundwater velocity approximately 1 foot/day). Samples were analyzed for VOCs, dissolved oxygen (DO), oxygen reduction potential (ORP), potassium, chloride, residual potassium permanganate, pH, manganese (total and dissolved), microbial count, total suspended solids (TSS), and total dissolved solids (TDS). A sample summary is presented in Table 2.2. The analytical results of groundwater samples are presented in Table 2.3 and on Plan 1. The analytical results of soil samples are presented in Table 2.4.

2.2.2 PHASE II - INTRODUCTION OF KMNO₄ INTO INJECTION WELLS

Phase II of the field pilot test consisted of five shallow injection wells (IW1S-04, IW2S-04, IW3S-04, IW4S-04, and IW5S-04) which were located adjacent to existing monitoring wells at AOI 31. Downgradient of each injection well additional monitoring wells were installed to complete a series of three monitoring wells at approximately 5-foot intervals. Injection well and monitoring well locations are presented on Figure 2.1. Monitoring well and injection well construction details are presented in Appendix A. Pre-injection groundwater samples were collected from each monitoring well on July 6, 2004. Two hundred gallons of a 2 percent potassium permanganate solution was injected into each of the five injection wells on July 7, 2004 via gravity feed. A summary of injections is presented on Table 2.1. Post injection groundwater samples were then collected from each monitoring well 1 week and 3 weeks following the potassium permanganate injection. The groundwater samples were analyzed for VOCs, select metals, general chemistry and biological parameters. A sample summary is presented in Table 2.2. The analytical results of groundwater samples are presented in Table 2.3 and on Plan 1.

2.2.3 PILOT STUDY RESULTS

With the exception of the monitoring wells downgradient of IW1S, reductions in TCE concentrations were observed in all the monitoring wells closest to the injection wells. These results suggested that the potassium permanganate was effective in reducing the TCE concentration but that it was being consumed before it reached monitoring wells further downgradient. The low concentration of TCE at the Site suggests that other compounds are present that are consuming the oxidant before the complete oxidation of the TCE occurs. This non-specific oxidation is confirmed by the transient increase in acetone concentration observed at most locations after treatment. Acetone is a common breakdown product of the oxidation of non-chlorinated compounds. This non-specific oxidation consumed the potassium permanganate, which is then not available to oxidize all of the TCE present. The reduction in acetone concentration in some of the monitoring wells after 3 weeks confirms that the presence of acetone is transient and that it is being biodegraded rapidly.

Following the Pilot Study injections and groundwater sampling, slug tests were performed at the five injection well locations to determine appropriate spacing of injections wells for full-scale on-site implementation. Results were discussed in the Amendment and are presented in Attachment B. The design spacing for full-scale on-site implementation was determined to be approximately 40 feet.

2.3 IN-SITU CHEMICAL OXIDATION

The full-scale on-site interim measures for AOI 31 was conducted between May 2005 and December 2005. A total of three injections of KMnO₄ into 38 injection wells were completed during this time period. Prior to the May 2005 injections, 34 additional injection wells were installed to provide an injection well network with approximately 40-foot spacing on center. Four of the injection wells from the Pilot Study were utilized during the on-site implementation. Injection well locations are presented on Figure 2.1

2.3.1 MAY 2005

The first two KMnO₄ injections were completed in May 2005. Approximately 200 gallons of KMnO₄ solution (2 percent w/w) was injected into each of the 38 injection wells during each of the two events. Groundwater samples were collected from a monitoring network of 15 monitoring wells prior to the KMnO₄ injections and two weeks after each of the injections. A summary of injections is presented in Table 2.1. A sample summary is presented in Table 2.2. The analytical results of groundwater samples are presented in Table 2.3 and on Plan 1.

The analytical results from groundwater samples following the May 2005 injections indicate that although the concentration of TCE was reduced from 22 ug/L to non-detect in one monitoring well, TCE concentrations remained unchanged in most monitoring wells. These results indicate that non-specific chemical oxidation of natural organic material is limiting the reduction of TCE concentrations. Low concentrations of acetone and 2-butanone in some monitoring wells further indicate the non-specific chemical oxidation of organic materials.

2.3.2 SEPTEMBER 2005

A third injection of KMnO₄ was completed at the Site in September 2005. This round of injections consisted of 800 gallons of KMnO₄ solution (3 percent w/w) in each of the 38 injection wells. The volume and concentration of KMnO₄ were increased in an effort to overcome the natural oxidant demand (NOD). Groundwater samples were collected from the fifteen monitoring wells approximately 3 to 4 weeks after the third round of injections.

Results following the third round of injections indicated that dissolved TCE concentrations in groundwater remained at levels similar to those prior to the KMnO₄

injections. Therefore, it was determined that a natural oxidant demand (NOD) remained which was preferentially utilizing the KMnO_4 and therefore interfering with the destruction of TCE.

2.3.3 DECEMBER 2005 - SOIL EVALUATION

To evaluate the remaining NOD and organic content of the soil at AOI 31, soil samples were collected from select locations in December 2005. The soil sample results were also utilized to determine the additional number of injections required to complete oxidation of the VOC-impacted groundwater on-site. Based on the analytical results of soil samples, there appears to be little to no organic carbon remaining in the soils but a significant NOD still remains. The NOD is attributed to non-organic parameters in the soil, most likely iron and calcium carbonate, which would still consume potassium permanganate if additional injections were performed. The low total organic carbon (TOC) results suggest that there is little or no remaining TCE adsorbed to the soils at AOI 31. The TCE present on-site at AOI 31 should predominantly be dissolved in the groundwater. Thus, there has been an overall reduction in VOC mass in this area since typically, the TCE would be found dissolved in the groundwater and adsorbed to the soil in an equilibrium state.

2.4 MAY 2006 - GROUNDWATER MONITORING

In May 2006, an additional round of groundwater samples was collected from fifteen AOI 31 monitoring wells to document the current conditions. Groundwater sample results for all fifteen monitoring wells were consistent with the previous sampling events following the injections of KMnO_4 indicating that dissolved TCE concentrations in groundwater remain at levels similar to those prior to the KMnO_4 injections even though the total mass of TCE has been reduced.

3.0 FUTURE MONITORING ACTIVITIES

As described in the Revised Groundwater Monitoring Plan (CRA, August 2006) (GMP), groundwater samples will be collected from six monitoring wells annually to monitor the downgradient effects of the IM for AOI 31 groundwater, verify stability of the plume, and to confirm the extents of the TCE-impacted groundwater are delineated.

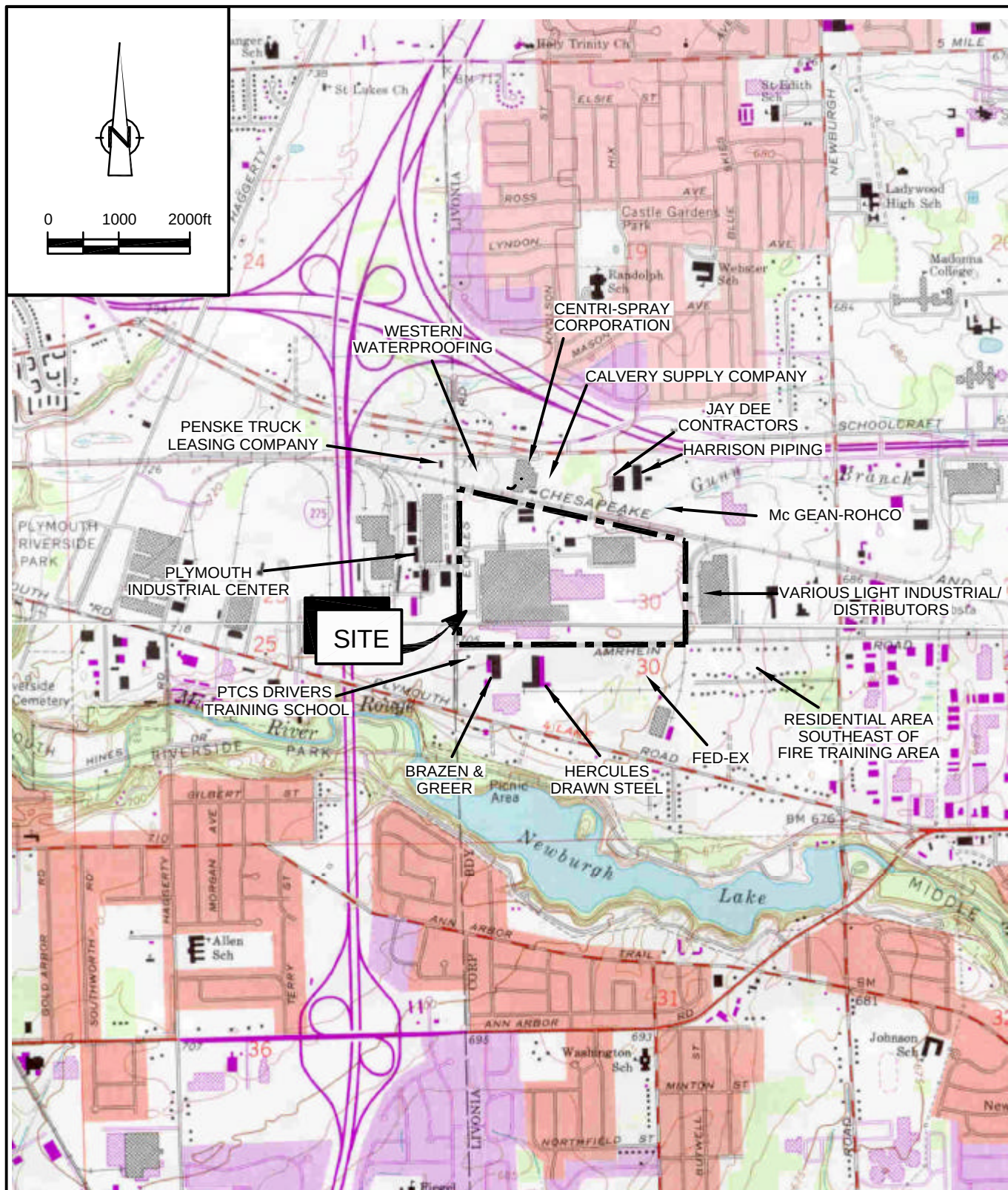
4.0 CONCLUSIONS

Significant mass reduction of TCE at AOI 31 has been achieved during the IM for AOI 31 groundwater. Low concentrations of TCE remain in the groundwater, however, all concentrations are lower than site-specific, risk-based criteria for non-potable groundwater exposures that are reasonably expected for this area (i.e., construction worker contact, vapor intrusion, and residential non-potable uses such as swimming pools and gardening), as discussed in the RFI Report. There are no known uses of groundwater for drinking water at the Site or downgradient of AOI 31. A ground water use restriction will be placed on the Site to prohibit groundwater use as proposed in the Revised Corrective Measures Proposal (CRA, June 2005) (CMP).

Because the concentrations of TCE in groundwater at and downgradient of AOI 31 do not pose a significant risk under both current and reasonably expected future groundwater use conditions (as demonstrated in the RFI Report and Supplement to the RFI Report) and the presence of significant natural oxidant demand (likely due to iron and calcium carbonate in the subsurface), no additional activities are proposed for AOI 31 groundwater (other than the future monitoring identified in the GMP).

5.0 REFERENCES

- Conestoga-Rovers & Associates, September 2002, *RCRA Facility Investigation Work Plan 13000 Eckles Road Livonia, Michigan*.
- Conestoga-Rovers & Associates, July 2003, *PCB Investigation Summary and Self-Implementing Cleanup Plan 13000 Eckles Road Livonia, Michigan*.
- Conestoga-Rovers & Associates, March 2004, *Interim Measures Work Plan for AOI 31 (Former Fire Training Area) Groundwater 13000 Eckles Road Livonia, Michigan*.
- Conestoga-Rovers & Associates, January 2005, *Amendment to Interim Measures Work Plan for AOI 31 Groundwater (Former Fire Training Area) 13000 Eckles Road Livonia, Michigan*.
- Conestoga-Rovers & Associates, July 2005, *PCB Cleanup Report – AOI 31 – Fire Training Area 13000 Eckles Road Livonia, Michigan*.
- Conestoga-Rovers & Associates, August 3, 2005, *Area 1 Groundwater Sampling and AOI 31 Interim Measure* letter to U.S. EPA.
- Conestoga-Rovers & Associates, May 31, 2006, *AOI 31 Groundwater Interim Measure Update* letter to U.S. EPA.
- Conestoga-Rovers & Associates, August 8, 30, 2006, *Revised Groundwater Monitoring Plan 13000 Eckles Road Livonia, Michigan*.

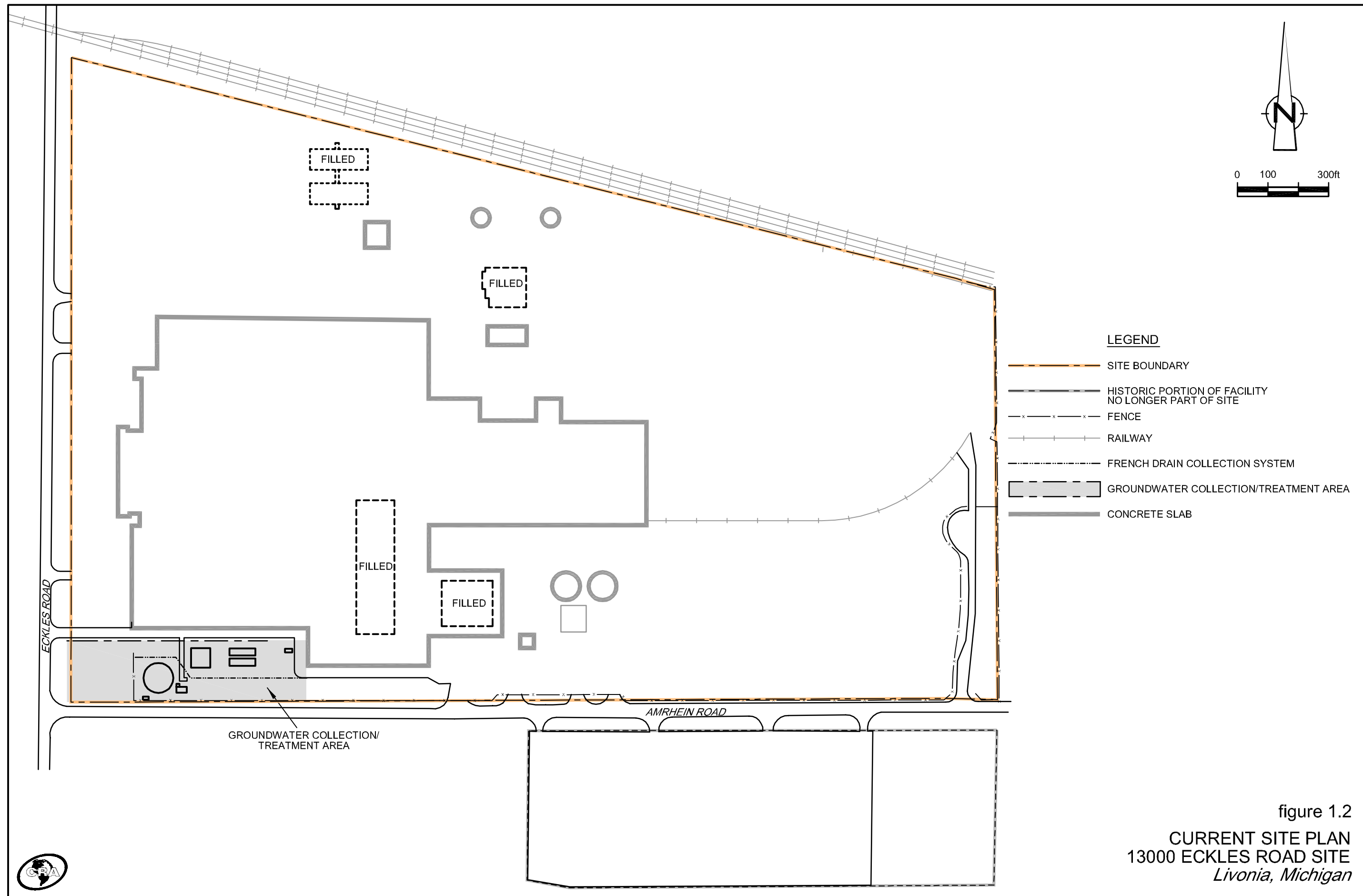


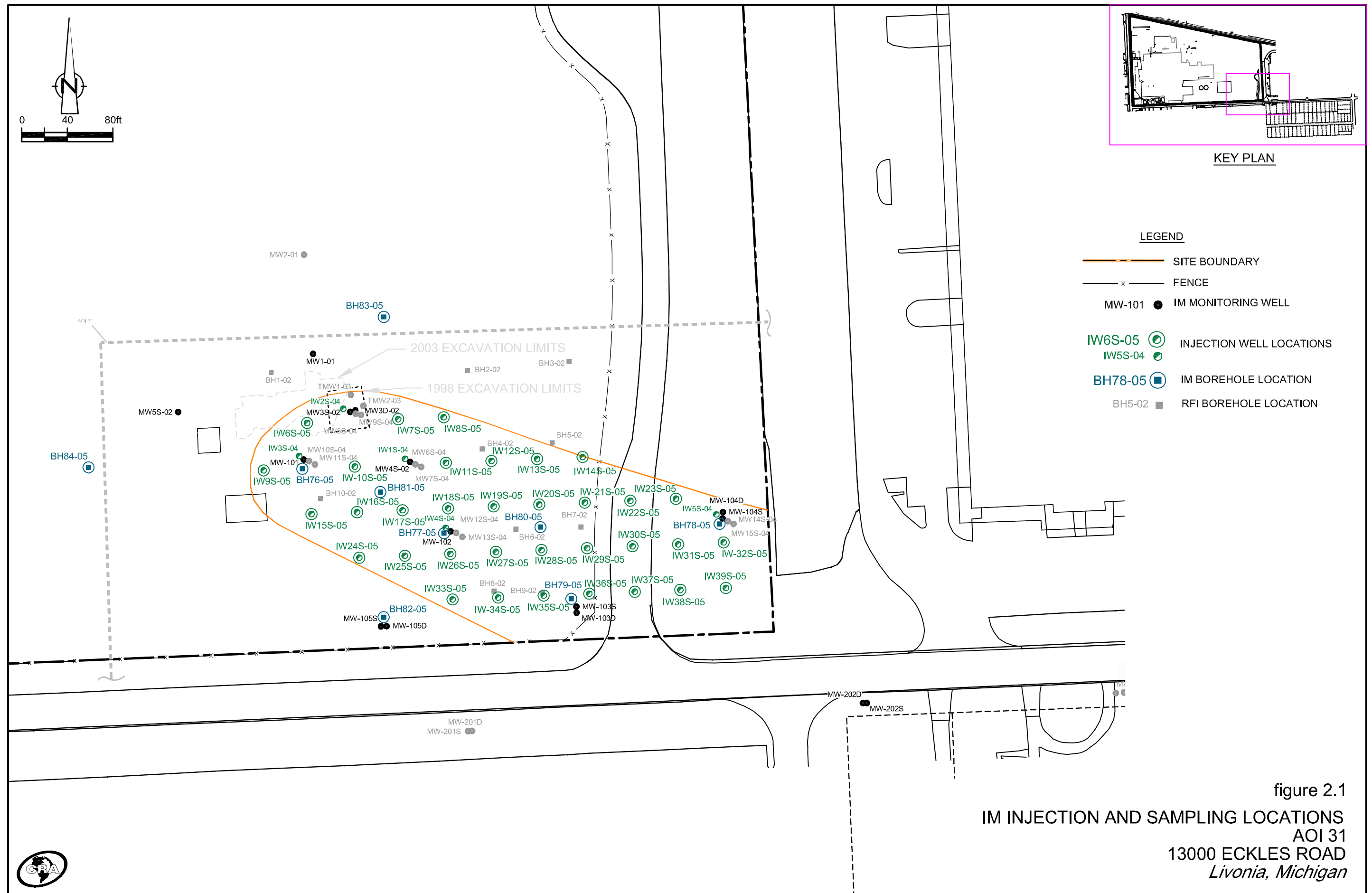
SOURCE: USGS QUADRANGLE MAPS;
NORTHVILLE AND WAYNE, MICHIGAN

figure 1.1

SITE LOCATION AND SURROUNDING LAND USE 13000 ECKLES ROAD SITE *Livonia, Michigan*







SUMMARY OF INJECTIONS
AOI 31 INTERIM MEASURES FOR GROUNDWATER
13000 ECKLES ROAD
LIVONIA, MICHIGAN

Injection Point	Date	Quantity (gallons)	% KMnO4 Solution	Event
General Excavation	4/7/2004	1800	2	Field Pilot - 2004
IW1S-04	7/7/2004	225	2	Field Pilot - 2004
IW2S-04	7/7/2004	225	2	Field Pilot - 2004
IW3S-04	7/7/2004	225	2	Field Pilot - 2004
IW4S-04	7/7/2004	225	2	Field Pilot - 2004
IW5S-04	7/7/2004	225	2	Field Pilot - 2004
IW1S-04	5/4/2005	200	2	1st Injection - May 2005
IW2S-04	5/4/2005	200	2	1st Injection - May 2005
IW3S-04	5/3/2005	200	2	1st Injection - May 2005
IW5S-05	5/4/2005	200	2	1st Injection - May 2005
IW6S-05	5/3/2005	200	2	1st Injection - May 2005
IW7S-05	5/4/2005	200	2	1st Injection - May 2005
IW8S-05	5/4/2005	200	2	1st Injection - May 2005
IW9S-05	5/3/2005	200	2	1st Injection - May 2005
IW10S-05	5/4/2005	200	2	1st Injection - May 2005
IW11S-05	5/4/2005	200	2	1st Injection - May 2005
IW12S-05	5/4/2005	200	2	1st Injection - May 2005
IW13S-05	5/3/2005	200	2	1st Injection - May 2005
IW14S-05	5/3/2005	200	2	1st Injection - May 2005
IW15S-05	5/3/2005	200	2	1st Injection - May 2005
IW16S-05	5/3/2005	200	2	1st Injection - May 2005
IW17S-05	5/4/2005	200	2	1st Injection - May 2005
IW18S-05	5/4/2005	200	2	1st Injection - May 2005
IW19S-05	5/4/2005	200	2	1st Injection - May 2005
IW20S-05	5/3/2005	200	2	1st Injection - May 2005
IW21S-05	5/3/2005	200	2	1st Injection - May 2005
IW22S-05	5/4/2005	200	2	1st Injection - May 2005
IW23S-05	5/4/2005	200	2	1st Injection - May 2005
IW24S-05	5/3/2005	200	2	1st Injection - May 2005
IW25S-05	5/4/2005	200	2	1st Injection - May 2005
IW26S-05	5/4/2005	200	2	1st Injection - May 2005
IW27S-05	5/4/2005	200	2	1st Injection - May 2005
IW28S-05	5/3/2005	200	2	1st Injection - May 2005
IW29S-05	5/3/2005	200	2	1st Injection - May 2005
IW30S-05	5/4/2005	200	2	1st Injection - May 2005
IW31S-05	5/4/2005	200	2	1st Injection - May 2005
IW32S-05	5/4/2005	200	2	1st Injection - May 2005
IW33S-05	5/4/2005	200	2	1st Injection - May 2005
IW34S-05	5/3/2005	200	2	1st Injection - May 2005
IW35S-05	5/3/2005	200	2	1st Injection - May 2005
IW36S-05	5/3/2005	200	2	1st Injection - May 2005
IW37S-05	5/4/2005	200	2	1st Injection - May 2005
IW38S-05	5/4/2005	200	2	1st Injection - May 2005
IW39S-05	5/4/2005	200	2	1st Injection - May 2005

SUMMARY OF INJECTIONS
AOI 31 INTERIM MEASURES FOR GROUNDWATER
13000 ECKLES ROAD
LIVONIA, MICHIGAN

Injection Point	Date	Quantity (gallons)	% KMnO4 Solution	Event
IW1S-04	5/18/2005	200	2	2nd Injection - May 2005
IW2S-04	5/17/2005	200	2	2nd Injection - May 2005
IW3S-04	5/17/2005	200	2	2nd Injection - May 2005
IW5S-04	5/18/2005	200	2	2nd Injection - May 2005
IW6S-05	5/17/2005	200	2	2nd Injection - May 2005
IW7S-05	5/17/2005	200	2	2nd Injection - May 2005
IW8S-05	5/17/2005	200	2	2nd Injection - May 2005
IW9S-05	5/17/2005	200	2	2nd Injection - May 2005
IW10S-05	5/18/2005	200	2	2nd Injection - May 2005
IW11S-05	5/17/2005	200	2	2nd Injection - May 2005
IW12S-05	5/17/2005	200	2	2nd Injection - May 2005
IW13S-05	5/17/2005	200	2	2nd Injection - May 2005
IW14S-05	5/17/2005	200	2	2nd Injection - May 2005
IW15S-05	5/17/2005	200	2	2nd Injection - May 2005
IW16S-05	5/18/2005	200	2	2nd Injection - May 2005
IW17S-05	5/18/2005	200	2	2nd Injection - May 2005
IW18S-05	5/17/2005	200	2	2nd Injection - May 2005
IW19S-05	5/17/2005	200	2	2nd Injection - May 2005
IW20S-05	5/17/2005	200	2	2nd Injection - May 2005
IW21S-05	5/17/2005	200	2	2nd Injection - May 2005
IW22S-05	5/18/2005	200	2	2nd Injection - May 2005
IW23S-05	5/18/2005	200	2	2nd Injection - May 2005
IW24S-05	5/18/2005	200	2	2nd Injection - May 2005
IW25S-05	5/18/2005	200	2	2nd Injection - May 2005
IW26S-05	5/17/2005	200	2	2nd Injection - May 2005
IW27S-05	5/17/2005	200	2	2nd Injection - May 2005
IW28S-05	5/17/2005	200	2	2nd Injection - May 2005
IW29S-05	5/17/2005	200	2	2nd Injection - May 2005
IW30S-05	5/18/2005	200	2	2nd Injection - May 2005
IW31S-05	5/18/2005	200	2	2nd Injection - May 2005
IW32S-05	5/18/2005	200	2	2nd Injection - May 2005
IW33S-05	5/17/2005	200	2	2nd Injection - May 2005
IW34S-05	5/17/2005	200	2	2nd Injection - May 2005
IW35S-05	5/17/2005	200	2	2nd Injection - May 2005
IW36S-05	5/17/2005	200	2	2nd Injection - May 2005
IW37S-05	5/18/2005	200	2	2nd Injection - May 2005
IW38S-05	5/18/2005	200	2	2nd Injection - May 2005
IW39S-05	5/18/2005	200	2	2nd Injection - May 2005
IW1S-04	9/28/2005	800	3	3rd Injection - September 2005
IW2S-04	9/27/2005	800	3	3rd Injection - September 2005
IW3S-04	9/26/2005	800	3	3rd Injection - September 2005
IW5S-04	9/29/2005	800	3	3rd Injection - September 2005
IW6S-05	9/27/2005	800	3	3rd Injection - September 2005
IW7S-05	9/27/2005	800	3	3rd Injection - September 2005

