

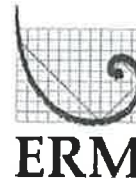
**APPENDIX C**  
**ERM REPORT OF PHASE II INVESTIGATION**  
**MAY 25, 2010**

Environmental  
Resources  
Management

3352 128<sup>th</sup> Avenue  
Holland, MI 49424-9263  
(616) 399-3500  
(616) 399-3777 (fax)  
<http://www.erm.com>

25 May 2010  
Reference: 0109712

Mr. Gary Rovner  
Foley & Lardner, LLP  
321 N. Clark Street, Suite 2800  
Chicago, Illinois 60654



Re: Report of Phase II Environmental Investigation  
Klein Tools, Inc., 121 Water Street, Jonesville, Michigan

Dear Gary:

Environmental Resources Management, Inc. (ERM) is pleased to present this report of a Phase II investigation performed at the property referenced above ("site") which consists of a vacant former hand tool manufacturing plant approximately 68,500 square feet in size. The site is located in a commercial downtown area of Jonesville, Michigan in Hillsdale County (see Figure 1 in **Attachment A**). The investigation scope was designed to evaluate volatile organic compound (VOC) concentrations previously detected in the soil and groundwater by NTH Consultants, Ltd. (NTH) in November 2008. The focus area for the ERM investigation was along the west side of the building to determine the possible risks to the St. Joseph River from the previously detected VOCs. The scope of work was consistent with ERM's proposal dated 11 March 2010. Background information and investigation results are discussed below.

### ***BACKGROUND AND OBJECTIVES***

Two Phase I Environmental Site Assessments (ESAs) were previously conducted at the site. The first one was conducted by STS Consultants of Lansing, Michigan for Mr. Russell Winnie of Klein Tools, Inc. and documented in a Phase I ESA report dated 5 January 2007. The second ESA was conducted by NTH Consultants, Ltd. of Lansing, Michigan for Red Ridge, LLC of Jonesville, Michigan, as documented in a Phase I ESA report dated 14 November 2008. The ESAs revealed several Recognized Environmental Conditions (RECs) associated with the property.

Klein Tools is evaluating selling the building and property. RECs determined to pose the most potential risk to future owners/occupants were associated with former VOC use and management practices, specifically, the former use of trichloroethylene (TCE) in a vapor-polishing operation..

On 12 November 2008, NTH completed a Phase II investigation of the site. A groundwater sample from boring B-4, which was advanced in the area of the alleged TCE releases (see Figure 1 - **Attachment A**), contained a concentration of TCE of 7.7 µg/L, which was above Michigan Part 201 residential drinking water criteria of 5.0 µg/L. The soil boring log for B-4 indicated photoionization detector (PID) readings of 60 ppm and 600 ppm at depths of 14 and 15 feet below grade, respectively. A soil sample from boring nearby B-5 (0-2 feet below grade) contained a concentration of TCE of 2,000 µg/kg, which was above the Part 201 drinking water protection criterion of 100 µg/kg. The scope of work implemented by ERM in March 2010 was intended to address the low-level concentration of VOCs detected by NTH in the groundwater along the west side of the building, as well as near-surface soil.

#### **INVESTIGATION METHODOLOGY**

On 23 March 2010, five (5) soil borings were conducted along the west side of the building (see Figure 2 - **Attachment A**). Temporary monitoring wells were placed in each boring, with the exception of the boring located near B-4, which had an additional monitoring well placed at a deeper depth. Borings were advanced to a depth of 4 feet below ground surface (bgs) utilizing a stainless steel hand auger to clear the borings of underground utilities. A Geoprobe® drill rig was then used to advance the bore hole to groundwater, which was present at approximately 5 to 11 feet bgs. Soil samples from the borings were screened for potential VOCs utilizing a 10.6 eV photoionization detector (PID) calibrated to a 100 ppm isobutylene span gas at a response factor of 1.0.

The investigation followed ERM's health and safety protocol, including subsurface clearance procedures. Area utilities are depicted on Figures 2 and 3 (**Attachment A**), including several storm drain outfalls to the St. Joseph River.

Boring logs with soil descriptions and PID screening results are included in **Attachment B**. Well construction summaries are also included in

**Attachment B.** The temporary monitoring wells were constructed of 1-inch diameter PVC materials with 5-foot screens extending into the upper 3–4 feet of the aquifer, with the exception of MW-1D which was installed deeper as described below. Native sand was allowed to collapse around the well screens and bentonite chips were placed above the screen to the ground surface. Wells were developed by purging until the evacuated water was free of suspended solids. Following sampling, caps were placed on the wells. The wells remain on site (i.e., they were not pulled following sampling).

The wells were located as described below and shown on Figures 2 and 3:

- MW-1S was located near boring B-4 of the NTH Phase II investigation with its well screen set to bisect the water table (encountered at a depth of approximately 4.5 feet bgs);
- MW-1D was located near boring B-4 of the NTH Phase II investigation with its well screen set between 10 to 15 feet bgs (set at the same depth as NTH's B-4 temporary well);
- MW-2 was located southwest of boring B-4 near the fence, and represents the southern side gradient groundwater quality;
- MW-3 was the northernmost well, located northwest of boring B-5 near the fence;
- MW-4 was located northwest of boring B-4 and west of B-5 near the fence; and
- MW-5 was located west and downgradient of boring B-4 near the fence.

## **GEOLOGY**

Soils encountered at the site consisted of approximately 8 feet of fill material consisting of sands with coal, concrete, glass, and bricks. Beneath this fill, sample recovery was typically unsuccessful based on the presence of hard material believed to be coarse gravel and/or concrete. However, sample recovery was successful beneath this layer at MW-1S/1D where wet coarse gravel was encountered, representing the shallow aquifer. At MW-2, soil consisting of silty sand and gravel were recovered from

7-10.8 fbg with peat noted from 10.8-12 fbg. The peat is likely indicative of the natural grade prior to site development and filling.

Groundwater was encountered at depths ranging from 4.5 feet bgs at SB/MW-1 to 11.0 feet bgs at SB/MW-4. The depths of the groundwater encountered in each boring are recorded on the boring logs in **Attachment B**.

### ***STATIC WATER LEVEL MONITORING AND GROUNDWATER FLOW DIRECTION***

Top-of-casing elevations were surveyed to relative datum on all wells to allow calculation of static water elevations. Piezometric surface contours based on measurements from 24 March 2010 are illustrated in Figure 3. The contours indicate a westerly-northwesterly groundwater flow direction toward the St. Joseph River.

Static water level measurements from MW-1S and MW-1D (93.71 and 96.46 feet, respectively) show a strong upward vertical hydraulic gradient, as the water elevations differed by 2.75 feet. This gradient indicates groundwater is rising to discharge to the St. Joseph River.

### ***REGULATORY BACKGROUND***

The Michigan Part 201 voluntary cleanup program is a risk-based program with generic cleanup criteria based on land use (residential, commercial, and industrial). Part 201 generic cleanup criteria exist for many exposure pathways, including the following:

#### *Soil Exposure Pathways:*

- Drinking water protection (i.e., leaching)
- Direct contact
- Volatilization to indoor and ambient air
- Particulate inhalation
- Groundwater to surface water protection (GSIP)

#### *Groundwater Exposure Pathways:*

- Drinking water
- Groundwater contact

- Volatilization to indoor and ambient air
- Groundwater to surface water (GSI)

For media located near a surface water body or storm sewer, the groundwater to surface water (GSI) pathway must also be addressed. The above criteria were used to assess the risks posed by contaminants detected in site soil and groundwater.

### **SOIL SAMPLING**

PID screening of soil samples for VOCs indicated low concentrations with the exception of MW-1S/1D where a non-specific odor was noted and a reading of 15 ppm was noted. Therefore, a soil sample from SB/MW-1 (located near B-4) was collected from a depth of approximately 1-foot bgs for laboratory analysis. The soil sample was collected/preserved per EPA 5035 (methanol preservation) and analyzed for VOCs consistent with Michigan DNRE Remediation and Redevelopment Division's 10/22/04 Operational Memorandum 2 *Sampling and Analysis Guidance*, and related attachments. Samples were placed on ice and transported to ALS Laboratory for analysis under proper chain of custody.

No soil staining, petroleum odors, or significantly elevated PID readings were noted in any other soil boring samples. PID readings from the boring are documented on the boring logs in **Attachment B**.

The results of the soil sample are summarized in Table 1 (see **Attachment C**; laboratory report included in **Attachment D**). Concentrations of target compounds detected are summarized below.

- Concentrations of 1,2,4-trimethylbenzene (150 µg/kg), 1,3,5-trimethylbenzene (66 µg/kg), cis-1,2-dichloroethene (290 µg/kg), ethylbenzene (170 µg/kg), and toluene (1,000 µg/kg) were detected in the soil sample from SB/MW-1 below Part 201 cleanup criterion.
- Trichloroethylene (6,300 µg/kg) and xylenes (860 µg/kg) were detected at concentrations above Part 201 drinking water and/or GSIP cleanup criteria (100 and 580 µg/kg, respectively).

## **GROUNDWATER SAMPLING**

Groundwater samples were collected from MW-1S, MW-1D, MW-2, MW-3, MW-4, and MW-5 on 24 March 2010. Groundwater samples were analyzed for VOCs, with sample collection, handling, and analysis performed in accordance with Michigan DNRE Remediation and Redevelopment Division's 10/22/04 Operational Memorandum 2 *Sampling and Analysis Guidance*, and related attachments, including low-flow techniques for groundwater samples. No petroleum sheen or odors were noted in the purge water from the sampled wells. The purge water from the wells was contained in a 55-gallon drum for later characterization and proper disposal. The drum was stored inside the building near the western loading dock.

Groundwater sampling results are summarized in Table 2 of **Attachment C** and the laboratory report is included in **Attachment D**. Concentrations of target compounds detected in the groundwater samples are summarized below.

- **Cis-1,2-dichloroethene:** MW-1S (12 µg/L), MW-1D (4.2 µg/L), MW-2 (4.4 µg/L), and MW-5 (1.8 µg/L) detected below Part 201 cleanup criteria.
- **Toluene:** MW-8 (7.1 µg/L) detected below Part 201 cleanup criteria.
- **Trichloroethylene:** MW-2 (1.9 µg/L) detected below Part 201 cleanup criteria; MW-1S (9.3 µg/L), MW-1D, (20 µg/L), MW-3 (9.5 µg/L), and MW-5 (6.5 µg/L) detected above Part 201 residential drinking water criteria of 5.0 µg/L and below Part 201 GSI criteria of 200 µg/L.
- **Vinyl chloride:** MW-2 (3.1 µg/L) detected above Part 201 residential drinking water criteria of 2.0 µg/L but below Part 201 GSI criteria of 15 µg/L.

## **CONCLUSIONS**

The primary objective of the proposed scope of work was to address the low-level concentration of VOCs detected by NTH in the groundwater along the west side of the building, as well as near-surface soil. The


following conclusions were made based on the ERM and previous NTH findings related to VOC impact west of the building:

1. Trichloroethylene is present in near surface soil at MW-1S/1D at concentrations indicative of a previous release. Other, petroleum-related VOCs were detected in this sample as well. The contamination is present beneath the asphalt pavement and concentrations do not exceed direct contact or volatilization/inhalation criteria. Concentrations do, however, exceed those protective of groundwater and surface water (i.e., through leaching to the aquifer). Significant leaching does not appear to be occurring based on the asphalt surface and based on the groundwater data.
2. Trichloroethylene was detected in groundwater, at all locations except MW-4, at concentrations exceeding drinking water criteria. Vinyl chloride, a degradation product of trichloroethylene, was detected in MW-2 at a concentration exceeding drinking water criteria. The highest concentration detected was in MW-1D suggesting the TCE is at greater concentrations with depth, which is common due to its specific gravity.
3. Groundwater flow direction is toward the St. Joseph River with a strong upward vertical gradient noted, indicating the upper portion of the aquifer is discharging to the river. Based on the groundwater data collected to date, contaminants do not appear to pose an unacceptable risk to the St. Joseph River, based on a comparison to the GSI criteria. Furthermore, since groundwater is not used as a drinking water source on site, this exposure pathway is not completed.
4. Contaminants were found at concentrations exceeding Part 201 cleanup criteria; therefore, the property is considered a "facility" under Part 201. Owners/operators of "facilities" have certain environmental "due care" obligations with respect to the known contamination. These include assuring site occupants are protected from unacceptable contaminant exposures, preventing exacerbation of the existing contamination, and preventing detrimental third party activities. ERM has prepared a document that meets the Due Care documentation requirements of the Part 10 Administrative Rules for the contaminants identified at the site, and based on current operations. A summary of these due care obligations is provided in **Attachment E**.



If you should have any questions, please contact Dan Rusiecki at (616) 738-7322 or Tom O'Connell at (616) 738-7340.

Sincerely,



Daniel R. Rusiecki  
*Project Engineer*



Thomas P. O'Connell, P.E.  
*Partner-in-Charge*

DRR:lc/TPO

Attachments (5)

cc: Russell Winnie - Klein Tools  
File

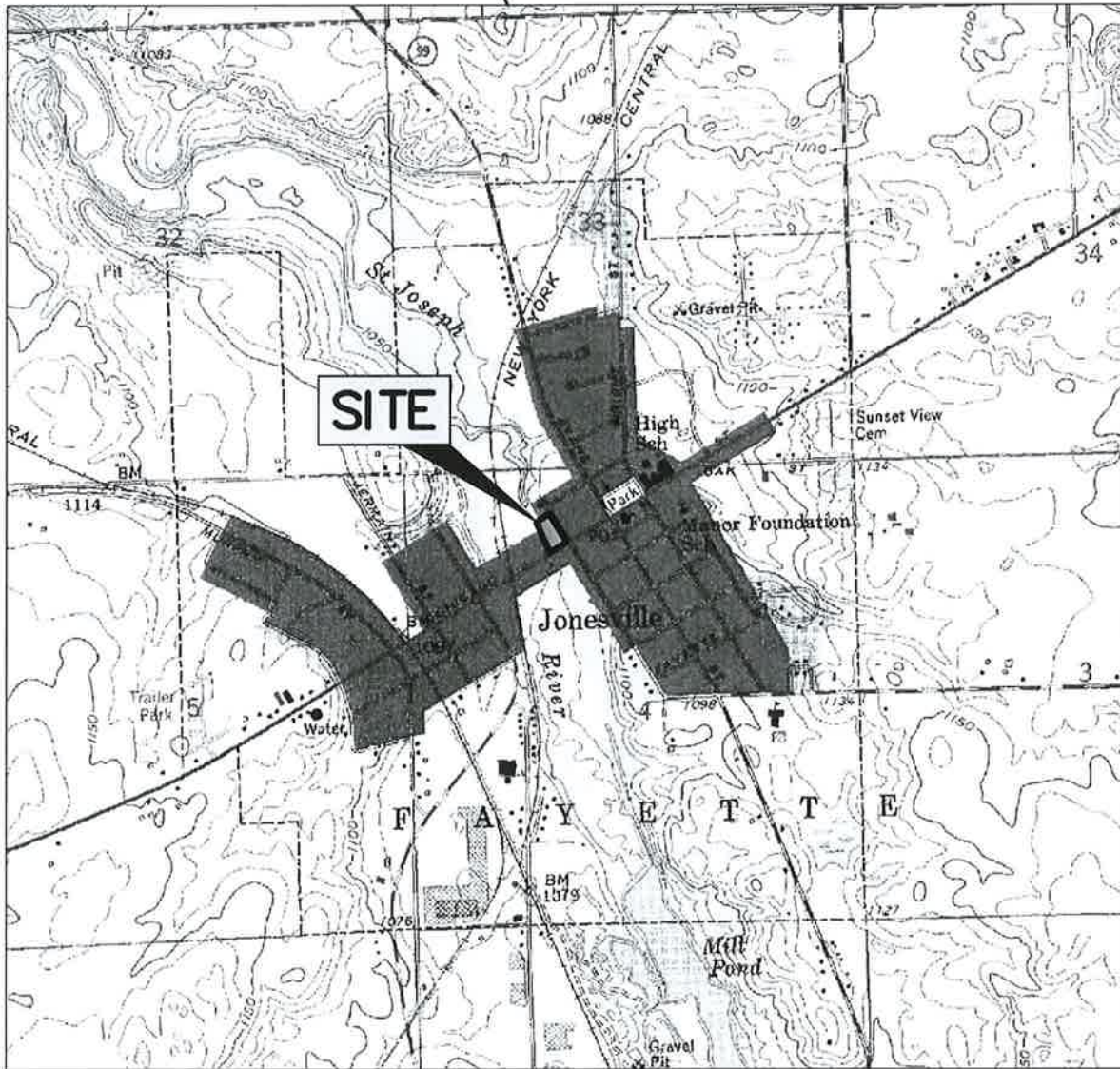
*Attachment A*  
*Figures*



T.6S. - R.3W.  
SECTION 4  
FAYETTE TOWNSHIP  
CITY OF JONESVILLE  
HILLSDALE COUNTY  
MICHIGAN



0 2000  
SCALE (IN FEET)



