Shaw Environmental & Infrastructure, Inc.

HYDROGEOLOGIC EVALUATION

TAYLOR'S LANE COMPOST SITE

VILLAGE OF MAMARONECK, NEW YORK

Prepared for

Village of Mamaroneck
123 Mamaroneck Avenue
Mamaroneck, New York 10543

January 2005

Prepared by

EMCON/OWT, Inc.
4 Commerce Drive South
Harriman, New York 10926
845-492-3100

Project 791158

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1 INTRODUCTION

The Taylor's Lane Compost Site is located in the Village of Mamaroneck, New York. The site was a former municipal dump from the 1950s to early 1970s. After that, the southern portion of the site was used to compost leaves and to dispose of tree trunks and wood chips. The northeastern corner of the site has been used as a stockyard for a local plant nursery. A Remedial Investigation/Feasibility Study was performed for the site (Malcolm Pirnie, 1992a). The Record of Decision (ROD) for the site ordered the primary remedy of a final cover. The closure of the Taylor's Lane Compost Site was completed in the Spring of 1997 with the completion of the final cover construction.

Activities at the site are governed by the post-closure operations and maintenance procedures in the Post-Closure Operation and Maintenance Plan (O&M Plan). These activities include the quarterly sampling and analysis of three shallow/deep monitoring well couplets downgradient of the facility along Taylor Lane.

Earlier this year the Weinstein residence adjacent to the site notified the Village that groundwater seeping into the basement contained what appeared to be iron staining. The concern was that the staining suggested that landfill waste water from the site was discharging into the basement. The Markowitz residence reported increased water seepage and a problem with the discharge pipe connection from the sump pump. The purpose of this investigation was to collect groundwater elevation and water quality data from the site and surrounding area to determine if the site is the source of the staining observed in the water discharging into the basements.

2 FIELD PROGRAM

2.1 Groundwater Flow Evaluation

The groundwater flow evaluation involved using historical and recently obtained groundwater elevation data to determine shallow groundwater flow directions in the area

On August 24, 2004, a complete round of water level readings was taken from the remaining monitoring wells on the site. The water level elevations are shown on Table 2-1. A shallow groundwater contour map was prepared using this data and is shown on Drawing 1.

This is consistent with a water table map prepared as part of the remedial investigation conducted on the site in the early 1990s. The shallow groundwater flow direction was indicated to be from the northeast to the southwest (Malcolm Pirnie, 1992a). Other shallow groundwater contour maps prepared for that investigation (Malcolm Pirnie, 1992b) show the same results.

It should also be noted that precipitation over this summer has been one of the highest historically on record. This would result in a higher water table and lead to the unusually high seepage in basements and along Taylor's Lane. When precipitation and water levels return to more normal levels, seepage at the locations should decrease or return to more normal levels.

An additional issue related to the high water levels pertains to the downgradient monitoring wells (MW-94-1S, MW-94-1D, MW-94-2S, MW-94-2D, MW-94-3S, MW-94-3D, Drawing 1). These wells are located in Taylor Lane and therefore are flush mount installations with manhole type covers. Because of the high water levels, groundwater is frequently flowing out of the wells onto Taylor Lane, which in winter is a potential hazard due to the water freezing and creating icy conditions.

2.2 Water Quality Sampling and Analysis

To provide water quality data for this investigation, shallow groundwater samples were taken from several locations at the site and surrounding area. On-site, shallow groundwater samples were taken at shallow upgradient monitoring well MW-9S screened in the overburden soils, shallow monitoring well MW-14S screened in the fill, and shallow downgradient monitoring wells MW-2S and MW-3S screened in the overburden soils. Off-site, shallow groundwater samples were taken from the storm sewer draining the shallow groundwater interceptor trench (see Drawing 1) which was installed one or two feet below the ground surface between the site and adjacent properties to the east. This interceptor trench consisting of perforated pipe was installed during landfill closure of the site to lower the water table in the area so that water would not pond on the ground surface. The other off-site shallow groundwater samples taken were from groundwater seeping into basements of adjacent landowners to the east of the site (see Weinstein and Markowitz residences on Drawing 1).

The shallow groundwater samples were tested for the New York State Department of Environmental Conservation (NYSDEC) Part 360 Leachate Indicator Parameters from the Routine Analysis List as well as the volatile organics list (Method 524.2). Given the historical groundwater sampling results from this facility, these parameters would provide the best results for evaluating potential impacts.

The results of the shallow groundwater sampling and analysis are provided in Appendices A and B. In Appendix A the results are tabulated and compared to the NYSDEC GA Water Quality Standards. The instances where the result exceeded the State standard are shown by a bold number in the results column.

2.3 NYSDEC Report

The NYSDEC also conducted an investigation at the site, at locations downgradient of the site, and at the surrounding residences (Appendix D). They sampled iron flocculate (precipitate) samples in downgradient and residential locations and noted at some locations, elevated concentrations of arsenic. They attributed the iron flocculate and elevated arsenic results to the adjacent landfill. They also concluded that the sampling locations were not likely being impacted by concentrated or high strength leachate.

3 DISCUSSION OF RESULTS

3.1 Groundwater Flow Evaluation

Based on the shallow groundwater flow contours, the Markowitz and Weinstein residences are crossgradient of the site, not downgradient. A crossgradient location would not result in groundwater flow from the Village facility to the residences, and the groundwater in the residential areas would not be impacted by the Village facility. This is especially evident for the Weinstein residence, where only a very small portion of the Village site could supply groundwater flow to the house, even if current groundwater flow patterns were shifted more to the east (Drawing 1). However, there are two scenarios that would provide a mechanism for flow from the Village facility to the Markowitz and Weinstein residences given the current groundwater flow data. The first is that pumping water out of the basements is creating a localized cone of depression around the house(s) causing groundwater to flow from the Village site toward the residences. The second is that there is shallow groundwater flow toward the residences. However, further investigation including additional water level measuring locations between the facility and the residences would need to be conducted to investigate this possibility.

To address the problem with the downgradient monitoring wells in Taylor Lane, it is proposed that the existing wells be abandoned and that replacement wells be installed north of Taylor Lane. Currently the well spacing for the couplets is less than 200 feet. Under normal conditions, a 500 foot spacing is allowed under current NYSDEC Part 360 regulations. Given that analytical results from the three locations are not extremely variable, and that the geologic environment in that area is also not that variable, it is proposed that the existing monitoring wells be replaced by two couplets at approximately the two locations shown on Drawing 1.