SUMMARY OF INJECTIONS
AOI 31 INTERIM MEASURES FOR GROUNDWATER
13000 ECKLES ROAD
LIVONIA, MICHIGAN

Injection Point	Date	Quantity (gallons)	% KMnO4 Solution	Event
IW8S-05	9/28/2005	800	3	3rd Injection - September 2005
IW9S-05	9/26/2005	800	3	3rd Injection - September 2005
IW10S-05	9/27/2005	800	3	3rd Injection - September 2005
IW11S-05	9/28/2005	800	3	3rd Injection - September 2005
IW12S-05	9/28/2005	800	3	3rd Injection - September 2005
IW13S-05	9/28/2005	800	3	3rd Injection - September 2005
IW14S-05	9/27/2005	800	3	3rd Injection - September 2005
IW15S-05	9/28/2005	800	3	3rd Injection - September 2005
IW16S-05	9/28/2005	800	3	3rd Injection - September 2005
IW17S-05	9/28/2005	800	3	3rd Injection - September 2005
IW18S-05	9/28/2005	800	3	3rd Injection - September 2005
IW19S-05	9/28/2005	800	3	3rd Injection - September 2005
IW20S-05	9/28/2005	800	3	3rd Injection - September 2005
IW21S-05	9/28/2005	800	3	3rd Injection - September 2005
IW22S-05	9/29/2005	800	3	3rd Injection - September 2005
IW23S-05	9/29/2005	800	3	3rd Injection - September 2005
IW24S-05	9/28/2005	800	3	3rd Injection - September 2005
IW25S-05	9/28/2005	800	3	3rd Injection - September 2005
IW26S-05	9/28/2005	800	3	3rd Injection - September 2005
IW27S-05	9/28/2005	800	3	3rd Injection - September 2005
IW28S-05	9/27/2005	800	3	3rd Injection - September 2005
IW29S-05	9/27/2005	800	3	3rd Injection - September 2005
IW30S-05	9/29/2005	800	3	3rd Injection - September 2005
IW31S-05	9/29/2005	800	3	3rd Injection - September 2005
IW32S-05	9/29/2005	800	3	3rd Injection - September 2005
IW33S-05	9/28/2005	800	3	3rd Injection - September 2005
IW34S-05	9/26/2005	800	3	3rd Injection - September 2005
IW35S-05	9/27/2005	800	3	3rd Injection - September 2005
IW36S-05	9/26/2005	800	3	3rd Injection - September 2005
IW37S-05	9/29/2005	800	3	3rd Injection - September 2005
IW38S-05	9/29/2005	800	3	3rd Injection - September 2005
IW39S-05	9/29/2005	800	3	3rd Injection - September 2005

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Sample Location	Sample ID	Sample Depth (ft bgs)	Sample Date	Matrix	Analysis
MW-103S	GW-050205-MM-001	--	5/2/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾ , Microbial Count
MW-103D	GW-050205-MM-002	--	5/2/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾ , Microbial Count
MW-105S	GW-050205-MM-003	--	5/2/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾ , Microbial Count
MW-105S	GW-050205-MM-004	--	5/2/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾ , Microbial Count
MW-105D	GW-050205-MM-005	--	5/2/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾ , Microbial Count
MW-102	GW-050205-MM-006	--	5/2/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾ , Microbial Count
MW4S-02	GW-050205-MM-007	--	5/2/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾ , Microbial Count
MW-101	GW-050205-MM-008	--	5/2/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾ , Microbial Count
MW3D-02	GW-050205-MM-009	--	5/2/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾ , Microbial Count
MW3S-02	GW-050205-MM-010	--	5/2/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾ , Microbial Count
MW5S-02	GW-050205-MM-011	--	5/2/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾ , Microbial Count
MW1-01	GW-050205-MM-012	--	5/2/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾ , Microbial Count
MW-104S	GW-050205-MM-013	--	5/2/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾ , Microbial Count
MW-104D	GW-050205-MM-014	--	5/2/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾ , Microbial Count
MW-202S	GW-050205-MM-015	--	5/2/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾ , Microbial Count
MW-202D	GW-050205-MM-016	--	5/2/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾ , Microbial Count
MW-202S	GW-051605-DCR-018	--	5/16/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW-202D	GW-051605-DCR-019	--	5/16/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW-104D	GW-051605-DCR-020	--	5/16/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW-104S	GW-051605-DCR-021	--	5/16/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW-105S	GW-051605-DCR-022	--	5/16/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW-105D	GW-051605-DCR-023	--	5/16/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW-103S	GW-051605-DCR-024	--	5/16/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW-103D	GW-051605-DCR-025	--	5/16/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW3S-02	GW-051605-DCR-026	--	5/16/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW3S-02	GW-051605-DCR-027	--	5/16/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW1-01	GW-051605-DCR-028	--	5/16/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW-101	GW-051605-DCR-029	--	5/16/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW3D-02	GW-051605-DCR-030	--	5/16/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW4S-02	GW-051605-DCR-031	--	5/16/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW-102	GW-051605-DCR-032	--	5/16/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW5S-02	GW-051605-DCR-033	--	5/16/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW-202S	GW-053105-MM-035	--	5/31/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW-202D	GW-053105-MM-036	--	5/31/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW-202D	GW-053105-MM-037	--	5/31/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾

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Sample Location	Sample ID	Sample Depth (ft bgs)	Sample Date	Matrix	Analysis
MW-104S	GW-053105-MM-038	--	5/31/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW-104D	GW-053105-MM-039	--	5/31/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW-103S	GW-053105-MM-040	--	5/31/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW-103D	GW-053105-MM-041	--	5/31/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW-105S	GW-053105-MM-042	--	5/31/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW-105D	GW-053105-MM-043	--	5/31/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW1-01	GW-053105-MM-044	--	5/31/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW5S-02	GW-053105-MM-045	--	5/31/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW-101	GW-053105-MM-046	--	5/31/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW-102	GW-053105-MM-047	--	5/31/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW3S-02	GW-053105-MM-048	--	5/31/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW3D-02	GW-053105-MM-049	--	5/31/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW4S-02	GW-053105-MM-050	--	5/31/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽²⁾
MW5S-02	GW-102005-JY-105	--	10/20/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾ , Microbial Count
MW1-01	GW-102005-JY-106	--	10/20/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾ , Microbial Count
MW3S-02	GW-102005-JY-107	--	10/20/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾ , Microbial Count
MW3D-02	GW-102005-JY-108	--	10/20/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾ , Microbial Count
MW4S-02	GW-102005-JY-109	--	10/20/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾ , Microbial Count
MW-101	GW-102005-JY-110	--	10/20/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾ , Microbial Count
MW-105D	GW-102005-JY-111	--	10/20/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾ , Microbial Count
MW-105D	GW-102005-JY-112	--	10/20/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾ , Microbial Count
MW-105S	GW-102005-JY-113	--	10/20/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾ , Microbial Count
MW-103S	GW-102105-JY-115	--	10/21/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾ , Microbial Count
MW-103D	GW-102105-JY-116	--	10/21/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾ , Microbial Count
MW-102	GW-102105-JY-117	--	10/21/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾ , Microbial Count
MW-104D	GW-102105-JY-118	--	10/21/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾ , Microbial Count
MW-104S	GW-102105-JY-119	--	10/21/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾ , Microbial Count
MW-202D	GW-102105-JY-120	--	10/21/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾ , Microbial Count
MW-202S	GW-102105-JY-121	--	10/21/2005	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾ , Microbial Count
MW-103S	GW-052206-EV-122	--	5/22/2006	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾
MW-103S	GW-052206-EV-123	--	5/22/2006	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾
MW-103D	GW-052206-EV-124	--	5/22/2006	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾
MW-202D	GW-052206-MMD-125	--	5/22/2006	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾
MW-202S	GW-052206-MMD-126	--	5/22/2006	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾
MW-104S	GW-052206-MMD-127	--	5/22/2006	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾

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Sample Location	Sample ID	Sample Depth (ft bgs)	Sample Date	Matrix	Analysis
MW-104D	GW-052206-MMD-128	--	5/22/2006	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾
MW-102	GW-052206-EV-129	--	5/22/2006	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾
MW1-01	GW-052206-EV-130	--	5/22/2006	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾
MW3D-02	GW-052206-EV-131	--	5/22/2006	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾
MW-101	GW-052206-EV-132	--	5/22/2006	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾
MW-105S	GW-052206-MMD-133	--	5/22/2006	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾
MW-105D	GW-052206-MMD-134	--	5/22/2006	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾
MW4S-02	GW-052206-EV-135	--	5/22/2006	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾
MW3S-02	GW-052206-EV-136	--	5/22/2006	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾
MW5S-02	GW-052206-MMD-137	--	5/22/2006	Groundwater	VOCs, General Chemistry ⁽¹⁾ , Select Metals ⁽³⁾
MW14S-04	S-063004-MM-1753	0-2	6/30/2004	Soil	PCBs, VOCs
MW14S-04	S-063004-MM-1754	0-2	6/30/2004	Soil	PCBs, VOCs
MW14S-04	S-063004-MM-1755	9-11	6/30/2004	Soil	PCBs, VOCs
MW12S-04	S-063004-MM-1756	0-2	6/30/2004	Soil	PCBs, VOCs
MW12S-04	S-063004-MM-1757	8-10	6/30/2004	Soil	PCBs, VOCs
MW10S-04	S-063004-MM-1758	0-2	6/30/2004	Soil	PCBs, VOCs
MW10S-04	S-063004-MM-1759	8-10	6/30/2004	Soil	PCBs, VOCs
BH78-05	S-121205-JY-140	14-15	12/12/2005	Soil	Treatability Parameters ⁽⁴⁾
BH81-05	S-121205-JY-141	14-15	12/12/2005	Soil	Treatability Parameters ⁽⁴⁾
BH79-05	S-121205-JY-142	14-15	12/12/2005	Soil	Treatability Parameters ⁽⁴⁾
BH80-05	S-121205-JY-143	14-15	12/12/2005	Soil	Treatability Parameters ⁽⁴⁾
BH77-05	S-121205-JY-144	14-15	12/12/2005	Soil	Treatability Parameters ⁽⁴⁾
BH81-05	S-121205-JY-145	14-15	12/12/2005	Soil	Treatability Parameters ⁽⁴⁾
BH76-05	S-121205-JY-146	14-15	12/12/2005	Soil	Treatability Parameters ⁽⁴⁾
BH83-05	S-121205-JY-147	14-15	12/12/2005	Soil	Treatability Parameters ⁽⁴⁾
BH84-05	S-121205-JY-148	14-15	12/12/2005	Soil	Treatability Parameters ⁽⁴⁾

Notes:

- (1) - Total Suspended Solids, Total Dissolved Solids, Chloride
- (2) - Total Potassium, Total Manganese, Dissolved Manganese
- (3) - Total Potassium, Total Manganese, Dissolved Potassium, Dissolved Manganese
- (4) - Natural Oxidant Demand, Total Organic Carbon

TABLE 2.3

ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
AOI 31 INTERIM MEASURES FOR GROUNDWATER
13000 ECKLES ROAD
LIVONIA, MICHIGAN

Sample Location:		MW1-01	MW1-01	MW1-01	MW1-01	MW1-01	MW3D-02	MW3D-02	MW3D-02	MW3D-02	MW3D-02
Sample ID:		GW-12607-050205-MM-012	GW-12607-051605-DCR-028	GW-12607-053105-MM-044	GW-12607-102005-JY-106	GW-052206-EV-130	GW-12607-050205-MM-009	GW-12607-051605-DCR-030	GW-12607-053105-MM-049	GW-12607-102005-JY-108	GW-052206-EV-131
Sample Date:		5/2/2005	5/16/2005	5/31/2005	10/20/2005	5/22/2006	5/2/2005	5/16/2005	5/31/2005	10/20/2005	5/22/2006
Sampling Event:		AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure
OnSite:		On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site
Volatile Organic Compounds											
Units											
1,1,1-Trichloroethane	ug/L	1.0 U	0.83 J	1.1	1.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	10 UJ	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 UJ	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone (MIBK)	ug/L	10 UJ	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U
Acetone	ug/L	10 UJ	10 UJ	10 U	10 UJ	10 U	10 UJ	10 UJ	10 U	10 UJ	10 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ
Bromoform	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 UJ	1.0 U
Bromomethane (Methyl Bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
Carbon disulfide	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl Chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ
Cyclohexane	ug/L	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U
Methyl cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Tert Butyl Ether	ug/L	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 UJ	1.0 UJ
Trichloroethene	ug/L	1.0 U	1.0 U	1.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylene (total)	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ
Metals											
Manganese	ug/L	83	89	1.7 J	38	79	300 J	270	270	330	550
Manganese (Dissolved)	ug/L	90	88	7 J	41	80	290 J	260	300	320	340
Potassium	ug/L	3900 J	3800 J	3600 J	3700 J	3100 J	2200 J	2200 J	1800 J	2400 J	2200 J
Potassium (Dissolved)	ug/L	--	--	--	3700 J	3100 J	--	--	--	2300 J	2300 J
General Chemistry											
Chloride	ug/L	6500	6200	9200	5300	3400	237000	233000	220000	381000	222000
Potassium Permanganate	%	--	--	--	--	--	--	--	--	--	--
Total Dissolved Solids (TDS)	ug/L	390000 J	380000	470000	400000	340000	930000 J	940000	950000	1200000	950000
Total Suspended Solids (TSS)	ug/L	4000 U	4000 U	4000 U	5000	6000	5000	4000 U	4000 U	6000	4000 U
Biological											
Aerobic TCE Specific Microbial Population	CFU/mL	--	--	--	140	--	--	--	--	60	--
Aerobic Total Microbial Population	CFU/mL	--	--	--	55	--	--	--	--	210	--
Anaerobic TCE Specific Microbial Population	CFU/mL	--	--	--	110	--	--	--	--	750	--
Anaerobic Total Microbial Population	CFU/mL	--	--	--	150	--	--	--	--	460	--

TABLE 2.3

ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
AOI 31 INTERIM MEASURES FOR GROUNDWATER
13000 ECKLES ROAD
LIVONIA, MICHIGAN

Sample Location:		MW3S-02	MW3S-02	MW3S-02	MW3S-02	MW3S-02	MW3S-02	MW3S-02	MW3S-02	MW3S-02	MW3S-02	MW5S-02
Sample ID:		GW-070604-DCR-1770	GW-070604-DCR-1771	GW-071404-MM-1790	GW-072804-BF-1803	GW-12607-050205-MM-010	GW-12607-051605-DCR-026	GW-12607-051605-DCR-027	GW-12607-053105-MM-048	GW-12607-102005-JY-107	GW-052206-EV-136	GW-12607-050205-MM-011
Sample Date:		7/6/2004	7/6/2004	7/14/2004	7/28/2004	5/2/2005	5/16/2005	5/16/2005	5/31/2005	10/20/2005	5/22/2006	5/2/2005
Sampling Event:		AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure
OnSite:		On-Site	On-Site Duplicate	On-Site	On-Site	On-Site	On-Site	On-Site Duplicate	On-Site	On-Site	On-Site	On-Site
Volatile Organic Compounds												
Units												
1,1,1-Trichloroethane		ug/L										
1,1,2,2-Tetrachloroethane		ug/L	18	20	24	23	13	15	16	15	25	8.6
1,1,2-Trichloroethane		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
1,1-Dichloroethane		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
1,1-Dichloroethene		ug/L	0.60 J	1.0 J	5.0 U	0.87 J	1.4	1.5	1.5	2.1 J	3.9	1.1
1,2,4-Trichlorobenzene		ug/L	1.7 U	1.3 J	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	0.40 J	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)		ug/L	8.4 U	7.2 UJ	25 U	6.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene Dibromide)		ug/L	1.7 U	1.4 U	5.0 UJ	1.2 U	2.9 U	2.0 U	2.0 U	6.7 U	2.0 U	2.0 U
1,2-Dichlorobenzene		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 UJ	1.0 U
1,2-Dichloroethane		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
1,2-Dichloropropane		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
1,3-Dichlorobenzene		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
1,4-Dichlorobenzene		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
2-Butanone (Methyl Ethyl Ketone)		ug/L	42 U	36 UJ	62 J	6.9 J	14 UJ	17 J	19 J	33	2.4 J	10 U
2-Hexanone		ug/L	84 U	72 U	250 U	2.9 J	14 UJ	10 U	10 U	33 U	1.2 J	10 U
4-Methyl-2-Pentanone (MIBK)		ug/L	84 U	72 U	2.2 J	0.91 J	14 UJ	0.51 J	0.67 J	1.3 J	0.90 J	10 U
Acetone		ug/L	42 UJ	36 UJ	300	28 J	14 UJ	50 J	53 J	150	10 UJ	10 U
Benzene		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Bromodichloromethane		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 UJ
Bromoform		ug/L	1.7 U	1.4 U	5.0 UJ	1.2 U	1.4 UJ	1.0 U	1.0 U	3.3 U	1.0 UJ	1.0 UJ
Bromomethane (Methyl Bromide)		ug/L	1.7 U	1.4 U	5.0 U	1.2 UJ	1.4 U	1.0 U	1.0 U	3.3 U	1.0 UJ	1.0 U
Carbon disulfide		ug/L	8.4 U	7.2 U	25 U	6.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.7	1.0 U
Carbon tetrachloride		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Chlorobenzene		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Chloroethane		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	0.69 J	1.0 U
Chloroform (Trichloromethane)		ug/L	0.70 J	0.78 J	0.90 J	0.76 J	1.4 U	1.0 U	1.0 U	3.3 U	0.50 J	1.0 U
Chloromethane (Methyl Chloride)		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 UJ	1.0 U
cis-1,2-Dichloroethene		ug/L	0.47 J	0.51 J	1.8 J	11	2.5	3.8	3.5	4.5	8.8	2.3 J
cis-1,3-Dichloropropene		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 UJ	1.0 U
Cyclohexane		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Dibromochloromethane		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 UJ	1.0 U
Dichlorodifluoromethane (CFC-12)		ug/L	1.7 UJ	1.4 UJ	5.0 UJ	1.2 U	1.4 UJ	1.0 U	1.0 U	3.3 U	1.0 U	1.0 UJ
Ethylbenzene		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Isopropylbenzene		ug/L	8.4 U	7.2 U	25 U	6.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Methyl acetate		ug/L	17 U	14 U	50 U	12 U	14 U	10 U	10 U	33 U	10 U	10 U
Methyl cyclohexane		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Methyl Tert Butyl Ether		ug/L	8.4 U	7.2 U	25 UJ	6.2 U	7.2 UJ	5.0 U	5.0 U	17 U	5.0 U	5.0 UJ
Methylene chloride		ug/L	8.4 U	7.2 U	25 U	6.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Styrene		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 UJ
Tetrachloroethene		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Toluene		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
trans-1,2-Dichloroethene		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
trans-1,3-Dichloropropene		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 UJ	1.0 U	1.0 U	3.3 U	1.0 UJ	1.0 UJ
Trichloroethene		ug/L	45	50	58	40	29	38	39	37	25	3.0
Trichlorofluoromethane (CFC-11)		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)		ug/L	1.7 U	1.4 U	5.0 U	1.2 UJ	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Vinyl chloride		ug/L	1.7 U	1.4 U	5.0 U	1.2 U	1.4 U	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Xylene (total)		ug/L	5.0 U	4.3 U	15 U	3.8 U	2.9 U	2.0 U	2.0 U	6.7 U	2.0 U	2.0 UJ
Metals												
Manganese		ug/L	370	390	1400	1400	1900 J	2200	2100	3100	200	530
Manganese (Dissolved)		ug/L	380	370	1500	1500	1900 J	2000	2200	3100	180	470
Potassium		ug/L	86100	88800	317000	300000	22300 J	188000 J	176000 J	287000 J	294000	139000
Potassium (Dissolved)		ug/L	--	--	--	--	--	--	--	--	305000	122000
General Chemistry												
Chloride		ug/L	9800	9800	10300	9800	6300	6300	6000	6500	4800	3300
Potassium Permanganate		%	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	--	--
Total Dissolved Solids (TDS)		ug/L	450000	460000	1100000	960000	400000 J	820000	790000	1100000	780000	520000
Total Suspended Solids (TSS)		ug/L	5000	4000	14000	9000	4000	7000	4000 U	10000	4000	4000 U
Biological												
Aerobic TCE Specific Microbial Population		CFU/mL	20	20	170	920	--	--	--	--	1100	--
Aerobic Total Microbial Population		CFU/mL	1500	1900	16000	8300	--	--	--	--	40000	--
Anaerobic TCE Specific Microbial Population		CFU/mL	ND	ND	220	1900	--	--	--	--	10000	--
Anaerobic Total Microbial Population		CFU/mL	40	30	2000	670	--	--	--	--	12000	--

TABLE 2.3

ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
AOI 31 INTERIM MEASURES FOR GROUNDWATER
13000 ECKLES ROAD
LIVONIA, MICHIGAN

Sample Location:	MW5S-02	MW5S-02	MW5S-02	MW5S-02	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101
Sample ID:	GW-12607-051605-DCR-033	GW-12607-053105-MM-045	GW-12607-102005-JY-105	GW-052206-MMD-137	GW-070604-CB-1776	GW-071404-BF-1793	GW-072804-MM-1813	GW-12607-050205-MM-008	GW-12607-051605-DCR-029	GW-12607-053105-MM-046	GW-12607-102005-JY-110
Sample Date:	5/16/2005	5/31/2005	10/20/2005	5/22/2006	7/6/2004	7/14/2004	7/28/2004	5/2/2005	5/16/2005	5/31/2005	10/20/2005
Sampling Event:	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure
OnSite:	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site
Volatile Organic Compounds	Units										
1,1,1-Trichloroethane	ug/L	1.9	1.0 U	1.7	1.9	6.5	19	6.2	9.2	10	20
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.30 J
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	0.19 J
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	5.0 U	1.0 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	10 U	10 U	10 U	10 U	25 U	78 J	1.2 J	10 UJ	13	11
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	50 U	8.7 J	0.66 J	10 UJ	2.6 J	1.0 J
4-Methyl-2-Pentanone (MIBK)	ug/L	10 U	10 U	10 U	10 U	50 U	2.9 J	50 U	10 UJ	1.0 J	1.1 J
Acetone	ug/L	10 UJ	10 U	10 UJ	10 U	25 U	330	25 U	10 UJ	46 J	46 J
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	5.0 U	1.0 U	1.0 U	0.25 J	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	5.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ
Bromomethane (Methyl Bromide)	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	5.0 U	1.0 UJ	1.0 U	1.0 U	1.0 UJ
Carbon disulfide	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	5.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	0.18 J
Chloromethane (Methyl Chloride)	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	5.0 U	1.0 U	0.31 J	1.0 U	0.38 J
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ
Cyclohexane	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	10 UJ	10 U	10 U	10 U	10 U	50 U	10 U	10 U	10 UJ	10 U
Methyl cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Tert Butyl Ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Methylene chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	5.0 U	1.0 U	1.0 U	1.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U	5.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ
Trichloroethene	ug/L	1.9	1.0 U	3.7	2.7	21	29	13	22	3.0	30
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylene (total)	ug/L	2.0 U	2.0 U	2.0 U	2.0 UJ	3.0 U	15 U	3.0 U	2.0 U	2.0 U	2.0 U
Metals											
Manganese	ug/L	15 U	59	15 U	2.3 J	15 U	6400	14 J	420 J	12300	18200
Manganese (Dissolved)	ug/L	8.2 J	62	4.4 J	1.1 J	15 U	5600	16	380 J	8900	410
Potassium	ug/L	3900 J	3200 J	4000 J	3300 J	3100	400000	71500	5000 J	217000	286000
Potassium (Dissolved)	ug/L	--	--	3800 J	3300 J	--	--	--	--	--	273000
General Chemistry											
Chloride	ug/L	9500	6400	11300	6900	20400	15800	19800	15400	12400	7800
Potassium Permanganate	%	--	--	--	--	0.0005 U	0.0005 U	0.0005 U	--	--	--
Total Dissolved Solids (TDS)	ug/L	440000	390000	520000	380000	530000	1400000	640000	530000 J	910000	850000
Total Suspended Solids (TSS)	ug/L	4000 U	4000	5000	4000 U	4000 U	66000	4000 U	3000 J	14000	9000
Biological											
Aerobic TCE Specific Microbial Population	CFU/mL	--	--	780	--	ND	40	1300	--	--	3200
Aerobic Total Microbial Population	CFU/mL	--	--	110	--	40	ND	8900	--	--	31000
Anaerobic TCE Specific Microbial Population	CFU/mL	--	--	260	--	ND	10	120	--	--	3100
Anaerobic Total Microbial Population	CFU/mL	--	--	280	--	10	ND	10	--	--	12000

TABLE 2.3

ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
AOI 31 INTERIM MEASURES FOR GROUNDWATER
13000 ECKLES ROAD
LIVONIA, MICHIGAN

Sample Location:		MW-101	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-103D	MW-103D
Sample ID:		GW-052206-EV-132	GW-070604-MM-1765	GW-071404-MM-1784	GW-072804-MM-1810	GW-12607-050205-MM-006	GW-12607-051605-DCR-032	GW-12607-053105-MM-047	GW-12607-102105-JY-117	GW-052206-EV-129	GW-12607-050205-MM-002	GW-12607-051605-DCR-025
Sample Date:		5/22/2006	7/6/2004	7/14/2004	7/28/2004	5/2/2005	5/16/2005	5/31/2005	10/21/2005	5/22/2006	5/2/2005	5/16/2005
Sampling Event:		AOI 31 GW Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure
OnSite:		On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site
Volatile Organic Compounds												
1,1,1-Trichloroethane	ug/L	9.1	26	31	23	21	19	21	22	18	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.7 U	2.5 U	1.7 U	2.0 UJ	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.2 J	0.78 J	2.0 U	1.7 U	1.4 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.2 J	2.5 U	1.7 U	2.0 U	0.84 J	1.0 J	1.1 J	1.0 U	1.0 U	0.19 J
1,2,4-Trichlorobenzene	ug/L	1.0 U	8.4 UJ	12 U	8.4 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	2.0 U	1.7 U	2.5 UJ	1.7 U	4.0 U	3.3 U	2.9 U	2.9 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	1.0 U	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	10 U	42 UJ	43 J	0.95 J	20 UJ	17 UJ	14 U	14 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	84 U	3.4 J	0.62 J	20 UJ	17 U	14 U	14 U	10 U	10 U	10 U
4-Methyl-2-Pentanone (MIBK)	ug/L	10 U	84 U	1.4 J	84 U	20 UJ	17 U	14 U	14 U	10 U	10 U	10 U
Acetone	ug/L	10 U	42 UJ	200	42 U	20 UJ	17 UJ	14 U	14 U	10 U	10 UJ	10 UJ
Benzene	ug/L	1.0 U	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 UJ	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 UJ	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.7 U	2.5 UJ	1.7 U	2.0 UJ	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl Bromide)	ug/L	1.0 U	1.7 U	2.5 U	1.7 UJ	2.0 U	1.7 U	1.4 U	7.9	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	1.0 U	8.4 U	12 U	8.4 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	ug/L	1.0 U	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	7.6	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.7 U	0.49 J	1.7 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl Chloride)	ug/L	1.0 U	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	8.4	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 UJ	2.2	1.3 J	1.6 J	0.57 J	0.53 J	0.58 J	0.46 J	0.27 J	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 UJ	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 UJ	1.0 UJ	1.0 U
Cyclohexane	ug/L	1.0 U	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 UJ
Dibromochloromethane	ug/L	1.0 UJ	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 UJ	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.7 UJ	2.5 UJ	1.7 U	2.0 UJ	1.7 U	1.4 U	3.0 J	1.0 U	1.0 UJ	1.0 U
Ethylbenzene	ug/L	1.0 U	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	ug/L	1.0 U	8.4 U	12 U	8.4 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	10 U	17 U	25 U	17 U	20 UJ	17 U	14 U	14 U	10 U	10 U	10 UJ
Methyl cyclohexane	ug/L	1.0 U	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
Methyl Tert Butyl Ether	ug/L	5.0 U	8.4 U	12 UJ	8.4 U	10 UJ	8.4 U	7.2 U	7.2 U	5.0 U	5.0 U	5.0 U
Methylene chloride	ug/L	1.0 U	8.4 U	12 U	8.4 U	0.61 J	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
Styrene	ug/L	1.0 UJ	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 UJ	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 UJ	1.7 U	2.5 U	1.7 U	2.0 UJ	1.7 U	1.4 U	1.4 U	1.0 UJ	1.0 U	1.0 U
Trichloroethene	ug/L	33	56	43	42	42	46	44	49	44	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.7 U	2.5 U	1.7 U	2.0 U	1.7 U	1.4 U	3.8	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	1.0 U	1.7 U	2.5 U	1.7 UJ	2.0 U	1.7 U	1.4 U	1.4 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	ug/L	1.0 U	1.7 U	2.5 U	1.7 U	2.0 UJ	1.7 U	1.4 U	7.1	1.0 U	1.0 U	1.0 U
Xylene (total)	ug/L	2.0 UJ	5.0 U	7.5 U	5.0 U	4.0 U	3.3 U	2.9 U	2.9 U	2.0 UJ	2.0 U	2.0 U
Metals												
Manganese	ug/L	150	15 U	420	190	620 J	280	280	820	760	180 J	120
Manganese (Dissolved)	ug/L	13 J	15 U	290	86	200 J	130	160	660	980	180 J	120
Potassium	ug/L	30400	2700	225000	86900	20000 J	21700	17600 J	18300	35700 J	1900 J	1400 J
Potassium (Dissolved)	ug/L	26100	--	--	--	--	--	--	17300	36300 J	--	--
General Chemistry												
Chloride	ug/L	5200	15000	13400	16400	18900	10500	11200	14200	8800	290000	207000
Potassium Permanganate	%	--	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	--	--	--
Total Dissolved Solids (TDS)	ug/L	470000	430000	910000	560000	500000 J	440000	480000	540000	510000	880000	870000
Total Suspended Solids (TSS)	ug/L	4000 U	4000 U	4000	4000 U	3000 J	4000 U	4000 U	4000 U	4000 U	11000	7000
Biological												
Aerobic TCE Specific Microbial Population	CFU/mL	--	40	270	450	--	--	--	190	--	--	--
Aerobic Total Microbial Population	CFU/mL	--	90	21000	1400	--	--	--	910	--	--	--
Anaerobic TCE Specific Microbial Population	CFU/mL	--	ND	50	490	--	--	--	140	--	--	--
Anaerobic Total Microbial Population	CFU/mL	--	ND	290	20	--	--	--	660	--	--	--

