PRE-REMEDY GROUNDWATER MONITORING REPORT JANUARY 2000 SAMPLING EVENT

FORMER TAYLOR INSTRUMENTS SITE
ROCHESTER, NEW YORK

PREPARED FOR:

COMBUSTION ENGINEERING
501 MERRITT 7
NORWALK, CT 06851

PREPARED BY:

HARDING LAWSON ASSOCIATES
1400 CENTERPOINT BOULEVARD, SUITE 158
KNOXVILLE, TN 37932

February 2000

Harding Lawson Associates
1400 Centerpoint Blvd., Suite 158
Knoxville, TN 37932
(865) 531-1922

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LIST OF ACRONYMS

µg/L	micrograms per liter
COC	contaminants of concern
ELAP	Environmental Laboratory Accreditation Program
HLA	Harding Lawson Associates
LCS	laboratory control sample
mL/min	milliliters per minute
MS/MSD	matrix spike/matrix spike duplicate
NYSDEC	New York State Department of Environmental Conservation
RPD	relative percent difference
TCE	trichloroethene
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

1.0 INTRODUCTION

This report summarizes activities and results for the third of the 1999 tri-annual groundwater sampling events at the Former Taylor Instruments Facility - New York Department of Environmental Conservation (NYSDEC) Site #828028a located in Rochester, New York. The Pre-Remedy Groundwater Monitoring Program has been implemented to establish baseline groundwater conditions from which an evaluation of natural and remediation-induced trends of site-related contaminants of concern (COCs) can be determined.

2.0 SCOPE OF WORK

Harding Lawson Associates (HLA) collected groundwater samples from selected monitoring wells at the Former Taylor Instruments Site from January 4 to 8, 2000. Sampling was accomplished in accordance with the work plan for the Pre-Remedy Groundwater Monitoring Program (HLA, 1999). The wells associated with the groundwater monitoring plan and analyses for which they were submitted are listed in Table 2-1. Figure 1 (Appendix A) shows the site boundary and locations of monitoring wells.

Table 2-1
Wells and Analyses
January 2000 Sampling Event

Pre-Remedy Groundwater Monitoring Report
January 2000 Sampling Event
Former Taylor Instruments Site
Rochester, New York

Well ID	Well Type	Volatile Organic Compounds	Natural Attenuation Parameters
BR-01	Bedrock	X	X
BR-02	Bedrock	X	X
BR-03	Bedrock	X	
BR-04	Bedrock	X	X
BR-05	Bedrock	X	X
BR-06	Bedrock		X
BR-07	Bedrock	X	
OB-04	Overburden	X	X
OB-05	Overburden	X	X
MW00	Overburden	X	
TW-01	Overburden	X	
TW-04	Overburden	X	
TW-07	Overburden	X	
TW-09	Overburden	X	X
TW-13	Overburden	X	
TW-17	Overburden	X	X
TW-20	Overburden	X	
W-2	Overburden		X
W-4	Overburden	X	
W-5	Overburden	X	X
W-6	Overburden	X	

All monitoring wells were sampled using low-flow peristaltic pumps at flow rates of 400 milliliters per minute (mL/min) or less. Field measurements of pH, conductivity, temperature, turbidity, and dissolved oxygen were collected during purging. Purge and sample data can be found on the field data records (Appendix B).

3.0 SUMMARY OF RESULTS

The following paragraphs report the volatile organic compound (VOC) results of the January 2000 sampling event. Natural attenuation parameters were also collected to provide data for use in remedial design. These results are reported herein, but not discussed. VOC results for bedrock and overburden groundwater can be seen in Figures 2 and 4 (Appendix A). Data tables presenting analytical parameters from groundwater sampling events conducted in September 1997, October 1997, May 1999, and September 1999 were presented in the Pre-Remedy Groundwater Monitoring Report for the September 1999 Sampling Event, submitted in December 1999.

3.1 VOLATILE ORGANIC COMPOUND RESULTS

3.1.1 Overburden Wells

A total of thirteen overburden wells were sampled during the January 2000 Groundwater Sampling Event and analyzed for VOCs. Figure 2 (Appendix A) summarizes historic and current concentrations detected in groundwater by well location. Laboratory analytical sheets are provided in Appendix E.

Trichloroethene (TCE) is the predominant site-related VOC historically detected in the groundwater at the Former Taylor Instruments Site. TCE was reported in samples from eight of the thirteen overburden wells that were sampled in January 2000. TCE was not present in the upgradient wells that were sampled during this event. TCE was reported at highest concentrations in samples from OB-04 (40,000 micrograms per liter [µg/L] and OB-05 (22,000 µg/L). These wells are located at the two known TCE source areas. Concentrations of TCE reported in downgradient site perimeter wells ranged from nondetect (<5.0 µg/L) to 530 µg/L (TW-17). Figure 3 (Appendix A) is an interpretive potentiometric surface map for shallow-overburden groundwater.

Other VOCs detected (and the highest reported concentration) included biotic transformation products of TCE: cis-1,2-dichloroethene was reported in three wells (up to 1,700 µg/L [OB-05]), trans-1,2-dichloroethene was reported in one well (19 µg/L [TW-07]), and vinyl chloride was reported in one well (5.5 µg/L [MW-00]).

Compounds identified in the January 2000 sampling event are consistent with historical sampling data. Concentrations of TCE show a marked decrease at the source area OB-05 and a moderate decrease at the source area OB-04 when compared to the September 1999 levels.

3.1.2 Bedrock Wells

Six of the seven bedrock wells at the site were sampled and analyzed for VOCs. TCE and cis-1,2-dichloroethene were detected in the six sampled wells. TCE was detected in source area wells BR-04 and BR-05 at concentrations of 4,500 and 1,900 µg/L, respectively. TCE was present in downgradient perimeter wells at concentrations from 7.2 µg/L (BR-07) to 400 µg/L (BR-01). Figure 4 (Appendix A) summarizes historic and current concentrations detected in groundwater by well location.

Other VOCs detected included the TCE biotic transformation products: cis-1,2-dichloroethene was detected in six wells (up to 1,100 µg/L [BR-01]), trans-1,2-dichloroethene was detected in two wells (6.1 µg/L [BR-02] and 7.6 µg/L [BR-07]), and vinyl chloride was detected in two wells (80 µg/L [BR-05] and 2.6 µg/L [BR-02]).

Compounds identified in the January 2000 sampling event are consistent with historical sampling data. The concentration of TCE has decreased in bedrock wells BR-04 and BR-05 in the source areas in comparison to the September 1999 results.

3.2 NATURAL ATTENUATION PARAMETERS

Natural attenuation parameters were collected to evaluate the potential for biodegradation at the site. This information will be evaluated further for site remedial purposes. Results are presented in Appendix C.

4.0 ANALYTICAL PROGRAM

Groundwater samples during the January 2000 sampling event were analyzed by Columbia Analytical Services, Rochester, New York, for VOC analyses by U.S. Environmental Protection Agency (USEPA) 8260B. Selected samples were submitted for natural attenuation parameters to provide additional data for treatment system design. Analyses and methods are listed in Table 4-1. The chain-of-custody forms are located in Appendix D.

Table 4-1
Analyses/Methods
January 2000 Sampling Event

Pre-Remedy Groundwater Monitoring Report
January 2000 Sampling Event
Former Taylor Instruments Site
Rochester, New York

ANALYSIS	METHOD	DESCRIPTION
Volatile Organic Compounds	8260B	Volatiles by GC/MS
Natural Attenuation Parameters		
Carbon Dioxide	8223	HACH Field Test Kit
TOC	415.1	Total Organic Carbon
Ferrous Iron	8146	HACH Field Test Kit
Alkalinity	8203	HACH Field Test Kit
Nitrogen	300.0	Nitrate as N
Chloride	300.0	Chloride by ion chromatography
Sulfate	300.0	Sulfate by ion chromatography
Volatile Fatty Acids	HPLC	Organic acids by HPLC
Sulfide	376.1	Sulfide, total
Gases (ethene, ethane, methane)	8015	Gases by modified 8015

Notes: GC/MS = gas chromatography and mass spectroscopy
TOC = total organic carbon
HPLC = high pressure liquid chromatography

Data quality was evaluated in accordance with the work plan using the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, 1994), where applicable. The data set was evaluated for the following four categories:

- Precision and Accuracy
- Representativeness
- Completeness
- Comparability

4.1 ANALYTICAL PRECISION AND ACCURACY

4.1.1 Volatile Organic Compounds

The matrix spike/matrix spike duplicate (MS/MSD) analysis was performed on sample BR03010001 from well BR-03. The MS/MSD recoveries and relative percent differences (RPDs) were within the specified control limits, indicating acceptable accuracy for the matrix and the method and acceptable precision for the laboratory. All of the laboratory control samples (LCSs) exhibited acceptable recoveries.

All surrogate standard recoveries were within acceptance limits for all samples; therefore, no qualifications were necessary.

Water samples BR01099901, BR02099901, BR07099901, BR07099901D (duplicate), TW09099901, TW17099901, and W5099901 were analyzed at dilutions based on historical or screening data to bring target analytes within the calibration range of the method. Samples BR04099901, OB04099901, and OB05099901 were reanalyzed at higher dilutions to bring target analytes within the calibration range of the method. No qualifications were necessary. The laboratory data reports are located in Appendix E.

4.2 ANALYTICAL REPRESENTATIVENESS

4.2.1 Volatile Organic Compounds

All method blanks, rinsate blanks and field blanks were free of contamination.

4.3 COMPLETENESS

No major laboratory deficiencies were discovered during the evaluation. No target analyte data was rejected. The data set is 100 percent complete.

4.4 COMPARABILITY

All analyses were performed by Columbia Analytical Services, an Environmental Laboratory Accreditation Program (ELAP)-certified laboratory. Results were reported according to NYSDEC Analytical Services Protocols. The data are interpreted to be comparable to other data sets provided by ELAP-certified laboratories using comparable analytical methods.

5.0 CONCLUSIONS

The January 2000 groundwater results are consistent with earlier groundwater sampling data and will be used to provide an ongoing baseline of contaminant concentration trends prior to site remediation. Site remedial activities are anticipated to occur in the second and third quarter of this calendar year.

6.0 REFERENCES

HLA, 1999. *Pre-Remedy Groundwater Program Work Plan* (April).

New York State Department of Environmental Conservation (NYSDEC), 1992. *Division of Hazardous Substances Regulation, Bureau of Technical Support, TAGM 3028 (November).*

NYSDEC, 1997. *Voluntary Cleanup Agreement Taylor Instruments Site #828028a* (November).

United States Environmental Protection Agency (USEPA), 1998. *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater.* EPA/600/R-98/128, Office of Research and Development, Washington, DC 20460 (September).

USEPA, 1994. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review.*

APPENDIX A

FIGURES

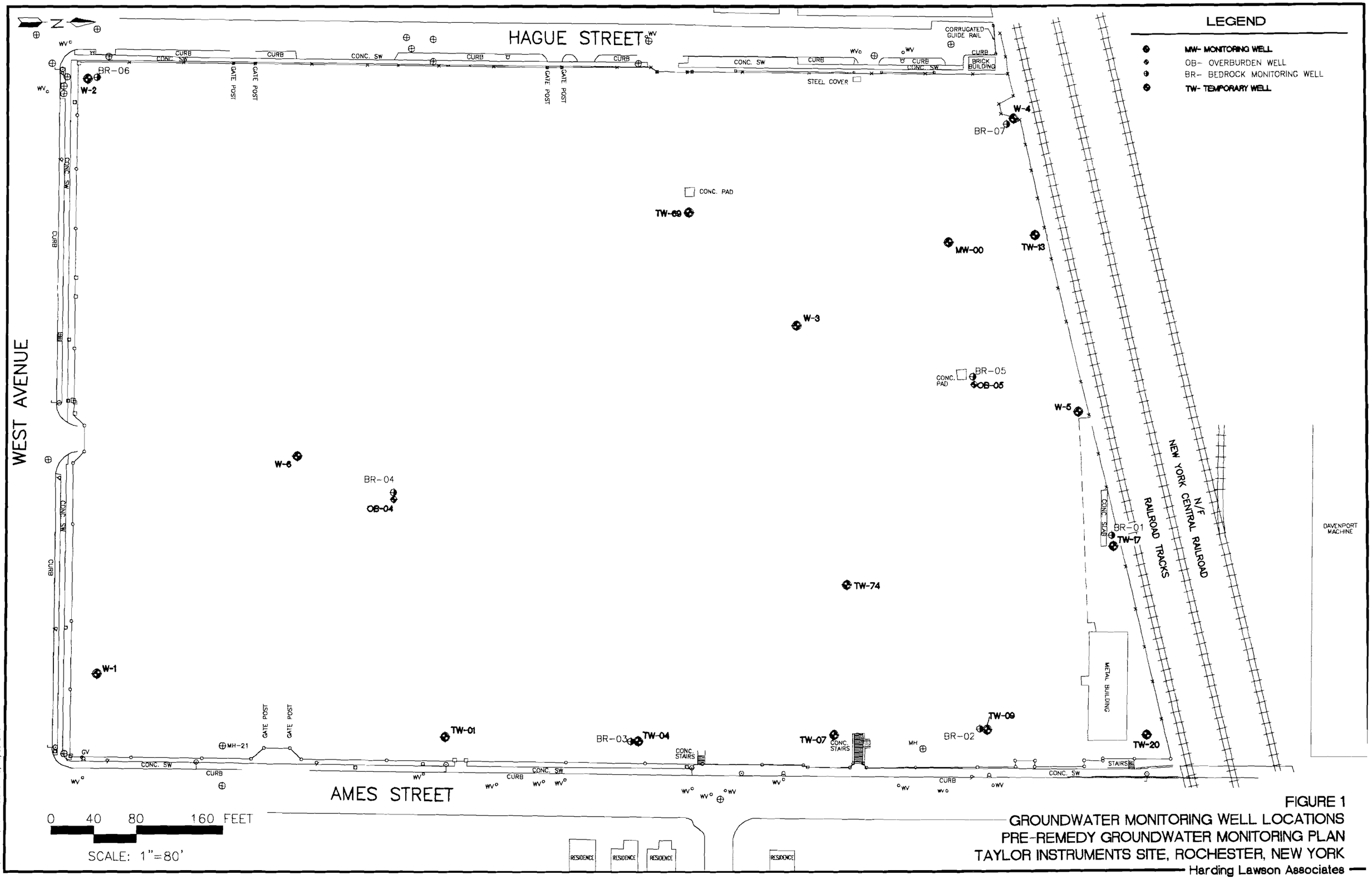
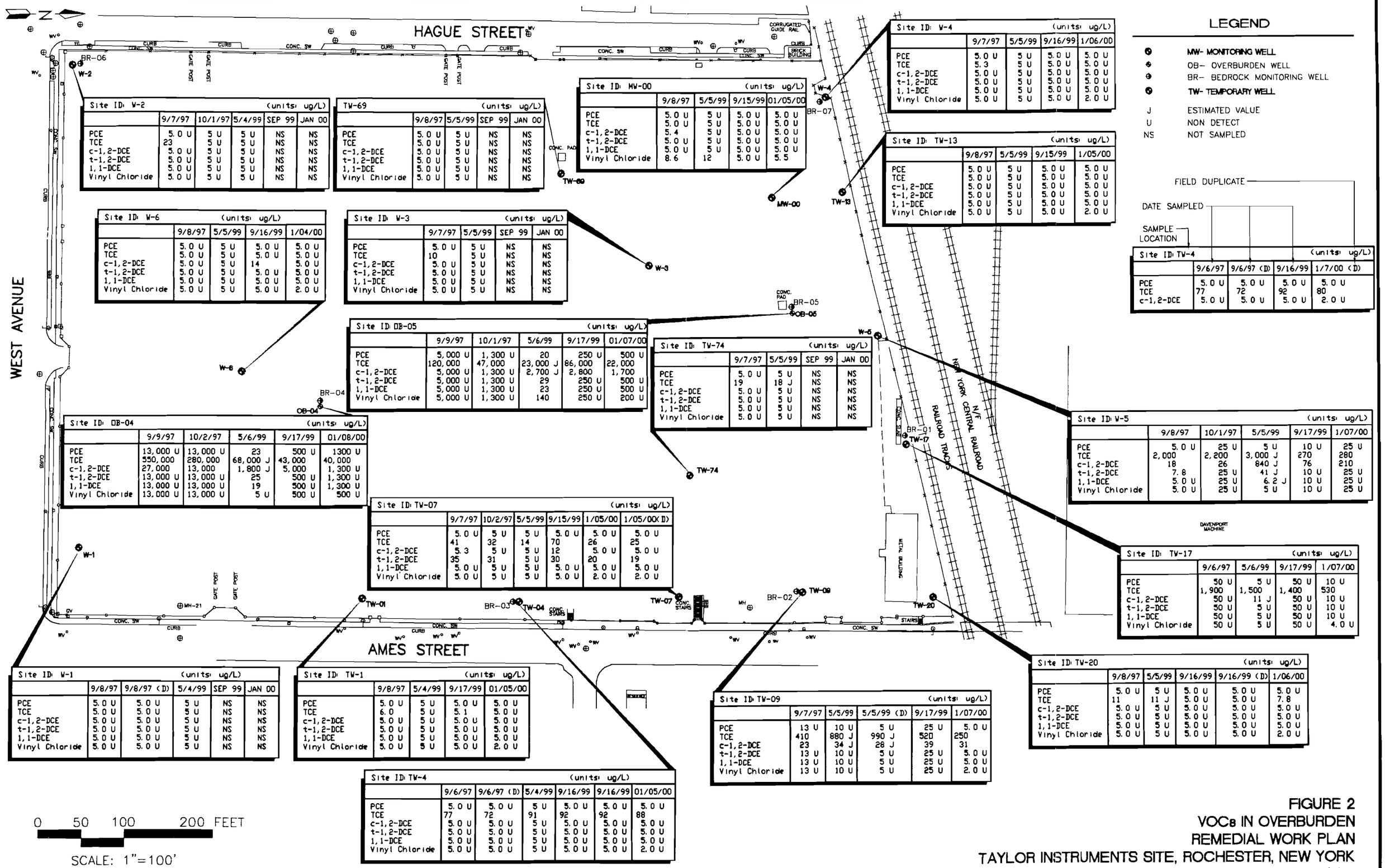


