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NTC GREAT LAKES
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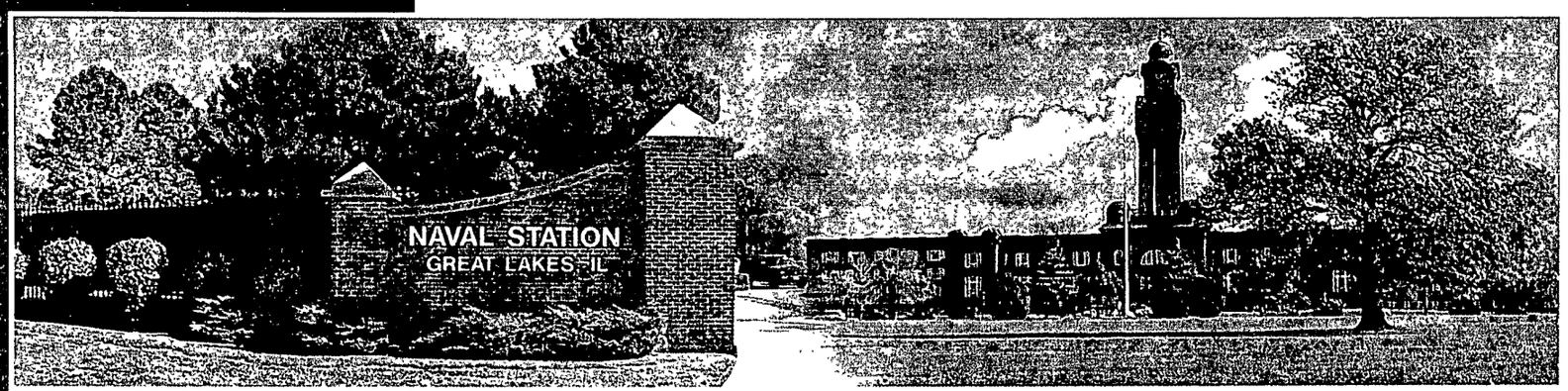
Quarterly Monitoring Report

Third Quarter 2002
Biosparge Remediation System
Building 1600A
Great Lakes, Illinois



Environmental Job Order Contract No. N68950-00-D-0200
Delivery Order No. 0027

Prepared for:
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Environmental Department
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January 2003
Revision No. 1

TOLTEST, INC.

ENVIRONMENTAL JOB ORDER CONTRACT
NO. N68950-00-D-0200
DELIVERY ORDER NO. 0027

QUARTERLY MONITORING REPORT
THIRD QUARTER 2002
BIOSPARGE REMEDIATION SYSTEM
BUILDING 1600A
GREAT LAKES, ILLINOIS

PREPARED FOR

DEPARTMENT OF THE NAVY
NAVAL TRAINING CENTER (NTC) –
ENVIRONMENTAL DEPARTMENT
BUILDING 1-A, 201 DECATUR AVENUE
GREAT LAKES, ILLINOIS 60088-5600

JANUARY 2003
Revision 1

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QUARTERLY MONITORING REPORT
THIRD QUARTER 2002
BIOSPARGE REMEDIATION SYSTEM
BUILDING 1600A
GREAT LAKES, ILLINOIS

EJOC NO. N68950-00-D-0200
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January 2003
Revision 1

Prepared by:

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TolTest, Inc. hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under this contract is complete, accurate, and complies with all requirements of the contract.

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EXECUTIVE SUMMARY

TolTest, Inc. completed quarterly sampling and monitoring on the biosparge remediation system at Building 1600A, Great Lakes Naval Training Center. This report discusses the sampling events of October 2002, a summary of all previous sampling events, and a summary of the maintenance work performed on the biosparge system during the 3RD quarter of 2002.

Analytical results of groundwater samples obtained from the monitoring wells on site indicate that contamination of the groundwater from organic compounds exists above the regulatory limits in two wells. Inorganic contamination (i.e., lead) exists in the groundwater obtained from one monitoring well.

Analytical results of the current and previous sampling events are inconclusive in determining plume migration or a reduction in the size of the contaminant plume. Results from future sampling events will need to be observed before a trend can definitely be established.

Maintenance of the biosparge system has occurred on a routine basis. Major repairs have consisted of replacing the two blower motors.

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LIST OF ACRONYMS

BTEX	Benzene, toluene, ethylbenzene, xylenes
CAP	Corrective Action Plan
DOCR	Delivery Order Completion Report
HES	Heritage Environmental Systems
Mg/L	Milligrams per liter
MTBE	Methyl tertiary butyl ether
MW	Monitoring Well
NGVD	National Geodetic Vertical Datum
NTC	Naval Training Center
O&M	Operation and Maintenance
PNA	Poly-nuclear Aromatic
RL	Regulatory Limit
SPLP	Synthetic Precipitation Leaching Procedure
UST	Underground Storage Tank
WP	Work Plan

1.0 INTRODUCTION

This Quarterly Monitoring Report documents the operation of the biosparge remediation system at Building 1600A, Naval Training Center (NTC), Great Lakes, Illinois. This work is performed pursuant to the *Corrective Action Plan* (CAP) [TolTest, 2000a], *CAP Supplement* [TolTest, 2000b], and the *Work Plan and Site Health & Safety Plan,* (WP) [TolTest, 2001a]. This report discusses the sampling events of October 2002, a summary all previous sampling events, and a summary of the maintenance work performed on the biosparge system during the 3rd quarter 2002. Additional information about the site can be found in the *Delivery Order Completion Report* (DOCR) [TolTest, 2000b].

Building 1600A was utilized as a fueling station and motor pool until 1997. The underground storage tanks (USTs) located beneath the site, which contained gasoline and diesel fuel, were removed in 1997. Leakage from these USTs caused contamination of the groundwater and subsurface soils. Heritage Environmental Services (HES) removed a portion of the contaminated soil in 1998, but due to the physical characteristics of the site, not all of the contaminated soil could be excavated. HES also advanced 35 soil borings at the site and determined that the plume of contamination in the soil was larger than the plume of contamination in the groundwater.

TolTest subsequently advanced 11 additional soil borings and installed six monitoring wells in 1999. TolTest installed three additional monitoring wells and the biosparge remediation system in 2001. This system consists of two directionally drilled horizontal wells situated approximately 10 feet below ground surface (approximately five feet below the water table). Optimization of the biosparge system was completed in September 2001. For ease of reporting, the first quarter of operation ended on December 31, 2001. The sampling event of August 2001 essentially provides baseline data prior to operation of the biosparge system.

The biosparge system is designed to remediate soils and groundwater to acceptable cleanup goals by injecting air into the subsurface. Injecting air into the groundwater at low rates can dramatically increase biological activity associated with the natural attenuation of organic compounds. This process, known as biosparging, is more efficient and more economical for treatment of subsurface contamination than soil vapor extraction or conventional air sparging technologies. A more complete description of the project can be found in the CAP, WP, and DOCR. Operation and maintenance of the biosparge system is detailed in the *Operations and Maintenance Plan* (O&M Plan) [TolTest, 2002].

Figure 1 in **Appendix A** depicts the site with significant features including locations of the monitoring wells, both horizontal biosparge wells, and equipment sheds.

2.0 MONITORING WELL SAMPLING

2.1 Schedule of Sampling

TolTest collected groundwater samples on October 10th and 30th, 2002, from the groundwater monitoring wells at Building 1600A. The groundwater samples were submitted to Suburban Laboratories, Hillsdale, Illinois for analyses. All analytical data are provided in **Appendix B**, including data from the four previous sampling events.

All nine monitoring wells were sampled on October 10th and analyzed for the following parameters:

- Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) and Methyl tert-butyl ether (MTBE) by United States Environmental Protection Agency (USEPA) Method 8260B;
- Poly-Nuclear Aromatic Compounds (PNAs) by USEPA Method 8270C.

Samples were collected on October 30th from monitoring wells MW-1, MW-2, MW-3, and MW-9 and analyzed for total lead by USEPA Method 7421. This sampling scheme, which was approved by the Illinois Environmental Protection Agency (IEPA), was designed to determine the lead content of the groundwater in the monitoring wells closest to the source of contamination. Analysis for Synthetic Precipitation Leaching Procedure (SPLP) was not performed on the sample from MW-9 since there was no sediment in the sample. SPLP analysis is only performed on sediment, not groundwater, and there has been no sediment in the samples from MW-9 since the first sampling event of August 2001.

2.2 Analytical Results

Table 1 summarizes the laboratory analytical results from the current and four previous sampling events. **Appendix C** contains graphs of VOC and naphthalene concentrations over time for MW-2, MW-3, MW-4, MW-5, and MW-8, and graphs of benzene, naphthalene, and MTBE concentrations as compared with their respective Regulatory Limits (RLs). The RL for MTBE has yet to be established

The latest analytical results indicate that benzene concentrations for the samples collected from monitoring wells MW-2 and MW-4 exceeded the RL of 0.005 milligrams per liter (mg/L) for the fourth consecutive quarter. The analytical results also indicate that the naphthalene concentration in the sample collected from monitoring well MW-2 exceeded the RL of 0.025 mg/L, and that the total lead in MW-1 exceeded the RL of 0.0075 mg/L. No other analytes were detected above their respective RLs.

A duplicate sample of MW-9, identified as MW-10, was submitted for analysis of BTEX, MTBE, and PNAs. All results were non-detect.

Table 1. Laboratory Analytical Results

Well Number	Date	Benzene	Ethylbenzene	MTBE	Toluene	Xylenes	Acenapthene	Acenapthylene	Anthracene	Fluorene	Naphthalene	Phenanthrene	Total Lead	SPLP Lead
MW-1	8/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
	11/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	02/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0021	NA
	06/02	ND	ND	ND	ND	.001	ND	ND	ND	ND	ND	ND	ND	NA
	10/02	ND	ND	ND	ND	ND	ND	ND	ND	0.10	ND	ND	0.0149	NA
MW-2	8/01	1.41	0.375	ND	2.38	1.7	0.0017	0.024	ND	ND	ND	0.038	NA	NA
	11/01	0.0716	0.691	0.112	0.435	1.2	ND	ND	ND	ND	0.101	ND	ND	NA
	02/02	0.076	0.720	0.110	0.230	1.200	0.020	0.062	ND	0.001	0.098	ND	ND	NA
	06/02	0.048	0.900	ND	0.240	1.600	0.025	ND	.0002	0.03	0.048	0.0023	0.002	NA
	10/02	0.0227	0.679	ND	0.0728	0.842	ND	ND	ND	ND	0.0721	ND	ND	NA
MW-3	8/01	0.0016	0.0019	0.0324	0.0067	0.0088	ND	ND	ND	ND	ND	ND	NA	NA
	11/01	ND	0.00438	0.0906	ND	ND	ND	ND	ND	ND	0.00096	ND	ND	NA
	02/02	ND	0.044	0.045	ND	0.0076	ND	ND	ND	ND	ND	ND	ND	NA
	06/02	ND	ND	0.004	ND	0.002	ND	ND	ND	ND	ND	ND	0.003	NA
	10/02	ND	ND	0.00814	ND	ND	ND	ND	ND	ND	ND	ND	0.00727	NA
MW-4	8/01	0.156	0.648	ND	0.122	1.03	0.00033	ND	ND	ND	0.04	ND	NA	NA
	11/01	0.123	0.762	ND	0.0939	1.4	ND	ND	ND	ND	0.0235	ND	NA	NA
	02/02	0.082	0.900	0.018	0.067	0.990	ND	0.0085	ND	ND	0.022	ND	NA	NA
	06/02	0.028	0.380	ND	0.036	0.530	ND	0.0032	ND	ND	0.0054	ND	NA	NA
	10/02	0.0296	0.631	ND	0.032	0.4082	ND	ND	ND	ND	ND	ND	NA	NA
MW-5	8/01	0.0117	0.102	ND	0.036	0.273	0.0002	ND	ND	0.00031	0.00027	0.00013	NA	NA
	11/01	ND	ND	0.0166	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
	02/02	ND	0.0035	0.0046	ND	0.0063	ND	ND	ND	ND	0.0012	ND	NA	NA
	06/02	ND	ND	ND	ND	0.001	ND	ND	ND	ND	ND	ND	NA	NA
	10/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
MW-6	8/01	ND	ND	ND	0.0017	ND	ND	ND	ND	ND	0.00036	0.00012	NA	NA
	11/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00036	ND	NA	NA
	02/02	ND	0.0015	ND	ND	0.0028	ND	ND	ND	ND	ND	ND	NA	NA
	06/02	ND	ND	0.003	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
	10/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
MW-7	8/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00011	NA	NA
	11/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00054	ND	NA	NA
	02/02	ND	0.0012	ND	ND	0.0022	ND	ND	ND	ND	ND	ND	NA	NA
	06/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
	10/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
MW-8	8/01	0.109	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
	11/01	0.139	0.0035	0.00598	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
	02/02	0.0058	0.0014	.0030	ND	.0023	ND	ND	ND	ND	ND	ND	NA	NA
	06/02	ND	ND	0.002	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
	10/02	ND	ND	0.00184	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
MW-9	8/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.018	0.018
	11/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	02/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	06/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.001	NA
	10/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Regulatory Limit		0.005	0.7	NR	1.0	10	0.42	NR	2.1	0.28	0.025	NR	0.0075	0.0075

1. Notes:
2. Concentrations are reported in milligrams per liter (mg/L)
3. NA – Not Analyzed
4. ND – Not Detected at Reporting Limit
5. NR – No established Regulatory Limit
6. Shaded – Exceed Regulatory Limit

2.3 Discussion of Analytical Results

Only four organic and one inorganic compound have been detected above the RLs during any of the five sampling events: benzene, ethylbenzene, toluene, naphthalene, and lead. Analytical results for the four organic compounds are discussed below. Results of BTEX and MTBE contaminant concentrations are plotted over time for MW-2, MW-3, MW-4, MW-5, and MW-8 (BTEX, MTBE, and PNAs have never been detected above RLs in MW-1, MW-7, or MW-9). These plots are provided in **Appendix C** as well as plots of the benzene, naphthalene, and MTBE concentrations plotted logarithmically over time compared to the RL of 0.005 mg/L (benzene) and 0.025 mg/L (naphthalene). The RL for MTBE has not been established. The value of 0.001 mg/L was substituted for the non-detect concentrations for plotting purposes.

2.3.1 Benzene

Benzene is clearly a constituent of concern in MW-2 and MW-4, although the concentration has been steadily decreasing over time in these two wells. Results from future sampling events will need to be observed to determine if this downward trend continues. Benzene was detected above the RL of 0.005 mg/L in MW-8 in the first three sampling events but has been non-detect in the last two sampling events. Results from future sampling events will need to be observed to determine if this downward trend continues in MW-8.

2.3.2 Ethylbenzene

Ethylbenzene was detected above the RL of 0.7 mg/L in MW-2 in the 3rd and 4th sampling events and MW-4 in the 2nd and 3rd sampling events. However, ethylbenzene was detected near the RL a total of three other times in these two wells and actually increased in MW-4 from the 4th to the 5th sampling event. Therefore, while the latest results are below the RL, results from future sampling events will need to be observed before a trend can definitely be established for this compound.

2.3.3 Toluene

Toluene has been detected above the RL of 1.0 mg/L only once, in MW-2 during the first sampling event of August 2001. Since that time, the concentration of toluene has decreased steadily in MW-2 and has never been greater than 0.122 mg/L in any other well. Based on these results, toluene is not a significant constituent of concern.

2.3.4 Naphthalene

Naphthalene, while not detected in MW-2 in the initial sampling event of August 2001, has been detected above the RL of 0.025 mg/L in all four succeeding sampling events in MW-2. The concentration even increased from the 4th to the 5th sampling event. Naphthalene was also detected in MW-4 above the RL in the initial sampling event and even increased in concentration from the previous to the current sampling event. Based on these results, naphthalene is a constituent of concern in MW-2. Results from future sampling events will need to be observed before a trend can definitely be established for naphthalene in MW-4.

2.3.5 MTBE

MTBE was detected in MW-3 in the first sampling event, MW-2 on the next two sampling events, MW-4 in the 3rd event, MW-5 in the 2nd and 3rd events, MW-6 in the 4th event, and MW-8 in all but the first event. The concentrations have been decreasing since the 2nd sampling event in the wells with the exception of MW-3, which has shown a slight increase. MTBE has been non-detect in the wells since the 4th event except for MW-3 and MW-8. Based on these results, MTBE is a constituent of concern in MW-3 and MW-8. Results from future sampling events will need to be observed before a trend can definitely be established.

2.3.6 Lead

Lead was detected above the RL of 0.0075 mg/L only twice, once in MW-1 in the latest sampling event and once in MW-9 in the initial sampling event. Lead was also detected in MW-3 very near the RL in the latest sampling event and increased in concentration from the 4th sampling event. This variability in lead results may be an effect of soil and groundwater interactions.

2.4 Groundwater Issues

2.4.1 Groundwater Flow

As illustrated on the Water Table Contour Maps, Figures 2 through 6 in **Appendix A**, the groundwater flow has been to the southeast. Initially, with only the first six monitoring wells to assess groundwater flow direction as depicted in the CAP (TolTest, 2000), MW-6 was the down-gradient monitoring well. With the subsequent installation of MW-7, MW-8, and MW-9, monitoring well MW-8 appears to be the down-gradient well, and at times, a cross-gradient well. **Table 2** summarizes the groundwater elevations to the National Geodetic Vertical Datum (NGVD) of 1929. Figures 2 through 6 indicate groundwater flow directions, which are perpendicular to the water table contour lines. No correlation can be made between the analytical results discussed above and the fluctuation of the groundwater table as illustrated on the contour maps.

Table 2. Groundwater Elevations (NGVD, feet)

	Dates				
Well No.	**8/23/01**	**11/29/01**	**2/25/02**	**6/12/02**	**10/10/02**
MW-1	658.93	658.90	659.30	660.16	659.35
MW-2	657.58	657.70	657.98	659.24	658.13
MW-3	657.29	657.05	656.98	658.01	657.10
MW-4	656.98	655.83	656.27	657.13	656.01
MW-5	656.62	655.59	656.34	656.54	655.84
MW-6	656.31	655.88	656.28	656.39	656.03
MW-7	656.95	656.31	656.69	657.39	656.89
MW-8	657.14	655.21	655.24	655.71	655.12
MW-9	657.81	657.87	657.94	658.61	658.29

2.4.2 Plume Migration

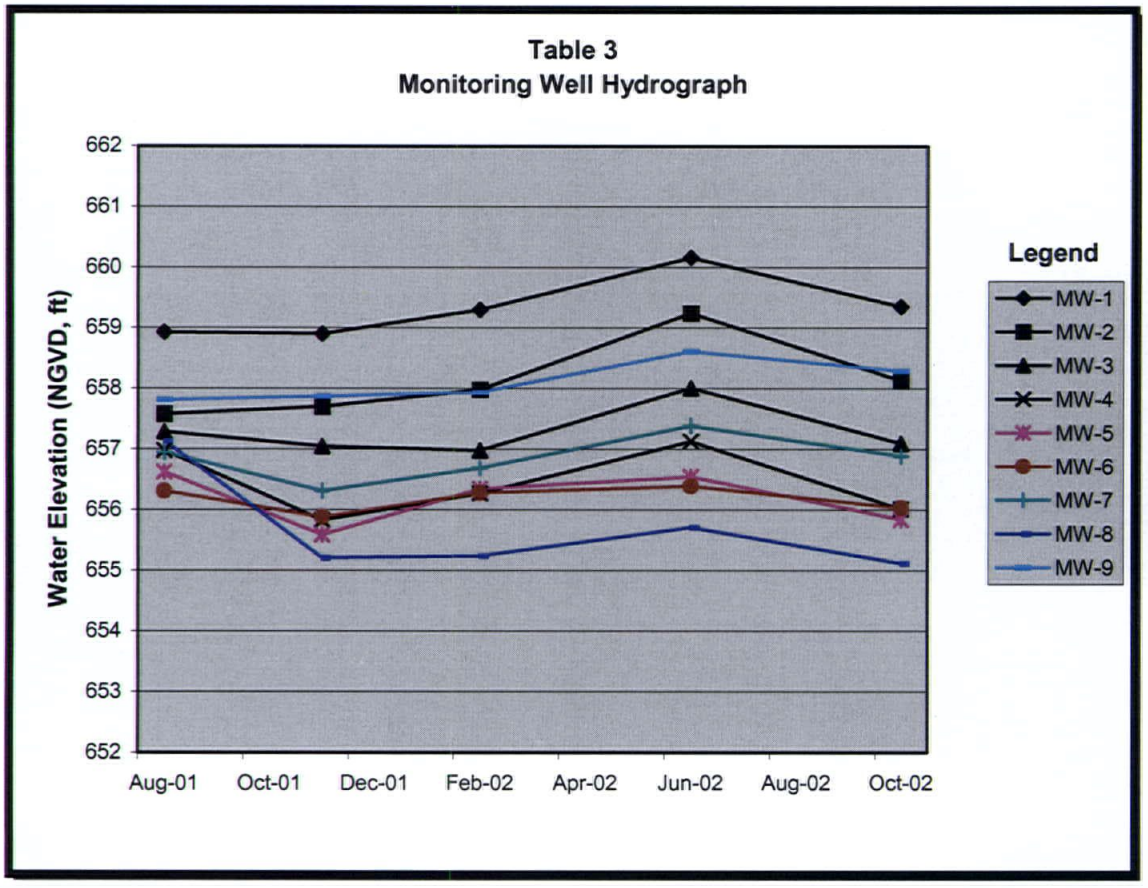
Clear trends in the migration or decrease of the contaminant plume cannot be observed at this time. Several organic compounds were detected in MW-6 (albeit at very low levels) in the early sampling events, but MTBE was detected as recently as June 2002 (MW-6 is the well furthest from the source of contamination). A similar situation exists for MW-1, MW-3, MW-5, MW-7, and MW-8. The only well that has been consistently non-detect for all organic compounds is MW-9, which is hydraulically upgradient of the contaminant source. Lead was detected in MW-9 as recently as June 2002 but, as discussed previously, this may be more an effect of matrix interactions than an indication of plume migration.

2.4.3 Upwelling and Bubbling

Upwelling of the groundwater table is not detectable or discernable given the monitoring program currently in place. Water level measurements in the monitoring wells are obtained only quarterly. Periodic upwelling, especially of short duration, would not be discernable with quarterly monitoring and could not be discerned from normal groundwater fluctuations. **Table 3** depicts the fluctuations in the water table. The trends appear to be seasonal, based on precipitation.

The bubbling event that occurred in October 2001 was observed after a heavy rain when the soil was saturated. The areas where bubbles were observed are intersected with subsurface utilities. Since soil borings have shown that subsurface soils at this site are low permeability clay-type soils, TolTest believes the subsurface air traveled along paths of least resistance associated with these utilities.

Table 3. Monitoring Well Hydrograph



3.0 ROUTINE MAINTENANCE AND INSPECTIONS

The biosparge system operation instructions and maintenance schedules are detailed in the O&M Plan. Functional Performance Checklists associated with system monitoring are supplied in **Appendix D**. When the system's airflow is turned off, for even a short duration, it may take several days to clear water from the horizontal wells once the system is turned back on. Regular maintenance on the system in this quarter was completed as follows:

- July 2
  Shut the system down to cool it.
  Changed oil in the motors and greased all fittings.
  Checked all air filters.
  Drained water from bottom tanks.
- July 17
  Performed a systems check on both units.
  Changed oil and greased both units.

- August 8
  Changed oil in the motors and greased all fittings.
  Re-started one of the blowers, which had shut off due to over heating.

- September 4
  Changed oil and greased the bearing in the motors.
  North unit blower off-line due to crack in blower housing.
- September 5
  Contacted manufacturer about cracked blower housing.
- September 10
  Blower manufacturer arrived at site and discovered that the South unit blower was also cracked. Both blowers were removed for repairs.
- September 16
  Both blower units were replaced.
  New oil and air filters were installed.

4.0 REFERENCES

TolTest 2000a. *Corrective Action Plan*, Building 1600A, Great Lakes, Illinois. February 2000.

TolTest 2000b. *Corrective Action Plan Supplement*, Building 1600A, Great Lakes, Illinois. August 2000.

TolTest 2001a. *Work Plan and Site Health & Safety Plan*, Building 1600A, Great Lakes, Illinois. March 2001.

TolTest 2001b. *Delivery Order Completion Report, System Start-Up Report*, Building 1600A, Great Lakes, Illinois. September 2001.

TolTest 2002. *Operation and Maintenance Plan, Biosparge Remediation System*, Building 1600A, Naval Training Center, Great Lakes, Illinois. December 2002.

APPENDIX A

FIGURES

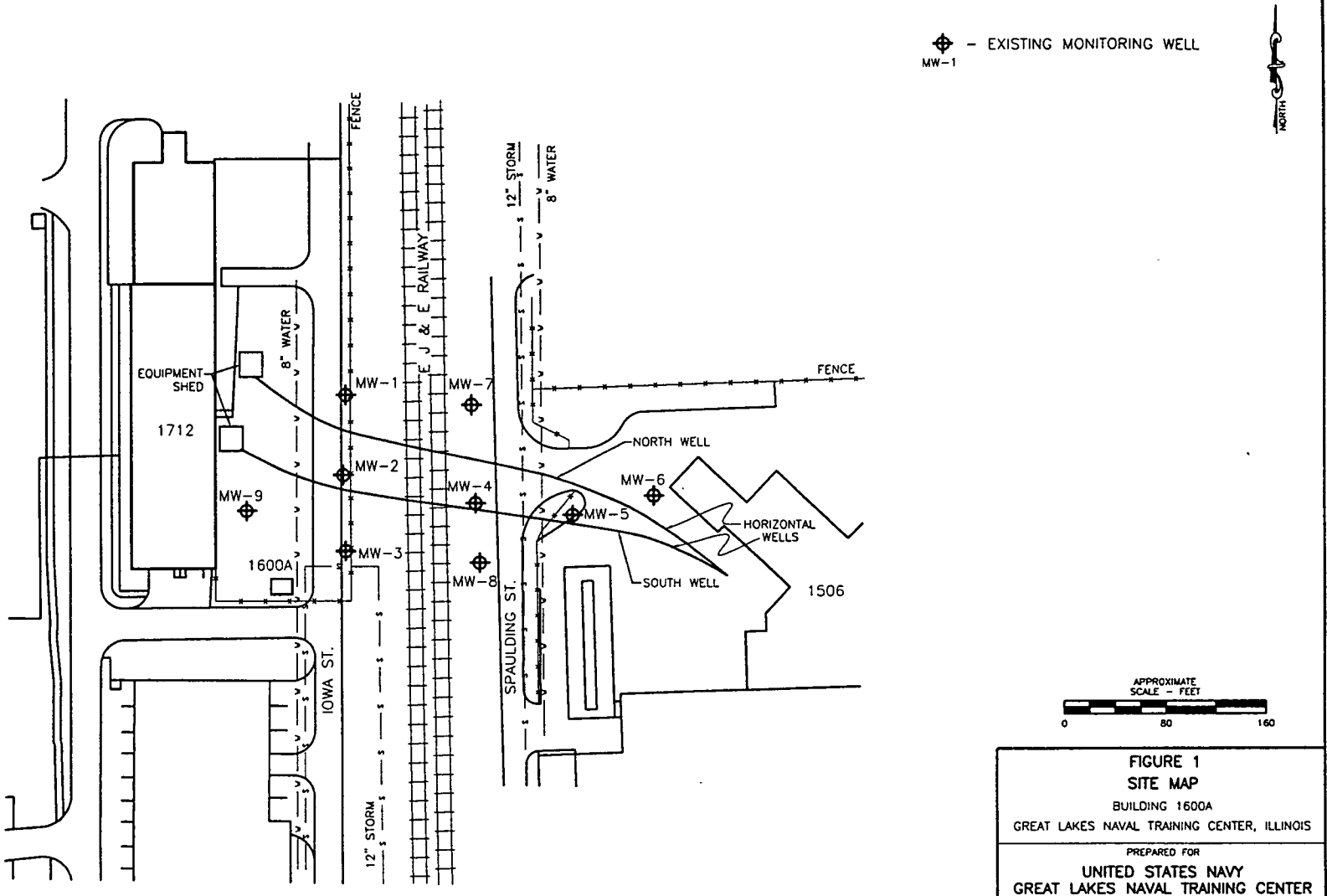
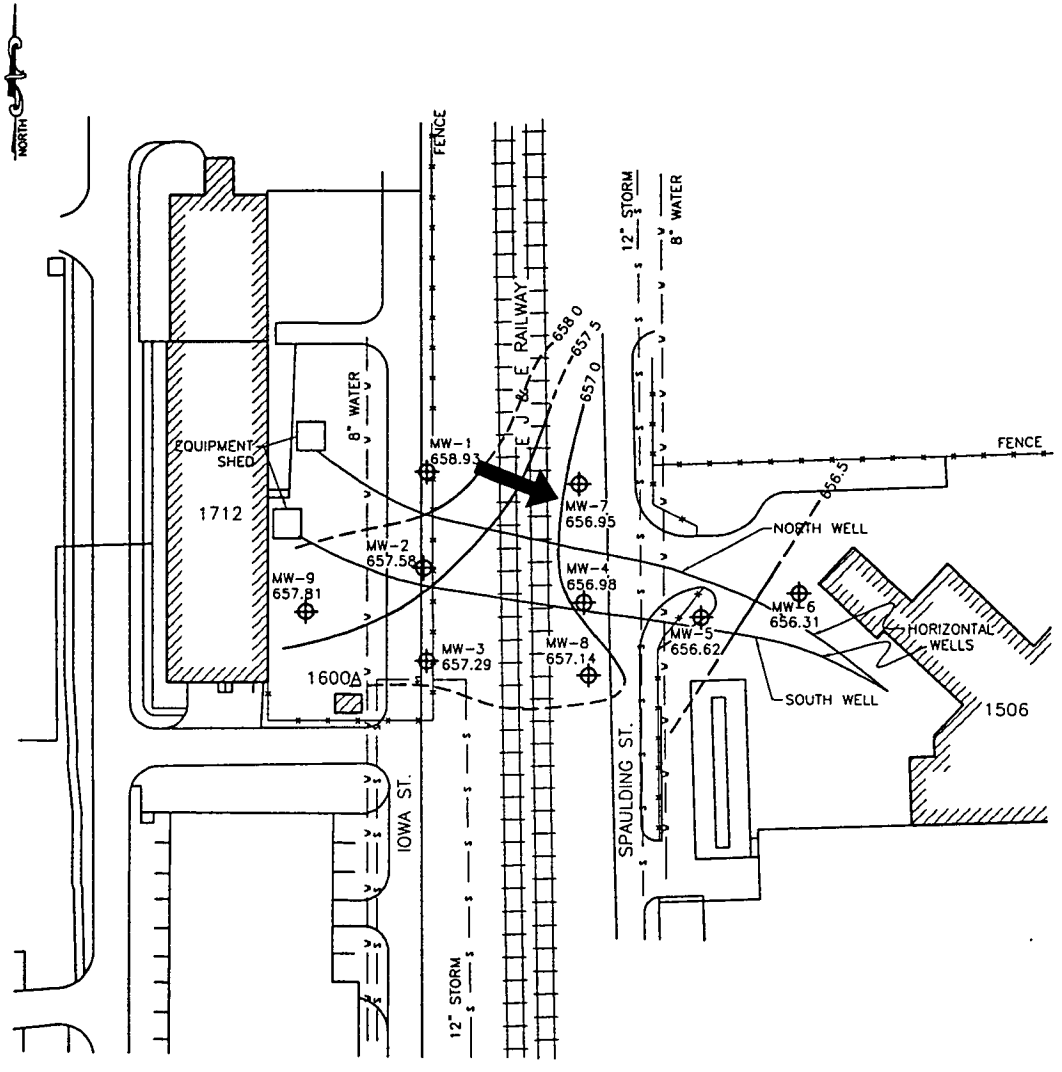