TABLE 2.3

ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
AOI 31 INTERIM MEASURES FOR GROUNDWATER
13000 ECKLES ROAD
LIVONIA, MICHIGAN

Sample Location:		MW-103D	MW-103D	MW-103D	MW-103S	MW-103S	MW-103S	MW-103S	MW-103S	MW-103S	MW-103S	MW-104D
Sample ID:		GW-12607-053105-MM-041	GW-12607-102105-JY-116	GW-052206-EV-124	GW-12607-050205-MM-001	GW-12607-051605-DCR-024	GW-12607-053105-MM-040	GW-12607-102105-JY-115	GW-052206-EV-122	GW-052206-EV-123	GW-12607-050205-MM-014	
Sample Date:		5/31/2005	10/21/2005	5/22/2006	5/2/2005	5/16/2005	5/31/2005	10/21/2005	5/22/2006	5/22/2006	5/2/2005	
Sampling Event:		AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	
OnSite:		On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site
Volatile Organic Compounds		Units									Duplicate	
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	44	40 J	52	57	46	42		1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 UJ	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 UJ	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 UJ	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	0.46 J	2.1 J	2.4	2.5	1.6	1.4		1.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	4.0 U	4.0 U	2.0 U	2.0 U		2.0 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	1.0 U	1.0 U	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 UJ	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	10 U	10 UJ	10 U	25 UJ	25 UJ	20 U	20 U	10 U	10 U		10 UJ
2-Hexanone	ug/L	10 U	10 UJ	10 U	25 UJ	25 UJ	20 U	20 U	10 U	10 U		10 UJ
4-Methyl-2-Pentanone (MIBK)	ug/L	10 U	10 UJ	10 U	25 UJ	25 UJ	20 U	20 U	10 U	10 U		10 UJ
Acetone	ug/L	10 U	10 U	10 U	25 UJ	25 UJ	20 U	20 U	10 U	10 U		10 UJ
Benzene	ug/L	1.0 U	1.0 UJ	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 UJ	2.5 U	2.5 U	2.0 U	2.0 U	1.0 UJ	1.0 UJ		1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	2.5 UJ	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 UJ
Bromomethane (Methyl Bromide)	ug/L	1.0 U	1.0 U	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
Carbon disulfide	ug/L	1.0 U	1.0 U	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
Carbon tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
Chloromethane (Methyl Chloride)	ug/L	1.0 U	1.0 U	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 UJ	1.0 UJ	0.80 J	1.0 J	1.1 J	0.78 J	0.53 J	0.78 J		1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 UJ	1.0 UJ	2.5 U	2.5 U	2.0 U	2.0 U	1.0 UJ	1.0 UJ		1.0 U
Cyclohexane	ug/L	1.0 U	1.0 UJ	1.0 U	2.5 U	2.5 UJ	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 UJ	2.5 U	2.5 U	2.0 U	2.0 U	1.0 UJ	1.0 UJ		1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 UJ	1.0 U	2.5 UJ	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 UJ
Ethylbenzene	ug/L	1.0 U	1.0 UJ	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
Isopropylbenzene	ug/L	1.0 U	1.0 U	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
Methyl acetate	ug/L	10 U	10 UJ	10 U	25 U	25 UJ	20 U	20 U	10 U	10 U		10 U
Methyl cyclohexane	ug/L	1.0 U	1.0 UJ	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
Methyl Tert Butyl Ether	ug/L	5.0 U	5.0 U	5.0 U	12 U	12 UJ	10 U	10 U	5.0 U	5.0 U		5.0 UJ
Methylene chloride	ug/L	1.0 U	1.0 UJ	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
Styrene	ug/L	1.0 U	1.0 UJ	1.0 UJ	2.5 U	2.5 UJ	2.0 U	2.0 U	1.0 UJ	1.0 UJ		1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 UJ	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 UJ	2.5 UJ	2.5 U	2.0 U	2.0 U	1.0 UJ	1.0 UJ		1.0 UJ
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	53	65 J	64	65	63			1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	1.0 U	1.0 U	1.0 U	2.5 U	2.5 U	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
Vinyl chloride	ug/L	1.0 U	1.0 U	1.0 U	2.5 U	2.5 UJ	2.0 U	2.0 U	1.0 U	1.0 U		1.0 U
Xylene (total)	ug/L	2.0 U	2.0 UJ	2.0 UJ	5.0 U	5.0 U	4.0 U	4.0 U	2.0 UJ	2.0 UJ		2.0 U
Metals												
Manganese	ug/L	110	110	160	15 U	3.3 J	15 U	4.7 J	20 J	9.2 J		190
Manganese (Dissolved)	ug/L	110	95	210	15 U	4.1 J	5.3 J	11 J	140 J	17 J		180
Potassium	ug/L	1400 J	1200 J	1800 J	3500 J	3600 J	4000 J	4300 J	124000 J	117000 J		2800 J
Potassium (Dissolved)	ug/L	--	1100 J	1700 J	--	--	--	4200 J	123000 J	118000 J		--
General Chemistry												
Chloride	ug/L	194000	164000	273000	34400	30500	28800	31100	17400	17900		465000
Potassium Permanganate	%	--	--	--	--	--	--	--	--	--		--
Total Dissolved Solids (TDS)	ug/L	760000	620000 J	880000	530000	520000	540000	590000	630000	610000		1500000 J
Total Suspended Solids (TSS)	ug/L	11000	6000	4000	25000	4000 U	4000	4000 U	4000 U	4000 U		11000
Biological												
Aerobic TCE Specific Microbial Population	CFU/mL	--	130	--	--	--	--	910	--	--		--
Aerobic Total Microbial Population	CFU/mL	--	20	--	--	--	--	9500	--	--		--
Anaerobic TCE Specific Microbial Population	CFU/mL	--	130	--	--	--	--	2100	--	--		--
Anaerobic Total Microbial Population	CFU/mL	--	5200	--	--	--	--	6600	--	--		--

TABLE 2.3

ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
AOI 31 INTERIM MEASURES FOR GROUNDWATER
13000 ECKLES ROAD
LIVONIA, MICHIGAN

Sample Location:		MW-104D	MW-104D	MW-104D	MW-104D	MW-104S	MW-104S	MW-104S	MW-104S	MW-104S	MW-104S	MW-104S
Sample ID:		GW-12607-051605-DCR-020	GW-12607-053105-MM-039	GW-12607-102105-JY-118	GW-052206-MMD-128	GW-070604-DCR-1762	GW-071404-MM-1796	GW-072804-MM-1814	GW-072804-MM-1815	GW-12607-050205-MM-013	GW-12607-051605-DCR-021	GW-12607-053105-MM-038
Sample Date:		5/16/2005	5/31/2005	10/21/2005	5/22/2006	7/6/2004	7/14/2004	7/28/2004	7/28/2004	5/2/2005	5/16/2005	5/31/2005
Sampling Event:		AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure
OnSite:		On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site Duplicate	On-Site	On-Site	On-Site
Volatile Organic Compounds												
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	9.6	10	6.4	6.1	5.6	6.4	7.5
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	0.24 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	0.49 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.4 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	2.0 U	2.0 U	2.9 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	10 U	10 U	10 U	10 U	25 UJ	25 U	0.62 J	0.64 J	10 UJ	5.8 J	17
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	50 U	0.84 J	50 U	50 U	10 UJ	0.73 J	1.2 J
4-Methyl-2-Pentanone (MIBK)	ug/L	10 U	10 U	10 UJ	10 U	50 U	0.42 J	50 U	50 U	10 UJ	10 U	0.61 J
Acetone	ug/L	10 UJ	10 U	10 UJ	10 U	25 UJ	65	25 U	25 U	10 UJ	20 J	60
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 UJ	1.0 U	1.4 U
Bromomethane (Methyl Bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.4 U
Carbon disulfide	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.4 U
Carbon tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
Chloromethane (Methyl Chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
Cyclohexane	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.4 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 UJ	1.0 U	1.4 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
Isopropylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.4 U
Methyl acetate	ug/L	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	14 U
Methyl cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
Methyl Tert Butyl Ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ	5.0 U	7.2 U
Methylene chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.4 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.4 U
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	11	8.6	8.8	8.9	4.7	5.0	4.3
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
Trifluorotrichloroethane (Freon 113)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
Vinyl chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U
Xylene (total)	ug/L	2.0 U	2.0 U	2.0 U	2.0 UJ	3.0 U	3.0 U	3.0 U	3.0 U	2.0 U	2.0 U	2.9 U
Metals												
Manganese	ug/L	150	160	170	170	15 U	510	640	570	18	1500	3000
Manganese (Dissolved)	ug/L	170	180	160	180	15 U	250	330	380	17	1400	2800
Potassium	ug/L	2500 J	2600 J	2700 J	2600 J	2300	52700	28700	28200	2500 J	36300 J	136000 J
Potassium (Dissolved)	ug/L	--	--	2400 J	2600 J	--	--	--	--	--	--	--
General Chemistry												
Chloride	ug/L	462000	473000	433000	454000	32200	30000	30800	31100	17700	16800	17000
Potassium Permanganate	%	--	--	--	--	0.0005 U	0.0005 U	0.0005 U	--	--	--	--
Total Dissolved Solids (TDS)	ug/L	1200000	1300000	1200000	1200000	440000	500000	470000	460000	400000 J	500000	780000
Total Suspended Solids (TSS)	ug/L	10000	17000	7000	9000	3000 J	5000	4000 U	4000 U	4000 U	8000	12000
Biological												
Aerobic TCE Specific Microbial Population	CFU/mL	--	--	450	--	ND	100	30	--	--	--	--
Aerobic Total Microbial Population	CFU/mL	--	--	90	--	ND	20	ND	--	--	--	--
Anaerobic TCE Specific Microbial Population	CFU/mL	--	--	15	--	40	ND	ND	--	--	--	--
Anaerobic Total Microbial Population	CFU/mL	--	--	2700	--	ND	1100	ND	--	--	--	--

TABLE 2.3

ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
AOI 31 INTERIM MEASURES FOR GROUNDWATER
13000 ECKLES ROAD
LIVONIA, MICHIGAN

Sample Location:		MW-104S	MW-104S	MW-105D	MW-105D	MW-105D	MW-105D	MW-105D	MW-105D	MW-105S	MW-105S
Sample ID:		GW-12607-102105-JY-119	GW-052206-MMD-127	GW-12607-050205-MM-005	GW-12607-051605-DCR-023	GW-12607-053105-MM-043	GW-12607-102005-JY-111	GW-12607-102005-JY-112	GW-052206-MMD-134	GW-12607-050205-MM-003	GW-12607-050205-MM-004
Sample Date:		10/21/2005	5/22/2006	5/2/2005	5/16/2005	5/31/2005	10/20/2005	10/20/2005	5/22/2006	5/2/2005	5/2/2005
Sampling Event:		AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure
OnSite:		On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site Duplicate	On-Site	On-Site	On-Site Duplicate
Volatile Organic Compounds											
Units											
1,1,1-Trichloroethane	ug/L	8.3	6.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	12	13
1,1,2,2-Tetrachloroethane	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.60 J	0.54 J
1,2,4-Trichlorobenzene	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	24	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	6.4 J	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone (MIBK)	ug/L	2.4 J	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	120	10 U	10 UJ	10 UJ	10 U	10 UJ	10 UJ	10 U	10 UJ	10 UJ
Benzene	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	2.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U
Bromoform	ug/L	2.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl Bromide)	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	0.32 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl Chloride)	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	2.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	2.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Cyclohexane	ug/L	2.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	ug/L	2.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 UJ	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	2.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ
Ethylbenzene	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	20 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U
Methyl cyclohexane	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Tert Butyl Ether	ug/L	10 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	ug/L	2.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U
Tetrachloroethene	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	2.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 UJ	1.0 U	1.0 U
Trichloroethene	ug/L	3.6	3.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.77 J	0.86 J
Trichlorofluoromethane (CFC-11)	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylene (total)	ug/L	4.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 U
Metals											
Manganese	ug/L	2400	1000	180 J	170	170	150	150	140	15 U	15 U
Manganese (Dissolved)	ug/L	620	890	190 J	170	160	150	150	160	15 U	15 UJ
Potassium	ug/L	417000	39700 J	2300 J	2100 J	2200 J	1800 J	1700 J	1800 J	3600 J	3700 J
Potassium (Dissolved)	ug/L	414000	38700 J	--	--	--	1800 J	1700 J	1900 J	--	--
General Chemistry											
Chloride	ug/L	9700	14900	586000	557000	507000	405000	436000	497000	22000	21900
Potassium Permanganate	%	--	--	--	--	--	--	--	--	--	--
Total Dissolved Solids (TDS)	ug/L	1200000	440000	1500000	1400000	1500000	1200000	1300000	1200000	490000	490000
Total Suspended Solids (TSS)	ug/L	11000	4000 U	24000	13000	16000	17000	11000	6000	5000	4000 U
Biological											
Aerobic TCE Specific Microbial Population	CFU/mL	170	--	--	--	--	210	130	--	--	--
Aerobic Total Microbial Population	CFU/mL	20000	--	--	--	--	100	280	--	--	--
Anaerobic TCE Specific Microbial Population	CFU/mL	80	--	--	--	--	350	640	--	--	--
Anaerobic Total Microbial Population	CFU/mL	1700	--	--	--	--	880	1600	--	--	--

TABLE 2.3

ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
AOI 31 INTERIM MEASURES FOR GROUNDWATER
13000 ECKLES ROAD
LIVONIA, MICHIGAN

Sample Location:		MW-105S	MW-105S	MW-105S	MW-105S	MW10S-04	MW10S-04	MW10S-04	MW11S-04	MW11S-04	MW11S-04	MW12S-04
Sample ID:		GW-12607-051605-DCR-022	GW-12607-053105-MM-042	GW-12607-102005-JY-113	GW-052206-MMD-133	GW-070604-MM-1775	GW-071404-BF-1792	GW-072804-MM-1812	GW-070604-MM-1774	GW-071404-BF-1791	GW-072804-MM-1811	GW-070604-MM-1764
Sample Date:		5/16/2005	5/31/2005	10/20/2005	5/22/2006	7/6/2004	7/14/2004	7/28/2004	7/6/2004	7/14/2004	7/28/2004	7/6/2004
Sampling Event:		AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure
OnSite:		On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site
Volatile Organic Compounds												
1,1,1-Trichloroethane	ug/L	11	15	15	10	0.94 J	6.1 J	7.6	8.1	8.0	3.7	21
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	0.63 J
1,1-Dichloroethene	ug/L	0.60 J	0.49 J	0.21 J	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	33 U	7.2 U	5.0 U	5.0 U	5.0 U	10 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 UJ	1.0 U	2.0 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	10 U	10 U	10 U	10 U	25 U	100 J	28 J	25 U	25 U	15 J	50 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	50 U	330 U	7.1 J	50 U	50 U	0.45 J	100 U
4-Methyl-2-Pentanone (MIBK)	ug/L	10 U	10 U	10 U	10 U	50 U	330 U	2.5 J	50 U	50 U	0.54 J	100 U
Acetone	ug/L	10 UJ	10 U	10 UJ	10 U	25 U	450	110	25 U	25 U	56	50 UJ
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 UJ	1.0 U	2.0 U
Bromomethane (Methyl Bromide)	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	6.7 U	1.4 UJ	1.0 U	1.0 U	1.0 UJ	2.0 U
Carbon disulfide	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	33 U	7.2 U	5.0 U	5.0 U	5.0 U	10 U
Carbon tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 U	0.20 J	1.0 U	1.0 U	2.0 U
Chloromethane (Methyl Chloride)	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	6.7 U	1.4 U	0.22 J	1.0 U	1.0 U	1.9 J
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
Cyclohexane	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 UJ	1.0 U	2.0 UJ
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
Isopropylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	33 U	7.2 U	5.0 U	5.0 U	5.0 U	10 U
Methyl acetate	ug/L	10 UJ	10 U	10 U	10 U	10 U	67 U	14 U	10 U	10 U	10 U	20 U
Methyl cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
Methyl Tert Butyl Ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	33 U	7.2 U	5.0 U	5.0 UJ	5.0 U	10 U
Methylene chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	33 U	7.2 U	5.0 U	5.0 U	5.0 U	10 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
Trichloroethene	ug/L	0.82 J	0.82 J	1.0	0.85 J	2.8	19	21	24	24	9.8	44
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 UJ	1.0 U	1.0 U	1.0 U	2.0 U
Vinyl chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.7 U	1.4 U	1.0 U	1.0 U	1.0 U	2.0 U
Xylene (total)	ug/L	2.0 U	2.0 U	2.0 U	2.0 UJ	3.0 U	20 U	4.3 U	3.0 U	3.0 U	3.0 U	6.0 U
Metals												
Manganese	ug/L	15 U	15 U	15 U	6 J	8.3 J	280	110	38	12 J	110	16
Manganese (Dissolved)	ug/L	6.3 J	6 J	6.8 J	6.4 J	9.8 J	210	110	42	19	120	17
Potassium	ug/L	3500 J	3800 J	2900 J	3800 J	1400	135000	474000	2700	3200	51400	2600
Potassium (Dissolved)	ug/L	--	--	3000 J	3700 J	--	--	--	--	--	--	--
General Chemistry												
Chloride	ug/L	22900	19900	9500	36300	52200	23900	37600	27700	29900	36600	15400
Potassium Permanganate	%	--	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Total Dissolved Solids (TDS)	ug/L	470000	570000	440000	500000	610000	1000000	1400000	570000	570000	750000	440000
Total Suspended Solids (TSS)	ug/L	4000 U	6000	4000 U	4000 U	4000	7000	4000 U	4000 U	4000	4000 U	4000 U
Biological												
Aerobic TCE Specific Microbial Population	CFU/mL	--	--	980	--	30	450	1400	260	180	350	70
Aerobic Total Microbial Population	CFU/mL	--	--	100	--	6100	19000	18000	11000	4400	14000	7000
Anaerobic TCE Specific Microbial Population	CFU/mL	--	--	190	--	150	290	180	470	470	1500	230
Anaerobic Total Microbial Population	CFU/mL	--	--	590	--	1100	580	580	2800	410	130	2000

TABLE 2.3

ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
AOI 31 INTERIM MEASURES FOR GROUNDWATER
13000 ECKLES ROAD
LIVONIA, MICHIGAN

Sample Location:		MW12S-04	MW12S-04	MW13S-04	MW13S-04	MW13S-04	MW13S-04	MW13S-04	MW14S-04	MW14S-04	MW14S-04	MW15S-04	MW15S-04
Sample ID:		GW-071404-MM-1783	GW-072804-MM-1809	GW-070604-MM-1763	GW-071404-MM-1781	GW-071404-MM-1782	GW-072804-MM-1807	GW-072804-MM-1808	GW-070604-DCR-1760	GW-071404-BF-1795	GW-072804-BF-1805	GW-070604-DCR-1761	GW-071404-BF-1794
Sample Date:		7/14/2004	7/28/2004	7/6/2004	7/14/2004	7/28/2004	7/14/2004	7/28/2004	7/6/2004	7/28/2004	7/6/2004	7/14/2004	7/14/2004
Sampling Event:		AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure
OnSite:		On-Site	On-Site	On-Site	On-Site	On-Site Duplicate	On-Site	On-Site Duplicate	On-Site	On-Site	On-Site	On-Site	On-Site
Volatile Organic Compounds		Units											
1,1,1-Trichloroethane	ug/L	29	31	25	21	22	26	26	14	15	14	8.3	8.5
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	0.86 J	1.3 J	0.76 J	0.79 J	0.94 J	0.91 J	0.47 J	0.53 J	0.64 J	0.23 J	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	1.8	1.2 J	1.7 U	1.7 U	1.6 J	1.5 J	1.0 U	1.0 U	1.0 U	0.45 J	1.0 U
1,2,4-Trichlorobenzene	ug/L	25 U	8.4 U	10 UJ	8.4 U	8.4 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 UJ	1.7 U	2.0 U	1.7 UJ	1.7 UJ	2.0 U	2.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 UJ
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	71 J	2.6 J	50 UJ	42 U	42 U	50 U	50 U	25 U	25 U	6.8 J	25 UJ	25 U
2-Hexanone	ug/L	250 U	84 U	100 U	84 U	84 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U
4-Methyl-2-Pentanone (MIBK)	ug/L	250 U	0.56 J	100 U	84 U	84 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	330	9.7 J	50 UJ	32 J	34 J	50 U	50 U	25 UJ	25 U	46	25 UJ	25 U
Benzene	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 UJ	1.7 U	2.0 U	1.7 UJ	1.7 UJ	2.0 U	2.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 UJ
Bromomethane (Methyl Bromide)	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	25 U	8.4 U	10 U	8.4 U	8.4 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	0.32 J	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	0.39 J	0.18 J	1.0 U	0.25 J	1.0 U
Chloromethane (Methyl Chloride)	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	2.0 J	1.7	2.6	2.1	2.3	2.3	2.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	5.0 UJ	1.7 U	2.0 UJ	1.7 UJ	1.7 UJ	2.0 U	2.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ
Ethylbenzene	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	ug/L	25 U	8.4 U	10 U	8.4 U	8.4 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	ug/L	50 U	17 U	20 U	17 U	17 U	20 U	20 U	10 U	10 U	10 U	10 U	10 U
Methyl cyclohexane	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Tert Butyl Ether	ug/L	25 UJ	8.4 U	10 U	8.4 UJ	8.4 UJ	10 U	10 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ
Methylene chloride	ug/L	25 U	8.4 U	10 U	8.4 U	8.4 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	57	55	53	46	47	55	52	6.1	6.2	6.3	8.9	8.9
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	5.0 U	1.7 UJ	2.0 U	1.7 U	1.7 U	2.0 UJ	2.0 UJ	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U
Vinyl chloride	ug/L	5.0 U	1.7 U	2.0 U	1.7 U	1.7 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylene (total)	ug/L	15 U	5.0 U	6.0 U	5.0 U	5.0 U	6.0 U	6.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Metals													
Manganese	ug/L	22	78	10 J	5.2 J	5.7 J	3.2 J	3.1 J	22	18	15	11 J	14 J
Manganese (Dissolved)	ug/L	29	80	13 J	14 J	5.2 J	17	3.2 J	23	25	28	13 J	21
Potassium	ug/L	106000	189000	2600	3100	2900	16600	16700	2700	2900	4000	2000	2800
Potassium (Dissolved)	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
General Chemistry													
Chloride	ug/L	13300	16700	17800	19600	19600	24400	24800	23800	25400	27000	32600	32000
Potassium Permanganate	%	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Total Dissolved Solids (TDS)	ug/L	810000	710000	460000	510000	520000	560000	570000	430000	460000	520000	400000	460000
Total Suspended Solids (TSS)	ug/L	3000 J	4000 U	4000 U	5000	4000 U	4000 U	4000 U	4000 U	3000 J	4000 U	4000 U	4000 U
Biological													
Aerobic TCE Specific Microbial Population	CFU/mL	40	230	ND	30	--	ND	--	ND	840	ND	ND	30
Aerobic Total Microbial Population	CFU/mL	28000	21000	2800	7000	--	410	--	4600	50	640	3300	21000
Anaerobic TCE Specific Microbial Population	CFU/mL	160	2600	100	520	--	ND	--	ND	40	ND	40	30
Anaerobic Total Microbial Population	CFU/mL	2200	300	510	270	--	30	--	290	2800	30	150	1200

TABLE 2.3

ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
AOI 31 INTERIM MEASURES FOR GROUNDWATER
13000 ECKLES ROAD
LIVONIA, MICHIGAN

Sample Location:		MW15S-04	MW-202D	MW-202D	MW-202D	MW-202D	MW-202D	MW-202D	MW-202S	MW-202S	MW-202S
Sample ID:		GW-072804-BF-1804	GW-12607-050205-MM-016	GW-12607-051605-DCR-019	GW-12607-053105-MM-036	GW-12607-053105-MM-037	GW-12607-102105-JY-120	GW-052206-MMD-125	GW-12607-050205-MM-015	GW-12607-051605-DCR-018	GW-12607-053105-MM-035
Sample Date:		7/28/2004	5/2/2005	5/16/2005	5/31/2005	5/31/2005	10/21/2005	5/22/2006	5/2/2005	5/16/2005	5/31/2005
Sampling Event:		AOI 31 Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure
OnSite:		On-Site	Off-Site	Off-Site	Off-Site	Off-Site Duplicate	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Volatile Organic Compounds		Units									
1,1,1-Trichloroethane	ug/L	6.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	39	32	39
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 UJ	2.5 U	3.3 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 UJ	2.5 U	3.3 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.0 J	2.0 J
1,2,4-Trichlorobenzene	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	6.7 U	5.0 U	6.7 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	25 U	10 UJ	10 U	10 U	10 U	10 U	10 U	33 UJ	25 U	33 U
2-Hexanone	ug/L	50 U	10 UJ	10 U	10 U	10 U	10 U	10 U	33 UJ	25 U	33 UJ
4-Methyl-2-Pentanone (MIBK)	ug/L	50 U	10 UJ	10 U	10 U	10 U	10 U	10 U	33 UJ	25 U	33 U
Acetone	ug/L	25 U	10 UJ	10 UJ	10 U	10 U	10 U	10 U	33 UJ	25 UJ	33 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	3.3 UJ	2.5 U	3.3 U
Bromoform	ug/L	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 UJ	2.5 U	3.3 U
Bromomethane (Methyl Bromide)	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
Carbon disulfide	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
Carbon tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
Chloromethane (Methyl Chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	2.5 J	2.3 J	2.4 J
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	3.3 UJ	2.5 U	3.3 U
Cyclohexane	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 UJ	3.3 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	3.3 UJ	2.5 U	3.3 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 UJ	2.5 U	3.3 UJ
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
Isopropylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
Methyl acetate	ug/L	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U	33 U	25 UJ	33 U
Methyl cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
Methyl Tert Butyl Ether	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	17 UJ	12 U	17 U
Methylene chloride	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	3.3 U	2.5 U	3.3 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
Toluene	ug/L	0.24 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	3.3 UJ	2.5 U	3.3 U
Trichloroethene	ug/L	9.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	96 B	95	97
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
Trifluorotrichloroethane (Freon 113)	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
Vinyl chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3 U	2.5 U	3.3 U
Xylene (total)	ug/L	3.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	6.7 U	5.0 U	6.7 U
Metals											
Manganese	ug/L	8.9 J	170	160	160	160	160	160	3.1 J	2.1 J	15 U
Manganese (Dissolved)	ug/L	25	180	170	160	160	170	170	7 J	3.6 J	15 U
Potassium	ug/L	16400	3600 J	3400 J	3500 J	3400 J	3500 J	3500 J	6500 J	8000 J	9100 J
Potassium (Dissolved)	ug/L	--	--	--	--	--	3400 J	3500 J	--	--	--
General Chemistry											
Chloride	ug/L	35600	418000	427000	438000	438000	444000	439000	469000	643000	664000
Potassium Permanganate	%	0.0005 U	--	--	--	--	--	--	--	--	--
Total Dissolved Solids (TDS)	ug/L	480000	1300000 J	1200000	1300000	1100000 J	1200000	1200000	1200000 J	1400000	1600000
Total Suspended Solids (TSS)	ug/L	4000 U	12000	17000	14000	11000	8000	7000	4000	5000	7000
Biological											
Aerobic TCE Specific Microbial Population	CFU/mL	30	--	--	--	--	ND	--	--	--	--
Aerobic Total Microbial Population	CFU/mL	90	--	--	--	--	ND	--	--	--	--
Anaerobic TCE Specific Microbial Population	CFU/mL	ND	--	--	--	--	50	--	--	--	--
Anaerobic Total Microbial Population	CFU/mL	20	--	--	--	--	140	--	--	--	--