3.2 Water Quality Sampling and Analysis

To aid in the interpretation of the analytical results, Stiff diagrams were constructed for each sampling location (Appendix C). The Stiff plotting technique uses four parallel horizontal axes extending on each side of a vertical zero axis. Concentrations of four parameters (anions) are plotted to the right of the zero line and the concentrations of four parameters (cations) are plotted to the left of the zero line. The resulting points are

connected to give an irregular polygonal shape or pattern. The Stiff patterns can be a relatively distinctive method of showing water composition differences and similarities.

Review of the water quality results for the monitoring well screened in the fill (MW-14S) and the downgradient wells (MW-2S, MW-3S) (Appendix A) are what would be expected. As a group, the State standard exceedances in total dissolved solids and various metals could be interpreted as impact from the facility. An occasional volatile detection is also consistent with past results. The Stiff diagrams for the downgradient wells (Appendix C) are more similar to the Stiff diagram for the fill well (MW-14S) than the upgradient well (MW-9S) suggesting some influence from the on-site fill.

The results from the interceptor pipe sample shows State standard exceedances in three of the parameters exceeded in the fill and downgradient wells, and therefore could be intercepting groundwater from the facility. The Stiff diagram for the interceptor pipe (Appendix C) is more similar to the Stiff diagram for the fill well (MW-14S) than the upgradient well (MW-9S) suggesting some influence from the on-site fill.

The sample from the Markowitz residence exceeds the State standards for total dissolved solids and sodium. These parameters by themselves are not good indicators of impact from the adjacent site, given that road salting or influx of saline water by tidal fluctuations are also possible mechanisms that would result in these types of results. Impact from the adjacent site would more likely result in the exceedance of more of the parameters discussed above in addition to sodium and TDS. However, the Stiff diagram for the Markowitz residence is similar in shape to the Stiff diagram for the interceptor trench, and to a certain extent to the fill well (MW-14S). Therefore, the water obtained from the basement of the Markowitz residence may be influenced to some extent by the adjacent site.

Like the interceptor pipe sample, the Weinstein residence sample exceeds three of the parameters that were also were exceeded in the fill and downgradient samples, and arsenic which was not exceeded in the fill and downgradient samples. The Stiff diagram for the Weinstein residence is similar in shape to the Stiff diagrams for the downgradient well MW-3S and the interceptor trench. In addition, total organic carbon is elevated in the basement water. This suggests that it is possible that the groundwater from the Weinstein residence basement is impacted from the adjacent site.

However, there are observations that complicate the conclusions reached by the discussion of the interceptor pipe and Markowitz/Weinstein residences results discussed above. The first is that the upgradient sample (MW-9S) also exceeds many of the parameters exceeded by the fill, downgradient, interceptor pipe, and Markowitz/Weinstein samples. One of the purposes of an upgradient sample is to provide an indication of whether an outside influence upgradient of the facility is impacting water quality on the site. The results for this upgradient sample indicate that

an off-site source may also be influencing water quality in this area. For example, with the high iron concentrations at the upgradient location (MW-9S), the iron water quality exceedances at the other sampling locations cannot be definitely attributed to the Village site at this time. The high iron could be a characteristic of groundwater flowing onto the site from an upgradient location.

However, the report (Malcolm Pirnie, 1992a) of a thin layer of fill (2 inches) in the area of the upgradient well further complicates the interpretation of the upgradient well groundwater quality results. Although it is believed that the 2 inches of fill was clean fill, if it was not, the fill layer may be impacting groundwater at this location and MW-9S would not truely be an upgradient well.

3.3 NYSDEC Report

The NYSDEC report (Appendix D) documented an investigation performed at the site that entailed the sampling of water, sediments and soils. The results of the study indicated elevated levels of arsenic in an iron flocculate (precipitate) found in seeps and streams in the vicinity of the landfill. The NYSDEC investigation is acknowledged, but there is not concurrence with the conclusions in this report at this time. The presence of iron seeps and elevated arsenic does not necessarily indicate an impact from the landfill.

The Department indicates that the presence of iron flocculate is characteristic of leachate discharge zones downgradient of landfills. It is important to note that the presence of iron flocculate is often observed in natural environments that are not impacted by any known sources of contamination and further, that elevated metals, including arsenic, can accumulate in these materials. This is because naturally occurring organic matter can create reducing conditions which solubilize iron and other metals which are natural components of soils. Upon re-oxidation, the iron precipitates creating a flocculate with concurrent accumulation of naturally occurring arsenic and other metals into the precipitate.

The area of the Mamaroneck landfill is characterized by wetlands and potentially reducing environments that could, in effect create the conditions that promote solubilization and re-oxidation of iron, and accumulation of arsenic and other metals in the iron precipitate. Accordingly, subsequent investigations should be performed to characterize iron flocculate deposits and sediments in areas where there is no potential for impacts from the landfill.

4 CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

In response to concerns about staining in groundwater seeping into the basement of an adjacent landowner and other water related problems at the residences, a hydrogeologic investigation was conducted to determine if the Village of Mamaroneck's Taylor Lane Compost Site was the source of the stained water. The investigation consisted of evaluation of groundwater flow directions and on-site and off-site groundwater quality. The shallow groundwater samples obtained from the fill within the Village facility and downgradient of the facility indicated State standard exceedances of several parameters, suggesting impact from the facility. A groundwater interceptor pipe located between the Village facility and adjacent residences had shallow groundwater samples that exceeded the State standards for several parameters that were exceeded in the fill and downgradient wells, and had a Stiff diagram pattern similar to the pattern for the fill well. Shallow groundwater samples taken from residences adjacent to the Village site exceeded the State standards for some of the parameters that were exceeded in the sample taken from the Village facility. Stiff diagrams produced for the residential sampling locations suggest a relationship between the groundwater at the Village site and the residences. Additionally, the NYSDEC believes that iron flocculate samples with high arsenic taken at downgradient and residential locations are attributable to the landfill. Therefore, it is possible that the Village site is impacting groundwater quality at the residences.