FIGURE 1
GROUNDWATER MONITORING WELL LOCATIONS
PRE-REMEDY GROUNDWATER MONITORING PLAN
TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK
Harding Lawson Associates

J:\7198-32\7198T049.DWG 2/18/00 SMG



Site ID: W-2 (units: ug/L)

	9/7/97	10/1/97	5/4/99	SEP 99	JAN 00
PCE	5.0 U	5 U	5 U	NS	NS
TCE	23	5 U	5 U	NS	NS
c-1,2-DCE	5.0 U	5 U	5 U	NS	NS
t-1,2-DCE	5.0 U	5 U	5 U	NS	NS
1,1-DCE	5.0 U	5 U	5 U	NS	NS
Vinyl Chloride	5.0 U	5 U	5 U	NS	NS

TW-69 (units: ug/L)

	9/8/97	5/5/99	SEP 99	JAN 00
PCE	5.0 U	5 U	NS	NS
TCE	5.0 U	5 U	NS	NS
c-1,2-DCE	5.0 U	5 U	NS	NS
t-1,2-DCE	5.0 U	5 U	NS	NS
1,1-DCE	5.0 U	5 U	NS	NS
Vinyl Chloride	5.0 U	5 U	NS	NS

Site ID: MW-00 (units: ug/L)

	9/8/97	5/5/99	9/15/99	01/05/00
PCE	5.0 U	5 U	5.0 U	5.0 U
TCE	5.0 U	5 U	5.0 U	5.0 U
c-1,2-DCE	5.4	5 U	5.0 U	5.0 U
t-1,2-DCE	5.0 U	5 U	5.0 U	5.0 U
1,1-DCE	5.0 U	5 U	5.0 U	5.0 U
Vinyl Chloride	8.6	12	5.0 U	5.5

Site ID: W-4 (units: ug/L)

	9/7/97	5/5/99	9/16/99	1/06/00
PCE	5.0 U	5 U	5.0 U	5.0 U
TCE	5.3	5 U	5.0 U	5.0 U
c-1,2-DCE	5.0 U	5 U	5.0 U	5.0 U
t-1,2-DCE	5.0 U	5 U	5.0 U	5.0 U
1,1-DCE	5.0 U	5 U	5.0 U	5.0 U
Vinyl Chloride	5.0 U	5 U	5.0 U	2.0 U

Site ID: TW-13 (units: ug/L)

	9/8/97	5/5/99	9/15/99	1/05/00
PCE	5.0 U	5 U	5.0 U	5.0 U
TCE	5.0 U	5 U	5.0 U	5.0 U
c-1,2-DCE	5.0 U	5 U	5.0 U	5.0 U
t-1,2-DCE	5.0 U	5 U	5.0 U	5.0 U
1,1-DCE	5.0 U	5 U	5.0 U	5.0 U
Vinyl Chloride	5.0 U	5 U	5.0 U	2.0 U

Site ID: W-6 (units: ug/L)

	9/8/97	5/5/99	9/16/99	1/04/00
PCE	5.0 U	5 U	5.0 U	5.0 U
TCE	5.0 U	5 U	5.0 U	5.0 U
c-1,2-DCE	5.0 U	5 U	14	5.0 U
t-1,2-DCE	5.0 U	5 U	5.0 U	5.0 U
1,1-DCE	5.0 U	5 U	5.0 U	5.0 U
Vinyl Chloride	5.0 U	5 U	5.0 U	2.0 U

Site ID: W-3 (units: ug/L)

	9/7/97	5/5/99	SEP 99	JAN 00
PCE	5.0 U	5 U	NS	NS
TCE	10	5 U	NS	NS
c-1,2-DCE	5.0 U	5 U	NS	NS
t-1,2-DCE	5.0 U	5 U	NS	NS
1,1-DCE	5.0 U	5 U	NS	NS
Vinyl Chloride	5.0 U	5 U	NS	NS

Site ID: OB-05 (units: ug/L)

	9/9/97	10/1/97	5/6/99	9/17/99	01/07/00
PCE	5,000 U	1,300 U	20	250 U	500 U
TCE	120,000	47,000	23,000 J	86,000	22,000
c-1,2-DCE	5,000 U	1,300 U	2,700 J	2,800	1,700
t-1,2-DCE	5,000 U	1,300 U	29	250 U	500 U
1,1-DCE	5,000 U	1,300 U	23	250 U	500 U
Vinyl Chloride	5,000 U	1,300 U	140	250 U	200 U

Site ID: TW-74 (units: ug/L)

	9/7/97	5/5/99	SEP 99	JAN 00
PCE	5.0 U	5 U	NS	NS
TCE	19	18 J	NS	NS
c-1,2-DCE	5.0 U	5 U	NS	NS
t-1,2-DCE	5.0 U	5 U	NS	NS
1,1-DCE	5.0 U	5 U	NS	NS
Vinyl Chloride	5.0 U	5 U	NS	NS

Site ID: W-5 (units: ug/L)

	9/8/97	10/1/97	5/5/99	9/17/99	1/07/00
PCE	5.0 U	25 U	5 U	10 U	25 U
TCE	2,000	2,200	3,000 J	270	280
c-1,2-DCE	18	26	840 J	76	210
t-1,2-DCE	7.8	25 U	41 J	10 U	25 U
1,1-DCE	5.0 U	25 U	6.2 J	10 U	25 U
Vinyl Chloride	5.0 U	25 U	5 U	10 U	25 U

Site ID: OB-04 (units: ug/L)

	9/9/97	10/2/97	5/6/99	9/17/99	01/08/00
PCE	13,000 U	13,000 U	23	500 U	1300 U
TCE	550,000	280,000	68,000 J	43,000	40,000
c-1,2-DCE	27,000	13,000	1,800 J	5,000	1,300 U
t-1,2-DCE	13,000 U	13,000 U	25	500 U	1,300 U
1,1-DCE	13,000 U	13,000 U	19	500 U	1,300 U
Vinyl Chloride	13,000 U	13,000 U	5 U	500 U	500 U

Site ID: TW-07 (units: ug/L)

	9/7/97	10/2/97	5/5/99	9/15/99	1/05/00	1/05/00 (D)
PCE	5.0 U	5 U	5 U	5.0 U	5.0 U	5.0 U
TCE	41	32	14	70	26	25
c-1,2-DCE	5.3	5 U	5 U	12	5.0 U	5.0 U
t-1,2-DCE	35	31	5 U	30	20	19
1,1-DCE	5.0 U	5 U	5 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride	5.0 U	5 U	5 U	5.0 U	2.0 U	2.0 U

Site ID: TW-17 (units: ug/L)

	9/6/97	5/6/99	9/17/99	1/07/00
PCE	50 U	5 U	50 U	10 U
TCE	1,900	1,500	1,400	530
c-1,2-DCE	50 U	11 J	50 U	10 U
t-1,2-DCE	50 U	5 U	50 U	10 U
1,1-DCE	50 U	5 U	50 U	10 U
Vinyl Chloride	50 U	5 U	50 U	4.0 U

Site ID: W-1 (units: ug/L)

	9/8/97	9/8/97 (D)	5/4/99	SEP 99	JAN 00
PCE	5.0 U	5.0 U	5 U	NS	NS
TCE	5.0 U	5.0 U	5 U	NS	NS
c-1,2-DCE	5.0 U	5.0 U	5 U	NS	NS
t-1,2-DCE	5.0 U	5.0 U	5 U	NS	NS
1,1-DCE	5.0 U	5.0 U	5 U	NS	NS
Vinyl Chloride	5.0 U	5.0 U	5 U	NS	NS

Site ID: TW-1 (units: ug/L)

	9/8/97	5/4/99	9/17/99	01/05/00
PCE	5.0 U	5 U	5.0 U	5.0 U
TCE	6.0	5 U	5.1	5.0 U
c-1,2-DCE	5.0 U	5 U	5.0 U	5.0 U
t-1,2-DCE	5.0 U	5 U	5.0 U	5.0 U
1,1-DCE	5.0 U	5 U	5.0 U	5.0 U
Vinyl Chloride	5.0 U	5 U	5.0 U	2.0 U

Site ID: TW-4 (units: ug/L)

	9/6/97	9/6/97 (D)	5/4/99	9/16/99	9/16/99	01/05/00
PCE	5.0 U	5.0 U	5 U	5.0 U	5.0 U	5.0 U
TCE	77	72	91	92	92	88
c-1,2-DCE	5.0 U	5.0 U	5 U	5.0 U	5.0 U	5.0 U
t-1,2-DCE	5.0 U	5.0 U	5 U	5.0 U	5.0 U	5.0 U
1,1-DCE	5.0 U	5.0 U	5 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride	5.0 U	5.0 U	5 U	5.0 U	5.0 U	2.0 U

Site ID: TW-09 (units: ug/L)

	9/7/97	5/5/99	5/5/99 (D)	9/17/99	1/07/00
PCE	13 U	10 U	5 U	25 U	5.0 U
TCE	410	880 J	990 J	520	250
c-1,2-DCE	23	34 J	28 J	39	31
t-1,2-DCE	13 U	10 U	5 U	25 U	5.0 U
1,1-DCE	13 U	10 U	5 U	25 U	5.0 U
Vinyl Chloride	13 U	10 U	5 U	25 U	2.0 U

Site ID: TW-20 (units: ug/L)

	9/8/97	5/5/99	9/16/99	9/16/99 (D)	1/06/00
PCE	5.0 U	5 U	5.0 U	5.0 U	5.0 U
TCE	11	11 J	5.0 U	5.0 U	7.8
c-1,2-DCE	5.0 U	5 U	5.0 U	5.0 U	5.0 U
t-1,2-DCE	5.0 U	5 U	5.0 U	5.0 U	5.0 U
1,1-DCE	5.0 U	5 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride	5.0 U	5 U	5.0 U	5.0 U	2.0 U

LEGEND

- MW- MONITORING WELL
- OB- OVERBURDEN WELL
- BR- BEDROCK MONITORING WELL
- TW- TEMPORARY WELL

J ESTIMATED VALUE
U NON DETECT
NS NOT SAMPLED

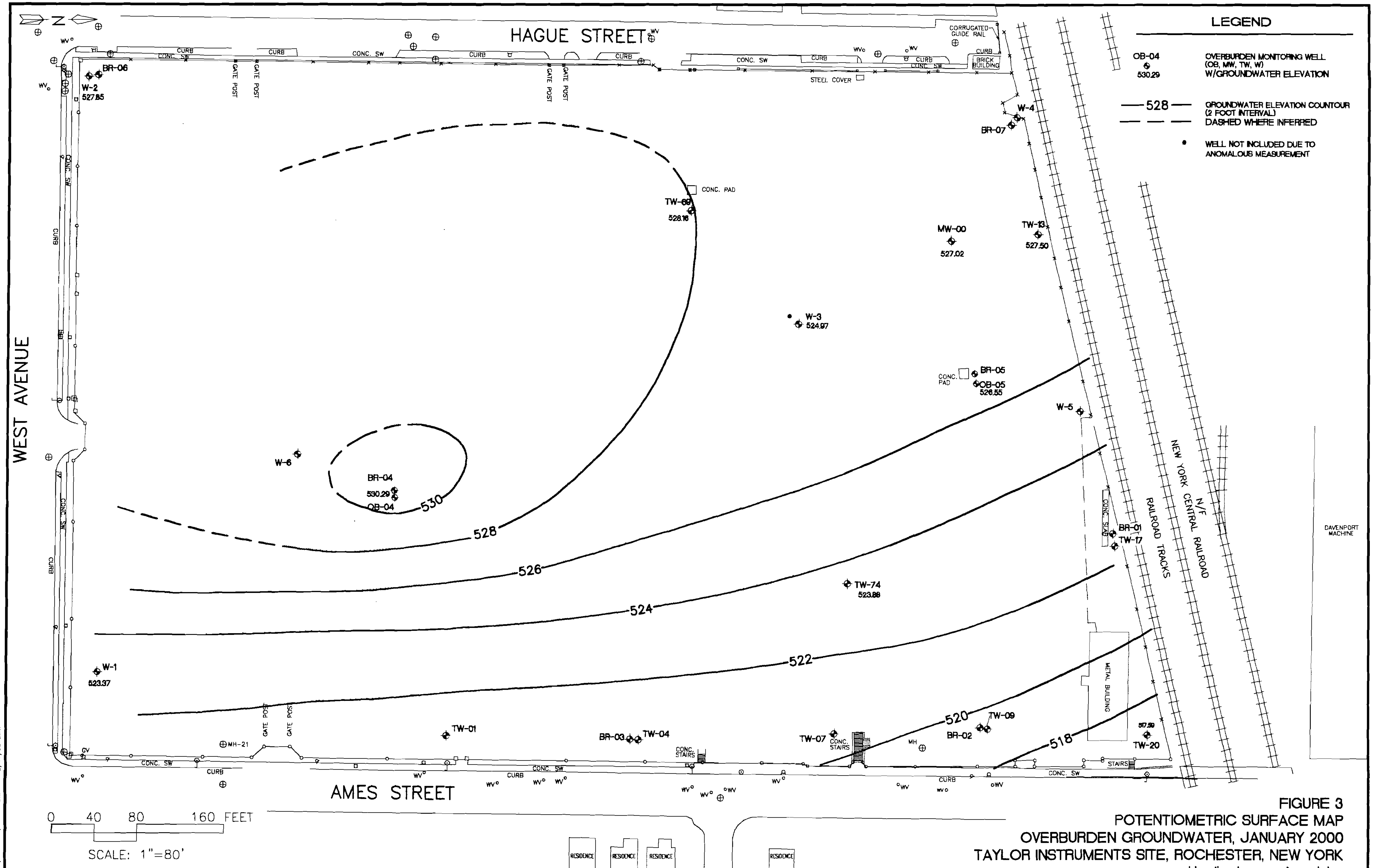
FIELD DUPLICATE
DATE SAMPLED
SAMPLE LOCATION

Site ID: TW-4 (units: ug/L)

	9/6/97	9/6/97 (D)	9/16/99	1/7/00 (D)
PCE	5.0 U	5.0 U	5.0 U	5.0 U
TCE	77	72	92	80
c-1,2-DCE	5.0 U	5.0 U	5.0 U	2.0 U

FIGURE 2
VOCs IN OVERBURDEN
REMEDIAL WORK PLAN
TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK
Harding Lawson Associates

J:\7198-32\7198F045.DWG 02/16/00 SMC

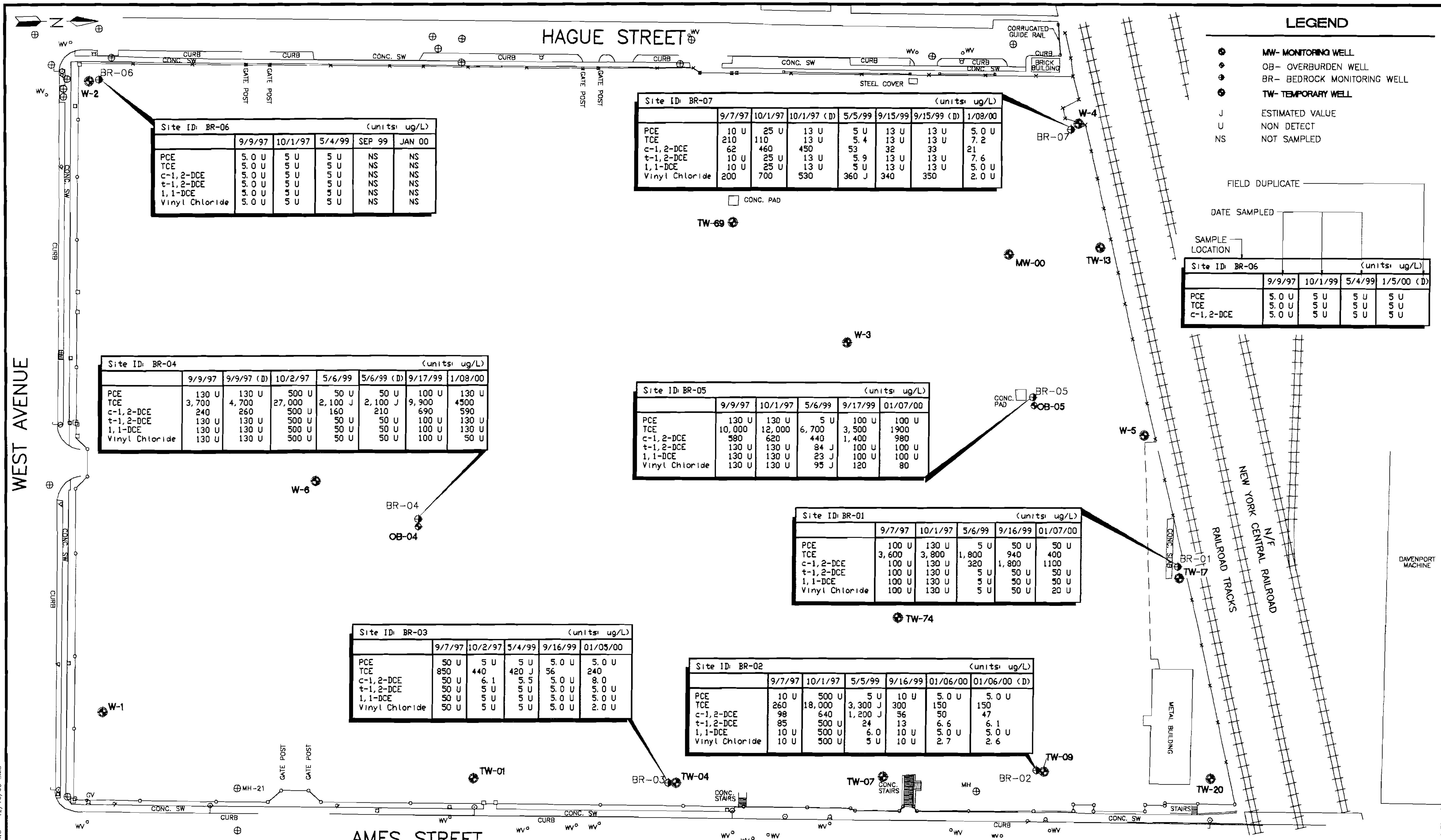


HAGUE STREET
WEST AVENUE
AMES STREET
LEGEND
OB-04 530.29 OVERBURDEN MONITORING WELL (OB, MW, TW, W) W/GROUNDWATER ELEVATION
528 GROUNDWATER ELEVATION COUNTOUR (2 FOOT INTERVAL)
DASHED WHERE INFERRED
WELL NOT INCLUDED DUE TO ANOMALOUS MEASUREMENT
BR-06
W-2 527.85
TW-69 528.16
MW-00 527.02
TW-13 527.50
W-4
BR-07
W-3 524.97
BR-05
OB-05 526.55
W-5
W-6
BR-04
530.29
OB-04
BR-01
TW-17
TW-74 523.88
W-1 523.37
TW-01
BR-03
TW-04
TW-07
BR-02
TW-09
517.59
TW-20
530
528
526
524
522
520
518
N/F NEW YORK CENTRAL RAILROAD
RAILROAD TRACKS
METAL BUILDING
DAVENPORT MACHINE
CONC. PAD
CORRUGATED GUIDE RAIL
BRICK BUILDING
STEEL COVER
GATE POST
CONC. SW
CURB
CONC. STAIRS
STAIRS
MH-21
MH
RESIDENCE
0 40 80 160 FEET
SCALE: 1"=80'