TABLE 2.3

ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
AOI 31 INTERIM MEASURES FOR GROUNDWATER
13000 ECKLES ROAD
LIVONIA, MICHIGAN

Sample Location:		MW-202S	MW-202S	MW4S-02	MW4S-02	MW4S-02	MW4S-02	MW4S-02	MW4S-02	MW4S-02	MW4S-02	MW6S-04
Sample ID:		GW-12607-102105-JY-121	GW-052206-MMD-126	GW-070604-CB-1769	GW-071404-BF-1787	GW-072804-BF-1800	GW-12607-050205-MM-007	GW-12607-051605-DCR-031	GW-12607-053105-MM-050	GW-12607-102005-JY-109	GW-052206-EV-135	GW-070604-CB-1766
Sample Date:		10/21/2005	5/22/2006	7/6/2004	7/14/2004	7/28/2004	5/16/2005	5/31/2005	5/22/2005	10/20/2005	5/22/2006	7/6/2004
Sampling Event:		AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 GW Interim Measure	AOI 31 Interim Measure
OnSite:		Off-Site	Off-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site
Volatile Organic Compounds		Units										
1,1,1-Trichloroethane		ug/L	41	28	21	29	28	18	19	20	48	14
1,1,2,2-Tetrachloroethane		ug/L	3.3 U	1.0 U	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane		ug/L	3.3 U	1.0 U	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane		ug/L	3.3 U	1.0 U	0.56 J	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	0.80 J	1.0 U
1,1-Dichloroethene		ug/L	2.2 J	1.0 U	1.2 J	5.7 U	2.0 U	2.0 U	2.0 U	0.81 J	0.77 J	1.0 U
1,2,4-Trichlorobenzene		ug/L	3.3 U	1.0 U	10 UJ	29 U	10 U	2.0 U	2.0 U	1.0 U	1.0 U	5.0 UJ
1,2-Dibromo-3-chloropropane (DBCP)		ug/L	6.7 U	2.0 U	2.0 U	5.7 U	2.0 U	4.0 U	4.0 U	2.0 U	2.0 U	1.0 U
1,2-Dibromoethane (Ethylene Dibromide)		ug/L	3.3 U	1.0 U	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 UJ	1.0 U
1,2-Dichlorobenzene		ug/L	3.3 U	1.0 U	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane		ug/L	3.3 U	1.0 U	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane		ug/L	3.3 U	1.0 U	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene		ug/L	3.3 U	1.0 U	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene		ug/L	3.3 U	1.0 U	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl Ethyl Ketone)		ug/L	33 U	10 U	50 UJ	140	2.8 J	20 UJ	21	13	2.3 J	10 U
2-Hexanone		ug/L	33 U	10 UJ	100 U	6.8 J	2.1 J	20 UJ	3.9 J	2.8 J	10 U	10 U
4-Methyl-2-Pentanone (MIBK)		ug/L	33 U	10 UJ	100 U	3.2 J	100 U	20 UJ	1.1 J	0.81 J	10 U	10 U
Acetone		ug/L	33 U	10 U	50 UJ	370	50 U	20 UJ	61 J	48	10 UJ	10 U
Benzene		ug/L	3.3 U	1.0 U	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane		ug/L	3.3 U	1.0 UJ	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Bromoform		ug/L	3.3 U	1.0 U	2.0 U	5.7 U	2.0 U	2.0 UJ	2.0 U	1.0 U	1.0 UJ	1.0 U
Bromomethane (Methyl Bromide)		ug/L	3.3 U	1.0 U	2.0 U	5.7 U	2.0 UJ	2.0 U	2.0 U	1.0 U	1.0 UJ	1.0 U
Carbon disulfide		ug/L	3.3 U	1.0 U	10 U	29 U	10 U	2.0 U	2.0 U	1.0 U	1.0 U	5.0 U
Carbon tetrachloride		ug/L	3.3 U	1.0 U	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene		ug/L	3.3 U	1.0 U	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Chloroethane		ug/L	3.3 U	1.0 U	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)		ug/L	3.3 U	1.0 U	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	0.33 J	1.0 U
Chloromethane (Methyl Chloride)		ug/L	0.51 J	1.0 U	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 UJ	1.0 U
cis-1,2-Dichloroethene		ug/L	1.8 J	0.63 J	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene		ug/L	3.3 U	1.0 UJ	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 UJ	1.0 U
Cyclohexane		ug/L	3.3 U	1.0 U	2.0 U	5.7 U	2.0 U	2.0 U	2.0 UJ	1.0 U	1.0 U	1.0 U
Dibromochloromethane		ug/L	3.3 U	1.0 UJ	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 UJ	1.0 U
Dichlorodifluoromethane (CFC-12)		ug/L	1.1 J	1.0 U	2.0 UJ	5.7 U	2.0 U	2.0 UJ	2.0 U	1.0 U	1.0 U	1.0 UJ
Ethylbenzene		ug/L	3.3 U	1.0 U	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene		ug/L	3.3 U	1.0 U	10 U	29 U	10 U	2.0 U	2.0 U	1.0 U	1.0 U	5.0 U
Methyl acetate		ug/L	33 U	10 U	20 U	57 U	20 U	20 UJ	10 U	10 U	10 U	10 U
Methyl cyclohexane		ug/L	3.3 U	1.0 U	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Methyl Tert Butyl Ether		ug/L	17 U	5.0 U	10 U	29 U	10 U	10 UJ	10 U	5.0 U	5.0 U	5.0 U
Methylene chloride		ug/L	3.3 U	1.0 U	10 U	29 U	10 U	2.0 U	2.0 U	1.0 U	1.0 U	5.0 U
Styrene		ug/L	3.3 U	1.0 UJ	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 UJ	1.0 U
Tetrachloroethene		ug/L	3.3 U	1.0 U	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Toluene		ug/L	3.3 U	1.0 U	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene		ug/L	3.3 U	1.0 U	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene		ug/L	3.3 U	1.0 UJ	2.0 U	5.7 U	2.0 U	2.0 UJ	2.0 U	1.0 U	1.0 UJ	1.0 U
Trichloroethene		ug/L	120	90	54	67	54	40	43	30	54	42
Trichlorofluoromethane (CFC-11)		ug/L	0.81 J	1.0 U	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)		ug/L	3.3 U	1.0 U	2.0 U	5.7 U	2.0 UJ	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride		ug/L	0.71 J	1.0 UJ	2.0 U	5.7 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Xylene (total)		ug/L	6.7 U	2.0 UJ	6.0 U	17 U	6.0 U	4.0 U	4.0 U	2.0 U	2.0 UJ	3.0 U
Metals												
Manganese		ug/L	1.4 J	26	15 U	28	47	110 J	850	3500	590	16
Manganese (Dissolved)		ug/L	6.2 J	12 J	15 U	26	50	78 J	870	3200	560	17
Potassium		ug/L	5500	5800 J	1400	406000	201000	4800 J	303000	329000 J	241000	2100
Potassium (Dissolved)		ug/L	5500	5900 J	--	--	--	--	--	--	233000	--
General Chemistry												
Chloride		ug/L	211000	421000	16900	9600	7000	4900	5300	3800	4300	30700
Potassium Permanganate		%	--	--	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	0.0005 U
Total Dissolved Solids (TDS)		ug/L	690000	1100000	320000	1500000	620000	300000 J	960000	860000	660000	460000
Total Suspended Solids (TSS)		ug/L	4000 U	14000	4000 U	11000	4000 U	4000	4000 U	11000	4000 U	4000 U
Biological												
Aerobic TCE Specific Microbial Population		CFU/mL	50	--	250	190	560	--	--	--	650	ND
Aerobic Total Microbial Population		CFU/mL	30	--	2600	24000	23000	--	--	--	25000	2300
Anaerobic TCE Specific Microbial Population		CFU/mL	55	--	ND	30	210	--	--	--	8100	ND
Anaerobic Total Microbial Population		CFU/mL	40	--	ND	1300	50	--	--	--	16000	ND

TABLE 2.3

ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
AOI 31 INTERIM MEASURES FOR GROUNDWATER
13000 ECKLES ROAD
LIVONIA, MICHIGAN

Sample Location:		MW6S-04	MW6S-04	MW6S-04	MW7S-04	MW7S-04	MW7S-04	MW8S-04	MW8S-04	MW8S-04	MW9S-04	MW9S-04	MW9S-04
Sample ID:		GW-070604-CB-1767	GW-071404-BF-1785	GW-072804-BF-1799	GW-070604-CB-1768	GW-071404-BF-1786	GW-072804-BF-1798	GW-070604-DCR-1772	GW-071404-MM-1789	GW-072804-BF-1801	GW-070604-CB-1773	GW-071404-MM-1788	GW-072804-BF-1802
Sample Date:		7/6/2004	7/14/2004	7/28/2004	7/6/2004	7/14/2004	7/28/2004	7/6/2004	7/14/2004	7/28/2004	7/6/2004	7/14/2004	7/28/2004
Sampling Event:		AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure	AOI 31 Interim Measure
OnSite:		On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site
		Duplicate											
Volatile Organic Compounds		Units											
1,1,1-Trichloroethane	ug/L	16	23	19	20	20	20	5.6	6.5	2.9	6.7	6.5	1.3 J
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
1,1-Dichloroethane	ug/L	0.44 J	5.7 U	1.2 U	0.42 J	5.0 U	1.2 U	0.33 J	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
1,1-Dichloroethene	ug/L	0.91 J	5.7 U	1.2 U	1.0	5.0 U	1.2 U	0.35 J	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 UJ	29 U	6.2 U	5.0 UJ	25 U	6.2 U	5.0 UJ	17 U	12 U	5.0 U	5.0 U	10 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 UJ	2.5 U	1.0 U	1.0 UJ	2.0 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
1,2-Dichloroethane	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
1,2-Dichloropropane	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	25 UJ	90 J	2.4 J	25 UJ	73 J	1.3 J	25 UJ	83 U	26 J	25 U	25 U	15 J
2-Hexanone	ug/L	50 U	290 U	0.76 J	50 U	2.7 J	62 U	50 U	170 U	120 U	50 U	50 U	100 U
4-Methyl-2-Pentanone (MIBK)	ug/L	50 U	290 U	0.59 J	50 U	250 U	62 U	50 U	170 U	120 U	50 U	50 U	0.75 J
Acetone	ug/L	25 UJ	360	12 J	25 UJ	290	31 U	25 UJ	160	150	25 U	25 U	100
Benzene	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
Bromodichloromethane	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
Bromoform	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 UJ	2.5 U	1.0 U	1.0 UJ	2.0 U
Bromomethane (Methyl Bromide)	ug/L	1.0 U	5.7 U	1.2 UJ	1.0 U	5.0 U	1.2 UJ	1.0 U	3.3 U	2.5 UJ	1.0 U	1.0 U	2.0 UJ
Carbon disulfide	ug/L	5.0 U	29 U	6.2 U	5.0 U	25 U	6.2 U	5.0 U	17 U	12 U	5.0 U	5.0 U	10 U
Carbon tetrachloride	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
Chlorobenzene	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
Chloroethane	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
Chloromethane (Methyl Chloride)	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
Cyclohexane	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
Dibromochloromethane	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 UJ	5.7 U	1.2 U	1.0 UJ	5.0 U	1.2 U	1.0 UJ	3.3 UJ	2.5 U	1.0 U	1.0 UJ	2.0 U
Ethylbenzene	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
Isopropylbenzene	ug/L	5.0 U	29 U	6.2 U	5.0 U	25 U	6.2 U	5.0 U	17 U	12 U	5.0 U	5.0 U	10 U
Methyl acetate	ug/L	10 U	57 U	12 U	10 U	50 U	12 U	10 U	33 U	25 U	10 U	10 U	20 U
Methyl cyclohexane	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
Methyl Tert Butyl Ether	ug/L	5.0 U	29 U	6.2 U	5.0 U	25 U	6.2 U	5.0 U	17 UJ	12 U	5.0 U	5.0 UJ	10 U
Methylene chloride	ug/L	5.0 U	29 U	6.2 U	5.0 U	25 U	6.2 U	5.0 U	17 U	12 U	5.0 U	5.0 U	10 U
Styrene	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
Tetrachloroethene	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
Toluene	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	0.60 J
trans-1,2-Dichloroethene	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
Trichloroethene	ug/L	36	42	38	35	35	39	13	16	6.7	21	19	3.3
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 UJ	1.0 U	1.0 U	2.0 UJ
Vinyl chloride	ug/L	1.0 U	5.7 U	1.2 U	1.0 U	5.0 U	1.2 U	1.0 U	3.3 U	2.5 U	1.0 U	1.0 U	2.0 U
Xylene (total)	ug/L	3.0 U	17 U	3.8 U	3.0 U	15 U	3.8 U	3.0 U	10 U	7.5 U	3.0 U	3.0 U	6.0 U
Metals													
Manganese	ug/L	17	20	150	14 J	14 J	98	120	220	300	100	88	140
Manganese (Dissolved)	ug/L	15	32	150	16	24	130	130	190	380	98	85	140
Potassium	ug/L	2200	18500	222000	2600	205000	192000	40100	43700	271000	85100	65100	189000
Potassium (Dissolved)	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
General Chemistry													
Chloride	ug/L	31200	11000	18400	27500	23400	15800	30300	29500	28300	27700	31100	30200
Potassium Permanganate	%	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Total Dissolved Solids (TDS)	ug/L	470000	830000	740000	440000	940000	700000	590000	690000	1200000	590000	580000	1000000
Total Suspended Solids (TSS)	ug/L	4000 U	3000 J	4000 U	4000 U	7000	4000 U	5000	4000 U	8000	5000	4000 U	7000
Biological													
Aerobic TCE Specific Microbial Population	CFU/mL	--	60	310	ND	130	520	20	20	1200	30	20	480
Aerobic Total Microbial Population	CFU/mL	--	40000	22000	20000	48000	22000	720	13000	20000	1200	12000	1100
Anaerobic TCE Specific Microbial Population	CFU/mL	--	70	260	ND	570	350	ND	ND	2300	ND	10	1200
Anaerobic Total Microbial Population	CFU/mL	--	1200	9000	60	280	20	10	ND	5100	ND	ND	1200

TABLE 2.4

ANALYTICAL RESULTS OF SOIL SAMPLES
AOI 31 INTERIM MEASURES FOR GROUNDWATER
13000 ECKLES ROAD
LIVONIA, MICHIGAN

Sample Location:	MW10S-04	MW10S-04	MW12S-04	MW12S-04	MW14S-04	MW14S-04	MW14S-04	BH76-05	BH77-05	BH78-05	BH79-05	BH80-05	BH81-05	BH82-05	BH83-05	BH84-05
Sample ID:	S-063004-MM-1758S	063004-MM-1759S	063004-MM-1756S	063004-MM-1757S	063004-MM-1753S	063004-MM-1754S	063004-MM-1755	S-121205-JY-146	S-121205-JY-144	S-121205-JY-140	S-121205-JY-142	S-121205-JY-143	S-121205-JY-145	S-121205-JY-141	S-121205-JY-147	S-121205-JY-148
Sample Date:	6/30/2004	6/30/2004	6/30/2004	6/30/2004	6/30/2004	6/30/2004	6/30/2004	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005
Sample Depth:	0-2 ft BGS	8-10 ft BGS	0-2 ft BGS	8-10 ft BGS	0-2 ft BGS	0-2 ft BGS	9-11 ft BGS	14-15 ft bgs	14-15 ft bgs	14-15 ft bgs	14-15 ft bgs	14-15 ft bgs	14-15 ft bgs	14-15 ft bgs	14-15 ft bgs	14-15 ft bgs
							Dupl.									
Volatile Organic Compounds		Units														
1,1,1-Trichloroethane	mg/kg	0.051 U	0.044 U	0.05 U	0.052 U	0.052 U	0.052 U	0.045 U	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	mg/kg	0.1 U	0.088 U	0.1 U	0.1 U	0.1 U	0.1 U	0.091 U	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	mg/kg	0.051 U	0.044 U	0.05 U	0.052 U	0.052 U	0.052 U	0.045 U	--	--	--	--	--	--	--	--
1,1-Dichloroethane	mg/kg	0.051 U	0.044 U	0.05 U	0.052 U	0.052 U	0.052 U	0.045 U	--	--	--	--	--	--	--	--
1,1-Dichloroethene	mg/kg	0.051 U	0.044 U	0.05 U	0.052 U	0.052 U	0.052 U	0.045 U	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	mg/kg	0.015 J	0.22 U	0.25 U	0.26 U	0.26 U	0.26 U	0.23 U	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.26 U	0.22 U	0.25 U	0.26 U	0.26 U	0.26 U	0.23 U	--	--	--	--	--	--	--	--
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.26 U	0.26 U	0.25 U	0.26 U	0.26 U	0.26 U	0.23 U	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	mg/kg	0.1 U	0.088 U	0.1 U	0.1 U	0.1 U	0.1 U	0.091 U	--	--	--	--	--	--	--	--
1,2-Dichloroethane	mg/kg	0.051 U	0.044 U	0.05 U	0.052 U	0.052 U	0.052 U	0.045 U	--	--	--	--	--	--	--	--
1,2-Dichloropropane	mg/kg	0.051 U	0.044 U	0.05 U	0.052 U	0.052 U	0.052 U	0.045 U	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	mg/kg	0.1 U	0.088 U	0.1 U	0.1 U	0.1 U	0.1 U	0.091 U	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	mg/kg	0.1 U	0.088 U	0.1 U	0.1 U	0.1 U	0.1 U	0.091 U	--	--	--	--	--	--	--	--
2-Butanone (Methyl Ethyl Ketone)	mg/kg	0.77 U	0.66 U	0.75 U	0.78 U	0.79 U	0.79 U	0.68 U	--	--	--	--	--	--	--	--
2-Hexanone	mg/kg	2.6 U	2.2 U	2.5 U	2.6 U	2.6 U	2.6 U	2.3 U	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	2.6 U	2.2 U	2.5 U	2.6 U	2.6 U	2.6 U	2.3 U	--	--	--	--	--	--	--	--
Acetone	mg/kg	0.77 U	0.66 U	0.75 U	0.78 U	0.79 U	0.79 U	0.68 U	--	--	--	--	--	--	--	--
Benzene	mg/kg	0.051 U	0.044 U	0.05 U	0.052 U	0.052 U	0.052 U	0.045 U	--	--	--	--	--	--	--	--
Bromodichloromethane	mg/kg	0.1 U	0.088 U	0.1 U	0.1 U	0.1 U	0.1 U	0.091 U	--	--	--	--	--	--	--	--
Bromoform	mg/kg	0.1 U	0.088 U	0.1 U	0.1 U	0.1 U	0.1 U	0.091 U	--	--	--	--	--	--	--	--
Bromomethane (Methyl Bromide)	mg/kg	0.26 U	0.22 U	0.25 U	0.26 U	0.26 U	0.26 U	0.23 U	--	--	--	--	--	--	--	--
Carbon disulfide	mg/kg	0.26 U	0.22 U	0.25 U	0.26 U	0.26 U	0.26 U	0.23 U	--	--	--	--	--	--	--	--
Carbon tetrachloride	mg/kg	0.051 U	0.044 U	0.05 U	0.052 U	0.052 U	0.052 U	0.045 U	--	--	--	--	--	--	--	--
Chlorobenzene	mg/kg	0.051 U	0.044 U	0.05 U	0.052 U	0.052 U	0.052 U	0.045 U	--	--	--	--	--	--	--	--
Chloroethane	mg/kg	0.26 U	0.22 U	0.25 U	0.26 U	0.26 U	0.26 U	0.23 U	--	--	--	--	--	--	--	--
Chloroform (Trichloromethane)	mg/kg	0.051 U	0.044 U	0.05 U	0.052 U	0.052 U	0.052 U	0.045 U	--	--	--	--	--	--	--	--
Chloromethane (Methyl Chloride)	mg/kg	0.026 J	0.021 J	0.023 J	0.026 J	0.03 J	0.024 J	0.024 J	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	mg/kg	0.051 U	0.044 U	0.05 U	0.052 U	0.052 U	0.052 U	0.045 U	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	mg/kg	0.051 U	0.044 U	0.05 U	0.052 U	0.052 U	0.052 U	0.045 U	--	--	--	--	--	--	--	--
Cyclohexane	mg/kg	1.2 U	1.1 U	1.2 U	1.2 U	1.3 U	1.3 U	1.1 U	--	--	--	--	--	--	--	--
Dibromochloromethane	mg/kg	0.051 U	0.044 U	0.05 U	0.052 U	0.052 U	0.052 U	0.045 U	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (CFC-12)	mg/kg	0.1 UJ	0.088 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.091 UJ	--	--	--	--	--	--	--	--
Ethylbenzene	mg/kg	0.051 U	0.044 U	0.05 U	0.052 U	0.052 U	0.052 U	0.045 U	--	--	--	--	--	--	--	--
Isopropylbenzene	mg/kg	0.26 U	0.22 U	0.25 U	0.26 U	0.26 U	0.26 U	0.23 U	--	--	--	--	--	--	--	--
Methyl acetate	mg/kg	1.2 U	1.1 U	1.2 U	1.2 U	0.077 J	1.3 U	1.1 U	--	--	--	--	--	--	--	--
Methyl cyclohexane	mg/kg	1.2 U	1.1 U	1.2 U	1.2 U	1.3 U	1.3 U	1.1 U	--	--	--	--	--	--	--	--
Methyl Tert Butyl Ether	mg/kg	0.26 U	0.22 U	0.25 U	0.26 U	0.26 U	0.26 U	0.23 U	--	--	--	--	--	--	--	--
Methylene chloride	mg/kg	0.26 U	0.22 U	0.25 U	0.26 U	0.26 U	0.26 U	0.23 U	--	--	--	--	--	--	--	--
Styrene	mg/kg	0.051 U	0.044 U	0.05 U	0.052 U	0.052 U	0.052 U	0.045 U	--	--	--	--	--	--	--	--
Tetrachloroethene	mg/kg	0.051 U	0.044 U	0.05 U	0.052 U	0.052 U	0.052 U	0.045 U	--	--	--	--	--	--	--	--
Toluene	mg/kg	0.1 U	0.088 U	0.1 U	0.1 U	0.1 U	0.1 U	0.091 U	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	mg/kg	0.051 U	0.044 U	0.05 U	0.052 U	0.052 U	0.052 U	0.045 U	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	mg/kg	0.051 U	0.044 U	0.05 U	0.052 U	0.052 U	0.052 U	0.045 U	--	--	--	--	--	--	--	--
Trichloroethene	mg/kg	0.051 U	0.025 J	0.05 U	0.052 U	0.052 U	0.052 U	0.045 U	--	--	--	--	--	--	--	--
Trichlorofluoromethane (CFC-11)	mg/kg	0.1 U	0.088 U	0.1 U	0.1 U	0.1 U	0.1 U	0.091 U	--	--	--	--	--	--	--	--
Trifluorotrichloroethane (Freon 113)	mg/kg	0.26 U	0.22 U	0.25 U	0.26 U	0.26 U	0.26 U	0.23 U	--	--	--	--	--	--	--	--
Vinyl chloride	mg/kg	0.1 U	0.088 U	0.1 U	0.1 U	0.1 U	0.1 U	0.091 U	--	--	--	--	--	--	--	--
Xylene (total)	mg/kg	0.15 U	0.13 U	0.15 U	0.16 U	0.16 U	0.16 U	0.14 U	--	--	--	--	--	--	--	--
Polychlorinated Biphenyls																
Aroclor-1016 (PCB-1016)	mg/kg	0.34 UJ	0.35 U	0.35 U	0.34 U	0.35 U	0.35 U	0.34 U	--	--	--	--	--	--	--	--
Aroclor-1221 (PCB-1221)	mg/kg	0.34 UJ	0.35 U	0.35 U	0.34 U	0.35 U	0.35 U	0.34 U	--	--	--	--	--	--	--	--
Aroclor-1232 (PCB-1232)	mg/kg	0.34 UJ	0.35 U	0.35 U	0.34 U	0.35 U	0.35 U	0.34 U	--	--	--	--	--	--	--	--
Aroclor-1242 (PCB-1242)	mg/kg	0.34 UJ	0.35 U	0.35 U	0.34 U	0.35 U	0.35 U	0.34 U	--	--	--	--	--	--	--	--
Aroclor-1248 (PCB-1248)	mg/kg	0.34 UJ	0.35 U	0.35 U	0.34 U	0.35 U	0.35 U	0.34 U	--	--	--	--	--	--	--	--
Aroclor-1254 (PCB-1254)	mg/kg	0.34 UJ	0.35 U	0.35 U	0.34 UJ	0.35 U	0.35 U	0.34 U	--	--	--	--	--	--	--	--
Aroclor-1260 (PCB-1260)	mg/kg	0.34 UJ	0.35 U	0.35 U	0.34 UJ	0.35 U	0.35 U	0.34 U	--	--	--	--	--	--	--	--
General Chemistry																
Natural Oxidant Demand	g/kg	--	--	--	--	--	--	--	5.52	7.00	4.14	6.48	4.81	9.03	3.03	3.50
Total Organic Carbon (TOC)	mg/kg	--	--	--	--	--	--	--	11 U	11 U	11 U	12 U	11 U	11 U	12 U	12 U