FIGURE 1
SITE MAP
BUILDING 1600A
GREAT LAKES NAVAL TRAINING CENTER, ILLINOIS

PREPARED FOR
UNITED STATES NAVY
GREAT LAKES NAVAL TRAINING CENTER

DRAWN MRC\5-25-00	CHECKED
REVISED	APPROVED
JOB NO.: 41791 01	TOLTEST, INC.
DRAWING NUMBER 377556A	



MW-1 – MONITORING WELL

657.0 – WATER TABLE CONTOUR LINE (DASHED WHERE INFERRED)

– GROUNDWATER FLOW DIRECTION

CONTOUR INTERVAL 0.5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

MEASUREMENTS OBTAINED.
AUGUST 23, 2001

APPROXIMATE SCALE – FEET
0 80 160

FIGURE 2
WATER TABLE CONTOUR MAP
AUGUST 2001
BUILDING 1600A
GREAT LAKES NAVAL TRAINING CENTER, ILLINOIS

PREPARED FOR
UNITED STATES NAVY
GREAT LAKES NAVAL TRAINING CENTER

DRAWN MRC/11-27-02	CHECKED
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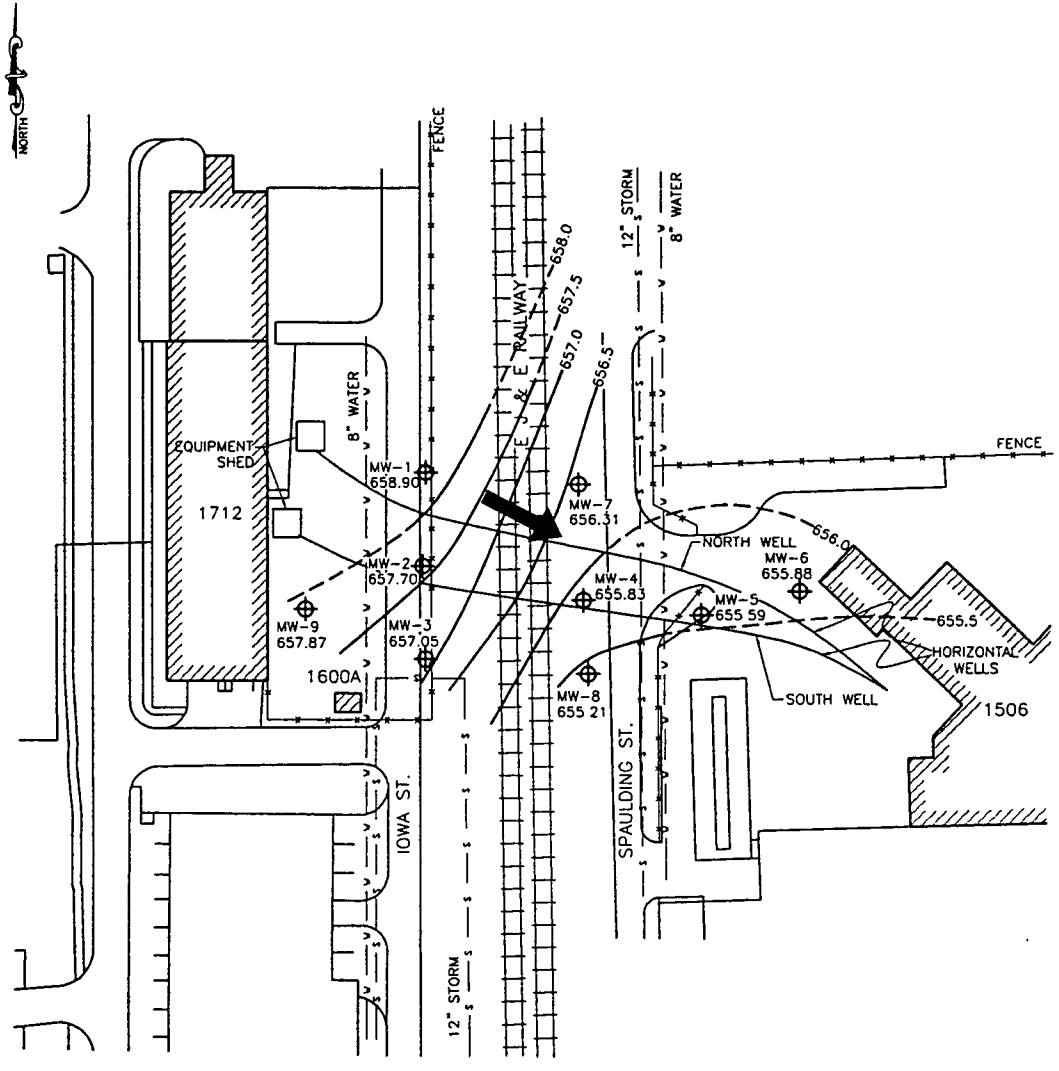
JOB NO: 41791 01	TOLTEST, INC.
DRAWING NUMBER 4179101-01F	



MW-1 – MONITORING WELL

657.0 – WATER TABLE CONTOUR LINE (DASHED WHERE INFERRED)

– GROUNDWATER FLOW DIRECTION

CONTOUR INTERVAL 0.5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

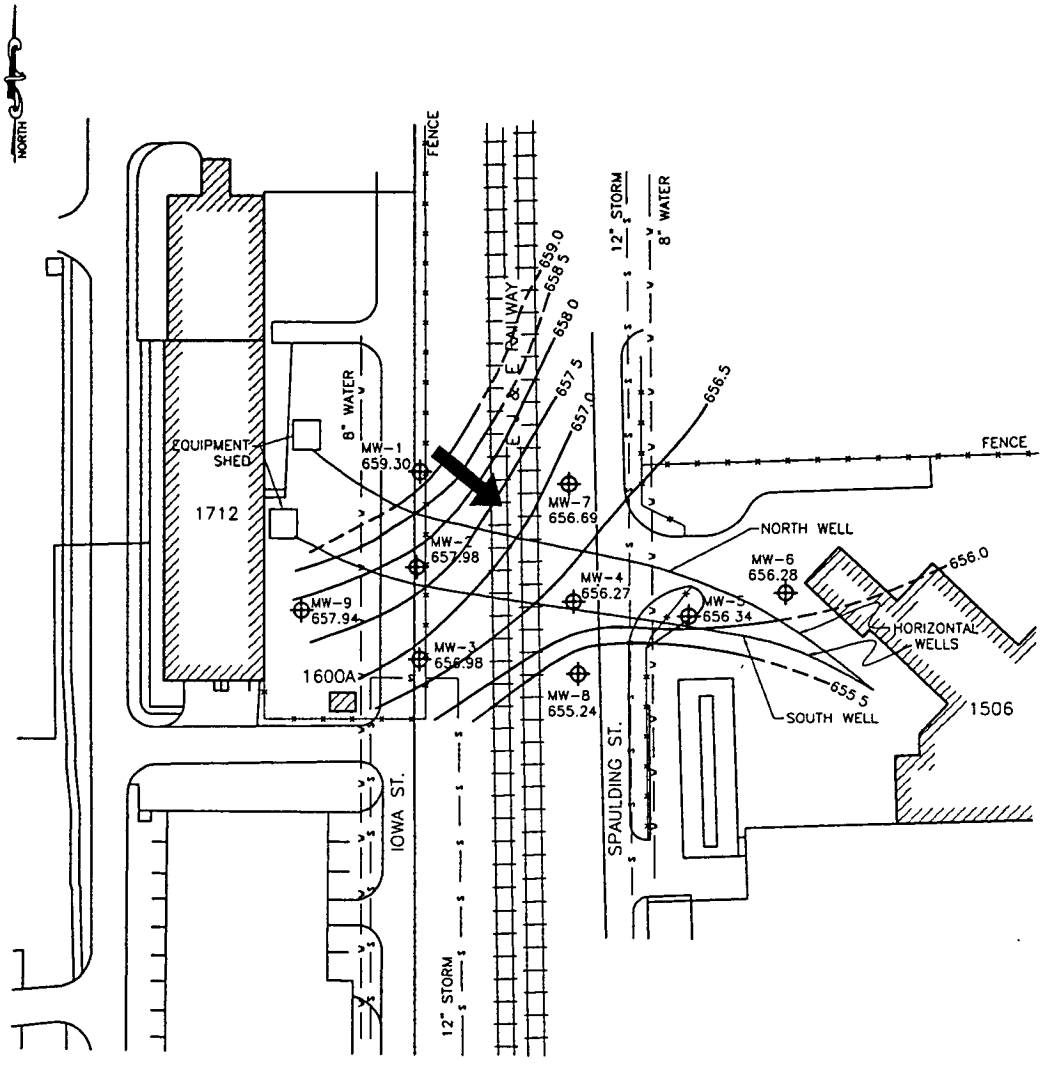
MEASUREMENTS OBTAINED: NOVEMBER 29, 2001

APPROXIMATE SCALE – FEET
0 80 160

FIGURE 3
WATER TABLE CONTOUR MAP
NOVEMBER 2001
BUILDING 1600A
GREAT LAKES NAVAL TRAINING CENTER, ILLINOIS

PREPARED FOR
UNITED STATES NAVY
GREAT LAKES NAVAL TRAINING CENTER

DRAWN MRC/11-27-02	CHECKED
REVISED	APPROVED
JOB NO.. 41791 01	TOLTEST, INC.
DRAWING NUMBER 4179101-02F	



MW-1 – MONITORING WELL

657.0 – WATER TABLE CONTOUR LINE (DASHED WHERE INFERRED)

– GROUNDWATER FLOW DIRECTION

CONTOUR INTERVAL 0.5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

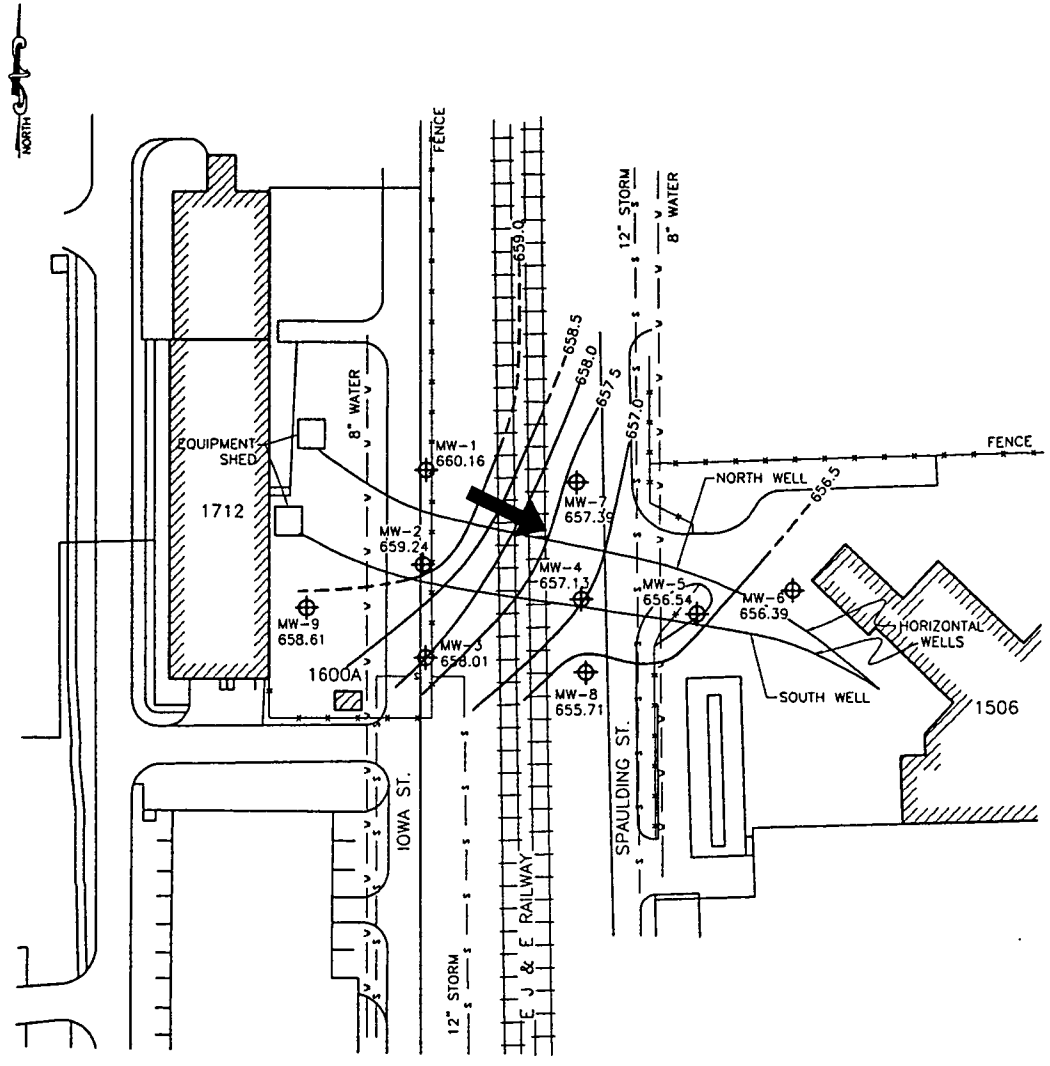
MEASUREMENTS OBTAINED. FEBRUARY 25, 2002

APPROXIMATE SCALE - FEET
0 80 160

FIGURE 4
WATER TABLE CONTOUR MAP
FEBRUARY 2002
BUILDING 1600A
GREAT LAKES NAVAL TRAINING CENTER, ILLINOIS

PREPARED FOR
UNITED STATES NAVY
GREAT LAKES NAVAL TRAINING CENTER

DRAWN MRC/11-27-02	CHECKED
REVISED	APPROVED
JOB NO: 41791 01	TOLTEST, INC.
DRAWING NUMBER 4179101-03F	



MW-1 – MONITORING WELL

657.0 – WATER TABLE CONTOUR LINE (DASHED WHERE INFERRED)

– GROUNDWATER FLOW DIRECTION

CONTOUR INTERVAL 0.5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

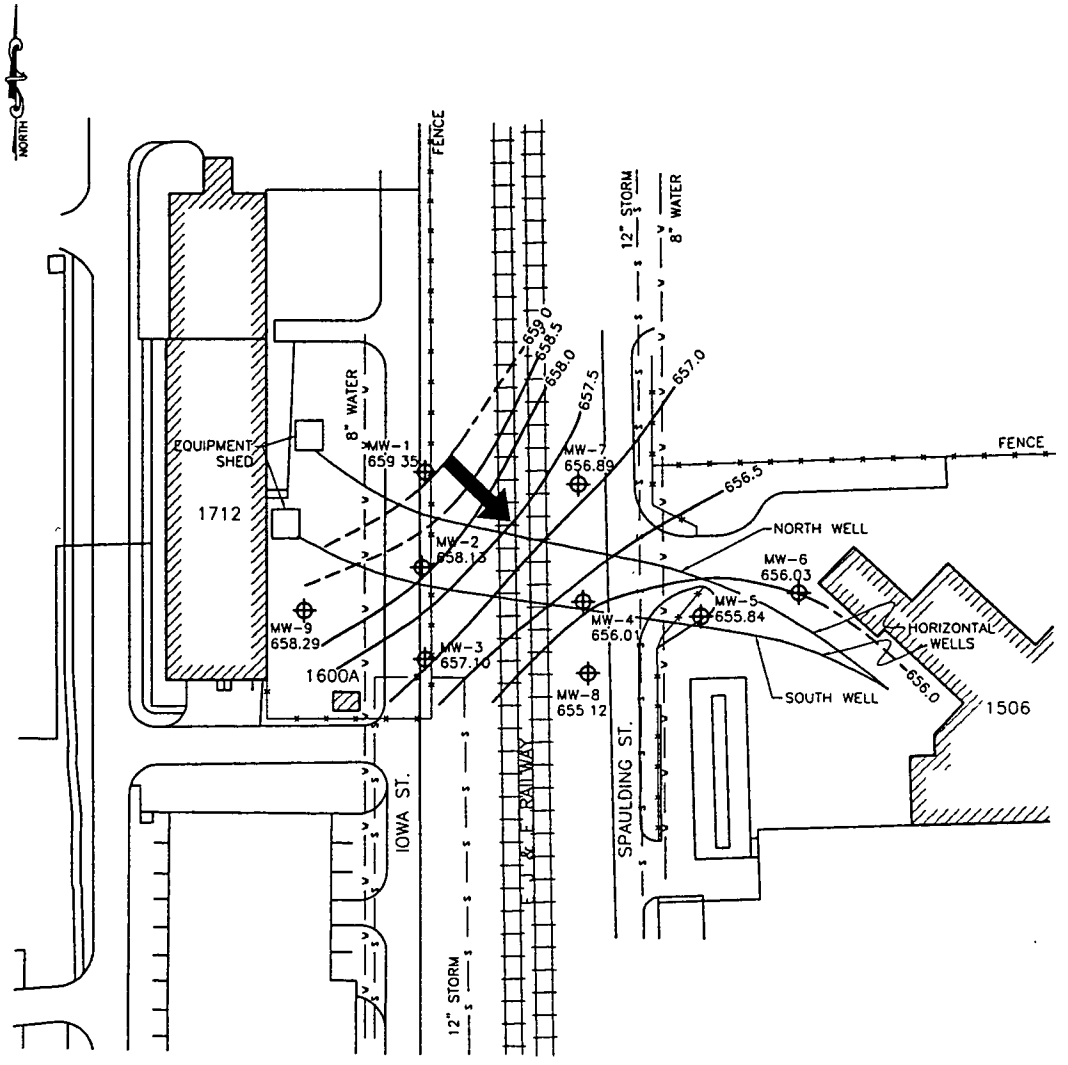
MEASUREMENTS OBTAINED: JUNE 12, 2002

APPROXIMATE SCALE – FEET
0 80 160

FIGURE 5
WATER TABLE CONTOUR MAP
JUNE 2002
BUILDING 1600A
GREAT LAKES NAVAL TRAINING CENTER, ILLINOIS

PREPARED FOR
UNITED STATES NAVY
GREAT LAKES NAVAL TRAINING CENTER

DRAWN MRC/11-27-02	CHECKED
REVISED	APPROVED
JOB NO 41791 01	TOLTEST, INC.
DRAWING NUMBER 4179101-04F	



MW-1 – MONITORING WELL

657 0 – WATER TABLE CONTOUR LINE (DASHED WHERE INFERRED)

– GROUNDWATER FLOW DIRECTION

CONTOUR INTERVAL 0.5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

MEASUREMENTS OBTAINED OCTOBER 10, 2002

APPROXIMATE SCALE - FEET
0 80 160

FIGURE 6
WATER TABLE CONTOUR MAP

OCTOBER 2002
BUILDING 1600A
GREAT LAKES NAVAL TRAINING CENTER, ILLINOIS

PREPARED FOR
UNITED STATES NAVY
GREAT LAKES NAVAL TRAINING CENTER

DRAWN MRC/11-27-02	CHECKED
REVISED	APPROVED
JOB NO. 41791 01	TOLTEST, INC.
DRAWING NUMBER 4179101-05F	

APPENDIX B

ANALYTICAL DATA

SUBURBAN LABORATORIES, Inc.

4140 Litt Drive · Hillside, Illinois 60162-1183
Tel. (708) 544-3260 · Toll Free (800) 783-LABS · Fax (708) 544-8587

ACCREDITED IN ACCORDANCE WITH nelac

October 21, 2002

Khush Mander
Toltest Inc.
1000 S. Northpoint Blvd.
Waukegan, IL 600858213
Tel: (847) 689-0697
Fax: (847) 689-0698

Project Name: 41791.01/Bldg1600A, Great Lakes, IL

Lab Order # **02100423**

Dear Khush Mander,

Suburban Laboratories, Inc. received 10 samples on 10/10/02 4:25:00 PM for the analyses presented in the following report.

There were no problems with the analyses and all the data for the associated QC met EPA or laboratory specifications except where noted in the case narrative.

This final report of laboratory analysis consists of this cover letter, case narrative, analytical report, dates report, and any accompanying documentation including, but not limited to, chain of custody records, raw data, and letters of explanation or reliance. This report may not be reproduced, except in full, without the prior written approval of Suburban Laboratories, Inc.

If you have any questions regarding these test results, please call your customer service representative at (708) 544-3260.

Sincerely,

Mike Chung
Data Review Manager

CC:

SUBURBAN LABORATORIES, Inc.

4140 Litt Drive · Hillside, Illinois 60162-1183
Tel. (708) 544-3260 · Toll Free (800) 783-LABS · Fax (708) 544-8587

ACCREDITED IN ACCORDANCE WITH

CLIENT: Toltest Inc.
Project: 41791.01/Bldg1600A, Great Lakes, IL
Lab Order # *02100423*

CASE NARRATIVE

Date: *Monday, October 21, 2002*

General Comments:
- All results reported in wet weight unless otherwise indicated. (dry = Dry Weight)
- Sample results relate only to the analytes of interest tested and to sample as received by the laboratory.
- Environmental compliance sample results meet the requirements of Part 186 unless otherwise indicated.
- Accreditation by the State of Illinois is not an endorsement or a guarantee of the validity of data generated. For more information about the laboratories' scope of accreditation, please contact Suburban or the Agency.
- MDL: Method Detection Limit. The minimum concentration of an analyte that can be measured and reported with a 99% confidence that analyte is greater than zero.
- PQL: Practical Quantitation Limit. The lowest concentration that can be reliably achieved within specified requirements of precision and accuracy during routine laboratory operating conditions. The PQL is generally 3 times the MDL.
- DF: Dilution Factor

Data Qualifiers:
J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ: The analyte was not detected above the reported detection limit. However, the reported limits approximate and may or may not represent the actual limits of detection and quantitation necessary to accurately and precisely measure the analyte in the sample.
I: Result is Invalid; CS: Compound Screened; TNTC: Too Numerous to Count

Method References:
E: USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40CFR136 App A; Methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water
SW: USEPA, Test Methods for Evaluating Solid Waste, SW-846, 3rd Ed, includes Updates I-III
M: APHA, Standard Methods for the Examination of Water and Wastewater, 18th & 19th Ed.
D: ASTM, Annual Book of Standards F: NAS, Food Chemicals Codex (FCC), 4th Edition
B: US FDA Bacteriological Analytical Manual (BAM) 8th Edition, 1995
USP: US Pharmacopoeia, 24th Revision, 2000

Project Specific Comments:
Semivolatiles: S=The LCS percent recovery for Dibenzo(a,h)anthracene (60.75%) was outside laboratory control limits (70%-130%)

Suburban Laboratories, Inc.
4140 Litt Drive Hillside, IL 60162 (708) 544-3260

Date: *Monday, October 21, 2002*

CLIENT: Toltest Inc.
Project: 41791.01/Bldg1600A, Great Lakes, IL

Lab Order #: *02100423*

Lab Sample ID: 02100423-01 **Date Received:** 10/10/02 4:25:00 PM **Collection Date:** 10/10/02 10:35:00 AM
Client Sample ID: MW-1 **Matrix:** GROUNDWATER

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method:	SW8260B				Analyst: DP
Benzene	ND		0.317	0.500	µg/L	1	10/20/02 2:50 pm
Ethylbenzene	ND		1.00	1.13	µg/L	1	10/20/02 2:50 pm
m,p-Xylene	ND		2.00	2.56	µg/L	1	10/20/02 2:50 pm
Methyl tert-butyl ether	ND		1.00	1.00	µg/L	1	10/20/02 2:50 pm
o-Xylene	ND		1.00	1.64	µg/L	1	10/20/02 2:50 pm
Toluene	ND		1.00	1.15	µg/L	1	10/20/02 2:50 pm
Surr: 4-Bromofluorobenzene	91.3		0	70-130	%REC	1	10/20/02 2:50 pm
Surr: Dibromofluoromethane	122		0	70-130	%REC	1	10/20/02 2:50 pm
Surr: Toluene-d8	112		0	70-130	%REC	1	10/20/02 2:50 pm
SEMIVOLATILE ORGANICS, BY GCMS SIM		Method:	SW8270C				Analyst: DP
Acenaphthene	ND		0.103	0.309	µg/L	1	10/16/02 2:40 pm
Acenaphthylene	ND		0.103	0.309	µg/L	1	10/16/02 2:40 pm
Anthracene	ND		0.103	0.309	µg/L	1	10/16/02 2:40 pm
Benzo(a)anthracene	ND		0.103	0.309	µg/L	1	10/16/02 2:40 pm
Benzo(a)pyrene	ND		0.103	0.309	µg/L	1	10/16/02 2:40 pm
Benzo(b)fluoranthene	ND		0.103	0.309	µg/L	1	10/16/02 2:40 pm
Benzo(g,h,i)perylene	ND		0.103	0.309	µg/L	1	10/16/02 2:40 pm
Benzo(k)fluoranthene	ND		0.103	0.309	µg/L	1	10/16/02 2:40 pm
Chrysene	ND		0.103	0.309	µg/L	1	10/16/02 2:40 pm
Dibenzo(a,h)anthracene	ND	S	0.103	0.309	µg/L	1	10/16/02 2:40 pm
Fluoranthene	0.10	J	0.103	0.309	µg/L	1	10/16/02 2:40 pm
Fluorene	ND		0.103	0.309	µg/L	1	10/16/02 2:40 pm
Indeno(1,2,3-cd)pyrene	ND		0.103	0.309	µg/L	1	10/16/02 2:40 pm
Naphthalene	ND		0.103	0.309	µg/L	1	10/16/02 2:40 pm
Phenanthrene	ND		0.103	0.309	µg/L	1	10/16/02 2:40 pm
Pyrene	ND		0.103	0.309	µg/L	1	10/16/02 2:40 pm
Surr: 2-Fluorobiphenyl	110	S	0	56-109	%REC	1	10/16/02 2:40 pm
Surr: 4-Terphenyl-d14	105	S	0	24.2-102	%REC	1	10/16/02 2:40 pm
Surr: Nitrobenzene-d5	97.1		0	13.9-112	%REC	1	10/16/02 2:40 pm

Qualifiers:
ND - Not Detected at the Method Detection Limit
J - Estimated or analyte detected below quantitation limit
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Analysis run past method holding time

Suburban Laboratories, Inc.
4140 Litt Drive Hillside, IL 60162 (708) 544-3260

Date: *Monday, October 21, 2002*

CLIENT: Toltest Inc. **Lab Order #:** *02100423*
Project: 41791.01/Bldg1600A, Great Lakes, IL

Lab Sample ID: 02100423-02 **Date Received:** 10/10/02 4:25:00 PM **Collection Date:** 10/10/02 10:56:00 AM
Client Sample ID: MW-2 **Matrix:** GROUNDWATER

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method:	SW8260B				Analyst: BK
Benzene	22.7		0.317	0.500	µg/L	1	10/16/02 10:10 pm
Ethylbenzene	679		10.0	11.3	µg/L	10	10/20/02 5:14 pm
m,p-Xylene	791		20.0	25.6	µg/L	10	10/20/02 5:14 pm
Methyl tert-butyl ether	ND		1.00	1.00	µg/L	1	10/16/02 10:10 pm
o-Xylene	51.0		1.00	1.64	µg/L	1	10/16/02 10:10 pm
Toluene	72.8		1.00	1.15	µg/L	1	10/16/02 10:10 pm
Surr: 4-Bromofluorobenzene	97.2		0	70-130	%REC	1	10/16/02 10:10 pm
Surr: Dibromofluoromethane	91.6		0	70-130	%REC	1	10/16/02 10:10 pm
Surr: Toluene-d8	95.8		0	70-130	%REC	1	10/16/02 10:10 pm
SEMIVOLATILE ORGANICS, BY GCMS SIM		Method:	SW8270C				Analyst: DP
Acenaphthene	ND		0.102	0.306	µg/L	1	10/16/02 3:10 pm
Acenaphthylene	ND		0.102	0.306	µg/L	1	10/16/02 3:10 pm
Anthracene	ND		0.102	0.306	µg/L	1	10/16/02 3:10 pm
Benzo(a)anthracene	ND		0.102	0.306	µg/L	1	10/16/02 3:10 pm
Benzo(a)pyrene	ND		0.102	0.306	µg/L	1	10/16/02 3:10 pm
Benzo(b)fluoranthene	ND		0.102	0.306	µg/L	1	10/16/02 3:10 pm
Benzo(g,h,i)perylene	ND		0.102	0.306	µg/L	1	10/16/02 3:10 pm
Benzo(k)fluoranthene	ND		0.102	0.306	µg/L	1	10/16/02 3:10 pm
Chrysene	ND		0.102	0.306	µg/L	1	10/16/02 3:10 pm
Dibenzo(a,h)anthracene	ND	S	0.102	0.306	µg/L	1	10/16/02 3:10 pm
Fluoranthene	ND		0.102	0.306	µg/L	1	10/16/02 3:10 pm
Fluorene	ND		0.102	0.306	µg/L	1	10/16/02 3:10 pm
Indeno(1,2,3-cd)pyrene	ND		0.102	0.306	µg/L	1	10/16/02 3:10 pm
Naphthalene	72.1		2.04	6.12	µg/L	20	10/16/02 9:13 pm
Phenanthrene	ND		0.102	0.306	µg/L	1	10/16/02 3:10 pm
Pyrene	ND		0.102	0.306	µg/L	1	10/16/02 3:10 pm
Surr: 2-Fluorobiphenyl	85.8		0	56-109	%REC	1	10/16/02 3:10 pm
Surr: 4-Terphenyl-d14	85.0		0	24.2-102	%REC	1	10/16/02 3:10 pm
Surr: Nitrobenzene-d5	93.8		0	13.9-112	%REC	1	10/16/02 3:10 pm

Qualifiers:
ND - Not Detected at the Method Detection Limit
J - Estimated or analyte detected below quantitation limit
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Analysis run past method holding time

Suburban Laboratories, Inc.
4140 Litt Drive Hillside, IL 60162 (708) 544-3260

Date: *Monday, October 21, 2002*

CLIENT: Toltest Inc. **Lab Order #:** *02100423*
Project: 41791.01/Bldg1600A, Great Lakes, IL

Lab Sample ID: 02100423-03 **Date Received:** 10/10/02 4:25:00 PM **Collection Date:** 10/10/02 11:26:00 AM
Client Sample ID: MW-3 **Matrix:** GROUNDWATER

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method:	SW8260B				Analyst: DP
Benzene	ND		0.317	0.500	µg/L	1	10/20/02 3:38 pm
Ethylbenzene	ND		1.00	1.13	µg/L	1	10/20/02 3:38 pm
m,p-Xylene	ND		2.00	2.56	µg/L	1	10/20/02 3:38 pm
Methyl tert-butyl ether	8.14		1.00	1.00	µg/L	1	10/20/02 3:38 pm
o-Xylene	ND		1.00	1.64	µg/L	1	10/20/02 3:38 pm
Toluene	ND		1.00	1.15	µg/L	1	10/20/02 3:38 pm
Surr: 4-Bromofluorobenzene	86.8		0	70-130	%REC	1	10/20/02 3:38 pm
Surr: Dibromofluoromethane	122		0	70-130	%REC	1	10/20/02 3:38 pm
Surr: Toluene-d8	112		0	70-130	%REC	1	10/20/02 3:38 pm
SEMIVOLATILE ORGANICS, BY GCMS SIM		Method:	SW8270C				Analyst: DP
Acenaphthene	ND		0.110	0.330	µg/L	1	10/16/02 4:06 pm
Acenaphthylene	ND		0.110	0.330	µg/L	1	10/16/02 4:06 pm
Anthracene	0.12	J	0.110	0.330	µg/L	1	10/16/02 4:06 pm
Benzo(a)anthracene	ND		0.110	0.330	µg/L	1	10/16/02 4:06 pm
Benzo(a)pyrene	ND		0.110	0.330	µg/L	1	10/16/02 4:06 pm
Benzo(b)fluoranthene	0.15	J	0.110	0.330	µg/L	1	10/16/02 4:06 pm
Benzo(g,h,i)perylene	ND		0.110	0.330	µg/L	1	10/16/02 4:06 pm
Benzo(k)fluoranthene	ND		0.110	0.330	µg/L	1	10/16/02 4:06 pm
Chrysene	ND		0.110	0.330	µg/L	1	10/16/02 4:06 pm
Dibenzo(a,h)anthracene	ND	S	0.110	0.330	µg/L	1	10/16/02 4:06 pm
Fluoranthene	0.16	J	0.110	0.330	µg/L	1	10/16/02 4:06 pm
Fluorene	ND		0.110	0.330	µg/L	1	10/16/02 4:06 pm
Indeno(1,2,3-cd)pyrene	ND		0.110	0.330	µg/L	1	10/16/02 4:06 pm
Naphthalene	ND		0.110	0.330	µg/L	1	10/16/02 4:06 pm
Phenanthrene	ND		0.110	0.330	µg/L	1	10/16/02 4:06 pm
Pyrene	0.12	J	0.110	0.330	µg/L	1	10/16/02 4:06 pm
Surr: 2-Fluorobiphenyl	89.1		0	56-109	%REC	1	10/16/02 4:06 pm
Surr: 4-Terphenyl-d14	77.6		0	24.2-102	%REC	1	10/16/02 4:06 pm
Surr: Nitrobenzene-d5	90.9		0	13.9-112	%REC	1	10/16/02 4:06 pm