However, the upgradient monitoring well groundwater samples exceeded most of the State standards for parameters also exceeded in the on-site and off-site monitoring wells, suggesting that either a source other than the Village facility may be the source of the groundwater quality problems observed in the residences or that the upgradient monitoring well is not truly upgradient from site impacts. A report of a thin layer of fill in the area of the upgradient well further complicates the interpretation of the upgradient well groundwater quality results suggesting that the well may not truly be upgradient, but more data from sources further upgradient from the site is necessary to draw any conclusive opinion relative to this hypothesis. Regarding the results of the NYSDEC study, the presence of iron flocculate is often observed in natural environments that are not impacted by any known sources of contamination and further, that elevated metals, including arsenic, can accumulate in these materials. Shallow groundwater flow directions also did not indicate flow from the Village facility to the residences. However,

groundwater flow data in the area between the Village facility and the residences are not available, so localized shallow groundwater flow in this area is not known. Therefore, based on current available data and sampling locations it can not be determined conclusively whether or not that the Village facility is the source of the groundwater problems at the nearby residences.

4.2 Recommendations

To determine if the Village facility is the sole source of the groundwater quality problems in the nearby residential areas the following actions are recommended:

1. Install piezometer couplets between the Village facility and the residences to determine if the local horizontal and vertical groundwater flow directions are toward the residences.

2. Obtain a shallow groundwater sample(s) from off-site locations definitely known to be upgradient of the Village facility and compare the results with the existing water quality data to determine potential off-site impacts.

3. Take samples of iron flocculate at nearby wetland locations, not downgradient of the facility, to determine arsenic concentrations for comparison with site and downgradient results.

4. Prepare a supplemental report providing the results of the recommendations discussed above and conclusions reached from the data that is obtained.

Additionally, it is recommended that the current downgradient monitoring wells located in Taylor Lane be abandoned, and replaced by monitoring wells located north of Taylor Lane.

REFERENCES

Malcolm Pirnie, 1992a, Mamaroneck Taylor Lane Leaf Compost Site Remedial Investigation, June 1992.

Malcolm Pirnie, 1992b, Mamaroneck Taylor Lane Leaf Compost Site Final Supplemental Remedial Investigation, September 1992.

TABLES

Table 2-1`
Taylor Lane Compost Site
Monitoring Well Water Levels
August 24, 2004

Well ID	Well Size (inches)	Water Level from Top of PVC (feet)	Water Level from Top of Casing (feet)	Elevation of Water in Well (feet)	Notes
MW-9D	4	11.54	12.30	20.56	
MW-9S	2	9.86	10.02	22.96	
MW-14S	2	3.23	3.17	14.02	PVC above casing by 0.06'
MW-14D	2	2.09	2.48	14.85	
MW-15D	2	3.35	3.90	15.39	
94-1D	2	1.13	Not Applicable	17.37	Utilizing a 2 foot standpipe
94-1S	2	1.62	Not Applicable	16.88	Utilizing a 2 foot standpipe
94-2D	2	1.35	Not Applicable	14.70	Utilizing a 2 foot standpipe
94-2S	2	1.63	Not Applicable	14.42	Utilizing a 2 foot standpipe
94-3D	2	1.39	Not Applicable	13.86	Utilizing a 2 foot standpipe
94-3S	2	1.96	Not Applicable	13.86	Utilizing a 2 foot standpipe

APPENDIX A

GROUNDWATER QUALTITY ANALYSIS RESULTS

Taylor's Lane Compost Site
Inorganic Analysis
MW-3S (Downgradient)
September 24, 2004

Compound	PQL mg/L	GWQS mg/L	Results mg/L
AMMONIA	0.05	2	0.05U
BOD-5	2	NA	2U
BROMIDE	0.1	NA	1U
CHEMICAL OXYGEN DEMAND	5	NA	12.5
CHLORIDE	0.2	250	184
NITRATE NITROGEN	0.05	10	0.563
SULFATE	0.2	250	49.1
TOTAL ALKALINITY	2	NA	192
TOTAL DISSOLVED SOLIDS	10	200	**530**
TOTAL HARDNESS	2	NA	325
TOTAL KJELDAHL NITROGEN	0.2	NA	0.264
TOTAL ORGANIC CARBON	1	NA	2.5
TOTAL ORGANIC CARBON	1	NA	2.12
TOTAL ORGANIC CARBON	1	NA	2.11
TOTAL ORGANIC CARBON	1	NA	2.15
TOTAL PHENOLICS	0.005	0.001	0.005U
ARSENIC	0.01	0.025	0.01U
CADMIUM	0.005	0.005	0.005U
CALCIUM	0.5	NA	52.2
COPPER	0.02	0.2	**0.0268**
IRON	0.1	0.3	**70**
LEAD	0.005	0.025	0.0125
MAGNESIUM	0.5	35	**51.1**
MANGANESE	0.01	0.3	0.294
MERCURY	0.0003	0.0007	0.0003U
POTASSIUM	2	NA	5.87
SODIUM	0.5	20	**68.4**
ZINC	0.02	NA	0.0341

U = Analyte analyzed for but not detected

Taylor's Lane Compost Site
Volatile Organics Analysis
MW-2S (Downgradinet)
September 23, 2004