APPENDIX A

SOIL BORING LOGS/WELL CONSTRUCTION DETAILS



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: 13000 ECKLES ROAD SITE
PROJECT NUMBER: 12607
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW1S-04
DATE COMPLETED: June 29, 2004
DRILLING METHOD: 2-1/4" DIRECT PUSH/6" HSA
FIELD PERSONNEL: M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	NORTHING: 320314.01 EASTING: 13378944.05 TOP OF CASING TOP OF RISER GROUND SURFACE	705.85 705.25 702.84						
		702.34						
2	SM-SILTY SANDS, with vegetation (grass and rootlets), loose, poorly graded, fine grained, trace medium grained, dark brown, moist - no vegetation, brown at 0.2ft BGS		CONCRETE SEAL	1AL		63		4.6
4	SP-SANDS, trace silts, trace fine subrounded gravels, loose, poorly graded, fine grained, trace medium and coarse grained, brown, moist		BENTONITE CHIPS					4.5
6			4" PVC WELL CASING					5.1
8	- brown/beige, trace black and white grains at 7.5ft BGS		12" BOREHOLE	2AL		63		5.7
10	- with medium and coarse grained at 9.5ft BGS		4" PVC WELL SCREEN					5.2
12	- wet at 12.0ft BGS		SAND PACK	3AL		90		3.7
14								2.3
16		685.84		4AL		150		1.8
18	SM/ML-SILTY SANDS/SILTS, compact, poorly graded, fine grained, brown, wet END OF BOREHOLE @ 18.0ft BGS	684.84						
20			<u>WELL DETAILS</u> Screened interval: 693.84 to 683.84ft AMSL 9.00 to 19.00ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 695.84 to 683.84ft AMSL 7.00 to 19.00ft BGS Material: SANDS					
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607.GPJ CRA_CORP.GDT 5/26/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: 13000 ECKLES ROAD SITE

HOLE DESIGNATION: IW2S-04

PROJECT NUMBER: 12607

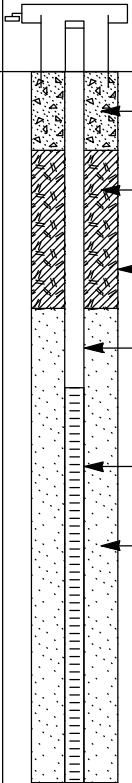
DATE COMPLETED: July 1, 2004

CLIENT: REALM

DRILLING METHOD: 2-1/4" DIRECT PUSH/6" HSA

LOCATION: LIVONIA, MICHIGAN

FIELD PERSONNEL: M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	NORTHING: 320357.85 EASTING: 13378889.82 TOP OF CASING TOP OF RISER GROUND SURFACE	704.85 704.22 702.07						
2	SP-SANDS, trace silts, loose, poorly graded, fine grained, trace medium grained, light brown, moist			1AL		60		6.3
4								7.0
6				2AL		40		6.9
8								8.2
10	- with medium grained, trace coarse grained, wet at 10.0ft BGS			3AL		60		8.2
12								10.5
14				4AL		200		8.5
16								
18	END OF BOREHOLE @ 18.0ft BGS	684.07						
20								
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS

Screened interval:
694.07 to 684.07ft AMSL
8.00 to 18.00ft BGS

Length: 10ft

Diameter: 4in

Slot Size: 0.010

Material: PVC

Sand Pack:

696.07 to 684.07ft AMSL

6.00 to 18.00ft BGS

Material: SANDS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607.GPJ CRA_CORP.GDT 5/26/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: 13000 ECKLES ROAD SITE
PROJECT NUMBER: 12607
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW3S-04
DATE COMPLETED: July 1, 2004
DRILLING METHOD: 2-1/4" DIRECT PUSH/6" HSA
FIELD PERSONNEL: M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	NORTHING: 320316.4 EASTING: 13378851.05 TOP OF CASING TOP OF RISER GROUND SURFACE	706.20 705.69 702.87						
2	SM-SILTY SANDS, trace vegetation (grass and rootlets), loose, poorly graded, fine grained, light brown, moist	700.37		1AL		70		3.9
4	SP-SANDS, trace silts, trace fine subrounded gravels, loose, poorly graded, fine grained, trace medium grained, brown, moist							5.8
6	- with medium and coarse grained, with black and white grains at 6.0ft BGS			2AL		80		7.1
8								5.1
10	- wet at 10.0ft BGS			3AL		70		5.6
12		684.87						6.3
14				4AL		150		5.1
16								
18	END OF BOREHOLE @ 18.0ft BGS							
20								
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS

Screened interval:
694.87 to 684.87ft AMSL
8.00 to 18.00ft BGS
Length: 10ft
Diameter: 4in
Slot Size: 0.010
Material: PVC
Sand Pack:
696.87 to 684.87ft AMSL
6.00 to 18.00ft BGS
Material: SANDS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607.GPJ CRA_CORP.GDT 5/26/06

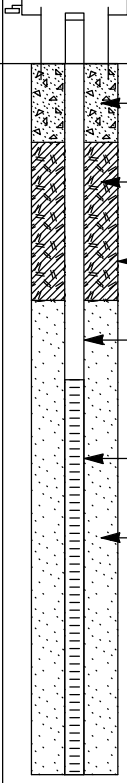


STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: 13000 ECKLES ROAD SITE
PROJECT NUMBER: 12607
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW4S-04
DATE COMPLETED: July 1, 2004
DRILLING METHOD: 2-1/4" DIRECT PUSH/6" HSA
FIELD PERSONNEL: M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	"N" VALUE	PID (ppm)
	NORTHING: 320253.54 EASTING: 13378979.68 TOP OF CASING TOP OF RISER GROUND SURFACE	706.18 705.90 703.07						
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), loose, poorly graded, fine grained, brown, moist			1AL		60		0.7
4	- no vegetation, brown with slight orange hue at 3.0ft BGS							2.6
6	- with medium and coarse grained, light brown with white and black grains, trace fine subrounded gravels at 5.0ft BGS			2AL		80		2.2
8								1.5
10	- wet at 10.0ft BGS							1.7
12				3AL		90		2.0
14								2.1
16	- trace medium and coarse grained at 15.0ft BGS			4AL		200		
18	END OF BOREHOLE @ 18.0ft BGS	685.07						
20								
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS

Screened interval:
695.07 to 685.07ft AMSL
8.00 to 18.00ft BGS
Length: 10ft
Diameter: 4in
Slot Size: 0.010
Material: PVC
Sand Pack:
697.07 to 685.07ft AMSL
6.00 to 18.00ft BGS
Material: SANDS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607.GPJ CRA_CORP.GDT 5/26/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: 13000 ECKLES ROAD SITE

PROJECT NUMBER: 12607

CLIENT: REALM

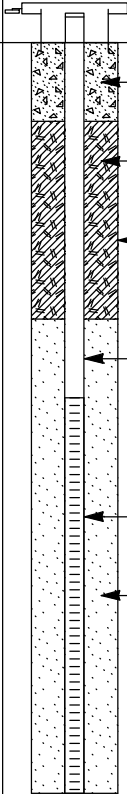
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW5S-04

DATE COMPLETED: June 30, 2004

DRILLING METHOD: 2-1/4" DIRECT PUSH/6" HSA

FIELD PERSONNEL: M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	NORTHING: 320265.24 EASTING: 13379217.1	TOP OF CASING 705.96 TOP OF RISER 705.17 GROUND SURFACE 702.90						
2	SP-SANDS, with silts, with vegetation (grass and rootlets), loose, poorly graded, fine grained, dark brown, moist			1AL		60		6.0
4	- no vegetation, brown, trace coarse grained at 2.0ft BGS							6.6
6				2AL		80		5.2
8	- with medium grained, trace fine subrounded gravels, black and white grains at 7.0ft BGS							7.3
10								
12	- with medium and coarse grained, wet at 11.0ft BGS			3AL		80		3.0
14	- trace coarse grained at 13.0ft BGS							7.6
16	- 3" layer with fine subangular gravels at 14.0ft BGS							
18	- trace medium grained at 17.0ft BGS			4AL		90		7.7
20	END OF BOREHOLE @ 19.0ft BGS	683.90						7.8
22			<u>WELL DETAILS</u> Screened interval: 693.90 to 683.90ft AMSL 9.00 to 19.00ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 695.90 to 683.90ft AMSL 7.00 to 19.00ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607.GPJ CRA_CORP.GDT 5/26/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-6S-05
DATE COMPLETED: April 19, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	FILL-SANDS, loose, poorly graded, fine grained, trace medium grained, light brown, moist	2.00	NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		68		6.2
4	SP-SANDS, trace silts, trace fine subrounded gravels, compact, poorly graded, fine grained, with medium grained, trace coarse grained, brown with orange hue, moist - clayey at 4.5ft BGS							
6	- brown/beige at 6.5ft BGS			2AL		78		6.9
8								
10	- very moist at 9.5ft BGS - wet at 9.8ft BGS							
12				3AL		100		6.4
14								
16								
18	END OF BOREHOLE @ 18.0ft BGS							
20		18.00						
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
8.00 to 18.00ft BGS
Length: 10ft
Diameter: 4in
Slot Size: 0.010
Material: PVC
Sand Pack:
6.00 to 18.00ft BGS
Material: SANDS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-7S-05
DATE COMPLETED: April 19, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), loose, poorly graded, fine grained, with medium grained, dark brown, moist		NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		45		7.6
4	- orange hue, trace fine subrounded gravels at 1.5ft BGS							
6	- with coarse grained, brown/beige at 5.5ft BGS			2AL		80		7.9
8								
10	- wet, trace coarse grained at 9.0ft BGS							
12				3AL		86		6.8
14	- with coarse grained at 13.0ft BGS							
16	- trace coarse and medium grained at 14.0ft BGS							
18	END OF BOREHOLE @ 18.0ft BGS	18.00						
20								
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
8.00 to 18.00ft BGS
Length: 10ft
Diameter: 4in
Slot Size: 0.010
Material: PVC
Sand Pack:
6.00 to 18.00ft BGS
Material: SANDS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06

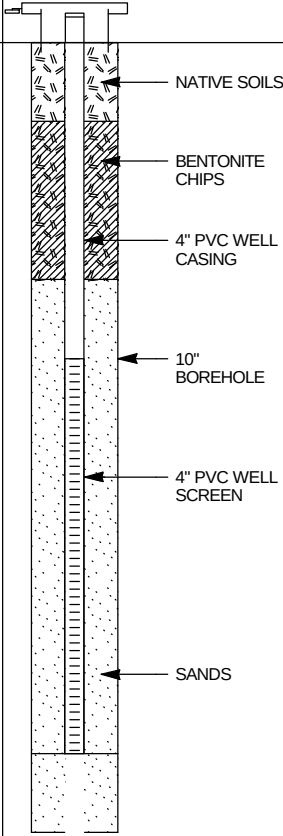


STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-8S-05
DATE COMPLETED: April 19, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), loose, poorly graded, fine grained, with medium grained, dark brown, moist		 NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		60		8.2
4	- orange hue, trace coarse grained, trace clay, no vegetation at 1.5ft BGS							
6	- no clay at 4.5ft BGS			2AL		72		8.1
8	- beige/brown, trace fine subrounded gravels at 5.0ft BGS							
10	- wet at 9.8ft BGS			3AL		83		7.9
12	- with coarse grained at 10.0ft BGS							
14	- trace coarse grained at 11.5ft BGS			4AL		100		6.5
16								
18	- gray, increased silt content at 19.0ft BGS							
20	END OF BOREHOLE @ 20.0ft BGS	20.00						
22			WELL DETAILS Screened interval: 8.00 to 18.00ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 6.00 to 20.00ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-9S-05
DATE COMPLETED: April 19, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), loose, poorly graded, fine grained, with medium grained, dark brown, moist		NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		76		7.3
4	- orange hue at 1.0ft BGS - slight clay-like plasticity at 2.5ft BGS - brown/tan, with coarse grained, trace fine subrounded gravels at 3.0ft BGS - trace coarse grained at 5.0ft BGS			2AL		69		8.3
6				3AL		77		8.1
8				4AL		92		6.9
10								
12	- wet at 11.0ft BGS							
14	- coarse grained, with medium grained, trace fine grained at 12.5ft BGS							
16	- trace coarse grained, fine grained, with medium grained at 14.0ft BGS							
18								
20	END OF BOREHOLE @ 20.0ft BGS	20.00						
22			WELL DETAILS Screened interval: 9.00 to 19.00ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 7.00 to 20.00ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06

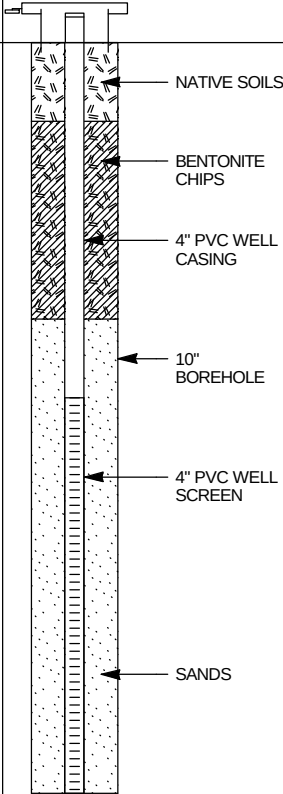


STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-10S-05
DATE COMPLETED: April 19, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (rootlets), loose, poorly graded, trace medium grained, light brown, moist			1AL		66		8.4
4	- dark brown at 0.2ft BGS - brown with slight orange hue, compact at 1.0ft BGS - slight plasticity/clay content at 4.5ft BGS - beige/brown, with medium grained, trace coarse grained, trace fine subrounded gravels at 4.8ft BGS			2AL		66		8.6
6				3AL		80		7.6
8								
10	- wet, with medium grained, trace medium gravels at 10.5ft BGS - trace coarse grained at 11.0ft BGS							
12	- with coarse grained at 13.0ft BGS - trace coarse grained at 14.0ft BGS							
14								
16								
18								
20	END OF BOREHOLE @ 19.0ft BGS	19.00						
22			<u>WELL DETAILS</u> Screened interval: 9.00 to 19.00ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 7.00 to 19.00ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06

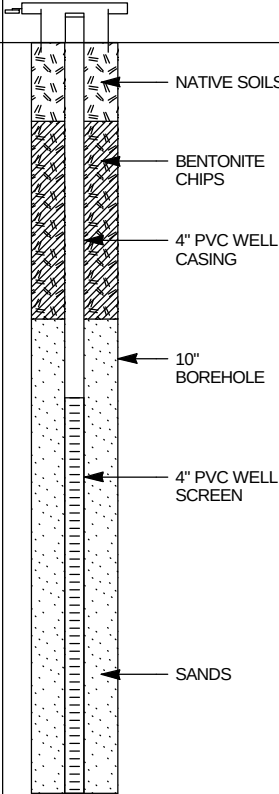


STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-11S-05
DATE COMPLETED: April 19, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	"N" VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), loose, poorly graded, fine grained, with medium grained, brown, moist - brown with orange hue, compact at 1.5ft BGS		 NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		85		7.9
4	- beige/brown, trace fine subrounded gravels at 4.5ft BGS							
6				2AL		83		7.1
8								
10	- 2" silty layer at 9.8ft BGS - increased moisture content at 9.9ft BGS - wet, brown at 10.8ft BGS			3AL		85		8.1
12								
14								
16								
18								
19.00	END OF BOREHOLE @ 19.0ft BGS	19.00						
20			<u>WELL DETAILS</u> Screened interval: 9.00 to 19.00ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 7.00 to 19.00ft BGS Material: SANDS					
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06

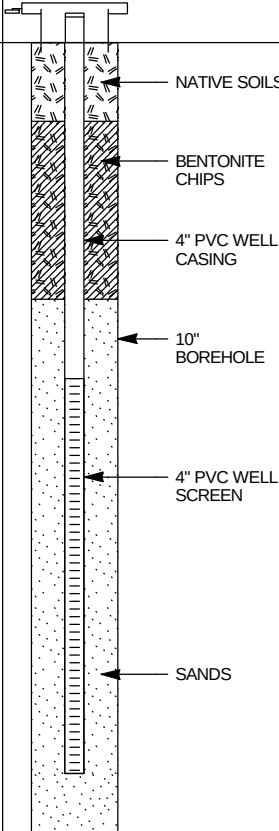


STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-12S-05
DATE COMPLETED: April 19, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), loose, poorly graded, fine grained, with medium grained, dark brown, moist		 NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		50		8.8
4	- brown with orange hue, trace coarse grained and fine subrounded gravels at 1.0ft BGS							
6	- brown/beige, fine and medium grained, trace coarse grained, compact at 5.0ft BGS			2AL		75		8.9
8								
10	- wet, trace coarse and medium grained at 10.0ft BGS							
12	- medium grained, with fine grained, trace coarse grained, coarsening downward at 10.5ft BGS			3AL		82		7.6
14	- fine grained, trace medium and coarse grained at 12.0ft BGS							
16	- with coarse grained, trace fine subrounded gravels at 14.0ft BGS			4AL		88		7.3
18								
20	END OF BOREHOLE @ 20.0ft BGS	20.00						
22			WELL DETAILS Screened interval: 8.50 to 18.50ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 6.50 to 20.00ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06

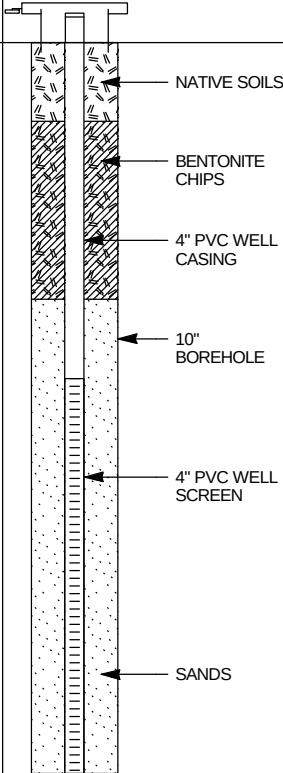


STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-13S-05
DATE COMPLETED: April 19, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), loose, poorly graded, fine grained, with medium grained, dark brown, moist - brown with orange hue at 1.0ft BGS			1AL		75		8.8
4	- brown/beige, with coarse grained at 4.0ft BGS - trace coarse grained at 5.0ft BGS							
6	SM-SILTY SANDS, compact, poorly graded, fine grained, brown, very moist	6.00						
8	SP-SANDS, trace silts, compact, poorly graded, fine grained, with medium grained, trace coarse grained, brown/beige, moist to very moist, intermittent darker laminae	6.50		2AL		82		8.8
10	- wet at 10.0ft BGS							
12	SM-SILTY SANDS, compact, poorly graded, fine grained, brown, wet - increase in silts at 11.0ft BGS	10.50						
14	SP-SANDS, trace silts, compact, poorly graded, fine grained, with medium grained, brown, wet	13.50		3AL		86		7.6
16								
18	END OF BOREHOLE @ 18.5ft BGS	18.50						
20								
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS

Screened interval:
8.50 to 18.50ft BGS
Length: 10ft
Diameter: 4in
Slot Size: 0.010
Material: PVC
Sand Pack:
6.50 to 18.50ft BGS
Material: SANDS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-14S-05
DATE COMPLETED: April 19, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), very loose, poorly graded, fine grained, with medium grained, brown, moist - brown with orange hue at 1.5ft BGS		NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		45		7.8
4								
6	- brown/beige, trace coarse grained at 5.5ft BGS							
8	- with coarse grained, trace fine subangular gravels at 7.5ft BGS			2AL		66		8.2
10	- trace coarse grained, increased silt content at 10.0ft BGS - wet at 10.5ft BGS							
12	SM-SILTY SANDS, compact, poorly graded, fine grained, trace medium grained, brown, wet - 2" fine and medium grained sand layer at 12.0ft BGS	11.50 13.00		3AL		80		9.0
14	SP-SANDS, trace silts, compact, poorly graded, medium grained, with fine grained, trace coarse grained, brown, wet							
16								
18								
20	END OF BOREHOLE @ 19.0ft BGS	19.00						
22			<u>WELL DETAILS</u> Screened interval: 9.00 to 19.00ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 7.00 to 19.00ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-15S-05
DATE COMPLETED: April 19, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts and vegetation (grasses), loose, fine grained, trace medium grained, poorly graded, dark brown, moist - brown at 1.5ft BGS		NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		50		8.5
4	- medium brown at 4.5ft BGS							
6				2AL		75		8.3
8	- very moist at 7.0ft BGS - moist, brown at 7.8ft BGS - light brown with some orange-brown areas at 8.0ft BGS							
10	- saturated at 10.8ft BGS			3AL		80		9.0
12	- fine grained, brown/gray at 11.8ft BGS							
14								
16								
18								
20	END OF BOREHOLE @ 19.0ft BGS	19.00						
22			<u>WELL DETAILS</u> Screened interval: 9.00 to 19.00ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 7.00 to 19.00ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-16S-05
DATE COMPLETED: April 19, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	"N" VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), loose, poorly graded, fine grained, with medium grained, dark brown, moist		NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		72		2.3
4	- brown, trace fine subrounded gravels at 1.5ft BGS							
6	- grace coarse grained at 4.5ft BGS			2AL		80		3.9
8	- brown/beige, compact at 5.0ft BGS							
10								
12	- wet at 11.5ft BGS			3AL		80		3.0
14	- coarse grained, with gravels at 13.0ft BGS							
16	- fine and medium gravels, trace coarse grained and gravels at 14.0ft BGS							
18								
20	END OF BOREHOLE @ 19.5ft BGS	19.50						
22			<u>WELL DETAILS</u> Screened interval: 9.50 to 19.50ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 7.50 to 19.50ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06

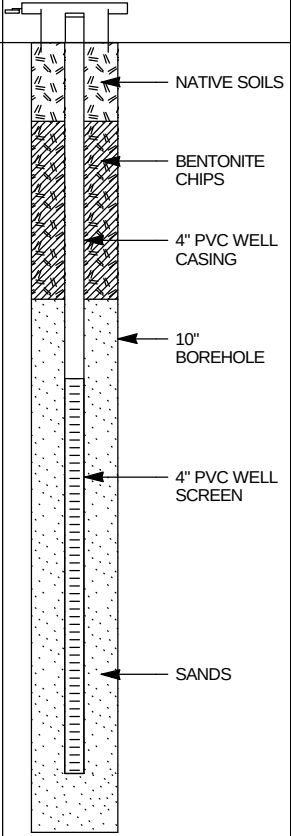


STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-17S-05
DATE COMPLETED: April 19, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), loose, poorly graded, fine grained, with medium grained, dark brown, moist		 NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		66		3.7
4	- brown with slight orange hue, trace coarse grained, trace fine subrounded gravels at 1.2ft BGS							
6	- brown/beige at 4.0ft BGS							
8	- with coarse grained, compact at 7.0ft BGS			2AL		80		4.5
10	- trace coarse grained at 8.0ft BGS							
12	- very moist at 9.5ft BGS							
14	- wet, with coarse grained and gravels, brown at 11.7ft BGS			3AL		76		4.6
16	- trace coarse grained, trace gravels at 12.0ft BGS							
18	- no coarse grained, increased silt content at 17.8ft BGS			4AL		90		4.5
20	END OF BOREHOLE @ 20.0ft BGS	20.00						
22			WELL DETAILS Screened interval: 8.50 to 18.50ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 6.50 to 20.00ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06

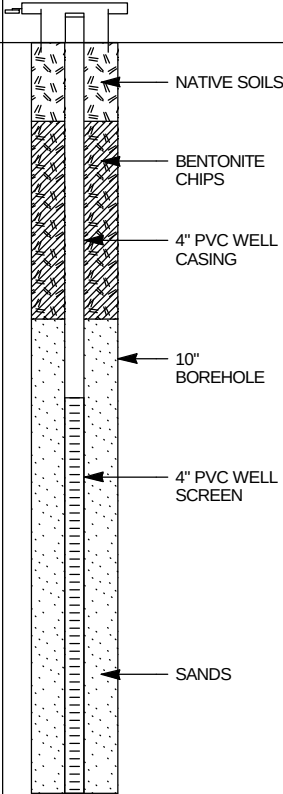


STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-18S-05
DATE COMPLETED: April 19, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), loose, poorly graded, fine grained, with medium grained, dark brown, moist		 NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		68		4.8
4	- trace coarse grained, trace fine subrounded gravels, brown at 1.0ft BGS							
6	- beige/brown at 4.8ft BGS			2AL		79		4.6
8	- orange hue at 6.0ft BGS							
10	- beige/brown, with coarse grained at 8.5ft BGS			3AL		82		5.0
12	- wet at 11.3ft BGS							
14	- coarse grained, trace medium and fine grained at 11.5ft BGS							
16	- fine grained, with medium grained, trace coarse grained at 11.8ft BGS							
18								
20	END OF BOREHOLE @ 19.0ft BGS	19.00						
22			<u>WELL DETAILS</u> Screened interval: 9.00 to 19.00ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 7.00 to 19.00ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06

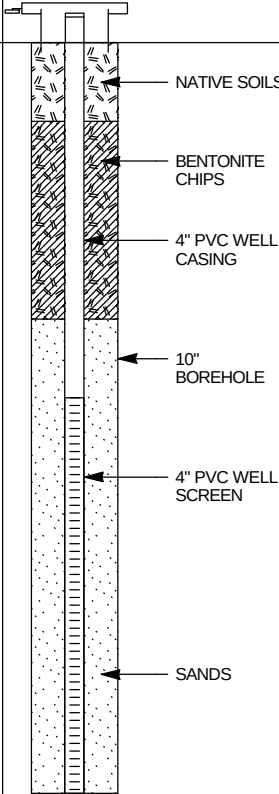


STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-19S-05
DATE COMPLETED: April 19, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), loose, poorly graded, fine grained, with medium grained, dark brown, moist			1AL		66		5.2
4	- brown with orange hue, compact, trace coarse grained at 1.5ft BGS							
6	- brown/beige, with coarse grained at 6.0ft BGS			2AL		72		5.2
8								
10	- trace coarse grained at 10.0ft BGS							
12	- wet, with coarse grained at 11.2ft BGS			3AL		80		4.8
14	- trace coarse grained at 13.0ft BGS							
16	- coarse grained, with fine and medium grained at 14.0ft BGS							
18								
20	END OF BOREHOLE @ 19.0ft BGS	19.00						
22			<u>WELL DETAILS</u> Screened interval: 9.00 to 19.00ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 7.00 to 19.00ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06

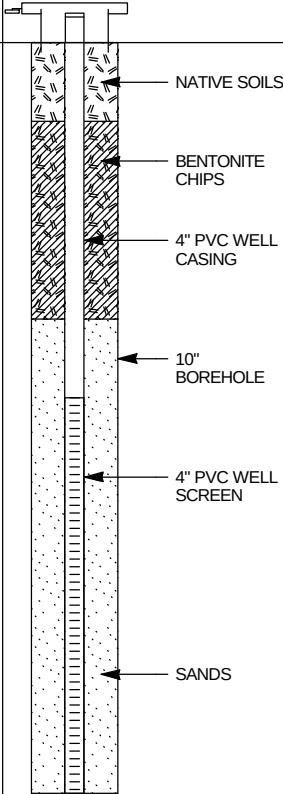


STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-20S-05
DATE COMPLETED: April 19, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), very loose, poorly graded, fine grained, with medium grained, dark brown, moist		 NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		45		5.8
4	- brown with orange hue at 0.5ft BGS							
6	- beige/brown, compact, trace coarse grained, trace fine subrounded gravels at 5.5ft BGS			2AL		82		5.6
8								
10								
12	- wet at 11.2ft BGS			3AL		78		4.9
14	- coarse grained, trace fine and medium grained at 12.0ft BGS							
16	- fine grained, with medium grained, trace coarse grained at 12.5ft BGS							
18								
20	END OF BOREHOLE @ 19.0ft BGS	19.00						
22			<u>WELL DETAILS</u> Screened interval: 9.00 to 19.00ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 7.00 to 19.00ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06