Qualifiers:
ND - Not Detected at the Method Detection Limit
J - Estimated or analyte detected below quantitation limit
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Analysis run past method holding time

Suburban Laboratories, Inc.
4140 Litt Drive Hillside, IL 60162 (708) 544-3260

Date: *Monday, October 21, 2002*

CLIENT: Toltest Inc. **Lab Order #:** *02100423*
Project: 41791.01/Bldg1600A, Great Lakes, IL

Lab Sample ID: 02100423-04 **Date Received:** 10/10/02 4:25:00 PM **Collection Date:** 10/10/02 1:50:00 PM
Client Sample ID: MW-4 **Matrix:** GROUNDWATER

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method:	SW8260B				Analyst: BK
Benzene	29.6		0.317	0.500	µg/L	1	10/16/02 11:20 pm
Ethylbenzene	631		10.0	11.3	µg/L	10	10/20/02 6:02 pm
m,p-Xylene	367		2.00	2.56	µg/L	1	10/16/02 11:20 pm
Methyl tert-butyl ether	ND		1.00	1.00	µg/L	1	10/16/02 11:20 pm
o-Xylene	41.2		1.00	1.64	µg/L	1	10/16/02 11:20 pm
Toluene	32.0		1.00	1.15	µg/L	1	10/16/02 11:20 pm
Surr: 4-Bromofluorobenzene	95.9		0	70-130	%REC	1	10/16/02 11:20 pm
Surr: Dibromofluoromethane	91.8		0	70-130	%REC	1	10/16/02 11:20 pm
Surr: Toluene-d8	93.3		0	70-130	%REC	1	10/16/02 11:20 pm
SEMIVOLATILE ORGANICS, BY GCMS SIM		Method:	SW8270C				Analyst: DP
Acenaphthene	ND		0.106	0.319	µg/L	1	10/16/02 5:07 pm
Acenaphthylene	ND		0.106	0.319	µg/L	1	10/16/02 5:07 pm
Anthracene	ND		0.106	0.319	µg/L	1	10/16/02 5:07 pm
Benzo(a)anthracene	ND		0.106	0.319	µg/L	1	10/16/02 5:07 pm
Benzo(a)pyrene	ND		0.106	0.319	µg/L	1	10/16/02 5:07 pm
Benzo(b)fluoranthene	ND		0.106	0.319	µg/L	1	10/16/02 5:07 pm
Benzo(g,h,i)perylene	ND		0.106	0.319	µg/L	1	10/16/02 5:07 pm
Benzo(k)fluoranthene	ND		0.106	0.319	µg/L	1	10/16/02 5:07 pm
Chrysene	ND		0.106	0.319	µg/L	1	10/16/02 5:07 pm
Dibenzo(a,h)anthracene	ND	S	0.106	0.319	µg/L	1	10/16/02 5:07 pm
Fluoranthene	ND		0.106	0.319	µg/L	1	10/16/02 5:07 pm
Fluorene	ND		0.106	0.319	µg/L	1	10/16/02 5:07 pm
Indeno(1,2,3-cd)pyrene	ND		0.106	0.319	µg/L	1	10/16/02 5:07 pm
Naphthalene	13.7		1.06	3.19	µg/L	10	10/16/02 9:43 pm
Phenanthrene	ND		0.106	0.319	µg/L	1	10/16/02 5:07 pm
Pyrene	ND		0.106	0.319	µg/L	1	10/16/02 5:07 pm
Surr: 2-Fluorobiphenyl	87.5		0	56-109	%REC	1	10/16/02 5:07 pm
Surr: 4-Terphenyl-d14	100		0	24.2-102	%REC	1	10/16/02 5:07 pm
Surr: Nitrobenzene-d5	97.3		0	13.9-112	%REC	1	10/16/02 5:07 pm

Qualifiers:
ND - Not Detected at the Method Detection Limit
J - Estimated or analyte detected below quantitation limit
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Analysis run past method holding time

Suburban Laboratories, Inc.
4140 Litt Drive Hillside, IL 60162 (708) 544-3260

Date: *Monday, October 21, 2002*

CLIENT: Toltest Inc. **Lab Order #:** *02100423*
Project: 41791.01/Bldg1600A, Great Lakes, IL

Lab Sample ID: 02100423-05 **Date Received:** 10/10/02 4:25:00 PM **Collection Date:** 10/10/02 12:19:00 PM
Client Sample ID: MW-5 **Matrix:** GROUNDWATER

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method:	SW8260B				Analyst: DP
Benzene	ND		0.317	0.500	µg/L	1	10/20/02 4:26 pm
Ethylbenzene	ND		1.00	1.13	µg/L	1	10/20/02 4:26 pm
m,p-Xylene	ND		2.00	2.56	µg/L	1	10/20/02 4:26 pm
Methyl tert-butyl ether	ND		1.00	1.00	µg/L	1	10/20/02 4:26 pm
o-Xylene	ND		1.00	1.64	µg/L	1	10/20/02 4:26 pm
Toluene	ND		1.00	1.15	µg/L	1	10/20/02 4:26 pm
Surr: 4-Bromofluorobenzene	93.0		0	70-130	%REC	1	10/20/02 4:26 pm
Surr: Dibromofluoromethane	132	S	0	70-130	%REC	1	10/20/02 4:26 pm
Surr: Toluene-d8	115		0	70-130	%REC	1	10/20/02 4:26 pm
SEMIVOLATILE ORGANICS, BY GCMS SIM		Method:	SW8270C				Analyst: DP
Acenaphthene	ND		0.106	0.319	µg/L	1	10/16/02 5:38 pm
Acenaphthylene	ND		0.106	0.319	µg/L	1	10/16/02 5:38 pm
Anthracene	ND		0.106	0.319	µg/L	1	10/16/02 5:38 pm
Benzo(a)anthracene	ND		0.106	0.319	µg/L	1	10/16/02 5:38 pm
Benzo(a)pyrene	ND		0.106	0.319	µg/L	1	10/16/02 5:38 pm
Benzo(b)fluoranthene	ND		0.106	0.319	µg/L	1	10/16/02 5:38 pm
Benzo(g,h,i)perylene	ND		0.106	0.319	µg/L	1	10/16/02 5:38 pm
Benzo(k)fluoranthene	ND		0.106	0.319	µg/L	1	10/16/02 5:38 pm
Chrysene	ND		0.106	0.319	µg/L	1	10/16/02 5:38 pm
Dibenzo(a,h)anthracene	ND	S	0.106	0.319	µg/L	1	10/16/02 5:38 pm
Fluoranthene	0.11	J	0.106	0.319	µg/L	1	10/16/02 5:38 pm
Fluorene	ND		0.106	0.319	µg/L	1	10/16/02 5:38 pm
Indeno(1,2,3-cd)pyrene	ND		0.106	0.319	µg/L	1	10/16/02 5:38 pm
Naphthalene	ND		0.106	0.319	µg/L	1	10/16/02 5:38 pm
Phenanthrene	ND		0.106	0.319	µg/L	1	10/16/02 5:38 pm
Pyrene	ND		0.106	0.319	µg/L	1	10/16/02 5:38 pm
Surr: 2-Fluorobiphenyl	105		0	56-109	%REC	1	10/16/02 5:38 pm
Surr: 4-Terphenyl-d14	110	S	0	24.2-102	%REC	1	10/16/02 5:38 pm
Surr: Nitrobenzene-d5	93.5		0	13.9-112	%REC	1	10/16/02 5:38 pm

Qualifiers:
ND - Not Detected at the Method Detection Limit
J - Estimated or analyte detected below quantitation limit
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Analysis run past method holding time

Suburban Laboratories, Inc.
4140 Litt Drive Hillside, IL 60162 (708) 544-3260

Date: *Monday, October 21, 2002*

CLIENT: Toltest Inc. **Lab Order #:** *02100423*
Project: 41791.01/Bldg1600A, Great Lakes, IL

Lab Sample ID: 02100423-06 **Date Received:** 10/10/02 4:25:00 PM **Collection Date:** 10/10/02 12:41:00 PM
Client Sample ID: MW-6 **Matrix:** GROUNDWATER

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method:	SW8260B				Analyst: BK
Benzene	ND		0.317	0.500	µg/L	1	10/17/02 12:28 am
Ethylbenzene	ND		1.00	1.13	µg/L	1	10/17/02 12:28 am
m,p-Xylene	ND		2.00	2.56	µg/L	1	10/17/02 12:28 am
Methyl tert-butyl ether	ND		1.00	1.00	µg/L	1	10/17/02 12:28 am
o-Xylene	ND		1.00	1.64	µg/L	1	10/17/02 12:28 am
Toluene	ND		1.00	1.15	µg/L	1	10/17/02 12:28 am
Surr: 4-Bromofluorobenzene	97.1		0	70-130	%REC	1	10/17/02 12:28 am
Surr: Dibromofluoromethane	90.5		0	70-130	%REC	1	10/17/02 12:28 am
Surr: Toluene-d8	94.2		0	70-130	%REC	1	10/17/02 12:28 am
SEMIVOLATILE ORGANICS, BY GCMS SIM		Method:	SW8270C				Analyst: DP
Acenaphthene	0.18	J	0.106	0.319	µg/L	1	10/16/02 6:09 pm
Acenaphthylene	ND		0.106	0.319	µg/L	1	10/16/02 6:09 pm
Anthracene	ND		0.106	0.319	µg/L	1	10/16/02 6:09 pm
Benzo(a)anthracene	ND		0.106	0.319	µg/L	1	10/16/02 6:09 pm
Benzo(a)pyrene	ND		0.106	0.319	µg/L	1	10/16/02 6:09 pm
Benzo(b)fluoranthene	ND		0.106	0.319	µg/L	1	10/16/02 6:09 pm
Benzo(g,h,i)perylene	ND		0.106	0.319	µg/L	1	10/16/02 6:09 pm
Benzo(k)fluoranthene	ND		0.106	0.319	µg/L	1	10/16/02 6:09 pm
Chrysene	ND		0.106	0.319	µg/L	1	10/16/02 6:09 pm
Dibenzo(a,h)anthracene	ND	S	0.106	0.319	µg/L	1	10/16/02 6:09 pm
Fluoranthene	0.13	J	0.106	0.319	µg/L	1	10/16/02 6:09 pm
Fluorene	ND		0.106	0.319	µg/L	1	10/16/02 6:09 pm
Indeno(1,2,3-cd)pyrene	ND		0.106	0.319	µg/L	1	10/16/02 6:09 pm
Naphthalene	0.27	J	0.106	0.319	µg/L	1	10/16/02 6:09 pm
Phenanthrene	ND		0.106	0.319	µg/L	1	10/16/02 6:09 pm
Pyrene	ND		0.106	0.319	µg/L	1	10/16/02 6:09 pm
Surr: 2-Fluorobiphenyl	64.5		0	56-109	%REC	1	10/16/02 6:09 pm
Surr: 4-Terphenyl-d14	67.3		0	24.2-102	%REC	1	10/16/02 6:09 pm
Surr: Nitrobenzene-d5	72.6		0	13.9-112	%REC	1	10/16/02 6:09 pm

Qualifiers:
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* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Analysis run past method holding time

Suburban Laboratories, Inc.
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Date: *Monday, October 21, 2002*

CLIENT: Toltest Inc. **Lab Order #:** *02100423*
Project: 41791.01/Bldg1600A, Great Lakes, IL

Lab Sample ID: 02100423-07 **Date Received:** 10/10/02 4:25:00 PM **Collection Date:** 10/10/02 1:10:00 PM
Client Sample ID: MW-7 **Matrix:** GROUNDWATER

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method:	SW8260B				Analyst: BK
Benzene	ND		0.317	0.500	µg/L	1	10/17/02 1:03 am
Ethylbenzene	ND		1.00	1.13	µg/L	1	10/17/02 1:03 am
m,p-Xylene	ND		2.00	2.56	µg/L	1	10/17/02 1:03 am
Methyl tert-butyl ether	ND		1.00	1.00	µg/L	1	10/17/02 1:03 am
o-Xylene	ND		1.00	1.64	µg/L	1	10/17/02 1:03 am
Toluene	ND		1.00	1.15	µg/L	1	10/17/02 1:03 am
Surr: 4-Bromofluorobenzene	95.8		0	70-130	%REC	1	10/17/02 1:03 am
Surr: Dibromofluoromethane	91.0		0	70-130	%REC	1	10/17/02 1:03 am
Surr: Toluene-d8	87.0		0	70-130	%REC	1	10/17/02 1:03 am
SEMIVOLATILE ORGANICS, BY GCMS SIM		Method:	SW8270C				Analyst: DP
Acenaphthene	ND		0.106	0.319	µg/L	1	10/16/02 7:10 pm
Acenaphthylene	ND		0.106	0.319	µg/L	1	10/16/02 7:10 pm
Anthracene	ND		0.106	0.319	µg/L	1	10/16/02 7:10 pm
Benzo(a)anthracene	ND		0.106	0.319	µg/L	1	10/16/02 7:10 pm
Benzo(a)pyrene	ND		0.106	0.319	µg/L	1	10/16/02 7:10 pm
Benzo(b)fluoranthene	ND		0.106	0.319	µg/L	1	10/16/02 7:10 pm
Benzo(g,h,i)perylene	ND		0.106	0.319	µg/L	1	10/16/02 7:10 pm
Benzo(k)fluoranthene	ND		0.106	0.319	µg/L	1	10/16/02 7:10 pm
Chrysene	ND		0.106	0.319	µg/L	1	10/16/02 7:10 pm
Dibenzo(a,h)anthracene	ND	S	0.106	0.319	µg/L	1	10/16/02 7:10 pm
Fluoranthene	ND		0.106	0.319	µg/L	1	10/16/02 7:10 pm
Fluorene	ND		0.106	0.319	µg/L	1	10/16/02 7:10 pm
Indeno(1,2,3-cd)pyrene	ND		0.106	0.319	µg/L	1	10/16/02 7:10 pm
Naphthalene	ND		0.106	0.319	µg/L	1	10/16/02 7:10 pm
Phenanthrene	ND		0.106	0.319	µg/L	1	10/16/02 7:10 pm
Pyrene	ND		0.106	0.319	µg/L	1	10/16/02 7:10 pm
Surr: 2-Fluorobiphenyl	80.6		0	56-109	%REC	1	10/16/02 7:10 pm
Surr: 4-Terphenyl-d14	94.0		0	24.2-102	%REC	1	10/16/02 7:10 pm
Surr: Nitrobenzene-d5	76.2		0	13.9-112	%REC	1	10/16/02 7:10 pm

Qualifiers:
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* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Analysis run past method holding time

Suburban Laboratories, Inc.
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Date: *Monday, October 21, 2002*

CLIENT: Toltest Inc. **Lab Order #:** *02100423*
Project: 41791.01/Bldg1600A, Great Lakes, IL

Lab Sample ID: 02100423-08 **Date Received:** 10/10/02 4:25:00 PM **Collection Date:** 10/10/02 2:13:00 PM
Client Sample ID: MW-8 **Matrix:** GROUNDWATER

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method:	SW8260B				Analyst: BK
Benzene	ND		0.317	0.500	µg/L	1	10/17/02 1:37 am
Ethylbenzene	ND		1.00	1.13	µg/L	1	10/17/02 1:37 am
m,p-Xylene	ND		2.00	2.56	µg/L	1	10/17/02 1:37 am
Methyl tert-butyl ether	1.84		1.00	1.00	µg/L	1	10/17/02 1:37 am
o-Xylene	ND		1.00	1.64	µg/L	1	10/17/02 1:37 am
Toluene	ND		1.00	1.15	µg/L	1	10/17/02 1:37 am
Surr: 4-Bromofluorobenzene	96.5		0	70-130	%REC	1	10/17/02 1:37 am
Surr: Dibromofluoromethane	92.4		0	70-130	%REC	1	10/17/02 1:37 am
Surr: Toluene-d8	90.4		0	70-130	%REC	1	10/17/02 1:37 am
SEMIVOLATILE ORGANICS, BY GCMS SIM		Method:	SW8270C				Analyst: DP
Acenaphthene	ND		0.106	0.319	µg/L	1	10/16/02 7:41 pm
Acenaphthylene	ND		0.106	0.319	µg/L	1	10/16/02 7:41 pm
Anthracene	ND		0.106	0.319	µg/L	1	10/16/02 7:41 pm
Benzo(a)anthracene	ND		0.106	0.319	µg/L	1	10/16/02 7:41 pm
Benzo(a)pyrene	ND		0.106	0.319	µg/L	1	10/16/02 7:41 pm
Benzo(b)fluoranthene	ND		0.106	0.319	µg/L	1	10/16/02 7:41 pm
Benzo(g,h,i)perylene	ND		0.106	0.319	µg/L	1	10/16/02 7:41 pm
Benzo(k)fluoranthene	ND		0.106	0.319	µg/L	1	10/16/02 7:41 pm
Chrysene	ND		0.106	0.319	µg/L	1	10/16/02 7:41 pm
Dibenzo(a,h)anthracene	ND	S	0.106	0.319	µg/L	1	10/16/02 7:41 pm
Fluoranthene	ND		0.106	0.319	µg/L	1	10/16/02 7:41 pm
Fluorene	ND		0.106	0.319	µg/L	1	10/16/02 7:41 pm
Indeno(1,2,3-cd)pyrene	ND		0.106	0.319	µg/L	1	10/16/02 7:41 pm
Naphthalene	ND		0.106	0.319	µg/L	1	10/16/02 7:41 pm
Phenanthrene	ND		0.106	0.319	µg/L	1	10/16/02 7:41 pm
Pyrene	ND		0.106	0.319	µg/L	1	10/16/02 7:41 pm
Surr: 2-Fluorobiphenyl	89.3		0	56-109	%REC	1	10/16/02 7:41 pm
Surr: 4-Terphenyl-d14	93.3		0	24.2-102	%REC	1	10/16/02 7:41 pm
Surr: Nitrobenzene-d5	87.9		0	13.9-112	%REC	1	10/16/02 7:41 pm

Qualifiers:
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* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Analysis run past method holding time

Suburban Laboratories, Inc.
4140 Litt Drive Hillside, IL 60162 (708) 544-3260

Date: *Monday, October 21, 2002*

CLIENT: Toltest Inc.
Project: 41791.01/Bldg1600A, Great Lakes, IL

Lab Order #: *02100423*

Lab Sample ID: 02100423-09 **Date Received:** 10/10/02 4:25:00 PM **Collection Date:** 10/10/02 9:30:00 AM
Client Sample ID: MW-9 **Matrix:** GROUNDWATER

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B				Analyst: BK
Benzene	ND		0.317	0.500	µg/L	1	10/17/02 2:12 am
Ethylbenzene	ND		1.00	1.13	µg/L	1	10/17/02 2:12 am
m,p-Xylene	ND		2.00	2.56	µg/L	1	10/17/02 2:12 am
Methyl tert-butyl ether	ND		1.00	1.00	µg/L	1	10/17/02 2:12 am
o-Xylene	ND		1.00	1.64	µg/L	1	10/17/02 2:12 am
Toluene	ND		1.00	1.15	µg/L	1	10/17/02 2:12 am
Surr: 4-Bromofluorobenzene	94.7		0	70-130	%REC	1	10/17/02 2:12 am
Surr: Dibromofluoromethane	92.8		0	70-130	%REC	1	10/17/02 2:12 am
Surr: Toluene-d8	88.5		0	70-130	%REC	1	10/17/02 2:12 am
SEMIVOLATILE ORGANICS, BY GCMS SIM			Method: SW8270C				Analyst: DP
Acenaphthene	ND		0.106	0.319	µg/L	1	10/16/02 8:11 pm
Acenaphthylene	ND		0.106	0.319	µg/L	1	10/16/02 8:11 pm
Anthracene	ND		0.106	0.319	µg/L	1	10/16/02 8:11 pm
Benzo(a)anthracene	ND		0.106	0.319	µg/L	1	10/16/02 8:11 pm
Benzo(a)pyrene	ND		0.106	0.319	µg/L	1	10/16/02 8:11 pm
Benzo(b)fluoranthene	ND		0.106	0.319	µg/L	1	10/16/02 8:11 pm
Benzo(g,h,i)perylene	ND		0.106	0.319	µg/L	1	10/16/02 8:11 pm
Benzo(k)fluoranthene	ND		0.106	0.319	µg/L	1	10/16/02 8:11 pm
Chrysene	ND		0.106	0.319	µg/L	1	10/16/02 8:11 pm
Dibenzo(a,h)anthracene	ND	S	0.106	0.319	µg/L	1	10/16/02 8:11 pm
Fluoranthene	ND		0.106	0.319	µg/L	1	10/16/02 8:11 pm
Fluorene	ND		0.106	0.319	µg/L	1	10/16/02 8:11 pm
Indeno(1,2,3-cd)pyrene	ND		0.106	0.319	µg/L	1	10/16/02 8:11 pm
Naphthalene	ND		0.106	0.319	µg/L	1	10/16/02 8:11 pm
Phenanthrene	ND		0.106	0.319	µg/L	1	10/16/02 8:11 pm
Pyrene	ND		0.106	0.319	µg/L	1	10/16/02 8:11 pm
Surr: 2-Fluorobiphenyl	74.4		0	56-109	%REC	1	10/16/02 8:11 pm
Surr: 4-Terphenyl-d14	79.3		0	24.2-102	%REC	1	10/16/02 8:11 pm
Surr: Nitrobenzene-d5	81.5		0	13.9-112	%REC	1	10/16/02 8:11 pm
LEAD BY GFAA			Method: E239.2/SW7421				Analyst: DZ
Lead	0.0148		0.002	0.006	mg/L	1	10/15/02 1:00 pm

Qualifiers:
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R - RPD outside accepted recovery limits
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Suburban Laboratories, Inc.
4140 Litt Drive Hillside, IL 60162 (708) 544-3260

Date: *Monday, October 21, 2002*

CLIENT: Toltest Inc. **Lab Order #:** *02100423*
Project: 41791.01/Bldg1600A, Great Lakes, IL

Lab Sample ID: 02100423-10 **Date Received:** 10/10/02 4:25:00 PM **Collection Date:** 10/10/02 10:00:00 AM
Client Sample ID: MW-10 **Matrix:** GROUNDWATER

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method:	SW8260B				Analyst: DP
Benzene	ND		0.317	0.500	µg/L	1	10/17/02 6:48 am
Ethylbenzene	ND		1.00	1.13	µg/L	1	10/17/02 6:48 am
m,p-Xylene	ND		2.00	2.56	µg/L	1	10/17/02 6:48 am
Methyl tert-butyl ether	ND		1.00	1.00	µg/L	1	10/17/02 6:48 am
o-Xylene	ND		1.00	1.64	µg/L	1	10/17/02 6:48 am
Toluene	ND		1.00	1.15	µg/L	1	10/17/02 6:48 am
Surr: 4-Bromofluorobenzene	94.0		0	70-130	%REC	1	10/17/02 6:48 am
Surr: Dibromofluoromethane	91.4		0	70-130	%REC	1	10/17/02 6:48 am
Surr: Toluene-d8	90.0		0	70-130	%REC	1	10/17/02 6:48 am
SEMIVOLATILE ORGANICS, BY GCMS SIM		Method:	SW8270C				Analyst: DP
Acenaphthene	ND		0.106	0.319	µg/L	1	10/16/02 8:42 pm
Acenaphthylene	ND		0.106	0.319	µg/L	1	10/16/02 8:42 pm
Anthracene	ND		0.106	0.319	µg/L	1	10/16/02 8:42 pm
Benzo(a)anthracene	ND		0.106	0.319	µg/L	1	10/16/02 8:42 pm
Benzo(a)pyrene	ND		0.106	0.319	µg/L	1	10/16/02 8:42 pm
Benzo(b)fluoranthene	ND		0.106	0.319	µg/L	1	10/16/02 8:42 pm
Benzo(g,h,i)perylene	ND		0.106	0.319	µg/L	1	10/16/02 8:42 pm
Benzo(k)fluoranthene	ND		0.106	0.319	µg/L	1	10/16/02 8:42 pm
Chrysene	ND		0.106	0.319	µg/L	1	10/16/02 8:42 pm
Dibenzo(a,h)anthracene	ND	S	0.106	0.319	µg/L	1	10/16/02 8:42 pm
Fluoranthene	ND		0.106	0.319	µg/L	1	10/16/02 8:42 pm
Fluorene	ND		0.106	0.319	µg/L	1	10/16/02 8:42 pm
Indeno(1,2,3-cd)pyrene	ND		0.106	0.319	µg/L	1	10/16/02 8:42 pm
Naphthalene	ND		0.106	0.319	µg/L	1	10/16/02 8:42 pm
Phenanthrene	ND		0.106	0.319	µg/L	1	10/16/02 8:42 pm
Pyrene	ND		0.106	0.319	µg/L	1	10/16/02 8:42 pm
Surr: 2-Fluorobiphenyl	92.3		0	56-109	%REC	1	10/16/02 8:42 pm
Surr: 4-Terphenyl-d14	85.1		0	24.2-102	%REC	1	10/16/02 8:42 pm
Surr: Nitrobenzene-d5	94.7		0	13.9-112	%REC	1	10/16/02 8:42 pm

Qualifiers:
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* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Analysis run past method holding time

SUBURBAN LABORATORIES, Inc.
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PREP DATES REPORT

CLIENT: Toltest Inc.
Project: 41791.01/Bldg1600A, Great Lakes, IL

Lab Order: *02100423*
Date: *Monday, October 21, 2002*

Lab Sample ID	Collection Date	Prep Method	Prep Name	Prep Date
02100423-01B	10/10/02 10:35 am	SW3510B	AQUEOUS PREP SEP FUNNEL: BNA	10/16/02 10:15 am
02100423-02B	10/10/02 10:56 am	SW3510B	AQUEOUS PREP SEP FUNNEL: BNA	10/16/02 10:15 am
02100423-03B	10/10/02 11:26 am	SW3510B	AQUEOUS PREP SEP FUNNEL: BNA	10/16/02 10:15 am
02100423-04B	10/10/02 1:50 pm	SW3510B	AQUEOUS PREP SEP FUNNEL: BNA	10/16/02 10:15 am
02100423-05B	10/10/02 12:19 pm	SW3510B	AQUEOUS PREP SEP FUNNEL: BNA	10/16/02 10:15 am
02100423-06B	10/10/02 12:41 pm	SW3510B	AQUEOUS PREP SEP FUNNEL: BNA	10/16/02 10:15 am
02100423-07B	10/10/02 1:10 pm	SW3510B	AQUEOUS PREP SEP FUNNEL: BNA	10/16/02 10:15 am
02100423-08B	10/10/02 2:13 pm	SW3510B	AQUEOUS PREP SEP FUNNEL: BNA	10/16/02 10:15 am
02100423-09B	10/10/02 9:30 am	SW3510B	AQUEOUS PREP SEP FUNNEL: BNA	10/16/02 10:15 am
02100423-09C	10/10/02 9:30 am	E200.2/SW3020A	AQUEOUS PREP T/R METALS: GFAA	10/14/02 1:00 pm
	10/10/02 9:30 am	E200.7	AQUEOUS PREP T/R METALS: ICP	10/11/02 8:10 am
02100423-10B	10/10/02 10:00 am	SW3510B	AQUEOUS PREP SEP FUNNEL: BNA	10/16/02 10:15 am

SUBURBAN LABORATORIES, Inc.

4140 Litt Drive Hillside, IL 60162 Tel. 708.544.3260 Fax: 708.544.8587 Toll Free: 800.783.LABS Email: Info@SuburbanLabs.com

CHAIN OF CUSTODY RECORD

18964

Company Name: Tol Test, Inc.
Company Address: 1000 Northpoint Blvd
City: Waukegan State: IL Zip: 60085
Phone: 847 689-0697 Fax: 847-689-0698
Email Address: Kmander26@AOL.com
Project ID / Location: 41791.01 / Bldg 1600A, Great Lakes, IL
Project Manager (Report to): Khush Mander
Sample Collector(s): Timothy A. Boos

TURNAROUND TIME REQUESTED

☑ Normal ☐ RUSH* *Additional Charges Approved.

*Date & Time Needed:

Normal TAT is 7-10 work days for most tests. Rush work must be pre-approved and additional charges apply.

REPORT VIA: ☑ US Mail ☐ Fax ☑ Email ☐ FedEx* *Additional Charges Approved.

Are any of the samples for compliance monitoring purposes or being reported to a regulatory agency? ☐ Yes* ☐ No *If Yes, please specify in comment section below.

ANALYSIS & METHOD REQUESTED

Enter an "X" in box below to indicate request

Page 1 of 3

PO No.

Shipping Method

QC Reporting Level (Please Circle) 1 2 3

LAB USE ONLY

SLI ORDER No. 0710-0423

QC sample(s) provided? ☐ Yes ☐ No

Temperature/Preservation Check: Rol 17.5c

	SAMPLE IDENTIFICATION (Please use 1 line per container type)	COLLECTION DATE	COLLECTION TIME	MATRIX	GRAB/ COMP.	CONTAINERS Qty	CONTAINERS SIZE & TYPE	PRESERVATIVE	PNA	BTEX	MTBE	A/R	CONDITION	LAB #
1	MW-1	10/10/02	10:35	GW	G	2	40ml	HCl		X	X	A		1A
2	MW-1	10/10/02		GW	G	1	1l	N/A	X					B
3	MW-2	10/10/02	10:56	GW	G	2	40ml	HCl		X	X			2A
4	MW-2	10/10/02		GW	G	1	1l		X					B
5	MW-3	10/10/02	11:26	GW	G	2	40ml	HCl		X	X			3A
6	MW-3	10/10/02		GW	G	1	1l		X					B
7	MW-4	10/10/02	13:50	GW	G	2	40ml	HCl		X	X			4A
8	MW-4	10/10/02		GW	G	1	1l		X					B
9	MW-5	10/10/02	12:19	GW	G	2	40ml	HCl		X	X			5A
10	MW-5	10/10/02		GW	G	1	1l		X					B

GLOSSARY: MATRIX = Drinking Water(DW), Waste Water (WW), Sludge (U), Ground Water (GW), Surface Water (SW), Soil (S), Wipe (P), Solid Waste (WA). CONTAINER = 40ml Vial (A), 2oz (B), 4oz (C), 8oz(D), 500ml(E), 1Liter(F), Glass(G) Plastic(P), Tube(T) PRESERVATION = HCl(1), HNO_3(2), H_2SO_4(3), NaOH(4), MeOH(5), Sodium Bisulfate (6), Sodium Thiosulfate(7) TEMPERATURE = Celsius(C) Received on Ice (ROI) GENERAL = Not Applicable(N/A), Accept(A), Reject(R) CONDITION = Improper container/cap (1), Improper preservation (2), Damaged container/cap (3), Insufficient sample volume (4), Headspace/air bubbles for VOCs (5), Received past holding time (6), Received frozen (7), Label conflicts with COC (8)

COMMENTS & SPECIAL INSTRUCTIONS:

If evidentiary chain of custody procedures are needed, prior arrangements should be made with the lab.