## SITE LOCATION MAP

ADAPTED FROM USGS  
HILLSDALE/1992

REVISIONS ARE TO BE MADE ON THE CADD FILE ONLY



**FOLEY AND LARDNER**

121 WATER STREET  
JONESVILLE, MICHIGAN

CADD Review RMK

CHK'D DRR

0109712

Drawn By  
FAK 4/5/10

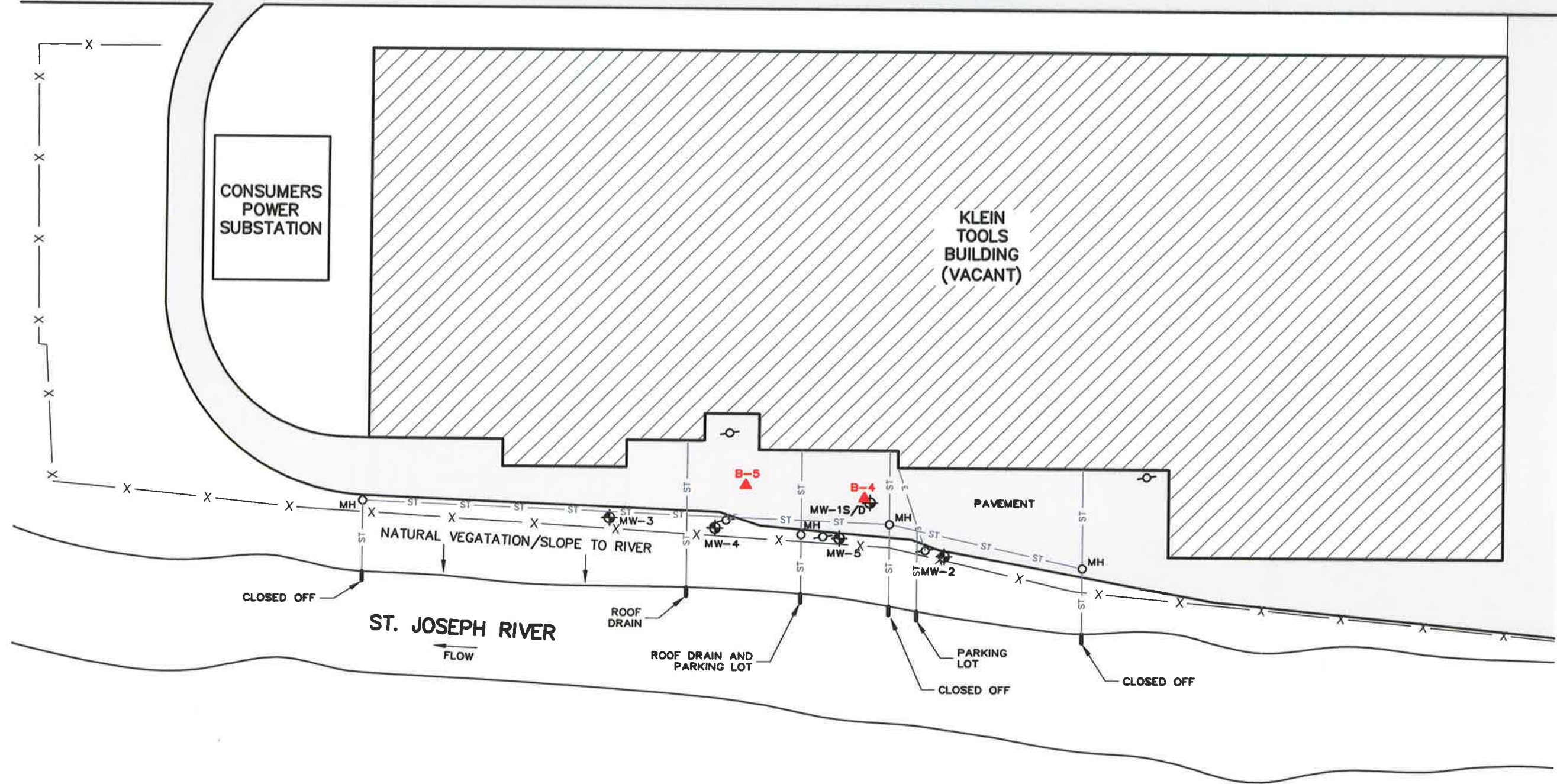
**Environmental Resources Management**

FIGURE 1

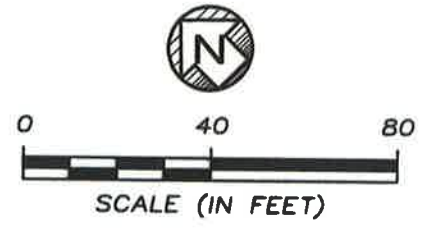
# SOIL BORING/MONITORING WELL LOCATION MAP

WATER STREET

WEST CHICAGO STREET (U.S.-112)



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### LEGEND

- MONITORING WELL
- NTH SOIL BORING
- POWER POLE
- STORM WATER MANHOLE
- ST ST STORM SEWER
- E E UNDERGROUND ELECTRIC LINE
- X FENCE

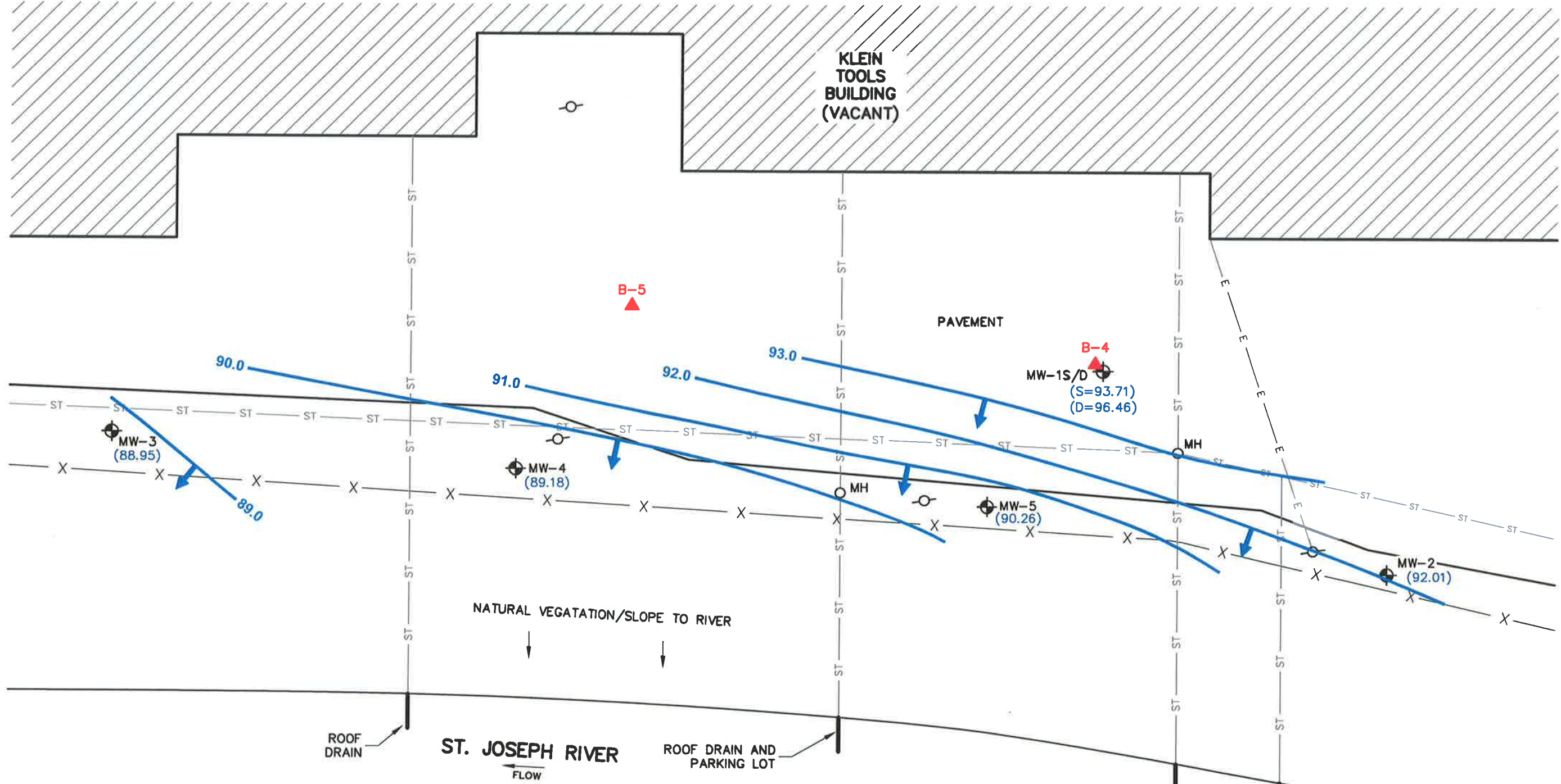
Drawn By  
FAK  
CADD Review  
RMK  
Date Drawn/Rev'd  
4/6/10-4/13/10



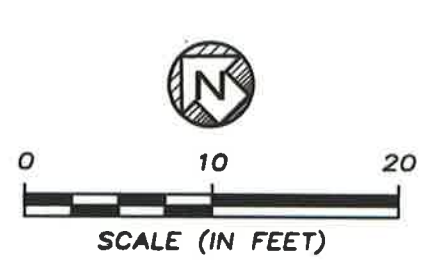
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121 WATER STREET  
JONESVILLE, MICHIGAN  
**Environmental Resources Management**

CHK'D	DRR
	0109712
	FIGURE 2

# GROUNDWATER CONTOUR MAP



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- LEGEND**
- MONITORING WELL
  - NTH SOIL BORING
  - POWER POLE
  - STORM WATER MANHOLE
  - GROUNDWATER CONTOUR
  - GROUNDWATER FLOW DIRECTION
  - GROUNDWATER ELEVATION

Drawn By  
FAK  
CADD Review  
RMK  
Date Drawn/Rev'd  
4/6/10

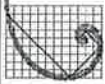


**FOLEY AND LARDNER**  
121 WATER STREET  
JONESVILLE, MICHIGAN

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CHK'D	DRR
	0109712
	FIGURE 3

*Attachment B*  
*Boring Logs*



**Environmental Resources Management**  
 3352 128th Avenue  
 Holland, MI 49424  
 616-399-3500  
 616-399-3777 (fax)

**ERM**

# BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 0109712 BORING/WELL NUMBER SB/MW-1D  
 PROJECT NAME Foley & Lardner START DATE 3/23/2010 9:55:00 AM  
 LOCATION 121 Water Street, Jonesville, MI FINISH DATE 3/23/2010 10:47:00 AM  
 DRILLING METHOD Hand Auger/Geoprobe CONTRACTOR Terra Probe  
 SAMPLING METHOD Grab/Push CREW CHIEF Aaron Wington  
 GROUND ELEVATION (ft) \_\_\_\_\_ WEATHER Cloudy, 40°F  
 TOP OF CASING ELEVATION (ft) \_\_\_\_\_ BACKFILL MATERIAL Well (2) - Flushmount  
 LOGGED BY DRR DEPTH TO WATER DURING DRILLING (ft) 4.5

REMARKS 0-4' Hand Auger

PID (ppm)	SAMPLE ANALYZED	RECOVERY (feet)	SAMPLE ID.	EXTENT	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
15.0					1			0-3" ASPHALT	0.3	
3.8		4			2			3"-1.5' FILL consisting of black coke/coal with fine SAND and gravel, non-specific solvent odor.	1.5	
2.6					2			1.5-2' Brown, fine, silty SAND with trace gravel.	2.0	
1.2					3			2-5' FILL - coke, coal, slag with bricks and brown SAND.		
					4					
					5			5-5.5' Light gray FILL - wood, ash, coke/coal with silty SAND.	5.0	
0.4		1.2			6			Wet at 5.5' via static tape in hole. 5.5-13' No recovery	5.5	
					7					
					8					
					9					
		0			10					
					11					
					12					
0.3					13			13-16' Black-dark brown, coarse GRAVEL, wet.	13.0	
					14					
					15					
					16			End of boring at 16'	16.0	

GEOPROBE LOG/ LAB 0109712-FOLEY & LARDNER 3.23.10.GPJ ERM\_ML.GDT 4/13/10



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# BORING/WELL CONSTRUCTION LOG

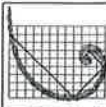
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**PROJECT NAME** Foley & Lardner **START DATE** 3/23/2010 9:55:00 AM  
**LOCATION** 121 Water Street, Jonesville, MI **FINISH DATE** 3/23/2010 10:47:00 AM  
**DRILLING METHOD** Hand Auger/Geoprobe **CONTRACTOR** Terra Probe  
**SAMPLING METHOD** Grab/Push **CREW CHIEF** Aaron Wington  
**GROUND ELEVATION (ft)** \_\_\_\_\_ **WEATHER** Cloudy, 40°F  
**TOP OF CASING ELEVATION (ft)** \_\_\_\_\_ **BACKFILL MATERIAL** Well (2) - Flushmount  
**LOGGED BY** DRR **DEPTH TO WATER DURING DRILLING (ft)** 4.5

**REMARKS** 0-4' Hand Auger

PID (ppm)	SAMPLE ANALYZED	RECOVERY (feet)	SAMPLE ID.	EXTENT	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
15.0					1			0-3" ASPHALT	0.3	
3.8		4			2			3"-1.5' FILL consisting of black coke/coal with fine SAND and gravel, non-specific solvent odor.	1.5	
2.6					3			1.5-2' Brown, fine, silty SAND with trace gravel.	2.0	
1.2					4			2-5' FILL - coke, coal, slag with bricks and brown SAND.		
					5			5-5.5' Light gray FILL - wood, ash, coke/coal with silty SAND.	5.0	
0.4		1.2			6			Wet at 5.5' via static tape in hole. 5.5-13' No recovery	5.5	
					7					
					8					
					9					
		0			10					
					11					
					12					
					13			13-16' Black-dark brown, coarse GRAVEL, wet.	13.0	
0.3					14					
					15					
					16			End of boring at 16'	16.0	

GEOPROBE LOG/ LAB: 0109712-FOLEY & LARDNER 3.23.10.GPJ ERM\_MI.GDT 4/13/10





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**ERM**

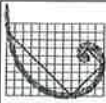
# BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 0109712 BORING/WELL NUMBER SB/MW-2  
 PROJECT NAME Foley & Lardner START DATE 3/23/2010 10:55:00 AM  
 LOCATION 121 Water Street, Jonesville, MI FINISH DATE 3/23/2010 12:13:00 PM  
 DRILLING METHOD Hand Auger/Geoprobe CONTRACTOR Terra Probe  
 SAMPLING METHOD Grab/Push CREW CHIEF Aaron Wington  
 GROUND ELEVATION (ft) \_\_\_\_\_ WEATHER Cloudy, 40°F  
 TOP OF CASING ELEVATION (ft) \_\_\_\_\_ BACKFILL MATERIAL Well - Stick-up  
 LOGGED BY DRR DEPTH TO WATER DURING DRILLING (ft) 8.0

REMARKS 0-4' Hand Auger

PID (ppm)	SAMPLE ANALYZED	RECOVERY (feet)	SAMPLE ID.	EXTENT	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
					1			0-6' Brown, fine SAND with silts and trace gravel and coal.		
0.7		4			2					
0.5					3					
					4					
					5					
0		0.8			6			6-7' FILL - orange brick/concrete with dark brown, fine, silty SAND.	6.0	
					7			7-8' Dark brown, silty SAND with trace natural organic material and gravel.	7.0	
					8			8-10.8' Dark brown, silty SAND with trace natural organic material and gravel, wet.	8.0	
					9					
0.1		3.2			10					
					11			10.8-12' Black, silty PEAT.	10.8	
					12			End of boring at 12'	12.0	

GEOPROBE LOG/ LAB 0109712-FOLEY & LARDNER 3.23.10.GPJ ERM\_MI.GDT 4/6/10



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 Holland, MI 49424  
 616-399-3500  
 616-399-3777 (fax)

**ERM**

# BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 0109712 BORING/WELL NUMBER SB/MW-3  
 PROJECT NAME Foley & Lardner START DATE 3/23/2010 1:30:00 PM  
 LOCATION 121 Water Street, Jonesville, MI FINISH DATE 3/23/2010 2:15:00 PM  
 DRILLING METHOD Hand Auger/Geoprobe CONTRACTOR Terra Probe  
 SAMPLING METHOD Grab/Push CREW CHIEF Aaron Wington  
 GROUND ELEVATION (ft) \_\_\_\_\_ WEATHER Sunny, 55°F  
 TOP OF CASING ELEVATION (ft) \_\_\_\_\_ BACKFILL MATERIAL Well - Stick-up  
 LOGGED BY DRR DEPTH TO WATER DURING DRILLING (ft) 10.7  
 REMARKS 0-4' Hand Auger

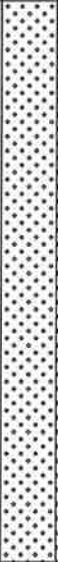

PID (ppm)	SAMPLE ANALYZED	RECOVERY (feet)	SAMPLE ID.	EXTENT	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
0.2		4			1		[Dotted pattern]	0-1' Black, silty SAND with trace gravel/coal and organics.	1.0	<p>WELL DIAGRAM</p> <p>2.1'</p> <p>Bentonite Chips</p> <p>Sand</p>
0					2		[Dotted pattern]	1-4' Dark brown, silty SAND with FILL - glass/bricks, coke.	4.0	
					3					
					4			No recovery.		
					5			Water at 10.7' based on static tape measurement.		
		0			6					
					7					
					8					
					9					
		0			10					
					11					
					12			End of boring at 12'	12.0	

GEOPROBE LOG/ LAB 0109712-FOLEY & LARDNER 3.23.10.GPJ ERM\_MI.GDT 4/6/10

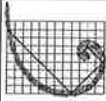
# BORING/WELL CONSTRUCTION LOG

**PROJECT NUMBER** 0109712 **BORING/WELL NUMBER** SB/MW-4  
**PROJECT NAME** Foley & Lardner **START DATE** 3/23/2010 2:40:00 PM  
**LOCATION** 121 Water Street, Jonesville, MI **FINISH DATE** 3/23/2010 3:30:00 PM  
**DRILLING METHOD** Hand Auger/Geoprobe **CONTRACTOR** Terra Probe  
**SAMPLING METHOD** Grab/Push **CREW CHIEF** Aaron Wington  
**GROUND ELEVATION (ft)** \_\_\_\_\_ **WEATHER** Sunny, 55°F  
**TOP OF CASING ELEVATION (ft)** \_\_\_\_\_ **BACKFILL MATERIAL** Well - Stick-up  
**LOGGED BY** DRR **DEPTH TO WATER DURING DRILLING (ft)** 11.0

**REMARKS** 0-4' Hand Auger

PID (ppm)	SAMPLE ANALYZED	RECOVERY (feet)	SAMPLE ID.	EXTENT	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
0		4	1		1			0-8' Dark brown, fine, silty SAND with FILL - glass, coke, coal, and bricks.		
0					2					
0					3					
0					4					
0					5					
0		1	2		6					
0					7					
0					8				8.0	
					9			8-16' No recovery.		
					10			Water at 11.0'		
		0	3		11					
					12					
					13					
		0	4		14					
					15					
					16			End of boring at 16'	16.0	