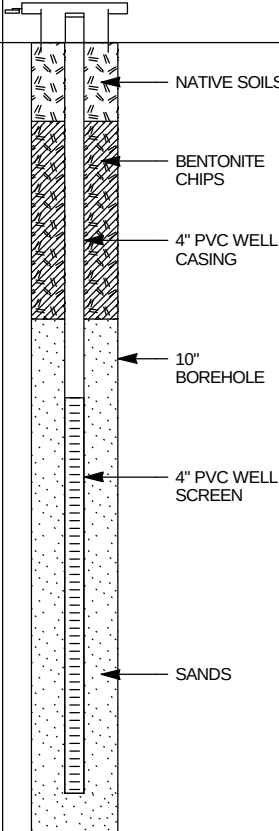


STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-21S-05
DATE COMPLETED: April 19, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), loose, poorly graded, fine grained, with medium grained, dark brown, moist		 NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		50		11.7
4	- brown with orange hue at 1.0ft BGS							
6	- rock fragment at 3.5ft BGS			2AL		64		9.6
8								
10								
12	- wet, trace coarse grained at 11.0ft BGS			3AL		20		6.8
14								
16				4AL		80		8.7
18	- coarse grained, with medium grained, trace fine grained at 18.0ft BGS							
20	- fine grained, gray at 19.8ft BGS END OF BOREHOLE @ 20.0ft BGS	20.00						
22			WELL DETAILS Screened interval: 9.00 to 19.00ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 7.00 to 20.00ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-22S-05
DATE COMPLETED: April 20, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
0	CONCRETE	0.90	NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		68		12.6
2	SP-SANDS, trace silts, trace fine subrounded gravels, compact, poorly graded, fine grained, with medium grained, brown with orange hue, moist							
4								
6	- brown/beige at 6.5ft BGS			2AL		78		11.6
8	- trace coarse grained, very moist at 8.0ft BGS							
10	- wet, with coarse grained at 10.0ft BGS							
12				3AL		80		8.4
14	- trace coarse grained at 14.0ft BGS							
16								
18	END OF BOREHOLE @ 18.5ft BGS	18.50						
20			<u>WELL DETAILS</u> Screened interval: 8.50 to 18.50ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 6.50 to 18.50ft BGS Material: SANDS					
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD

PROJECT NUMBER: 12607-232

CLIENT: REALM

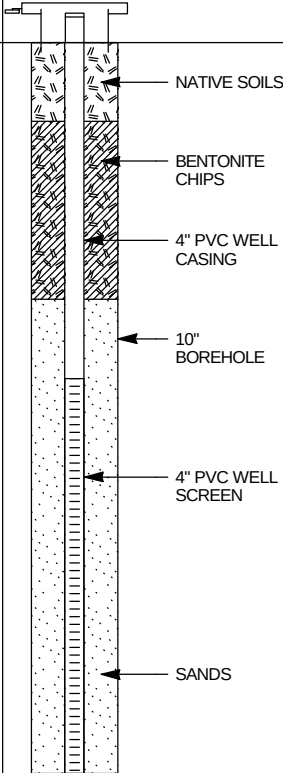
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-23S-05

DATE COMPLETED: April 20, 2005

DRILLING METHOD: DIRECT PUSH/HSA

FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), loose, poorly graded, with medium grained, dark brown, moist		 NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		65		9.2
4	- orange hue, trace coarse grained, trace fine subrounded gravels, compact at 1.0ft BGS							
6	- brown/beige at 2.0ft BGS							
8	- with coarse grained at 5.0ft BGS			2AL		80		10.8
10	- trace coarse grained at 5.3ft BGS							
12	- with coarse grained at 7.0ft BGS							
14	- trace coarse grained at 7.3ft BGS			3AL		84		1.2
16	- very moist to wet, with coarse grained at 9.8ft BGS							
18	- wet, with medium subangular gravels at 10.0ft BGS							
20	- coarse grained, with medium grained, trace fine grained at 10.5ft BGS							
22	- fine grained, trace medium and coarse grained, increased silts at 13.0ft BGS							
24	- coarse grained, with medium grained, trace fine grained at 13.5ft BGS							
26	- fine grained, trace medium and coarse grained, increased silts at 14.0ft BGS							
28	END OF BOREHOLE @ 18.5ft BGS	18.50	<u>WELL DETAILS</u> Screened interval: 8.50 to 18.50ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 6.50 to 18.50ft BGS Material: SANDS					
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-24S-05
DATE COMPLETED: April 18, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts and vegetation, loose, fine grained, trace medium grained, poorly graded, dark brown, moist - orange brown at 1.0ft BGS		NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		50		8.2
4								
6	- trace to with silts at 5.5ft BGS							
8	- fine to medium grained, trace coarse grained, light brown, trace silts at 7.5ft BGS			2AL		66		8.7
10								
12	- fine grained, trace medium grained, brown at 10.5ft BGS - saturated at 11.1ft BGS							
14				3AL		80		9.1
16								
18	- increased silt content at 17.8ft BGS							
20	- decreased silt content, orange/brown at 19.0ft BGS - gray at 19.5ft BGS END OF BOREHOLE @ 20.0ft BGS	20.00		4AL		90		8.4
22			WELL DETAILS Screened interval: 9.00 to 19.00ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 7.00 to 20.00ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06

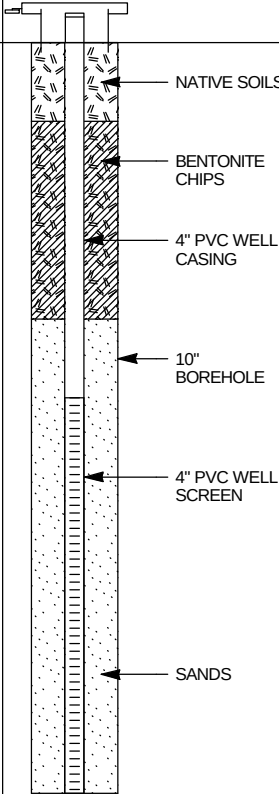


STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-25S-05
DATE COMPLETED: April 19, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), loose, poorly graded, fine grained, with medium grained, dark brown, moist			1AL		66		8.7
4	- brown with orange hue, no vegetation, trace coarse grained at 1.0ft BGS							
6	- light brown at 5.5ft BGS			2AL		80		9.1
8	- with coarse grained at 6.5ft BGS							
10	- trace coarse grained at 7.0ft BGS							
12	- with coarse grained, brown/beige at 9.8ft BGS			3AL		75		8.5
14	- wet at 10.5ft BGS							
16								
18								
20	END OF BOREHOLE @ 19.0ft BGS	19.00						
22			<u>WELL DETAILS</u> Screened interval: 7.00 to 19.00ft BGS Length: 12ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 7.00 to 19.00ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06

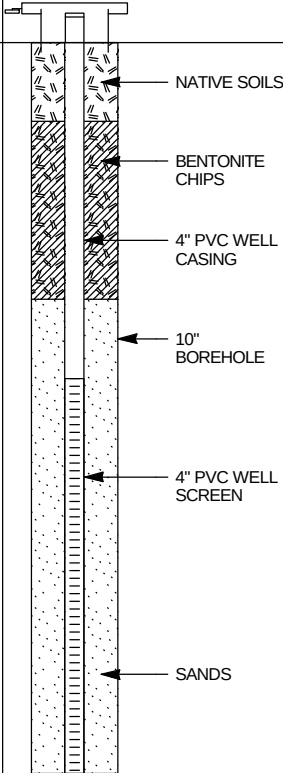


STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-26S-05
DATE COMPLETED: April 18, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), loose, poorly graded, fine grained, with medium grained, dark brown, moist			1AL		60		7.7
4	- brown with orange hue, no vegetation at 1.5ft BGS							
6	- light brown, with coarse grained, trace fine subrounded gravels at 6.0ft BGS			2AL		70		7.4
8								
10	- with coarse grained, wet, brown at 10.5ft BGS							
12				3AL		40		7.3
14	- coarse grained, with fine and medium gravels at 13.0ft BGS							
16								
18	END OF BOREHOLE @ 18.5ft BGS	18.50						
20								
22			<u>WELL DETAILS</u> Screened interval: 8.50 to 18.50ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 6.50 to 18.50ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-27S-05
DATE COMPLETED: April 18, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts and fine gravels, trace vegetation, loose, fine grained, trace medium grained, dark brown, moist - rust brown, no vegetation at 1.0ft BGS		NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		66		10.3
4	- trace clays, compact at 3.0ft BGS - no clays, fine to medium grained, brown, trace fine gravels at 3.3ft BGS			2AL		80		9.5
6	- light brown at 6.0ft BGS			3AL		85		9.9
8	- fine grained, trace medium and coarse grained, brown at 7.3ft BGS			4AL		85		9.4
10	- saturated, brown/gray at 10.8ft BGS - fine to coarse grained at 11.5ft BGS							
12	- fine to medium grained at 12.8ft BGS							
14	- fine to coarse grained at 14.5ft BGS							
16	- fine grained, trace medium and coarse grained at 15.5ft BGS							
18								
20	END OF BOREHOLE @ 20.0ft BGS	20.00						
22			WELL DETAILS Screened interval: 8.50 to 18.50ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 6.50 to 20.00ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06

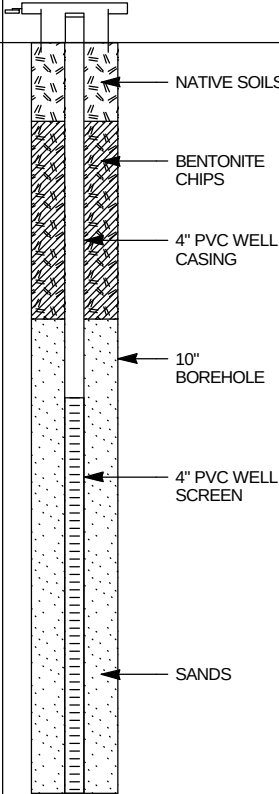


STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-28S-05
DATE COMPLETED: April 18, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), loose, poorly graded, fine grained, with medium grained, dark brown, moist			1AL		50		6.6
4	- brown with orange hue, no vegetation at 2.0ft BGS							
6				2AL		40		6.7
8	- brown/beige at 8.0ft BGS							
10				3AL		75		6.0
12	- wet, trace fine subangular gravels, compact, coarsening downward at 11.0ft BGS							
14								
16								
18								
19.00	END OF BOREHOLE @ 19.0ft BGS	19.00						
20			<u>WELL DETAILS</u> Screened interval: 9.00 to 19.00ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 7.00 to 19.00ft BGS Material: SANDS					
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06

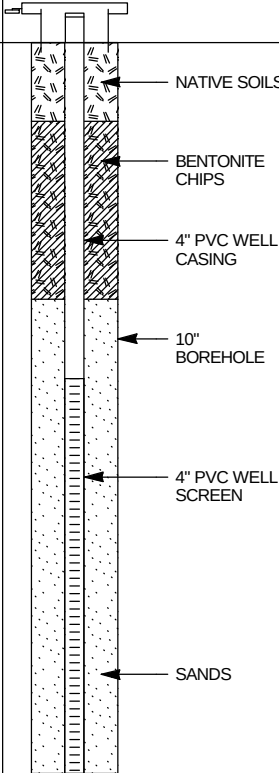


STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-29S-05
DATE COMPLETED: April 18, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass), loose, fine grained, with medium grained, dark brown, moist - brown with orange hue, trace coarse grained at 1.5ft BGS			1AL		50		7.6
4	- fine to medium grained, trace coarse grained, brown with orange areas at 4.0ft BGS			2AL		75		7.0
6	- fine grained, trace medium grained, brown/beige at 7.3ft BGS			3AL		75		5.7
8	- 2" brown/yellow seam at 9.8ft BGS - saturated, fine to medium grained, trace coarse grained at 10.5ft BGS							
10	- with coarse grained at 12.8ft BGS - trace coarse grained at 13.3ft BGS - fine grained at 14.0ft BGS							
12								
14								
16								
18	END OF BOREHOLE @ 18.5ft BGS	18.50						
20								
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS

Screened interval:
8.50 to 18.50ft BGS
Length: 10ft
Diameter: 4in
Slot Size: 0.010
Material: PVC
Sand Pack:
6.50 to 18.50ft BGS
Material: SANDS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-30S-05
DATE COMPLETED: April 20, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
0	CONCRETE	0.90	NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		80		7.6
2	SP-SANDS, trace silts, trace fine subrounded gravels, loose to compact, poorly graded, fine grained, with medium grained, brown with orange hue, moist							
4								
6								
8	SC-CLAYEY SANDS, trace fine subrounded and subangular gravels, compact, poorly graded, fine grained, with medium grained, slightly plastic, brown with orange hue, moist	7.00		2AL		85		7.4
10	- with coarse grained at 10.0ft BGS	9.80						
12	SP-SANDS, trace silts, trace fine subrounded gravels, compact, poorly graded, with medium grained, trace coarse grained, brown/beige, moist							
14	- coarse grained, with medium grained, trace fine grained at 12.5ft BGS			3AL		70		4.9
16	- fine grained, trace medium and coarse grained at 14.0ft BGS							
18								
20	END OF BOREHOLE @ 19.0ft BGS	19.00						
22			<u>WELL DETAILS</u> Screened interval: 9.00 to 19.00ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 7.00 to 19.00ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06

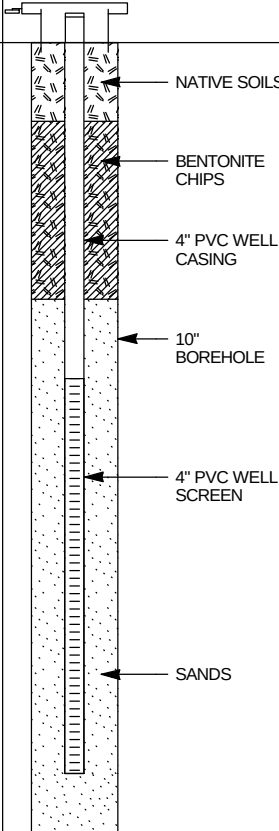


STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-31S-05
DATE COMPLETED: April 20, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), loose, poorly graded, fine grained, with medium grained, dark brown, moist		 NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		84		7.5
4	- orange hue, trace coarse grained, trace fine subrounded gravels at 1.5ft BGS							
6	- beige/brown, compact at 3.5ft BGS							
8	- trace medium subangular gravels at 5.0ft BGS			2AL		84		7.1
10	- very moist to wet at 9.8ft BGS							
12	- wet, trace coarse grained at 10.0ft BGS							
14	- with coarse grained at 12.5ft BGS			3AL		90		5.7
16	- trace coarse grained at 13.0ft BGS							
18	- increased silt content at 14.8ft BGS	15.00						
20	SM-SILTY SANDS, very compact, poorly graded, fine grained, brown, wet	16.00		4AL		85		6.4
22	SW-SANDS, compact, well graded, fine, medium and coarse grained, brown, wet							
24								
26								
28								
30								
32								
34								
	END OF BOREHOLE @ 20.0ft BGS	20.00						

WELL DETAILS

Screened interval:
8.50 to 18.50ft BGS
Length: 10ft
Diameter: 4in
Slot Size: 0.010
Material: PVC
Sand Pack:
6.50 to 20.00ft BGS
Material: SANDS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06

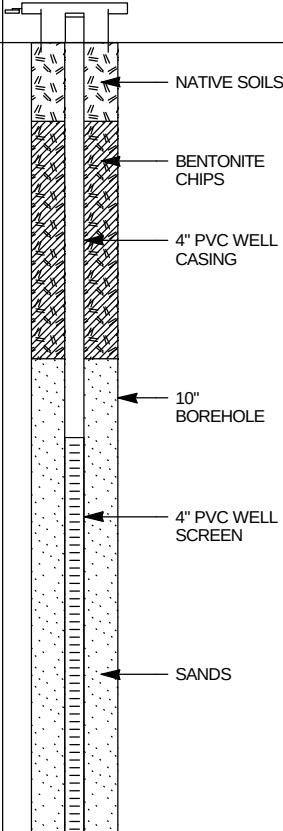


STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-32S-05
DATE COMPLETED: April 20, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), loose, poorly graded, fine and medium grained, trace coarse grained, dark brown, moist			1AL		70		6.7
4	- brown with orange hue, no vegetation, compact at 1.5ft BGS			2AL		65		7.7
6	- brown/beige, with coarse grained, trace fine subrounded gravels at 4.0ft BGS			3AL		82		8.0
8								
10								
12	- wet at 12.0ft BGS							
14								
16	END OF BOREHOLE @ 15.0ft BGS	15.00						
18								
20								
22			WELL DETAILS Screened interval: 10.00 to 20.00ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 8.00 to 20.00ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06

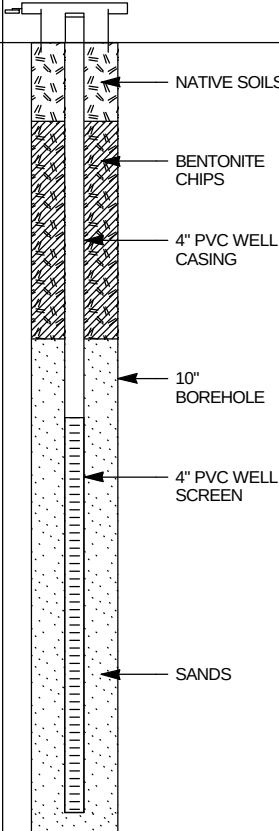


STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-33S-05
DATE COMPLETED: April 18, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), loose, poorly graded, fine and medium grained, brown, moist		 NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		68		11.4
4	- trace coarse grained at 4.0ft BGS							
6	- no coarse grained at 6.0ft BGS							
8	- trace coarse grained at 8.0ft BGS			2AL		100		3.3
10	- with coarse grained at 10.0ft BGS							
12	- wet, compact at 11.3ft BGS							
14	- trace coarse grained at 12.0ft BGS			3AL		80		3.8
16	- trace coarse and medium grained at 16.0ft BGS							
18				4AL		82		3.3
20	END OF BOREHOLE @ 20.0ft BGS	20.00						
22			WELL DETAILS Screened interval: 9.50 to 19.50ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 7.50 to 20.00ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06

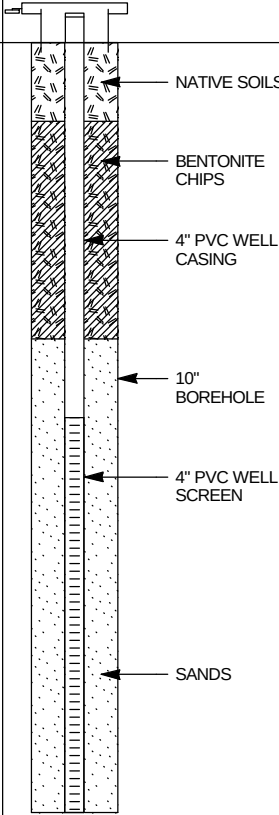


STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-34S-05
DATE COMPLETED: April 18, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	"N" VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), loose, poorly graded, fine and medium grained, dark brown, moist - brown at 1.5ft BGS			1AL		60		5.8
4	- orange hue at 5.0ft BGS							
6	- brown/beige, trace coarse grained at 7.0ft BGS			2AL		75		5.2
8								
10	- wet at 11.0ft BGS							
12	- with coarse grained at 12.0ft BGS			3AL		80		3.7
14	- trace coarse grained at 14.0ft BGS							
16								
18								
20	END OF BOREHOLE @ 19.5ft BGS	19.50						
22			<u>WELL DETAILS</u> Screened interval: 9.50 to 19.50ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 7.50 to 19.50ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06

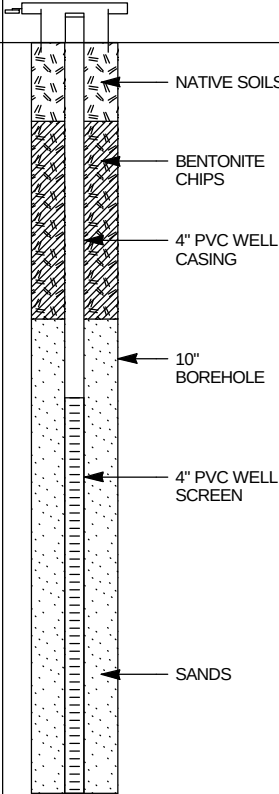


STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-35S-05
DATE COMPLETED: April 18, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	"N" VALUE	PID (ppm)
2	SP-SANDS, trace vegetation (grass and rootlets), loose, poorly graded, fine grained, with medium grained, dark brown, moist - brown with orange hue at 1.0ft BGS		 NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		55		5.6
4								
6	- brown/beige, with coarse grained, trace fine subrounded gravels at 5.0ft BGS			2AL		82		6.0
8								
10								
12	- wet, compact at 11.0ft BGS			3AL		80		6.5
14	- trace coarse grained at 12.5ft BGS							
16								
18								
19.00	END OF BOREHOLE @ 19.0ft BGS	19.00						
20			<u>WELL DETAILS</u> Screened interval: 9.00 to 19.00ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 7.00 to 19.00ft BGS Material: SANDS					
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-36S-05
DATE COMPLETED: April 18, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), loose, poorly graded, fine grained, with medium grained, dark brown, moist		NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		60		10.7
4	- brown with orange hue, no vegetation at 1.5ft BGS							
6	- with coarse grained, brown/beige at 5.0ft BGS			2AL		80		11.3
8								
10	- trace coarse grained at 10.0ft BGS							
12	- wet at 10.5ft BGS			3AL		75		8.9
14	- with coarse grained at 12.5ft BGS							
16	- trace coarse grained at 13.0ft BGS							
18	- trace coarse grained at 14.0ft BGS			4AL		88		8.6
20	END OF BOREHOLE @ 20.0ft BGS	20.00						
22			WELL DETAILS Screened interval: 9.00 to 19.00ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 7.00 to 20.00ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06

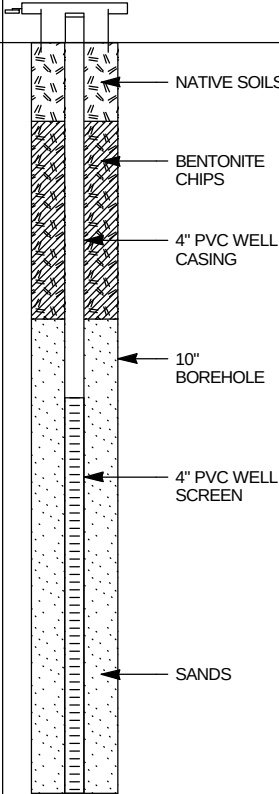


STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-37S-05
DATE COMPLETED: April 20, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	"N" VALUE	PID (ppm)
2	CONCRETE	0.80		1AL		84		7.9
4	SP-SANDS, trace silts, trace fine subrounded gravels, loose to compact, poorly graded, fine grained, trace medium grained, brown with orange hue, moist							
6	- 2" clayey layer at 4.5ft BGS - trace medium subangular gravels at 4.8ft BGS			2AL		75		7.2
8	- brown/beige, with coarse grained at 8.0ft BGS							
10	- wet, coarse grained, with medium grained, trace fine grained at 10.0ft BGS			3AL		80		7.1
12								
14	- fine grained, trace medium and coarse grained at 14.0ft BGS							
16								
18								
20	END OF BOREHOLE @ 19.0ft BGS	19.00						
22			<u>WELL DETAILS</u> Screened interval: 9.00 to 19.00ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 7.00 to 19.00ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06

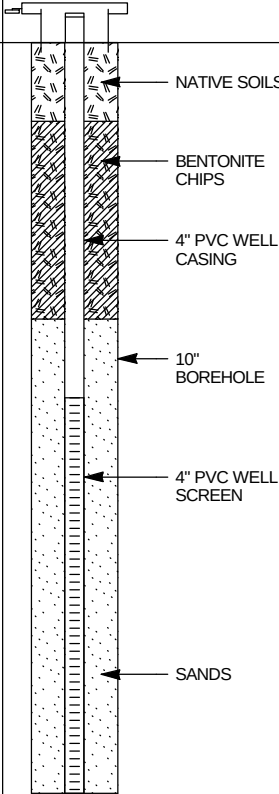


STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-38S-05
DATE COMPLETED: April 20, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), loose, poorly graded, fine grained, with medium grained, dark brown, moist			1AL		60		5.4
4	- with slight orange hue, trace coarse grained at 1.5ft BGS							
6	- brown/beige, compact, trace fine and medium subrounded and subangular gravels, with coarse grained at 6.0ft BGS			2AL		65		5.2
8								
10	- wet at 10.5ft BGS							
12	- trace coarse grained at 11.5ft BGS			3AL		85		6.0
14	- trace medium grained, increased silt content at 14.0ft BGS							
16								
18								
19.00	END OF BOREHOLE @ 19.0ft BGS	19.00						
20			<u>WELL DETAILS</u> Screened interval: 9.00 to 19.00ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 7.00 to 19.00ft BGS Material: SANDS					
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM-ECKLES RD
PROJECT NUMBER: 12607-232
CLIENT: REALM
LOCATION: LIVONIA, MICHIGAN

HOLE DESIGNATION: IW-39S-05
DATE COMPLETED: April 20, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS/M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SP-SANDS, trace silts, trace vegetation (grass and rootlets), trace fine subrounded gravels, loose, poorly graded, fine grained, trace medium grained, dark brown, moist - no vegetation, brown with orange hue at 1.5ft BGS		NATIVE SOILS BENTONITE CHIPS 4" PVC WELL CASING 10" BOREHOLE 4" PVC WELL SCREEN SANDS	1AL		68		3.7
4				2AL		66		4.7
6	- brown/beige, trace medium subangular gravels, with medium grained, trace coarse grained at 6.5ft BGS			3AL		78		6.0
8				4AL		84		0.7
10								
12	- wet at 12.0ft BGS - trace gravels, trace coarse and medium grained, increased silt content at 12.5ft BGS							
14								
16	- rust-colored seam (1 cm) at 15.5ft BGS							
18	- with medium grained, trace coarse grained at 16.5ft BGS - trace medium and coarse grained at 17.0ft BGS							
20	END OF BOREHOLE @ 20.0ft BGS	20.00						
22			WELL DETAILS Screened interval: 10.00 to 20.00ft BGS Length: 10ft Diameter: 4in Slot Size: 0.010 Material: PVC Sand Pack: 8.00 to 20.00ft BGS Material: SANDS					
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 12607-232.GPJ CRA_CORP.GDT 5/26/06

APPENDIX B

SUMMARY OF SLUG TEST RESULTS



**CONESTOGA-ROVERS
& ASSOCIATES**

14496 Sheldon Road, Suite #200
Plymouth, Michigan 48170
Telephone: (734) 453-5123 Fax: (734) 453-5201
www.CRAworld.com

MEMORANDUM

TO: Chris Meincke
FROM: Marie Mathé
C.C.: Tom Kinney (CRA)

REF. NO.: 12607/172/Det.
DATE: August 5, 2004

RE: **Summary of AOI 31 Slug Test Results
July 30, 2004
13000 Eckles Road Site
Livonia, Michigan**

This Memorandum has been prepared to present the results of slug test data collected from the injection wells in AOI 31 at the 13000 Eckles Road Site in Livonia Michigan.

1.0 Slug Test Activities

Slug tests were performed on 5 shallow on-Site injection wells on July 30, 2004. The slug tests were performed to determine the in-situ hydraulic conductivity of the water-bearing zone. The tests were performed by removing a solid slug from the wells to create an instantaneous change in head. The measurements from the wells were recorded using a datalogger and pressure transducer. The data was analyzed using the Bouwer and Rice Method for unconfined aquifers, utilizing AQTESOLV software. The results are summarized in Table 1. The individual data plots are included in Attachment A.