Compound	PQL mg/L	GWQS mg/L	Results mg/L
BENZENE	0.0005	0.001	0.0005U
BROMOBENZENE	0.0005	0.005	0.0005U
BROMOCHLOROMETHANE	0.0005	0.005	0.0005U
BROMODICHLOROMETHANE	0.0005		0.0005U
BROMOFORM	0.0005		0.0005U
BROMOMETHANE	0.0005	0.005	0.0005U
TERT-BUTYL ALCOHOL	0.02	0.005	**0.18**
METHYL-TERT-BUTYL ETHER	0.0005	0.01	**0.36**
TERT-BUTYLBENZENE	0.0005	0.005	0.0005U
SEC-BUTYLBENZENE	0.0005	0.005	0.0005U
N-BUTYLBENZENE	0.0005	0.005	0.0005U
CARBON TETRACHLORIDE	0.0005	0.005	0.0005U
CHLOROBENZENE	0.0005	0.005	0.0005U
CHLOROETHANE	0.0005	0.005	0.0005U
CHLOROFORM	0.0005	0.007	0.0005U
CHLOROMETHANE	0.0005		0.0005U
1,2-DIBROMO-3-CHLOROPROPANE	0.0005	0.00004	0.0005U
2-CHLOROTOLUENE	0.0005	0.005	0.0005U
4-CHLOROTOLUENE	0.0005	0.005	0.0005U
DIBROMOCHLOROMETHANE	0.0005		0.0005U
1,2-DIBROMOETHANE	0.0005		0.0005U
DIBROMOMETHANE	0.0005	0.005	0.0005U
1,2-DICHLOROBENZENE	0.0005	0.003	0.0005U
1,4-DICHLOROBENZENE	0.0005	0.003	0.0005U
1,3-DICHLOROBENZENE	0.0005	0.003	0.0005U
DICHLORODIFLUOROMETHANE	0.0005	0.005	0.0005U
1,1-DICHLOROETHANE	0.0005	0.0006	0.0005U
1,2-DICHLOROETHANE	0.0005	0.0006	0.0005U
1,1-DICHLOROETHENE	0.0005	0.005	0.0005U
TRANS-1,2-DICHLOROETHENE	0.0005	0.005	0.0005U
CIS-1,2-DICHLOROETHENE	0.0005	0.005	0.0005U
2,2-DICHLOROPROPANE	0.0005	0.005	0.0005U
1,2-DICHLOROPROPANE	0.0005	0.001	0.0005U
1,3-DICHLOROPROPANE	0.0005	0.005	0.0005U
1,1-DICHLOROPROPENE	0.0005	0.005	0.0005U
TRANS-1,3-DICHLOROPROPENE	0.0005	0.0004	0.0005U
CIS-1,3-DICHLOROPROPENE	0.0005	0.0004	0.0005U
ETHYLBENZENE	0.0005	0.005	0.0005U
HEXACHLOROBUTADIENE	0.0005	0.0005	0.0005U

Taylor's Lane Compost Site
Volatile Organics Analysis
MW-2S (Downgradinet)
September 23, 2004

Compound	PQL mg/L	GWQS mg/L	Results mg/L
ISOPROPYLBENZENE	0.0005	0.005	0.0005U
P-ISOPROPYLTOLUENE	0.0005	0.005	0.0005U
METHYLENE CHLORIDE	0.0005	0.005	0.0005U
NAPHTHALENE	0.0005		0.0005U
N-PROPYLBENZENE	0.0005	0.005	0.0005U
STYRENE	0.0005	0.005	0.0005U
1,1,1,2-TETRACHLOROETHANE	0.0005	0.005	0.0005U
1,1,2,2-TETRACHLOROETHANE	0.0005	0.005	0.0005U
TETRACHLOROETHENE	0.0005	0.005	0.0005U
TOLUENE	0.0005	0.005	0.0005U
1,2,4-TRICHLOROBENZENE	0.0005	0.005	0.0005U
1,2,3-TRICHLOROBENZENE	0.0005	0.005	0.0005U
1,1,1-TRICHLOROETHANE	0.0005	0.005	0.0005U
1,1,2-TRICHLOROETHANE	0.0005	0.001	0.0005U
TRICHLOROETHENE	0.0005	0.005	0.0005U
TRICHLOROFLUOROMETHANE	0.0005	0.005	0.0005U
1,2,3-TRICHLOROPROPANE	0.0005	0.00004	0.0005U
1,3,5-TRIMETHYLBENZENE	0.0005	0.005	0.0005U
1,2,4-TRIMETHYLBENZENE	0.0005	0.005	0.0005U
VINYL CHLORIDE	0.0005	0.002	0.00059
M+P-XYLENE	0.0005	0.005	0.0005U
O-XYLENE	0.0005	0.005	0.0005U

U = Analyte analyzed for but not detected
E = Concentrations exceeded laboratory equipment calibration

Taylor's Lane Compost Site
Inorganic Analysis
MW-14S (Fill)
September 23, 2004

Compound	PQL mg/L	GWQS mg/L	Results mg/L
AMMONIA	0.05	2	**2.55**
BOD-5	2	NA	27.2
BROMIDE	0.1	NA	1U
CHEMICAL OXYGEN DEMAND	5	NA	150
CHLORIDE	0.2	250	139
NITRATE NITROGEN	0.05	10	0.5U
SULFATE	0.2	250	2U
TOTAL ALKALINITY	2	NA	345
TOTAL DISSOLVED SOLIDS	10	200	**564**
TOTAL HARDNESS	2	NA	389
TOTAL KJELDAHL NITROGEN	0.2	NA	4.35
TOTAL ORGANIC CARBON	1	NA	9.8
TOTAL ORGANIC CARBON	1	NA	10.1
TOTAL ORGANIC CARBON	1	NA	10.7
TOTAL ORGANIC CARBON	1	NA	10.2
TOTAL PHENOLICS	0.005	0.001	0.005U
ARSENIC	0.01	0.025	0.01U
CADMIUM	0.005	0.005	0.005U
CALCIUM	0.5	NA	92.8
COPPER	0.02	0.2	0.0731
IRON	0.1	0.3	**27**
LEAD	0.005	0.025	**0.376**
MAGNESIUM	0.5	35	32.6
MANGANESE	0.01	0.3	**0.332**
MERCURY	0.0003	0.0007	0.0003U
POTASSIUM	2	NA	19
SODIUM	0.5	20	**56.4**
ZINC	0.02	NA	0.176

U = Analyte analyzed for but not detected

Taylor's Lane Compost Site
Volatile Organics Analysis
MW-14S (Fill)
September 23, 2004