GEOPROBE LOG/ LAB 0109712-FOLEY & LARDNER 3.23.10.GPJ ERM\_MI.GDT 4/6/10



Environmental Resources Management  
 3352 128th Avenue  
 Holland, MI 49424  
 616-399-3500  
 616-399-3777 (fax)

# BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 0109712 BORING/WELL NUMBER SB/MW-5  
 PROJECT NAME Foley & Lardner START DATE 3/23/2010 3:30:00 PM  
 LOCATION 121 Water Street, Jonesville, MI FINISH DATE 3/23/2010 4:15:00 PM  
 DRILLING METHOD Hand Auger/Geoprobe CONTRACTOR Terra Probe  
 SAMPLING METHOD Grab/Push CREW CHIEF Aaron Wington  
 GROUND ELEVATION (ft) \_\_\_\_\_ WEATHER Sunny, 55°F  
 TOP OF CASING ELEVATION (ft) \_\_\_\_\_ BACKFILL MATERIAL Well - Stick-up  
 LOGGED BY DRR DEPTH TO WATER DURING DRILLING (ft) 10.0

REMARKS 0-4' Hand Auger

PID (ppm)	SAMPLE ANALYZED	RECOVERY (feet)	SAMPLE ID.	EXTENT	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
0		4	1		1		[Dotted pattern]	0-4' Dark brown, silty SAND with trace gravel and FILL - bricks, coke, and coal.		[Well diagram showing casing from 0 to 4 feet]
0					2		[Dotted pattern]		4.0	
0		1	2		3		[Dotted pattern]	4-8' Dark brown, silty SAND with FILL - concrete and bricks.		[Well diagram showing casing from 4 to 8 feet]
0					4		[Dotted pattern]			
0					5		[Dotted pattern]			
0					6		[Dotted pattern]			
0					7		[Dotted pattern]			
0					8		[Dotted pattern]	8-12' No recovery	8.0	[Well diagram showing casing from 8 to 12 feet]
0					9		[Dotted pattern]	Water at 10'		
0					10		[Dotted pattern]			
0					11		[Dotted pattern]			
0					12		[Dotted pattern]	12-16' No recovery	12.0	[Well diagram showing casing from 12 to 16 feet]
0					13		[Dotted pattern]			
0					14		[Dotted pattern]			
0					15		[Dotted pattern]			
0					16		[Dotted pattern]	End of boring at 16'	16.0	[Well diagram showing casing from 16 to 16 feet]

GEOPROBE LOG/ LAB 0109712-FOLEY & LARDNER 3.23.10.GPJ ERM\_MI.GDT 4/6/10

*Attachment C*  
*Data Tables*

**Table 1** Soil Sample Results Summary  
 Foley & Lardner, LLP  
 Klein Tool, Inc. Property, 121 Water Street, Jonesville, Michigan

Parameter	Part 201 Generic Residential Cleanup Criteria					SB/MW-1 (0-1') 03/23/2010
	Drinking Water Protection	GSI Protection	Direct Contact	Volatilization to Indoor Air Inhalation Criteria	Particulate Soil Inhalation Criteria	
<b>Volatile Organic Compounds (ug/kg)</b>						
1,2,4-Trimethylbenzene	2,100	570	110,000	110,000	82,000,000,000	150
1,3,5-Trimethylbenzene	1,800	1,100	94,000	94,000	82,000,000,000	66
cis-1,2-Dichloroethene	1,400	12,000	640,000	22,000	2,300,000,000	290
Ethylbenzene	1,500	360	140,000	87,000	10,000,000,000	170
Toluene	16,000	2,800	250,000	250,000	27,000,000,000	1,000
Trichloroethene	100	580	500,000	7,100	1,800,000,000	6,300
Xylenes, Total	5,600	700	150,000	150,000	290,000,000,000	860

- NOTES:
- Cleanup criteria per Michigan DNRE RRD Operational Memorandum #1, Attachment 1, 01/23/06.
  - GSI = Groundwater/surface water interface.
  - Only parameters detected are shown on this table. See laboratory report for full list of compounds analyzed.
  - ND Indicates the parameter was not detected.
  - Yellow-shaded values exceed the referenced residential drinking water criteria (highest between State wide/DW).
  - Outlined values exceed the referenced GSI criteria.



Parameter	Part 201 Generic Residential Cleanup Criteria										
	Drinking Water	GSI	Groundwater Contact	Volatilizations to Indoor Air Inhalation Criteria	B-4 (NIH) 11/12/2008	MW-1S 03/24/2010	MW-1D 03/24/2010	MW-2 03/24/2010	MW-3 03/24/2010	MW-4 03/24/2010	MW-5 03/24/2010
<b>Volatile Organic Compounds (ug/L)</b>											
cis-1,2-Dichloroethene	70	620	200,000	95,000	2.8	12	4.2	4.4	ND	ND	1.8
Toluene	790	140	530,000	530,000	ND	7.1	ND	ND	ND	ND	ND
Trichloroethene	5.0	200	22,000	15,000	7.7	9.3	20	1.9	9.5	ND	6.5
Vinyl Chloride	2.0	15	1,000	1,100	ND	ND	ND	3.1	ND	ND	ND

- NOTES:
- Cleanup criteria per Michigan DNRE RRD Operational Memorandum #1, Attachment 1, 01/23/06.
  - GSI = Groundwater/surface water interface.
  - Only parameters detected are shown on this table. See laboratory report for full list of compounds
  - ND indicates the parameter was not detected.
  - Yellow-shaded values exceed the referenced residential drinking water criteria.





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# ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



## Environmental Division

30-Mar-2010

Dan Rusiecki  
ERM, Inc  
3352 128th Avenue  
Holland, MI 49424

Re: **Former Klein Tools**

Work Order: **1003522**

Dear Dan,

ALS Laboratory Group received 7 samples on 25-Mar-2010 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 36.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Electronically approved by: Tom Beamish

Tom Beamish  
Senior Project Manager



Certificate No: IL100452

---

**ALS USA MI, CORP**  
Part of the **ALS Laboratory Group**  
3352 128th Avenue Holland, Michigan 49424-9263  
Phone: (616) 399-6070 Fax: (616) 399-6185  
[www.alsglobal.com](http://www.alsglobal.com)  
A Campbell Brothers Limited Company

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**Client:** ERM, Inc  
**Project:** Former Klein Tools  
**Work Order:** 1003522

**Work Order Sample Summary**

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1003522-01	MW-2	Water		03/24/10 10:49	03/25/10 09:05	<input type="checkbox"/>
1003522-02	MW-1D	Water		03/24/10 12:54	03/25/10 09:05	<input type="checkbox"/>
1003522-03	MW-5	Water		03/24/10 13:53	03/25/10 09:05	<input type="checkbox"/>
1003522-04	MW-1S	Water		03/24/10 14:07	03/25/10 09:05	<input type="checkbox"/>
1003522-05	MW-4	Water		03/24/10 15:16	03/25/10 09:05	<input type="checkbox"/>
1003522-06	MW-3	Water		03/24/10 16:39	03/25/10 09:05	<input type="checkbox"/>
1003522-07	SB/MW-1, 0-1'	Soil		03/23/10 10:30	03/25/10 09:05	<input type="checkbox"/>

**Client:** ERM, Inc  
**Project:** Former Klein Tools  
**WorkOrder:** 1003522

**QUALIFIERS,  
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
µg/L	Micrograms per Liter

# ALS Laboratory Group

Date: 30-Mar-10

Client: ERM, Inc  
 Project: Former Klein Tools  
 Sample ID: MW-2  
 Collection Date: 03/24/10 10:49 AM

Work Order: 1003522  
 Lab ID: 1003522-01  
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>		Analyst: CW	
1,1,1,2-Tetrachloroethane	ND		1.0	µg/L	1	03/29/10 12:58 PM
1,1,1-Trichloroethane	ND		1.0	µg/L	1	03/29/10 12:58 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/29/10 12:58 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/29/10 12:58 PM
1,1,2-Trichlorotrifluoroethane	ND		1.0	µg/L	1	03/29/10 12:58 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/29/10 12:58 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/29/10 12:58 PM
1,2,3-Trichloropropane	ND		1.0	µg/L	1	03/29/10 12:58 PM
1,2,4-Trichlorobenzene	ND		2.0	µg/L	1	03/29/10 12:58 PM
1,2,4-Trimethylbenzene	ND		1.0	µg/L	1	03/29/10 12:58 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	03/29/10 12:58 PM
1,2-Dibromoethane	ND		1.0	µg/L	1	03/29/10 12:58 PM
1,2-Dichlorobenzene	ND		1.0	µg/L	1	03/29/10 12:58 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/29/10 12:58 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/29/10 12:58 PM
1,3,5-Trimethylbenzene	ND		1.0	µg/L	1	03/29/10 12:58 PM
1,3-Dichlorobenzene	ND		1.0	µg/L	1	03/29/10 12:58 PM
1,4-Dichlorobenzene	ND		1.0	µg/L	1	03/29/10 12:58 PM
2-Butanone	ND		5.0	µg/L	1	03/29/10 12:58 PM
2-Hexanone	ND		5.0	µg/L	1	03/29/10 12:58 PM
2-Methylnaphthalene	ND		5.0	µg/L	1	03/29/10 12:58 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	03/29/10 12:58 PM
Acetone	ND		20	µg/L	1	03/29/10 12:58 PM
Acrylonitrile	ND		1.0	µg/L	1	03/29/10 12:58 PM
Benzene	ND		1.0	µg/L	1	03/29/10 12:58 PM
Bromochloromethane	ND		1.0	µg/L	1	03/29/10 12:58 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/29/10 12:58 PM
Bromoform	ND		1.0	µg/L	1	03/29/10 12:58 PM
Bromomethane	ND		1.0	µg/L	1	03/29/10 12:58 PM
Carbon disulfide	ND		2.5	µg/L	1	03/29/10 12:58 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/29/10 12:58 PM
Chlorobenzene	ND		1.0	µg/L	1	03/29/10 12:58 PM
Chloroethane	ND		1.0	µg/L	1	03/29/10 12:58 PM
Chloroform	ND		1.0	µg/L	1	03/29/10 12:58 PM
Chloromethane	ND		1.0	µg/L	1	03/29/10 12:58 PM
cis-1,2-Dichloroethene	4.4		1.0	µg/L	1	03/29/10 12:58 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/29/10 12:58 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/29/10 12:58 PM
Dibromomethane	ND		1.0	µg/L	1	03/29/10 12:58 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

**ALS Laboratory Group**

Date: 30-Mar-10

**Client:** ERM, Inc  
**Project:** Former Klein Tools  
**Sample ID:** MW-2  
**Collection Date:** 03/24/10 10:49 AM

**Work Order:** 1003522  
**Lab ID:** 1003522-01  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dichlorodifluoromethane	ND		1.0	µg/L	1	03/29/10 12:58 PM
Diethyl ether	ND		10	µg/L	1	03/29/10 12:58 PM
Ethylbenzene	ND		1.0	µg/L	1	03/29/10 12:58 PM
Hexachloroethane	ND		1.0	µg/L	1	03/29/10 12:58 PM
Isopropylbenzene	ND		1.0	µg/L	1	03/29/10 12:58 PM
m,p-Xylene	ND		2.0	µg/L	1	03/29/10 12:58 PM
Methyl iodide	ND		1.0	µg/L	1	03/29/10 12:58 PM
Methyl tert-butyl ether	ND		5.0	µg/L	1	03/29/10 12:58 PM
Methylene chloride	ND		5.0	µg/L	1	03/29/10 12:58 PM
n-Propylbenzene	ND		1.0	µg/L	1	03/29/10 12:58 PM
Naphthalene	ND		5.0	µg/L	1	03/29/10 12:58 PM
o-Xylene	ND		1.0	µg/L	1	03/29/10 12:58 PM
Styrene	ND		1.0	µg/L	1	03/29/10 12:58 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/29/10 12:58 PM
Toluene	ND		1.0	µg/L	1	03/29/10 12:58 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/29/10 12:58 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/29/10 12:58 PM
trans-1,4-Dichloro-2-butene	ND		1.0	µg/L	1	03/29/10 12:58 PM
<b>Trichloroethene</b>	<b>1.9</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	03/29/10 12:58 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	03/29/10 12:58 PM
Vinyl acetate	ND		1.0	µg/L	1	03/29/10 12:58 PM
<b>Vinyl chloride</b>	<b>3.1</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	03/29/10 12:58 PM
Xylenes, Total	ND		3.0	µg/L	1	03/29/10 12:58 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Laboratory Group

Date: 30-Mar-10

**Client:** ERM, Inc  
**Project:** Former Klein Tools  
**Sample ID:** MW-1D  
**Collection Date:** 03/24/10 12:54 PM

**Work Order:** 1003522  
**Lab ID:** 1003522-02  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>		Analyst: <b>CW</b>	
1,1,1,2-Tetrachloroethane	ND		1.0	µg/L	1	03/29/10 01:27 PM
1,1,1-Trichloroethane	ND		1.0	µg/L	1	03/29/10 01:27 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/29/10 01:27 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/29/10 01:27 PM
1,1,2-Trichlorotrifluoroethane	ND		1.0	µg/L	1	03/29/10 01:27 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/29/10 01:27 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/29/10 01:27 PM
1,2,3-Trichloropropane	ND		1.0	µg/L	1	03/29/10 01:27 PM
1,2,4-Trichlorobenzene	ND		2.0	µg/L	1	03/29/10 01:27 PM
1,2,4-Trimethylbenzene	ND		1.0	µg/L	1	03/29/10 01:27 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	03/29/10 01:27 PM
1,2-Dibromoethane	ND		1.0	µg/L	1	03/29/10 01:27 PM
1,2-Dichlorobenzene	ND		1.0	µg/L	1	03/29/10 01:27 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/29/10 01:27 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/29/10 01:27 PM
1,3,5-Trimethylbenzene	ND		1.0	µg/L	1	03/29/10 01:27 PM
1,3-Dichlorobenzene	ND		1.0	µg/L	1	03/29/10 01:27 PM
1,4-Dichlorobenzene	ND		1.0	µg/L	1	03/29/10 01:27 PM
2-Butanone	ND		5.0	µg/L	1	03/29/10 01:27 PM
2-Hexanone	ND		5.0	µg/L	1	03/29/10 01:27 PM
2-Methylnaphthalene	ND		5.0	µg/L	1	03/29/10 01:27 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	03/29/10 01:27 PM
Acetone	ND		20	µg/L	1	03/29/10 01:27 PM
Acrylonitrile	ND		1.0	µg/L	1	03/29/10 01:27 PM
Benzene	ND		1.0	µg/L	1	03/29/10 01:27 PM
Bromochloromethane	ND		1.0	µg/L	1	03/29/10 01:27 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/29/10 01:27 PM
Bromoform	ND		1.0	µg/L	1	03/29/10 01:27 PM
Bromomethane	ND		1.0	µg/L	1	03/29/10 01:27 PM
Carbon disulfide	ND		2.5	µg/L	1	03/29/10 01:27 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/29/10 01:27 PM
Chlorobenzene	ND		1.0	µg/L	1	03/29/10 01:27 PM
Chloroethane	ND		1.0	µg/L	1	03/29/10 01:27 PM
Chloroform	ND		1.0	µg/L	1	03/29/10 01:27 PM
Chloromethane	ND		1.0	µg/L	1	03/29/10 01:27 PM
<b>cis-1,2-Dichloroethene</b>	<b>4.2</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	03/29/10 01:27 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/29/10 01:27 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/29/10 01:27 PM
Dibromomethane	ND		1.0	µg/L	1	03/29/10 01:27 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Laboratory Group

Date: 30-Mar-10

Client: ERM, Inc  
 Project: Former Klein Tools  
 Sample ID: MW-1D  
 Collection Date: 03/24/10 12:54 PM

Work Order: 1003522  
 Lab ID: 1003522-02  
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dichlorodifluoromethane	ND		1.0	µg/L	1	03/29/10 01:27 PM
Diethyl ether	ND		10	µg/L	1	03/29/10 01:27 PM
Ethylbenzene	ND		1.0	µg/L	1	03/29/10 01:27 PM
Hexachloroethane	ND		1.0	µg/L	1	03/29/10 01:27 PM
Isopropylbenzene	ND		1.0	µg/L	1	03/29/10 01:27 PM
m,p-Xylene	ND		2.0	µg/L	1	03/29/10 01:27 PM
Methyl iodide	ND		1.0	µg/L	1	03/29/10 01:27 PM
Methyl tert-butyl ether	ND		5.0	µg/L	1	03/29/10 01:27 PM
Methylene chloride	ND		5.0	µg/L	1	03/29/10 01:27 PM
n-Propylbenzene	ND		1.0	µg/L	1	03/29/10 01:27 PM
Naphthalene	ND		5.0	µg/L	1	03/29/10 01:27 PM
o-Xylene	ND		1.0	µg/L	1	03/29/10 01:27 PM
Styrene	ND		1.0	µg/L	1	03/29/10 01:27 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/29/10 01:27 PM
Toluene	ND		1.0	µg/L	1	03/29/10 01:27 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/29/10 01:27 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/29/10 01:27 PM
trans-1,4-Dichloro-2-butene	ND		1.0	µg/L	1	03/29/10 01:27 PM
<b>Trichloroethene</b>	<b>20</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	03/29/10 01:27 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	03/29/10 01:27 PM
Vinyl acetate	ND		1.0	µg/L	1	03/29/10 01:27 PM
Vinyl chloride	ND		1.0	µg/L	1	03/29/10 01:27 PM
Xylenes, Total	ND		3.0	µg/L	1	03/29/10 01:27 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.