1. Relinquished By	Date	2. Relinquished By	Date	3. Relinquished By	Date	4. Relinquished By	Date
Timothy A. Boos	10/10/02	[illegible]	10/10/02				
Received By: [illegible] ☐ Ice?	Time: 15:10	Received By: [illegible] ☐ Ice?	Time: 4:25	Received By ☐ Ice?	Time	Received By ☐ Ice?	Time

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SUBURBAN LABORATORIES, Inc.

CHAIN OF CUSTODY RECORD

18965

140 Litt Drive Hillside, IL 60162 Tel. 708.544.3260 Fax: 708.544.8587 Toll Free: 800.783.LABS Email: Info@SuburbanLabs.com

Company Name: Tol Test, Inc.
Company Address: 1000 Northpoint Blvd
City: Waukegan State: IL Zip: 60085
Phone: 847-689-0697 Fax:
Email Address:
Project ID / Location: 41791.01 / Bldg 1600A, Great Lakes, IL
Project Manager (Report to):
Sample Collector(s): Timothy A. Boos

TURNAROUND TIME REQUESTED
☐ Normal ☐ RUSH* *Additional Charges Approved.
*Date & Time Needed:
Normal TAT is 7-10 work days for most tests. Rush work must be pre-approved and additional charges apply.

REPORT VIA: ☐ US Mail ☐ Fax ☐ Email ☐ FedEx* *Additional Charges Approved.

Are any of the samples for compliance monitoring purposes or being reported to a regulatory agency? ☐ Yes* ☐ No *If Yes, please specify in comment section below.

ANALYSIS & METHOD REQUESTED
Enter an "X" in box below to indicate request

Page 2 of 3
PO No.
Shipping Method
QC Reporting Level (Please Circle) 1 2 3

LAB USE ONLY
SLI ORDER No.: 0220-0423
QC sample(s) provided? ☐ Yes ☐ No
Temperature/Preservation Check: ROI 20.0c

	SAMPLE IDENTIFICATION (Please use 1 line per container type)	COLLECTION DATE	COLLECTION TIME	MATRIX	GRAB/ COMP.	CONTAINERS Qty	CONTAINERS SIZE & TYPE	PRESERVATIVE	PNA	BTEX	MTBE	SPLP lead	total lead						A/R	CONDITION	LAB #
1	MW-6	10/10/02	12:41	GW	G	2	40ml	HCl		X	X								A		6A
2	MW-6	10/10/02	12:41	GW	G	1	1l		X												B
3	MW-7	10/10/02	13:10	GW	G	2	40ml	HCl		X	X										7A
4	MW-7	10/10/02	13:10	GW	G	1	1l		X												B
5	MW-8	10/10/02	14:13	GW	G	2	40ml	HCl		X	X										8A
6	MW-8	10/10/02	14:13	GW	G	1	1l		X												B
7	MW-9	10/10/02	9:30	GW	G	2	40ml	HCl		X	X										9A
8	MW-9	10/10/02	9:30	GW	G	1	1l		X												B
9	MW-9	10/10/02	10:00	GW	G	2	1l	HNO_3				X	X								9C
10	MW-10	10/10/02	10:00	GW	G	2	40ml	HCl		X	X										10

GLOSSARY: MATRIX = Drinking Water(DW), Waste Water (WW), Sludge (U), Ground Water (GW), Surface Water (SW), Soil (S), Wipe (P), Solid Waste (WA). CONTAINER = 40ml Vial (A), 2oz (B), 4oz (C), 8oz(D), 500ml(E), 1Liter(F), Glass(G) Plastic(P), Tube(T) PRESERVATION = HCl(1), HNO_3(2), H_2SO_4(3), NaOH(4), KOH(5), Sodium Bisulfate (6), Sodium Thiosulfate(7) TEMPERATURE = Celsius(C) Received on Ice (ROI) GENERAL = Not Applicable(N/A), Accept(A), Reject(R) CONDITION = Improper container/cap (1), Improper preservation (2), Damaged container/cap (3), Insufficient sample volume (4), Headspace/air bubbles for VOCs (5), Received past holding time (6), Received frozen (7), Label conflicts with COC (8)

COMMENTS & SPECIAL INSTRUCTIONS:

If evidentiary chain of custody procedures are needed, prior arrangements should be made with the lab.

Relinquished By	Date	2. Relinquished By	Date	3 Relinquished By	Date	4. Relinquished By	Date
Timothy A. Boos	10/10/02	[signature]	10-10-02				
Received By ☐ Ice?	Time 15:10	Received By ☐ Ice?	Time 4:25PM	Received By ☐ Ice?	Time	Received By ☐ Ice?	Time

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SUBURBAN LABORATORIES, Inc.

CHAIN OF CUSTODY RECORD

18966

4140 Litt Drive Hillside, IL 60162 T l. 708.544.3260 Fax: 708.544.8587 Toll Free: 800.783.LABS Email: Info@SuburbanLabs.com

Company Name: Tol Test, Inc
Company Address: 1000 Northpoint Blvd
City: Waukegan State: IL Zip: 60085
Phone: 847-689-0697 Fax:
Email Address:
Project ID / Location: 41791.01 / Bldg 1600A, Great Lakes, IL
Project Manager (Report to):
Sample Collector(s): Timothy A. Boos

TURNAROUND TIME REQUESTED
☐ Normal ☐ RUSH* *Additional Charges Approved.
*Date & Time Needed:
Normal TAT is 7-10 work days for most tests. Rush work must be pre-approved and additional charges apply.

REPORT VIA: ☐ US Mail ☐ Fax ☐ Email ☐ FedEx* *Additional Charges Approved.

Are any of the samples for compliance monitoring purposes or being reported to a regulatory agency? ☐ Yes* ☐ No *If Yes, please specify in comment section below.

ANALYSIS & METHOD REQUESTED
Enter an "X" in box below to indicate request

Page 3 of 3
PO No.
Shipping Method
QC Reporting Level (Please Circle) 1 2 3

LAB USE ONLY
SLI ORDER No. 0212-0423
QC sample(s) provided? ☐ Yes ☐ No
Temperature/Preservation Check: Roi 19.5C

	SAMPLE IDENTIFICATION (Please use 1 line per container type)	COLLECTION DATE	COLLECTION TIME	MATRIX	GRAB/ COMP.	CONTAINERS Qty	CONTAINERS SIZE & TYPE	PRESERVATIVE	PNA	A/R	CONDITION	LAB #
1	MW-10	10/10/02	10:00	GW	G	1	1L		X	A		1B3
2		/ /										
3		/ /										
4		/ /										
5		/ /										
6		/ /										
7		/ /										
8		/ /										
9		/ /										
10		/ /										

GLOSSARY: **MATRIX** = Drinking Water(DW), Waste Water (WW), Sludge (U), Ground Water (GW), Surface Water (SW), Soil (S), Wipe (P), Solid Waste (WA). **CONTAINER** = 40ml Vial (A), 2oz (B), 4oz (C), 8oz(D), 500ml(E), 1Liter(F), Glass(G) Plastic(P), Tube(T) **PRESERVATION** = HCl(1), HNO_3(2), H_2SO_4(3), NaOH(4), KOH(5), Sodium Bisulfate (6), Sodium Thiosulfate(7) **TEMPERATURE** = Celsius(C) Received on Ice (ROI) **GENERAL** = Not Applicable(N/A), Accept(A), Reject(R) **CONDITION** = Improper container/cap (1), Improper preservation (2), Damaged container/cap (3), Insufficient sample volume (4), Headspace/air bubbles for VOCs (5), Received past holding time (6), Received frozen (7), Label conflicts with COC (8)

COMMENTS & SPECIAL INSTRUCTIONS:

If evidentiary chain of custody procedures are needed, prior arrangements should be made with the lab.

Relinquished By	Date	2. Relinquished By	Date	3. Relinquished By	Date	4. Relinquished By	Date
Timothy A. Boos	10/10/02	[illegible]	10-10-02				
Received By ☐ Ice?	Time	Received By ☐ Ice?	Time	Received By ☐ Ice?	Time	Received By ☐ Ice?	Time
[illegible]	15:10	[illegible]	4:25 pm				

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SUBURBAN LABORATORIES, Inc.
4140 Litt Drive · Hillside, Illinois 60162-1183
Tel. (708) 544-3260 · Toll Free (800) 783-LABS · Fax (708) 544-8587

October 31, 2002

Khush Mander
Toltest Inc.
1000 S. Northpoint Blvd.
Waukegan, IL 600858213
Tel: (847) 689-0697
Fax: (847) 689-0698

Project Name: GLNTC/Bldg. 1600A/41791.01 Lab Order # **02101006**

Dear Khush Mander,

Suburban Laboratories, Inc. received 4 samples on 10/30/02 3:45:00 PM for the analyses presented in the following report.

There were no problems with the analyses and all the data for the associated QC met EPA or laboratory specifications except where noted in the case narrative.

This final report of laboratory analysis consists of this cover letter, case narrative, analytical report, dates report, and any accompanying documentation including, but not limited to, chain of custody records, raw data, and letters of explanation or reliance. This report may not be reproduced, except in full, without the prior written approval of Suburban Laboratories, Inc.

If you have any questions regarding these test results, please call your customer service representative at (708) 544-3260.

Sincerely,

Mike Chung
Data Review Manager

CC:

SUBURBAN LABORATORIES, Inc.

4140 Litt Drive · Hillside, Illinois 60162-1183
Tel. (708) 544-3260 · Toll Free (800) 783-LABS · Fax (708) 544-8587

CLIENT: Toltest Inc.
Project: GLNTC/Bldg. 1600A/41791.01
Lab Order # *02101006*

CASE NARRATIVE

Date: *Thursday, October 31, 2002*

General Comments:
- All results reported in wet weight unless otherwise indicated. (dry = Dry Weight)
- Sample results relate only to the analytes of interest tested and to sample as received by the laboratory.
- Environmental compliance sample results meet the requirements of Part 186 unless otherwise indicated.
- Accreditation by the State of Illinois is not an endorsement or a guarantee of the validity of data generated. For more information about the laboratories' scope of accreditation, please contact Suburban or the Agency.
- MDL: Method Detection Limit. The minimum concentration of an analyte that can be measured and reported with a 99% confidence that analyte is greater than zero.
- PQL: Practical Quantitation Limit. The lowest concentration that can be reliably achieved within specified requirements of precision and accuracy during routine laboratory operating conditions. The PQL is generally 3 times the MDL.
- DF: Dilution Factor

Data Qualifiers:
J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ: The analyte was not detected above the reported detection limit. However, the reported limits approximate and may or may not represent the actual limits of detection and quantitation necessary to accurately and precisely measure the analyte in the sample.
I: Result is Invalid; CS: Compound Screened; TNTC: Too Numerous to Count

Method References:
E: USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40CFR136 App A; Methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water
SW: USEPA, Test Methods for Evaluating Solid Waste, SW-846, 3rd Ed, includes Updates I-III
M: APHA, Standard Methods for the Examination of Water and Wastewater, 18th & 19th Ed.
D: ASTM, Annual Book of Standards F: NAS, Food Chemicals Codex (FCC), 4th Edition
B: US FDA Bacteriological Analytical Manual (BAM) 8th Edition, 1995
USP: US Pharmacopoeia, 24th Revision, 2000

Project Specific Comments:

Suburban Laboratories, Inc.
4140 Litt Drive Hillside, IL 60162 (708) 544-3260

Date: *Thursday, October 31, 2002*

CLIENT: Toltest Inc.
Project: GLNTC/Bldg. 1600A/41791.01
Lab Order #: *02101006*

Lab Sample ID: 02101006-01 **Date Received:** 10/30/02 3:45:00 PM **Collection Date:** 10/30/02 11:05:00 AM
Client Sample ID: MW-1-W **Matrix:** GROUNDWATER

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
LEAD BY GFAA			Method: E239.2/SW7421				Analyst: DZ
Lead	0.0149		0.002	0.006	mg/L	1	10/30/02 2:00 pm

Lab Sample ID: 02101006-02 **Date Received:** 10/30/02 3:45:00 PM **Collection Date:** 10/30/02 10:50:00 AM
Client Sample ID: MW-2-W **Matrix:** GROUNDWATER

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
LEAD BY GFAA			Method: E239.2/SW7421				Analyst: DZ
Lead	ND		0.002	0.006	mg/L	1	10/30/02 2:00 pm

Lab Sample ID: 02101006-03 **Date Received:** 10/30/02 3:45:00 PM **Collection Date:** 10/30/02 10:36:00 AM
Client Sample ID: MW-3-W **Matrix:** GROUNDWATER

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
LEAD BY GFAA			Method: E239.2/SW7421				Analyst: DZ
Lead	0.00727		0.002	0.006	mg/L	1	10/30/02 2:00 pm

Lab Sample ID: 02101006-04 **Date Received:** 10/30/02 3:45:00 PM **Collection Date:** 10/30/02 11:20:00 AM
Client Sample ID: MW-9-W **Matrix:** GROUNDWATER

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
LEAD BY GFAA			Method: E239.2/SW7421				Analyst: DZ
Lead	ND		0.002	0.006	mg/L	1	10/30/02 2:00 pm

Qualifiers:
ND - Not Detected at the Method Detection Limit
J - Estimated or analyte detected below quantitation limit
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Analysis run past method holding time

SUBURBAN LABORATORIES, Inc.
4140 Litt Drive Hillside, IL 60162 (708) 544-3260

PREP DATES REPORT

CLIENT: Toltest Inc.
Project: GLNTC/Bldg. 1600A/41791.01

Lab Order: *02101006*
Date: *Thursday, October 31, 2002*

Lab Sample ID	Collection Date	Prep Method	Prep Name	Prep Date
02101006-01A	10/30/02 11:05 am	E200.2/SW3020A	AQUEOUS PREP T/R METALS: GFAA	10/30/02 1:00 pm
02101006-02A	10/30/02 10:50 am	E200.2/SW3020A	AQUEOUS PREP T/R METALS: GFAA	10/30/02 1:00 pm
02101006-03A	10/30/02 10:36 am	E200.2/SW3020A	AQUEOUS PREP T/R METALS: GFAA	10/30/02 1:00 pm
02101006-04A	10/30/02 11:20 am	E200.2/SW3020A	AQUEOUS PREP T/R METALS: GFAA	10/30/02 1:00 pm

AAC Trinity

Date: *21-Jun-02*

CLIENT:	Toltest, Inc.	**Client Sample ID:**	MW-1
Lab Order:	02-1550	**Collection Date:**	6/12/2002 11:15:00 AM
Project:	41791.01/BLDG. 1600A GREAT LAKES		
Lab ID:	02-1550-01	**Matrix:**	AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
LEAD BY EPA METHOD 7421						Analyst: **AV**
Lead	ND	3.0		µg/L	1	6/14/2002
VOLATILE ORGANIC COMPOUNDS - EPA 8260						Analyst: **ZW**
Benzene	ND	1.0		µg/L	1	6/19/2002 6:42:00 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2002 6:42:00 PM
Methyl-tert-butyl-ether	ND	5.0		µg/L	1	6/19/2002 6:42:00 PM
Toluene	ND	1.0		µg/L	1	6/19/2002 6:42.00 PM
Xylenes (Total)	1.0	3.0	J	µg/L	1	6/19/2002 6·42 00 PM
Surr: 4-Bromofluorobenzene	97.1	85.8-116		%REC	1	6/19/2002 6:42·00 PM
Surr· Dibromofluoromethane	95.6	78.1-132		%REC	1	6/19/2002 6:42:00 PM
Surr: Toluene-d8	90.6	82-115		%REC	1	6/19/2002 6.42.00 PM
POLYNUCLEAR AROMATIC HYDROCARBONS						Analyst: **MB**
2-Methylnaphthalene	ND	2.0		µg/L	1	6/20/2002 7:38:44 PM
Acenaphthene	ND	2.0		µg/L	1	6/20/2002 7:38:44 PM
Acenaphthylene	ND	2.0		µg/L	1	6/20/2002 7:38:44 PM
Anthracene	ND	2.0		µg/L	1	6/20/2002 7:38:44 PM
Benz (a) anthracene	ND	2.0		µg/L	1	6/20/2002 7:38:44 PM
Benzo (a) pyrene	ND	2 0		µg/L	1	6/20/2002 7:38:44 PM
Benzo (g,h,i) perylene	ND	2.0		µg/L	1	6/20/2002 7:38:44 PM
Benzo (k) fluoranthene	ND	2.0		µg/L	1	6/20/2002 7:38:44 PM
Benzo(b)fluoranthene	ND	2.0		µg/L	1	6/20/2002 7:38 44 PM
Chrysene	ND	2.0		µg/L	1	6/20/2002 7:38·44 PM
Dibenz (a,h) anthracene	ND	2.0		µg/L	1	6/20/2002 7:38.44 PM
Fluoranthene	ND	2.0		µg/L	1	6/20/2002 7:38 44 PM
Fluorene	ND	2.0		µg/L	1	6/20/2002 7:38:44 PM
Indeno (1,2,3-cd) pyrene	ND	2.0		µg/L	1	6/20/2002 7.38 44 PM
Naphthalene	ND	2.0		µg/L	1	6/20/2002 7:38.44 PM
Phenanthrene	ND	2.0		µg/L	1	6/20/2002 7:38:44 PM
Pyrene	ND	2.0		µg/L	1	6/20/2002 7:38·44 PM
Surr: p-Terphenyl	91.5	71.9-113		%REC	1	6/20/2002 7:38:44 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit if used

AAC Trinity

Date: *21-Jun-02*

CLIENT:	Toltest, Inc.	**Client Sample ID:**	MW-2
Lab Order:	02-1550	**Collection Date:**	6/12/2002 12:05:00 PM
Project:	41791.01/BLDG. 1600A GREAT LAKES		
Lab ID:	02-1550-02	**Matrix:**	AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
LEAD BY EPA METHOD 7421						Analyst: **AV**
Lead	2.0	3.0	J	µg/L	1	6/14/2002
VOLATILE ORGANIC COMPOUNDS - EPA 8260						Analyst: **ZW**
Benzene	48	1.0		µg/L	1	6/19/2002 7:10:00 PM
Ethylbenzene	900	50		µg/L	50	6/20/2002 12:54.00 PM
Methyl-tert-butyl-ether	ND	5.0		µg/L	1	6/19/2002 7:10.00 PM
Toluene	240	1.0		µg/L	1	6/19/2002 7:10:00 PM
Xylenes (Total)	1,600	150		µg/L	50	6/20/2002 12.54:00 PM
Surr. 4-Bromofluorobenzene	89.5	85.8-116		%REC	1	6/19/2002 7:10:00 PM
Surr: Dibromofluoromethane	98.5	78.1-132		%REC	1	6/19/2002 7:10:00 PM
Surr: Toluene-d8	91.6	82-115		%REC	1	6/19/2002 7:10.00 PM
POLYNUCLEAR AROMATIC HYDROCARBONS						Analyst: **MB**
2-Methylnaphthalene	25	2.0		µg/L	1	6/20/2002 8:25:58 PM
Acenaphthene	ND	2.0		µg/L	1	6/20/2002 8:25:58 PM
Acenaphthylene	52	2.0		µg/L	1	6/20/2002 8:25:58 PM
Anthracene	0.20	2.0	J	µg/L	1	6/20/2002 8 25:58 PM
Benz (a) anthracene	ND	2.0		µg/L	1	6/20/2002 8:25:58 PM
Benzo (a) pyrene	ND	2.0		µg/L	1	6/20/2002 8:25:58 PM
Benzo (g,h,i) perylene	ND	2.0		µg/L	1	6/20/2002 8:25:58 PM
Benzo (k) fluoranthene	ND	2.0		µg/L	1	6/20/2002 8:25:58 PM
Benzo(b)fluoranthene	ND	2.0		µg/L	1	6/20/2002 8:25.58 PM
Chrysene	ND	2.0		µg/L	1	6/20/2002 8:25:58 PM
Dibenz (a,h) anthracene	ND	2.0		µg/L	1	6/20/2002 8:25:58 PM
Fluoranthene	ND	2.0		µg/L	1	6/20/2002 8:25:58 PM
Fluorene	3.0	2.0		µg/L	1	6/20/2002 8:25:58 PM
Indeno (1,2,3-cd) pyrene	ND	2.0		µg/L	1	6/20/2002 8:25:58 PM
Naphthalene	48	2.0		µg/L	1	6/20/2002 8:25:58 PM
Phenanthrene	2.3	2.0		µg/L	1	6/20/2002 8:25 58 PM
Pyrene	ND	2.0		µg/L	1	6/20/2002 8:25:58 PM
Surr: p-Terphenyl	94.4	71.9-113		%REC	1	6/20/2002 8:25 58 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit if used

AAC Trinity

Date: *21-Jun-02*

CLIENT:	Toltest, Inc.	**Client Sample ID:**	MW-3
Lab Order:	02-1550	**Collection Date:**	6/12/2002 12:55:00 PM
Project:	41791.01/BLDG. 1600A GREAT LAKES		
Lab ID:	02-1550-03	**Matrix:**	AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
LEAD BY EPA METHOD 7421						Analyst: **AV**
Lead	ND	3.0		µg/L	1	6/14/2002
VOLATILE ORGANIC COMPOUNDS - EPA 8260						Analyst: **ZW**
Benzene	ND	1.0		µg/L	1	6/19/2002 7:38:00 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2002 7:38:00 PM
Methyl-tert-butyl-ether	4.0	5.0	J	µg/L	1	6/19/2002 7:38:00 PM
Toluene	ND	1.0		µg/L	1	6/19/2002 7:38:00 PM
Xylenes (Total)	2.0	3.0	J	µg/L	1	6/19/2002 7:38.00 PM
Surr: 4-Bromofluorobenzene	95.8	85.8-116		%REC	1	6/19/2002 7:38 00 PM
Surr: Dibromofluoromethane	92.8	78.1-132		%REC	1	6/19/2002 7:38 00 PM
Surr. Toluene-d8	90.4	82-115		%REC	1	6/19/2002 7:38:00 PM
POLYNUCLEAR AROMATIC HYDROCARBONS						Analyst: **MB**
2-Methylnaphthalene	ND	2.0		µg/L	1	6/19/2002 10:51:13 PM
Acenaphthene	ND	2 0		µg/L	1	6/19/2002 10 51:13 PM
Acenaphthylene	ND	2.0		µg/L	1	6/19/2002 10:51:13 PM
Anthracene	ND	2.0		µg/L	1	6/19/2002 10:51:13 PM
Benz (a) anthracene	ND	2.0		µg/L	1	6/19/2002 10.51:13 PM
Benzo (a) pyrene	ND	2.0		µg/L	1	6/19/2002 10:51:13 PM
Benzo (g,h,i) perylene	ND	2.0		µg/L	1	6/19/2002 10:51:13 PM
Benzo (k) fluoranthene	ND	2.0		µg/L	1	6/19/2002 10:51.13 PM
Benzo(b)fluoranthene	ND	2.0		µg/L	1	6/19/2002 10:51:13 PM
Chrysene	ND	2.0		µg/L	1	6/19/2002 10:51:13 PM
Dibenz (a,h) anthracene	ND	2.0		µg/L	1	6/19/2002 10:51:13 PM
Fluoranthene	ND	2.0		µg/L	1	6/19/2002 10:51:13 PM
Fluorene	ND	2.0		µg/L	1	6/19/2002 10:51:13 PM
Indeno (1,2,3-cd) pyrene	ND	2.0		µg/L	1	6/19/2002 10.51:13 PM
Naphthalene	ND	2.0		µg/L	1	6/19/2002 10:51:13 PM
Phenanthrene	ND	2.0		µg/L	1	6/19/2002 10:51:13 PM
Pyrene	ND	2.0		µg/L	1	6/19/2002 10:51:13 PM
Surr: p-Terphenyl	95.4	71.9-113		%REC	1	6/19/2002 10:51:13 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit if used

AAC Trinity

Date: *21-Jun-02*

CLIENT:	Toltest, Inc.	**Client Sample ID:**	MW-4
Lab Order:	02-1550	**Collection Date:**	6/12/2002 1:50:00 PM
Project:	41791.01/BLDG. 1600A GREAT LAKES		
Lab ID:	02-1550-04	**Matrix:**	AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS - EPA 8260						Analyst: **ZW**
Benzene	28	1.0		µg/L	1	6/19/2002 8:05:00 PM
Ethylbenzene	380	1.0		µg/L	1	6/19/2002 8:05:00 PM
Methyl-tert-butyl-ether	ND	5.0		µg/L	1	6/19/2002 8:05.00 PM
Toluene	36	1.0		µg/L	1	6/19/2002 8:05.00 PM
Xylenes (Total)	530	3.0		µg/L	1	6/19/2002 8.05:00 PM
Surr: 4-Bromofluorobenzene	94.2	85.8-116		%REC	1	6/19/2002 8:05.00 PM
Surr: Dibromofluoromethane	95.9	78.1-132		%REC	1	6/19/2002 8:05:00 PM
Surr: Toluene-d8	90.5	82-115		%REC	1	6/19/2002 8:05:00 PM
POLYNUCLEAR AROMATIC HYDROCARBONS						Analyst: **MB**
2-Methylnaphthalene	ND	2.0		µg/L	1	6/20/2002 8:02.02 PM
Acenaphthene	ND	2.0		µg/L	1	6/20/2002 8:02:02 PM
Acenaphthylene	3.2	2 0		µg/L	1	6/20/2002 8 02:02 PM
Anthracene	ND	2.0		µg/L	1	6/20/2002 8:02:02 PM
Benz (a) anthracene	ND	2.0		µg/L	1	6/20/2002 8.02:02 PM
Benzo (a) pyrene	ND	2.0		µg/L	1	6/20/2002 8:02:02 PM
Benzo (g,h,i) perylene	ND	2.0		µg/L	1	6/20/2002 8:02:02 PM
Benzo (k) fluoranthene	ND	2.0		µg/L	1	6/20/2002 8.02:02 PM
Benzo(b)fluoranthene	ND	2.0		µg/L	1	6/20/2002 8:02.02 PM
Chrysene	ND	2.0		µg/L	1	6/20/2002 8:02:02 PM
Dibenz (a,h) anthracene	ND	2.0		µg/L	1	6/20/2002 8:02:02 PM
Fluoranthene	ND	2 0		µg/L	1	6/20/2002 8:02:02 PM
Fluorene	ND	2.0		µg/L	1	6/20/2002 8:02 02 PM
Indeno (1,2,3-cd) pyrene	ND	2.0		µg/L	1	6/20/2002 8:02:02 PM
Naphthalene	5.4	2.0		µg/L	1	6/20/2002 8:02:02 PM
Phenanthrene	ND	2.0		µg/L	1	6/20/2002 8:02.02 PM
Pyrene	ND	2 0		µg/L	1	6/20/2002 8.02:02 PM
Surr. p-Terphenyl	94.5	71.9-113		%REC	1	6/20/2002 8:02.02 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit if used

AAC Trinity

Date: *21-Jun-02*

CLIENT:	Toltest, Inc.	**Client Sample ID:**	MW-5
Lab Order:	02-1550	**Collection Date:**	6/12/2002 4:50:00 PM
Project:	41791.01/BLDG. 1600A GREAT LAKES		
Lab ID:	02-1550-05	**Matrix:**	AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS - EPA 8260						Analyst: **ZW**
Benzene	ND	1.0		µg/L	1	6/19/2002 8 33 00 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2002 8 33 00 PM
Methyl-tert-butyl-ether	ND	5.0		µg/L	1	6/19/2002 8:33:00 PM
Toluene	ND	1.0		µg/L	1	6/19/2002 8:33:00 PM
Xylenes (Total)	1.0	3.0	J	µg/L	1	6/19/2002 8:33:00 PM
Surr: 4-Bromofluorobenzene	96.4	85.8-116		%REC	1	6/19/2002 8:33:00 PM
Surr: Dibromofluoromethane	95.9	78.1-132		%REC	1	6/19/2002 8:33.00 PM
Surr: Toluene-d8	90.3	82-115		%REC	1	6/19/2002 8:33:00 PM
POLYNUCLEAR AROMATIC HYDROCARBONS						Analyst: **MB**
2-Methylnaphthalene	ND	2.0		µg/L	1	6/19/2002 11:37:52 PM
Acenaphthene	ND	2.0		µg/L	1	6/19/2002 11:37:52 PM
Acenaphthylene	ND	2.0		µg/L	1	6/19/2002 11:37:52 PM
Anthracene	ND	2 0		µg/L	1	6/19/2002 11:37:52 PM
Benz (a) anthracene	ND	2.0		µg/L	1	6/19/2002 11:37:52 PM
Benzo (a) pyrene	ND	2.0		µg/L	1	6/19/2002 11:37:52 PM
Benzo (g,h,i) perylene	ND	2.0		µg/L	1	6/19/2002 11:37:52 PM
Benzo (k) fluoranthene	ND	2.0		µg/L	1	6/19/2002 11:37:52 PM
Benzo(b)fluoranthene	ND	2.0		µg/L	1	6/19/2002 11:37:52 PM
Chrysene	ND	2.0		µg/L	1	6/19/2002 11:37:52 PM
Dibenz (a,h) anthracene	ND	2.0		µg/L	1	6/19/2002 11:37:52 PM
Fluoranthene	ND	2.0		µg/L	1	6/19/2002 11.37 52 PM
Fluorene	ND	2.0		µg/L	1	6/19/2002 11:37:52 PM
Indeno (1,2,3-cd) pyrene	ND	2 0		µg/L	1	6/19/2002 11:37:52 PM
Naphthalene	ND	2 0		µg/L	1	6/19/2002 11:37 52 PM
Phenanthrene	ND	2.0		µg/L	1	6/19/2002 11:37:52 PM
Pyrene	ND	2.0		µg/L	1	6/19/2002 11:37 52 PM
Surr: p-Terphenyl	89.9	71.9-113		%REC	1	6/19/2002 11.37.52 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit if used

AAC Trinity

Date: *21-Jun-02*

CLIENT:	Toltest, Inc.	**Client Sample ID:**	MW-6
Lab Order:	02-1550	**Collection Date:**	6/12/2002 5:00:00 PM
Project:	41791.01/BLDG. 1600A GREAT LAKES		
Lab ID:	02-1550-06	**Matrix:**	AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS - EPA 8260						Analyst: **ZW**
Benzene	ND	1.0		µg/L	1	6/19/2002 9:01:00 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2002 9:01:00 PM
Methyl-tert-butyl-ether	3.0	5.0	J	µg/L	1	6/19/2002 9:01:00 PM
Toluene	ND	1.0		µg/L	1	6/19/2002 9:01:00 PM
Xylenes (Total)	ND	3.0		µg/L	1	6/19/2002 9:01:00 PM
Surr: 4-Bromofluorobenzene	98.6	85.8-116		%REC	1	6/19/2002 9:01:00 PM
Surr: Dibromofluoromethane	100	78 1-132		%REC	1	6/19/2002 9:01:00 PM
Surr: Toluene-d8	91.0	82-115		%REC	1	6/19/2002 9:01:00 PM
POLYNUCLEAR AROMATIC HYDROCARBONS						Analyst: **MB**
2-Methylnaphthalene	ND	2.0		µg/L	1	6/20/2002 12:01:13 AM
Acenaphthene	ND	2.0		µg/L	1	6/20/2002 12:01:13 AM
Acenaphthylene	ND	2.0		µg/L	1	6/20/2002 12:01:13 AM
Anthracene	ND	2.0		µg/L	1	6/20/2002 12:01:13 AM
Benz (a) anthracene	ND	2.0		µg/L	1	6/20/2002 12:01:13 AM
Benzo (a) pyrene	ND	2.0		µg/L	1	6/20/2002 12:01:13 AM
Benzo (g,h,i) perylene	ND	2.0		µg/L	1	6/20/2002 12:01:13 AM
Benzo (k) fluoranthene	ND	2.0		µg/L	1	6/20/2002 12:01:13 AM
Benzo(b)fluoranthene	ND	2.0		µg/L	1	6/20/2002 12:01:13 AM
Chrysene	ND	2 0		µg/L	1	6/20/2002 12:01:13 AM
Dibenz (a,h) anthracene	ND	2.0		µg/L	1	6/20/2002 12:01:13 AM
Fluoranthene	ND	2.0		µg/L	1	6/20/2002 12:01:13 AM
Fluorene	ND	2 0		µg/L	1	6/20/2002 12:01:13 AM
Indeno (1,2,3-cd) pyrene	ND	2.0		µg/L	1	6/20/2002 12:01:13 AM
Naphthalene	ND	2.0		µg/L	1	6/20/2002 12:01:13 AM
Phenanthrene	ND	2.0		µg/L	1	6/20/2002 12:01:13 AM
Pyrene	ND	2.0		µg/L	1	6/20/2002 12:01:13 AM
Surr: p-Terphenyl	82.7	71.9-113		%REC	1	6/20/2002 12:01:13 AM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit if used