FIGURE 3
POTENTIOMETRIC SURFACE MAP
OVERBURDEN GROUNDWATER, JANUARY 2000
TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK

Harding Lawson Associates

J:\7198-32\7198F048.DWG 2/17/00 SMC



LEGEND

- MW- MONITORING WELL
- OB- OVERBURDEN WELL
- BR- BEDROCK MONITORING WELL
- TW- TEMPORARY WELL

J ESTIMATED VALUE
U NON DETECT
NS NOT SAMPLED

FIELD DUPLICATE
DATE SAMPLED
SAMPLE LOCATION

Site ID: BR-06				(units: ug/L)
	9/9/97	10/1/99	5/4/99	1/5/00 (D)
PCE	5.0 U	5 U	5 U	5 U
TCE	5.0 U	5 U	5 U	5 U
c-1,2-DCE	5.0 U	5 U	5 U	5 U

Site ID: BR-06					(units: ug/L)
	9/9/97	10/1/97	5/4/99	SEP 99	JAN 00
PCE	5.0 U	5 U	5 U	NS	NS
TCE	5.0 U	5 U	5 U	NS	NS
c-1,2-DCE	5.0 U	5 U	5 U	NS	NS
t-1,2-DCE	5.0 U	5 U	5 U	NS	NS
1,1-DCE	5.0 U	5 U	5 U	NS	NS
Vinyl Chloride	5.0 U	5 U	5 U	NS	NS

Site ID: BR-07							(units: ug/L)
	9/7/97	10/1/97	10/1/97 (D)	5/5/99	9/15/99	9/15/99 (D)	1/08/00
PCE	10 U	25 U	13 U	5 U	13 U	13 U	5.0 U
TCE	210	110	13 U	5.4	13 U	13 U	7.2
c-1,2-DCE	62	460	450	53	32	33	21
t-1,2-DCE	10 U	25 U	13 U	5.9	13 U	13 U	7.6
1,1-DCE	10 U	25 U	13 U	5 U	13 U	13 U	5.0 U
Vinyl Chloride	200	700	530	360 J	340	350	2.0 U

Site ID: BR-04							(units: ug/L)
	9/9/97	9/9/97 (D)	10/2/97	5/6/99	5/6/99 (D)	9/17/99	1/08/00
PCE	130 U	130 U	500 U	50 U	50 U	100 U	130 U
TCE	3,700	4,700	27,000	2,100 J	2,100 J	9,900	4500
c-1,2-DCE	240	260	500 U	160	210	690	590
t-1,2-DCE	130 U	130 U	500 U	50 U	50 U	100 U	130 U
1,1-DCE	130 U	130 U	500 U	50 U	50 U	100 U	130 U
Vinyl Chloride	130 U	130 U	500 U	50 U	50 U	100 U	50 U

Site ID: BR-05					(units: ug/L)
	9/9/97	10/1/97	5/6/99	9/17/99	01/07/00
PCE	130 U	130 U	5 U	100 U	100 U
TCE	10,000	12,000	6,700	3,500	1900
c-1,2-DCE	580	620	440	1,400	980
t-1,2-DCE	130 U	130 U	84 J	100 U	100 U
1,1-DCE	130 U	130 U	23 J	100 U	100 U
Vinyl Chloride	130 U	130 U	95 J	120	80

Site ID: BR-01					(units: ug/L)
	9/7/97	10/1/97	5/6/99	9/16/99	01/07/00
PCE	100 U	130 U	5 U	50 U	50 U
TCE	3,600	3,800	1,800	940	400
c-1,2-DCE	100 U	130 U	320	1,800	1100
t-1,2-DCE	100 U	130 U	5 U	50 U	50 U
1,1-DCE	100 U	130 U	5 U	50 U	50 U
Vinyl Chloride	100 U	130 U	5 U	50 U	20 U

Site ID: BR-03					(units: ug/L)
	9/7/97	10/2/97	5/4/99	9/16/99	01/05/00
PCE	50 U	5 U	5 U	5.0 U	5.0 U
TCE	850	440	420 J	56	240
c-1,2-DCE	50 U	6.1	5.5	5.0 U	8.0
t-1,2-DCE	50 U	5 U	5 U	5.0 U	5.0 U
1,1-DCE	50 U	5 U	5 U	5.0 U	5.0 U
Vinyl Chloride	50 U	5 U	5 U	5.0 U	2.0 U

Site ID: BR-02						(units: ug/L)
	9/7/97	10/1/97	5/5/99	9/16/99	01/06/00	01/06/00 (D)
PCE	10 U	500 U	5 U	10 U	5.0 U	5.0 U
TCE	260	18,000	3,300 J	300	150	150
c-1,2-DCE	98	640	1,200 J	56	50	47
t-1,2-DCE	85	500 U	24	13	6.6	6.1
1,1-DCE	10 U	500 U	6.0	10 U	5.0 U	5.0 U
Vinyl Chloride	10 U	500 U	5 U	10 U	2.7	2.6

FIGURE 4
VOCs IN BEDROCK
REMEDIAL WORK PLAN
TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK
Harding Lawson Associates

APPENDIX B

FIELD SAMPLE RECORDS

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: AMES STREET- Pre-Remedy GWMP | FIELD SAMPLE NUMBER: BR01010001 | ROUND NO.: 3
SITE ID: BR-01 | SITE TYPE: WELL | DATE:
ACTIVITY: START 1205 END 1305 | JOB NUMBER: ~~2566.20~~ 07198.41 | FILE TYPE:

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [x] ~~TOP OF WELL RISER~~ RF 1/7/00
- [x] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): _____ FT
PROTECTIVE CASING / WELL DIFFERENCE: _____ FT

INITIAL DEPTH TO WATER	11.45 FT	WELL DEPTH	41.91 FT	PID AMBIENT AIR	0.0 PPM	WELL DIAMETER	4 IN
FINAL DEPTH TO WATER	12.30 FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	0.0 PPM	WELL INTEGRITY: CAP	YES ✓ NO ~~✓~~ N/A —
DRAWDOWN VOLUME	GAL	PRODUCT THICKNESS	FT	TOTAL VOL PURGED	GAL	CASING LOCKED	✓ — —
						COLLAR	✓ — —

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch))

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (mL/min	TEMP (deg. C)	SPECIFIC CONDUCTANCE (umho/cm)	pH (units)	DISS. O2 (mg/L) ~~ug/L~~	TURBIDITY (ntu)	ORP (mV)	COMMENTS
1230	12.26	≈100	11.9	0.876	7.94	0.00	126.0	-192	
1243	12.02	≈100	10.4	0.871	8.00	0.00	123.0	-189	
1250	12.18	≈ 95	10.8	0.863	8.01	0.00	104.0	-192	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[x] PERISTALTIC	[x] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] CENTRIFUGAL	[ ] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] OTHER _____
[ ] OTHER _____	[x] OTHER PVC clear	[ ] OTHER _____	

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[✓] VOCs	8260B	HCL	2 X 40 ml	[✓]
[✓] Nitrate	300.0			[✓]
[✓] Sulfate	300.0			[✓]
[✓] Sulfide	376.1			[✓]
[✓] Ethane, Ethene, Methane	8015M	HCL	2X40 ml	[✓]
[✓] TOC	415.1			[✓]
[✓] Chloride	300.0			[✓]
[ ] Volatile Fatty Acids	5560C		2X40 ml	[ ]

SAMPLE BOTTLE ID NUMBERS: ~~BR0101 0001~~ BR0101 0001

PURGE OBSERVATIONS: water initial black but clearing up somewhat.

NOTES: DO (YSI) - 1.0 mg/L

SIGNATURE: _____

2585

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: AMES STREET- Pre-Remedy GWMP | FIELD SAMPLE NUMBER: BR02020001 | ROUND NO.: 3

SITE ID: BR-02 | SITE TYPE: WELL | DATE: 1/6/00

ACTIVITY: START 1450 END 1647 | JOB NUMBER: 2566.20 | FILE TYPE:

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [x] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): ____ FT

PROTECTIVE CASING / WELL DIFFERENCE: ____ FT

NITIAL DEPTH TO WATER	25.82 FT	WELL DEPTH	44.29 FT	PID AMBIENT AIR	PPM	WELL DIAMETER	4 IN
FINAL DEPTH TO WATER	25.95 FT	SCREEN LENGTH	FT	PID WELL MOUTH	0.0 PPM		
DRAWDOWN VOLUME	GAL	PRODUCT THICKNESS	FT	TOTAL VOL. PURGED	GAL		

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch))

WELL INTEGRITY:	YES	NO	N/A
CAP			
CASING			
LOCKED			
COLLAR			

NOT SET Sm0

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (mL/min	TEMP (deg. C)	SPECIFIC CONDUCTANCE (umho/cm)	pH (units)	DISS. O2 (mg/L) ~~(ug/L)~~	TURBIDITY (ntu)	ORP (mV)	COMMENTS
1604	25.92	≈45	11.0	0.897	7.97	7.15	54.3	-23	
1608	25.93	≈40	11.1	0.897	7.97	7.28	59.7	-22	
1613	25.96	≈40	11.2	0.899	7.97	7.24	54.9	-19	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[X] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] CENTRIFUGAL	[ ] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] OTHER _____
[ ] OTHER _____	[X] OTHER _ PVC clear	[ ] OTHER _____	

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[x] VOCs	8260B	HCL	2 X 40 ml	[x]
[x] Nitrate	300.0			[x]
[x] Sulfate	300.0			[x]
[x] Sulfide	376.1			[x]
[x] Ethane, Ethene, Methane	8015M	HCL	2X40 ml	[x]
[x] TOC	415.1			[x]
[x] Chloride	300.0			[x]
[x] Volatile Fatty Acids	5560C		2X40 ml	[x]

SAMPLE BOTTLE ID NUMBERS: BR02020001

PURGE OBSERVATIONS

SIGNATURE: [signature]

NOTES

DO (YSI) - 0.8 mg/L

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	AMES STREET- Pre-Remedy GWMP	FIELD SAMPLE NUMBER	BR03ØIØØØ1	ROUND NO.	3
SITE ID	BR-Ø3	SITE TYPE	WELL	DATE	1/5/00
ACTIVITY	START 0949 END 1040	JOB NUMBER	2566.20	FILE TYPE	

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [✓] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

NITIAL DEPTH TO WATER	11.76 FT	WELL DEPTH	40.91 FT	PROTECTIVE CASING STICKUP (FROM GROUND)	FT
FINAL DEPTH TO WATER	13.35 FT	SCREEN LENGTH	FT	PID AMBIENT AIR	PPM
DRAWDOWN VOLUME	Ø.26 GAL	PRODUCT THICKNESS	FT	PID WELL MOUTH	Ø PPM
		TOTAL VOL. PURGED	GAL	PROTECTIVE CASING / WELL DIFFERENCE	FT
				WELL DIAMETER	2 IN

{(initial - final) x 0.16 {2-inch} or x 0.65 {4-inch}}

WELL INTEGRITY:	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

PURGE DATA

~~TIME~~	DEPTH TO WATER (ft)	PURGE RATE (mL/min	TEMP (deg. C)	SPECIFIC CONDUCTANCE (u mho/cm)	pH (units)	DISS. O2 (mg/L) ~~(µg/L)~~	TURBIDITY (ntu)	ORP (mV)	COMMENTS
~~1004~~	12.40								
1007	12.5Ø	2ØØ	1Ø.2	1.33	7.89	Ø.5	22.1	-185	
1Ø15	12.84	2ØØ	1Ø.Ø	1.35	7.77	Ø.4	37.7	-193	
1Ø2Ø	12.97	2ØØ	9.9	1.36	8.Ø	Ø.Ø	31.1	-195	
1Ø24	13.09	17Ø	9.8	1.36	8.Ø3	Ø.Ø	5.8	-194	
1Ø29	13.23	16Ø	9.7	1.37	8.Ø6	Ø.Ø	8.2	-193	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[X] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] CENTRIFUGAL	[ ] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] OTHER _____
[ ] OTHER _____	[X] OTHER PVC clear	[ ] OTHER _____	

ANALYTICAL PARAMETERS	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
[✓] VOCs	8260B	HCL	2 X 40 ml	[ ]	BR03ØIØØØ1
[ ] Nitrate	300.0			[ ]	
[ ] Sulfate	300.0			[ ]	
[ ] Sulfide	376 1			[ ]	
[ ] Ethane, Ethene, Methane	8015M	HCL	2X40 ml	[ ]	
[ ] TOC	415.1			[ ]	
[ ] Chloride	300.0			[ ]	
[ ] Volatile Fatty Acids	5560C		2X40 ml	[ ]	

PURGE OBSERVATIONS

BLACK PARTICULATES IN WATER

SIGNATURE: _____

NOTES

DO (YSI) - 2 mg/L

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: AMES STREET- Pre-Remedy GWMP | FIELD SAMPLE NUMBER: BR04I0001 | ROUND NO.: 3

SITE ID: BR-04 | SITE TYPE: WELL | DATE: 4/5/00 11/8/00

ACTIVITY: START 0725 END 0842 DC 0930 | JOB NUMBER: 2566.20 | FILE TYPE:

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [x] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): ____ FT

PROTECTIVE CASING / WELL DIFFERENCE: ____ FT

NITIAL DEPTH TO WATER	22.77 FT	WELL DEPTH	45.30 FT	PID AMBIENT AIR	PPM	WELL DIAMETER	4.2 IN
FINAL DEPTH TO WATER	22.77 FT	SCREEN LENGTH	FT	PID WELL MOUTH	0 PPM	WELL INTEGRITY: CAP	✓
DRAWDOWN VOLUME	GAL	PRODUCT THICKNESS	FT	TOTAL VOL. PURGED	GAL	CASING	✓
						LOCKED	✓
						COLLAR	✓

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch})

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (mL/min	TEMP. (deg. C)	SPECIFIC CONDUCTANCE (u mho/cm)	pH (units)	DISS. O2 ~~(µg/L)~~ (mg/L)	TURBIDITY (ntu)	ORP (mV)	COMMENTS
0812	22.75	38	5.4	2.31	7.96	9.57	430.0	-89	
0819	22.75	35	5.7	2.34	7.91	10.17	366.0	-84	
0825	22.77	35	5.9	2.36	7.91	10.27	280.0	-81	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[X] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] CENTRIFUGAL	[ ] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] OTHER _____
[ ] OTHER _____	[X] OTHER _ PVC clear	[ ] OTHER _____	

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
[✓] VOCs	8260B	HCL	2 X 40 ml	[✓]	BR04I0001
[✓] Nitrate	300 0			[✓]	
[✓] Sulfate	300 0			[✓]	
[✓] Sulfide	376.1			[✓]	
[✓] Ethane, Ethene, Methane	8015M	HCL	2X40 ml	[✓]	
[✓] TOC	415.1			[✓]	
[✓] Chloride	300.0			[✓]	
[✓] Volatile Fatty Acids	5560C		2X40 ml	[✓]	

PURGE OBSERVATIONS

NOTES DO (YSI) = 0.6 mg/L

SIGNATURE: _____

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: AMES STREET- Pre-Remedy GWMP | FIELD SAMPLE NUMBER: BR05010001 | ROUND NO.: 3

SITE ID: BR-05 | SITE TYPE: WELL | DATE: 1/7/00

ACTIVITY: START 1430 END 1540 | JOB NUMBER: ~~2566.20~~ 07198.41 | FILE TYPE:

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [ ] TOP OF WELL RISER
- [x] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): _____ FT

PROTECTIVE CASING / WELL DIFFERENCE: _____ FT

NITIAL DEPTH TO WATER	24.35 FT	WELL DEPTH	51.56 FT	PID AMBIENT AIR	PPM	WELL DIAMETER	4 IN
FINAL DEPTH TO WATER	24.44 FT	SCREEN LENGTH	FT	PID WELL MOUTH	PPM		
DRAWDOWN VOLUME	GAL	PRODUCT THICKNESS	FT	TOTAL VOL. PURGED	GAL		

WELL INTEGRITY:

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

({initial - final) x 0.16 {2-inch} or x 0.65 {4-inch})

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (mL/min	TEMP. (deg. C)	SPECIFIC CONDUCTANCE (umho/cm)	pH (units)	DISS. O2 ~~(ppm)~~ (mg/L)	TURBIDITY (ntu)	ORP (mV)	COMMENTS
1457	24.44	≈65	10.8	1.66	7.90	7.00	92.4	-169	
1505	24.40	≈60	10.7	1.68	7.88	8.00	68.8	-146	
1512	24.40	≈80	10.6	1.69	7.88	7.96	57.2	-130	
1518	24.40	≈66	10.5	1.71	7.88	7.83	48.2	-120	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[x] PERISTALTIC	[x] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] CENTRIFUGAL	[ ] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] OTHER _____
[ ] OTHER _____	[x] OTHER _ PVC clear	[ ] OTHER _____	

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
[x] VOCs	8260B	HCL	2 X 40 ml	[ ]	BR05010001
[x] Nitrate	300.0			[ ]	
[x] Sulfate	300.0			[ ]	
[x] Sulfide	376.1			[ ]	
[x] Ethane, Ethene, Methane	8015M	HCL	2X40 ml	[ ]	
[x] TOC	415.1			[ ]	
[x] Chloride	300.0			[ ]	
[x] Volatile Fatty Acids	5560C		2X40 ml	[ ]	

PURGE OBSERVATIONS water clear

NOTES

DO (YSI) - 0.4 mg/L

SIGNATURE: Jon R Fuller

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: AMES STREET- Pre-Remedy GWMP | FIELD SAMPLE NUMBER: | ROUND NO.: 3

SITE ID: BR-06 | SITE TYPE: WELL | DATE: 1/8/00

ACTIVITY: START 1118 END 1149 | JOB NUMBER: 2566.20 | FILE TYPE:

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [ ] TOP OF WELL RISER
- [x] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): FT

PROTECTIVE CASING / WELL DIFFERENCE: FT

NITIAL DEPTH TO WATER	13.76 FT	WELL DEPTH	44.16 FT	PID AMBIENT AIR	PPM	WELL DIAMETER	IN
FINAL DEPTH TO WATER	14.67 FT	SCREEN LENGTH	FT	PID WELL MOUTH	PPM	WELL INTEGRITY: CAP	YES NO N/A
DRAWDOWN VOLUME	GAL	PRODUCT THICKNESS	FT	TOTAL VOL. PURGED	GAL	CASING	
						LOCKED	
						COLLAR	

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch})

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (mL/min	TEMP (deg. C)	SPECIFIC CONDUCTANCE (u mho/cm)	pH (units)	DISS. O2 (mg/L) ~~(ug/L)~~	TURBIDITY (ntu)	ORP (mV)	COMMENTS
1134	14.43	≈100	11.2	0.454	9.17	0.00	58.5	-169	
1140	14.47	≈ 86	10.4	0.463	9.29	0.00	61.7	-160	
1145	14.57	≈ 200	10.3	0.464	9.32	0.00	71.4	-157	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[x] PERISTALTIC	[x] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] CENTRIFUGAL	[ ] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] OTHER _____
[ ] OTHER _____	[x] OTHER _ PVC clear	[ ] OTHER _____	

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
[ ] VOCs	8260B	HCL	2 X 40 ml	[ ]	
[ ] Nitrate	300.0			[ ]	
[ ] Sulfate	300.0			[ ]	
[ ] Sulfide	376.1			[ ]	
[ ] Ethane, Ethene, Methane	8015M	HCL	2X40 ml	[ ]	
[ ] TOC	415.1			[ ]	
[x] Chloride	300.0			[ ]	
[ ] Volatile Fatty Acids	5560C		2X40 ml	[ ]	

PURGE OBSERVATIONS

SIGNATURE: Jan R Fuller

NOTES

DO(YSI) - 0.4 mg/L

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: AMES STREET- Pre-Remedy GWMP | FIELD SAMPLE NUMBER: BR0701001 | ROUND NO.: 3

SITE ID: BR-07 | SITE TYPE: WELL | DATE: ~~11/5/00~~ 1/8/01

ACTIVITY: START ~~0835~~ 0914 END 1104 | JOB NUMBER: 2566.20 | FILE TYPE:

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [x] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): ____ FT

PROTECTIVE CASING / WELL DIFFERENCE: ____ FT

NITIAL DEPTH TO WATER	25.44 ~~25.49~~ FT	WELL DEPTH	52.88 FT	PID AMBIENT AIR	PPM	WELL DIAMETER	4 ~~2~~ IN
FINAL DEPTH TO WATER	FT	SCREEN LENGTH	FT	PID WELL MOUTH	PPM	WELL INTEGRITY: CAP	YES ___ NO ___ N/A ✓
DRAWDOWN VOLUME	GAL	PRODUCT THICKNESS	FT	TOTAL VOL. PURGED	GAL	CASING	YES ✓ NO ___ N/A ___
						LOCKED	YES ✓ NO ___ N/A ___
						COLLAR	YES ✓ NO ___ N/A ___

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch})

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (mL/min	TEMP (deg. C)	SPECIFIC CONDUCTANCE (u mho/cm)	pH (units)	DISS. O2 (mg/L) ~~(ug/L)~~	TURBIDITY (ntu)	ORP (mV)	COMMENTS
1041	25.42	≈40	11.0	4.56	7.75	7.10	43.9	-130	
1047	25.43	≈37	11.5	4.65	7.76	7.51	58.1	-176	
1053	25.43	≈37	11.6	4.73	7.76	7.50	28.9	-122	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[x] PERISTALTIC	[x] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] CENTRIFUGAL	[ ] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] OTHER _____
[ ] OTHER _____	[x] OTHER _ PVC clear	[ ] OTHER _____	

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
[x] VOCs	8260B	HCL	2 X 40 ml	[ ]	BR0701001
[ ] Nitrate	300.0			[ ]	
[ ] Sulfate	300 0			[ ]	
[ ] Sulfide	376.1			[ ]	
[ ] Ethane, Ethene, Methane	8015M	HCL	2X40 ml	[ ]	
[ ] TOC	415.1			[ ]	
[ ] Chloride	300.0			[ ]	
[ ] Volatile Fatty Acids	5560C		2X40 ml	[ ]	

PURGE OBSERVATIONS

NOTES D.O. (YSI) = 0.1 mg/L

SIGNATURE: _____

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: AMES STREET- Pre-Remedy GWMP | FIELD SAMPLE NUMBER: MW0001000I | ROUND NO.: 3

SITE ID: MW-00 | SITE TYPE: WELL | DATE: 1/5/00

ACTIVITY: START 1518 END 1615 | JOB NUMBER: 2566.20 | FILE TYPE:

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [ ] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): _____ FT

PROTECTIVE CASING / WELL DIFFERENCE: _____ FT

INITIAL DEPTH TO WATER	7.57 FT	WELL DEPTH	12.23 FT	PID AMBIENT AIR	PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	8.60 FT	SCREEN LENGTH	FT	PID WELL MOUTH	0.4 PPM	WELL INTEGRITY: CAP	
DRAWDOWN VOLUME	GAL	PRODUCT THICKNESS	FT	TOTAL VOL. PURGED	GAL	CASING	
						LOCKED	
						COLLAR	

WELL INTEGRITY	YES	NO	N/A
CAP			
CASING			
LOCKED			
COLLAR			

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch})

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (mL/min	TEMP (deg. C)	SPECIFIC CONDUCTANCE (u mho/cm)	pH (units)	DISS. O2 (mg/L) ~~(ug/L)~~	TURBIDITY (ntu)	ORP (mV)	COMMENTS
1545	8.56	≈170	9.9	0.615	7.72	1.69	-10	-71	
1549	8.65	≈130	9.5	0.618	7.70	2.45	-10	-87	
1555	8.70	≈110	9.1	0.622	7.68	1.36	-10	-93	
1600	8.73	≈105	8.7	0.629	7.68	0.48	-10	-47	
	8.73								

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[X] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] CENTRIFUGAL	[ ] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] OTHER _____
[ ] OTHER _____	[X] OTHER PVC clear	[ ] OTHER _____	

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
[✓] VOCs	8260B	HCL	2 X 40 ml	[ ]	MW0001000I
[ ] Nitrate	300.0			[ ]	
[ ] Sulfate	300.0			[ ]	
[ ] Sulfide	376.1			[ ]	
[ ] Ethane, Ethene, Methane	8015M	HCL	2X40 ml	[ ]	
[ ] TOC	415.1			[ ]	
[ ] Chloride	300.0			[ ]	
[ ] Volatile Fatty Acids	5560C		2X40 ml	[ ]	

PURGE OBSERVATIONS

SIGNATURE: _____

NOTES

DO (YSI) - 0.70 mg/L

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	AMES STREET- Pre-Remedy GWMP	FIELD SAMPLE NUMBER	OB∅4∅2∅∅∅2	ROUND NO.	3
SITE ID	OB-∅4	SITE TYPE	WELL	DATE	1/18/00
ACTIVITY	START 0836 END 0925	JOB NUMBER	2566.20	FILE TYPE	

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [x] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER ______

PROTECTIVE CASING STICKUP (FROM GROUND): ______ FT

PROTECTIVE CASING / WELL DIFFERENCE: ______ FT

INITIAL DEPTH TO WATER	6.21 FT	WELL DEPTH	18.73 FT	PID AMBIENT AIR	PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	6.86 FT	SCREEN LENGTH	FT	PID WELL MOUTH	117 PPM		
DRAWDOWN VOLUME	GAL	PRODUCT THICKNESS	FT	TOTAL VOL PURGED	GAL		

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch))

WELL INTEGRITY	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (mL/min)	TEMP (deg. C)	SPECIFIC CONDUCTANCE (u mho/cm)	pH (units)	DISS. O2 (mg/L) ~~(ug/L)~~	TURBIDITY (ntu)	ORP (mV)	COMMENTS
0848	6.81	≈210	8.9	1.44	7.88	1.27	40.3	-19	
0856	6.86	≈180	9.1	1.47	7.87	0.96	40.4	-13	
0900	6.88	≈200	9.2	1.47	7.87	0.76	38.1	-10	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[X] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] CENTRIFUGAL	[ ] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] OTHER ______
[ ] OTHER ______	[X] OTHER PVC clear	[ ] OTHER ______	

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
[ ] VOCs	8260B	HCL	2 X 40 ml	✓	OB∅4∅2∅∅∅2
[ ] Nitrate	300.0			✓	
[ ] Sulfate	300.0			✓	
[ ] Sulfide	376.1			✓	
[ ] Ethane, Ethene, Methane	8015M	HCL	2X40 ml	✓	
[ ] TOC	415.1			✓	
[ ] Chloride	300.0			✓	
[ ] Volatile Fatty Acids	5560C		2X40 ml	✓	

PURGE OBSERVATIONS

NOTES D.O. (YSI) = 1.6 mg/L

SIGNATURE [signature]

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: AMES STREET- Pre-Remedy GWMP | FIELD SAMPLE NUMBER: OB05010001 | ROUND NO.: 3

SITE ID: OB-05 | SITE TYPE: WELL | DATE: 1/7/00

ACTIVITY: START 1540 END 1648 | JOB NUMBER: ~~2566.20~~ 07198.41 | FILE TYPE:

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [x] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): _____ FT

PROTECTIVE CASING / WELL DIFFERENCE: _____ FT

INITIAL DEPTH TO WATER	7.92 FT	WELL DEPTH	20.07 FT	PID AMBIENT AIR	PPM	WELL DIAMETER	IN
FINAL DEPTH TO WATER	FT	SCREEN LENGTH	FT	PID WELL MOUTH	PPM	WELL INTEGRITY: CAP	
DRAWDOWN VOLUME	GAL	PRODUCT THICKNESS	FT	TOTAL VOL. PURGED	GAL	CASING	
						LOCKED	
						COLLAR	

WELL INTEGRITY	YES	NO	N/A
CAP			
CASING			
LOCKED			
COLLAR			

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch})

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (mL/min	TEMP (deg. C)	SPECIFIC CONDUCTANCE (u mho/cm)	pH (units)	DISS. O2 ~~(ug/L)~~ (mg/L)	TURBIDITY (ntu)	ORP (mV)	COMMENTS
1600	8.46	≈160	11.1	0.639	7.81	0.00	38.8	-75	
1614	8.47	≈150	11.1	0.674	7.79	0.00	42.2	-69	
1621	8.63	≈170	11.5	0.680	7.77	0.00	41.6	-63	
1624	8.68	≈150	11.4	0.687	7.77	0.00	43.1	-60	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[x] PERISTALTIC	[x] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] CENTRIFUGAL	[ ] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] OTHER _____
[ ] OTHER _____	[x] OTHER PVC clear	[ ] OTHER _____	

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[x] VOCs	8260B	HCL	2 X 40 ml	[x]
[x] Nitrate	300 0			[x]
[x] Sulfate	300 0			[x]
[x] Sulfide	376 1			[x]
[x] Ethane, Ethene, Methane	8015M	HCL	2X40 ml	[x]
[x] TOC	415.1			[x]
[x] Chloride	300.0			[x]
[x] Volatile Fatty Acids	5560C		2X40 ml	[x]

SAMPLE BOTTLE ID NUMBERS: OB05010001

PURGE OBSERVATIONS water - clear

NOTES

DO (YSI) - 0.2 mg/L

SIGNATURE: _____

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: AMES STREET- Pre-Remedy GWMP | FIELD SAMPLE NUMBER: TW0201000I | ROUND NO.: 3

SITE ID: TW-01 | SITE TYPE: WELL | DATE: 1/5/00

ACTIVITY: START 0805 END 0853 | JOB NUMBER: 2566.20 | FILE TYPE:

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [✓] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): FT

PROTECTIVE CASING / WELL DIFFERENCE: FT

NITIAL DEPTH TO WATER	9.00 FT	WELL DEPTH	22.03 FT	PID AMBIENT AIR	PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	12.85 FT	SCREEN LENGTH	FT	PID WELL MOUTH	0.2 PPM	WELL INTEGRITY: CAP	YES ✓ NO — N/A —
DRAWDOWN VOLUME	.62 GAL	PRODUCT THICKNESS	FT	TOTAL VOL. PURGED	GAL	CASING	YES ✓ NO — N/A —
						LOCKED	YES ✓ NO — N/A —
						COLLAR	YES ✓ NO — N/A —

({initial - final) x 0.16 {2-inch} or x 0.65 {4-inch})

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (mL/min	TEMP (deg C)	SPECIFIC CONDUCTANCE (u mho/cm)	pH (units)	DISS. O2 (mg/L) ~~(µg/L)~~	TURBIDITY (ntu)	ORP (mV)	COMMENTS
0828	11.55	≈200	8.4	0.732	8.5	1.05	-3.5	-149	
0831	12.06	≈170	8.7	0.737	8.47	0.28	-9.4	-147	
0836	12.60	≈150	8.7	0.739	8.42	0.00	-10	-144	
0842	12.96	≈133	8.5	0.741	8.41	0.00	-10	-143	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[X] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] CENTRIFUGAL	[ ] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] OTHER _____
[ ] OTHER _____	[X] OTHER _ PVC clear	[ ] OTHER _____	

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
[✓] VOCs	8260B	HCL	2 X 40 ml	[ ]	TW0201000I
[ ] Nitrate	300.0			[ ]	
[ ] Sulfate	300.0			[ ]	
[ ] Sulfide	376.1			[ ]	
[ ] Ethane, Ethene, Methane	8015M	HCL	2X40 ml	[ ]	
[ ] TOC	415.1			[ ]	
[ ] Chloride	300.0			[ ]	
[ ] Volatile Fatty Acids	5560C		2X40 ml	[ ]	

PURGE OBSERVATIONS

APPEARS TO BE ALGAE IN WATER
TURBIDITY RISING

SIGNATURE: [signature]

NOTES

DO (YSI) - 0.4 mg/L

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	AMES STREET- Pre-Remedy GWMP	FIELD SAMPLE NUMBER	TW04010001	ROUND NO.	3
SITE ID	TW-04	SITE TYPE	WELL	DATE	1/5/00
ACTIVITY	START 1110 END 1205	JOB NUMBER	2566.20	FILE TYPE	

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [x] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): _____ FT

PROTECTIVE CASING / WELL DIFFERENCE: _____ FT

NITIAL DEPTH TO WATER	9.99 FT	WELL DEPTH	20.55 FT	PID AMBIENT AIR	PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	~~13.35~~ 13.05 FT	SCREEN LENGTH	FT	PID WELL MOUTH	0.4 PPM	WELL INTEGRITY: CAP	YES ✓ NO — N/A —
DRAWDOWN VOLUME	0.49 GAL	PRODUCT THICKNESS	FT	TOTAL VOL. PURGED	GAL	CASING	✓ — —
						LOCKED	✓ — —
						COLLAR	✓ — —

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch})

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (mL/min	TEMP (deg C)	SPECIFIC CONDUCTANCE (u mho/cm)	pH (units)	DISS. O2 (mg/L)	TURBIDITY (ntu)	ORP (mV)	COMMENTS
~~1039~~ 1139	12.17	≈139	10.0	1.17	8.23	0.54	54.2	-271	
~~1045~~ 1145	12.74	≈170	9.9	1.18	8.31	0.00	34.9	-275	
1149	13.03	≈160	9.7	1.18	8.32	0.00	13.4	-276	
1156	13.44	≈155	9.9	1.17	8.31	0.00	-5.4	-279	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[x] PERISTALTIC	[x] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] CENTRIFUGAL	[ ] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] OTHER _____
[ ] OTHER _____	[x] OTHER _ PVC clear	[ ] OTHER _____	

ANALYTICAL PARAMETERS	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
[x] VOCs	8260B	HCL	2 X 40 ml	[ ]	TW04010001
[ ] Nitrate	300.0			[ ]	
[ ] Sulfate	300.0			[ ]	
[ ] Sulfide	376.1			[ ]	
[ ] Ethane, Ethene, Methane	8015M	HCL	2X40 ml	[ ]	
[ ] TOC	415.1			[ ]	
[ ] Chloride	300.0			[ ]	
[ ] Volatile Fatty Acids	5560C		2X40 ml	[ ]	

PURGE OBSERVATIONS

SIGNATURE: _____

NOTES D.O READING RANGED FROM 0 TO 0.5 WILL NOT STABILIZE.