# ALS Laboratory Group

Date: 30-Mar-10

Client: ERM, Inc  
 Project: Former Klein Tools  
 Sample ID: MW-5  
 Collection Date: 03/24/10 01:53 PM

Work Order: 1003522  
 Lab ID: 1003522-03  
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>		Analyst: CW	
1,1,1,2-Tetrachloroethane	ND		1.0	µg/L	1	03/29/10 01:56 PM
1,1,1-Trichloroethane	ND		1.0	µg/L	1	03/29/10 01:56 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/29/10 01:56 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/29/10 01:56 PM
1,1,2-Trichlorotrifluoroethane	ND		1.0	µg/L	1	03/29/10 01:56 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/29/10 01:56 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/29/10 01:56 PM
1,2,3-Trichloropropane	ND		1.0	µg/L	1	03/29/10 01:56 PM
1,2,4-Trichlorobenzene	ND		2.0	µg/L	1	03/29/10 01:56 PM
1,2,4-Trimethylbenzene	ND		1.0	µg/L	1	03/29/10 01:56 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	03/29/10 01:56 PM
1,2-Dibromoethane	ND		1.0	µg/L	1	03/29/10 01:56 PM
1,2-Dichlorobenzene	ND		1.0	µg/L	1	03/29/10 01:56 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/29/10 01:56 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/29/10 01:56 PM
1,3,5-Trimethylbenzene	ND		1.0	µg/L	1	03/29/10 01:56 PM
1,3-Dichlorobenzene	ND		1.0	µg/L	1	03/29/10 01:56 PM
1,4-Dichlorobenzene	ND		1.0	µg/L	1	03/29/10 01:56 PM
2-Butanone	ND		5.0	µg/L	1	03/29/10 01:56 PM
2-Hexanone	ND		5.0	µg/L	1	03/29/10 01:56 PM
2-Methylnaphthalene	ND		5.0	µg/L	1	03/29/10 01:56 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	03/29/10 01:56 PM
Acetone	ND		20	µg/L	1	03/29/10 01:56 PM
Acrylonitrile	ND		1.0	µg/L	1	03/29/10 01:56 PM
Benzene	ND		1.0	µg/L	1	03/29/10 01:56 PM
Bromochloromethane	ND		1.0	µg/L	1	03/29/10 01:56 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/29/10 01:56 PM
Bromoform	ND		1.0	µg/L	1	03/29/10 01:56 PM
Bromomethane	ND		1.0	µg/L	1	03/29/10 01:56 PM
Carbon disulfide	ND		2.5	µg/L	1	03/29/10 01:56 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/29/10 01:56 PM
Chlorobenzene	ND		1.0	µg/L	1	03/29/10 01:56 PM
Chloroethane	ND		1.0	µg/L	1	03/29/10 01:56 PM
Chloroform	ND		1.0	µg/L	1	03/29/10 01:56 PM
Chloromethane	ND		1.0	µg/L	1	03/29/10 01:56 PM
<b>cis-1,2-Dichloroethene</b>	<b>1.8</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	03/29/10 01:56 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/29/10 01:56 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/29/10 01:56 PM
Dibromomethane	ND		1.0	µg/L	1	03/29/10 01:56 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

**ALS Laboratory Group**

Date: 30-Mar-10

**Client:** ERM, Inc  
**Project:** Former Klein Tools  
**Sample ID:** MW-5  
**Collection Date:** 03/24/10 01:53 PM

**Work Order:** 1003522  
**Lab ID:** 1003522-03  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dichlorodifluoromethane	ND		1.0	µg/L	1	03/29/10 01:56 PM
Diethyl ether	ND		10	µg/L	1	03/29/10 01:56 PM
Ethylbenzene	ND		1.0	µg/L	1	03/29/10 01:56 PM
Hexachloroethane	ND		1.0	µg/L	1	03/29/10 01:56 PM
Isopropylbenzene	ND		1.0	µg/L	1	03/29/10 01:56 PM
m,p-Xylene	ND		2.0	µg/L	1	03/29/10 01:56 PM
Methyl iodide	ND		1.0	µg/L	1	03/29/10 01:56 PM
Methyl tert-butyl ether	ND		5.0	µg/L	1	03/29/10 01:56 PM
Methylene chloride	ND		5.0	µg/L	1	03/29/10 01:56 PM
n-Propylbenzene	ND		1.0	µg/L	1	03/29/10 01:56 PM
Naphthalene	ND		5.0	µg/L	1	03/29/10 01:56 PM
o-Xylene	ND		1.0	µg/L	1	03/29/10 01:56 PM
Styrene	ND		1.0	µg/L	1	03/29/10 01:56 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/29/10 01:56 PM
Toluene	ND		1.0	µg/L	1	03/29/10 01:56 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/29/10 01:56 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/29/10 01:56 PM
trans-1,4-Dichloro-2-butene	ND		1.0	µg/L	1	03/29/10 01:56 PM
<b>Trichloroethene</b>	<b>6.5</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	03/29/10 01:56 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	03/29/10 01:56 PM
Vinyl acetate	ND		1.0	µg/L	1	03/29/10 01:56 PM
Vinyl chloride	ND		1.0	µg/L	1	03/29/10 01:56 PM
Xylenes, Total	ND		3.0	µg/L	1	03/29/10 01:56 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Laboratory Group**

Date: 30-Mar-10

**Client:** ERM, Inc  
**Project:** Former Klein Tools  
**Sample ID:** MW-1S  
**Collection Date:** 03/24/10 02:07 PM

**Work Order:** 1003522  
**Lab ID:** 1003522-04  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>		<b>Analyst: CW</b>	
1,1,1,2-Tetrachloroethane	ND		1.0	µg/L	1	03/27/10 07:39 AM
1,1,1-Trichloroethane	ND		1.0	µg/L	1	03/27/10 07:39 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/27/10 07:39 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/27/10 07:39 AM
1,1,2-Trichlorotrifluoroethane	ND		1.0	µg/L	1	03/27/10 07:39 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/27/10 07:39 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/27/10 07:39 AM
1,2,3-Trichloropropane	ND		1.0	µg/L	1	03/27/10 07:39 AM
1,2,4-Trichlorobenzene	ND		2.0	µg/L	1	03/27/10 07:39 AM
1,2,4-Trimethylbenzene	ND		1.0	µg/L	1	03/27/10 07:39 AM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	03/27/10 07:39 AM
1,2-Dibromoethane	ND		1.0	µg/L	1	03/27/10 07:39 AM
1,2-Dichlorobenzene	ND		1.0	µg/L	1	03/27/10 07:39 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/27/10 07:39 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/27/10 07:39 AM
1,3,5-Trimethylbenzene	ND		1.0	µg/L	1	03/27/10 07:39 AM
1,3-Dichlorobenzene	ND		1.0	µg/L	1	03/27/10 07:39 AM
1,4-Dichlorobenzene	ND		1.0	µg/L	1	03/27/10 07:39 AM
2-Butanone	ND		5.0	µg/L	1	03/27/10 07:39 AM
2-Hexanone	ND		5.0	µg/L	1	03/27/10 07:39 AM
2-Methylnaphthalene	ND		5.0	µg/L	1	03/27/10 07:39 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	03/27/10 07:39 AM
Acetone	ND		20	µg/L	1	03/27/10 07:39 AM
Acrylonitrile	ND		1.0	µg/L	1	03/27/10 07:39 AM
Benzene	ND		1.0	µg/L	1	03/27/10 07:39 AM
Bromochloromethane	ND		1.0	µg/L	1	03/27/10 07:39 AM
Bromodichloromethane	ND		1.0	µg/L	1	03/27/10 07:39 AM
Bromoform	ND		1.0	µg/L	1	03/27/10 07:39 AM
Bromomethane	ND		1.0	µg/L	1	03/27/10 07:39 AM
Carbon disulfide	ND		2.5	µg/L	1	03/27/10 07:39 AM
Carbon tetrachloride	ND		1.0	µg/L	1	03/27/10 07:39 AM
Chlorobenzene	ND		1.0	µg/L	1	03/27/10 07:39 AM
Chloroethane	ND		1.0	µg/L	1	03/27/10 07:39 AM
Chloroform	ND		1.0	µg/L	1	03/27/10 07:39 AM
Chloromethane	ND		1.0	µg/L	1	03/27/10 07:39 AM
<b>cis-1,2-Dichloroethene</b>	<b>12</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	03/27/10 07:39 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/27/10 07:39 AM
Dibromochloromethane	ND		1.0	µg/L	1	03/27/10 07:39 AM
Dibromomethane	ND		1.0	µg/L	1	03/27/10 07:39 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Laboratory Group

Date: 30-Mar-10

Client: ERM, Inc  
 Project: Former Klein Tools  
 Sample ID: MW-1S  
 Collection Date: 03/24/10 02:07 PM

Work Order: 1003522  
 Lab ID: 1003522-04  
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dichlorodifluoromethane	ND		1.0	µg/L	1	03/27/10 07:39 AM
Diethyl ether	ND		10	µg/L	1	03/27/10 07:39 AM
Ethylbenzene	ND		1.0	µg/L	1	03/27/10 07:39 AM
Hexachloroethane	ND		1.0	µg/L	1	03/27/10 07:39 AM
Isopropylbenzene	ND		1.0	µg/L	1	03/27/10 07:39 AM
m,p-Xylene	ND		2.0	µg/L	1	03/27/10 07:39 AM
Methyl iodide	ND		1.0	µg/L	1	03/27/10 07:39 AM
Methyl tert-butyl ether	ND		5.0	µg/L	1	03/27/10 07:39 AM
Methylene chloride	ND		5.0	µg/L	1	03/27/10 07:39 AM
n-Propylbenzene	ND		1.0	µg/L	1	03/27/10 07:39 AM
Naphthalene	ND		5.0	µg/L	1	03/27/10 07:39 AM
o-Xylene	ND		1.0	µg/L	1	03/27/10 07:39 AM
Styrene	ND		1.0	µg/L	1	03/27/10 07:39 AM
Tetrachloroethene	ND		1.0	µg/L	1	03/27/10 07:39 AM
<b>Toluene</b>	<b>7.1</b>		<b>1.0</b>	<b>µg/L</b>	1	03/27/10 07:39 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/27/10 07:39 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/27/10 07:39 AM
trans-1,4-Dichloro-2-butene	ND		1.0	µg/L	1	03/27/10 07:39 AM
<b>Trichloroethene</b>	<b>9.3</b>		<b>1.0</b>	<b>µg/L</b>	1	03/27/10 07:39 AM
Trichlorofluoromethane	ND		1.0	µg/L	1	03/27/10 07:39 AM
Vinyl acetate	ND		1.0	µg/L	1	03/27/10 07:39 AM
Vinyl chloride	ND		1.0	µg/L	1	03/27/10 07:39 AM
Xylenes, Total	ND		3.0	µg/L	1	03/27/10 07:39 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

# ALS Laboratory Group

Date: 30-Mar-10

Client: ERM, Inc  
 Project: Former Klein Tools  
 Sample ID: MW-4  
 Collection Date: 03/24/10 03:16 PM

Work Order: 1003522  
 Lab ID: 1003522-05  
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: CW
1,1,1,2-Tetrachloroethane	ND		1.0	µg/L	1	03/27/10 08:07 AM
1,1,1-Trichloroethane	ND		1.0	µg/L	1	03/27/10 08:07 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/27/10 08:07 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/27/10 08:07 AM
1,1,2-Trichlorotrifluoroethane	ND		1.0	µg/L	1	03/27/10 08:07 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/27/10 08:07 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/27/10 08:07 AM
1,2,3-Trichloropropane	ND		1.0	µg/L	1	03/27/10 08:07 AM
1,2,4-Trichlorobenzene	ND		2.0	µg/L	1	03/27/10 08:07 AM
1,2,4-Trimethylbenzene	ND		1.0	µg/L	1	03/27/10 08:07 AM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	03/27/10 08:07 AM
1,2-Dibromoethane	ND		1.0	µg/L	1	03/27/10 08:07 AM
1,2-Dichlorobenzene	ND		1.0	µg/L	1	03/27/10 08:07 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/27/10 08:07 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/27/10 08:07 AM
1,3,5-Trimethylbenzene	ND		1.0	µg/L	1	03/27/10 08:07 AM
1,3-Dichlorobenzene	ND		1.0	µg/L	1	03/27/10 08:07 AM
1,4-Dichlorobenzene	ND		1.0	µg/L	1	03/27/10 08:07 AM
2-Butanone	ND		5.0	µg/L	1	03/27/10 08:07 AM
2-Hexanone	ND		5.0	µg/L	1	03/27/10 08:07 AM
2-Methylnaphthalene	ND		5.0	µg/L	1	03/27/10 08:07 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	03/27/10 08:07 AM
Acetone	ND		20	µg/L	1	03/27/10 08:07 AM
Acrylonitrile	ND		1.0	µg/L	1	03/27/10 08:07 AM
Benzene	ND		1.0	µg/L	1	03/27/10 08:07 AM
Bromochloromethane	ND		1.0	µg/L	1	03/27/10 08:07 AM
Bromodichloromethane	ND		1.0	µg/L	1	03/27/10 08:07 AM
Bromoform	ND		1.0	µg/L	1	03/27/10 08:07 AM
Bromomethane	ND		1.0	µg/L	1	03/27/10 08:07 AM
Carbon disulfide	ND		2.5	µg/L	1	03/27/10 08:07 AM
Carbon tetrachloride	ND		1.0	µg/L	1	03/27/10 08:07 AM
Chlorobenzene	ND		1.0	µg/L	1	03/27/10 08:07 AM
Chloroethane	ND		1.0	µg/L	1	03/27/10 08:07 AM
Chloroform	ND		1.0	µg/L	1	03/27/10 08:07 AM
Chloromethane	ND		1.0	µg/L	1	03/27/10 08:07 AM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/27/10 08:07 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/27/10 08:07 AM
Dibromochloromethane	ND		1.0	µg/L	1	03/27/10 08:07 AM
Dibromomethane	ND		1.0	µg/L	1	03/27/10 08:07 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

**ALS Laboratory Group**

Date: 30-Mar-10

**Client:** ERM, Inc  
**Project:** Former Klein Tools  
**Sample ID:** MW-4  
**Collection Date:** 03/24/10 03:16 PM

**Work Order:** 1003522  
**Lab ID:** 1003522-05  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dichlorodifluoromethane	ND		1.0	µg/L	1	03/27/10 08:07 AM
Diethyl ether	ND		10	µg/L	1	03/27/10 08:07 AM
Ethylbenzene	ND		1.0	µg/L	1	03/27/10 08:07 AM
Hexachloroethane	ND		1.0	µg/L	1	03/27/10 08:07 AM
Isopropylbenzene	ND		1.0	µg/L	1	03/27/10 08:07 AM
m,p-Xylene	ND		2.0	µg/L	1	03/27/10 08:07 AM
Methyl iodide	ND		1.0	µg/L	1	03/27/10 08:07 AM
Methyl tert-butyl ether	ND		5.0	µg/L	1	03/27/10 08:07 AM
Methylene chloride	ND		5.0	µg/L	1	03/27/10 08:07 AM
n-Propylbenzene	ND		1.0	µg/L	1	03/27/10 08:07 AM
Naphthalene	ND		5.0	µg/L	1	03/27/10 08:07 AM
o-Xylene	ND		1.0	µg/L	1	03/27/10 08:07 AM
Styrene	ND		1.0	µg/L	1	03/27/10 08:07 AM
Tetrachloroethene	ND		1.0	µg/L	1	03/27/10 08:07 AM
Toluene	ND		1.0	µg/L	1	03/27/10 08:07 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/27/10 08:07 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/27/10 08:07 AM
trans-1,4-Dichloro-2-butene	ND		1.0	µg/L	1	03/27/10 08:07 AM
Trichloroethene	ND		1.0	µg/L	1	03/27/10 08:07 AM
Trichlorofluoromethane	ND		1.0	µg/L	1	03/27/10 08:07 AM
Vinyl acetate	ND		1.0	µg/L	1	03/27/10 08:07 AM
Vinyl chloride	ND		1.0	µg/L	1	03/27/10 08:07 AM
Xylenes, Total	ND		3.0	µg/L	1	03/27/10 08:07 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Laboratory Group

Date: 30-Mar-10

**Client:** ERM, Inc  
**Project:** Former Klein Tools  
**Sample ID:** MW-3  
**Collection Date:** 03/24/10 04:39 PM

**Work Order:** 1003522  
**Lab ID:** 1003522-06  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: CW
1,1,1,2-Tetrachloroethane	ND		1.0	µg/L	1	03/27/10 08:35 AM
1,1,1-Trichloroethane	ND		1.0	µg/L	1	03/27/10 08:35 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/27/10 08:35 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/27/10 08:35 AM
1,1,2-Trichlorotrifluoroethane	ND		1.0	µg/L	1	03/27/10 08:35 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/27/10 08:35 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/27/10 08:35 AM
1,2,3-Trichloropropane	ND		1.0	µg/L	1	03/27/10 08:35 AM
1,2,4-Trichlorobenzene	ND		2.0	µg/L	1	03/27/10 08:35 AM
1,2,4-Trimethylbenzene	ND		1.0	µg/L	1	03/27/10 08:35 AM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	03/27/10 08:35 AM
1,2-Dibromoethane	ND		1.0	µg/L	1	03/27/10 08:35 AM
1,2-Dichlorobenzene	ND		1.0	µg/L	1	03/27/10 08:35 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/27/10 08:35 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/27/10 08:35 AM
1,3,5-Trimethylbenzene	ND		1.0	µg/L	1	03/27/10 08:35 AM
1,3-Dichlorobenzene	ND		1.0	µg/L	1	03/27/10 08:35 AM
1,4-Dichlorobenzene	ND		1.0	µg/L	1	03/27/10 08:35 AM
2-Butanone	ND		5.0	µg/L	1	03/27/10 08:35 AM
2-Hexanone	ND		5.0	µg/L	1	03/27/10 08:35 AM
2-Methylnaphthalene	ND		5.0	µg/L	1	03/27/10 08:35 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	03/27/10 08:35 AM
Acetone	ND		20	µg/L	1	03/27/10 08:35 AM
Acrylonitrile	ND		1.0	µg/L	1	03/27/10 08:35 AM
Benzene	ND		1.0	µg/L	1	03/27/10 08:35 AM
Bromochloromethane	ND		1.0	µg/L	1	03/27/10 08:35 AM
Bromodichloromethane	ND		1.0	µg/L	1	03/27/10 08:35 AM
Bromoform	ND		1.0	µg/L	1	03/27/10 08:35 AM
Bromomethane	ND		1.0	µg/L	1	03/27/10 08:35 AM
Carbon disulfide	ND		2.5	µg/L	1	03/27/10 08:35 AM
Carbon tetrachloride	ND		1.0	µg/L	1	03/27/10 08:35 AM
Chlorobenzene	ND		1.0	µg/L	1	03/27/10 08:35 AM
Chloroethane	ND		1.0	µg/L	1	03/27/10 08:35 AM
Chloroform	ND		1.0	µg/L	1	03/27/10 08:35 AM
Chloromethane	ND		1.0	µg/L	1	03/27/10 08:35 AM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/27/10 08:35 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/27/10 08:35 AM
Dibromochloromethane	ND		1.0	µg/L	1	03/27/10 08:35 AM
Dibromomethane	ND		1.0	µg/L	1	03/27/10 08:35 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Laboratory Group