2.0 Slug Test Results

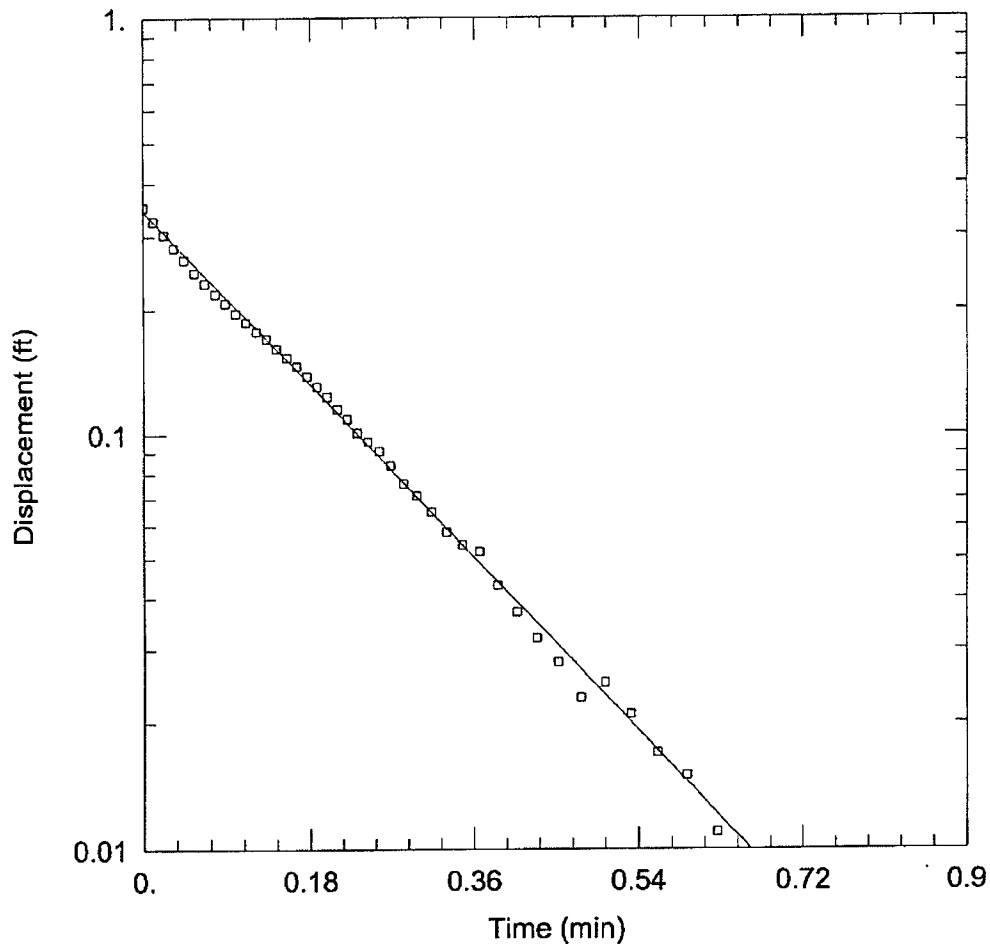
The calculated hydraulic conductivity for the five injection wells screened within the shallow portion of the surficial water-bearing zone varies from 2.92×10^{-3} centimeters/second (cm/s) to 7.19×10^{-3} cm/s. The geometric mean from the injection wells is 4.2×10^{-3} cm/s. This value is slightly higher, but within the same order of magnitude as the data collected by CRA in 2002 at on-Site shallow wells, with a geometric mean of 2.2×10^{-3} cm/s.

SLUG TEST RESULTS
JULY 30, 2004
13000 ECKLES ROAD
LIVONIA, MICHIGAN

<i>Well</i>	<i>Test</i>	<i>Hydraulic* Conductivity (ft/min)</i>	<i>Hydraulic* Conductivity (cm/sec)</i>
IW1S-04	Rising Head	1.33E-02	6.75E-03
IW1S-04	Rising Head	1.24E-02	6.29E-03
IW1S-04	Rising Head	1.42E-02	7.19E-03
IW2S-04	Rising Head	8.83E-03	4.48E-03
IW2S-04	Rising Head	9.06E-03	4.60E-03
IW2S-04	Rising Head	8.25E-03	4.19E-03
IW3S-04	Rising Head	8.60E-03	4.37E-03
IW3S-04	Rising Head	9.18E-03	4.67E-03
IW3S-04	Rising Head	9.60E-03	4.88E-03
IW4S-04	Rising Head	5.76E-03	2.93E-03
IW4S-04	Rising Head	5.75E-03	2.92E-03
IW4S-04	Rising Head	5.81E-03	2.95E-03
IW5S-04	Rising Head	7.33E-03	3.72E-03
IW5S-04	Rising Head	6.74E-03	3.42E-03
<u>IW5S-04</u>	<u>Rising Head</u>	<u>6.01E-03</u>	<u>3.05E-03</u>
Geometric Mean		8.35E-03	4.24E-03

* Based on slug tests performed by CRA on July 30, 2004

Data analyzed using Bouwer-Rice Method for
Unconfined Aquifers



WELL TEST ANALYSIS

Data Set: I:\Transfer\12607Memo-172D\12607M-172-AttA\12607-MISC-SLUG-IW1RH1.aqt

Date: 08/05/04

Time: 14:45:39

PROJECT INFORMATION

Company: CRA

AQUIFER DATA

Saturated Thickness: 10. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (IW1S-04 RH1)

Initial Displacement: 0.351 ft

Static Water Column Height: 7.86 ft

Total Well Penetration Depth: 7.86 ft

Screen Length: 10. ft

Casing Radius: 0.15 ft

Wellbore Radius: 0.33 ft

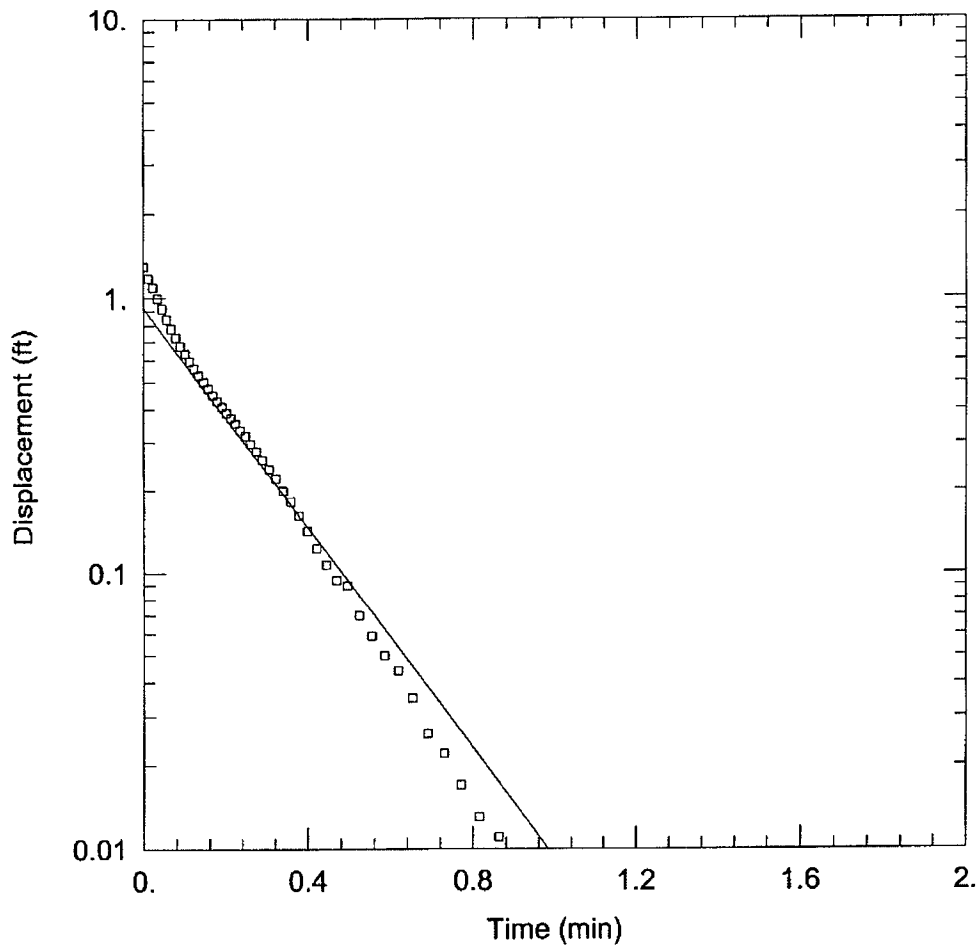
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.01329$ ft/min

$y_0 = 0.345$ ft



RISING HEAD TEST

Data Set: I:\Transfer\12607Memo-172D\12607M-172-AttA\12607-MISC-SLUG-IW1RH2.aqt

Date: 08/05/04

Time: 14:45:34

PROJECT INFORMATION

Company: CRA

Client: ENCORE

Project: 12607-227

Location: Livonia, Michigan

Test Date: 7/29/04

AQUIFER DATA

Saturated Thickness: 20. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (IW1S-04 RH2)

Initial Displacement: 1.294 ft

Static Water Column Height: 7.85 ft

Total Well Penetration Depth: 7.85 ft

Screen Length: 11. ft

Casing Radius: 0.1667 ft

Wellbore Radius: 0.333 ft

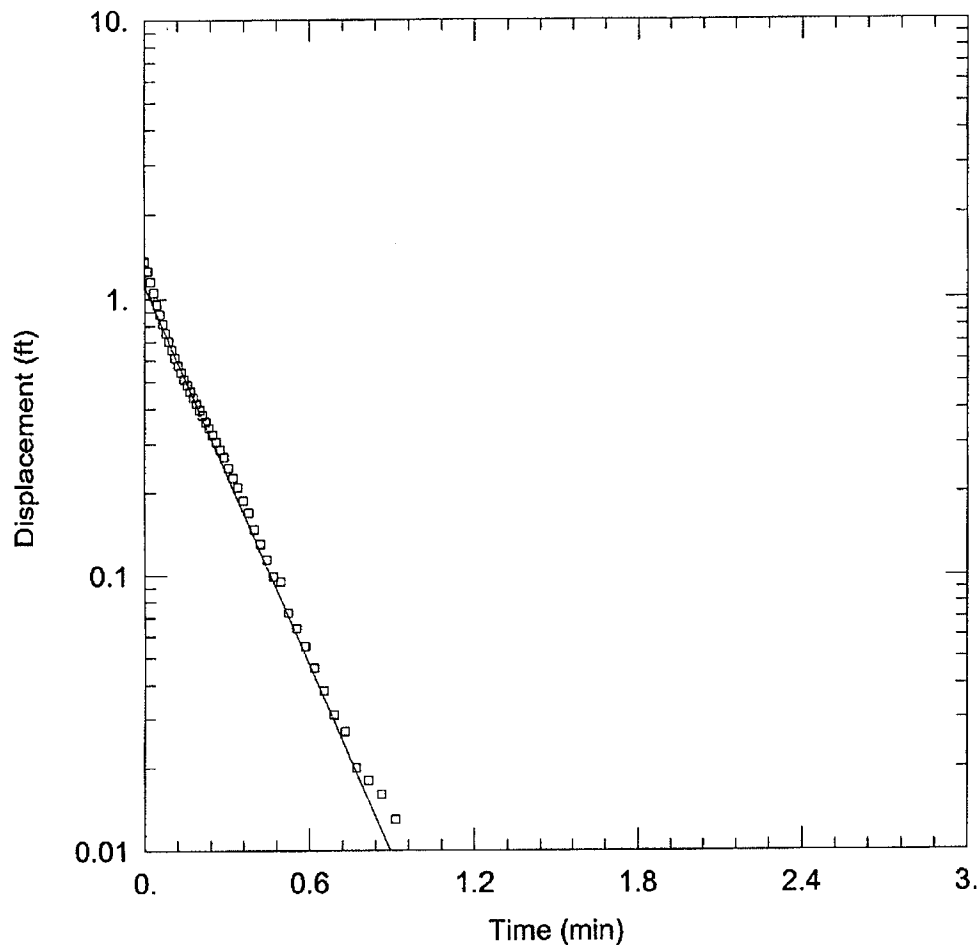
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.01238$ ft/min

$y_0 = 0.923$ ft



RISING HEAD TEST

Data Set: I:\Transfer\12607Memo-172D\12607M-172-AttA\12607-MISC-SLUG-IW1RH3.aqt

Date: 08/05/04

Time: 14:45:31

PROJECT INFORMATION

Company: CRA

Client: ENCORE

Project: 12607-227

Location: Livonia, Michigan

Test Date: 7/29/04

AQUIFER DATA

Saturated Thickness: 20. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (IW1S-04 RH3)

Initial Displacement: 1.356 ft

Static Water Column Height: 7.85 ft

Total Well Penetration Depth: 7.85 ft

Screen Length: 11. ft

Casing Radius: 0.1667 ft

Wellbore Radius: 0.333 ft

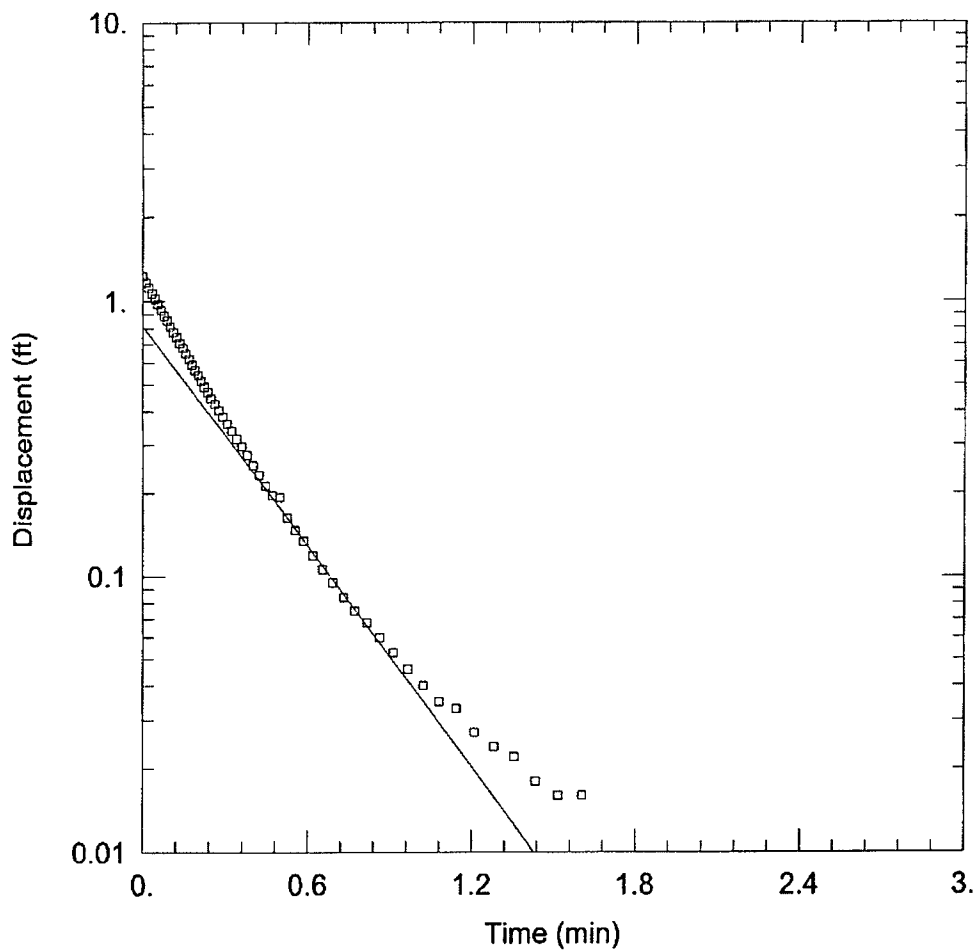
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.01416$ ft/min

$y_0 = 1.114$ ft



RISING HEAD TEST

Data Set: I:\Transfer\12607Memo-172D\12607M-172-AttA\12607-MISC-SLUG-IW2RH1.aqt

Date: 08/05/04

Time: 14:45:26

PROJECT INFORMATION

Company: CRA

Client: ENCORE

Project: 12607-227

Location: Livonia, Michigan

Test Date: 7/29/04

AQUIFER DATA

Saturated Thickness: 20 ft

Anisotropy Ratio (K_z/K_r): 1

WELL DATA (IW2S-04 RH1)

Initial Displacement: 1.227 ft

Static Water Column Height: 10.18 ft

Total Well Penetration Depth: 10.18 ft

Screen Length: 11 ft

Casing Radius: 0.1667 ft

Wellbore Radius: 0.333 ft

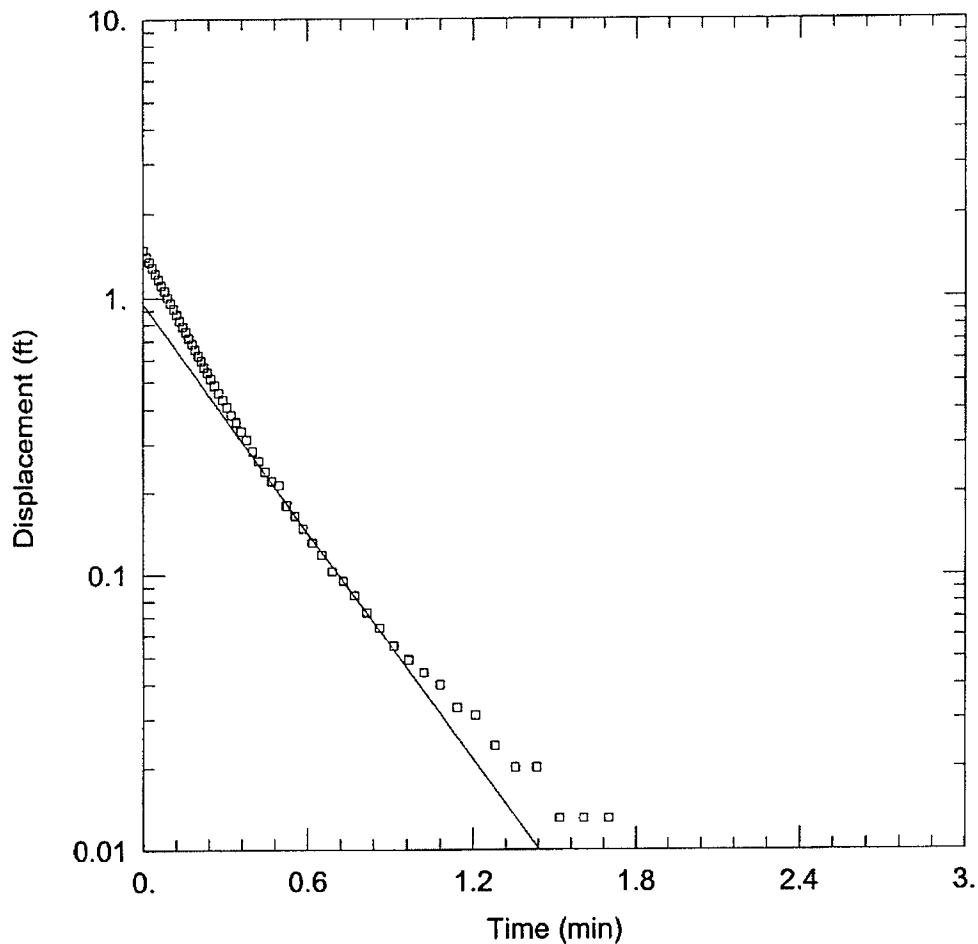
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.008826$ ft/min

$y_0 = 0.8174$ ft



RISING HEAD TEST

Data Set: I:\Transfer\12607Memo-172D\12607M-172-AttA\12607-MISC-SLUG-IW2RH2.aqt
 Date: 08/05/04 Time: 14:45:23

PROJECT INFORMATION

Company: CRA
 Client: ENCORE
 Project: 12607-227
 Location: Livonia, Michigan
 Test Date: 7/29/04

AQUIFER DATA

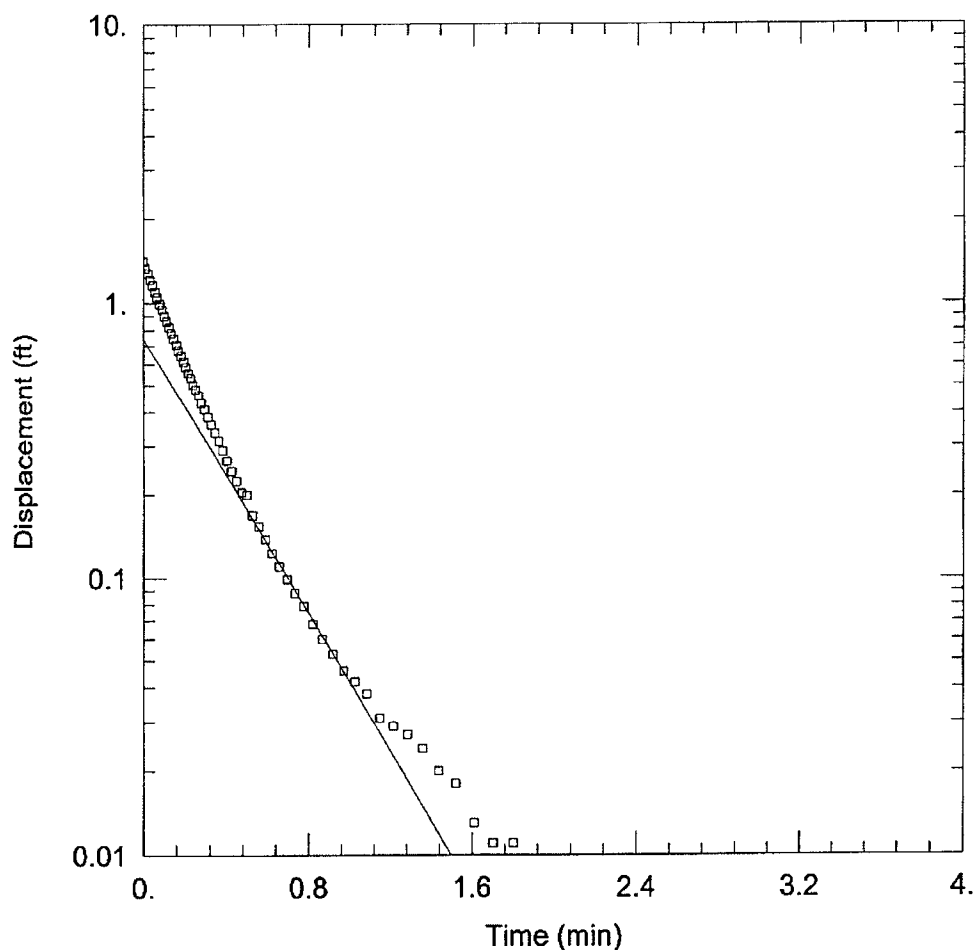
Saturated Thickness: 20. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (IW2S-04 RH2)

Initial Displacement: 1.477 ft Static Water Column Height: 10.18 ft
 Total Well Penetration Depth: 10.18 ft Screen Length: 11. ft
 Casing Radius: 0.1667 ft Wellbore Radius: 0.333 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
 K = 0.009056 ft/min y0 = 0.9549 ft



RISING HEAD TEST

Data Set: I:\Transfer\12607Memo-172D\12607M-172-AttA\12607-MISC-SLUG-IW2RH3.aqt

Date: 08/05/04

Time: 14:45:19

PROJECT INFORMATION

Company: CRA

Client: ENCORE

Project: 12607-227

Location: Livonia, Michigan

Test Date: 7/29/04

AQUIFER DATA

Saturated Thickness: 20 ft

Anisotropy Ratio (K_z/K_r): 1

WELL DATA (IW2S-04 RH3)

Initial Displacement: 1.4 ft

Static Water Column Height: 10.18 ft

Total Well Penetration Depth: 10.18 ft

Screen Length: 11 ft

Casing Radius: 0.1667 ft

Wellbore Radius: 0.333 ft

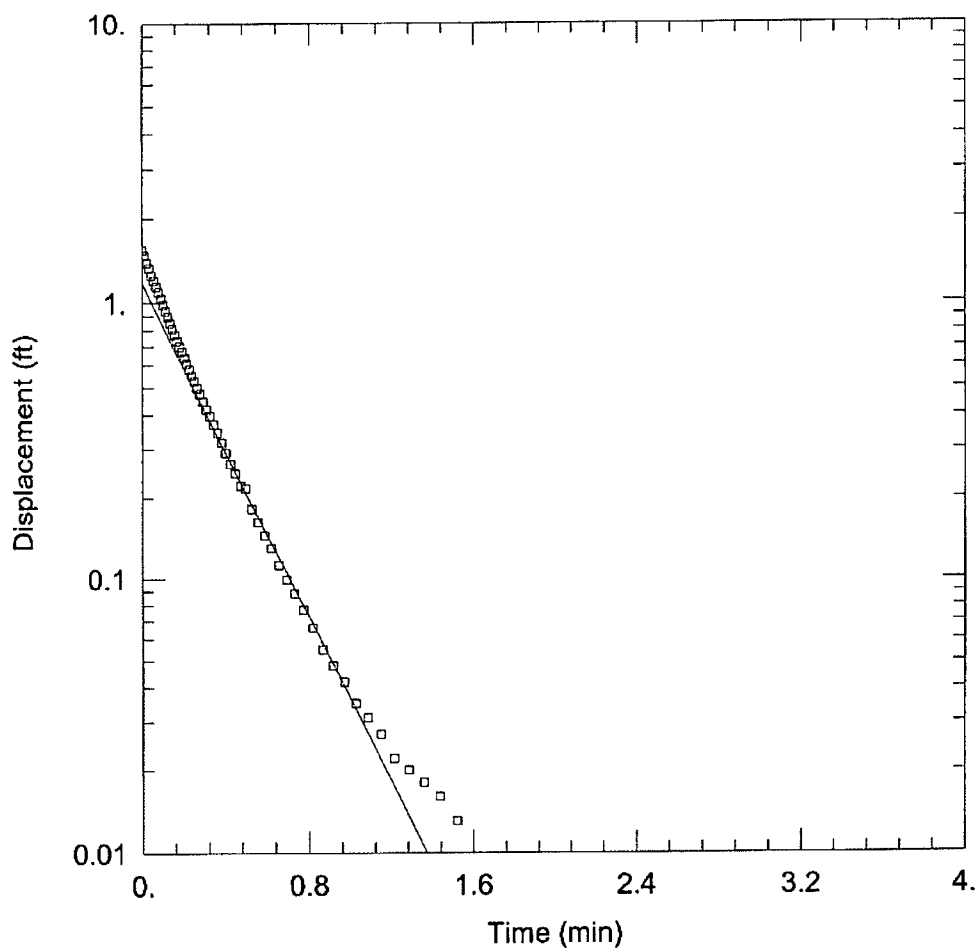
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.008248$ ft/min

$y_0 = 0.7443$ ft



WELL TEST ANALYSIS

Data Set: I:\Transfer\12607Memo-172D\12607M-172-AttA\12607-MISC-SLUG-IW3RH1.aqt
 Date: 08/05/04 Time: 14:45:16

PROJECT INFORMATION

Company: CRA

AQUIFER DATA

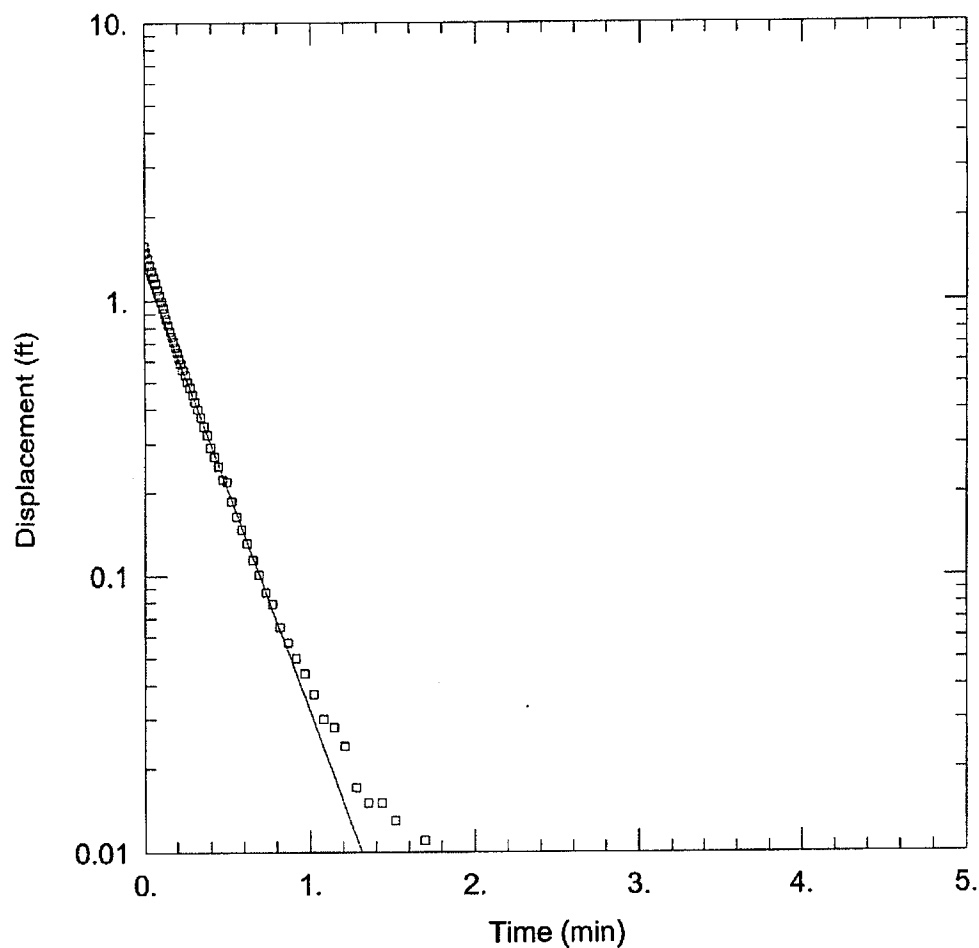
Saturated Thickness: 10. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (IW3S-04 RH1)