AAC Trinity

Date: *21-Jun-02*

CLIENT:	Toltest, Inc.	**Client Sample ID:**	MW-7
Lab Order:	02-1550	**Collection Date:**	6/12/2002 1:30:00 PM
Project:	41791.01/BLDG. 1600A GREAT LAKES		
Lab ID:	02-1550-07	**Matrix:**	AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS - EPA 8260						Analyst: **ZW**
Benzene	ND	1.0		µg/L	1	6/19/2002 9:29:00 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2002 9:29.00 PM
Methyl-tert-butyl-ether	ND	5.0		µg/L	1	6/19/2002 9:29:00 PM
Toluene	ND	1.0		µg/L	1	6/19/2002 9:29:00 PM
Xylenes (Total)	ND	3.0		µg/L	1	6/19/2002 9:29:00 PM
Surr: 4-Bromofluorobenzene	100	85.8-116		%REC	1	6/19/2002 9:29:00 PM
Surr: Dibromofluoromethane	97.9	78.1-132		%REC	1	6/19/2002 9:29:00 PM
Surr: Toluene-d8	90.3	82-115		%REC	1	6/19/2002 9:29:00 PM
POLYNUCLEAR AROMATIC HYDROCARBONS						Analyst: **MB**
2-Methylnaphthalene	ND	2.0		µg/L	1	6/20/2002 12:24:32 AM
Acenaphthene	ND	2.0		µg/L	1	6/20/2002 12:24:32 AM
Acenaphthylene	ND	2.0		µg/L	1	6/20/2002 12:24:32 AM
Anthracene	ND	2.0		µg/L	1	6/20/2002 12:24:32 AM
Benz (a) anthracene	ND	2.0		µg/L	1	6/20/2002 12:24:32 AM
Benzo (a) pyrene	ND	2.0		µg/L	1	6/20/2002 12:24:32 AM
Benzo (g,h,i) perylene	ND	2.0		µg/L	1	6/20/2002 12:24:32 AM
Benzo (k) fluoranthene	ND	2.0		µg/L	1	6/20/2002 12:24:32 AM
Benzo(b)fluoranthene	ND	2.0		µg/L	1	6/20/2002 12:24:32 AM
Chrysene	ND	2.0		µg/L	1	6/20/2002 12:24:32 AM
Dibenz (a,h) anthracene	ND	2.0		µg/L	1	6/20/2002 12:24:32 AM
Fluoranthene	ND	2.0		µg/L	1	6/20/2002 12:24:32 AM
Fluorene	ND	2.0		µg/L	1	6/20/2002 12:24:32 AM
Indeno (1,2,3-cd) pyrene	ND	2.0		µg/L	1	6/20/2002 12:24:32 AM
Naphthalene	ND	2.0		µg/L	1	6/20/2002 12:24:32 AM
Phenanthrene	ND	2.0		µg/L	1	6/20/2002 12:24.32 AM
Pyrene	ND	2.0		µg/L	1	6/20/2002 12:24:32 AM
Surr: p-Terphenyl	95 2	71.9-113		%REC	1	6/20/2002 12:24:32 AM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit if used

AAC Trinity

Date: *21-Jun-02*

CLIENT:	Toltest, Inc.	**Client Sample ID:**	MW-8
Lab Order:	02-1550	**Collection Date:**	6/12/2002 2:10:00 PM
Project:	41791.01/BLDG. 1600A GREAT LAKES		
Lab ID:	02-1550-08	**Matrix:**	AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS - EPA 8260						Analyst: **ZW**
Benzene	ND	1 0		µg/L	1	6/19/2002 9:57:00 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2002 9:57:00 PM
Methyl-tert-butyl-ether	2.0	5.0	J	µg/L	1	6/19/2002 9:57:00 PM
Toluene	ND	1.0		µg/L	1	6/19/2002 9:57:00 PM
Xylenes (Total)	ND	3.0		µg/L	1	6/19/2002 9:57:00 PM
Surr: 4-Bromofluorobenzene	98.8	85.8-116		%REC	1	6/19/2002 9:57:00 PM
Surr: Dibromofluoromethane	94.4	78.1-132		%REC	1	6/19/2002 9 57:00 PM
Surr: Toluene-d8	90.4	82-115		%REC	1	6/19/2002 9.57:00 PM
POLYNUCLEAR AROMATIC HYDROCARBONS						Analyst: **MB**
2-Methylnaphthalene	ND	2.0		µg/L	1	6/20/2002 12:47:52 AM
Acenaphthene	ND	2.0		µg/L	1	6/20/2002 12:47:52 AM
Acenaphthylene	ND	2.0		µg/L	1	6/20/2002 12:47:52 AM
Anthracene	ND	2.0		µg/L	1	6/20/2002 12:47:52 AM
Benz (a) anthracene	ND	2.0		µg/L	1	6/20/2002 12:47:52 AM
Benzo (a) pyrene	ND	2.0		µg/L	1	6/20/2002 12:47:52 AM
Benzo (g,h,i) perylene	ND	2.0		µg/L	1	6/20/2002 12:47:52 AM
Benzo (k) fluoranthene	ND	2.0		µg/L	1	6/20/2002 12:47:52 AM
Benzo(b)fluoranthene	ND	2.0		µg/L	1	6/20/2002 12:47:52 AM
Chrysene	ND	2.0		µg/L	1	6/20/2002 12:47:52 AM
Dibenz (a,h) anthracene	ND	2 0		µg/L	1	6/20/2002 12:47:52 AM
Fluoranthene	ND	2.0		µg/L	1	6/20/2002 12:47:52 AM
Fluorene	ND	2.0		µg/L	1	6/20/2002 12:47:52 AM
Indeno (1,2,3-cd) pyrene	ND	2.0		µg/L	1	6/20/2002 12:47:52 AM
Naphthalene	ND	2.0		µg/L	1	6/20/2002 12:47:52 AM
Phenanthrene	ND	2.0		µg/L	1	6/20/2002 12:47:52 AM
Pyrene	ND	2.0		µg/L	1	6/20/2002 12:47:52 AM
Surr: p-Terphenyl	81.4	71.9-113		%REC	1	6/20/2002 12:47.52 AM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit if used

AAC Trinity

Date: *21-Jun-02*

CLIENT:	Toltest, Inc.	**Client Sample ID:**	MW-9
Lab Order:	02-1550	**Collection Date:**	6/12/2002 12:30:00 PM
Project:	41791.01/BLDG. 1600A GREAT LAKES		
Lab ID:	02-1550-09	**Matrix:**	AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
LEAD BY EPA METHOD 7421						Analyst: **AV**
Lead	1.0	3.0	J	µg/L	1	6/14/2002
VOLATILE ORGANIC COMPOUNDS - EPA 8260						Analyst: **ZW**
Benzene	ND	1.0		µg/L	1	6/20/2002 12:26:00 PM
Ethylbenzene	ND	1.0		µg/L	1	6/20/2002 12:26:00 PM
Methyl-tert-butyl-ether	ND	5.0		µg/L	1	6/20/2002 12:26:00 PM
Toluene	ND	1.0		µg/L	1	6/20/2002 12:26:00 PM
Xylenes (Total)	ND	3.0		µg/L	1	6/20/2002 12:26:00 PM
Surr: 4-Bromofluorobenzene	105	85.8-116		%REC	1	6/20/2002 12:26:00 PM
Surr: Dibromofluoromethane	97.2	78.1-132		%REC	1	6/20/2002 12:26:00 PM
Surr: Toluene-d8	96.9	82-115		%REC	1	6/20/2002 12:26:00 PM
POLYNUCLEAR AROMATIC HYDROCARBONS						Analyst: **MB**
2-Methylnaphthalene	ND	2.0		µg/L	1	6/20/2002 1:11:13 AM
Acenaphthene	ND	2.0		µg/L	1	6/20/2002 1:11:13 AM
Acenaphthylene	ND	2.0		µg/L	1	6/20/2002 1:11:13 AM
Anthracene	ND	2.0		µg/L	1	6/20/2002 1:11:13 AM
Benz (a) anthracene	ND	2.0		µg/L	1	6/20/2002 1:11:13 AM
Benzo (a) pyrene	ND	2.0		µg/L	1	6/20/2002 1:11:13 AM
Benzo (g,h,i) perylene	ND	2.0		µg/L	1	6/20/2002 1:11:13 AM
Benzo (k) fluoranthene	ND	2.0		µg/L	1	6/20/2002 1:11:13 AM
Benzo(b)fluoranthene	ND	2.0		µg/L	1	6/20/2002 1:11:13 AM
Chrysene	ND	2.0		µg/L	1	6/20/2002 1:11:13 AM
Dibenz (a,h) anthracene	ND	2.0		µg/L	1	6/20/2002 1:11:13 AM
Fluoranthene	ND	2.0		µg/L	1	6/20/2002 1:11:13 AM
Fluorene	ND	2.0		µg/L	1	6/20/2002 1:11:13 AM
Indeno (1,2,3-cd) pyrene	ND	2.0		µg/L	1	6/20/2002 1:11:13 AM
Naphthalene	ND	2.0		µg/L	1	6/20/2002 1:11:13 AM
Phenanthrene	ND	2.0		µg/L	1	6/20/2002 1:11:13 AM
Pyrene	ND	2.0		µg/L	1	6/20/2002 1:11:13 AM
Surr: p-Terphenyl	98.9	71.9-113		%REC	1	6/20/2002 1:11:13 AM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit if used

AAC Trinity

Date: *21-Jun-02*

CLIENT:	Toltest, Inc.	**Client Sample ID:**	MW-10
Lab Order:	02-1550	**Collection Date:**	6/12/2002
Project:	41791.01/BLDG. 1600A GREAT LAKES		
Lab ID:	02-1550-10	**Matrix:**	AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS - EPA 8260						Analyst: **ZW**
Benzene	ND	1.0		µg/L	1	6/20/2002 7.49:00 AM
Ethylbenzene	ND	1.0		µg/L	1	6/20/2002 7.49:00 AM
Methyl-tert-butyl-ether	2.0	5.0	J	µg/L	1	6/20/2002 7:49:00 AM
Toluene	ND	1.0		µg/L	1	6/20/2002 7.49:00 AM
Xylenes (Total)	2.0	3.0	J	µg/L	1	6/20/2002 7:49:00 AM
Surr: 4-Bromofluorobenzene	105	85.8-116		%REC	1	6/20/2002 7:49:00 AM
Surr: Dibromofluoromethane	108	78.1-132		%REC	1	6/20/2002 7:49:00 AM
Surr: Toluene-d8	89.6	82-115		%REC	1	6/20/2002 7·49:00 AM
POLYNUCLEAR AROMATIC HYDROCARBONS						Analyst: **MB**
2-Methylnaphthalene	ND	2.0		µg/L	1	6/20/2002 1:34:31 AM
Acenaphthene	ND	2.0		µg/L	1	6/20/2002 1:34:31 AM
Acenaphthylene	ND	2.0		µg/L	1	6/20/2002 1:34:31 AM
Anthracene	ND	2.0		µg/L	1	6/20/2002 1:34:31 AM
Benz (a) anthracene	ND	2.0		µg/L	1	6/20/2002 1:34:31 AM
Benzo (a) pyrene	ND	2.0		µg/L	1	6/20/2002 1:34:31 AM
Benzo (g,h,i) perylene	ND	2.0		µg/L	1	6/20/2002 1:34:31 AM
Benzo (k) fluoranthene	ND	2.0		µg/L	1	6/20/2002 1:34:31 AM
Benzo(b)fluoranthene	ND	2.0		µg/L	1	6/20/2002 1:34:31 AM
Chrysene	ND	2.0		µg/L	1	6/20/2002 1:34:31 AM
Dibenz (a,h) anthracene	ND	2.0		µg/L	1	6/20/2002 1:34:31 AM
Fluoranthene	ND	2.0		µg/L	1	6/20/2002 1:34:31 AM
Fluorene	ND	2.0		µg/L	1	6/20/2002 1:34:31 AM
Indeno (1,2,3-cd) pyrene	ND	2.0		µg/L	1	6/20/2002 1:34:31 AM
Naphthalene	ND	2.0		µg/L	1	6/20/2002 1:34:31 AM
Phenanthrene	ND	2.0		µg/L	1	6/20/2002 1:34:31 AM
Pyrene	ND	2.0		µg/L	1	6/20/2002 1:34:31 AM
Surr: p-Terphenyl	92.3	71.9-113		%REC	1	6/20/2002 1.34:31 AM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit if used

SEVERN TRENT SERVICES

Job Number: 208358

LABORATORY TEST RESULTS

Date:03/14/2002

CUSTOMER: TolTest, Inc. PROJECT: BLDG 1600A ATTN: Khush Nander

Customer Sample ID: MW-1
Date Sampled.....: 02/25/2002
Time Sampled.....: 09:30
Sample Matrix.....: Water

Laboratory Sample ID: 208358-1
Date Received.....: 02/26/2002
Time Received.....: 10:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8021B	GC Volatile (Aromatics)											
	Benzene	1.0	U		0.21	1.0	1.00000	ug/L	45963		02/26/02 1643	jda
	Ethylbenzene	1.0	U		0.20	1.0	1.00000	ug/L	45963		02/26/02 1643	jda
	Toluene	1.0	U		0.21	1.0	1.00000	ug/L	45963		02/26/02 1643	jda
	Xylenes (total)	1.0	U		0.42	1.0	1.00000	ug/L	45963		02/26/02 1643	jda
	Methyl-tert-butyl-ether (MTBE)	1.0	U		0.25	1.0	1.00000	ug/L	45963		02/26/02 1643	jda
8310	Polynuclear Aromatic Hydrocarbons (HPLC)											
	Naphthalene	1.2	U		0.48	1.2	1.00000	ug/L	46891		03/13/02 2345	bdw
	Acenaphthylene	1.2	U		0.37	1.2	1.00000	ug/L	46891		03/13/02 2345	bdw
	Acenaphthene	2.4	U		0.82	2.4	1.00000	ug/L	46891		03/13/02 2345	bdw
	Fluorene	0.24	U		0.054	0.24	1.00000	ug/L	46891		03/13/02 2345	bdw
	Phenanthrene	0.095	U		0.042	0.095	1.00000	ug/L	46891		03/13/02 2345	bdw
	Anthracene	0.048	U		0.0095	0.048	1.00000	ug/L	46891		03/13/02 2345	bdw
	Fluoranthene	0.12	U		0.036	0.12	1.00000	ug/L	46891		03/13/02 2345	bdw
	Pyrene	0.24	U		0.095	0.24	1.00000	ug/L	46891		03/13/02 2345	bdw
	Benzo(a)anthracene	0.12	U		0.015	0.12	1.00000	ug/L	46891		03/13/02 2345	bdw
	Chrysene	0.12	U		0.021	0.12	1.00000	ug/L	46891		03/13/02 2345	bdw
	Benzo(b)fluoranthene	0.048	U		0.034	0.048	1.00000	ug/L	46891		03/13/02 2345	bdw
	Benzo(k)fluoranthene	0.048	U		0.026	0.048	1.00000	ug/L	46891		03/13/02 2345	bdw
	Benzo(a)pyrene	0.12	U		0.027	0.12	1.00000	ug/L	46891		03/13/02 2345	bdw
	Dibenzo(a,h)anthracene	0.29	U		0.066	0.29	1.00000	ug/L	46891		03/13/02 2345	bdw
	Benzo(ghi)perylene	0.19	U		0.066	0.19	1.00000	ug/L	46891		03/13/02 2345	bdw
	Indeno(1,2,3-cd)pyrene	0.12	U		0.017	0.12	1.00000	ug/L	46891		03/13/02 2345	bdw
7421	Lead (GFAA)											
	Lead	2.1			2.0	2.0	1	ug/L	46137		03/01/02 1613	daj

* In Description = Dry Wgt.

SEVERN TRENT SERVICES

Job Number: 208358

LABORATORY TEST RESULTS

Date:03/14/2002

CUSTOMER: TolTest, Inc. PROJECT: BLDG 1600A ATTN: Khush Mander

Customer Sample ID: MW-2
Date Sampled.....: 02/25/2002
Time Sampled.....: 10:03
Sample Matrix.....: Water

Laboratory Sample ID: 208358-2
Date Received.....: 02/26/2002
Time Received.....: 10:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8021B	GC Volatile (Aromatics)											
	Benzene	76			2.1	10	10.0000	ug/L	45963		02/26/02 1719	jda
	Ethylbenzene	720			20	100	100.000	ug/L	45963	D1	02/27/02 0907	jda
	Toluene	230			2.1	10	10.0000	ug/L	45963		02/26/02 1719	jda
	Xylenes (total)	1200			4.2	10	10.0000	ug/L	45963		02/26/02 1719	jda
	Methyl-tert-butyl-ether (MTBE)	110			2.5	10	10.0000	ug/L	45963		02/26/02 1719	jda
8310	Polynuclear Aromatic Hydrocarbons (HPLC)											
	Naphthalene	98			4.9	13	10.0000	ug/L	46891	D1	03/14/02 0108	bdw
	Acenaphthylene	62			3.8	13	10.0000	ug/L	46891	D1	03/14/02 0108	bdw
	Acenaphthene	20			0.83	2.4	1.00000	ug/L	46891		03/14/02 0027	bdw
	Fluorene	1.0			0.055	0.24	1.00000	ug/L	46891		03/14/02 0027	bdw
	Phenanthrene	0.097	U		0.043	0.097	1.00000	ug/L	46891		03/14/02 0027	bdw
	Anthracene	0.049	U		0.0097	0.049	1.00000	ug/L	46891		03/14/02 0027	bdw
	Fluoranthene	0.13	U		0.037	0.13	1.00000	ug/L	46891		03/14/02 0027	bdw
	Pyrene	0.24	U		0.097	0.24	1.00000	ug/L	46891		03/14/02 0027	bdw
	Benzo(a)anthracene	0.13	U		0.016	0.13	1.00000	ug/L	46891		03/14/02 0027	bdw
	Chrysene	0.13	U		0.021	0.13	1.00000	ug/L	46891		03/14/02 0027	bdw
	Benzo(b)fluoranthene	0.049	U		0.035	0.049	1.00000	ug/L	46891		03/14/02 0027	bdw
	Benzo(k)fluoranthene	0.049	U		0.026	0.049	1.00000	ug/L	46891		03/14/02 0027	bdw
	Benzo(a)pyrene	0.13	U		0.027	0.13	1.00000	ug/L	46891		03/14/02 0027	bdw
	Dibenzo(a,h)anthracene	0.29	U		0.067	0.29	1.00000	ug/L	46891		03/14/02 0027	bdw
	Benzo(ghi)perylene	0.19	U		0.067	0.19	1.00000	ug/L	46891		03/14/02 0027	bdw
	Indeno(1,2,3-cd)pyrene	0.13	U		0.017	0.13	1.00000	ug/L	46891		03/14/02 0027	bdw
7421	Lead (GFAA)											
	Lead	2.0	U		2.0	2.0	1	ug/L	46137		03/01/02 1717	daj

* In Description = Dry Wgt.

SEVERN TRENT SERVICES

Job Number: 208358

LABORATORY TEST RESULTS

Date:03/14/2002

CUSTOMER: TolTest, Inc. PROJECT: BLDG 1600A ATTN: Khush Mander

Customer Sample ID: MW-3
Date Sampled.....: 02/25/2002
Time Sampled.....: 10:38
Sample Matrix.....: Water

Laboratory Sample ID: 208358-3
Date Received.....: 02/26/2002
Time Received.....: 10:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8021B	GC Volatile (Aromatics)											
	Benzene	1.0	U		0.21	1.0	1.00000	ug/L	45963		02/26/02 1756	jda
	Ethylbenzene	4.4			0.20	1.0	1.00000	ug/L	45963		02/26/02 1756	jda
	Toluene	0.78	J		0.21	1.0	1.00000	ug/L	45963		02/26/02 1756	jda
	Xylenes (total)	7.6			0.42	1.0	1.00000	ug/L	45963		02/26/02 1756	jda
	Methyl-tert-butyl-ether (MTBE)	45			0.25	1.0	1.00000	ug/L	45963		02/26/02 1756	jda
8310	Polynuclear Aromatic Hydrocarbons (HPLC)											
	Naphthalene	0.96	J	a	0.49	1.3	1.00000	ug/L	46891		03/14/02 0149	bdw
	Acenaphthylene	1.3	U		0.38	1.3	1.00000	ug/L	46891		03/14/02 0149	bdw
	Acenaphthene	2.5	U		0.84	2.5	1.00000	ug/L	46891		03/14/02 0149	bdw
	Fluorene	0.25	U		0.056	0.25	1.00000	ug/L	46891		03/14/02 0149	bdw
	Phenanthrene	0.098	U		0.043	0.098	1.00000	ug/L	46891		03/14/02 0149	bdw
	Anthracene	0.049	U		0.0098	0.049	1.00000	ug/L	46891		03/14/02 0149	bdw
	Fluoranthene	0.13	U		0.037	0.13	1.00000	ug/L	46891		03/14/02 0149	bdw
	Pyrene	0.25	U		0.098	0.25	1.00000	ug/L	46891		03/14/02 0149	bdw
	Benzo(a)anthracene	0.13	U		0.016	0.13	1.00000	ug/L	46891		03/14/02 0149	bdw
	Chrysene	0.13	U		0.022	0.13	1.00000	ug/L	46891		03/14/02 0149	bdw
	Benzo(b)fluoranthene	0.049	U		0.035	0.049	1.00000	ug/L	46891		03/14/02 0149	bdw
	Benzo(k)fluoranthene	0.049	U		0.026	0.049	1.00000	ug/L	46891		03/14/02 0149	bdw
	Benzo(a)pyrene	0.13	U		0.027	0.13	1.00000	ug/L	46891		03/14/02 0149	bdw
	Dibenzo(a,h)anthracene	0.29	U		0.068	0.29	1.00000	ug/L	46891		03/14/02 0149	bdw
	Benzo(ghi)perylene	0.20	U		0.068	0.20	1.00000	ug/L	46891		03/14/02 0149	bdw
	Indeno(1,2,3-cd)pyrene	0.13	U		0.018	0.13	1.00000	ug/L	46891		03/14/02 0149	bdw
7421	Lead (GFAA)											
	Lead	2.0	U		2.0	2.0	1	ug/L	46137		03/01/02 1729	daj

* In Description = Dry Wgt.

SEVERN TRENT SERVICES

Job Number: 208358

LABORATORY TEST RESULTS

Date:03/14/2002

CUSTOMER: TolTest, Inc. PROJECT: BLDG 1600A ATTN: Khush Mander

Customer Sample ID: MW-4
Date Sampled.....: 02/25/2002
Time Sampled.....: 12:04
Sample Matrix.....: Water

Laboratory Sample ID: 208358-4
Date Received.....: 02/26/2002
Time Received.....: 10:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8021B	GC Volatile (Aromatics)											
	Benzene	82			2.1	10	10.0000	ug/L	45963	D1	02/27/02 0943	jda
	Ethylbenzene	900			20	100	100.000	ug/L	45963	D2	02/27/02 1202	jda
	Toluene	67			2.1	10	10.0000	ug/L	45963	D1	02/27/02 0943	jda
	Xylenes (total)	990			4.2	10	10.0000	ug/L	45963	D1	02/27/02 0943	jda
	Methyl-tert-butyl-ether (MTBE)	18			0.25	1.0	1.00000	ug/L	45963		02/26/02 1908	jda
8310	Polynuclear Aromatic Hydrocarbons (HPLC)											
	Naphthalene	22			0.47	1.2	1.00000	ug/L	46891		03/14/02 0230	bdw
	Acenaphthylene	8.5			0.36	1.2	1.00000	ug/L	46891		03/14/02 0230	bdw
	Acenaphthene	2.3	U		0.80	2.3	1.00000	ug/L	46891		03/14/02 0230	bdw
	Fluorene	0.23	U		0.053	0.23	1.00000	ug/L	46891		03/14/02 0230	bdw
	Phenanthrene	0.093	U		0.041	0.093	1.00000	ug/L	46891		03/14/02 0230	bdw
	Anthracene	0.047	U		0.0093	0.047	1.00000	ug/L	46891		03/14/02 0230	bdw
	Fluoranthene	0.12	U		0.036	0.12	1.00000	ug/L	46891		03/14/02 0230	bdw
	Pyrene	0.23	U		0.093	0.23	1.00000	ug/L	46891		03/14/02 0230	bdw
	Benzo(a)anthracene	0.12	U		0.015	0.12	1.00000	ug/L	46891		03/14/02 0230	bdw
	Chrysene	0.12	U		0.021	0.12	1.00000	ug/L	46891		03/14/02 0230	bdw
	Benzo(b)fluoranthene	0.047	U		0.034	0.047	1.00000	ug/L	46891		03/14/02 0230	bdw
	Benzo(k)fluoranthene	0.047	U		0.025	0.047	1.00000	ug/L	46891		03/14/02 0230	bdw
	Benzo(a)pyrene	0.12	U		0.026	0.12	1.00000	ug/L	46891		03/14/02 0230	bdw
	Dibenzo(a,h)anthracene	0.28	U		0.064	0.28	1.00000	ug/L	46891		03/14/02 0230	bdw
	Benzo(ghi)perylene	0.19	U		0.064	0.19	1.00000	ug/L	46891		03/14/02 0230	bdw
	Indeno(1,2,3-cd)pyrene	0.12	U		0.017	0.12	1.00000	ug/L	46891		03/14/02 0230	bdw

* In Description = Dry Wgt.

SEVERN TRENT SERVICES

Job Number: 20835B

LABORATORY TEST RESULTS

Date: 03/14/2002

CUSTOMER: TolTest, Inc. PROJECT: BLDG 1600A ATTN: Khush Mander

Customer Sample ID: MW-5
Date Sampled.....: 02/25/2002
Time Sampled.....: 12:20
Sample Matrix.....: Water

Laboratory Sample ID: 20835B-5
Date Received.....: 02/26/2002
Time Received.....: 10:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8021B	GC Volatile (Aromatics)											
	Benzene	0.70	J	a	0.21	1.0	1.00000	ug/L	45963		02/26/02 1944	jda
	Ethylbenzene	3.5			0.20	1.0	1.00000	ug/L	45963		02/26/02 1944	jda
	Toluene	0.35	J	a	0.21	1.0	1.00000	ug/L	45963		02/26/02 1944	jda
	Xylenes (total)	6.3			0.42	1.0	1.00000	ug/L	45963		02/26/02 1944	jda
	Methyl-tert-butyl-ether (MTBE)	4.6			0.25	1.0	1.00000	ug/L	45963		02/26/02 1944	jda
8310	Polynuclear Aromatic Hydrocarbons (HPLC)											
	Naphthalene	1.2	U		0.46	1.2	1.00000	ug/L	46891		03/14/02 0311	bdw
	Acenaphthylene	1.2	U		0.36	1.2	1.00000	ug/L	46891		03/14/02 0311	bdw
	Acenaphthene	2.3	U		0.79	2.3	1.00000	ug/L	46891		03/14/02 0311	bdw
	Fluorene	0.23	U		0.052	0.23	1.00000	ug/L	46891		03/14/02 0311	bdw
	Phenanthrene	0.092	U		0.040	0.092	1.00000	ug/L	46891		03/14/02 0311	bdw
	Anthracene	0.046	U		0.0092	0.046	1.00000	ug/L	46891		03/14/02 0311	bdw
	Fluoranthene	0.12	U		0.035	0.12	1.00000	ug/L	46891		03/14/02 0311	bdw
	Pyrene	0.23	U		0.092	0.23	1.00000	ug/L	46891		03/14/02 0311	bdw
	Benzo(a)anthracene	0.12	U		0.015	0.12	1.00000	ug/L	46891		03/14/02 0311	bdw
	Chrysene	0.12	U		0.020	0.12	1.00000	ug/L	46891		03/14/02 0311	bdw
	Benzo(b)fluoranthene	0.046	U		0.033	0.046	1.00000	ug/L	46891		03/14/02 0311	bdw
	Benzo(k)fluoranthene	0.046	U		0.025	0.046	1.00000	ug/L	46891		03/14/02 0311	bdw
	Benzo(a)pyrene	0.12	U		0.026	0.12	1.00000	ug/L	46891		03/14/02 0311	bdw
	Dibenzo(a,h)anthracene	0.28	U		0.063	0.28	1.00000	ug/L	46891		03/14/02 0311	bdw
	Benzo(ghi)perylene	0.18	U		0.063	0.18	1.00000	ug/L	46891		03/14/02 0311	bdw
	Indeno(1,2,3-cd)pyrene	0.12	U		0.017	0.12	1.00000	ug/L	46891		03/14/02 0311	bdw

* In Description = Dry Wgt.

SEVERN TRENT SERVICES

LABORATORY TEST RESULTS

Job Number: 208358

Date:03/14/2002

CUSTOMER: TolTest, Inc. PROJECT: BLOG 1600A ATTN: Khush Mander

Customer Sample ID: MW-6
Date Sampled.....: 02/25/2002
Time Sampled.....: 12:47
Sample Matrix.....: Water

Laboratory Sample ID: 208358-6
Date Received.....: 02/26/2002
Time Received.....: 10:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8021B	GC Volatile (Aromatics)											
	Benzene	0.25	J	a	0.21	1.0	1.00000	ug/L	45963		02/26/02 2021	jda
	Ethylbenzene	1.5			0.20	1.0	1.00000	ug/L	45963		02/26/02 2021	jda
	Toluene	0.46	J	a	0.21	1.0	1.00000	ug/L	45963		02/26/02 2021	jda
	Xylenes (total)	2.8			0.42	1.0	1.00000	ug/L	45963		02/26/02 2021	jda
	Methyl-tert-butyl-ether (MTBE)	0.49	J	a	0.25	1.0	1.00000	ug/L	45963		02/26/02 2021	jda
8310	Polynuclear Aromatic Hydrocarbons (HPLC)											
	Naphthalene	1.2	U		0.46	1.2	1.00000	ug/L	46891		03/14/02 0353	bdw
	Acenaphthylene	1.2	U		0.36	1.2	1.00000	ug/L	46891		03/14/02 0353	bdw
	Acenaphthene	2.3	U		0.80	2.3	1.00000	ug/L	46891		03/14/02 0353	bdw
	Fluorene	0.23	U		0.053	0.23	1.00000	ug/L	46891		03/14/02 0353	bdw
	Phenanthrene	0.093	U		0.041	0.093	1.00000	ug/L	46891		03/14/02 0353	bdw
	Anthracene	0.046	U		0.0093	0.046	1.00000	ug/L	46891		03/14/02 0353	bdw
	Fluoranthene	0.12	U		0.035	0.12	1.00000	ug/L	46891		03/14/02 0353	bdw
	Pyrene	0.23	U		0.093	0.23	1.00000	ug/L	46891		03/14/02 0353	bdw
	Benzo(a)anthracene	0.12	U		0.015	0.12	1.00000	ug/L	46891		03/14/02 0353	bdw
	Chrysene	0.12	U		0.020	0.12	1.00000	ug/L	46891		03/14/02 0353	bdw
	Benzo(b)fluoranthene	0.046	U		0.033	0.046	1.00000	ug/L	46891		03/14/02 0353	bdw
	Benzo(k)fluoranthene	0.046	U		0.025	0.046	1.00000	ug/L	46891		03/14/02 0353	bdw
	Benzo(a)pyrene	0.12	U		0.026	0.12	1.00000	ug/L	46891		03/14/02 0353	bdw
	Dibenzo(a,h)anthracene	0.28	U		0.064	0.28	1.00000	ug/L	46891		03/14/02 0353	bdw
	Benzo(ghi)perylene	0.19	U		0.064	0.19	1.00000	ug/L	46891		03/14/02 0353	bdw
	Indeno(1,2,3-cd)pyrene	0.12	U		0.017	0.12	1.00000	ug/L	46891		03/14/02 0353	bdw

* In Description = Dry Wgt.