Date: 30-Mar-10

Client: ERM, Inc  
 Project: Former Klein Tools  
 Sample ID: MW-3  
 Collection Date: 03/24/10 04:39 PM

Work Order: 1003522  
 Lab ID: 1003522-06  
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dichlorodifluoromethane	ND		1.0	µg/L	1	03/27/10 08:35 AM
Diethyl ether	ND		10	µg/L	1	03/27/10 08:35 AM
Ethylbenzene	ND		1.0	µg/L	1	03/27/10 08:35 AM
Hexachloroethane	ND		1.0	µg/L	1	03/27/10 08:35 AM
Isopropylbenzene	ND		1.0	µg/L	1	03/27/10 08:35 AM
m,p-Xylene	ND		2.0	µg/L	1	03/27/10 08:35 AM
Methyl iodide	ND		1.0	µg/L	1	03/27/10 08:35 AM
Methyl tert-butyl ether	ND		5.0	µg/L	1	03/27/10 08:35 AM
Methylene chloride	ND		5.0	µg/L	1	03/27/10 08:35 AM
n-Propylbenzene	ND		1.0	µg/L	1	03/27/10 08:35 AM
Naphthalene	ND		5.0	µg/L	1	03/27/10 08:35 AM
o-Xylene	ND		1.0	µg/L	1	03/27/10 08:35 AM
Styrene	ND		1.0	µg/L	1	03/27/10 08:35 AM
Tetrachloroethene	ND		1.0	µg/L	1	03/27/10 08:35 AM
Toluene	ND		1.0	µg/L	1	03/27/10 08:35 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/27/10 08:35 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/27/10 08:35 AM
trans-1,4-Dichloro-2-butene	ND		1.0	µg/L	1	03/27/10 08:35 AM
<b>Trichloroethene</b>	<b>9.5</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	<b>03/27/10 08:35 AM</b>
Trichlorofluoromethane	ND		1.0	µg/L	1	03/27/10 08:35 AM
Vinyl acetate	ND		1.0	µg/L	1	03/27/10 08:35 AM
Vinyl chloride	ND		1.0	µg/L	1	03/27/10 08:35 AM
Xylenes, Total	ND		3.0	µg/L	1	03/27/10 08:35 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.



# ALS Laboratory Group

Date: 30-Mar-10

**Client:** ERM, Inc  
**Project:** Former Klein Tools  
**Sample ID:** SB/MW-1, 0-1'  
**Collection Date:** 03/23/10 10:30 AM

**Work Order:** 1003522  
**Lab ID:** 1003522-07  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: CW
1,1,1,2-Tetrachloroethane	ND		53	µg/Kg-dry	100	03/29/10 04:54 PM
1,1,1-Trichloroethane	ND		27	µg/Kg-dry	100	03/29/10 04:54 PM
1,1,2,2-Tetrachloroethane	ND		27	µg/Kg-dry	100	03/29/10 04:54 PM
1,1,2-Trichloroethane	ND		27	µg/Kg-dry	100	03/29/10 04:54 PM
1,1,2-Trichlorotrifluoroethane	ND		110	µg/Kg-dry	100	03/29/10 04:54 PM
1,1-Dichloroethane	ND		27	µg/Kg-dry	100	03/29/10 04:54 PM
1,1-Dichloroethene	ND		27	µg/Kg-dry	100	03/29/10 04:54 PM
1,2,3-Trichloropropane	ND		53	µg/Kg-dry	100	03/29/10 04:54 PM
1,2,4-Trichlorobenzene	ND		110	µg/Kg-dry	100	03/29/10 04:54 PM
<b>1,2,4-Trimethylbenzene</b>	<b>150</b>		<b>53</b>	<b>µg/Kg-dry</b>	100	03/29/10 04:54 PM
1,2-Dibromo-3-chloropropane	ND		27	µg/Kg-dry	100	03/29/10 04:54 PM
1,2-Dibromoethane	ND		21	µg/Kg-dry	100	03/29/10 04:54 PM
1,2-Dichlorobenzene	ND		53	µg/Kg-dry	100	03/29/10 04:54 PM
1,2-Dichloroethane	ND		27	µg/Kg-dry	100	03/29/10 04:54 PM
1,2-Dichloropropane	ND		27	µg/Kg-dry	100	03/29/10 04:54 PM
<b>1,3,5-Trimethylbenzene</b>	<b>66</b>		<b>53</b>	<b>µg/Kg-dry</b>	100	03/29/10 04:54 PM
1,3-Dichlorobenzene	ND		53	µg/Kg-dry	100	03/29/10 04:54 PM
1,4-Dichlorobenzene	ND		53	µg/Kg-dry	100	03/29/10 04:54 PM
2-Butanone	ND		270	µg/Kg-dry	100	03/29/10 04:54 PM
2-Hexanone	ND		530	µg/Kg-dry	100	03/29/10 04:54 PM
2-Methylnaphthalene	ND		320	µg/Kg-dry	100	03/29/10 04:54 PM
4-Methyl-2-pentanone	ND		530	µg/Kg-dry	100	03/29/10 04:54 PM
Acetone	ND		480	µg/Kg-dry	100	03/29/10 04:54 PM
Acrylonitrile	ND		53	µg/Kg-dry	100	03/29/10 04:54 PM
Benzene	ND		27	µg/Kg-dry	100	03/29/10 04:54 PM
Bromochloromethane	ND		53	µg/Kg-dry	100	03/29/10 04:54 PM
Bromodichloromethane	ND		53	µg/Kg-dry	100	03/29/10 04:54 PM
Bromoform	ND		53	µg/Kg-dry	100	03/29/10 04:54 PM
Bromomethane	ND		160	µg/Kg-dry	100	03/29/10 04:54 PM
Carbon disulfide	ND		160	µg/Kg-dry	100	03/29/10 04:54 PM
Carbon tetrachloride	ND		80	µg/Kg-dry	100	03/29/10 04:54 PM
Chlorobenzene	ND		27	µg/Kg-dry	100	03/29/10 04:54 PM
Chloroethane	ND		210	µg/Kg-dry	100	03/29/10 04:54 PM
Chloroform	ND		27	µg/Kg-dry	100	03/29/10 04:54 PM
Chloromethane	ND		110	µg/Kg-dry	100	03/29/10 04:54 PM
<b>cis-1,2-Dichloroethene</b>	<b>290</b>		<b>27</b>	<b>µg/Kg-dry</b>	100	03/29/10 04:54 PM
cis-1,3-Dichloropropene	ND		27	µg/Kg-dry	100	03/29/10 04:54 PM
Dibromochloromethane	ND		53	µg/Kg-dry	100	03/29/10 04:54 PM
Dibromomethane	ND		110	µg/Kg-dry	100	03/29/10 04:54 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Laboratory Group

Date: 30-Mar-10

**Client:** ERM, Inc  
**Project:** Former Klein Tools  
**Sample ID:** SB/MW-1, 0-1'  
**Collection Date:** 03/23/10 10:30 AM

**Work Order:** 1003522  
**Lab ID:** 1003522-07  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dichlorodifluoromethane	ND		110	µg/Kg-dry	100	03/29/10 04:54 PM
Diethyl ether	ND		110	µg/Kg-dry	100	03/29/10 04:54 PM
<b>Ethylbenzene</b>	<b>170</b>		<b>27</b>	<b>µg/Kg-dry</b>	100	03/29/10 04:54 PM
Hexachloroethane	ND		110	µg/Kg-dry	100	03/29/10 04:54 PM
Isopropylbenzene	ND		110	µg/Kg-dry	100	03/29/10 04:54 PM
<b>m,p-Xylene</b>	<b>650</b>		<b>53</b>	<b>µg/Kg-dry</b>	100	03/29/10 04:54 PM
Methyl iodide	ND		80	µg/Kg-dry	100	03/29/10 04:54 PM
Methyl tert-butyl ether	ND		160	µg/Kg-dry	100	03/29/10 04:54 PM
Methylene chloride	ND		53	µg/Kg-dry	100	03/29/10 04:54 PM
n-Propylbenzene	ND		53	µg/Kg-dry	100	03/29/10 04:54 PM
Naphthalene	ND		210	µg/Kg-dry	100	03/29/10 04:54 PM
<b>o-Xylene</b>	<b>210</b>		<b>27</b>	<b>µg/Kg-dry</b>	100	03/29/10 04:54 PM
Styrene	ND		27	µg/Kg-dry	100	03/29/10 04:54 PM
Tetrachloroethene	ND		27	µg/Kg-dry	100	03/29/10 04:54 PM
<b>Toluene</b>	<b>1,000</b>		<b>53</b>	<b>µg/Kg-dry</b>	100	03/29/10 04:54 PM
trans-1,2-Dichloroethene	ND		27	µg/Kg-dry	100	03/29/10 04:54 PM
trans-1,3-Dichloropropene	ND		27	µg/Kg-dry	100	03/29/10 04:54 PM
trans-1,4-Dichloro-2-butene	ND		27	µg/Kg-dry	100	03/29/10 04:54 PM
<b>Trichloroethene</b>	<b>6,300</b>		<b>27</b>	<b>µg/Kg-dry</b>	100	03/29/10 04:54 PM
Trichlorofluoromethane	ND		53	µg/Kg-dry	100	03/29/10 04:54 PM
Vinyl acetate	ND		1,600	µg/Kg-dry	100	03/29/10 04:54 PM
Vinyl chloride	ND		27	µg/Kg-dry	100	03/29/10 04:54 PM
<b>Xylenes, Total</b>	<b>860</b>		<b>53</b>	<b>µg/Kg-dry</b>	100	03/29/10 04:54 PM
<b>MOISTURE</b>			<b>A2540 B</b>			Analyst: JJG
<b>Moisture</b>	<b>6.4</b>		<b>0.010</b>	<b>% of sample</b>	1	03/29/10 10:40 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

ALS Laboratory Group

Date: 30-Mar-10

Client: ERM, Inc  
 Work Order: 1003522  
 Project: Former Klein Tools

QC BATCH REPORT

Batch ID: R76012 Instrument ID VMS6 Method: SW8260

MBLK Sample ID: VBLKW1-100326-R76012 Units: µg/L Analysis Date: 03/27/10 01:35 AM  
 Client ID: Run ID: VMS6\_100326A SeqNo: 1304190 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
1,1,2-Trichlorotrifluoroethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								
1,2,4-Trichlorobenzene	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
1,2-Dibromoethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
1,2-Dichloropropane	ND	2.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,3-Dichlorobenzene	ND	2.0								
1,4-Dichlorobenzene	ND	2.0								
2-Butanone	ND	5.0								
2-Hexanone	ND	5.0								
2-Methylnaphthalene	ND	10								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	20								
Acrylonitrile	ND	1.0								
Benzene	ND	1.0								
Bromochloromethane	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	1.0								
Carbon disulfide	ND	2.5								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	1.0								
Chloroform	0.25	1.0								J
Chloromethane	ND	1.0								
cis-1,2-Dichloroethene	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
Diethyl ether	ND	10								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ERM, Inc  
 Work Order: 1003522  
 Project: Former Klein Tools

**QC BATCH REPORT**

Batch ID: R76012	Instrument ID VMS6	Method: SW8260						
Ethylbenzene	ND	1.0						
Hexachloroethane	ND	1.0						
Isopropylbenzene	ND	1.0						
m,p-Xylene	ND	2.0						
Methyl iodide	ND	5.0						
Methyl tert-butyl ether	ND	5.0						
Methylene chloride	ND	5.0						
n-Propylbenzene	ND	1.0						
Naphthalene	1.23	5.0						J
o-Xylene	ND	1.0						
Styrene	ND	1.0						
Tetrachloroethene	ND	2.0						
Toluene	ND	1.0						
trans-1,2-Dichloroethene	ND	1.0						
trans-1,3-Dichloropropene	ND	1.0						
trans-1,4-Dichloro-2-butene	ND	5.0						
Trichloroethene	ND	1.0						
Trichlorofluoromethane	ND	1.0						
Vinyl acetate	ND	1.0						
Vinyl chloride	ND	1.0						
Xylenes, Total	ND	2.0						
Surr: 1,2-Dichloroethane-d4	99.61	0	100	0	99.6	70-120	0	
Surr: 4-Bromofluorobenzene	96.29	0	100	0	96.3	75-120	0	
Surr: Dibromofluoromethane	100.7	0	100	0	101	85-115	0	
Surr: Toluene-d8	100.4	0	100	0	100	85-120	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ERM, Inc  
 Work Order: 1003522  
 Project: Former Klein Tools

## QC BATCH REPORT

Batch ID: R76012 Instrument ID VMS6 Method: SW8260

LCS Sample ID: VLCSW1-100326-R76012 Units: µg/L Analysis Date: 03/27/10 12:11 PM

Client ID: Run ID: VMS6\_100326A SeqNo: 1304205 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	18.78	1.0	20	0	93.9	80-130	0	0		
1,1,1-Trichloroethane	19.49	1.0	20	0	97.4	65-130	0	0		
1,1,2,2-Tetrachloroethane	20.85	1.0	20	0	104	65-130	0	0		
1,1,2-Trichloroethane	20.26	1.0	20	0	101	75-125	0	0		
1,1-Dichloroethane	21.11	1.0	20	0	106	70-135	0	0		
1,1-Dichloroethene	21.1	1.0	20	0	106	70-130	0	0		
1,2,3-Trichloropropane	20.15	1.0	20	0	101	75-125	0	0		
1,2,4-Trichlorobenzene	22.11	2.0	20	0	111	65-135	0	0		
1,2,4-Trimethylbenzene	20.49	1.0	20	0	102	75-130	0	0		
1,2-Dibromo-3-chloropropane	22.33	2.0	20	0	112	50-130	0	0		
1,2-Dibromoethane	21.09	1.0	20	0	105	80-120	0	0		
1,2-Dichlorobenzene	20.34	1.0	20	0	102	70-120	0	0		
1,2-Dichloroethane	18.43	1.0	20	0	92.2	70-130	0	0		
1,2-Dichloropropane	20.5	2.0	20	0	102	75-125	0	0		
1,3,5-Trimethylbenzene	20.55	1.0	20	0	103	75-130	0	0		
1,3-Dichlorobenzene	20.58	2.0	20	0	103	75-125	0	0		
1,4-Dichlorobenzene	20.21	2.0	20	0	101	75-125	0	0		
2-Butanone	17.53	5.0	20	0	87.6	30-150	0	0		
2-Hexanone	21.9	5.0	20	0	110	55-130	0	0		
4-Methyl-2-pentanone	22.01	5.0	20	0	110	60-135	0	0		
Acetone	21.56	20	20	0	108	40-140	0	0		
Acrylonitrile	22.24	1.0	20	0	111	70-135	0	0		
Benzene	20.09	1.0	20	0	100	80-120	0	0		
Bromochloromethane	20.04	1.0	20	0	100	65-130	0	0		
Bromodichloromethane	19.03	1.0	20	0	95.2	75-120	0	0		
Bromoform	18.65	1.0	20	0	93.2	70-130	0	0		
Bromomethane	22.29	1.0	20	0	111	30-145	0	0		
Carbon disulfide	26.48	2.5	20	0	132	35-165	0	0		
Carbon tetrachloride	18.85	1.0	20	0	94.2	65-140	0	0		
Chlorobenzene	20.54	1.0	20	0	103	80-120	0	0		
Chloroethane	18.38	1.0	20	0	91.9	60-135	0	0		
Chloroform	19.44	1.0	20	0	97.2	65-135	0	0		
Chloromethane	21.92	1.0	20	0	110	70-125	0	0		
cis-1,2-Dichloroethene	19.97	1.0	20	0	99.8	70-125	0	0		
cis-1,3-Dichloropropene	19.38	1.0	20	0	96.9	70-130	0	0		
Dibromochloromethane	19.9	1.0	20	0	99.5	60-135	0	0		
Dibromomethane	21.04	1.0	20	0	105	75-125	0	0		
Dichlorodifluoromethane	14.1	1.0	20	0	70.5	30-155	0	0		
Ethylbenzene	20.61	1.0	20	0	103	75-125	0	0		
Hexachloroethane	22.91	1.0	20	0	115	70-135	0	0		
Isopropylbenzene	23.59	1.0	20	0	118	75-125	0	0		
m,p-Xylene	41.36	2.0	40	0	103	75-130	0	0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** ERM, Inc  
**Work Order:** 1003522  
**Project:** Former Klein Tools