Compound	PQL mg/L	GWQS mg/L	Results mg/L
BENZENE	0.0005	0.001	0.0005U
BROMOBENZENE	0.0005	0.005	0.0005U
BROMOCHLOROMETHANE	0.0005	0.005	0.0005U
BROMODICHLOROMETHANE	0.0005		0.0005U
BROMOFORM	0.0005		0.0005U
BROMOMETHANE	0.0005	0.005	0.0005U
TERT-BUTYL ALCOHOL	0.02	0.005	**0.088**
METHYL-TERT-BUTYL ETHER	0.0005	0.01	**0.042**
TERT-BUTYLBENZENE	0.0005	0.005	0.0005U
SEC-BUTYLBENZENE	0.0005	0.005	0.0005U
N-BUTYLBENZENE	0.0005	0.005	0.0005U
CARBON TETRACHLORIDE	0.0005	0.005	0.0005U
CHLOROBENZENE	0.0005	0.005	0.0005U
CHLOROETHANE	0.0005	0.005	0.0005U
CHLOROFORM	0.0005	0.007	0.0005U
CHLOROMETHANE	0.0005		0.0005U
1,2-DIBROMO-3-CHLOROPROPANE	0.0005	0.00004	0.0005U
2-CHLOROTOLUENE	0.0005	0.005	0.0005U
4-CHLOROTOLUENE	0.0005	0.005	0.0005U
DIBROMOCHLOROMETHANE	0.0005		0.0005U
1,2-DIBROMOETHANE	0.0005		0.0005U
DIBROMOMETHANE	0.0005	0.005	0.0005U
1,2-DICHLOROBENZENE	0.0005	0.003	0.0005U
1,4-DICHLOROBENZENE	0.0005	0.003	0.0005U
1,3-DICHLOROBENZENE	0.0005	0.003	0.0005U
DICHLORODIFLUOROMETHANE	0.0005	0.005	0.0005U
1,1-DICHLOROETHANE	0.0005	0.0006	0.0005U
1,2-DICHLOROETHANE	0.0005	0.0006	0.0005U
1,1-DICHLOROETHENE	0.0005	0.005	0.0005U
TRANS-1,2-DICHLOROETHENE	0.0005	0.005	0.0005U
CIS-1,2-DICHLOROETHENE	0.0005	0.005	0.0005U
2,2-DICHLOROPROPANE	0.0005	0.005	0.0005U
1,2-DICHLOROPROPANE	0.0005	0.001	0.0005U
1,3-DICHLOROPROPANE	0.0005	0.005	0.0005U
1,1-DICHLOROPROPENE	0.0005	0.005	0.0005U
TRANS-1,3-DICHLOROPROPENE	0.0005	0.0004	0.0005U
CIS-1,3-DICHLOROPROPENE	0.0005	0.0004	0.0005U
ETHYLBENZENE	0.0005	0.005	0.0005U
HEXACHLOROBUTADIENE	0.0005	0.0005	0.0005U

Taylor's Lane Compost Site
Volatile Organics Analysis
MW-14S (Fill)
September 23, 2004

Compound	PQL mg/L	GWQS mg/L	Results mg/L
ISOPROPYLBENZENE	0.0005	0.005	0.0005U
P-ISOPROPYLTOLUENE	0.0005	0.005	0.0005U
METHYLENE CHLORIDE	0.0005	0.005	0.0005U
NAPHTHALENE	0.0005		0.0005U
N-PROPYLBENZENE	0.0005	0.005	0.0005U
STYRENE	0.0005	0.005	0.0005U
1,1,1,2-TETRACHLOROETHANE	0.0005	0.005	0.0005U
1,1,2,2-TETRACHLOROETHANE	0.0005	0.005	0.0005U
TETRACHLOROETHENE	0.0005	0.005	0.0005U
TOLUENE	0.0005	0.005	0.0005U
1,2,4-TRICHLOROBENZENE	0.0005	0.005	0.0005U
1,2,3-TRICHLOROBENZENE	0.0005	0.005	0.0005U
1,1,1-TRICHLOROETHANE	0.0005	0.005	0.0005U
1,1,2-TRICHLOROETHANE	0.0005	0.001	0.0005U
TRICHLOROETHENE	0.0005	0.005	0.0005U
TRICHLOROFLUOROMETHANE	0.0005	0.005	0.0005U
1,2,3-TRICHLOROPROPANE	0.0005	0.00004	0.0005U
1,3,5-TRIMETHYLBENZENE	0.0005	0.005	0.0005U
1,2,4-TRIMETHYLBENZENE	0.0005	0.005	0.0005U
VINYL CHLORIDE	0.0005	0.002	0.0005U
M+P-XYLENE	0.0005	0.005	0.0005U
O-XYLENE	0.0005	0.005	0.0005U

U = Analyte analyzed for but not detected
E = Concentrations exceeded laboratory equipment calibration

Taylor's Lane Compost Site
Inorganic Analysis
MW-9S (Upgradient)
September 23, 2004

Compound	PQL mg/L	GWQS mg/L	Results mg/L
AMMONIA	0.05	2	0.05U
BOD-5	2	NA	2U
BROMIDE	0.1	NA	1U
CHEMICAL OXYGEN DEMAND	5	NA	5U
CHLORIDE	0.2	250	32.4
NITRATE NITROGEN	0.05	10	0.912
SULFATE	0.2	250	16.7
TOTAL ALKALINITY	2	NA	46
TOTAL DISSOLVED SOLIDS	10	200	141
TOTAL HARDNESS	2	NA	51.2
TOTAL KJELDAHL NITROGEN	0.2	NA	0.71
TOTAL ORGANIC CARBON	1	NA	2.28
TOTAL ORGANIC CARBON	1	NA	2.36
TOTAL ORGANIC CARBON	1	NA	2.36
TOTAL ORGANIC CARBON	1	NA	2.3
TOTAL PHENOLICS	0.005	0.001	0.005U
ARSENIC	0.01	0.025	0.2U
CADMIUM	0.005	0.005	**0.0138**
CALCIUM	0.5	NA	16
COPPER	0.02	0.2	**0.578**
IRON	0.1	0.3	**382**
LEAD	0.005	0.025	**0.065**
MAGNESIUM	0.5	35	**25.8**
MANGANESE	0.01	0.3	**3.05**
MERCURY	0.0003	0.0007	0.0003U
POTASSIUM	2	NA	16.4
SODIUM	0.5	20	**35.7**
ZINC	0.02	NA	0.112

U = Analyte analyzed for but not detected

Taylor's Lane Compost Site
Volatile Organics Analysis
MW-9S (Upgradient)
September 23, 2004