DO (YSI) - 0.3 mg/L

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: AMES STREET- Pre-Remedy GWMP | FIELD SAMPLE NUMBER: TW07012ØØ1 | ROUND NO.: 3

SITE ID: TW-Ø7 | SITE TYPE: WELL | DATE: 1/5/00

ACTIVITY: START 1310 END 1416 | JOB NUMBER: 2566.20 | FILE TYPE:

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [x] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): FT

PROTECTIVE CASING / WELL DIFFERENCE: FT

NITIAL DEPTH TO WATER	1Ø.56 FT	WELL DEPTH	18.31 FT	PID AMBIENT AIR	PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	12.1Ø FT	SCREEN LENGTH	FT	PID WELL MOUTH	Ø.Ø PPM	WELL INTEGRITY: CAP	YES ✓ NO — N/A —
DRAWDOWN VOLUME	Ø.25 GAL	PRODUCT THICKNESS	FT	TOTAL VOL. PURGED	GAL	CASING	✓ — —
						LOCKED	✓ — —
						COLLAR	— ✓ —

CRACKED

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch})

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (mL/min	TEMP (deg C)	SPECIFIC CONDUCTANCE (umho/cm)	pH (units)	DISS. O2 (mg/L) ~~(µg/L)~~	TURBIDITY (ntu)	ORP (mV)	COMMENTS
1345	11.64	≈220	9.6	Ø.475	8.24	2.96	4Ø8	-1Ø8	
1355	12.00	≈175	1Ø.7	Ø.624	8.Ø6	1.69	327	-94	
14ØØ	12.15	≈164	1Ø.1	Ø.7Ø5	8.Ø2	1.29	144	-85	
1405	12.3Ø	≈169	1Ø.2	Ø.784	8.Ø5	1.Ø7	1Ø4	-79	
1407	12.57	≈145	1Ø.4	Ø.827	8.Ø5	Ø.95	76.1	-75	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[x] PERISTALTIC	[x] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] CENTRIFUGAL	[ ] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] OTHER
[ ] OTHER	[x] OTHER PVC clear	[ ] OTHER	

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
[x] VOCs	8260B	HCL	2 X 40 ml	[ ]	TW07012ØØ1
[ ] Nitrate	300.0			[ ]	
[ ] Sulfate	300.0			[ ]	
[ ] Sulfide	376.1			[ ]	
[ ] Ethane, Ethene, Methane	8015M	HCL	2X40 ml	[ ]	
[ ] TOC	415.1			[ ]	
[ ] Chloride	300.0			[ ]	
[ ] Volatile Fatty Acids	5560C		2X40 ml	[ ]	

PURGE OBSERVATIONS

SIGNATURE: John R Fuller Jr

NOTES

DO (YSI) - 0.6 mg/L

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: AMES STREET- Pre-Remedy GWMP | FIELD SAMPLE NUMBER: TW09010001 | ROUND NO.: 3

SITE ID: TW-09 | SITE TYPE: WELL | DATE: 1/5/00 SMC 1/7/00 (4/6/00 SMC)

ACTIVITY: START 1647 0705 SMC END 0808 | JOB NUMBER: 2566.20 | FILE TYPE:

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [ ] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): _____ FT

PROTECTIVE CASING / WELL DIFFERENCE: _____ FT

INITIAL DEPTH TO WATER	11.22 FT	WELL DEPTH	17.40 FT	PID AMBIENT AIR	PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	11.58 FT	SCREEN LENGTH	FT	PID WELL MOUTH	0.2 PPM		
DRAWDOWN VOLUME	GAL	PRODUCT THICKNESS	FT	TOTAL VOL. PURGED	GAL		

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch})

WELL INTEGRITY:

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED			
COLLAR		✓	

* WELL CAP NOT SEALED

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (mL/min	TEMP (deg. C)	SPECIFIC CONDUCTANCE (umho/cm)	pH (units)	DISS. O2 (mg/L) ~~(ug/L)~~	TURBIDITY (ntu)	ORP (mV)	COMMENTS
0729	11.53	≈100	11.5	1.60	7.64	0.66	850	26	
0734	11.56	≈150	11.1	1.61	7.62	0.22	520	20	
0740	11.61	≈130	10.9 SMC	1.61	7.62	0.32	250	23	
0745	11.61	≈100	10.7	1.61	7.61	0.39	176	25	
0750	11.61	≈80	10.2	1.60	7.61	0.38	127	26	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[X] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] CENTRIFUGAL	[ ] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] OTHER _____
[ ] OTHER _____	[X] OTHER _ PVC clear	[ ] OTHER _____	

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
[✓] VOCs	8260B	HCL	2 X 40 ml	[ ]	TW09010001
[ ] Nitrate	300.0			[ ]	
[ ] Sulfate	300.0			[ ]	
[ ] Sulfide	376.1			[ ]	
[ ] Ethane, Ethene, Methane	8015M	HCL	2X40 ml	[ ]	
[ ] TOC	415.1			[ ]	
[ ] Chloride	300.0			[ ]	
[ ] Volatile Fatty Acids	5560C		2X40 ml	[ ]	

PURGE OBSERVATIONS

SIGNATURE: _____

NOTES * DUE TO SUBSTANCE OOZING AROUND CASING.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: AMES STREET- Pre-Remedy GWMP
FIELD SAMPLE NUMBER: TW13Ø1ØØØ1
ROUND NO. 3

SITE ID: TW-13
SITE TYPE: WELL
DATE: 1/5/00

ACTIVITY START: 1620 END: 1713
JOB NUMBER: 2566.20
FILE TYPE:

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [ ] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER ______

PROTECTIVE CASING STICKUP (FROM GROUND): ____ FT
PROTECTIVE CASING / WELL DIFFERENCE: ____ FT

INITIAL DEPTH TO WATER: 5.23 FT
WELL DEPTH: 14.88 FT
PID AMBIENT AIR: ____ PPM
WELL DIAMETER: 2 IN

FINAL DEPTH TO WATER: 5.82 FT
SCREEN LENGTH: ____ FT
PID WELL MOUTH: 8.1 PPM

DRAWDOWN VOLUME: ____ GAL
PRODUCT THICKNESS: ____ FT
TOTAL VOL. PURGED: ____ GAL

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch})

WELL INTEGRITY:	YES	NO	N/A
CAP			
CASING			
LOCKED			
COLLAR			

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (mL/min	TEMP (deg. C)	SPECIFIC CONDUCTANCE (umho/cm)	pH (units)	DISS. O2 (mg/L)	TURBIDITY (ntu)	ORP (mV)	COMMENTS
1647	6.23	≈200	9.2	1.4Ø	7.73	Ø.45	16	-155	
1657	6.16	≈16Ø	9.1	1.42	7.78	Ø.1Ø	1Ø.2	-162	
17Ø3	6.10	≈13Ø	9.Ø	1.42	7.78	Ø.Ø	1Ø.8	-164	
17Ø8	6.Ø2	≈11Ø	8.9	1.42	7.78	Ø.Ø	1Ø.1	-164	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] CENTRIFUGAL
- [ ] OTHER ______

TYPE OF TUBING
- [X] TEFLON OR TEFLON LINED
- [ ] HIGH DENSITY POLYETHYLENE
- [X] OTHER PVC clear

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [ ] OTHER ______

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [ ] OTHER ______

ANALYTICAL PARAMETERS	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
[✓] VOCs	8260B	HCL	2 X 40 ml	[ ]	TW13Ø1ØØØ1
[ ] Nitrate	300.0			[ ]	
[ ] Sulfate	300 0			[ ]	
[ ] Sulfide	376 1			[ ]	
[ ] Ethane, Ethene, Methane	8015M	HCL	2X40 ml	[ ]	
[ ] TOC	415.1			[ ]	
[ ] Chloride	300.0			[ ]	
[ ] Volatile Fatty Acids	5560C		2X40 ml	[ ]	

PURGE OBSERVATIONS

NOTES

SIGNATURE: [signature]

1.20

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: AMES STREET- Pre-Remedy GWMP | FIELD SAMPLE NUMBER: ~~BZ01W12000Z~~ TW17 #120001 PF 1/7/00 | ROUND NO.: 3

SITE ID: ~~BZ 01~~ PF TW-17 1/7/00 | SITE TYPE: WELL | DATE: 1/6/00

ACTIVITY: START 1110 END 1205 | JOB NUMBER: 2566.20 | FILE TYPE:

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [✓] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): FT

PROTECTIVE CASING / WELL DIFFERENCE: FT

NITIAL DEPTH TO WATER: 7.61 FT

WELL DEPTH: ~~17.71~~ 17.60 FT PF

PID AMBIENT AIR: 0.0 PPM

WELL DIAMETER: IN

FINAL DEPTH TO WATER: 8.0 FT

SCREEN LENGTH: FT

PID WELL MOUTH: 2.1 PPM

WELL INTEGRITY: CAP [✓] CASING [✓] LOCKED [✓] COLLAR [✓]

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

DRAWDOWN VOLUME: GAL

PRODUCT THICKNESS: FT

TOTAL VOL. PURGED: GAL

({initial - final} x 0.16 {2-inch} or x 0.65 {4-inch})

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (mL/min	TEMP (deg. C)	SPECIFIC CONDUCTANCE (u mho/cm)	pH (units)	DISS. O2 ~~(ug/L)~~ (mg/L)	TURBIDITY (ntu)	ORP (mV)	COMMENTS
1123	8.0	≈200	10.2	0.814	7.88	6.65	~~305~~ 35.0	-54	
1129	7.94	≈190	10.0	0.833	7.84	6.65	115	-49	
1133	7.96	≈160	9.9	0.835	7.83	6.52	83.3	-45	
1139	7.94	≈150	9.7	0.837	7.82	6.40	58.1	-40	
1149	~~7.95~~	≈140	9.6	0.838	7.81	6.33	52.0	-37	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [ ] CENTRIFUGAL [ ] OTHER

TYPE OF TUBING: [X] TEFLON OR TEFLON LINED [ ] HIGH DENSITY POLYETHYLENE [X] OTHER PVC clear

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [ ] OTHER

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON [ ] OTHER

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[✓] VOCs	8260B	HCL	2 X 40 ml	[✓]
[✓] Nitrate	300 0			[✓]
[✓] Sulfate	300 0			[✓]
[✓] Sulfide	376.1			[✓]
[✓] Ethane, Ethene, Methane	8015M	HCL	2X40 ml	[✓]
[✓] TOC	415.1			[✓]
[✓] Chloride	300.0			[✓]
[ ] Volatile Fatty Acids	5560C		2X40 ml	[ ]

SAMPLE BOTTLE ID NUMBERS: TW17

PURGE OBSERVATIONS

SIGNATURE:

NOTES

DO (YSI) - 7.8 mg/L

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: AMES STREET- Pre-Remedy GWMP | FIELD SAMPLE NUMBER: TW2ØØ1ØØØ1 | ROUND NO.: 3

SITE ID: TW-2Ø | SITE TYPE: WELL | DATE: 1/6/00

ACTIVITY: START 1304 END 1351 | JOB NUMBER: 2566.20 | FILE TYPE:

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [x] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): ____ FT

PROTECTIVE CASING / WELL DIFFERENCE: ____ FT

NITIAL DEPTH TO WATER	12.21 FT	WELL DEPTH	17.22 FT	PID AMBIENT AIR	PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	12.55 FT	SCREEN LENGTH	FT	PID WELL MOUTH	Ø.2 PPM	WELL INTEGRITY: CAP	YES / NO / N/A
DRAWDOWN VOLUME	GAL	PRODUCT THICKNESS	FT	TOTAL VOL. PURGED	GAL	CASING	
						LOCKED	
						COLLAR	

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch})

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (mL/min	TEMP (deg. C)	SPECIFIC CONDUCTANCE (u mho/cm)	pH (units)	DISS. O2 ~~(ug/L)~~ (mg/L)	TURBIDITY (ntu)	ORP (mV)	COMMENTS
1326	12.65	≈200	10.3	Ø.628	7.89	2.85	63.8	-73	
1334	12.63	≈140	10.3	Ø.629	7.91	2.29	45.Ø	-7Ø	
1337	12.61	≈130	10.2	Ø.629	7.91	2.39	39.9	-65	
1345	12.63	≈125	10.2	Ø.633	7.91	2.52	36.5	-62	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[x] PERISTALTIC	[x] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] CENTRIFUGAL	[ ] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] OTHER _____
[ ] OTHER _____	[x] OTHER _ PVC clear	[ ] OTHER _____	

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
[x] VOCs	8260B	HCL	2 X 40 ml	[ ]	TW2ØØ1ØØØ1
[ ] Nitrate	300.0			[ ]	
[ ] Sulfate	300.0			[ ]	
[ ] Sulfide	376.1			[ ]	
[ ] Ethane, Ethene, Methane	8015M	HCL	2X40 ml	[ ]	
[ ] TOC	415.1			[ ]	
[ ] Chloride	300.0			[ ]	
[ ] Volatile Fatty Acids	5560C		2X40 ml	[ ]	

PURGE OBSERVATIONS

SIGNATURE: _____

NOTES

DO (YSI) - 2b mg/L

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: AMES STREET- Pre-Remedy GWMP | FIELD SAMPLE NUMBER: | ROUND NO.: 3

SITE ID: W-2 | SITE TYPE: WELL | DATE: 1/8/00

ACTIVITY: START 1149 END 1214 | JOB NUMBER: 2566.20 | FILE TYPE:

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [x] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): ____ FT

PROTECTIVE CASING / WELL DIFFERENCE: ____ FT

NITIAL DEPTH TO WATER	9.34 FT	WELL DEPTH	20.46 FT	PID AMBIENT AIR	PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	10.99 FT	SCREEN LENGTH	FT	PID WELL MOUTH	PPM		
DRAWDOWN VOLUME	GAL	PRODUCT THICKNESS	FT	TOTAL VOL. PURGED	GAL		

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch})

WELL INTEGRITY:	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (mL/min	TEMP (deg C)	SPECIFIC CONDUCTANCE (u mho/cm)	pH (units)	DISS O2 (µg/L)	TURBIDITY (ntu)	ORP (mV)	COMMENTS
1203	11.03	≈153	10.5	0.545	8.48	4.31	4.1	-77	
1205	11.00	≈143	10.4	0.547	8.46	4.21	2.9	-77	
1209	11.00	≈200	10.3	0.547	8.44	4.15	2.7	-76	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [x] PERISTALTIC
- [ ] CENTRIFUGAL
- [ ] OTHER _____

TYPE OF TUBING
- [x] TEFLON OR TEFLON LINED
- [ ] HIGH DENSITY POLYETHYLENE
- [x] OTHER _ PVC clear

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [ ] OTHER _____

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [ ] OTHER _____

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
VOCs	8260B	HCL	2 X 40 ml		
Nitrate	300.0				
Sulfate	300 0				
Sulfide	376.1				
Ethane, Ethene, Methane	8015M	HCL	2X40 ml		
TOC	415.1				
Chloride	300.0				
Volatile Fatty Acids	5560C		2X40 ml		

PURGE OBSERVATIONS

water is a greenish-brown color

SIGNATURE: _____

NOTES

DO(YSI) - 4.1 mg/L

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: AMES STREET- Pre-Remedy GWMP | FIELD SAMPLE NUMBER: W4Ø1ØØØ1 | ROUND NO.: 3

SITE ID: W-4 | SITE TYPE: WELL | DATE: 1/4/00 ~~1/5/00~~ SMC

ACTIVITY: START 0740 END 1254 | JOB NUMBER: 2566.20 | FILE TYPE:

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [x] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): FT

PROTECTIVE CASING / WELL DIFFERENCE: FT

INITIAL DEPTH TO WATER	11.32 FT	WELL DEPTH	23.52 FT	PID AMBIENT AIR	PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	N/A FT	SCREEN LENGTH	FT	PID WELL MOUTH	Ø.2 PPM	WELL INTEGRITY: CAP	YES NO N/A
DRAWDOWN VOLUME	GAL	PRODUCT THICKNESS	FT	TOTAL VOL. PURGED	GAL	CASING / LOCKED / COLLAR	

({(initial - final) x 0.16 (2-inch) or x 0.65 (4-inch)})

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (mL/min	TEMP (deg. C)	SPECIFIC CONDUCTANCE (u mho/cm)	pH (units)	DISS O2 ~~(ug/L)~~ (mg/L)	TURBIDITY (ntu)	ORP (mV)	COMMENTS
0815	14.05	≈105	8.6	Ø.824	7.94	4.ØØ	46.7	-226	
0830	14.46	≈100	7.4	Ø.824	7.98	Ø.ØØ	29.4	-239	
0824	14.59	≈90	7.1	Ø.826	7.98	Ø.ØØ	34.2	-242	
~~1250~~ SMC	CE	TURN	TO W-4	TO	SAMPLE	@ 12	45 SMC		
		—	~~7.86~~	~~Ø.880~~	~~7.86~~	~~2.56~~	~~53.4~~	~~-146~~	
1251	9.48	—	11.8	Ø.880	7.86	2.56	53.4	-146	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[X] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] CENTRIFUGAL	[ ] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] OTHER
[ ] OTHER	[X] OTHER PVC clear	[ ] OTHER	

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
[✓] VOCs	8260B	HCL	2 X 40 ml	[ ]	W4Ø1ØØØ1
[ ] Nitrate	300.0			[ ]	
[ ] Sulfate	300 0			[ ]	
[ ] Sulfide	376.1			[ ]	
[ ] Ethane, Ethene, Methane	8015M	HCL	2X40 ml	[ ]	
[ ] TOC	415.1			[ ]	
[ ] Chloride	300.0			[ ]	
[ ] Volatile Fatty Acids	5560C		2X40 ml	[ ]	

PURGE OBSERVATIONS: BLACK PARTICULATE NOTED. SULFUR ODOR.