## QC BATCH REPORT

Batch ID: <b>R76012</b>	Instrument ID <b>VMS6</b>	Method: <b>SW8260</b>						
Methyl iodide	32.07	5.0	20	0	160	70-135	0	S
Methyl tert-butyl ether	21.66	5.0	20	0	108	65-125	0	
Methylene chloride	17.76	5.0	20	0	88.8	55-140	0	
n-Propylbenzene	20.45	1.0	20	0	102	70-130	0	
Naphthalene	26.68	5.0	20	0	133	55-140	0	
o-Xylene	21.17	1.0	20	0	106	80-120	0	
Styrene	22.08	1.0	20	0	110	65-135	0	
Tetrachloroethene	20.38	2.0	20	0	102	45-150	0	
Toluene	20.37	1.0	20	0	102	75-120	0	
trans-1,2-Dichloroethene	20.8	1.0	20	0	104	60-140	0	
trans-1,3-Dichloropropene	21.39	1.0	20	0	107	55-140	0	
trans-1,4-Dichloro-2-butene	19.38	5.0	20	0	96.9	70-135	0	
Trichloroethene	20.94	1.0	20	0	105	70-125	0	
Trichlorofluoromethane	17.44	1.0	20	0	87.2	60-145	0	
Vinyl chloride	21.14	1.0	20	0	106	50-145	0	
Xylenes, Total	62.53	2.0	60	0	104	75-130	0	
<i>Surr: 1,2-Dichloroethane-d4</i>	98.31	0	100	0	98.3	70-120	0	
<i>Surr: 4-Bromofluorobenzene</i>	102.7	0	100	0	103	75-120	0	
<i>Surr: Dibromofluoromethane</i>	103.9	0	100	0	104	85-115	0	
<i>Surr: Toluene-d8</i>	99.76	0	100	0	99.8	85-120	0	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ERM, Inc  
 Work Order: 1003522  
 Project: Former Klein Tools

## QC BATCH REPORT

Batch ID: **R76012** Instrument ID **VMS6** Method: **SW8260**

LCSD	Sample ID: <b>VLCSW1-100326-R76012</b>	Units: <b>µg/L</b>		Analysis Date: <b>03/27/10 12:39 PM</b>						
Client ID:	Run ID: <b>VMS6_100326A</b>	SeqNo: <b>1304206</b>		Prep Date:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	18.46	1.0	20	0	92.3	80-130	18.78	1.72	30	
1,1,1-Trichloroethane	18.9	1.0	20	0	94.5	65-130	19.49	3.07	30	
1,1,2,2-Tetrachloroethane	20.56	1.0	20	0	103	65-130	20.85	1.4	30	
1,1,2-Trichloroethane	20.34	1.0	20	0	102	75-125	20.26	0.394	30	
1,1-Dichloroethane	20.47	1.0	20	0	102	70-135	21.11	3.08	30	
1,1-Dichloroethene	19.29	1.0	20	0	96.4	70-130	21.1	8.96	30	
1,2,3-Trichloropropane	20.08	1.0	20	0	100	75-125	20.15	0.348	30	
1,2,4-Trichlorobenzene	19.81	2.0	20	0	99	65-135	22.11	11	30	
1,2,4-Trimethylbenzene	18.77	1.0	20	0	93.8	75-130	20.49	8.76	30	
1,2-Dibromo-3-chloropropane	21.29	2.0	20	0	106	50-130	22.33	4.77	30	
1,2-Dibromoethane	21.02	1.0	20	0	105	80-120	21.09	0.332	30	
1,2-Dichlorobenzene	20.08	1.0	20	0	100	70-120	20.34	1.29	30	
1,2-Dichloroethane	18.31	1.0	20	0	91.6	70-130	18.43	0.653	30	
1,2-Dichloropropane	20.15	2.0	20	0	101	75-125	20.5	1.72	30	
1,3,5-Trimethylbenzene	19.33	1.0	20	0	96.6	75-130	20.55	6.12	30	
1,3-Dichlorobenzene	19.88	2.0	20	0	99.4	75-125	20.58	3.46	30	
1,4-Dichlorobenzene	19.8	2.0	20	0	99	75-125	20.21	2.05	30	
2-Butanone	17.3	5.0	20	0	86.5	30-150	17.53	1.32	30	
2-Hexanone	22.17	5.0	20	0	111	55-130	21.9	1.23	30	
4-Methyl-2-pentanone	22.07	5.0	20	0	110	60-135	22.01	0.272	30	
Acetone	21.94	20	20	0	110	40-140	21.56	1.75	30	
Acrylonitrile	21.98	1.0	20	0	110	70-135	22.24	1.18	30	
Benzene	19.51	1.0	20	0	97.6	80-120	20.09	2.93	30	
Bromochloromethane	20.1	1.0	20	0	100	65-130	20.04	0.299	30	
Bromodichloromethane	18.71	1.0	20	0	93.6	75-120	19.03	1.7	30	
Bromoform	18.28	1.0	20	0	91.4	70-130	18.65	2	30	
Bromomethane	20.63	1.0	20	0	103	30-145	22.29	7.74	30	
Carbon disulfide	24.81	2.5	20	0	124	35-165	26.48	6.51	30	
Carbon tetrachloride	18.18	1.0	20	0	90.9	65-140	18.85	3.62	30	
Chlorobenzene	20.2	1.0	20	0	101	80-120	20.54	1.67	30	
Chloroethane	17.92	1.0	20	0	89.6	60-135	18.38	2.53	30	
Chloroform	18.79	1.0	20	0	94	65-135	19.44	3.4	30	
Chloromethane	20.36	1.0	20	0	102	70-125	21.92	7.38	30	
cis-1,2-Dichloroethene	19.37	1.0	20	0	96.8	70-125	19.97	3.05	30	
cis-1,3-Dichloropropene	19.13	1.0	20	0	95.6	70-130	19.38	1.3	30	
Dibromochloromethane	19.63	1.0	20	0	98.2	60-135	19.9	1.37	30	
Dibromomethane	20.9	1.0	20	0	104	75-125	21.04	0.668	30	
Dichlorodifluoromethane	13.62	1.0	20	0	68.1	30-155	14.1	3.46	30	
Ethylbenzene	19.9	1.0	20	0	99.5	75-125	20.61	3.51	30	
Hexachloroethane	21.94	1.0	20	0	110	70-135	22.91	4.33	30	
Isopropylbenzene	22.8	1.0	20	0	114	75-125	23.59	3.41	30	
m,p-Xylene	39.93	2.0	40	0	99.8	75-130	41.36	3.52	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** ERM, Inc  
**Work Order:** 1003522  
**Project:** Former Klein Tools

## QC BATCH REPORT

Batch ID: <b>R76012</b>	Instrument ID <b>VMS6</b>		Method: <b>SW8260</b>							
Methyl iodide	30.64	5.0	20	0	153	70-135	32.07	4.56	30	S
Methyl tert-butyl ether	21.69	5.0	20	0	108	65-125	21.66	0.138	30	
Methylene chloride	17.32	5.0	20	0	86.6	55-140	17.76	2.51	30	
n-Propylbenzene	19.47	1.0	20	0	97.4	70-130	20.45	4.91	30	
Naphthalene	22.58	5.0	20	0	113	55-140	26.68	16.6	30	
o-Xylene	20.6	1.0	20	0	103	80-120	21.17	2.73	30	
Styrene	21.36	1.0	20	0	107	65-135	22.08	3.31	30	
Tetrachloroethene	19.58	2.0	20	0	97.9	45-150	20.38	4	30	
Toluene	19.73	1.0	20	0	98.6	75-120	20.37	3.19	30	
trans-1,2-Dichloroethene	20.07	1.0	20	0	100	60-140	20.8	3.57	30	
trans-1,3-Dichloropropene	21.11	1.0	20	0	106	55-140	21.39	1.32	30	
trans-1,4-Dichloro-2-butene	19.07	5.0	20	0	95.4	70-135	19.38	1.61	30	
Trichloroethene	20.34	1.0	20	0	102	70-125	20.94	2.91	30	
Trichlorofluoromethane	16.73	1.0	20	0	83.6	60-145	17.44	4.16	30	
Vinyl chloride	19.96	1.0	20	0	99.8	50-145	21.14	5.74	30	
Xylenes, Total	60.53	2.0	60	0	101	75-130	62.53	3.25	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	99.48	0	100	0	99.5	70-120	98.31	1.18	30	
<i>Surr: 4-Bromofluorobenzene</i>	102.3	0	100	0	102	75-120	102.7	0.351	30	
<i>Surr: Dibromofluoromethane</i>	103.7	0	100	0	104	85-115	103.9	0.212	30	
<i>Surr: Toluene-d8</i>	100.4	0	100	0	100	85-120	99.76	0.689	30	

The following samples were analyzed in this batch:

1003522-04A	1003522-05A	1003522-06A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** ERM, Inc  
**Work Order:** 1003522  
**Project:** Former Klein Tools

## QC BATCH REPORT

Batch ID: **R76035**      Instrument ID **VMS6**      Method: **SW8260**

**MBLK**      Sample ID: **VBLKW1-100326-R76035**      Units: **µg/L**      Analysis Date: **03/29/10 12:28 PM**

Client ID:      Run ID: **VMS6\_100329A**      SeqNo: **1304791**      Prep Date:      DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
1,1,2-Trichlorotrifluoroethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								
1,2,4-Trichlorobenzene	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
1,2-Dibromoethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
1,2-Dichloropropane	ND	2.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,3-Dichlorobenzene	ND	2.0								
1,4-Dichlorobenzene	ND	2.0								
2-Butanone	ND	5.0								
2-Hexanone	ND	5.0								
2-Methylnaphthalene	ND	10								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	20								
Acrylonitrile	ND	1.0								
Benzene	ND	1.0								
Bromochloromethane	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	1.0								
Carbon disulfide	ND	2.5								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	1.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-Dichloroethene	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
Diethyl ether	ND	10								
Ethylbenzene	ND	1.0								

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** ERM, Inc  
**Work Order:** 1003522  
**Project:** Former Klein Tools

## QC BATCH REPORT

Batch ID: <b>R76035</b>	Instrument ID <b>VMS6</b>	Method: <b>SW8260</b>						
Hexachloroethane	ND	1.0						
Isopropylbenzene	ND	1.0						
m,p-Xylene	ND	2.0						
Methyl iodide	ND	5.0						
Methyl tert-butyl ether	ND	5.0						
Methylene chloride	ND	5.0						
n-Propylbenzene	ND	1.0						
Naphthalene	ND	5.0						
o-Xylene	ND	1.0						
Styrene	ND	1.0						
Tetrachloroethene	ND	2.0						
Toluene	ND	1.0						
trans-1,2-Dichloroethene	ND	1.0						
trans-1,3-Dichloropropene	ND	1.0						
trans-1,4-Dichloro-2-butene	ND	5.0						
Trichloroethene	ND	1.0						
Trichlorofluoromethane	ND	1.0						
Vinyl acetate	ND	1.0						
Vinyl chloride	ND	1.0						
Xylenes, Total	ND	2.0						
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>96.84</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>96.8</i>	<i>70-120</i>	<i>0</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>95.76</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>95.8</i>	<i>75-120</i>	<i>0</i>	
<i>Surr: Dibromofluoromethane</i>	<i>99.51</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>99.5</i>	<i>85-115</i>	<i>0</i>	
<i>Surr: Toluene-d8</i>	<i>100</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>100</i>	<i>85-120</i>	<i>0</i>	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ERM, Inc  
 Work Order: 1003522  
 Project: Former Klein Tools

## QC BATCH REPORT

Batch ID: **R76035** Instrument ID **VMS6** Method: **SW8260**

LCS		Sample ID: <b>VLCSW1-100329-R76035</b>			Units: <b>µg/L</b>		Analysis Date: <b>03/29/10 11:03 AM</b>			
Client ID:		Run ID: <b>VMS6_100329A</b>			SeqNo: <b>1304659</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	18.97	1.0	20	0	94.8	80-130	0	0		
1,1,1-Trichloroethane	19.45	1.0	20	0	97.2	65-130	0	0		
1,1,1,2-Tetrachloroethane	20.35	1.0	20	0	102	65-130	0	0		
1,1,2-Trichloroethane	20.98	1.0	20	0	105	75-125	0	0		
1,1-Dichloroethane	22.48	1.0	20	0	112	70-135	0	0		
1,1-Dichloroethene	23.85	1.0	20	0	119	70-130	0	0		
1,2,3-Trichloropropane	18.9	1.0	20	0	94.5	75-125	0	0		
1,2,4-Trichlorobenzene	22.55	2.0	20	0	113	65-135	0	0		
1,2,4-Trimethylbenzene	20.99	1.0	20	0	105	75-130	0	0		
1,2-Dibromo-3-chloropropane	20.01	2.0	20	0	100	50-130	0	0		
1,2-Dibromoethane	21.18	1.0	20	0	106	80-120	0	0		
1,2-Dichlorobenzene	20.35	1.0	20	0	102	70-120	0	0		
1,2-Dichloroethane	18.46	1.0	20	0	92.3	70-130	0	0		
1,2-Dichloropropane	21.45	2.0	20	0	107	75-125	0	0		
1,3,5-Trimethylbenzene	21.15	1.0	20	0	106	75-130	0	0		
1,3-Dichlorobenzene	20.61	2.0	20	0	103	75-125	0	0		
1,4-Dichlorobenzene	20.41	2.0	20	0	102	75-125	0	0		
2-Butanone	16.91	5.0	20	0	84.6	30-150	0	0		
2-Hexanone	20.77	5.0	20	0	104	55-130	0	0		
4-Methyl-2-pentanone	21.41	5.0	20	0	107	60-135	0	0		
Acetone	20.89	20	20	0	104	40-140	0	0		
Acrylonitrile	22.68	1.0	20	0	113	70-135	0	0		
Benzene	20.71	1.0	20	0	104	80-120	0	0		
Bromochloromethane	22.38	1.0	20	0	112	65-130	0	0		
Bromodichloromethane	19.49	1.0	20	0	97.4	75-120	0	0		
Bromoform	17.61	1.0	20	0	88	70-130	0	0		
Bromomethane	27.11	1.0	20	0	136	30-145	0	0		
Carbon disulfide	30.93	2.5	20	0	155	35-165	0	0		
Carbon tetrachloride	19.12	1.0	20	0	95.6	65-140	0	0		
Chlorobenzene	21.2	1.0	20	0	106	80-120	0	0		
Chloroethane	19.41	1.0	20	0	97	60-135	0	0		
Chloroform	20.57	1.0	20	0	103	65-135	0	0		
Chloromethane	25.24	1.0	20	0	126	70-125	0	0		S
cis-1,2-Dichloroethene	21.26	1.0	20	0	106	70-125	0	0		
cis-1,3-Dichloropropene	20.63	1.0	20	0	103	70-130	0	0		
Dibromochloromethane	19.96	1.0	20	0	99.8	60-135	0	0		
Dibromomethane	21.51	1.0	20	0	108	75-125	0	0		
Dichlorodifluoromethane	14.33	1.0	20	0	71.6	30-155	0	0		
Ethylbenzene	21.24	1.0	20	0	106	75-125	0	0		
Hexachloroethane	23.68	1.0	20	0	118	70-135	0	0		
Isopropylbenzene	24.15	1.0	20	0	121	75-125	0	0		
m,p-Xylene	42.52	2.0	40	0	106	75-130	0	0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** ERM, Inc  
**Work Order:** 1003522  
**Project:** Former Klein Tools

## QC BATCH REPORT

Batch ID: <b>R76035</b>	Instrument ID <b>VMS6</b>	Method: <b>SW8260</b>						
Methyl iodide	31.61	5.0	20	0	158	70-135	0	S
Methyl tert-butyl ether	22.02	5.0	20	0	110	65-125	0	
Methylene chloride	20.48	5.0	20	0	102	55-140	0	
n-Propylbenzene	21.19	1.0	20	0	106	70-130	0	
Naphthalene	26.3	5.0	20	0	132	55-140	0	
o-Xylene	21.56	1.0	20	0	108	80-120	0	
Styrene	22.7	1.0	20	0	114	65-135	0	
Tetrachloroethene	20.34	2.0	20	0	102	45-150	0	
Toluene	21.35	1.0	20	0	107	75-120	0	
trans-1,2-Dichloroethene	23.32	1.0	20	0	117	60-140	0	
trans-1,3-Dichloropropene	22.41	1.0	20	0	112	55-140	0	
trans-1,4-Dichloro-2-butene	19.67	5.0	20	0	98.4	70-135	0	
Trichloroethene	21.42	1.0	20	0	107	70-125	0	
Trichlorofluoromethane	17.86	1.0	20	0	89.3	60-145	0	
Vinyl chloride	22.08	1.0	20	0	110	50-145	0	
Xylenes, Total	64.08	2.0	60	0	107	75-130	0	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>94</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>94</i>	<i>70-120</i>	<i>0</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>101.4</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>101</i>	<i>75-120</i>	<i>0</i>	
<i>Surr: Dibromofluoromethane</i>	<i>103.4</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>103</i>	<i>85-115</i>	<i>0</i>	
<i>Surr: Toluene-d8</i>	<i>99.99</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>100</i>	<i>85-120</i>	<i>0</i>	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ERM, Inc  
 Work Order: 1003522  
 Project: Former Klein Tools