Compound	PQL mg/L	GWQS mg/L	Results mg/L
BENZENE	0.0005	0.001	0.0005U
BROMOBENZENE	0.0005	0.005	0.0005U
BROMOCHLOROMETHANE	0.0005	0.005	0.0005U
BROMODICHLOROMETHANE	0.0005		0.0005U
BROMOFORM	0.0005		0.0005U
BROMOMETHANE	0.0005	0.005	0.0005U
TERT-BUTYL ALCOHOL	0.02	0.005	0.02U
METHYL-TERT-BUTYL ETHER	0.0005	0.01	0.0005U
TERT-BUTYLBENZENE	0.0005	0.005	0.0005U
SEC-BUTYLBENZENE	0.0005	0.005	0.0005U
N-BUTYLBENZENE	0.0005	0.005	0.0005U
CARBON TETRACHLORIDE	0.0005	0.005	0.0005U
CHLOROBENZENE	0.0005	0.005	0.0005U
CHLOROETHANE	0.0005	0.005	0.0005U
CHLOROFORM	0.0005	0.007	**0.023**
CHLOROMETHANE	0.0005		0.0005U
1,2-DIBROMO-3-CHLOROPROPANE	0.0005	0.00004	0.0005U
2-CHLOROTOLUENE	0.0005	0.005	0.0005U
4-CHLOROTOLUENE	0.0005	0.005	0.0005U
DIBROMOCHLOROMETHANE	0.0005		0.0005U
1,2-DIBROMOETHANE	0.0005		0.0005U
DIBROMOMETHANE	0.0005	0.005	0.0005U
1,2-DICHLOROBENZENE	0.0005	0.003	0.0005U
1,4-DICHLOROBENZENE	0.0005	0.003	0.0005U
1,3-DICHLOROBENZENE	0.0005	0.003	0.0005U
DICHLORODIFLUOROMETHANE	0.0005	0.005	0.0005U
1,1-DICHLOROETHANE	0.0005	0.0006	0.0005U
1,2-DICHLOROETHANE	0.0005	0.0006	0.0005U
1,1-DICHLOROETHENE	0.0005	0.005	0.0005U
TRANS-1,2-DICHLOROETHENE	0.0005	0.005	0.0005U
CIS-1,2-DICHLOROETHENE	0.0005	0.005	0.0005U
2,2-DICHLOROPROPANE	0.0005	0.005	0.0005U
1,2-DICHLOROPROPANE	0.0005	0.001	0.0005U
1,3-DICHLOROPROPANE	0.0005	0.005	0.0005U
1,1-DICHLOROPROPENE	0.0005	0.005	0.0005U
TRANS-1,3-DICHLOROPROPENE	0.0005	0.0004	0.0005U
CIS-1,3-DICHLOROPROPENE	0.0005	0.0004	0.0005U
ETHYLBENZENE	0.0005	0.005	0.0005U
HEXACHLOROBUTADIENE	0.0005	0.0005	0.0005U

Taylor's Lane Compost Site
Volatile Organics Analysis
MW-9S (Upgradient)
September 23, 2004

Compound	PQL mg/L	GWQS mg/L	Results mg/L
ISOPROPYLBENZENE	0.0005	0.005	0.0005U
P-ISOPROPYLTOLUENE	0.0005	0.005	0.0005U
METHYLENE CHLORIDE	0.0005	0.005	0.0005U
NAPHTHALENE	0.0005		0.0005U
N-PROPYLBENZENE	0.0005	0.005	0.0005U
STYRENE	0.0005	0.005	0.0005U
1,1,1,2-TETRACHLOROETHANE	0.0005	0.005	0.0005U
1,1,2,2-TETRACHLOROETHANE	0.0005	0.005	0.0005U
TETRACHLOROETHENE	0.0005	0.005	0.0005U
TOLUENE	0.0005	0.005	0.0005U
1,2,4-TRICHLOROBENZENE	0.0005	0.005	0.0005U
1,2,3-TRICHLOROBENZENE	0.0005	0.005	0.0005U
1,1,1-TRICHLOROETHANE	0.0005	0.005	0.0005U
1,1,2-TRICHLOROETHANE	0.0005	0.001	0.0005U
TRICHLOROETHENE	0.0005	0.005	0.0005U
TRICHLOROFLUOROMETHANE	0.0005	0.005	0.0005U
1,2,3-TRICHLOROPROPANE	0.0005	0.00004	0.0005U
1,3,5-TRIMETHYLBENZENE	0.0005	0.005	0.0005U
1,2,4-TRIMETHYLBENZENE	0.0005	0.005	0.0005U
VINYL CHLORIDE	0.0005	0.002	0.0005U
M+P-XYLENE	0.0005	0.005	0.0005U
O-XYLENE	0.0005	0.005	0.0005U

U = Analyte analyzed for but not detected

Taylor's Lane Compost Site
Inorganic Analysis
Sampling Location: SS-1 (Interceptor Trench)
September 23, 2004

Compound	PQL mg/L	GWQS mg/L	Results mg/L
AMMONIA	0.05	2	0.424
BOD-5	2	NA	2U
BROMIDE	0.1	NA	1U
CHEMICAL OXYGEN DEMAND	5	NA	82.8
CHLORIDE	0.2	250	139
NITRATE NITROGEN	0.05	10	1.05
SULFATE	0.2	250	15.2
TOTAL ALKALINITY	2	NA	220
TOTAL DISSOLVED SOLIDS	10	200	**540**
TOTAL HARDNESS	2	NA	309
TOTAL KJELDAHL NITROGEN	0.2	NA	3.67
TOTAL ORGANIC CARBON	1	NA	10.4
TOTAL ORGANIC CARBON	1	NA	10.7
TOTAL ORGANIC CARBON	1	NA	10.8
TOTAL ORGANIC CARBON	1	NA	11.4
TOTAL PHENOLICS	0.005	0.001	0.005U
ARSENIC	0.01	0.025	0.01U
CADMIUM	0.005	0.005	0.005U
CALCIUM	0.5	NA	89.2
COPPER	0.02	0.2	0.02U
IRON	0.1	0.3	**10.3**
LEAD	0.005	0.025	0.005U
MAGNESIUM	0.5	35	30.1
MANGANESE	0.01	0.3	1.64
MERCURY	0.0003	0.0007	0.0003U
POTASSIUM	2	NA	7.79
SODIUM	0.5	20	**63.4**
ZINC	0.02	NA	0.02U

U = Analyte analyzed for but not detected

Taylor's Lane Compost Site
Volatile Organics Analysis
Sampling Location: SS-1 (Interceptor Trench)
September 23, 2004