SEVERN TRENT SERVICES

Job Number: 208358

LABORATORY TEST RESULTS

Date:03/14/2002

CUSTOMER: TolTest, Inc. PROJECT: BLDG 1600A ATTN: Khush Mander

Customer Sample ID: MW-7
Date Sampled.....: 02/25/2002
Time Sampled.....: 13:45
Sample Matrix.....: Water

Laboratory Sample ID: 208358-7
Date Received.....: 02/26/2002
Time Received.....: 10:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8021B	GC Volatile (Aromatics)											
	Benzene	1.0	U		0.21	1.0	1.00000	ug/L	45963		02/26/02 2057	jda
	Ethylbenzene	1.2			0.20	1.0	1.00000	ug/L	45963		02/26/02 2057	jda
	Toluene	1.0	U		0.21	1.0	1.00000	ug/L	45963		02/26/02 2057	jda
	Xylenes (total)	2.2			0.42	1.0	1.00000	ug/L	45963		02/26/02 2057	jda
	Methyl-tert-butyl-ether (MTBE)	1.0	U		0.25	1.0	1.00000	ug/L	45963		02/26/02 2057	jda
8310	Polynuclear Aromatic Hydrocarbons (HPLC)											
	Naphthalene	1.2	U		0.46	1.2	1.00000	ug/L	46891		03/14/02 0515	bdw
	Acenaphthylene	1.2	U		0.36	1.2	1.00000	ug/L	46891		03/14/02 0515	bdw
	Acenaphthene	2.3	U		0.80	2.3	1.00000	ug/L	46891		03/14/02 0515	bdw
	Fluorene	0.23	U		0.053	0.23	1.00000	ug/L	46891		03/14/02 0515	bdw
	Phenanthrene	0.093	U		0.041	0.093	1.00000	ug/L	46891		03/14/02 0515	bdw
	Anthracene	0.046	U		0.0093	0.046	1.00000	ug/L	46891		03/14/02 0515	bdw
	Fluoranthene	0.12	U		0.035	0.12	1.00000	ug/L	46891		03/14/02 0515	bdw
	Pyrene	0.23	U		0.093	0.23	1.00000	ug/L	46891		03/14/02 0515	bdw
	Benzo(a)anthracene	0.12	U		0.015	0.12	1.00000	ug/L	46891		03/14/02 0515	bdw
	Chrysene	0.12	U		0.020	0.12	1.00000	ug/L	46891		03/14/02 0515	bdw
	Benzo(b)fluoranthene	0.046	U		0.033	0.046	1.00000	ug/L	46891		03/14/02 0515	bdw
	Benzo(k)fluoranthene	0.046	U		0.025	0.046	1.00000	ug/L	46891		03/14/02 0515	bdw
	Benzo(a)pyrene	0.12	U		0.026	0.12	1.00000	ug/L	46891		03/14/02 0515	bdw
	Dibenzo(a,h)anthracene	0.28	U		0.064	0.28	1.00000	ug/L	46891		03/14/02 0515	bdw
	Benzo(ghi)perylene	0.19	U		0.064	0.19	1.00000	ug/L	46891		03/14/02 0515	bdw
	Indeno(1,2,3-cd)pyrene	0.12	U		0.017	0.12	1.00000	ug/L	46891		03/14/02 0515	bdw

* In Description = Dry Wgt.

SEVERN TRENT SERVICES

Job Number: 208358

LABORATORY TEST RESULTS

Date:03/14/2002

CUSTOMER: Toltest, Inc. PROJECT: BLDG 1600A ATTN: Khush Mander

Customer Sample ID: MW-8
Date Sampled.....: 02/25/2002
Time Sampled.....: 11:28
Sample Matrix.....: Water

Laboratory Sample ID: 208358-8
Date Received.....: 02/26/2002
Time Received.....: 10:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8021B	GC Volatile (Aromatics)											
	Benzene	5.8			0.21	1.0	1.00000	ug/L	45963		02/26/02 2133	jda
	Ethylbenzene	1.4			0.20	1.0	1.00000	ug/L	45963		02/26/02 2133	jda
	Toluene	0.33	J	a	0.21	1.0	1.00000	ug/L	45963		02/26/02 2133	jda
	Xylenes (total)	2.3			0.42	1.0	1.00000	ug/L	45963		02/26/02 2133	jda
	Methyl-tert-butyl-ether (MTBE)	3.0			0.25	1.0	1.00000	ug/L	45963		02/26/02 2133	jda
8310	Polynuclear Aromatic Hydrocarbons (HPLC)											
	Naphthalene	1.2	U		0.47	1.2	1.00000	ug/L	46891		03/14/02 0556	bdw
	Acenaphthylene	1.2	U		0.36	1.2	1.00000	ug/L	46891		03/14/02 0556	bdw
	Acenaphthene	2.3	U		0.80	2.3	1.00000	ug/L	46891		03/14/02 0556	bdw
	Fluorene	0.23	U		0.053	0.23	1.00000	ug/L	46891		03/14/02 0556	bdw
	Phenanthrene	0.093	U		0.041	0.093	1.00000	ug/L	46891		03/14/02 0556	bdw
	Anthracene	0.047	U		0.0093	0.047	1.00000	ug/L	46891		03/14/02 0556	bdw
	Fluoranthene	0.12	U		0.036	0.12	1.00000	ug/L	46891		03/14/02 0556	bdw
	Pyrene	0.23	U		0.093	0.23	1.00000	ug/L	46891		03/14/02 0556	bdw
	Benzo(a)anthracene	0.12	U		0.015	0.12	1.00000	ug/L	46891		03/14/02 0556	bdw
	Chrysene	0.12	U		0.021	0.12	1.00000	ug/L	46891		03/14/02 0556	bdw
	Benzo(b)fluoranthene	0.047	U		0.034	0.047	1.00000	ug/L	46891		03/14/02 0556	bdw
	Benzo(k)fluoranthene	0.047	U		0.025	0.047	1.00000	ug/L	46891		03/14/02 0556	bdw
	Benzo(a)pyrene	0.12	U		0.026	0.12	1.00000	ug/L	46891		03/14/02 0556	bdw
	Dibenzo(a,h)anthracene	0.28	U		0.064	0.28	1.00000	ug/L	46891		03/14/02 0556	bdw
	Benzo(ghi)perylene	0.19	U		0.064	0.19	1.00000	ug/L	46891		03/14/02 0556	bdw
	Indeno(1,2,3-cd)pyrene	0.12	U		0.017	0.12	1.00000	ug/L	46891		03/14/02 0556	bdw

* In Description = Dry Wgt.

SEVERN TRENT SERVICES

LABORATORY TEST RESULTS

Job Number: 208358

Date:03/14/2002

CUSTOMER: TolTest, Inc. PROJECT: BLDG 1600A ATTN: Khush Hander

Customer Sample ID: MW-9
Date Sampled.....: 02/25/2002
Time Sampled.....: 09:00
Sample Matrix.....: Water

Laboratory Sample ID: 208358-9
Date Received.....: 02/26/2002
Time Received.....: 10:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8021B	GC Volatile (Aromatics)											
	Benzene	1.0	U		0.21	1.0	1.00000	ug/L	45963		02/26/02 2210	jda
	Ethylbenzene	1.0	U		0.20	1.0	1.00000	ug/L	45963		02/26/02 2210	jda
	Toluene	1.0	U		0.21	1.0	1.00000	ug/L	45963		02/26/02 2210	jda
	Xylenes (total)	1.0	U		0.42	1.0	1.00000	ug/L	45963		02/26/02 2210	jda
	Methyl-tert-butyl-ether (MTBE)	1.0	U		0.25	1.0	1.00000	ug/L	45963		02/26/02 2210	jda
8310	Polynuclear Aromatic Hydrocarbons (HPLC)											
	Naphthalene	1.2	U		0.46	1.2	1.00000	ug/L	46891		03/14/02 0637	bdw
	Acenaphthylene	1.2	U		0.36	1.2	1.00000	ug/L	46891		03/14/02 0637	bdw
	Acenaphthene	2.3	U		0.80	2.3	1.00000	ug/L	46891		03/14/02 0637	bdw
	Fluorene	0.13	J	a	0.053	0.23	1.00000	ug/L	46891		03/14/02 0637	bdw
	Phenanthrene	0.093	U		0.041	0.093	1.00000	ug/L	46891		03/14/02 0637	bdw
	Anthracene	0.046	U		0.0093	0.046	1.00000	ug/L	46891		03/14/02 0637	bdw
	Fluoranthene	0.12	U		0.035	0.12	1.00000	ug/L	46891		03/14/02 0637	bdw
	Pyrene	0.23	U		0.093	0.23	1.00000	ug/L	46891		03/14/02 0637	bdw
	Benzo(a)anthracene	0.12	U		0.015	0.12	1.00000	ug/L	46891		03/14/02 0637	bdw
	Chrysene	0.12	U		0.020	0.12	1.00000	ug/L	46891		03/14/02 0637	bdw
	Benzo(b)fluoranthene	0.046	U		0.033	0.046	1.00000	ug/L	46891		03/14/02 0637	bdw
	Benzo(k)fluoranthene	0.046	U		0.025	0.046	1.00000	ug/L	46891		03/14/02 0637	bdw
	Benzo(a)pyrene	0.12	U		0.026	0.12	1.00000	ug/L	46891		03/14/02 0637	bdw
	Dibenzo(a,h)anthracene	0.28	U		0.064	0.28	1.00000	ug/L	46891		03/14/02 0637	bdw
	Benzo(ghi)perylene	0.19	U		0.064	0.19	1.00000	ug/L	46891		03/14/02 0637	bdw
	Indeno(1,2,3-cd)pyrene	0.12	U		0.017	0.12	1.00000	ug/L	46891		03/14/02 0637	bdw
7421	Lead (GFAA)											
	Lead	2.0	U		2.0	2.0	1	ug/L	46137		03/01/02 1754	daj

* In Description = Dry Wgt.

SEVERN TRENT SERVICES

LABORATORY TEST RESULTS

Job Number: 208358

Date: 03/14/2002

CUSTOMER: TolTest, Inc. PROJECT: BLDG 1600A ATTN: Khush Mander

Customer Sample ID: MW-10
Date Sampled.....: 02/25/2002
Time Sampled.....: 14:10
Sample Matrix.....: Water

Laboratory Sample ID: 208358-10
Date Received.....: 02/26/2002
Time Received.....: 10:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8021B	GC Volatile (Aromatics)											
	Benzene	71			2.1	10	10.0000	ug/L	45963		02/26/02 2246	jda
	Ethylbenzene	700			20	100	100.000	ug/L	45963	D1	02/27/02 1019	jda
	Toluene	220			2.1	10	10.0000	ug/L	45963		02/26/02 2246	jda
	Xylenes (total)	1100			4.2	10	10.0000	ug/L	45963		02/26/02 2246	jda
	Methyl-tert-butyl-ether (MTBE)	95			2.5	10	10.0000	ug/L	45963		02/26/02 2246	jda
8310	Polynuclear Aromatic Hydrocarbons (HPLC)											
	Naphthalene	100			4.6	12	10.0000	ug/L	46891	D1	03/14/02 0800	bdw
	Acenaphthylene	67			3.6	12	10.0000	ug/L	46891	D1	03/14/02 0800	bdw
	Acenaphthene	24			0.80	2.3	1.00000	ug/L	46891		03/14/02 0719	bdw
	Fluorene	1.1			0.053	0.23	1.00000	ug/L	46891		03/14/02 0719	bdw
	Phenanthrene	0.093	U		0.041	0.093	1.00000	ug/L	46891		03/14/02 0719	bdw
	Anthracene	0.046	U		0.0093	0.046	1.00000	ug/L	46891		03/14/02 0719	bdw
	Fluoranthene	0.12	U		0.035	0.12	1.00000	ug/L	46891		03/14/02 0719	bdw
	Pyrene	0.23	U		0.093	0.23	1.00000	ug/L	46891		03/14/02 0719	bdw
	Benzo(a)anthracene	0.12	U		0.015	0.12	1.00000	ug/L	46891		03/14/02 0719	bdw
	Chrysene	0.12	U		0.020	0.12	1.00000	ug/L	46891		03/14/02 0719	bdw
	Benzo(b)fluoranthene	0.046	U		0.033	0.046	1.00000	ug/L	46891		03/14/02 0719	bdw
	Benzo(k)fluoranthene	0.046	U		0.025	0.046	1.00000	ug/L	46891		03/14/02 0719	bdw
	Benzo(a)pyrene	0.12	U		0.026	0.12	1.00000	ug/L	46891		03/14/02 0719	bdw
	Dibenzo(a,h)anthracene	0.28	U		0.064	0.28	1.00000	ug/L	46891		03/14/02 0719	bdw
	Benzo(ghi)perylene	0.19	U		0.064	0.19	1.00000	ug/L	46891		03/14/02 0719	bdw
	Indeno(1,2,3-cd)pyrene	0.12	U		0.017	0.12	1.00000	ug/L	46891		03/14/02 0719	bdw

* In Description = Dry Wgt.

SEVERN TRENT SERVICES

STL Chicago
117 Bond Street
University Park, IL 60466
Phone: 708-534-5200
Fax: 708-534-5211

Report To:

Contact: Mr. Khush Mander
Company: Tol Test, Inc
Address: 1000 NorPoint Blvd.
Waukegan, IL 60085
Phone: 847 689-0697
Fax: 847 689-0698
E-Mail:

Bill To:

Contact:
Company: Tol Test, Inc.
Address: 1915 N. 12th St.
PO Box 2104, Toledo, OH 43603
Phone: 419 241-7175
Fax:
PO#: Quote:

Shaded Areas For Internal Use Only — of 1

Lab Lot# 206358

Package Sealed	Samples Sealed
(Yes) No	Yes (No)
Received on Ic	**Samples Intact**
(Yes) No	(Yes) No

Temperature °C of Cooler (4.4) (4.6)

Within Hold Time	Preserv. Indicated
(Yes) No	(Yes) N NA
pH Check OK	**Res Cl_2 Check OK**
(Yes) No NA	(Yes) No NA

Sample Labels and COC Agree (Yes) No COC not present

Sampler Name: Timothy J. Boss
Signature: Timothy J. Boss
Project Name: Bldg Kaiser
Project Number: 41791.01
Project Location: OLNTC
Lab PM:
Date Required — Hard Copy: __/__/__ Fax: __/__/__

Lab ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	PNAs	BTEX + MTBE	Total Pb								Additional Analyses / Remarks
1		MW-1	2/25	0930	W	G	X	X	X								
2		MW-2	2/25	1003	W	G	X	X	X								
3		MW-3	2/25	1038	W	G	X	X	X								
4		MW-4	2/25	1204	W	G	X	X									
5		MW-5	2/25	1220	W	G	X	X									
6		MW-6	2/25	1247	W	G	X	X									
7		MW-7	2/25	1345	W	G	X	X									
8		MW-8	2/25	1128	W	G	X	X	~~X~~								No Pb
9		MW-9	2/25	0900	W	G	X	X	X								
10		MW-10	2/25	1410	W	G	X	X									

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
Timothy J. Boss	Tol Test			[illegible]	STL	02/26/02	1000
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O = _____

Container Key
1. Plastic
2. VOA Vial
3. Sterile Plastic
4. Amber Glass
5. Widemouth Glass
6. Other _____

Preservative Key
1. HCl, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. Cool to 4°
7. None

COMMENTS

Date Received 02/26/02
Courier:
Hand Delivered (X)
Bill of Lading

JAN-30-03 02:52PM FROM-Tol Test Inc. +419-321-6259 T-564 P 029/029 F-060

aea laboratories inc.

Toltest, Inc.
1000 Northpointe Bldv.
Waukegan, IL 60085
Fax: (847) 689-0698
Attn: Khush Mander

First Lab Number: 01110675
Sample Matrix: water
Project Name: Bldg. 1600A, GLNB
Project No.: 41791.01

Sampled: 11/29/01
Received: 11/30/01
Date Reported: 12/07/01

ANALYTICAL REPORT

Lab Number	01110675-01		
Field ID	MW-1		
Compound	Result mg/L	Reporting Limit mg/L	Regulatory Limits
Lead by SW7421	< 0.003	0.003	0.0075
BTEX by 8021B	---	---	---
Benzene	< 0.004	0.004	0.005
Ethylbenzene	< 0.003	0.003	0.7
Methyl ter-butyl ether	< 0.005	0.005	
Toluene	< 0.004	0.004	1.0
Xylenes, Total	< 0.007	0.007	10
Polynuclear Aromatics by 8310	---	---	---
Acenaphthene	< 0.00007	0.00007	0.42
Acenaphthylene	< 0.0002	0.0002	
Anthracene	< 0.00003	0.00003	2.1
Benzo (a) anthracene	< 0.00003	0.00003	0.00013
Benzo (a) pyrene	< 0.00005	0.00005	0.0002
Benzo (b) fluoranthene	< 0.00008	0.00008	0.00018
Benzo (ghi) perylene	< 0.00016	0.00016	
Benzo (k) fluoranthene	< 0.00005	0.00005	0.00017
Chrysene	< 0.00004	0.00004	0.0015
Dibenzo (a,h) anthracene	< 0.00004	0.00004	0.0003
Fluoranthene	< 0.00019	0.00019	0.28
Fluorene	< 0.00005	0.00005	0.28
Indeno (1,2,3-cd) pyrene	< 0.00012	0.00012	0.00043
Naphthalene	< 0.00019	0.00019	0.025
Phenanthrene	< 0.00009	0.00009	
Pyrene	< 0.00009	0.00009	0.21

AEA Laboratories, Inc.

Arminta P. Priddy

Arminta P. Priddy
Director of Laboratory Customer Service

8100 North Austin Avenue, Morton Grove, IL 60053-3203 • Tel.: 847-967-9976 • Fax: 847-581-1576 • http://www.aealabs.com

laboratories inc.

Toltest, Inc.
1000 Northpointe Bldv.
Waukegan, IL 60085
Fax: (847) 689-0698
Attn: Khush Mander

First Lab Number: 01110675
Sample Matrix: water
Project Name: Bldg. 1600A, GLNB
Project No.: 41791.01

Sampled: 11/29/01
Received: 11/30/01
Date Reported: 12/07/01

ANALYTICAL REPORT

Lab Number	01110675-02		
Field ID	MW-2		
Compound	**Result mg/L**	**Reporting Limit mg/L**	**Regulatory Limits**
Lead by SW7421	< 0.003	0.003	0 0075
BTEX by 8021B	---	---	---
Benzene	0.0716	0.04	0.005
Ethylbenzene	0.691	0.03	0 7
Methyl ter-butyl ether	0 112	0 05	
Toluene	0.435	0.04	1.0
Xylenes, Total	1.2	0.07	10
Polynuclear Aromatics by 8310	---	---	---
Acenaphthene	< 0.00007	0.00007	0.42
Acenaphthylene	< 0.0002	0.0002	
Anthracene	< 0.00003	0.00003	2 1
Benzo (a) anthracene	< 0.00003	0.00003	0 00013
Benzo (a) pyrene	< 0.00005	0.00005	0.0002
Benzo (b) fluoranthene	< 0.00008	0.00008	0 00018
Benzo (ghi) perylene	< 0.00016	0.00016	
Benzo (k) fluoranthene	< 0.00004	0.00004	0.00017
Chrysene	< 0.00004	0.00004	0.0015
Dibenzo (a,h) anthracene	< 0.00004	0.00004	0.0003
Fluoranthene	< 0.00019	0.00019	0.28
Fluorene	< 0.00005	0.00005	0.28
Indeno (1,2,3-cd) pyrene	< 0.00012	0.00012	0.00043
Naphthalene	0 101	0.0019	0.025
Phenanthrene	< 0.00009	0.00009	
Pyrene	< 0.00009	0.00009	0.21

AEA Laboratories, Inc.

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Director of Laboratory Customer Service

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aea laboratories inc.

T Itest, Inc.
1000 Northpointe Bldv.
Waukegan, IL 60085
Fax: (847) 689-0698
Attn: Khush Mander

First Lab Number: 01110675
Sample Matrix: water
Project Name: Bldg. 1600A, GLNB
Project No.: 41791.01

Sampled: 11/29/01
Received: 11/30/01
Date Reported: 12/07/01

ANALYTICAL REPORT

Lab Number	01110675-03		
Field ID	MW-3		
Compound	Result mg/L	Reporting Limit mg/L	Regulatory Limits
Lead by SW7421	< 0.003	0 003	0.0075
BTEX by 8021B	---	---	---
Benzene	< 0.004	0.004	0.005
Ethylbenzene	0.00438	0 003	0.7
Methyl ter-butyl ether	0.0906	0.005	
Toluene	< 0.004	0.004	1.0
Xylenes, Total	< 0.007	0.007	10
Polynuclear Aromatics by 8310	---	---	---
Acenaphthene	< 0.00007	0 00007	0.42
Acenaphthylene	< 0.0002	0.0002	
Anthracene	< 0.00003	0 00003	2.1
Benzo (a) anthracene	< 0.00003	0.00003	0.00013
Benzo (a) pyrene	< 0.00005	0.00005	0.0002
Benzo (b) fluoranthene	< 0.00008	0 00008	0.00018
Benzo (ghi) perylene	< 0.00016	0.00016	
Benzo (k) fluoranthene	< 0.00005	0.00005	0.00017
Chrysene	< 0.00004	0.00004	0.0015
Dibenzo (a,h) anthracene	< 0.00004	0 00004	0 0003
Fluoranthene	< 0.00019	0.00019	0.28
Fluorene	< 0.00005	0.00005	0.28
Indeno (1,2,3-cd) pyrene	< 0.00012	0.00012	0.00043
Naphthalene	0.00096	0 00019	0 025
Phenanthrene	< 0 00009	0 00009	
Pyrene	< 0.00009	0.00009	0.21

AEA Laboratories, Inc

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Director of Laboratory Customer Service

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aea laboratories inc.

Toltest, Inc.
1000 Northpointe Bldv.
Waukegan, IL 60085
Fax: (847) 689-0698
Attn: Khush Mander

First Lab Number: 01110675
Sample Matrix: water
Project Name: Bldg. 1600A, GLNB
Project No.: 41791.01

Sampled: 11/29/01
Received: 11/30/01
Date Reported: 12/07/01

ANALYTICAL REPORT

Lab Number	01110675-04		
Field ID	MW-4		
Compound	Result mg/L	Reporting Limit mg/L	Regulatory Limits
BTEX by 8021B	---	---	---
Benzene	0.123	0.04	0.005
Ethylbenzene	0.762	0.03	0.7
Methyl ter-butyl ether	< 0.05	0.05	
Toluene	0.0939	0.04	1.0
Xylenes, Total	1 4	0.07	10
Polynuclear Aromatics by 8310	---	---	---
Acenaphthene	< 0.00007	0.00007	0 42
Acenaphthylene	< 0.0002	0.0002	
Anthracene	< 0.00003	0 00003	2 1
Benzo (a) anthracene	< 0.00003	0.00003	0.00013
Benzo (a) pyrene	< 0.00005	0.00005	0.0002
Benzo (b) fluoranthene	< 0.00008	0.00008	0.00018
Benzo (ghi) perylene	< 0 00016	0.00016	
Benzo (k) fluoranthene	< 0 00005	0.00005	0.00017
Chrysene	< 0.00004	0.00004	0.0015
Dibenzo (a,h) anthracene	< 0.00004	0.00004	0.0003
Fluoranthene	< 0 00019	0 00019	0.28
Fluorene	< 0 00005	0.00005	0.28
Indeno (1,2,3-cd) pyrene	< 0.00012	0.00012	0.00043
Naphthalene	0 0235	0.00019	0.025
Phenanthrene	< 0.00009	0.00009	
Pyrene	< 0.00009	0 00009	0.21

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1000 Northpointe Blvd.
Waukegan, IL 60085
Fax: (847) 689-0698
Attn: Khush Mander

First Lab Number: 01110675
Sample Matrix: water
Project Name: Bldg. 1600A, GLNB
Project No.: 41791.01

Sampled: 11/29/01
Received: 11/30/01
Date Reported: 12/07/01

ANALYTICAL REPORT

Lab Number	01110675-05		
Field ID	MW-5		
Compound	Result mg/L	Reporting Limit mg/L	Regulatory Limits
BTEX by 8021B	---	---	---
Benzene	< 0.004	0.004	0.005
Ethylbenzene	< 0.003	0.003	0 7
Methyl ter-butyl ether	0.0166	0.005	
Toluene	< 0.004	0.004	1 0
Xylenes, Total	< 0.007	0.007	10
Polynuclear Aromatics by 8310	---	----	---
Acenaphthene	< 0.00007	0.00007	0.42
Acenaphthylene	< 0.0002	0.0002	
Anthracene	< 0.00003	0.00003	2.1
Benzo (a) anthracene	< 0.00003	0.00003	0.00013
Benzo (a) pyrene	< 0.00005	0.00005	0 0002
Benzo (b) fluoranthene	< 0.00008	0.00008	0.00018
Benzo (ghi) perylene	< 0.00016	0.00016	
Benzo (k) fluoranthene	< 0.00005	0.00005	0.00017
Chrysene	< 0.00004	0.00004	0 0015
Dibenzo (a,h) anthracene	< 0.00004	0.00004	0 0003
Fluoranthene	< 0.00019	0.00019	0.28
Fluorene	< 0 00005	0.00005	0.28
Indeno (1,2,3-cd) pyrene	< 0 00012	0.00012	0.00043
Naphthalene	< 0.00019	0.00019	0 025
Phenanthrene	< 0.00009	0.00009	
Pyrene	< 0.00009	0.00009	0.21

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Waukegan, IL 60085
Fax: (847) 689-0698
Attn: Khush Mander

First Lab Number: 01110675
Sample Matrix: water
Project Name: Bldg. 1600A, GLNB
Project No.: 41791.01

Sampled: 11/29/01
Received: 11/30/01
Date Reported: 12/07/01

ANALYTICAL REPORT

Lab Number	01110675-06		
Field ID	MW-6		
Compound	Result mg/L	Reporting Limit mg/L	Regulatory Limits
BTEX by 8021B	---	---	---
Benzene	< 0.004	0.004	0 005
Ethylbenzene	< 0.003	0.003	0.7
Methyl ter-butyl ether	< 0 005	0.005	
Toluene	< 0.004	0.004	1 0
Xylenes, Total	< 0.007	0 007	10
Polynuclear Aromatics by 8310	---	---	---
Acenaphthene	0.00014	0.00007	0 42
Acenaphthylene	< 0.0002	0.0002	
Anthracene	< 0.00003	0.00003	2.1
Benzo (a) anthracene	< 0.00003	0 00003	0.00013
Benzo (a) pyrene	< 0.00005	0.00005	0.0002
Benzo (b) fluoranthene	< 0.00008	0.00008	0.00018
Benzo (ghi) perylene	< 0.00016	0.00016	
Benzo (k) fluoranthene	< 0 00004	0 00004	0.00017
Chrysene	< 0.00004	0.00004	0.0015
Dibenzo (a,h) anthracene	< 0 00004	0.00004	0 0003
Fluoranthene	< 0.00019	0 00019	0 28
Fluorene	< 0.00005	0.00005	0 28
Indeno (1,2,3-cd) pyrene	< 0.00012	0.00012	0.00043
Naphthalene	0.00036	0.00019	0 025
Phenanthrene	< 0.00009	0.00009	
Pyrene	< 0 00009	0 00009	0.21

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Waukegan, IL 60085
Fax: (847) 689-0698
Attn: Khush Mander

First Lab Number: 01110675
Sample Matrix: water
Project Name: Bldg. 1600A, GLNB
Project No.: 41791.01

Sampled: 11/29/01
Received: 11/30/01
Date Reported: 12/07/01

ANALYTICAL REPORT

Lab Number	01110675-07		
Field ID	MW-7		
Compound	Result mg/L	Reporting Limit mg/L	Regulatory Limits
BTEX by 8021B	---	---	---
Benzene	< 0.004	0.004	0.005
Ethylbenzene	< 0.003	0.003	0.7
Methyl ter-butyl ether	< 0.005	0.005	
Toluene	< 0.004	0.004	1.0
Xylenes, Total	< 0.007	0.007	10
Polynuclear Aromatics by 8310	---	---	---
Acenaphthene	< 0.00007	0.00007	0.42
Acenaphthylene	< 0.0002	0.0002	
Anthracene	< 0.00003	0.00003	2.1
Benzo (a) anthracene	< 0.00003	0.00003	0.00013
Benzo (a) pyrene	< 0.00005	0.00005	0.0002
Benzo (b) fluoranthene	< 0.00008	0.00008	0.00018
Benzo (ghi) perylene	< 0.00016	0.00016	
Benzo (k) fluoranthene	< 0.00005	0.00005	0.00017
Chrysene	< 0.00004	0.00004	0.0015
Dibenzo (a,h) anthracene	< 0.00004	0.00004	0.0003
Fluoranthene	< 0.00019	0.00019	0.28
Fluorene	< 0.00005	0.00005	0.28
Indeno (1,2,3-cd) pyrene	< 0.00012	0.00012	0.00043
Naphthalene	0.00054	0.00019	0.025
Phenanthrene	< 0.00009	0.00009	
Pyrene	< 0.00009	0.00009	0.21

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Attn: Khush Mander

First Lab Number: 01110675
Sample Matrix: water
Project Name: Bldg. 1600A, GLNB
Project No.: 41791.01

Sampled: 11/29/01
Received: 11/30/01
Date Reported: 12/07/01

ANALYTICAL REPORT

Lab Number	01110675-08		
Field ID	MW-8		
Compound	Result mg/L	Reporting Limit mg/L	Regulatory Limits
BTEX by 8021B	---	---	---
Benzene	0.139	0.004	0.005
Ethylbenzene	0.0035	0.003	0.7
Methyl ter-butyl ether	0.00598	0.005	
Toluene	< 0.004	0.004	1.0
Xylenes, Total	< 0.007	0.007	10
Polynuclear Aromatics by 8310	---	---	---
Acenaphthene	< 0.00008	0.00008	0.42
Acenaphthylene	< 0.00022	0.00022	
Anthracene	< 0.00003	0.00003	2.1
Benzo (a) anthracene	< 0.00003	0.00003	0.00013
Benzo (a) pyrene	< 0.00005	0.00005	0.0002
Benzo (b) fluoranthene	< 0.00009	0.00009	0.00018
Benzo (ghi) perylene	< 0.00017	0.00017	
Benzo (k) fluoranthene	< 0.00005	0.00005	0.00017
Chrysene	< 0.00004	0.00004	0.0015
Dibenzo (a,h) anthracene	< 0.00004	0.00004	0.0003
Fluoranthene	< 0.0002	0.0002	0.28
Fluorene	< 0.00005	0.00005	0.28
Indeno (1,2,3-cd) pyrene	< 0.00013	0.00013	0.00043
Naphthalene	< 0.0002	0.0002	0.025
Phenanthrene	< 0.0001	0.0001	
Pyrene	< 0.0001	0.0001	0.21