SIGNATURE:

NOTES: APPROX 10 FT OF WATER LEFT IN WELL. COULD NOT PURGE DRY DUE TO LIMITS OF PERISTALTIC PUMP.

DO (YSI) - 1.4 mg/L

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: AMES STREET- Pre-Remedy GWMP | FIELD SAMPLE NUMBER: W5Ø1ØØØ1 | ROUND NO.: 3
SITE ID: W-5 | SITE TYPE: WELL | DATE: 1/7/00
ACTIVITY: START 0930 END 1049 | JOB NUMBER: ~~2666.20~~ 6798.41 | FILE TYPE:

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: ☐ TOP OF WELL RISER ☐ TOP OF PROTECTIVE CASING ☐ OTHER ____
PROTECTIVE CASING STICKUP (FROM GROUND): FT
PROTECTIVE CASING / WELL DIFFERENCE: FT

INITIAL DEPTH TO WATER	5.31 FT	WELL DEPTH	22.25 FT	PID AMBIENT AIR	PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	8.45 FT	SCREEN LENGTH	FT	PID WELL MOUTH	PPM	WELL INTEGRITY: CAP	YES ✓ NO — N/A —
DRAWDOWN VOLUME	GAL	PRODUCT THICKNESS	FT	TOTAL VOL PURGED	GAL	CASING	— — —
						LOCKED	✓ — —
						COLLAR	— — ✓

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch))

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (mL/min	TEMP (deg. C)	SPECIFIC CONDUCTANCE (u mho/cm)	pH (units)	DISS O2 (mg/L) ~~(mg/L)~~	TURBIDITY (ntu)	ORP (mV)	COMMENTS
1013	7.10	≈200	10.5	2.45	7.72	Ø.ØØ	51.9	-209	
1016	7.17	≈100	10.16	2.48	7.72	Ø.ØØ	51.9	-209	
1024	7.59	≈200	11.1	2.49	7.68	Ø.ØØ	51.2	-206	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[X] TEFLON OR TEFLON LINED	☐ POLYVINYL CHLORIDE	☐ TEFLON
☐ CENTRIFUGAL	☐ HIGH DENSITY POLYETHYLENE	☐ STAINLESS STEEL	☐ OTHER ____
☐ OTHER ____	[X] OTHER PVC clear	☐ OTHER ____	

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
☑ VOCs	8250B	HCL	2 X 40 ml	✓
☑ Nitrate	300.0			✓
☑ Sulfate	300.0			✓
☑ Sulfide	376.1			✓
☑ Ethane, Ethene, Methane	8015M	HCL	2X40 ml	✓
☑ TOC	415.1			✓
☑ Chloride	300.0			✓
☐ Volatile Fatty Acids	5560C		2X40 ml	

SAMPLE BOTTLE ID NUMBERS: W5Ø1ØØØ1

PURGE OBSERVATIONS

SIGNATURE: [signature]

NOTES water has black particulates
color - cloudy gray-black ø.
DO (YSI) - 0.3 mg/L

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: AMES STREET- Pre-Remedy GWMP | FIELD SAMPLE NUMBER: W6Ø1ØØØ1 | ROUND NO.: 3

SITE ID: W-6 | SITE TYPE: WELL | DATE: 1/4/00

ACTIVITY: START 1530 END 1640 | JOB NUMBER: 2566.20 | FILE TYPE:

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): FT

PROTECTIVE CASING / WELL DIFFERENCE: FT

NITIAL DEPTH TO WATER	3.38 FT	WELL DEPTH	14.45 FT	PID AMBIENT AIR	Ø PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	1Ø.37 FT	SCREEN LENGTH	FT	PID WELL MOUTH	Ø PPM		
DRAWDOWN VOLUME	1.11 GAL	PRODUCT THICKNESS	FT	TOTAL VOL. PURGED	GAL		

WELL INTEGRITY:	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch})

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (mL/min	TEMP. (deg. C)	SPECIFIC CONDUCTANCE (µmho/cm)	pH (units)	DISS. O2 ~~(µg/L)~~ (mg/L)	TURBIDITY (ntu)	ORP (mV)	COMMENTS
1697	7.46	≈17Ø	1Ø.6	Ø.146	1Ø.2	6.28	66.6	95	
1615	8.41	≈13Ø	9.9	Ø.138	1Ø.49	6.21	69.9	9Ø	
1621	9.62	≈218	1Ø.1	Ø.135	1Ø.62	6.Ø5	1Ø8.Ø	86	
1625	9.88	≈172	1Ø.Ø	Ø.134	1Ø.67	5.91	112.Ø	84	
1628	10.11	≈122	9.8	Ø.134	1Ø.71	5.89	122.Ø	82	TOOK SAMPLE

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [ ] CENTRIFUGAL [ ] OTHER

TYPE OF TUBING: [X] TEFLON OR TEFLON LINED [ ] HIGH DENSITY POLYETHYLENE [X] OTHER PVC clear

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [ ] OTHER

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON [ ] OTHER

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
[✓] VOCs	8260B	HCL	2 X 40 ml	✓	W6Ø1ØØØ1
[ ] Nitrate	300.0				
[ ] Sulfate	300.0				
[ ] Sulfide	376.1				
[ ] Ethane, Ethene, Methane	8015M	HCL	2X40 ml		
[ ] TOC	415.1				
[ ] Chloride	300.0				
[ ] Volatile Fatty Acids	5560C		2X40 ml		

PURGE OBSERVATIONS

TURBIDITY INCREASED.

NOTES

DO (YSI) - 6.8 mg/L

SIGNATURE:

APPENDIX C

NATURAL ATTENUATION DATA

Table C-1
Natural Attenuation Results
January 2000 Groundwater Sampling Event

Pre-Remedy Groundwater Monitoring Plan
Taylor Instruments Facility
Rochester, NY

Site ID	Parameter	Result	Units
BR-01	Alkalinity	420 - 430	mg/L
	Carbon dioxide	80	mg/L
	Chloride	72.6	mg/L
	Ethane	1.6	ug/L
	Ethylene	2.5	ug/L
	Iron, ferrous	3.6	mg/L
	Methane	2.0	ug/L
	Nitrate nitrogen	0.500 U	mg/L
	Propane	1.0 U	ug/L
	Sulfate	103	mg/L
	Total organic carbon	2.79	mg/L
	Total sulfide	1.31	mg/L
BR-02	Alkalinity	350 - 360	mg/L
	Carbon dioxide	40	mg/L
	Chloride	78.1	mg/L
	Ethane	1.0 U	ug/L
	Ethylene	1.0 U	ug/L
	Iron, ferrous	0	mg/L
	Methane	2.0 U	ug/L
	Nitrate nitrogen	1.96	mg/L
	Propane	1.0 U	ug/L
	Sulfate	203	mg/L
	Total organic carbon	3.52	mg/L
	Total sulfide	1.00 U	mg/L
BR-04	Alkalinity	360 - 370	mg/L
	Carbon dioxide	55	mg/L
	Chloride	454	mg/L
	Ethane	1.0 U	ug/L
	Ethylene	1.0 U	ug/L
	Iron, ferrous	0.2	mg/L
	Methane	4.8	ug/L
	Nitrate nitrogen	0.500 U	mg/L
	Propane	1.0 U	ug/L
	Sulfate	233	mg/L
	Total organic carbon	6.76	mg/L
	Total sulfide	1.00 U	mg/L
	Volatile acids	94.7	mg/L

Table C-1
Natural Attenuation Results
January 2000 Groundwater Sampling Event

Pre-Remedy Groundwater Monitoring Plan
Taylor Instruments Facility
Rochester, NY

Site ID	Parameter	Result	Units
BR-05	Alkalinity	380 - 390	mg/L
	Carbon dioxide	45	mg/L
	Chloride	163	mg/L
	Ethane	1.0 U	ug/L
	Ethylene	4.3	ug/L
	Iron, ferrous	1	mg/L
	Methane	30	ug/L
	Nitrate nitrogen	0.500 U	mg/L
	Propane	1.0 U	ug/L
	Sulfate	300	mg/L
	Total organic carbon	4.62	mg/L
	Total sulfide	1.00 U	mg/L
	Volatile acids	140	mg/L
BR-06	Alkalinity	50 - 60	mg/L
	Carbon dioxide	5	mg/L
	Chloride	140	mg/L
OB-04	Alkalinity	200 - 210	mg/L
	Carbon dioxide	35	mg/L
	Chloride	88.9	mg/L
	Ethane	9.0	ug/L
	Ethylene	3.1	ug/L
	Iron, ferrous	0	mg/L
	Methane	6.8	ug/L
	Nitrate nitrogen	12.3	mg/L
	Propane	1.9	ug/L
	Sulfate	425	mg/L
	Total organic carbon	13.7	mg/L
	Total sulfide	1.00 U	mg/L
	Volatile acids	56.9	mg/L
OB-05	Alkalinity	430 - 440	mg/L
	Carbon dioxide	70	mg/L
	Chloride	10.3	mg/L
	Ethane	1.0 U	ug/L
	Ethylene	1.0 U	ug/L
	Iron, ferrous	0	mg/L
	Methane	2.6	ug/L
	Nitrate nitrogen	0.931	mg/L
	Propane	1.0 U	ug/L
	Sulfate	75.4	mg/L
	Total organic carbon	3.31	mg/L
	Total sulfide	1.00 U	mg/L
	Volatile acids	5.56	mg/L

Table C-1
Natural Attenuation Results
January 2000 Groundwater Sampling Event

Pre-Remedy Groundwater Monitoring Plan
Taylor Instruments Facility
Rochester, NY

Site ID	Parameter	Result	Units
TW-09	Alkalinity	380 - 390	mg/L
	Carbon dioxide	85	mg/L
	Chloride	57.0	mg/L
	Ethane	1.0 U	ug/L
	Ethylene	1.0 U	ug/L
	Iron, ferrous	0	mg/L
	Methane	5.1	ug/L
	Nitrate nitrogen	15.9	mg/L
	Propane	1.0 U	ug/L
	Sulfate	360	mg/L
	Total organic carbon	5.65	mg/L
	Total sulfide	1.00 U	mg/L
TW-17	Alkalinity	340 - 350	mg/L
	Carbon dioxide	60	mg/L
	Chloride	41.7	mg/L
	Ethane	1.0 U	ug/L
	Ethylene	1.0 U	ug/L
	Iron, ferrous	0	mg/L
	Methane	2.0 U	ug/L
	Nitrate nitrogen	1.75	mg/L
	Propane	1.0 U	ug/L
	Sulfate	178	mg/L
	Total organic carbon	2.85	mg/L
	Total sulfide	1.00 U	mg/L
W-2	Alkalinity	260 - 270	mg/L
	Carbon dioxide	20	mg/L
	Chloride	49.4	mg/L
W-5	Alkalinity	220 - 230	mg/L
	Carbon dioxide	130	mg/L
	Chloride	221	mg/L
	Ethane	1.0 U	ug/L
	Ethylene	1.0 U	ug/L
	Iron, ferrous	3.6	mg/L
	Methane	2.0 U	ug/L
	Nitrate nitrogen	0.500 U	mg/L
	Propane	1.0 U	ug/L
	Sulfate	582	mg/L
	Total organic carbon	11.9	mg/L
	Total sulfide	1.32	mg/L

Notes:
ID = identification.
mg/L = milligrams per liter
ug/L = micrograms per liter

APPENDIX D

CHAIN OF CUSTODY FORMS

Columbid Analytical Services INC.
An Employee-Owned Company

1 Mustard St., Suite 250, Rochester, NY 14609-6925
(716) 288-5380 • FAX (716) 288-8475

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

DATE 1/4/00 PAGE 1 OF 3

PROJECT NAME AMES STREET - TAYLOR INSTRUMENTS
PROJECT MANAGER/CONTACT Rick Ryan / Ronny Fields
COMPANY/ADDRESS Harding Lawson Assoc.
1400 Centerpoint Blvd. Ste 158
TEL (423) 531 1922 FAX (423) 531 8226
SAMPLER'S SIGNATURE

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	FOR OFFICE USE ONLY LAB I.D.	SAMPLE MATRIX	# OF CONTAINERS	GC/MS VOA's ☐ 624 ☐ 95-1 ☐ 8260	GC/MS SVOA's ☐ 625 ☐ 95-2 ☐ 8270	GC VOA's ☐ 601/602 ☐ 8021	PESTICIDES/PCB's ☐ 608 ☐ 95-3 ☐ 8081	STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP	STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP	TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (LIST BELOW)	METALS, DISSOLVED (LIST BELOW)	PRESERVATION pH < 2.0	PRESERVATION pH > 12	PRESERVATION Other
WB01001	1/4/00	1632	352984		3	3												
QAFB01001	1/5/00	0740	985		3	3												
QARB01001	1/5/00	0800	986		3	3												
TW01101001	1/5/00	0843	987		3	3												
BR03101001	1/5/00	1030	989		3	3												
BR03101001MS	1/5/00	1030	989		3	3												
BR03101001MD	1/5/00	1030	989		3	3												
TW04101001	1/5/00	1200	991		~~3~~ 2	~~3~~ 2												
TW07101001	1/5/00	1410	992		3	3												
TW07101001D	1/5/00	1410	993		2	2												

(MATRIX SPIKE)
(MATRIX SPIKE DUPLICATE)
(DUPLICATE)

RELINQUISHED BY:
Signature
Printed Name Jerry R. Fields JR
Firm Harding Lawson Assoc.
Date/Time 1740 1/7/00

RECEIVED BY:
Signature Joni Janson
Printed Name C.A.S.
Firm
Date/Time 1/7/00 17:40

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time 1/7/00 1740

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS
__ 24 hr. __ 48 hr. __ 5 day
__ Standard (10-15 working days)
__ Provide Verbal Preliminary Results
__ Provide FAX Preliminary Results
Requested Report Date

REPORT REQUIREMENTS
__ 1. Routine Report
__ 2. Routine Rep. w/CASE Narrative
__ 3. EPA Level III Validatable Package
__ 4. N.J. Reduced Deliverables Level IV
__ 5. NY ASP/CLP Deliverables
__ 6. Site specific QC.

INVOICE INFORMATION:
P.O. #: 5384
Bill To:

SAMPLE RECEIPT:
Shipping Via: Client
Shipping #:
Temperature: 2.0°C
Submission No: R2000450

SPECIAL INSTRUCTIONS/COMMENTS:
METALS
ORGANICS: ☐ TCL ☐ PPL ☐ AE Only ☐ BN Only ☐ Special List

QUOTE # 3184

Columbia Analytical Services INC.
An Employee-Owned Company
1 Mustard St., Suite 250, Rochester, NY 14609-6925
(716) 288-5380 • FAX (716) 288-8475

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

DATE 1/5/00 PAGE 2 OF 3

PROJECT NAME Ames St. Pre-Remedy GWMP
PROJECT MANAGER/CONTACT Rick Ryan / Ronny Fields
COMPANY/ADDRESS Harding Lawson Assoc.
1400 Centerpoint Blvd. Ste. 158
TEL (423) 531 1922 FAX (423) 531 8226
SAMPLER'S SIGNATURE [signature]

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	FOR OFFICE USE ONLY LAB I.D.	SAMPLE MATRIX	# OF CONTAINERS	GC/MS VOA's ☑ 8260 ☐ 624 ☐ 95-1	GC/MS SVOA's ☐ 8270 ☐ 625 ☐ 95-2	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES/PCB's ☐ 8081 ☐ 608 ☐ 95-3	STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP	STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP	TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (LIST BELOW)	METALS, DISSOLVED (LIST BELOW)	(300.0)/(300.0) NITRATE/SULFATE	(376.1) SULFIDE, TOTAL	8015M (GASES)	TOC (415.1)	CHLORIDE (300.0)			pH < 2.0	pH > 12	Other
MW0010001	1/5/00	1602	352994		3	3																			
TW13010001	1/5/00	1709	995		3	3																			
W4010002	1/6/00	1254	996		3	3																			
TW20010001	1/6/00	1346	997		3	3																			
BR02010001	1/6/00	1615	3000		10	3										1	1	2	2	1					
BR02010001D	1/6/00	1615	001		3	3										~~1~~	~~1~~	~~2~~	~~2~~	~~1~~	Smc				
TW09010001	1/7/00	0749	003		9	2										1	1	2	2	1					
W5010001	1/7/00	1031	005		10	3										1	1	2	2	1					
BR01010002	1/7/00	1252	007		10	3										1	1	2	2	1					
~~TW11~~ TW17010001	1/7/00	1151	008		10	3										1	1	2	2	1					

RELINQUISHED BY:	RECEIVED BY:
Signature: [signature]	Signature: Joni Janson
Printed Name: Jerry R. Fields Jr	Printed Name: Joni Janson
Firm: Harding Lawson Assoc	Firm: C.A.S.
Date/Time: 1740 1/7/00	Date/Time: 1/7/00 17:40

RELINQUISHED BY:	RECEIVED BY:
Signature	Signature: [signature]
Printed Name	Printed Name: Gregory B. Emerick
Firm	Firm: CAS
Date/Time	Date/Time: ~~1/5/00~~ 1/7/00 BC 1740

RELINQUISHED BY:	RECEIVED BY:
Signature	Signature
Printed Name	Printed Name
Firm	Firm
Date/Time	Date/Time

TURNAROUND REQUIREMENTS
__ 24 hr. __ 48 hr. __ 5 day
__ Standard (10-15 working days)
__ Provide Verbal Preliminary Results
__ Provide FAX Preliminary Results
Requested Report Date ______

REPORT REQUIREMENTS
__ 1. Routine Report
__ 2. Routine Rep. w/CASE Narrative
__ 3. EPA Level III Validatable Package
__ 4. N.J. Reduced Deliverables Level IV
__ 5. NY ASP/CLP Deliverables
__ 6. Site specific QC.