Compound	PQL mg/L	GWQS mg/L	Results mg/L
BENZENE	0.0005	0.001	0.0005U
BROMOBENZENE	0.0005	0.005	0.0005U
BROMOCHLOROMETHANE	0.0005	0.005	0.0005U
BROMODICHLOROMETHANE	0.0005		0.0005U
BROMOFORM	0.0005		0.0005U
BROMOMETHANE	0.0005	0.005	0.0005U
TERT-BUTYL ALCOHOL	0.02	0.005	**0.052**
METHYL-TERT-BUTYL ETHER	0.0005	0.01	**0.015**
TERT-BUTYLBENZENE	0.0005	0.005	0.0005U
SEC-BUTYLBENZENE	0.0005	0.005	0.0005U
N-BUTYLBENZENE	0.0005	0.005	0.0005U
CARBON TETRACHLORIDE	0.0005	0.005	0.0005U
CHLOROBENZENE	0.0005	0.005	0.0005U
CHLOROETHANE	0.0005	0.005	0.0005U
CHLOROFORM	0.0005	0.007	0.0005U
CHLOROMETHANE	0.0005		0.0005U
1,2-DIBROMO-3-CHLOROPROPANE	0.0005	0.00004	0.0005U
2-CHLOROTOLUENE	0.0005	0.005	0.0005U
4-CHLOROTOLUENE	0.0005	0.005	0.0005U
DIBROMOCHLOROMETHANE	0.0005		0.0005U
1,2-DIBROMOETHANE	0.0005		0.0005U
DIBROMOMETHANE	0.0005	0.005	0.0005U
1,2-DICHLOROBENZENE	0.0005	0.003	0.0005U
1,4-DICHLOROBENZENE	0.0005	0.003	0.0005U
1,3-DICHLOROBENZENE	0.0005	0.003	0.0005U
DICHLORODIFLUOROMETHANE	0.0005	0.005	0.0005U
1,1-DICHLOROETHANE	0.0005	0.0006	0.0005U
1,2-DICHLOROETHANE	0.0005	0.0006	0.0005U
1,1-DICHLOROETHENE	0.0005	0.005	0.0005U
TRANS-1,2-DICHLOROETHENE	0.0005	0.005	0.0005U
CIS-1,2-DICHLOROETHENE	0.0005	0.005	0.0005U
2,2-DICHLOROPROPANE	0.0005	0.005	0.0005U
1,2-DICHLOROPROPANE	0.0005	0.001	0.0005U
1,3-DICHLOROPROPANE	0.0005	0.005	0.0005U
1,1-DICHLOROPROPENE	0.0005	0.005	0.0005U
TRANS-1,3-DICHLOROPROPENE	0.0005	0.0004	0.0005U
CIS-1,3-DICHLOROPROPENE	0.0005	0.0004	0.0005U
ETHYLBENZENE	0.0005	0.005	0.0005U
HEXACHLOROBUTADIENE	0.0005	0.0005	0.0005U

Taylor's Lane Compost Site
Volatile Organics Analysis
Sampling Location: SS-1 (Interceptor Trench)
September 23, 2004

Compound	PQL mg/L	GWQS mg/L	Results mg/L
ISOPROPYLBENZENE	0.0005	0.005	0.0005U
P-ISOPROPYLTOLUENE	0.0005	0.005	0.0005U
METHYLENE CHLORIDE	0.0005	0.005	0.0005U
NAPHTHALENE	0.0005		0.0005U
N-PROPYLBENZENE	0.0005	0.005	0.0005U
STYRENE	0.0005	0.005	0.0005U
1,1,1,2-TETRACHLOROETHANE	0.0005	0.005	0.0005U
1,1,2,2-TETRACHLOROETHANE	0.0005	0.005	0.0005U
TETRACHLOROETHENE	0.0005	0.005	0.0005U
TOLUENE	0.0005	0.005	0.0005U
1,2,4-TRICHLOROBENZENE	0.0005	0.005	0.0005U
1,2,3-TRICHLOROBENZENE	0.0005	0.005	0.0005U
1,1,1-TRICHLOROETHANE	0.0005	0.005	0.0005U
1,1,2-TRICHLOROETHANE	0.0005	0.001	0.0005U
TRICHLOROETHENE	0.0005	0.005	0.0005U
TRICHLOROFLUOROMETHANE	0.0005	0.005	0.0005U
1,2,3-TRICHLOROPROPANE	0.0005	0.00004	0.0005U
1,3,5-TRIMETHYLBENZENE	0.0005	0.005	0.0005U
1,2,4-TRIMETHYLBENZENE	0.0005	0.005	0.0005U
VINYL CHLORIDE	0.0005	0.002	0.0005U
M+P-XYLENE	0.0005	0.005	0.0005U
O-XYLENE	0.0005	0.005	0.0005U

U = Analyte analyzed for but not detected

Taylor's Lane Compost Site
Inorganic Analysis
Sample Location: BWH (Weinstein Residence)
September 23, 2004

Compound	PQL mg/L	GWQS mg/L	Results mg/L
AMMONIA	0.05	2	0.348
BOD-5	2	NA	4.14J
BROMIDE	0.1	NA	1U
CHEMICAL OXYGEN DEMAND	5	NA	88.6
CHLORIDE	0.2	250	113
NITRATE NITROGEN	0.05	10	0.5U
SULFATE	0.2	250	16.3
TOTAL ALKALINITY	2	NA	257
TOTAL DISSOLVED SOLIDS	10	200	**482**
TOTAL HARDNESS	2	NA	268
TOTAL KJELDAHL NITROGEN	0.2	NA	2.83
TOTAL ORGANIC CARBON	1	NA	63.4
TOTAL ORGANIC CARBON	1	NA	64.2
TOTAL ORGANIC CARBON	1	NA	67.4
TOTAL ORGANIC CARBON	1	NA	68.2
TOTAL PHENOLICS	0.005	0.001	0.005U
ARSENIC	0.01	0.025	**0.0286**
CADMIUM	0.005	0.005	0.005U
CALCIUM	0.5	NA	80.2
COPPER	0.02	0.2	0.0332
IRON	0.1	0.3	**100**
LEAD	0.005	0.025	0.021
MAGNESIUM	0.5	35	21.3
MANGANESE	0.01	0.3	2.58
MERCURY	0.0003	0.0007	0.0003U
POTASSIUM	2	NA	4.73
SODIUM	0.5	20	**75.3**
ZINC	0.02	NA	0.0867

J = Estimated Value
U = Analyte analyzed for but not detected

Taylor's Lane Compost Site
Volatile Organics Analysis
Sample Location: BWH (Weinstein Residence)
September 23, 2004