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Fax: (847) 689-0698
Attn: Khush Mander

First Lab Number: 01110675
Sample Matrix: water
Project Name: Bldg. 1600A, GLNB
Project No.: 41791.01

Sampled: 11/29/01
Received: 11/30/01
Date Reported: 12/07/01

ANALYTICAL REPORT

Lab Number	01110675-09		
Field ID	MW-9		
Compound	**Result mg/L**	**Reporting Limit mg/L**	**Regulatory Limits**
Lead by SW7421	< 0 003	0.003	0.0075
BTEX by 8021B	---	---	---
Benzene	< 0.004	0.004	0.005
Ethylbenzene	< 0.003	0.003	0.7
Methyl ter-butyl ether	< 0 005	0.005	
Toluene	< 0.004	0 004	1.0
Xylenes, Total	< 0.007	0.007	10
Polynuclear Aromatics by 8310	---	---	---
Acenaphthene	< 0.00007	0.00007	0.42
Acenaphthylene	< 0.0002	0 0002	
Anthracene	< 0.00003	0.00003	2.1
Benzo (a) anthracene	< 0.00003	0.00003	0 00013
Benzo (a) pyrene	< 0.00005	0.00005	0 0002
Benzo (b) fluoranthene	< 0.00008	0.00008	0 00018
Benzo (ghi) perylene	< 0.00016	0.00016	
Benzo (k) fluoranthene	< 0.00004	0.00004	0.00017
Chrysene	< 0.00004	0.00004	0.0015
Dibenzo (a,h) anthracene	< 0.00004	0.00004	0.0003
Fluoranthene	< 0.00019	0.00019	0 28
Fluorene	< 0.00005	0.00005	0.28
Indeno (1,2,3-cd) pyrene	< 0 00012	0.00012	0.00043
Naphthalene	< 0 00019	0.00019	0 025
Phenanthrene	< 0.00009	0.00009	
Pyrene	< 0.00009	0.00009	0 21

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Waukegan, IL 60085
Fax: (847) 689-0698
Attn: Khush Mander

First Lab Number: 01110675
Sample Matrix: water
Project Name: Bldg. 1600A, GLNB
Project No.: 41791.01

Sampled: 11/29/01
Received: 11/30/01
Date Reported: 12/07/01

ANALYTICAL REPORT

Lab Number	01110675-10		
Field ID	MW-10		
Compound	Result mg/L	Reporting Limit mg/L	Regulatory Limits
BTEX by 8021B	---	---	---
Benzene	0.0696	0.04	0 005
Ethylbenzene	0.671	0.03	0.7
Methyl ter-butyl ether	0.11	0.05	
Toluene	0 425	0.04	1 0
Xylenes, Total	1.16	0 07	10
Polynuclear Aromatics by 8310	---	---	---
Acenaphthene	< 0.00007	0.00007	0 42
Acenaphthylene	< 0.0002	0.0002	
Anthracene	< 0 00003	0.00003	2.1
Benzo (a) anthracene	< 0.00003	0.00003	0 00013
Benzo (a) pyrene	< 0.00005	0.00005	0.0002
Benzo (b) fluoranthene	< 0.00008	0.00008	0.00018
Benzo (ghi) perylene	< 0.00016	0.00016	
Benzo (k) fluoranthene	< 0 00004	0.00004	0.00017
Chrysene	< 0 00004	0 00004	0.0015
Dibenzo (a,h) anthracene	< 0 00004	0 00004	0 0003
Fluoranthene	< 0 00019	0.00019	0.28
Fluorene	< 0.00005	0.00005	0.28
Indeno (1,2,3-cd) pyrene	< 0.00012	0 00012	0.00043
Naphthalene	0.0941	0.00189	0.025
Phenanthrene	< 0.00009	0.00009	
Pyrene	< 0.00009	0.00009	0.21

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Attn: Khush Mander

First Lab Number: 01110675
Sample Matrix: water
Project Name: Bldg. 1600A, GLNB
Project No.: 41791.01

Sampled: 11/29/01
Received: 11/30/01
Date Reported: 12/07/01

ANALYTICAL REPORT

Lab Number	01110675-11		
Field ID	Trip Blank		
Compound	Result mg/L	Reporting Limit mg/L	Regulatory Limits
BTEX by 8021B	---	---	---
Benzene	< 0.004	0 004	0.005
Ethylbenzene	< 0.003	0 003	0 7
Methyl ter-butyl ether	< 0.005	0 005	
Toluene	< 0.004	0.004	1.0
Xylenes, Total	< 0.007	0.007	10

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Ship To Address: ATTN: RECEIVING LAB, 1810 N. 12th St., Toledo, OH 43624-1304; Voice (419) 241-7175, Fax (419) 241-1888

Sent From: ☐ Corporate ☐ Plymouth ☐ Pittsburgh ☒ Other Great Lakes

Chain of Custody Record

38607 Page 1 of 1

Project No: 41791.01
Client: Tol Test, Inc. 1000 Northpoint Blvd, Waukegan, IL
P.O. No:
Project/Location: Bldg 1600A, Great Lakes, IL
Project Mgr.: Khush Mander
Sampler's Name: Timothy A. Boos
Phone No. 847 689-0697
Sampler's Signature: Timothy A. Boos

Item No.	Sample I.D.	Date Sampled	Time Sampled	Type	Matrix	Sample Location	Total No. of Containers	BOD & TSS	VOC 8021B	FNA 8100	SPLP Pb 1312	Total Pb 7421				Preserved Yes/No	LAB USE ONLY Lab ID 0110615
1	MW-1	11/29/01	10:02	G	Liq.	Bldg 1600A	5	X	X	X	X	X					01ABCD
2	MW-2		10:52				5	X	X	X	X	X					02ABCD
3	MW-3		11:25				5	X	X	X	X	X					03ABCD
4	MW-4		12:37				3	X	X	X							04AB
5	MW-5		13:40				3	X	X	X							05AB
6	MW-6		14:20				3	X	X	X							06AB
7	MW-7		12:00				3	X	X	X							07AB
8	MW-8		13:14				3	X	X	X							08AB
9	MW-9		9:16				5	X	X	X	X	X					09ABCD
10	MW-10						3	X	X	X							10AB

Item No.	Relinquished By:	Date	Time	Received By:	Date	Time
1-10	Trip Blank Timothy A. Boos	11/30	11:15	Jim Spenn	11/30	11:15
	Jim Spenn	11/30	1:00pm	Gary Schuff	11/30	1:57Pm

LAB USE ONLY 11A

Were samples delivered ☒ in person ☐ by courier
Were samples preserved ☒ in field ☐ in lab ☐ N/A
Temp of samples 4 °C
Did samples arrive intact and sealed? ☒ yes ☐ no ☐ N/A
Were proper containers used? ☒ yes ☐ no
Was container labeled properly for contents? ☒ yes ☐ no
Were samples packaged properly for type of material? ☒ yes ☐ no
Was shipping label completed properly per regulations? (49 CFR 170, etc.) ☐ yes ☐ no
Comments:
TAT

Distribution: Original plus one accompanies shipment (white and yellow), copy to coordinator field files (pink)

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Waukegan, IL 60085
Fax: (847) 689-0698
Attn: Khush Mander

First Lab Number: 01080630
Project Name: Bldg 1600A, GLNTC
Project No.: 37755.02
Sample Matrix: water

Sampled: 08/23/01
Received: 08/24/01
Analyzed: 08/30-09/04/01
Reported: 09/05/01

ANALYTICAL REPORT

Lab Number	**01080630-01**		
Field ID	**MW-1**		
Description	**na**		
Compound	**Result mg/L**	**Reporting Limit mg/L**	**Regulatory Limits**
BTEX by 8021B	---	---	---
Benzene	< 0.0007	0.0007	0.005
Ethylbenzene	< 0.0014	0.0014	0.7
Methyl tert-butyl ether	< 0.005	0.005	
Toluene	< 0.0016	0.0016	1.0
Xylenes, Total	< 0 005	0.005	10
Polynuclear Aromatics by 8310	---	---	---
Acenaphthene	< 0 000072	0.000072	0.42
Acenaphthylene	< 0.00021	0.00021	
Anthracene	< 0.000031	0.000031	2.1
Benz(a)anthracene	< 0.000031	0.000031	0.00013
Benzo(a)pyrene	< 0.000052	0.000052	0.0002
Benzo(b)fluoranthene	< 0.000083	0.000083	0 00018
Benzo(g,h,i)perylene	< 0.00017	0.00017	
Benzo(k)fluoranthene	< 0.000046	0 000046	0.00017
Chrysene	< 0.000041	0.000041	0.0015
Dibenz(a,h)anthracene	< 0 000041	0 000041	0.0003
Fluoranthene	< 0.0002	0.0002	0.28
Fluorene	< 0.000052	0.000052	0 28
Indeno(1,2,3-cd)pyrene	< 0.00012	0.00012	0.00043
Naphthalene	< 0.0002	0.0002	0.025
Phenanthrene	< 0.000093	0.000093	
Pyrene	< 0.000093	0.000093	0.21

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Fax: (847) 689-0698
Attn: Khush Mander

First Lab Number: 01080630
Project Name: Bldg 1600A, GLNTC
Project No.: 37755.02
Sample Matrix: water

Sampled: 08/23/01
Received: 08/24/01
Analyzed: 08/30-09/04/01
Reported: 09/05/01

ANALYTICAL REPORT

Lab Number	**01080630-02**		
Field ID	**MW-2**		
Description	**na**		
C mpound	**Result mg/L**	**Reporting Limit mg/L**	**Regulatory Limits**
BTEX by 8021B	---	---	---
Benzene	1.41	0.0007	0.005
Ethylbenzene	0.375	0.0014	0.7
Methyl tert-butyl ether	< 0.005	0.005	
Toluene	2.38	0.0016	1.0
Xylenes, Total	1.7	0.005	10
Polynuclear Aromatics by 8310	---	---	---
Acenaphthene			0.42
Acenaphthylene	0 0017	0.000057	
Anthracene	0 024	0 00016	2.1
Benz(a)anthracene	< 0.000025	0.000025	0.00013
Benzo(a)pyrene	< 0.000025	0.000025	0.0002
Benzo(b)fluoranthene	< 0.000041	0.000041	0.00018
Benzo(g,h,i)perylene	< 0.000065	0.000065	
Benzo(k)fluoranthene	< 0.00013	0.00013	0.00017
Chrysene	< 0.000037	0 000037	0.0015
Dibenz(a,h)anthracene	< 0.000033	0.000033	0.0003
Fluoranthene	< 0.000033	0.000033	0.28
Fluorene	< 0.00016	0.00016	0.28
Indeno(1,2,3-cd)pyrene	< 0.000041	0.000041	0.00043
Naphthalene	< 0.000098	0 000098	0.025
Phenanthrene	0.038	0.0078	
Pyrene	< 0.000074	0.000074	0.21
	< 0.000074	0.000074	

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Waukegan, IL 60085
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Attn: Khush Mander

First Lab Number: 01080630
Project Name: Bldg 1600A, GLNTC
Project No.: 37755.02
Sample Matrix: water

Sampled: 08/23/01
Received: 08/24/01
Analyzed: 08/30-09/04/01
Reported: 09/05/01

ANALYTICAL REPORT

Lab Number	**01080630-03**		
Field ID	**MW-3**		
Description	**na**		
Compound	**Result mg/L**	**Reporting Limit mg/L**	**Regulatory Limits**
BTEX by 8021B	---	---	---
Benzene	0.0016	0.0007	0.005
Ethylbenzene	0.0019	0.0014	0.7
Methyl tert-butyl ether	0.0324	0.005	
Toluene	0.0067	0.0016	1.0
Xylenes, Total	0.0088	0.005	10
Polynuclear Aromatics by 8310	---	---	---
Acenaphthene	< 0.000076	0.000076	0.42
Acenaphthylene	< 0.00022	0.00022	
Anthracene	< 0.000033	0.000033	2.1
Benz(a)anthracene	< 0.000033	0.000033	0.00013
Benzo(a)pyrene	< 0.000054	0.000054	0.0002
Benzo(b)fluoranthene	< 0.000087	0 000087	0.00018
Benzo(g,h,i)perylene	< 0.00017	0.00017	
Benzo(k)fluoranthene	< 0.000049	0.000049	-0.00017
Chrysene	< 0.000044	0 000044	0.0015
Dibenz(a,h)anthracene	< 0.000044	0.000044	0.0003
Fluoranthene	< 0 00021	0 00021	0.28
Fluorene	< 0.000054	0.000054	0.28
Indeno(1,2,3-cd)pyrene	< 0.00013	0.00013	0.00043
Naphthalene	< 0.00021	0.00021	0.025
Phenanthrene	< 0.000098	0.000098	
Pyrene	< 0.000098	0.000098	0 21

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Toltest, Inc.
1000 Northpointe Bldv.
Waukegan, IL 60085
Fax: (847) 689-0698
Attn: Khush Mander

First Lab Number: 01080630
Project Name: Bldg 1600A, GLNTC
Project No.: 37755.02
Sample Matrix: water

Sampled: 08/23/01
Received: 08/24/01
Analyzed: 08/30-09/04/01
Reported: 09/05/01

ANALYTICAL REPORT

Lab Number	01080630-04		
Field ID	MW-4		
Description	na		
Compound	**Result mg/L**	**Reporting Limit mg/L**	**Regulatory Limits**
BTEX by 8021B	---	---	---
Benzene	0.156	0 0007	0 005
Ethylbenzene	0.648	0.0014	0.7
Methyl tert-butyl ether	< 0 005	0.005	
Toluene	0.122	0.0016	1.0
Xylenes, Total	1.03	0.005	10
Polynuclear Aromatics by 8310	---	---	---
Acenaphthene	0.00033	0 000077	0.42
Acenaphthylene	< 0.00022	0.00022	
Anthracene	< 0.000033	0.000033	2.1
Benz(a)anthracene	< 0.000033	0.000033	0.00013
Benzo(a)pyrene	< 0.000055	0.000055	0.0002
Benzo(b)fluoranthene	< 0.000088	0.000088	0.00018
Benzo(g,h,i)perylene	< 0.00018	0.00018	
Benzo(k)fluoranthene	< 0.00005	0.00005	0.00017
Chrysene	< 0.000044	0.000044	0.0015
Dibenz(a,h)anthracene	< 0.000044	0 000044	0.0003
Fluoranthene	< 0.00021	0.00021	0.28
Fluorene	0.00049	0.000055	0.28
Indeno(1,2,3-cd)pyrene	< 0.00013	0.00013	0.00043
Naphthalene	0.04	0 00021	0.025
Phenanthrene	< 0.000099	0 000099	
Pyrene	< 0.000099	0.000099	0.21

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Waukegan, IL 60085
Fax: (847) 689-0698
Attn: Khush Mander

First Lab Number: 01080630
Project Name: Bldg 1600A, GLNTC
Project No.: 37755.02
Sample Matrix: water

Sampled: 08/23/01
Received: 08/24/01
Analyzed: 08/30-09/04/01
Reported: 09/05/01

ANALYTICAL REPORT

Lab Number	**01080630-05**		
Field ID	**MW-5**		
Description	**na**		
Compound	**Result mg/L**	**Reporting Limit mg/L**	**Regulatory Limits**
BTEX by 8021B	---	---	---
Benzene	0.0117	0.0007	0.005
Ethylbenzene	0.102	0.0014	0.7
Methyl tert-butyl ether	< 0.005	0.005	
Toluene	0.036	0.0016	1.0
Xylenes, Total	0.273	0.005	10
Polynuclear Aromatics by 8310	---	---	---
Acenaphthene	0.0002	0.000072	0.42
Acenaphthylene	< 0.0003	0.0003	
Anthracene	< 0.000031	0.000031	2.1
Benz(a)anthracene	< 0.000031	0.000031	0.00013
Benzo(a)pyrene	< 0.000051	0.000051	0.0002
Benzo(b)fluoranthene	< 0.000082	0.000082	0.00018
Benzo(g,h,i)perylene	< 0.00016	0.00016	
Benzo(k)fluoranthene	< 0.000046	0.000046	0.00017
Chrysene	< 0.000041	0.000041	0.0015
Dibenz(a,h)anthracene	< 0.000041	0.000041	0.0003
Fluoranthene	< 0.00019	0.00019	0.28
Fluorene	0.00031	0.000051	0.28
Indeno(1,2,3-cd)pyrene	< 0.00012	0.00012	0.00043
Naphthalene	0.00027	0.00019	0.025
Phenanthrene	0.00013	0.000092	
Pyrene	< 0.000092	0.000092	0.21

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Waukegan, IL 60085
Fax: (847) 689-0698
Attn: Khush Mander

First Lab Number: 01080630
Project Name: Bldg 1600A, GLNTC
Project No.: 37755.02
Sample Matrix: water

Sampled: 08/23/01
Received: 08/24/01
Analyzed: 08/30-09/04/01
Reported: 09/05/01

ANALYTICAL REPORT

Lab Number	**01080630-06**		
Field ID	**MW-6**		
Description	**na**		
Compound	**Result mg/L**	**Reporting Limit mg/L**	**Regulatory Limits**
BTEX by 8021B	---	---	---
Benzene	< 0.0007	0.0007	0.005
Ethylbenzene	< 0.0014	0.0014	0.7
Methyl tert-butyl ether	< 0.005	0.005	
Toluene	0.0017	0.0016	1.0
Xylenes, Total	< 0.005	0.005	10
Polynuclear Aromatics by 8310	---	---	---
Acenaphthene	< 0.000071	0.000071	0.42
Acenaphthylene	< 0.0002	0.0002	
Anthracene	< 0.00003	0.00003	2.1
Benz(a)anthracene	< 0.00003	0.00003	0.00013
Benzo(a)pyrene	< 0.000051	0.000051	0.0002
Benzo(b)fluoranthene	< 0.000081	0.000081	0.00018
Benzo(g,h,i)perylene	< 0.00016	0.00016	
Benzo(k)fluoranthene	< 0.000046	0.000046	0.00017
Chrysene	< 0.000041	0.000041	0.0015
Dibenz(a,h)anthracene	< 0.000041	0.000041	0.0003
Fluoranthene	< 0.00019	0.00019	0.28
Fluorene	< 0.000051	0.000051	0.28
Indeno(1,2,3-cd)pyrene	< 0.00012	0.00012	0.00043
Naphthalene	0.00036	0.00019	0.025
Phenanthrene	0.00012	0.000091	
Pyrene	< 0.000091	0.000091	0.21

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Fax: (847) 689-0698
Attn: Khush Mander

First Lab Number: 01080630
Project Name: Bldg 1600A, GLNTC
Project No.: 37755.02
Sample Matrix: water

Sampled: 08/23/01
Received: 08/24/01
Analyzed: 08/30-09/04/01
Reported: 09/05/01

ANALYTICAL REPORT

Lab Number	01080630-07		
Field ID	MW-7		
Description	na		
Compound	**Result mg/L**	**Reporting Limit mg/L**	**Regulatory Limits**
BTEX by 8021B	---	---	---
Benzene	< 0.0007	0.0007	0.005
Ethylbenzene	< 0.0014	0.0014	0.7
Methyl tert-butyl ether	< 0.005	0.005	
Toluene	< 0.0016	0.0016	1.0
Xylenes, Total	< 0.005	0.005	10
Polynuclear Aromatics by 8310	---	---	---
Ac naphthene	< 0.000075	0.000075	0.42
Acenaphthylene	< 0.00021	0.00021	
Anthracene	< 0.000032	0.000032	2.1
Benz(a)anthracene	< 0.000032	0.000032	0.00013
Benzo(a)pyrene	< 0.000053	0.000053	0.0002
Benzo(b)fluoranthene	< 0.000086	0.000086	0.00018
Benzo(g,h,i)perylene	< 0.00017	0.00017	
Benzo(k)fluoranthene	< 0.000048	0.000048	0.00017
Chrysene	< 0.000043	0.000043	0.0015
Dibenz(a,h)anthracene	< 0.000043	0.000043	0.0003
Fluoranthene	< 0.0002	0.0002	0.28
Fluorene	< 0.000053	0.000053	0.28
Indeno(1,2,3-cd)pyrene	< 0.00013	0.00013	0.00043
Naphthalene	< 0.0002	0.0002	0.025
Phenanthrene	0.00011	0.000096	
Pyrene	< 0.000096	0.000096	0.21

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Fax: (847) 689-0698
Attn: Khush Mander

First Lab Number: 01080630
Project Name: Bldg 1600A, GLNTC
Project No.: 37755.02
Sample Matrix: water

Sampled: 08/23/01
Received: 08/24/01
Analyzed: 08/30-09/04/01
Reported: 09/05/01

ANALYTICAL REPORT

Lab Number	**01080630-08**		
Field ID	**MW-8**		
Description	**na**		
Compound	**Result mg/L**	**Reporting Limit mg/L**	**Regulatory Limits**
BTEX by 8021B	---	---	---
Benzene	0.109	0.0007	0.005
Ethylbenzene	< 0.0014	0.0014	0.7
Methyl tert-butyl ether	< 0.005	0.005	
Toluene	< 0.0016	0.0016	1.0
Xylenes, Total	< 0.005	0.005	10
Polynuclear Aromatics by 8310	---	---	---
Acenaphthene	< 0.000073	0.000073	0.42
Acenaphthylene	< 0.00021	0.00021	
Anthracene	< 0.000031	0.000031	2 1
Benz(a)anthracene	< 0.000031	0 000031	0.00013
Benzo(a)pyrene	< 0.000052	0.000052	0.0002
Benzo(b)fluoranthene	< 0.000083	0.000083	0.00018
Benzo(g,h,i)perylene	< 0.00017	0.00017	
Benzo(k)fluoranthene	< 0.000047	0.000047	0.00017
Chrysene	< 0.000042	0.000042	0.0015
Dibenz(a,h)anthracene	< 0 000042	0.000042	0.0003
Fluoranthene	< 0.0002	0.0002	0.28
Fluorene	< 0.000052	0.000052	0 28
Indeno(1,2,3-cd)pyrene	< 0.00012	0.00012	0.00043
Naphthalene	< 0 0002	0.0002	0.025
Phenanthrene	< 0.000094	0.000094	
Pyrene	< 0.000094	0.000094	0.21

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Fax: (847) 689-0698
Attn: Khush Mander

First Lab Number: 01080630
Project Name: Bldg 1600A, GLNTC
Project No.: 37755.02
Sample Matrix: water

Sampled: 08/23/01
Received: 08/24/01
Analyzed: 08/30-09/04/01
Reported: 09/05/01

ANALYTICAL REPORT

Lab Number	**01080630-09**		
Field ID	**MW-9**		
Description	**na**		
Compound	**Result mg/L**	**Reporting Limit mg/L**	**Regulatory Limits**
Total Lead by 7421	NA		0.0075
SPLP Lead by 7421	0.018	0.013	0.0075
BTEX by 8021B	---	---	---
Benzene	< 0.0007	0.0007	0.005
Ethylbenzene	< 0.0014	0.0014	0.7
Methyl tert-butyl ether	< 0.005	0.005	
Toluene	< 0.0016	0.0016	1.0
Xylenes, Total	< 0.005	0.005	10
Polynuclear Aromatics by 8310	---	---	---
Acenaphthene	< 0.000099	0.000099	0.42
Acenaphthylene	< 0.00028	0.00028	
Anthracene	< 0.000042	0.000042	2.1
Benz(a)anthracene	< 0.000042	0.000042	0.00013
Benzo(a)pyrene	< 0.000071	0.000071	0.0002
Benzo(b)fluoranthene	< 0.00011	0.00011	0.00018
Benzo(g,h,i)perylene	< 0.00023	0.00023	
Benzo(k)fluoranthene	< 0.000063	0.000063	0.00017
Chrysene	< 0.000056	0.000056	0.0015
Dibenz(a,h)anthracene	< 0.000056	0.000056	0.0003
Fluoranthene	< 0.00027	0.00027	0.28
Fluorene	< 0.000071	0.000071	0.28
Indeno(1,2,3-cd)pyrene	< 0.00017	0.00017	0.00043
Naphthalene	< 0.00027	0.00027	0.025
Phenanthrene	< 0.00013	0.00013	
Pyrene	< 0.00013	0.00013	0.21

SPLP Lead showed that the solids present were less than 0.5%, therefore the SPLP Lead results and the Total Lead are the same.

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Fax: (847) 689-0698
Attn: Khush Mander

First Lab Number: 01080630
Project Name: Bldg 1600A, GLNTC
Project No.: 37755.02
Sample Matrix: water

Sampled: 08/23/01
Received: 08/24/01
Analyzed: 08/30-09/04/01
Reported: 09/05/01

ANALYTICAL REPORT

Lab Number	**01080630-10**		
Field ID	**MW-10**		
Description	**na**		
Compound	**Result mg/L**	**Reporting Limit mg/L**	**Regulatory Limits**
BTEX by 8021B	---	---	---
Benzene	< 0.0007	0.0007	0.005
Ethylbenzene	< 0.0014	0.0014	0.7
Methyl tert-butyl ether	< 0 005	0.005	
Toluene	< 0.0016	0.0016	1.0
Xylenes, Total	< 0.005	0.005	10
Polynuclear Aromatics by 8310	---	---	---
Acenaphthene	< 0.000071	0.000071	0.42
Acenaphthylene	< 0.0002	0 0002	
Anthracene	< 0.00003	0.00003	2.1
Benz(a)anthracene	< 0.00003	0.00003	0.00013
Benzo(a)pyrene	< 0.000051	0.000051	0 0002
Benzo(b)fluoranthene	< 0.000081	0.000081	0.00018
Benzo(g,h,i)perylene	< 0.00016	0.00016	
Benzo(k)fluoranthene	< 0.000045	0.000045	0.00017
Chrysene	< 0.00004	0 00004	0.0015
Dibenz(a,h)anthracene	< 0.00004	0.00004	0.0003
Fluoranthene	< 0 00019	0.00019	0.28
Fluorene	< 0.000051	0.000051	0.28
Indeno(1,2,3-cd)pyrene	< 0.00012	0 00012	0 00043
Naphthalene	< 0.00019	0.00019	0.025
Phenanthrene	< 0.000091	0.000091	
Pyrene	< 0.000091	0.000091	0.21

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Chain of Custody Record

31080 Page 1 of 1

Project No.: 37755.02
Client: ~~NTC - Environmental~~ Tol Test, Inc. 1000 Northpoint Blvd. Waukegan, IL 60085
P.O. No.:
Project/Location: NTC - Environmental, Bldg 1600 A, GLNTC, IL
Project Mgr.: Khush Mander
Sampler's Name: Timothy A. Boos
Phone No.: 847 689-0697
Sampler's Signature: Timothy A. Boos

Parameters: BTEX/MTBE 5035; PNA 8100; SPLP lead 1312/7421; total lead 7421; Preserved Yes/No; LAB USE ONLY 01080630

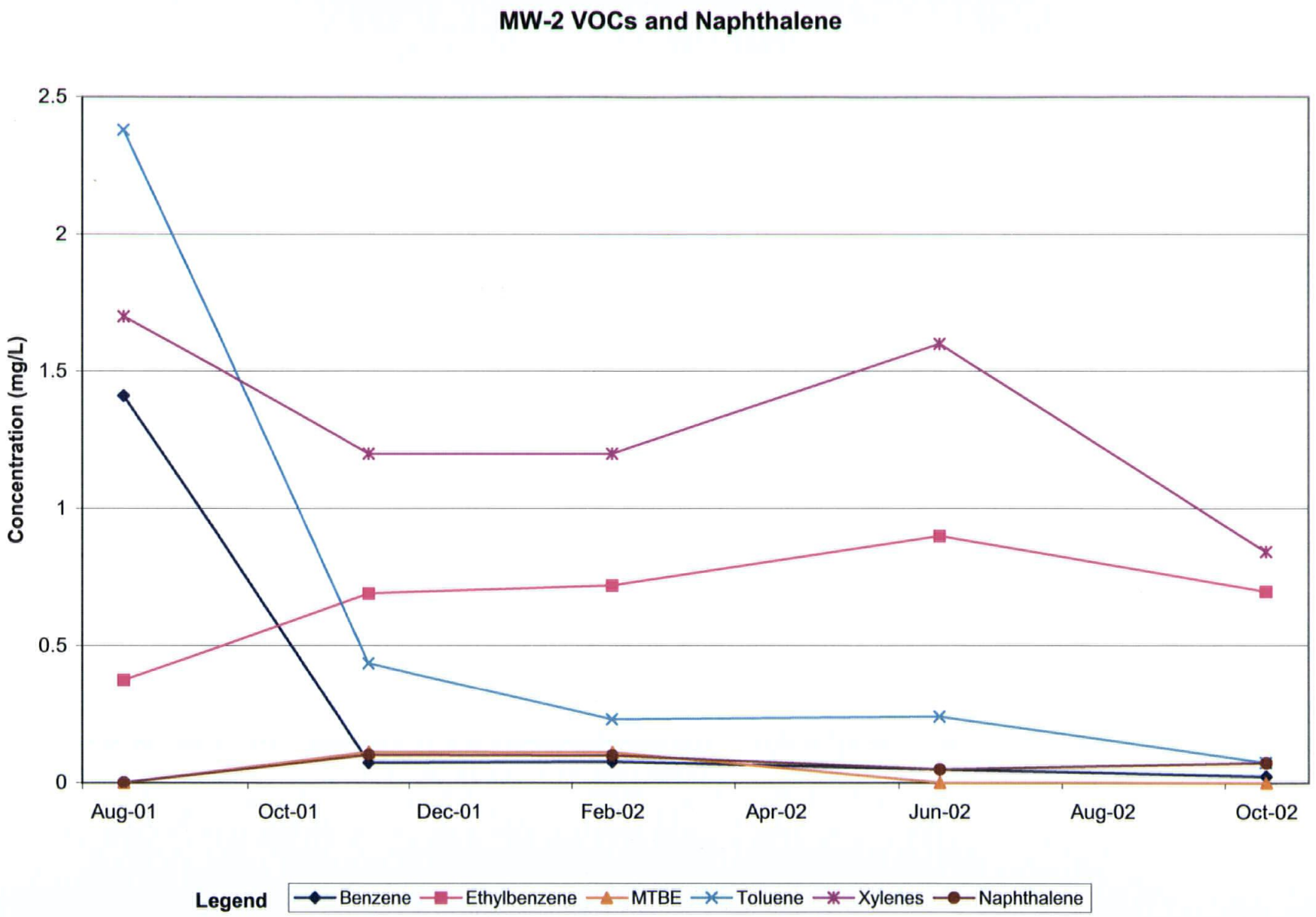
Item No.	Sample I.D.	Date Sampled	Time Sampled	Type	Matrix	Sample Location	Total No. of Containers	BTEX/MTBE 5035	PNA 8100	SPLP lead 1312/7421	total lead 7421	Preserved Yes/No	Lab #
1	MW-1	8/23/01	8:36	G	Liq.	Bldg 1600 A, Great Lakes, IL	3	x	x				01A-B
2	MW-2		8:40				3	x	x				02AB
3	MW-3		8:40				3	x	x				03AB
4	MW-4		9:36				3	x	x				04AB
5	MW-5		10:15				3	x	x				05AB
6	MW-6		10:20				3	x	x				06AB
7	MW-7		9:30				3	x	x				07AB
8	MW-8		9:23				3	x	x	~~x~~			08AB
9	MW-9		8:15				5	x	x	x	x		09ABC
10	MW-10		8:30				3	x	x				10AB

Item No.	Relinquished By	Date	Time	Received By	Date	Time
1/10	Timothy A. Boos	8/23/01	12:00	[illegible]	8/24/01	5:14
	[illegible]	8/24/01	5:15			