INVOICE INFORMATION:
P.O. #: 5384
Bill To:

SAMPLE RECEIPT:
Shipping Via: Client
Shipping #:
Temperature: 2.0
Submission No: R2-450

SPECIAL INSTRUCTIONS/COMMENTS:
METALS
ORGANICS: ☐ TCL ☐ PPL ☐ AE Only ☐ BN Only ☐ Special List

Quote # 3184

Columbia Analytical Services INC.
An Employee-Owned Company

1 Mustard St., Suite 250, Rochester, NY 14609-6925
(716) 288-5380 • FAX (716) 288-8475

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

DATE 1/7/00 PAGE 3 OF 3

PROJECT NAME Ames St. Pre-Remedy GWMP
PROJECT MANAGER/CONTACT Rick Ryan / Ronny Fields
COMPANY/ADDRESS ~~1400 Cent~~ Harding Lawson Assoc.
1400 Centerpoint Blvd. Ste 158
TEL (423) 531 1922 FAX (423) 531 8226
SAMPLER'S SIGNATURE

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	FOR OFFICE USE ONLY LAB I.D.	SAMPLE MATRIX	# OF CONTAINERS	GC/MS VOA's ☐ 8260 ☐ 624 ☐ 95-1	GC/MS SVOA's ☐ 8270 ☐ 625 ☐ 95-2	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES/PCB's ☐ 8081 ☐ 608 ☐ 95-3	STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP	STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP	TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (LIST BELOW)	METALS, DISSOLVED (LIST BELOW)	Nitrate/Nitrite (300.0)	Sulfide, total (376.1)	BOD5 Gases	TOC (415.1)	Chloride (300.0)	Volatile Fatty Acids	PRESERVATION pH < 2.0	PRESERVATION pH > 12	PRESERVATION Other
BR05010001	1/7/00		353009	GW	11	3										1	1	2	2	1	1			
DB05010001	1/7/00		011	GW	11	3										1	1	2	2	1	1			

1/7/00

RELINQUISHED BY:
Signature
Printed Name Ronny R. Fields Jr.
Firm Harding Lawson Assoc.
Date/Time 1740 1/7/00

RECEIVED BY:
Signature Joni Janson
Printed Name C.A.S.
Firm
Date/Time 1/7/00 17:40

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name Gregory A. Emerson
Firm EBS
Date/Time 1/7/00 1740

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS
__ 24 hr. __ 48 hr. __ 5 day
__ Standard (10-15 working days)
__ Provide Verbal Preliminary Results
__ Provide FAX Preliminary Results
Requested Report Date

REPORT REQUIREMENTS
__ 1. Routine Report
__ 2. Routine Rep. w/CASE Narrative
__ 3. EPA Level III Validatable Package
__ 4. N.J. Reduced Deliverables Level IV
__ 5. NY ASP/CLP Deliverables
__ 6. Site specific QC.

INVOICE INFORMATION:
P.O. #: 5384
Bill To:

SAMPLE RECEIPT:
Shipping Via: Client
Shipping #:
Temperature: 2.0
Submission No: R2-450

SPECIAL INSTRUCTIONS/COMMENTS:
METALS
ORGANICS: ☐ TCL ☐ PPL ☐ AE Only ☐ BN Only ☐ Special List
92 22 114
Quote #3184

Columbia Analytical Services INC.
An Employee-Owned Company

1 Mustard St., Suite 250, Rochester, NY 14609-6925
(716) 288-5380 • FAX (716) 288-8475

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

DATE 1/8/00 PAGE 1 OF 1

PROJECT NAME Ames St. Pre-Remedy GWMP
PROJECT MANAGER/CONTACT Rick Ryan/Ronny Fields
COMPANY/ADDRESS Harding Lawson Associates
1400 Centerpoint Blvd. Ste 158 Knoxville, TN
TEL (865) 531-1922 FAX (865) 531-8226
SAMPLER'S SIGNATURE Sylvia M. Creswell

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	FOR OFFICE USE ONLY LAB I.D.	SAMPLE MATRIX	# OF CONTAINERS	GC/MS VOA's ☑ 8260 ☐ 624 ☐ 95-1	GC/MS SVOA's ☐ 8270 ☐ 625 ☐ 95-2	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES/PCB's ☐ 8081 ☐ 608 ☐ 95-3	STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP	STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP	TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (LIST BELOW)	METALS, DISSOLVED (LIST BELOW)	(300.0) NITRATE/SULFATE	(376.1) SULFIDE, TOTAL	8015M GASES	TOC (415.1)	CHLORIDE (300.0)	VOLATILE FATTY ACIDS	7470 (CVAA-Hg)	PRESERVATION pH < 2.0	pH > 12	Other
OBØ4Ø1ØØØ1	1/8/00	Ø9Ø2	353012		11	3										1	1	2	2	1	1				
BRØ4Ø1ØØØ1	1/8/00	Ø83Ø	013		11	3										1	1	2	2	1	1				
MH24Ø1ØØW	1/8/00	1025	014		1	1																1			
MH23Ø1ØØW	1/8/00	1040	015		1	1																1			
BRØ7Ø1ØØØ1	1/8/00	1053	016		3	3																			
BRØ6Ø1ØØØ1	1/8/00	1147	017		1	1														1					
MH22Ø1ØØW	1/8/00	1200	019		1																	1			
MH6Ø1ØØW	1/8/00	1215	021		1																	1			
W2Ø1ØØØ1	1/8/00	1209	018		1															1					
																								RF 1/8/00	

No VOA's Received

RF 1/8/00

RELINQUISHED BY:
Signature
Printed Name Jerry R. Reeds, Jr
Firm Harding Lawson Assoc.
Date/Time 1/8/00 1246

RECEIVED BY:
Signature
Printed Name
Firm CAS/R 1/8/00 1246
Date/Time

RELINQUISHED BY:
Signature
Printed Name Lisa Reyes
Firm CAS/R 1/10/00 8:00 Am
Date/Time

RECEIVED BY:
Signature
Printed Name Gregory D. Esmerian
Firm CAS 1-10-00 8:00
Date/Time

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS
__ 24 hr. __ 48 hr. __ 5 day
__ Standard (10-15 working days)
__ Provide Verbal Preliminary Results
__ Provide FAX Preliminary Results
Requested Report Date _____

REPORT REQUIREMENTS
__ 1. Routine Report
__ 2. Routine Rep. w/CASE Narrative
__ 3. EPA Level III Validatable Package
__ 4. N.J. Reduced Deliverables Level IV
__ 5. NY ASP/CLP Deliverables
__ 6. Site specific QC.

INVOICE INFORMATION:
P.O. #:
Bill To:

SAMPLE RECEIPT:
Shipping Via: Client
Shipping #:
Temperature: 1.9
Submission No: RZ0-450

SPECIAL INSTRUCTIONS/COMMENTS:
METALS
ORGANICS: ☐ TCL ☐ PPL ☐ AE Only ☐ BN Only ☐ Special List

APPENDIX E

LABORATORY REPORTS

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : BR01010001

Date Sampled : 01/07/00 **Order #:** 353007 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/12/00			
ANALYTICAL DILUTION: 10.00			
ACETONE	20	200 U	UG/L
BENZENE	5.0	50 U	UG/L
BROMODICHLOROMETHANE	5.0	50 U	UG/L
BROMOFORM	5.0	50 U	UG/L
BROMOMETHANE	5.0	50 U	UG/L
2-BUTANONE (MEK)	10	100 U	UG/L
CARBON DISULFIDE	10	100 U	UG/L
CARBON TETRACHLORIDE	5.0	50 U	UG/L
CHLOROBENZENE	5.0	50 U	UG/L
CHLOROETHANE	5.0	50 U	UG/L
CHLOROFORM	5.0	50 U	UG/L
CHLOROMETHANE	5.0	50 U	UG/L
DIBROMOCHLOROMETHANE	5.0	50 U	UG/L
1,1-DICHLOROETHANE	5.0	50 U	UG/L
1,2-DICHLOROETHANE	5.0	50 U	UG/L
1,1-DICHLOROETHENE	5.0	50 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	1100	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	50 U	UG/L
1,2-DICHLOROPROPANE	5.0	50 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	50 U	UG/L
ETHYLBENZENE	5.0	50 U	UG/L
2-HEXANONE	10	100 U	UG/L
METHYLENE CHLORIDE	5.0	50 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	100 U	UG/L
STYRENE	5.0	50 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	50 U	UG/L
TETRACHLOROETHENE	5.0	50 U	UG/L
TOLUENE	5.0	50 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	50 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	50 U	UG/L
TRICHLOROETHENE	5.0	400	UG/L
VINYL CHLORIDE	2.0	20 U	UG/L
O-XYLENE	5.0	50 U	UG/L
M+P-XYLENE	5.0	50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	88	%
TOLUENE-D8	(88 - 110 %)	96	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	91	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : BR02010001

Date Sampled : 01/06/00 **Order #:** 353000 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/12/00			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	50	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	6.6	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	150	UG/L
VINYL CHLORIDE	2.0	2.7	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	89	%
TOLUENE-D8	(88 - 110 %)	96	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	92	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : BR02010001D

Date Sampled : 01/06/00 **Order #:** 353001 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/12/00			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	47	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	6.1	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	150	UG/L
VINYL CHLORIDE	2.0	2.6	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	88	%
TOLUENE-D8	(88 - 110 %)	94	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	92	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : BR03010001

Date Sampled : 01/05/00 **Order #:** 352989 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/12/00			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	8.0	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	240 E	UG/L
VINYL CHLORIDE	2.0	2.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	91	%
TOLUENE-D8	(88 - 110 %)	96	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	90	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : BR03010001

Date Sampled : 01/05/00 **Order #:** 352989 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/12/10			
ANALYTICAL DILUTION: 2.00			
ACETONE	20	40 U	UG/L
BENZENE	5.0	10 U	UG/L
BROMODICHLOROMETHANE	5.0	10 U	UG/L
BROMOFORM	5.0	10 U	UG/L
BROMOMETHANE	5.0	10 U	UG/L
2-BUTANONE (MEK)	10	20 U	UG/L
CARBON DISULFIDE	10	20 U	UG/L
CARBON TETRACHLORIDE	5.0	10 U	UG/L
CHLOROBENZENE	5.0	10 U	UG/L
CHLOROETHANE	5.0	10 U	UG/L
CHLOROFORM	5.0	10 U	UG/L
CHLOROMETHANE	5.0	10 U	UG/L
DIBROMOCHLOROMETHANE	5.0	10 U	UG/L
1,1-DICHLOROETHANE	5.0	10 U	UG/L
1,2-DICHLOROETHANE	5.0	10 U	UG/L
1,1-DICHLOROETHENE	5.0	10 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	10 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	10 U	UG/L
1,2-DICHLOROPROPANE	5.0	10 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	10 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	10 U	UG/L
ETHYLBENZENE	5.0	10 U	UG/L
2-HEXANONE	10	20 U	UG/L
METHYLENE CHLORIDE	5.0	10 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	20 U	UG/L
STYRENE	5.0	10 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	10 U	UG/L
TETRACHLOROETHENE	5.0	10 U	UG/L
TOLUENE	5.0	10 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	10 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	10 U	UG/L
TRICHLOROETHENE	5.0	240	UG/L
VINYL CHLORIDE	2.0	4.0 U	UG/L
O-XYLENE	5.0	10 U	UG/L
M+P-XYLENE	5.0	10 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	88	%
TOLUENE-D8	(88 - 110 %)	95	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	92	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : BR04010001

Date Sampled : 01/08/00 **Order #:** 353013 **Sample Matrix:** WATER
Date Received: 01/08/00 **Submission #:** R2000450 **Analytical Run** 47005

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/17/00			
ANALYTICAL DILUTION: 25.00			
ACETONE	20	500 U	UG/L
BENZENE	5.0	130 U	UG/L
BROMODICHLOROMETHANE	5.0	130 U	UG/L
BROMOFORM	5.0	130 U	UG/L
BROMOMETHANE	5.0	130 U	UG/L
2-BUTANONE (MEK)	10	250 U	UG/L
CARBON DISULFIDE	10	250 U	UG/L
CARBON TETRACHLORIDE	5.0	130 U	UG/L
CHLOROBENZENE	5.0	130 U	UG/L
CHLOROETHANE	5.0	130 U	UG/L
CHLOROFORM	5.0	130 U	UG/L
CHLOROMETHANE	5.0	130 U	UG/L
DIBROMOCHLOROMETHANE	5.0	130 U	UG/L
1,1-DICHLOROETHANE	5.0	130 U	UG/L
1,2-DICHLOROETHANE	5.0	130 U	UG/L
1,1-DICHLOROETHENE	5.0	130 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	590	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	130 U	UG/L
1,2-DICHLOROPROPANE	5.0	130 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	130 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	130 U	UG/L
ETHYLBENZENE	5.0	130 U	UG/L
2-HEXANONE	10	250 U	UG/L
METHYLENE CHLORIDE	5.0	130 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	250 U	UG/L
STYRENE	5.0	130 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	130 U	UG/L
TETRACHLOROETHENE	5.0	130 U	UG/L
TOLUENE	5.0	130 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	130 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	130 U	UG/L
TRICHLOROETHENE	5.0	4500	UG/L
VINYL CHLORIDE	2.0	50 U	UG/L
O-XYLENE	5.0	130 U	UG/L
M+P-XYLENE	5.0	130 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	92	%
TOLUENE-D8	(88 - 110 %)	96	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	92	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : BR05010001

Date Sampled : 01/07/00 **Order #:** 353009 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/12/00			
ANALYTICAL DILUTION: 20.00			
ACETONE	20	400 U	UG/L
BENZENE	5.0	100 U	UG/L
BROMODICHLOROMETHANE	5.0	100 U	UG/L
BROMOFORM	5.0	100 U	UG/L
BROMOMETHANE	5.0	100 U	UG/L
2-BUTANONE (MEK)	10	200 U	UG/L
CARBON DISULFIDE	10	200 U	UG/L
CARBON TETRACHLORIDE	5.0	100 U	UG/L
CHLOROBENZENE	5.0	100 U	UG/L
CHLOROETHANE	5.0	100 U	UG/L
CHLOROFORM	5.0	100 U	UG/L
CHLOROMETHANE	5.0	100 U	UG/L
DIBROMOCHLOROMETHANE	5.0	100 U	UG/L
1,1-DICHLOROETHANE	5.0	100 U	UG/L
1,2-DICHLOROETHANE	5.0	100 U	UG/L
1,1-DICHLOROETHENE	5.0	100 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	980	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	100 U	UG/L
1,2-DICHLOROPROPANE	5.0	100 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	100 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	100 U	UG/L
ETHYLBENZENE	5.0	100 U	UG/L
2-HEXANONE	10	200 U	UG/L
METHYLENE CHLORIDE	5.0	100 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	200 U	UG/L
STYRENE	5.0	100 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	100 U	UG/L
TETRACHLOROETHENE	5.0	100 U	UG/L
TOLUENE	5.0	100 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	100 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	100 U	UG/L
TRICHLOROETHENE	5.0	1900	UG/L
VINYL CHLORIDE	2.0	80	UG/L
O-XYLENE	5.0	100 U	UG/L
M+P-XYLENE	5.0	100 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	88	%
TOLUENE-D8	(88 - 110 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	92	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : BR07010001

Date Sampled : 01/08/00 **Order #:** 353016 **Sample Matrix:** WATER
Date Received: 01/08/00 **Submission #:** R2000450 **Analytical Run** 47005

DATE ANALYZED : 01/17/00
ANALYTICAL DILUTION: 1.00

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	21	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	7.6	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	7.2	UG/L
VINYL CHLORIDE	2.0	2.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	92	%
TOLUENE-D8	(88 - 110 %)	94	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	93	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : MW00010001

Date Sampled : 01/05/00 **Order #:** 352994 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

DATE ANALYZED : 01/12/00
ANALYTICAL DILUTION: 1.00

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	2.0	5.5	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	8.1	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	89	%
TOLUENE-D8	(88 - 110 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	94	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : OB04010001

Date Sampled : 01/08/00 **Order #:** 353012 **Sample Matrix:** WATER
Date Received: 01/08/00 **Submission #:** R2000450 **Analytical Run** 47005