## QC BATCH REPORT

Batch ID: R76035 Instrument ID VMS6 Method: SW8260

LCSD	Sample ID: VLCSDW1-100329-R76035	Units: µg/L		Analysis Date: 03/29/10 11:31 AM						
Client ID:	Run ID: VMS6_100329A	SeqNo: 1304672	Prep Date:	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	18.05	1.0	20	0	90.2	80-130	18.97	4.97	30	
1,1,1-Trichloroethane	18.17	1.0	20	0	90.8	65-130	19.45	6.8	30	
1,1,2,2-Tetrachloroethane	20.74	1.0	20	0	104	65-130	20.35	1.9	30	
1,1,2-Trichloroethane	20.43	1.0	20	0	102	75-125	20.98	2.66	30	
1,1-Dichloroethane	21.25	1.0	20	0	106	70-135	22.48	5.63	30	
1,1-Dichloroethene	21.61	1.0	20	0	108	70-130	23.85	9.85	30	
1,2,3-Trichloropropane	19.5	1.0	20	0	97.5	75-125	18.9	3.12	30	
1,2,4-Trichlorobenzene	20.33	2.0	20	0	102	65-135	22.55	10.4	30	
1,2,4-Trimethylbenzene	19.19	1.0	20	0	96	75-130	20.99	8.96	30	
1,2-Dibromo-3-chloropropane	19.79	2.0	20	0	99	50-130	20.01	1.11	30	
1,2-Dibromoethane	21.27	1.0	20	0	106	80-120	21.18	0.424	30	
1,2-Dichlorobenzene	19.87	1.0	20	0	99.4	70-120	20.35	2.39	30	
1,2-Dichloroethane	17.97	1.0	20	0	89.8	70-130	18.46	2.69	30	
1,2-Dichloropropane	20.59	2.0	20	0	103	75-125	21.45	4.09	30	
1,3,5-Trimethylbenzene	19.8	1.0	20	0	99	75-130	21.15	6.59	30	
1,3-Dichlorobenzene	19.64	2.0	20	0	98.2	75-125	20.61	4.82	30	
1,4-Dichlorobenzene	19.64	2.0	20	0	98.2	75-125	20.41	3.85	30	
2-Butanone	17.76	5.0	20	0	88.8	30-150	16.91	4.9	30	
2-Hexanone	21.91	5.0	20	0	110	55-130	20.77	5.34	30	
4-Methyl-2-pentanone	22.38	5.0	20	0	112	60-135	21.41	4.43	30	
Acetone	21.19	20	20	0	106	40-140	20.89	1.43	30	
Acrylonitrile	23.13	1.0	20	0	116	70-135	22.68	1.96	30	
Benzene	19.64	1.0	20	0	98.2	80-120	20.71	5.3	30	
Bromochloromethane	21.12	1.0	20	0	106	65-130	22.38	5.79	30	
Bromodichloromethane	18.67	1.0	20	0	93.4	75-120	19.49	4.3	30	
Bromoform	17.42	1.0	20	0	87.1	70-130	17.61	1.08	30	
Bromomethane	24.24	1.0	20	0	121	30-145	27.11	11.2	30	
Carbon disulfide	27.29	2.5	20	0	136	35-165	30.93	12.5	30	
Carbon tetrachloride	17.84	1.0	20	0	89.2	65-140	19.12	6.93	30	
Chlorobenzene	20.27	1.0	20	0	101	80-120	21.2	4.49	30	
Chloroethane	18.17	1.0	20	0	90.8	60-135	19.41	6.6	30	
Chloroform	19.49	1.0	20	0	97.4	65-135	20.57	5.39	30	
Chloromethane	23.18	1.0	20	0	116	70-125	25.24	8.51	30	
cis-1,2-Dichloroethene	20.21	1.0	20	0	101	70-125	21.26	5.06	30	
cis-1,3-Dichloropropene	19.74	1.0	20	0	98.7	70-130	20.63	4.41	30	
Dibromochloromethane	19.4	1.0	20	0	97	60-135	19.96	2.85	30	
Dibromomethane	21.23	1.0	20	0	106	75-125	21.51	1.31	30	
Dichlorodifluoromethane	13.08	1.0	20	0	65.4	30-155	14.33	9.12	30	
Ethylbenzene	20.15	1.0	20	0	101	75-125	21.24	5.27	30	
Hexachloroethane	21.91	1.0	20	0	110	70-135	23.68	7.76	30	
Isopropylbenzene	22.8	1.0	20	0	114	75-125	24.15	5.75	30	
m,p-Xylene	40.44	2.0	40	0	101	75-130	42.52	5.01	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** ERM, Inc  
**Work Order:** 1003522  
**Project:** Former Klein Tools

## QC BATCH REPORT

Batch ID: <b>R76035</b>	Instrument ID <b>VMS6</b>		Method: <b>SW8260</b>								
Methyl iodide	30.62	5.0	20	0	153	70-135	31.61	3.18	30	S	
Methyl tert-butyl ether	21.74	5.0	20	0	109	65-125	22.02	1.28	30		
Methylene chloride	19.35	5.0	20	0	96.8	55-140	20.48	5.67	30		
n-Propylbenzene	19.82	1.0	20	0	99.1	70-130	21.19	6.68	30		
Naphthalene	23.76	5.0	20	0	119	55-140	26.3	10.1	30		
o-Xylene	20.67	1.0	20	0	103	80-120	21.56	4.22	30		
Styrene	21.73	1.0	20	0	109	65-135	22.7	4.37	30		
Tetrachloroethene	19.16	2.0	20	0	95.8	45-150	20.34	5.97	30		
Toluene	20.02	1.0	20	0	100	75-120	21.35	6.43	30		
trans-1,2-Dichloroethene	21.69	1.0	20	0	108	60-140	23.32	7.24	30		
trans-1,3-Dichloropropene	21.74	1.0	20	0	109	55-140	22.41	3.04	30		
trans-1,4-Dichloro-2-butene	20.11	5.0	20	0	101	70-135	19.67	2.21	30		
Trichloroethene	20.27	1.0	20	0	101	70-125	21.42	5.52	30		
Trichlorofluoromethane	16.94	1.0	20	0	84.7	60-145	17.86	5.29	30		
Vinyl chloride	20.54	1.0	20	0	103	50-145	22.08	7.23	30		
Xylenes, Total	61.11	2.0	60	0	102	75-130	64.08	4.74	30		
<i>Surr: 1,2-Dichloroethane-d4</i>	94.39	0	100	0	94.4	70-120	94	0.414	30		
<i>Surr: 4-Bromofluorobenzene</i>	100.6	0	100	0	101	75-120	101.4	0.723	30		
<i>Surr: Dibromofluoromethane</i>	101.9	0	100	0	102	85-115	103.4	1.41	30		
<i>Surr: Toluene-d8</i>	100.5	0	100	0	101	85-120	99.99	0.539	30		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ERM, Inc  
 Work Order: 1003522  
 Project: Former Klein Tools

# QC BATCH REPORT

Batch ID: **R76035** Instrument ID **VMS6** Method: **SW8260**

MS		Sample ID: 1003522-02A MS			Units: µg/L		Analysis Date: 03/29/10 09:18 PM			
Client ID: MW-1D		Run ID: VMS6_100329A			SeqNo: 1304902		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	16.44	1.0	20	0	82.2	80-130	0	0		
1,1,1-Trichloroethane	17.52	1.0	20	0	87.6	65-130	0	0		
1,1,2,2-Tetrachloroethane	18.86	1.0	20	0	94.3	65-130	0	0		
1,1,2-Trichloroethane	19.22	1.0	20	0	96.1	75-125	0	0		
1,1-Dichloroethane	19.97	1.0	20	0	99.8	70-135	0	0		
1,1-Dichloroethene	19.67	1.0	20	0	98.4	70-130	0	0		
1,2,3-Trichloropropane	18.32	1.0	20	0	91.6	75-125	0	0		
1,2,4-Trichlorobenzene	14.85	2.0	20	0	74.2	65-135	0	0		
1,2,4-Trimethylbenzene	17.46	1.0	20	0	87.3	75-130	0	0		
1,2-Dibromo-3-chloropropane	15.82	2.0	20	0	79.1	50-130	0	0		
1,2-Dibromoethane	19.59	1.0	20	0	98	80-120	0	0		
1,2-Dichlorobenzene	17.44	1.0	20	0	87.2	70-120	0	0		
1,2-Dichloroethane	16.9	1.0	20	0	84.5	70-130	0	0		
1,2-Dichloropropane	19.4	2.0	20	0	97	75-125	0	0		
1,3,5-Trimethylbenzene	18.1	1.0	20	0	90.5	75-130	0	0		
1,3-Dichlorobenzene	17.54	2.0	20	0	87.7	75-125	0	0		
1,4-Dichlorobenzene	17.21	2.0	20	0	86	75-125	0	0		
2-Butanone	16.4	5.0	20	0	82	30-150	0	0		
2-Hexanone	20.28	5.0	20	0	101	55-130	0	0		
4-Methyl-2-pentanone	20.35	5.0	20	0	102	60-135	0	0		
Acetone	18.55	20	20	0	92.8	40-140	0	0		J
Acrylonitrile	20.41	1.0	20	0	102	70-135	0	0		
Benzene	18.93	1.0	20	0	94.6	80-120	0	0		
Bromochloromethane	18.99	1.0	20	0	95	65-130	0	0		
Bromodichloromethane	16.58	1.0	20	0	82.9	75-120	0	0		
Bromoform	14.6	1.0	20	0	73	70-130	0	0		
Bromomethane	23.64	1.0	20	0	118	30-145	0	0		
Carbon disulfide	20.96	2.5	20	0	105	35-165	0	0		
Carbon tetrachloride	16.64	1.0	20	0	83.2	65-140	0	0		
Chlorobenzene	19.01	1.0	20	0	95	80-120	0	0		
Chloroethane	16.32	1.0	20	0	81.6	60-135	0	0		
Chloroform	17.83	1.0	20	0	89.2	65-135	0	0		
Chloromethane	21.01	1.0	20	0	105	70-125	0	0		
cis-1,2-Dichloroethene	22.37	1.0	20	4.18	91	70-125	0	0		
cis-1,3-Dichloropropene	18.1	1.0	20	0	90.5	70-130	0	0		
Dibromochloromethane	16.74	1.0	20	0	83.7	60-135	0	0		
Dibromomethane	19.93	1.0	20	0	99.6	75-125	0	0		
Dichlorodifluoromethane	13.17	1.0	20	0	65.8	30-155	0	0		
Ethylbenzene	18.86	1.0	20	0	94.3	75-125	0	0		
Hexachloroethane	17.67	1.0	20	0	88.4	70-135	0	0		
Isopropylbenzene	21.56	1.0	20	0	108	75-125	0	0		
m,p-Xylene	37.61	2.0	40	0	94	75-130	0	0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** ERM, Inc  
**Work Order:** 1003522  
**Project:** Former Klein Tools

## QC BATCH REPORT

Batch ID: <b>R76035</b>	Instrument ID <b>VMS6</b>	Method: <b>SW8260</b>						
Methyl iodide	20.76	5.0	20	0	104	70-135	0	
Methyl tert-butyl ether	18.62	5.0	20	0	93.1	65-125	0	
Methylene chloride	16.68	5.0	20	0	83.4	55-140	0	
n-Propylbenzene	18.12	1.0	20	0	90.6	70-130	0	
Naphthalene	16.28	5.0	20	0	81.4	55-140	0	
o-Xylene	19.18	1.0	20	0	95.9	80-120	0	
Styrene	16.87	1.0	20	0	84.4	65-135	0	
Tetrachloroethene	18.32	2.0	20	0	91.6	45-150	0	
Toluene	18.99	1.0	20	0	95	75-120	0	
trans-1,2-Dichloroethene	19.67	1.0	20	0	98.4	60-140	0	
trans-1,3-Dichloropropene	19.15	1.0	20	0	95.8	55-140	0	
trans-1,4-Dichloro-2-butene	17.49	5.0	20	0	87.4	70-135	0	
Trichloroethene	39.76	1.0	20	19.87	99.4	70-125	0	
Trichlorofluoromethane	14.39	1.0	20	0	72	60-145	0	
Vinyl chloride	20.14	1.0	20	0	101	50-145	0	
Xylenes, Total	56.79	2.0	60	0	94.6	75-130	0	
<i>Surr: 1,2-Dichloroethane-d4</i>	93.77	0	100	0	93.8	70-120	0	
<i>Surr: 4-Bromofluorobenzene</i>	100.8	0	100	0	101	75-120	0	
<i>Surr: Dibromofluoromethane</i>	101.7	0	100	0	102	85-115	0	
<i>Surr: Toluene-d8</i>	98.84	0	100	0	98.8	85-120	0	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** ERM, Inc  
**Work Order:** 1003522  
**Project:** Former Klein Tools

## QC BATCH REPORT

Batch ID: **R76035**      Instrument ID **VMS6**      Method: **SW8260**

MSD		Sample ID: 1003522-02A MSD			Units: µg/L		Analysis Date: 03/29/10 09:47 PM			
Client ID: MW-1D		Run ID: VMS6_100329A			SeqNo: 1304903		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	17.13	1.0	20	0	85.6	80-130	16.44	4.11	30	
1,1,1-Trichloroethane	18	1.0	20	0	90	65-130	17.52	2.7	30	
1,1,2,2-Tetrachloroethane	19.11	1.0	20	0	95.6	65-130	18.86	1.32	30	
1,1,2-Trichloroethane	19.4	1.0	20	0	97	75-125	19.22	0.932	30	
1,1-Dichloroethane	19.59	1.0	20	0	98	70-135	19.97	1.92	30	
1,1-Dichloroethene	19.56	1.0	20	0	97.8	70-130	19.67	0.561	30	
1,2,3-Trichloropropane	18.37	1.0	20	0	91.8	75-125	18.32	0.273	30	
1,2,4-Trichlorobenzene	15.26	2.0	20	0	76.3	65-135	14.85	2.72	30	
1,2,4-Trimethylbenzene	17.05	1.0	20	0	85.2	75-130	17.46	2.38	30	
1,2-Dibromo-3-chloropropane	17.93	2.0	20	0	89.6	50-130	15.82	12.5	30	
1,2-Dibromoethane	19.85	1.0	20	0	99.2	80-120	19.59	1.32	30	
1,2-Dichlorobenzene	17.84	1.0	20	0	89.2	70-120	17.44	2.27	30	
1,2-Dichloroethane	16.85	1.0	20	0	84.2	70-130	16.9	0.296	30	
1,2-Dichloropropane	19.18	2.0	20	0	95.9	75-125	19.4	1.14	30	
1,3,5-Trimethylbenzene	17.73	1.0	20	0	88.6	75-130	18.1	2.07	30	
1,3-Dichlorobenzene	17.77	2.0	20	0	88.8	75-125	17.54	1.3	30	
1,4-Dichlorobenzene	17.62	2.0	20	0	88.1	75-125	17.21	2.35	30	
2-Butanone	15.36	5.0	20	0	76.8	30-150	16.4	6.55	30	
2-Hexanone	20.12	5.0	20	0	101	55-130	20.28	0.792	30	
4-Methyl-2-pentanone	20.24	5.0	20	0	101	60-135	20.35	0.542	30	
Acetone	17.54	20	20	0	87.7	40-140	18.55	0	30	J
Acrylonitrile	20.23	1.0	20	0	101	70-135	20.41	0.886	30	
Benzene	18.87	1.0	20	0	94.4	80-120	18.93	0.317	30	
Bromochloromethane	18.89	1.0	20	0	94.4	65-130	18.99	0.528	30	
Bromodichloromethane	16.95	1.0	20	0	84.8	75-120	16.58	2.21	30	
Bromoform	15.59	1.0	20	0	78	70-130	14.6	6.56	30	
Bromomethane	22.98	1.0	20	0	115	30-145	23.64	2.83	30	
Carbon disulfide	22.73	2.5	20	0	114	35-165	20.96	8.1	30	
Carbon tetrachloride	17.14	1.0	20	0	85.7	65-140	16.64	2.96	30	
Chlorobenzene	19.26	1.0	20	0	96.3	80-120	19.01	1.31	30	
Chloroethane	15.78	1.0	20	0	78.9	60-135	16.32	3.36	30	
Chloroform	17.89	1.0	20	0	89.4	65-135	17.83	0.336	30	
Chloromethane	20.78	1.0	20	0	104	70-125	21.01	1.1	30	
cis-1,2-Dichloroethene	22.27	1.0	20	4.18	90.4	70-125	22.37	0.448	30	
cis-1,3-Dichloropropene	18.13	1.0	20	0	90.6	70-130	18.1	0.166	30	
Dibromochloromethane	17.55	1.0	20	0	87.8	60-135	16.74	4.72	30	
Dibromomethane	19.84	1.0	20	0	99.2	75-125	19.93	0.453	30	
Dichlorodifluoromethane	13.23	1.0	20	0	66.2	30-155	13.17	0.455	30	
Ethylbenzene	19.02	1.0	20	0	95.1	75-125	18.86	0.845	30	
Hexachloroethane	19.14	1.0	20	0	95.7	70-135	17.67	7.99	30	
Isopropylbenzene	21.73	1.0	20	0	109	75-125	21.56	0.785	30	
m,p-Xylene	37.96	2.0	40	0	94.9	75-130	37.61	0.926	30	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** ERM, Inc  
**Work Order:** 1003522  
**Project:** Former Klein Tools

## QC BATCH REPORT

Batch ID: <b>R76035</b>	Instrument ID <b>VMS6</b>			Method: <b>SW8260</b>						
Methyl iodide	23.26	5.0	20	0	116	70-135	20.76	11.4	30	
Methyl tert-butyl ether	18.93	5.0	20	0	94.6	65-125	18.62	1.65	30	
Methylene chloride	16.3	5.0	20	0	81.5	55-140	16.68	2.3	30	
n-Propylbenzene	18.09	1.0	20	0	90.4	70-130	18.12	0.166	30	
Naphthalene	18.41	5.0	20	0	92	55-140	16.28	12.3	30	
o-Xylene	19.35	1.0	20	0	96.8	80-120	19.18	0.882	30	
Styrene	16.79	1.0	20	0	84	65-135	16.87	0.475	30	
Tetrachloroethene	18.77	2.0	20	0	93.8	45-150	18.32	2.43	30	
Toluene	19.29	1.0	20	0	96.4	75-120	18.99	1.57	30	
trans-1,2-Dichloroethene	19.23	1.0	20	0	96.2	60-140	19.67	2.26	30	
trans-1,3-Dichloropropene	19.72	1.0	20	0	98.6	55-140	19.15	2.93	30	
trans-1,4-Dichloro-2-butene	17.3	5.0	20	0	86.5	70-135	17.49	1.09	30	
Trichloroethene	40.13	1.0	20	19.87	101	70-125	39.76	0.926	30	
Trichlorofluoromethane	14.88	1.0	20	0	74.4	60-145	14.39	3.35	30	
Vinyl chloride	19.9	1.0	20	0	99.5	50-145	20.14	1.2	30	
Xylenes, Total	57.31	2.0	60	0	95.5	75-1330	56.79	0.911	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	92.63	0	100	0	92.6	70-120	93.77	1.22	30	
<i>Surr: 4-Bromofluorobenzene</i>	101.4	0	100	0	101	75-120	100.8	0.623	30	
<i>Surr: Dibromofluoromethane</i>	101.5	0	100	0	101	85-115	101.7	0.226	30	
<i>Surr: Toluene-d8</i>	99.87	0	100	0	99.9	85-120	98.84	1.04	30	

The following samples were analyzed in this batch:

1003522-01A	1003522-02A	1003522-03A
1003522-07B		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ERM, Inc  
 Work Order: 1003522  
 Project: Former Klein Tools