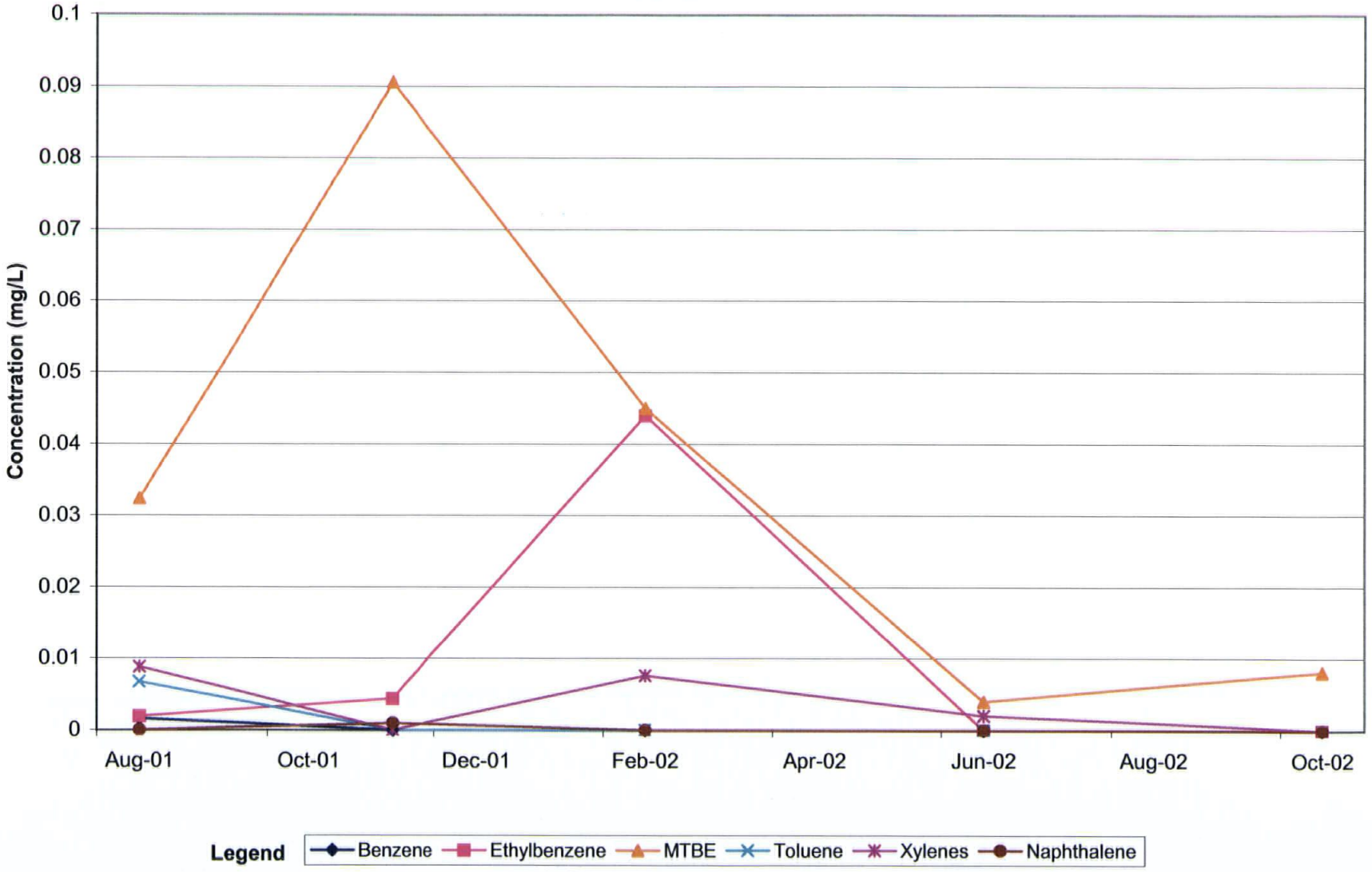
LAB USE ONLY
Were samples delivered: ☐ in person ☐ by courier
Were samples preserved: ☐ in field ☐ in lab ☐ N/A
Temp of samples: ____ °C
Did samples arrive intact and sealed? ☐ yes ☐ no ☐ N/A
Were proper containers used? ☐ yes ☐ no
Was container labeled properly for contents? ☐ yes ☐ no
Were samples packaged properly for type of material? ☐ yes ☐ no
Was shipping label completed properly per regulations? (49 CFR 170, etc.) ☐ yes ☐ no
Comments:
TAT

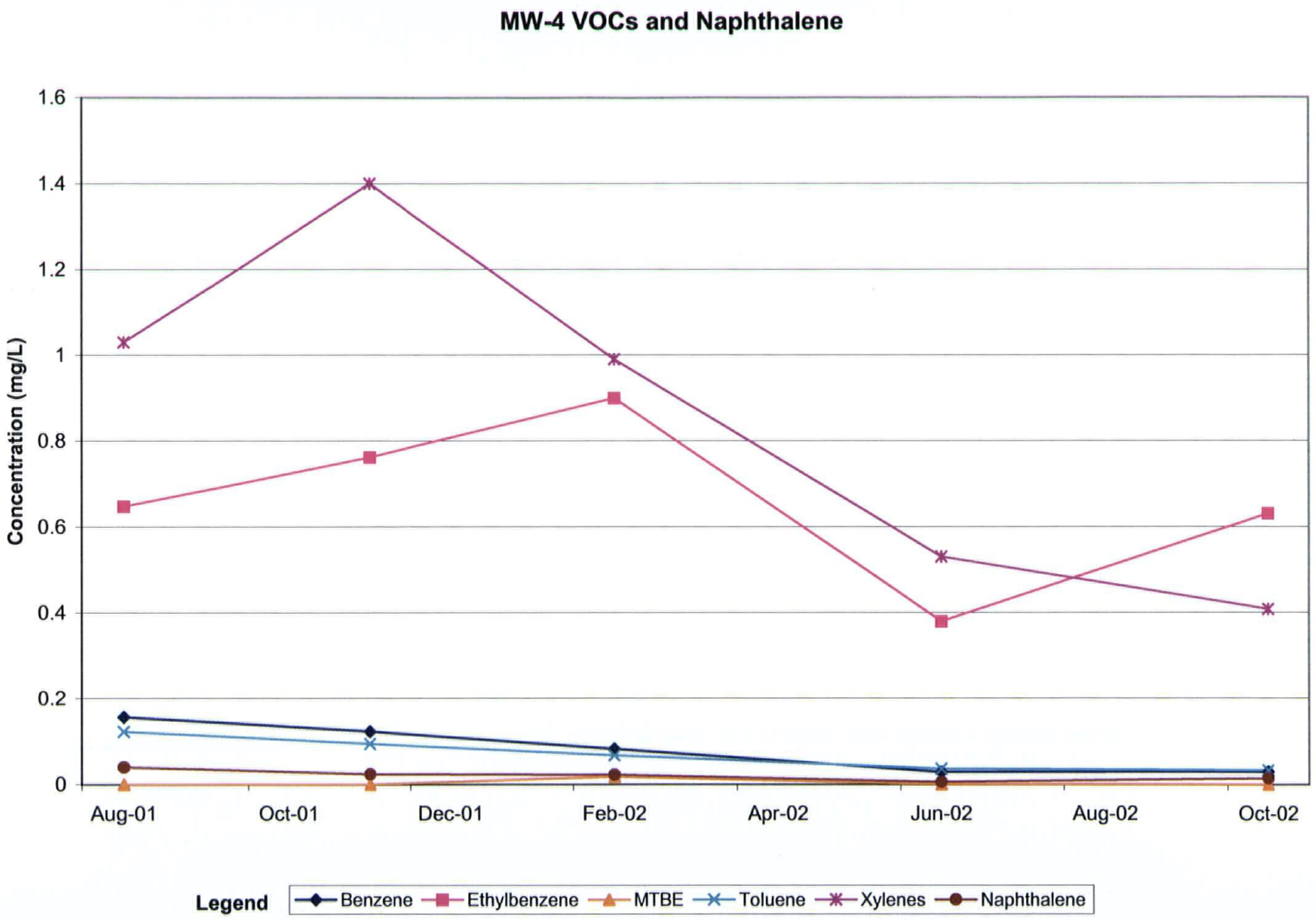
APPENDIX C

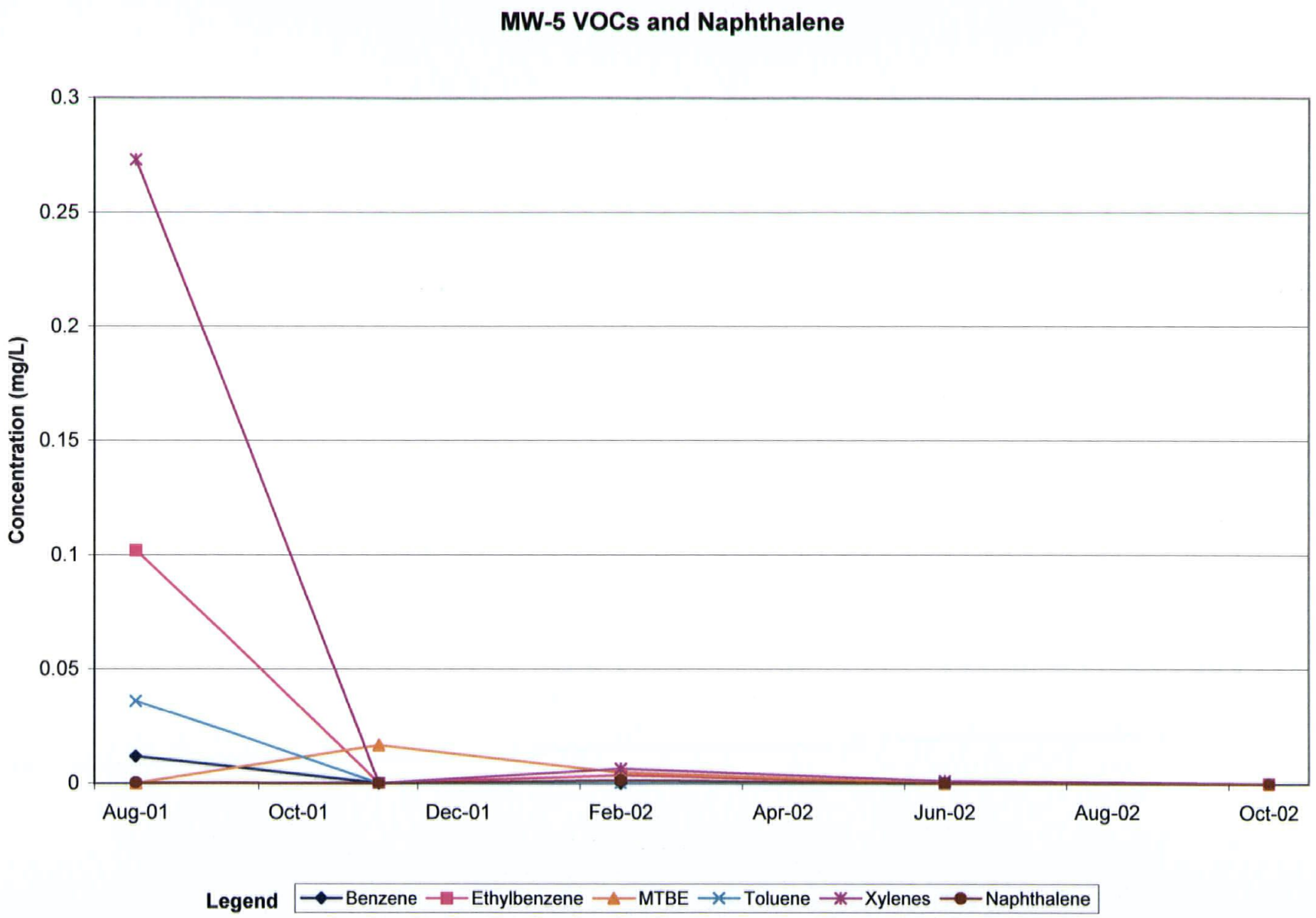
CONTAMINANT CONCENTRATION GRAPHS

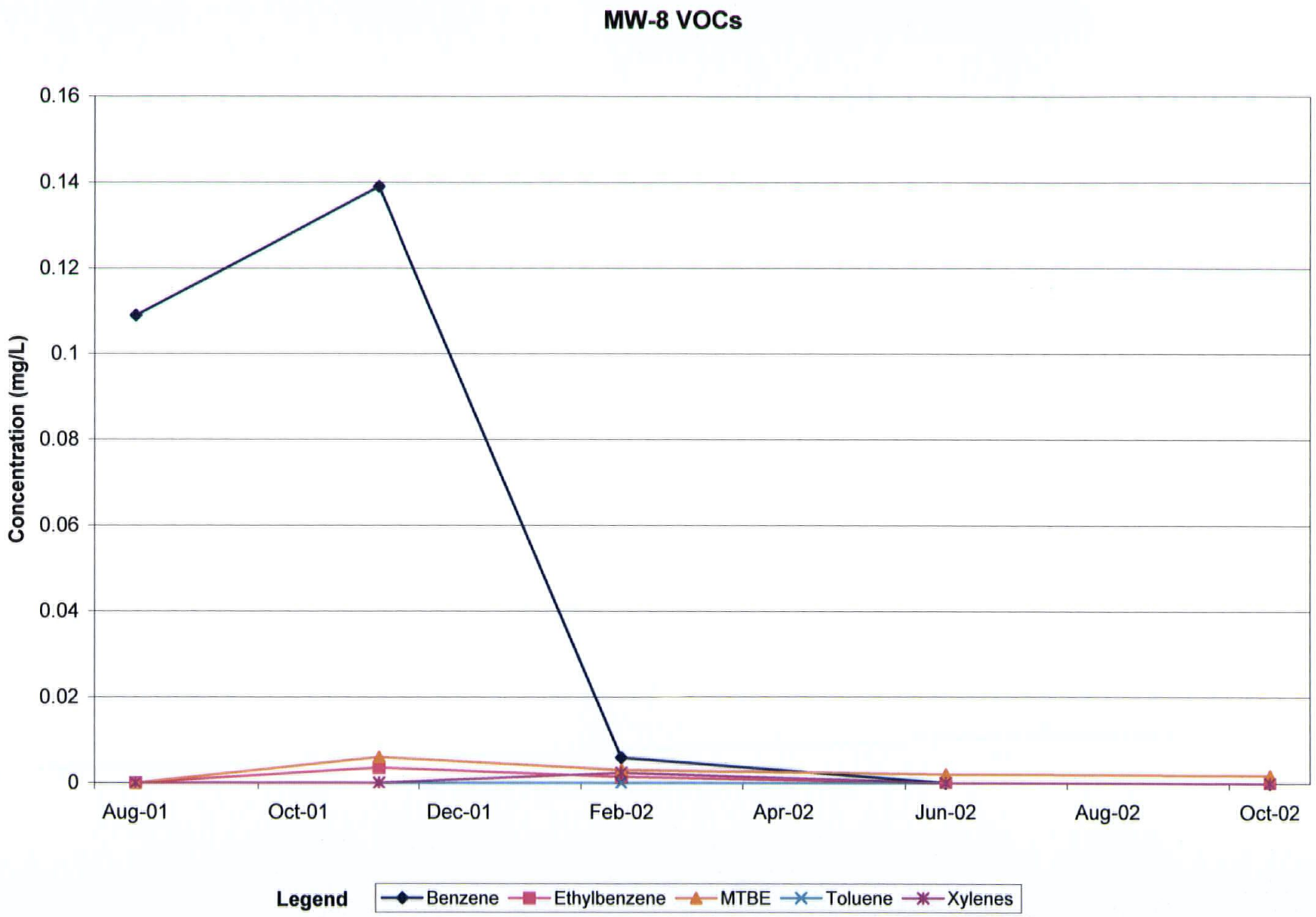

MW-2 VOCs and Naphthalene
Concentration (mg/L)
2.5
2
1.5
1
0.5
0
Aug-01
Oct-01
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Legend
Benzene
Ethylbenzene
MTBE
Toluene
Xylenes
Naphthalene

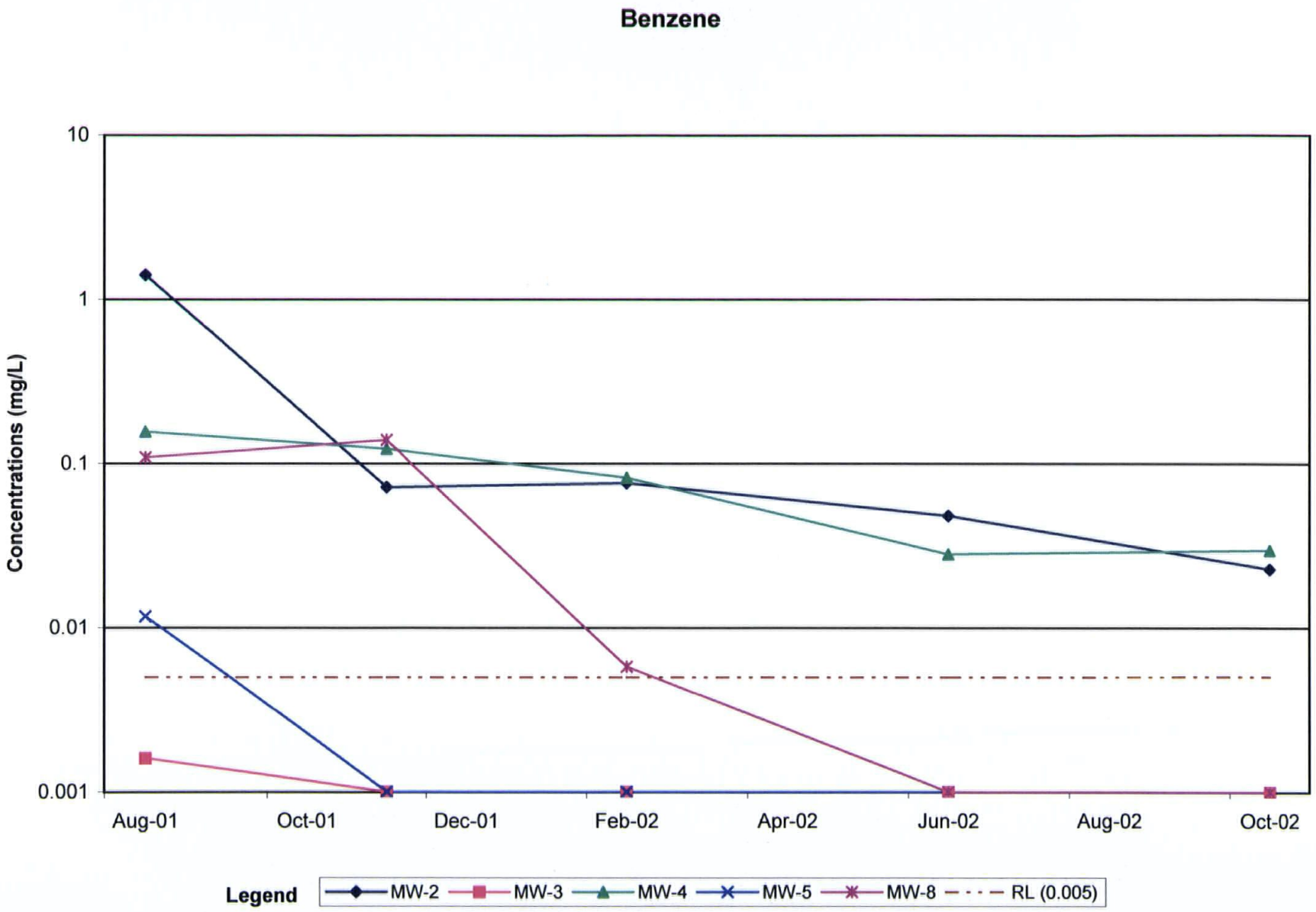
MW-3 VOCs and Naphthalene

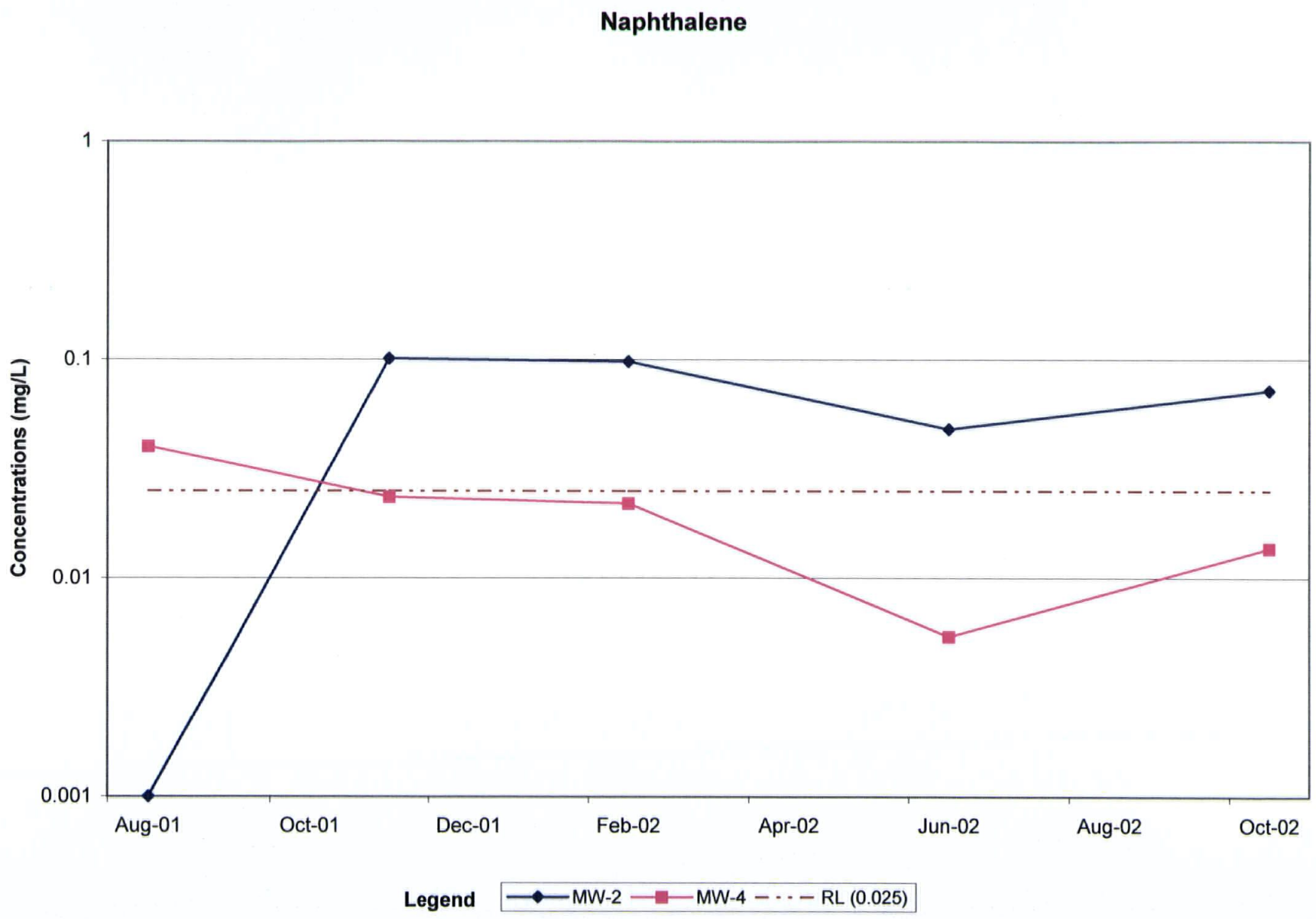


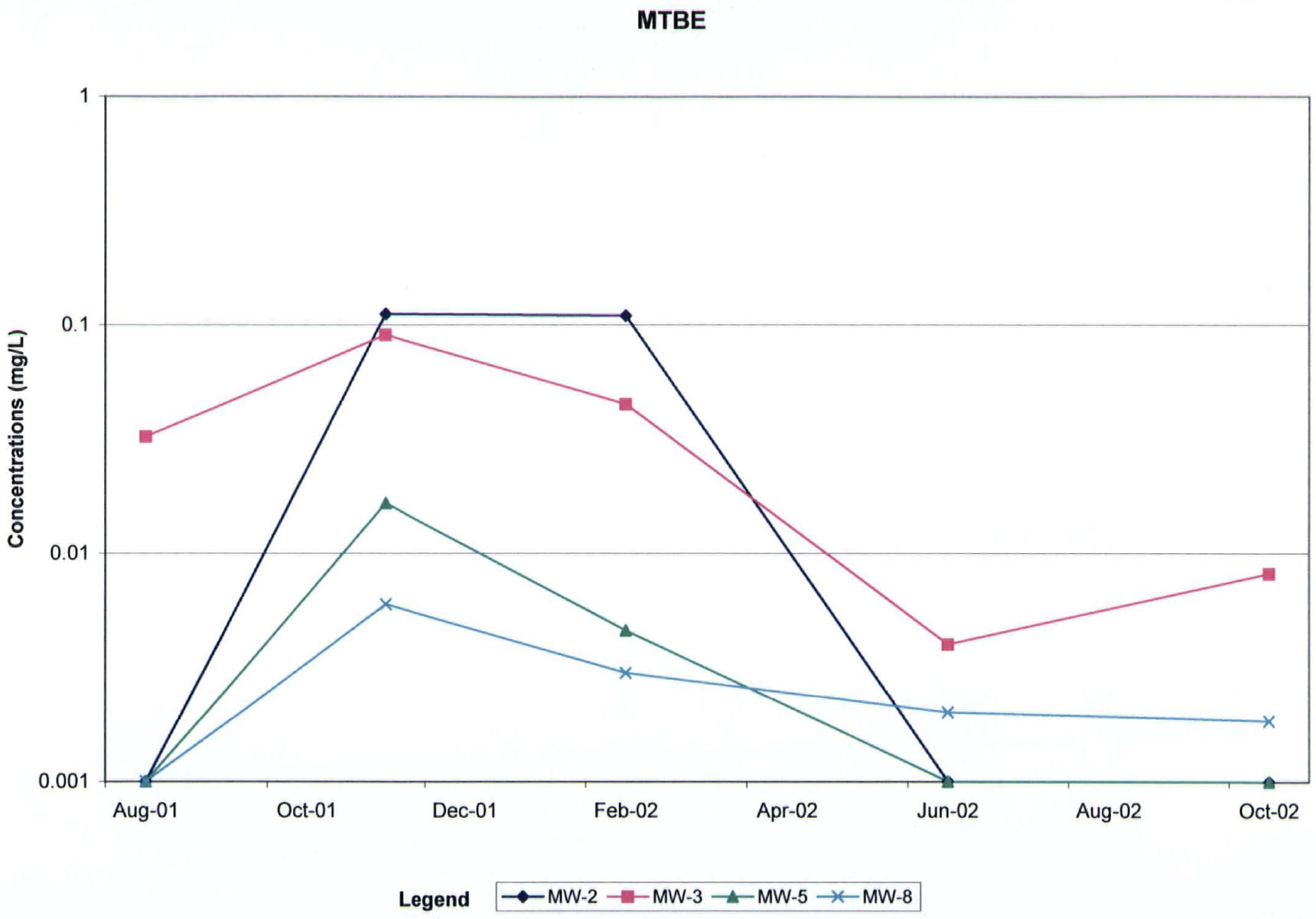

MW-4 VOCs and Naphthalene
Concentration (mg/L)
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Aug-01
Oct-01
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Legend
Benzene
Ethylbenzene
MTBE
Toluene
Xylenes
Naphthalene


MW-5 VOCs and Naphthalene
Concentration (mg/L)
0.3
0.25
0.2
0.15
0.1
0.05
0
Aug-01
Oct-01
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Legend
Benzene
Ethylbenzene
MTBE
Toluene
Xylenes
Naphthalene


MW-8 VOCs
Concentration (mg/L)
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
Aug-01
Oct-01
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Legend
Benzene
Ethylbenzene
MTBE
Toluene
Xylenes


Benzene
Concentrations (mg/L)
10
1
0.1
0.01
0.001
Aug-01
Oct-01
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Legend
MW-2
MW-3
MW-4
MW-5
MW-8
RL (0.005)


Naphthalene
Concentrations (mg/L)
1
0.1
0.01
0.001
Aug-01
Oct-01
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Legend
MW-2
MW-4
RL (0.025)


MTBE
Concentrations (mg/L)
1
0.1
0.01
0.001
Aug-01
Oct-01
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Legend
MW-2
MW-3
MW-5
MW-8

APPENDIX D

FUNCTIONAL PERFORMANCE CHECKLISTS

Functional Performance Checklist

Checklist Item	Initails	Date
Subsurface		
No piping/well pneumatic leaks	N/A	7-17-02
Water level rise within specification tolerances	N/A	
Monitoring point compositions within expected ranges (if measured)	N/A	
Monitoring point pressures and temperatures within expected ranges	N/A	
Blowers		
Start/stop from all control mechanisms	MTH	7-17-02
Operating points match blower curve specification for flow rate vs. pressure through start-up	MTH	7-17-02
Current draw and voltage balance match specifications for all phases	MTH	7-17-02
No excessive vibration/noise/temperature rise	MTH	7-17-02
Systems		
Air treatment system (heat exchangers) performance meets specifications	MTH	7-17-02
Control system operates within set parameters	MTH	7-17-02
Monitoring systems/instruments hold calibration	MTH	7-17-02

- Changed oil and greased both blower units.
- Systems both running O.K.

Functional Performance Checklist

Checklist Item	Initails	Date
Subsurface		
No piping/well pneumatic leaks	N/A	8-8-02
Water level rise within specification tolerances	N/A	
Monitoring point compositions within expected ranges (if measured)	N/A	
Monitoring point pressures and temperatures within expected ranges	N/A	
Blowers		
Start/stop from all control mechanisms	MTH	8-8-02
Operating points match blower curve specification for flow rate vs. pressure through start-up	MTH	8-8-02
Current draw and voltage balance match specifications for all phases	MTH	8-8-02
No excessive vibration/noise/temperature rise	MTH	8-8-02
Systems		
Air treatment system (heat exchangers) performance meets specifications	MTH	8-8-02
Control system operates within set parameters	MTH	8-8-02
Monitoring systems/instruments hold calibration	MTH	8-8-02

- Changed oil and greased both blower units.
- Both units running O.K.

Functional Performance Checklist

Checklist Item	Initails	Date
Subsurface		
No piping/well pneumatic leaks	N/A	
Water level rise within specification tolerances	N/A	
Monitoring point compositions within expected ranges (if measured)	N/A	
Monitoring point pressures and temperatures within expected ranges	N/A	
Blowers		
Start/stop from all control mechanisms		
Operating points match blower curve specification for flow rate vs. pressure through start-up		
Current draw and voltage balance match specifications for all phases		
No excessive vibration/noise/temperature rise		
Systems		
Air treatment system (heat exchangers) performance meets specifications	No	9/4
Control system operates within set parameters	Yes TAB	9/4
Monitoring systems/instruments hold calibration	TAB	9/4

Both Blowers were taken off-line for repairs.

Functional Performance Checklist

Checklist Item	Initails	Date
Subsurface		
No piping/well pneumatic leaks	TAB	9/16/02
Water level rise within specification tolerances	N/A	
Monitoring point compositions within expected ranges (if measured)	N/A	
Monitoring point pressures and temperatures within expected ranges	N/A	
Blowers		
Start/stop from all control mechanisms	TAB	9/16/02
Operating points match blower curve specification for flow rate vs. pressure through start-up	TAB	9/16/02
Current draw and voltage balance match specifications for all phases		
No excessive vibration/noise/temperature rise	TAB	9/16/02
Systems		
Air treatment system (heat exchangers) performance meets specifications	TAB	9/16/02
Control system operates within set parameters	TAB	9/16/02
Monitoring systems/instruments hold calibration	TAB	9/16/02

Replaced blowers, air filters and checked over entire system.