Initial Displacement: 1.544 ft Static Water Column Height: 7.77 ft
 Total Well Penetration Depth: 7.77 ft Screen Length: 10. ft
 Casing Radius: 0.15 ft Wellbore Radius: 0.33 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
 $K = 0.008599 \text{ ft/min}$ $y_0 = 1.173 \text{ ft}$



WELL TEST ANALYSIS

Data Set: I:\Transfer\12607Memo-172D\12607M-172-AttA\12607-MISC-SLUG-IW3RH2.aqt

Date: 08/05/04

Time: 14:45:12

PROJECT INFORMATION

Company: CRA

AQUIFER DATA

Saturated Thickness: 10. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (IW3S-04 RH2)

Initial Displacement: 1.472 ft

Static Water Column Height: 7.77 ft

Total Well Penetration Depth: 7.77 ft

Screen Length: 10. ft

Casing Radius: 0.15 ft

Wellbore Radius: 0.33 ft

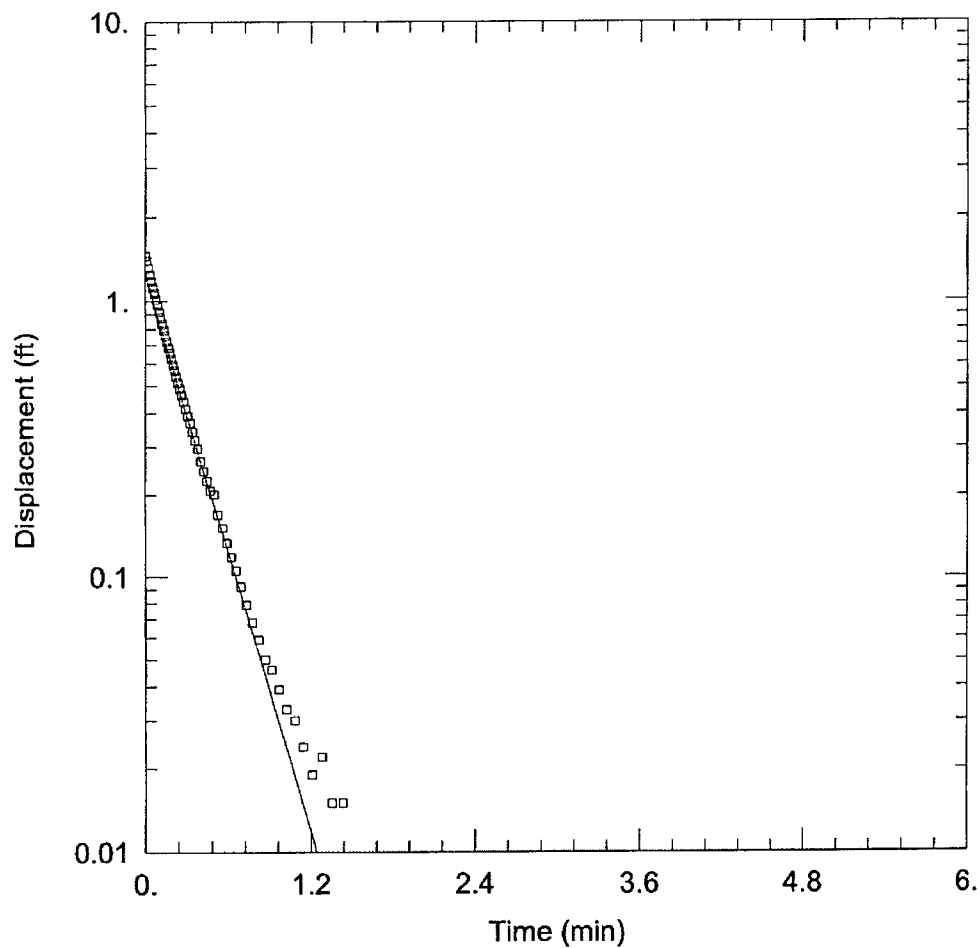
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.009184$ ft/min

$y_0 = 1.309$ ft



WELL TEST ANALYSIS

Data Set: I:\Transfer\12607Memo-172D\12607M-172-AttA\12607-MISC-SLUG-IW3RH3.aqt
 Date: 08/05/04 Time: 14:45:09

PROJECT INFORMATION

Company: CRA

AQUIFER DATA

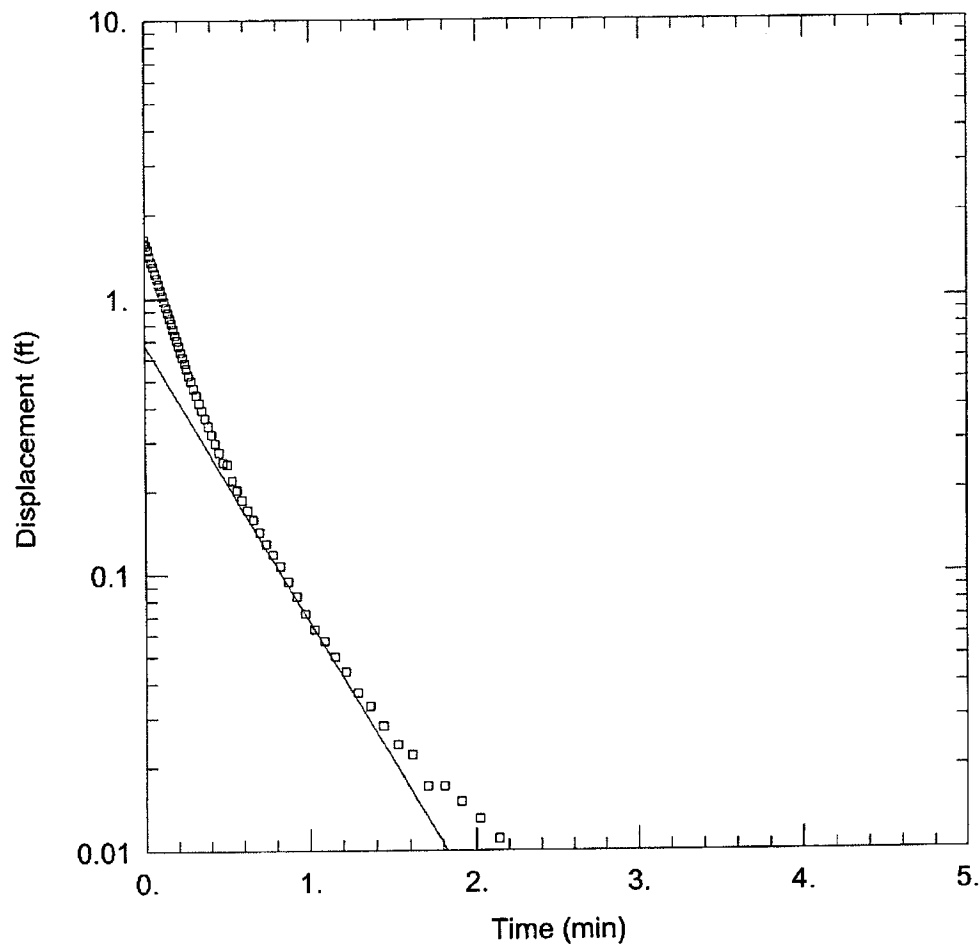
Saturated Thickness: 10. ft Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (IW3 RH3)

Initial Displacement: 1.452 ft Static Water Column Height: 7.77 ft
 Total Well Penetration Depth: 7.77 ft Screen Length: 10. ft
 Casing Radius: 0.15 ft Wellbore Radius: 0.33 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
 $K = 0.009599$ ft/min $y_0 = 1.243$ ft



RISING HEAD TEST

Data Set: I:\Transfer\12607Memo-172D\12607M-172-AttA\12607-MISC-SLUG-IW4RH1.aqt
 Date: 08/05/04 Time: 14:45:06

PROJECT INFORMATION

Company: CRA
 Client: ENCORE
 Project: 12607-227
 Location: Livonia, Michigan
 Test Date: 7/29/04

AQUIFER DATA

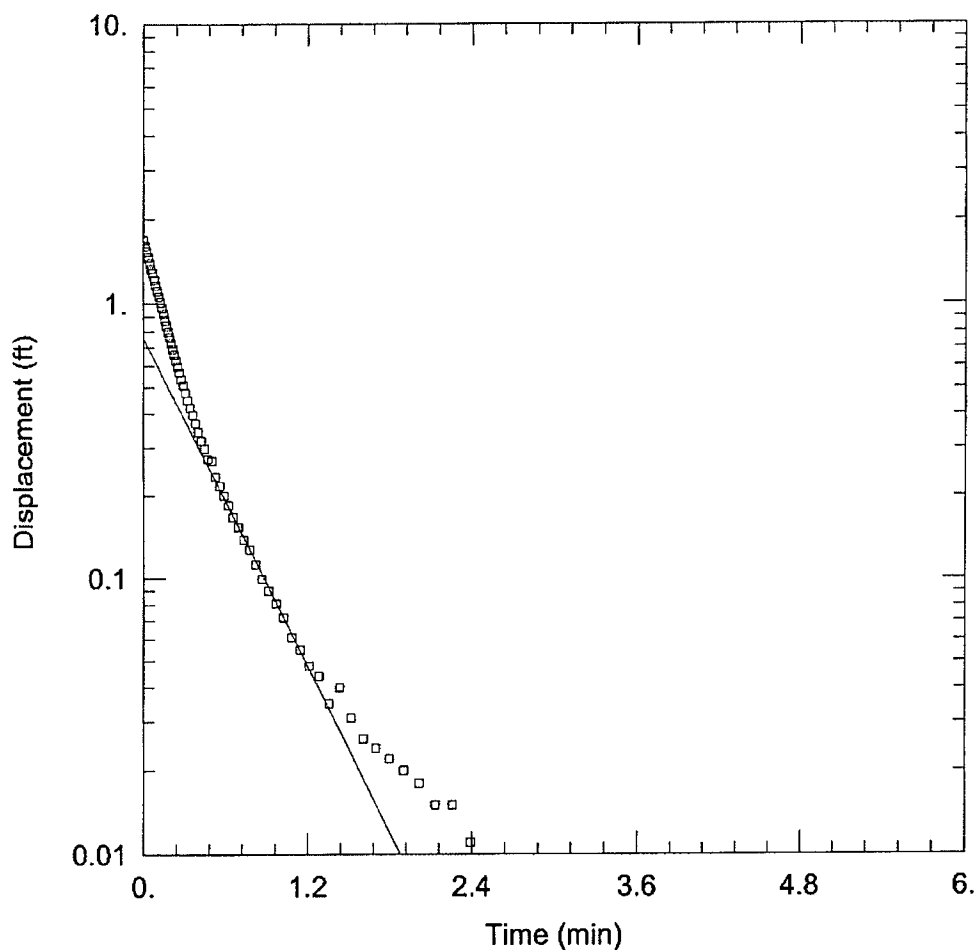
Saturated Thickness: 20 ft Anisotropy Ratio (K_z/K_r): 1

WELL DATA (IW4S-04 RH1)

Initial Displacement: 1.576 ft Static Water Column Height: 5.91 ft
 Total Well Penetration Depth: 5.91 ft Screen Length: 11 ft
 Casing Radius: 0.1667 ft Wellbore Radius: 0.333 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
 $K = 0.00576$ ft/min $y_0 = 0.6747$ ft



RISING HEAD TEST

Data Set: I:\Transfer\12607Memo-172D\12607M-172-AttA\12607-MISC-SLUG-IW4RH2.aqt

Date: 08/05/04

Time: 14:44:59

PROJECT INFORMATION

Company: CRA

Client: ENCORE

Project: 12607-227

Location: Livonia, Michigan

Test Date: 7/29/04

AQUIFER DATA

Saturated Thickness: 20. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (IW4S-04 RH2)

Initial Displacement: 1.684 ft

Static Water Column Height: 5.91 ft

Total Well Penetration Depth: 5.91 ft

Screen Length: 11. ft

Casing Radius: 0.1667 ft

Wellbore Radius: 0.333 ft

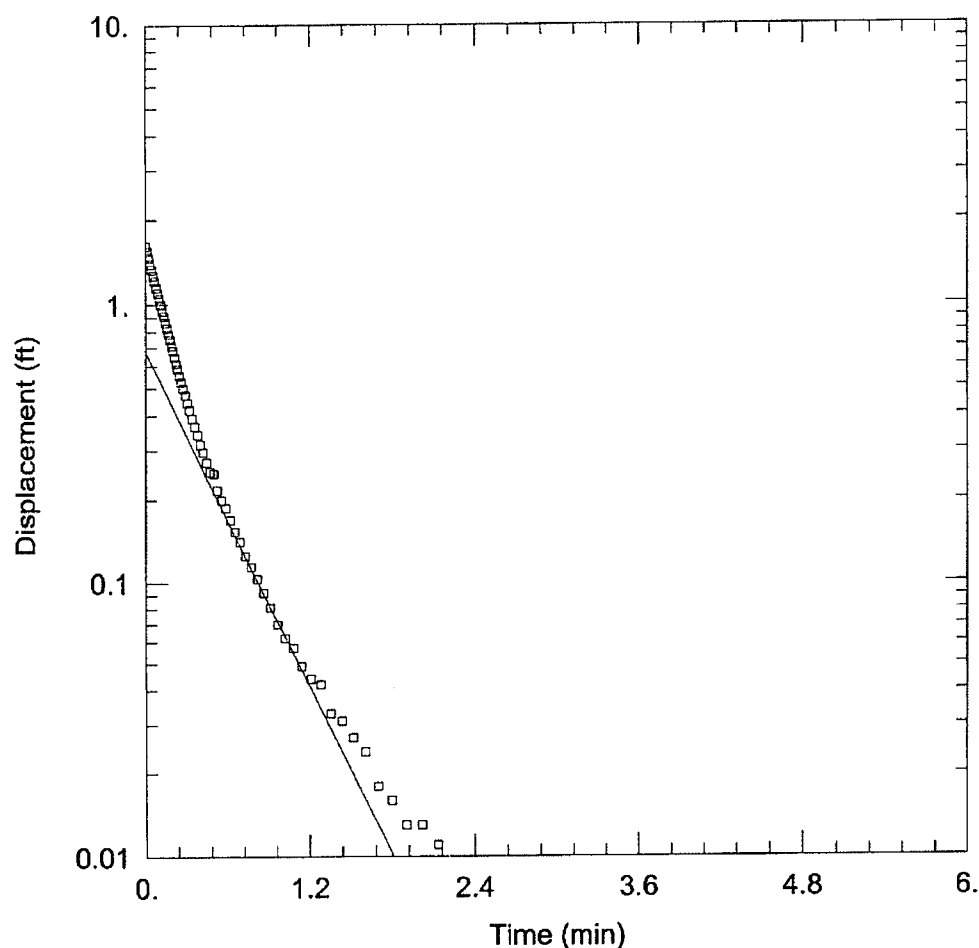
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.005747$ ft/min

$y_0 = 0.7555$ ft



RISING HEAD TEST

Data Set: I:\Transfer\12607Memo-172D\12607M-172-AttA\12607-MISC-SLUG-IW4RH3.aqt
 Date: 08/05/04 Time: 14:44:56

PROJECT INFORMATION

Company: CRA
 Client: ENCORE
 Project: 12607-227
 Location: Livonia, Michigan
 Test Date: 7/29/04

AQUIFER DATA

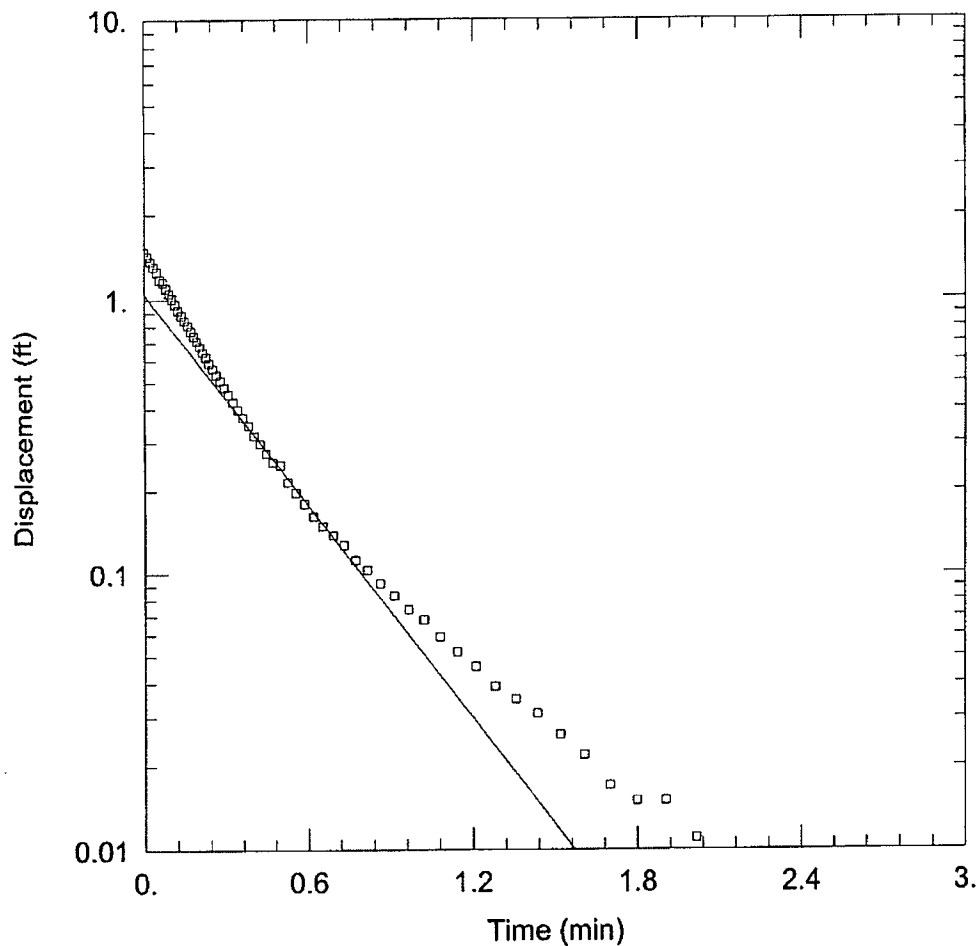
Saturated Thickness: 20 ft Anisotropy Ratio (K_z/K_r): 1

WELL DATA (IW4S-04 RH3)

Initial Displacement: 1.609 ft Static Water Column Height: 5.91 ft
 Total Well Penetration Depth: 5.91 ft Screen Length: 11 ft
 Casing Radius: 0.1667 ft Wellbore Radius: 0.333 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
 $K = 0.005811$ ft/min $y_0 = 0.6774$ ft



RISING HEAD TEST

Data Set: I:\Transfer\12607Memo-172D\12607M-172-AttA\12607-MISC-SLUG-IW5RH1.aqt
 Date: 08/05/04 Time: 14:44:54

PROJECT INFORMATION

Company: CRA
 Client: ENCORE
 Project: 12607-227
 Location: Livonia, Michigan
 Test Date: 7/29/04

AQUIFER DATA

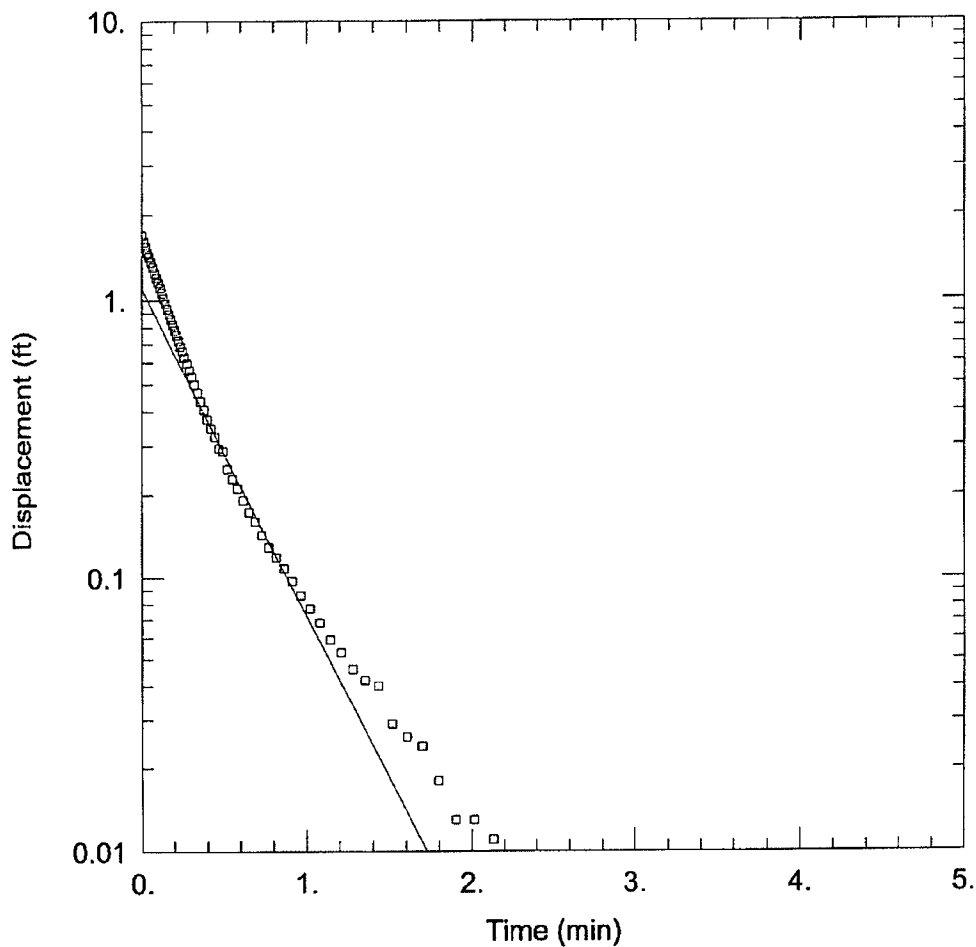
Saturated Thickness: 20. ft Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (IW5S-04 RH1)

Initial Displacement: 1.482 ft Static Water Column Height: 5.74 ft
 Total Well Penetration Depth: 5.74 ft Screen Length: 11. ft
 Casing Radius: 0.1667 ft Wellbore Radius: 0.333 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
 $K = 0.00733$ ft/min $y_0 = 1.047$ ft



RISING HEAD TEST

Data Set: I:\Transfer\12607Memo-172D\12607M-172-AltA\12607-MISC-SLUG-IW5RH2.aqt

Date: 08/05/04

Time: 14:44:51

PROJECT INFORMATION

Company: CRA

Client: ENCORE

Project: 12607-227

Location: Livonia, Michigan

Test Date: 7/29/04

AQUIFER DATA

Saturated Thickness: 20. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (IW5S-04 RH2)

Initial Displacement: 1.693 ft

Static Water Column Height: 5.74 ft

Total Well Penetration Depth: 5.74 ft

Screen Length: 11. ft

Casing Radius: 0.1667 ft

Wellbore Radius: 0.333 ft

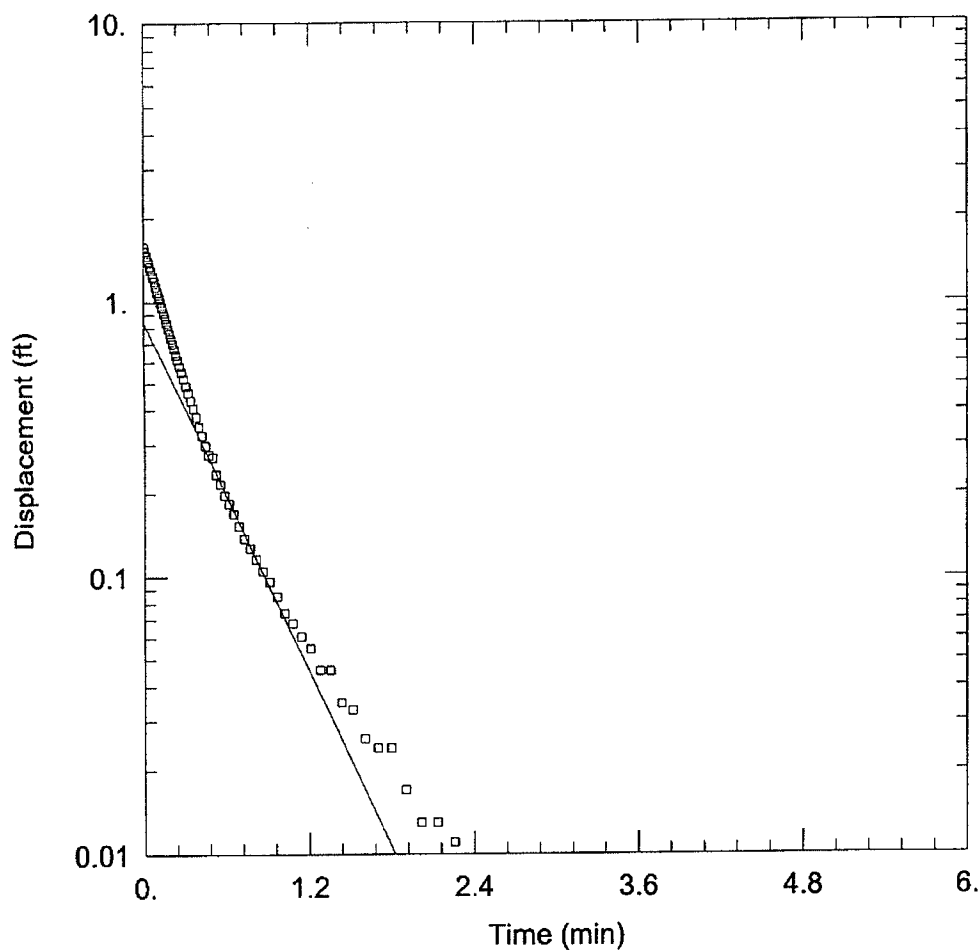
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.006739$ ft/min

$y_0 = 1.101$ ft



RISING HEAD TEST

Data Set: I:\Transfer\12607Memo-172D\12607M-172-AttA\12607-MISC-SLUG-IW5RH3.aqt
 Date: 08/05/04 Time: 14:44:47

PROJECT INFORMATION

Company: CRA
 Client: ENCORE
 Project: 12607-227
 Location: Livonia, Michigan
 Test Date: 7/29/04

AQUIFER DATA

Saturated Thickness: 20. ft Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (IW5S-04 RH3)

Initial Displacement: 1.576 ft Static Water Column Height: 5.74 ft
 Total Well Penetration Depth: 5.74 ft Screen Length: 11. ft
 Casing Radius: 0.1667 ft Wellbore Radius: 0.333 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
 $K = 0.006007$ ft/min $y_0 = 0.8406$ ft