## QC BATCH REPORT

Batch ID: **R76041** Instrument ID **MOIST** Method: **A2540 B**

**MBLK** Sample ID: **WBLKS1-100329-R76041** Units: % of sample Analysis Date: **03/29/10 10:40 AM**

Client ID: Run ID: **MOIST\_100329A** SeqNo: **1304925** Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.010								

**DUP** Sample ID: **1003522-07A DUP** Units: % of sample Analysis Date: **03/29/10 10:40 AM**

Client ID: **SB/MW-1, 0-1'** Run ID: **MOIST\_100329A** SeqNo: **1304927** Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	7.11	0.010	0	0	0	0-0	6.43	10	20	

**DUP** Sample ID: **1003570-15A DUP** Units: % of sample Analysis Date: **03/29/10 10:40 AM**

Client ID: Run ID: **MOIST\_100329A** SeqNo: **1304947** Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	1.38	0.010	0	0	0	0-0	1.41	2.15	20	

The following samples were analyzed in this batch:

1003522-07A



ALS Laboratory Group  
 10450 Stancliff Rd., Suite 210  
 Houston, Texas 77099  
 Tel. +1 281 530 5656  
 Fax. +1 281 530 5887

Chain of Custody Form

ALS Laboratory Group  
 3352 128th Ave.  
 Holland, MI 49424-9263  
 Tel: +1 616 399 6070  
 Fax: +1 616 399 6185

Page 1 of 1

Customer Information		Project Information		ALS Project Manager: <u>TBB</u> ALS Work Order #: <u>1603522</u>													
Project Name		Parameter/Method Request for Analysis															
Former Klein Tools		As, Ba, Cd, Cr, Cu, Pb, Se, Ag, Zn, Hg															
Project Number		MDNRE 624/8260 "plus" VOCs															
Bill To Company		Moisture															
Invoice Attn																	
Address																	
City/State/Zip																	
Phone																	
Fax																	
e-Mail Address																	
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-2	3-24-10	10:49am	GW	1.8	3	X										
2	MW-1D	3-24-10	12:54pm	GW	1.8	3	X										
3	MW-5	3-24-10	1:53pm	GW	1.8	3	X										
4	MW-1S	3-24-10	2:07pm	GW	1.8	3	X										
5	MW-4	3-24-10	3:16pm	GW	1.8	3	X										
6	MW-3	3-24-10	4:39pm	GW	1.8	3	X										
7	SB/MW-1, 0-1'	3-23-10	10:30am	Sand	7.8	3	X	X									
8																	
9																	
10																	
Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:											
Dan Ruzicki / Dan Ruzicki		Blank		Std 10 WK Days <input checked="" type="checkbox"/> 5 WK Days <input type="checkbox"/> 24 Hour <input type="checkbox"/>													
Relinquished by:		Date:	Time:	Received by (Laboratory):		Notes:											
Dan Ruzicki		3-25-10	3:09:05pm	[Signature]													
Relinquished by:		Date:	Time:	Received by (Laboratory):													
[Signature]		3/25/10	10:50	TBB													
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):													
[Signature]		3/25/10	10:50	TBB													
Preservative Key:		1-HCl	2-HNO <sub>3</sub>	3-H <sub>2</sub> SO <sub>4</sub>	4-NaOH	5-Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	6-NaHSO <sub>4</sub>	7-Other	8-4°C	9-5035							
Cooler ID		Cooler Temp.		QC Package: (Check One Box Below)													
		4°C		<input checked="" type="checkbox"/> Level II Std QC <input type="checkbox"/> Level III Std QC/Raw Data <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other													

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.  
 2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.  
 3. The Chain of Custody is a legal document. All information must be completed accurately.

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ALS Laboratory Group

Sample Receipt Checklist

Client Name: ERM-HOLL

Date/Time Received: 25-Mar-10 09:05

Work Order: 1003522

Received by: WJC

Checklist completed by Bill Carey 25-Mar-10  
eSignature Date

Reviewed by: Toni Bramich 25-Mar-10  
eSignature Date

Matrices: Groundwater/Soil

Carrier name: Client

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present
- Custody seals intact on sample bottles? Yes  No  Not Present
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Container/Temp Blank temperature in compliance? Yes  No

Temperature(s)/Thermometer(s): 4.0 C

Cooler(s)/Kit(s):

Water - VOA vials have zero headspace? Yes  No  No VOA vials submitted

Water - pH acceptable upon receipt? Yes  No  N/A

pH adjusted? Yes  No  N/A

pH adjusted by:

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

*Attachment E*  
*Due Care Information*

# Environmental Information Sheet (EIS)



Project/Site Name: <u>Former Klein Tools, Inc.</u>
Site Address: <u>121 Water Street, Jonesville, Michigan</u>
ERM Project Number: <u>0109712</u>
Date Prepared: <u>05/24/10</u>

## 1.0 Purpose

This Environmental Information Sheet (EIS) was prepared by ERM on behalf of Klein Tools pursuant to Section 7a of Part 201 of Public Act 451 of 1994, as amended, and the Part 10 Administrative Rules for "Due Care." These due care requirements include:

- 1) *undertaking measures to prevent exacerbation of the known contamination*
- 2) *undertaking response activities to mitigate unacceptable exposures to the contamination and to allow for use of the property that protects public health and safety, and to mitigate fire and explosion hazards*
- 3) *taking reasonable precautions against the reasonably foreseeable acts or omissions of a third party*

The purpose of this EIS is to inform owners, occupants, and contractors, of environmental conditions and certain environmental precautions that need to be taken to meet the above requirements. It is the responsibility of each contractor working on the site to assure the health and safety of its employees. The information herein is based on the current knowledge of site conditions. A complete assessment of all potential impacts has not been undertaken. This EIS is not intended to take the place of an OSHA Health & Safety Plan.

## 2.0 Site Description and Setting

The site is located in the Southwest ¼ of Section 4, Township 6 South, Range 3 West, at 121 Water Street within the city limits of Jonesville in Hillsdale County, Michigan. The property is approximately 10 acres in size, and identified by Parcel Numbers 30-06-060-001-038, 30-06-060-001-004, 30-06-060-001-036 and 30-06-060-001-034. The property contains one parking lot located on the east side of Water Street and an approximately 68,500 square foot steel structure with brick cladding on the west side of Water Street. The St. Joseph River borders the property to the west.

## 3.0 Summary of Environmental Conditions

Several prior environmental investigations have been undertaken to characterize soil and groundwater at the site. The prior ERM investigation is summarized in a Phase II Investigation Report prepared by ERM on behalf of Klein Tools dated 24 May 2010. In summary, the ERM and prior investigations indicated the following:

- **Soil Contaminants** – Contaminants including a variety of metals, semi-volatile organic compounds (SVOCs), and volatile organic compounds (VOCs) at the site. These contaminants appear to be primarily associated with historic fill material consisting of non-native sands with coal, bricks, concrete, and glass fragments. Isolated releases of hazardous substances appear to have contributed to the contamination in the fill. These contaminants may be encountered during both invasive (e.g., soil borings, excavation) and non-invasive activities (e.g., site walkover in unpaved areas) at the site. Polychlorinated biphenyls (PCBs) were detected in one concrete core sample inside the building.
- **Groundwater Contaminants** – Contaminants in groundwater include a variety of metals and VOCs. These contaminants may be encountered during groundwater pumping or excavations below the water table. Groundwater is not used as a drinking water supply or for other uses at the site.

## 4.0 Operations/Activities Considered

This EIS considers the following operations/activities:

- Routine Site Use/Occupancy;
- Any Excavation/Subsurface Work Activities;
- General Work Activities by Contractors; and
- Groundwater Pumping/Dewatering.

If work at the site will involve activities not listed above, the parties conducting these activities shall notify Klein Tools in advance and evaluate/comply with Part 201 "due care" requirements.

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## 5.0 Exposure Pathways With Part 201 Cleanup Criteria Exceedances

### Soil Pathways

<input checked="" type="checkbox"/> Drinking Water/Leaching	<input checked="" type="checkbox"/> Groundwater - Surface Water Interface/Leaching	<input checked="" type="checkbox"/> Direct Contact
<input type="checkbox"/> Volatilization to Indoor Air	<input type="checkbox"/> Volatilization to Ambient Air	<input type="checkbox"/> Particulate Soil Inhalation

### Groundwater Pathways

<input checked="" type="checkbox"/> Drinking Water	<input type="checkbox"/> Groundwater - Surface Water Interface	<input type="checkbox"/> Volatilization to Indoor Air
<input type="checkbox"/> Groundwater Contact	<input type="checkbox"/> Acute Inhalation	<input type="checkbox"/> Flammability and Explosivity

## 6.0 Due Care Precautions

The due care precautions listed below shall be followed during performance of remediation-related operations/activities listed in Section 4.0.

### **HUMAN HEALTH AND NATURAL RESOURCE EXPOSURES**

**Soil – Drinking Water Protection Via Leaching:** Although exceedances of Part 201 generic residential drinking water protection criteria (arsenic, mercury and selenium, and trichloroethene) are documented, this exposure pathway (and resultant risk) will not be complete given that groundwater is not and shall not be used for consumptive purposes.

**Soil – Groundwater/Surface Water Interface Protection:** Although exceedances of Part 201 GSI protection criteria (copper, mercury, selenium, silver, zinc, ethylbenzene, toluene, xylenes, fluoranthene, and phenanthrene) are documented, no exceedances of GSI criteria in groundwater are documented. These soils are located both beneath the building and outside beneath paved and unpaved areas.

**Soil – Direct Contact:** Although exceedances of Part 201 direct contact criteria (arsenic and lead) are documented, this risk only applies to a long-term residential exposure scenario. These soils are located beneath the asphalt parking area west of the building (B-3) and beneath the building foundation (B-2, B-11 and B-13). Direct contact hazards are not expected during the activities in Section 4.0 with the exception of below grade utility work and demolition. To minimize the potential for exposure hazards, persons conducting subsurface activities shall minimize dermal contact and wear gloves, long sleeve shirts, pants, boots, etc. when conducting work involving contact with soils.

**Groundwater – Drinking Water:** Although exceedances of Part 201 generic residential drinking water criteria (arsenic, trichloroethene, and vinyl chloride) are documented, this risk will not become complete since groundwater is not used for any purposes, and municipal water is used as the drinking water source at the site, as well as for all other purposes.

*(Note: This evaluation does not address worker health and safety issues such as physical hazards, confined space issues, etc.)*

### **CONTRACTOR SOIL MANAGEMENT/EXCAVATION REQUIREMENTS**

**Regulatory Evaluation:** Contractors shall evaluate and comply with applicable State and Federal soil movement and waste management regulations during performance of excavation work at the site (e.g., RCRA, Michigan Part 201 soil relocation/notification requirements, etc.).

**Temporary Soil Removal:** Soils excavated on a temporary basis (e.g., for utility repair) can be returned to their original location.

**Soil Stockpiling:** Excavated material that is not directly loaded into trucks/containers for off-site management shall be placed on plastic sheeting. If not returned to the excavation or removed from the site within 24 hours, excavated soils shall be covered by plastic sheeting.

**Soil Relocation:** Soils shall not be relocated from their original location unless additional testing is performed to show that the proposed relocation area is similarly contaminated compared to the soils to be relocated. An environmental professional shall be consulted for guidance if soil relocation is planned.



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**Removal of Soil from the Site:** Soils shall not be removed from the site unless tested to demonstrate that they are "clean" (i.e., no detectable contaminants) or unless managed at an appropriate off-site treatment/disposal facility. Owner shall be informed of the proposed treatment/disposal facility in advance of the removal and shall be provided copies of waste manifests. Owner shall be provided the opportunity to approve or reject the proposed treatment/disposal facility.

**Erosion Controls:** Contractors shall take precautions to prevent erosion of soils into surface waters or storm water catch basins (e.g., installation of silt fences/silt traps where necessary, covering of stockpiles with plastic sheeting, etc.).

**Dust Controls:** Although no exceedances of Part 201 particulate inhalation criteria are documented, contractors working at the site shall take measures to mitigate visible dust emissions from the site (e.g., moisten soils/apply dust suppressant in work areas, etc.).

**Equipment Track-Out:** Contractors shall take precautions to minimize track-out of soils from equipment/machinery working in contaminated areas before leaving the site (e.g., construct gravel track-out pad, tire rinsing, etc.). Residues/waste soil from track-out mitigation shall be properly contained and managed at a licensed off-site treatment/disposal facility. If track-out control measures are inadequate and soils are tracked onto adjacent roads, cleanup (e.g., sweeping, vac-truck) and proper disposal of cleanup residues shall be performed by the contractor.

### ***GROUNDWATER MANAGEMENT***

Groundwater from the site has been contaminated and may adversely affect soils, human health, or surface water quality if discharged or pumped onto the ground surface or into drains, streams, or ponds. Therefore, groundwater (e.g., from construction dewatering) shall be managed in strict accordance with applicable State, Federal, and/or local regulations. All necessary permits and authorizations shall be obtained prior to discharge or removal. Owner shall be informed of the proposed treatment/disposal facility in advance of the discharge or removal and shall be provided copies of waste manifests. Owner shall be provided the opportunity to approve or reject the proposed treatment/disposal facility.

### ***BURIED CONTAINERS/PIPING***

**Containers/Piping:** If any indications of underground containers (e.g., tanks, vessels, drums, etc.) or piping are encountered during excavation, the contractor shall immediately notify Owner and develop a container/piping response plan for Owner's review and approval prior to disturbing. Containers/piping and their contents shall be properly managed in accordance with applicable regulations.

**Utilities:** Utilities encountered during excavation activities shall be properly protected to prevent damage. If removal is authorized by Owner, the removal termination points shall be properly capped/plugged and marked at the ground surface. Utilities and their contents shall be properly managed in strict accordance with applicable State, Federal and/or local regulation. Should contents require offsite disposal, Owner shall be informed of the proposed disposal facility in advance of the removal and shall be provided copies of waste manifests. Owner shall be provided the opportunity to approve or reject the proposed disposal facility.

### ***OTHERS***

**Asbestos/Contaminated Building Materials:** Asbestos-containing building materials are present inside the building and may be present in certain exterior areas. Work performed inside or near the building shall include precautions to mitigate potential asbestos exposure hazards. Any disturbance of insulation material or other potentially friable asbestos-containing materials shall be conducted in accordance with applicable regulations.

**Lead Based Paint:** Lead-based paint may be present inside the building. Work performed inside the building shall include precautions to mitigate potential lead-based paint exposure hazards.

## ***7.0 Evaluation of Compliance with Section 7a Obligations***

### ***EXACERBATION***

Part 201 defines exacerbation as an activity taken by the owner/operator with respect to existing \_\_\_\_\_

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contamination that results in either of the following:

- migration of contamination beyond the property boundary at a concentration exceeding applicable Part 201 cleanup criteria; or
- a change in facility conditions that results in increased response activity costs.

Rule 1007 indicates that an activity taken by the owner/operator is not exacerbation through an increase in response activity cost if the increase is small in relation to the total cost of the response activity that would be required to satisfy the relevant land use-based cleanup criteria applicable at the time activities are undertaken and the activity undertaken provides environmental or public health benefits.

Prior to removal of impermeable surfaces/structures or performance of other activities that may result in a change in storm water infiltration characteristics of the site, an evaluation shall be undertaken to determine whether increased leaching and/or off-site contaminant migration may result. Measures will be taken to mitigate increased leaching and/or off-site contaminant migration if found to be a concern based on the proposed activities.

### **DUE CARE/UNACCEPTABLE EXPOSURES**

Known contamination at the site may pose exposure hazards if subsurface activities occur. If subsurface construction and/or utility work, or site activities that could result in dermal contact are conducted in areas of direct contact exceedances, precautions shall be taken to mitigate potential direct contact hazards (i.e., assure adequate dermal contact protection such as personal protective equipment).

Groundwater shall not be used for consumptive purposes.

Activities resulting in increased risk to surface water impacts shall be prevented (e.g., increased leaching and/or runoff of sediment/soils).

### **REASONABLE PRECAUTIONS**

Section 7a of Part 201 requires that owners/operators take precautions against the reasonably foreseeable acts or omissions of third parties and the consequences that could foreseeably result from those actions. This requirement can be addressed through maintaining the current fencing and access limitations, and notifying contractors prior to any subsurface activities of the content of this document.

## **8.0 Notifications**

Following is a discussion of the Part 201 notification requirements pertaining to utility/easement holders, abandoned containers, migrating contamination, fire/explosion hazards, and soil movement.

### **“Rule 1013” Notice – Utility/Easement Holders**

Available sampling data does not indicate any known utility worker exposure hazards in areas with utility easements; therefore, easement holder notice(s) per Rule 1013(6) are not required. However, a copy of this EIS will be provided to the City of Jonesville and any other construction/utility contractors prior to performing subsurface activities at the site in order to inform these parties of due care precautions.

### **“Rule 1015” Notice - Abandoned Containers**

There are no known abandoned containers at the site; therefore, a “Rule 1015” Notice is not required.

### **“Rule 1017” Notice – Migrating Contamination**

A Notice of Migration of Contamination per Rule 1017 is required to be submitted to MDEQ and affected adjacent property owner(s) if, based on the site data and conditions, groundwater contamination above residential cleanup criteria has or is likely to migrate off the property. At the site, potential routes for migration include direct migration off the property boundary to the St. Joseph River and/or migration through utility corridors. Since groundwater appears to be migrating to the river (i.e., off-site) at a concentration exceeding generic residential cleanup criteria, a Notice of Migration of Contamination per Rule 1017 is required to be submitted to the MDNRE and affected adjacent property owners within 45 days of obtaining knowledge of the exceedance.

### **“Rule 1019” Notice – Fire/Explosion Hazards**

There are no known fire or explosion hazards related to existing contamination; therefore, a “Rule 1019” Notice is not required.

### **Soil Movement Notice**

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No soil movement/relocation activities are currently planned. Notice shall be provided to MDNRE per Section 20120c, if impacted soils are relocated beyond the general excavation area.

Owner Contact Info: Russell Winnie, Klein Tools, Inc. (847) 821-5500

Contractor Sign off : \_\_\_\_\_ Date: \_\_\_\_\_ .