DATE ANALYZED : 01/13/00
ANALYTICAL DILUTION: 250.00

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	5000 U	UG/L
BENZENE	5.0	1300 U	UG/L
BROMODICHLOROMETHANE	5.0	1300 U	UG/L
BROMOFORM	5.0	1300 U	UG/L
BROMOMETHANE	5.0	1300 U	UG/L
2-BUTANONE (MEK)	10	2500 U	UG/L
CARBON DISULFIDE	10	2500 U	UG/L
CARBON TETRACHLORIDE	5.0	1300 U	UG/L
CHLOROBENZENE	5.0	1300 U	UG/L
CHLOROETHANE	5.0	1300 U	UG/L
CHLOROFORM	5.0	1300 U	UG/L
CHLOROMETHANE	5.0	1300 U	UG/L
DIBROMOCHLOROMETHANE	5.0	1300 U	UG/L
1,1-DICHLOROETHANE	5.0	1300 U	UG/L
1,2-DICHLOROETHANE	5.0	1300 U	UG/L
1,1-DICHLOROETHENE	5.0	1300 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	1300 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	1300 U	UG/L
1,2-DICHLOROPROPANE	5.0	1300 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	1300 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	1300 U	UG/L
ETHYLBENZENE	5.0	1300 U	UG/L
2-HEXANONE	10	2500 U	UG/L
METHYLENE CHLORIDE	5.0	1300 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	2500 U	UG/L
STYRENE	5.0	1300 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	1300 U	UG/L
TETRACHLOROETHENE	5.0	1300 U	UG/L
TOLUENE	5.0	1300 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	1300 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	1300 U	UG/L
TRICHLOROETHENE	5.0	40000	UG/L
VINYL CHLORIDE	2.0	500 U	UG/L
O-XYLENE	5.0	1300 U	UG/L
M+P-XYLENE	5.0	1300 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	88	%
TOLUENE-D8	(88 - 110 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	92	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : OB05010001

Date Sampled : 01/07/00 **Order #:** 353011 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

DATE ANALYZED : 01/13/00
ANALYTICAL DILUTION: 100.00

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	2000 U	UG/L
BENZENE	5.0	500 U	UG/L
BROMODICHLOROMETHANE	5.0	500 U	UG/L
BROMOFORM	5.0	500 U	UG/L
BROMOMETHANE	5.0	500 U	UG/L
2-BUTANONE (MEK)	10	1000 U	UG/L
CARBON DISULFIDE	10	1000 U	UG/L
CARBON TETRACHLORIDE	5.0	500 U	UG/L
CHLOROBENZENE	5.0	500 U	UG/L
CHLOROETHANE	5.0	500 U	UG/L
CHLOROFORM	5.0	500 U	UG/L
CHLOROMETHANE	5.0	500 U	UG/L
DIBROMOCHLOROMETHANE	5.0	500 U	UG/L
1,1-DICHLOROETHANE	5.0	500 U	UG/L
1,2-DICHLOROETHANE	5.0	500 U	UG/L
1,1-DICHLOROETHENE	5.0	500 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	1700	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	500 U	UG/L
1,2-DICHLOROPROPANE	5.0	500 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	500 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	500 U	UG/L
ETHYLBENZENE	5.0	500 U	UG/L
2-HEXANONE	10	1000 U	UG/L
METHYLENE CHLORIDE	5.0	500 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	1000 U	UG/L
STYRENE	5.0	500 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	500 U	UG/L
TETRACHLOROETHENE	5.0	500 U	UG/L
TOLUENE	5.0	500 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	500 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	500 U	UG/L
TRICHLOROETHENE	5.0	25000 E	UG/L
VINYL CHLORIDE	2.0	200 U	UG/L
O-XYLENE	5.0	500 U	UG/L
M+P-XYLENE	5.0	500 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	90	%
TOLUENE-D8	(88 - 110 %)	96	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	91	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : OB05010001

Date Sampled : 01/07/00 **Order #:** 353011 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

DATE ANALYZED : 01/12/10
ANALYTICAL DILUTION: 500.00

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	10000 U	UG/L
BENZENE	5.0	2500 U	UG/L
BROMODICHLOROMETHANE	5.0	2500 U	UG/L
BROMOFORM	5.0	2500 U	UG/L
BROMOMETHANE	5.0	2500 U	UG/L
2-BUTANONE (MEK)	10	5000 U	UG/L
CARBON DISULFIDE	10	5000 U	UG/L
CARBON TETRACHLORIDE	5.0	2500 U	UG/L
CHLOROBENZENE	5.0	2500 U	UG/L
CHLOROETHANE	5.0	2500 U	UG/L
CHLOROFORM	5.0	2500 U	UG/L
CHLOROMETHANE	5.0	2500 U	UG/L
DIBROMOCHLOROMETHANE	5.0	2500 U	UG/L
1,1-DICHLOROETHANE	5.0	2500 U	UG/L
1,2-DICHLOROETHANE	5.0	2500 U	UG/L
1,1-DICHLOROETHENE	5.0	2500 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	2500 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	2500 U	UG/L
1,2-DICHLOROPROPANE	5.0	2500 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	2500 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	2500 U	UG/L
ETHYLBENZENE	5.0	2500 U	UG/L
2-HEXANONE	10	5000 U	UG/L
METHYLENE CHLORIDE	5.0	2500 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	5000 U	UG/L
STYRENE	5.0	2500 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	2500 U	UG/L
TETRACHLOROETHENE	5.0	2500 U	UG/L
TOLUENE	5.0	2500 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	2500 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	2500 U	UG/L
TRICHLOROETHENE	5.0	22000	UG/L
VINYL CHLORIDE	2.0	1000 U	UG/L
O-XYLENE	5.0	2500 U	UG/L
M+P-XYLENE	5.0	2500 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	89	%
TOLUENE-D8	(88 - 110 %)	95	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	92	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : TW01010001

Date Sampled : 01/05/00 **Order #:** 352987 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/12/00			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	2.0	2.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	90	%
TOLUENE-D8	(88 - 110 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	93	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : TW04010001

Date Sampled : 01/05/00 **Order #:** 352991 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/12/00			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	88	UG/L
VINYL CHLORIDE	2.0	2.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	91	%
TOLUENE-D8	(88 - 110 %)	98	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	94	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : TW07010001

Date Sampled : 01/05/00 **Order #:** 352992 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/12/00			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	20	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	26	UG/L
VINYL CHLORIDE	2.0	2.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	89	%
TOLUENE-D8	(88 - 110 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	94	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : TW07010001D

Date Sampled : 01/05/00 **Order #:** 352993 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/12/00			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	19	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	25	UG/L
VINYL CHLORIDE	2.0	2.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	88	%
TOLUENE-D8	(88 - 110 %)	96	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	95	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : TW09010001D RF 2/17/00

Date Sampled : 01/07/00 **Order #:** 353003 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/13/00			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	31	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	260 E	UG/L
VINYL CHLORIDE	2.0	2.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	90	%
TOLUENE-D8	(88 - 110 %)	94	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	92	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : TW09010001D RF 2/17/00

Date Sampled : 01/07/00 **Order #:** 353003 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

DATE ANALYZED : 01/12/10
ANALYTICAL DILUTION: 5.00

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	100 U	UG/L
BENZENE	5.0	25 U	UG/L
BROMODICHLOROMETHANE	5.0	25 U	UG/L
BROMOFORM	5.0	25 U	UG/L
BROMOMETHANE	5.0	25 U	UG/L
2-BUTANONE (MEK)	10	50 U	UG/L
CARBON DISULFIDE	10	50 U	UG/L
CARBON TETRACHLORIDE	5.0	25 U	UG/L
CHLOROBENZENE	5.0	25 U	UG/L
CHLOROETHANE	5.0	25 U	UG/L
CHLOROFORM	5.0	25 U	UG/L
CHLOROMETHANE	5.0	25 U	UG/L
DIBROMOCHLOROMETHANE	5.0	25 U	UG/L
1,1-DICHLOROETHANE	5.0	25 U	UG/L
1,2-DICHLOROETHANE	5.0	25 U	UG/L
1,1-DICHLOROETHENE	5.0	25 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	30	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	25 U	UG/L
1,2-DICHLOROPROPANE	5.0	25 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	25 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	25 U	UG/L
ETHYLBENZENE	5.0	25 U	UG/L
2-HEXANONE	10	50 U	UG/L
METHYLENE CHLORIDE	5.0	25 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	50 U	UG/L
STYRENE	5.0	25 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	25 U	UG/L
TETRACHLOROETHENE	5.0	25 U	UG/L
TOLUENE	5.0	25 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	25 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	25 U	UG/L
TRICHLOROETHENE	5.0	250	UG/L
VINYL CHLORIDE	2.0	10 U	UG/L
O-XYLENE	5.0	25 U	UG/L
M+P-XYLENE	5.0	25 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	91	%
TOLUENE-D8	(88 - 110 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	92	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : TW13010001

Date Sampled : 01/05/00 **Order #:** 352995 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/12/00			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	2.0	2.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	89	%
TOLUENE-D8	(88 - 110 %)	96	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	93	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : TW17010001

Date Sampled : 01/07/00 **Order #:** 353008 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

DATE ANALYZED : 01/13/00
ANALYTICAL DILUTION: 2.00

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	40 U	UG/L
BENZENE	5.0	10 U	UG/L
BROMODICHLOROMETHANE	5.0	10 U	UG/L
BROMOFORM	5.0	10 U	UG/L
BROMOMETHANE	5.0	10 U	UG/L
2-BUTANONE (MEK)	10	20 U	UG/L
CARBON DISULFIDE	10	20 U	UG/L
CARBON TETRACHLORIDE	5.0	10 U	UG/L
CHLOROBENZENE	5.0	10 U	UG/L
CHLOROETHANE	5.0	10 U	UG/L
CHLOROFORM	5.0	10 U	UG/L
CHLOROMETHANE	5.0	10 U	UG/L
DIBROMOCHLOROMETHANE	5.0	10 U	UG/L
1,1-DICHLOROETHANE	5.0	10 U	UG/L
1,2-DICHLOROETHANE	5.0	10 U	UG/L
1,1-DICHLOROETHENE	5.0	10 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	10 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	10 U	UG/L
1,2-DICHLOROPROPANE	5.0	10 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	10 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	10 U	UG/L
ETHYLBENZENE	5.0	10 U	UG/L
2-HEXANONE	10	20 U	UG/L
METHYLENE CHLORIDE	5.0	10 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	20 U	UG/L
STYRENE	5.0	10 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	10 U	UG/L
TETRACHLOROETHENE	5.0	10 U	UG/L
TOLUENE	5.0	10 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	10 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	10 U	UG/L
TRICHLOROETHENE	5.0	600 E	UG/L
VINYL CHLORIDE	2.0	4.0 U	UG/L
O-XYLENE	5.0	10 U	UG/L
M+P-XYLENE	5.0	10 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	89	%
TOLUENE-D8	(88 - 110 %)	96	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	93	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : TW17010001

Date Sampled : 01/07/00 **Order #:** 353008 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

DATE ANALYZED : 01/12/10
ANALYTICAL DILUTION: 10.00

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	200 U	UG/L
BENZENE	5.0	50 U	UG/L
BROMODICHLOROMETHANE	5.0	50 U	UG/L
BROMOFORM	5.0	50 U	UG/L
BROMOMETHANE	5.0	50 U	UG/L
2-BUTANONE (MEK)	10	100 U	UG/L
CARBON DISULFIDE	10	100 U	UG/L
CARBON TETRACHLORIDE	5.0	50 U	UG/L
CHLOROBENZENE	5.0	50 U	UG/L
CHLOROETHANE	5.0	50 U	UG/L
CHLOROFORM	5.0	50 U	UG/L
CHLOROMETHANE	5.0	50 U	UG/L
DIBROMOCHLOROMETHANE	5.0	50 U	UG/L
1,1-DICHLOROETHANE	5.0	50 U	UG/L
1,2-DICHLOROETHANE	5.0	50 U	UG/L
1,1-DICHLOROETHENE	5.0	50 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	50 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	50 U	UG/L
1,2-DICHLOROPROPANE	5.0	50 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	50 U	UG/L
ETHYLBENZENE	5.0	50 U	UG/L
2-HEXANONE	10	100 U	UG/L
METHYLENE CHLORIDE	5.0	50 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	100 U	UG/L
STYRENE	5.0	50 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	50 U	UG/L
TETRACHLOROETHENE	5.0	50 U	UG/L
TOLUENE	5.0	50 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	50 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	50 U	UG/L
TRICHLOROETHENE	5.0	530	UG/L
VINYL CHLORIDE	2.0	20 U	UG/L
O-XYLENE	5.0	50 U	UG/L
M+P-XYLENE	5.0	50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	90	%
TOLUENE-D8	(88 - 110 %)	98	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	92	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : TW20010001

Date Sampled : 01/06/00 **Order #:** 352997 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/12/00			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	7.8	UG/L
VINYL CHLORIDE	2.0	2.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	88	%
TOLUENE-D8	(88 - 110 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	93	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : W4010001

Date Sampled : 01/06/00 **Order #:** 352996 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/12/00			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	2.0	2.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	90	%
TOLUENE-D8	(88 - 110 %)	98	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	94	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : W5010001

Date Sampled : 01/07/00 **Order #:** 353005 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/12/00			
ANALYTICAL DILUTION: 5.00			
ACETONE	20	100 U	UG/L
BENZENE	5.0	25 U	UG/L
BROMODICHLOROMETHANE	5.0	25 U	UG/L
BROMOFORM	5.0	25 U	UG/L
BROMOMETHANE	5.0	25 U	UG/L
2-BUTANONE (MEK)	10	8800 E	UG/L
CARBON DISULFIDE	10	50 U	UG/L
CARBON TETRACHLORIDE	5.0	25 U	UG/L
CHLOROBENZENE	5.0	25 U	UG/L
CHLOROETHANE	5.0	25 U	UG/L
CHLOROFORM	5.0	25 U	UG/L
CHLOROMETHANE	5.0	25 U	UG/L
DIBROMOCHLOROMETHANE	5.0	25 U	UG/L
1,1-DICHLOROETHANE	5.0	25 U	UG/L
1,2-DICHLOROETHANE	5.0	25 U	UG/L
1,1-DICHLOROETHENE	5.0	25 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	210	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	25 U	UG/L
1,2-DICHLOROPROPANE	5.0	25 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	25 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	25 U	UG/L
ETHYLBENZENE	5.0	25 U	UG/L
2-HEXANONE	10	50 U	UG/L
METHYLENE CHLORIDE	5.0	25 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	50 U	UG/L
STYRENE	5.0	25 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	25 U	UG/L
TETRACHLOROETHENE	5.0	25 U	UG/L
TOLUENE	5.0	25 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	25 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	25 U	UG/L
TRICHLOROETHENE	5.0	280	UG/L
VINYL CHLORIDE	5.0	25 U	UG/L
O-XYLENE	5.0	25 U	UG/L
M+P-XYLENE	5.0	25 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	89	%
TOLUENE-D8	(88 - 110 %)	96	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	92	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : W5010001

Date Sampled : 01/07/00 **Order #:** 353005 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 0

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/21/10			
ANALYTICAL DILUTION: 50.00			
ACETONE	20	1000 U	UG/L
BENZENE	5.0	250 U	UG/L
BROMODICHLOROMETHANE	5.0	250 U	UG/L
BROMOFORM	5.0	250 U	UG/L
BROMOMETHANE	5.0	250 U	UG/L
2-BUTANONE (MEK)	10	6100	UG/L
CARBON DISULFIDE	10	500 U	UG/L
CARBON TETRACHLORIDE	5.0	250 U	UG/L
CHLOROBENZENE	5.0	250 U	UG/L
CHLOROETHANE	5.0	250 U	UG/L
CHLOROFORM	5.0	250 U	UG/L
CHLOROMETHANE	5.0	250 U	UG/L
DIBROMOCHLOROMETHANE	5.0	250 U	UG/L
1,1-DICHLOROETHANE	5.0	250 U	UG/L
1,2-DICHLOROETHANE	5.0	250 U	UG/L
1,1-DICHLOROETHENE	5.0	250 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	250 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	250 U	UG/L
1,2-DICHLOROPROPANE	5.0	250 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	250 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	250 U	UG/L
ETHYLBENZENE	5.0	250 U	UG/L
2-HEXANONE	10	500 U	UG/L
METHYLENE CHLORIDE	5.0	250 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	500 U	UG/L
STYRENE	5.0	250 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	250 U	UG/L
TETRACHLOROETHENE	5.0	250 U	UG/L
TOLUENE	5.0	250 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	250 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	250 U	UG/L
TRICHLOROETHENE	5.0	250 U	UG/L
VINYL CHLORIDE	5.0	250 U	UG/L
O-XYLENE	5.0	250 U	UG/L
M+P-XYLENE	5.0	250 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	100	%
TOLUENE-D8	(88 - 110 %)	103	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	100	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : W6010001

Date Sampled : 01/04/00 **Order #:** 352984 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/12/00			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	2.0	2.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	90	%
TOLUENE-D8	(88 - 110 %)	96	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	90	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : QAFB010001

Date Sampled : 01/05/00 **Order #:** 352985 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/12/00			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	2.0	2.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	89	%
TOLUENE-D8	(88 - 110 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	91	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/24/00

Harding Lawson Associates
Project Reference: Ames Street Pre-Remedy GWMP
Client Sample ID : QARB010001

Date Sampled : 01/05/00 **Order #:** 352986 **Sample Matrix:** WATER
Date Received: 01/07/00 **Submission #:** R2000450 **Analytical Run** 47005

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/12/00			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	2.0	2.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	89	%
TOLUENE-D8	(88 - 110 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	93	%