Compound	PQL mg/L	GWQS mg/L	Results mg/L
BENZENE	0.0005	0.001	0.0005U
BROMOBENZENE	0.0005	0.005	0.0005U
BROMOCHLOROMETHANE	0.0005	0.005	0.0005U
BROMODICHLOROMETHANE	0.0005		0.0005U
BROMOFORM	0.0005		0.0005U
BROMOMETHANE	0.0005	0.005	0.0005U
TERT-BUTYL ALCOHOL	0.02	0.005	0.02U
METHYL-TERT-BUTYL ETHER	0.0005	0.01	0.0024
TERT-BUTYLBENZENE	0.0005	0.005	0.0005U
SEC-BUTYLBENZENE	0.0005	0.005	0.0005U
N-BUTYLBENZENE	0.0005	0.005	0.0005U
CARBON TETRACHLORIDE	0.0005	0.005	0.0005U
CHLOROBENZENE	0.0005	0.005	0.0005U
CHLOROETHANE	0.0005	0.005	0.0005U
CHLOROFORM	0.0005	0.007	0.0005U
CHLOROMETHANE	0.0005		0.0005U
1,2-DIBROMO-3-CHLOROPROPANE	0.0005	0.00004	0.0005U
2-CHLOROTOLUENE	0.0005	0.005	0.0005U
4-CHLOROTOLUENE	0.0005	0.005	0.0005U
DIBROMOCHLOROMETHANE	0.0005		0.0005U
1,2-DIBROMOETHANE	0.0005		0.0005U
DIBROMOMETHANE	0.0005	0.005	0.0005U
1,2-DICHLOROBENZENE	0.0005	0.003	0.0005U
1,4-DICHLOROBENZENE	0.0005	0.003	0.0005U
1,3-DICHLOROBENZENE	0.0005	0.003	0.0005U
DICHLORODIFLUOROMETHANE	0.0005	0.005	0.0005U
1,1-DICHLOROETHANE	0.0005	0.0006	0.0005U
1,2-DICHLOROETHANE	0.0005	0.0006	0.0005U
1,1-DICHLOROETHENE	0.0005	0.005	0.0005U
TRANS-1,2-DICHLOROETHENE	0.0005	0.005	0.0005U
CIS-1,2-DICHLOROETHENE	0.0005	0.005	0.0005U
2,2-DICHLOROPROPANE	0.0005	0.005	0.0005U
1,2-DICHLOROPROPANE	0.0005	0.001	0.0005U
1,3-DICHLOROPROPANE	0.0005	0.005	0.0005U
1,1-DICHLOROPROPENE	0.0005	0.005	0.0005U
TRANS-1,3-DICHLOROPROPENE	0.0005	0.0004	0.0005U
CIS-1,3-DICHLOROPROPENE	0.0005	0.0004	0.0005U
ETHYLBENZENE	0.0005	0.005	0.0005U
HEXACHLOROBUTADIENE	0.0005	0.0005	0.0005U

Taylor's Lane Compost Site
Volatile Organics Analysis
Sample Location: BWH (Weinstein Residence)
September 23, 2004

Compound	PQL mg/L	GWQS mg/L	Results mg/L
ISOPROPYLBENZENE	0.0005	0.005	0.0005U
P-ISOPROPYLTOLUENE	0.0005	0.005	0.0005U
METHYLENE CHLORIDE	0.0005	0.005	0.0005U
NAPHTHALENE	0.0005		0.0005U
N-PROPYLBENZENE	0.0005	0.005	0.0005U
STYRENE	0.0005	0.005	0.0005U
1,1,1,2-TETRACHLOROETHANE	0.0005	0.005	0.0005U
1,1,2,2-TETRACHLOROETHANE	0.0005	0.005	0.0005U
TETRACHLOROETHENE	0.0005	0.005	0.0005U
TOLUENE	0.0005	0.005	0.0005U
1,2,4-TRICHLOROBENZENE	0.0005	0.005	0.0005U
1,2,3-TRICHLOROBENZENE	0.0005	0.005	0.0005U
1,1,1-TRICHLOROETHANE	0.0005	0.005	0.0005U
1,1,2-TRICHLOROETHANE	0.0005	0.001	0.0005U
TRICHLOROETHENE	0.0005	0.005	0.0005U
TRICHLOROFLUOROMETHANE	0.0005	0.005	0.0005U
1,2,3-TRICHLOROPROPANE	0.0005	0.00004	0.0005U
1,3,5-TRIMETHYLBENZENE	0.0005	0.005	0.0005U
1,2,4-TRIMETHYLBENZENE	0.0005	0.005	0.0005U
VINYL CHLORIDE	0.0005	0.002	0.0005U
M+P-XYLENE	0.0005	0.005	0.0005U
O-XYLENE	0.0005	0.005	0.0005U

U = Analyte analyzed for but not detected

Taylor's Lane Compost Site
Inorganic Analysis
Sample Location: SMH (Markowitz Residence)
September 23, 2004

Compound	PQL mg/L	GWQS mg/L	Results mg/L
AMMONIA	0.05	2	0.05U
BOD-5	2	NA	2U
BROMIDE	0.1	NA	1U
CHEMICAL OXYGEN DEMAND	5	NA	5U
CHLORIDE	0.2	250	90.9
NITRATE NITROGEN	0.05	10	5.26
SULFATE	0.2	250	39.3
TOTAL ALKALINITY	2	NA	154
TOTAL DISSOLVED SOLIDS	10	200	**363**
TOTAL HARDNESS	2	NA	244
TOTAL KJELDAHL NITROGEN	0.2	NA	0.4U
TOTAL ORGANIC CARBON	1	NA	1.37
TOTAL ORGANIC CARBON	1	NA	1.44
TOTAL ORGANIC CARBON	1	NA	1.45
TOTAL ORGANIC CARBON	1	NA	1.43
TOTAL PHENOLICS	0.005	0.001	0.005U
ARSENIC	0.01	0.025	0.01U
CADMIUM	0.005	0.005	0.005U
CALCIUM	0.5	NA	55.5
COPPER	0.02	0.2	0.02U
IRON	0.1	0.3	0.1U
LEAD	0.005	0.025	0.005U
MAGNESIUM	0.5	35	26.4
MANGANESE	0.01	0.3	0.0419
MERCURY	0.0003	0.0007	0.0003U
POTASSIUM	2	NA	2.91
SODIUM	0.5	20	**34.2**
ZINC	0.02	NA	0.02U

U = Analyte analyzed for but not detected

Mamaroneck
Volatile Organics Analysis
Sample Location: SMH (Markowitz Residence)
September 23, 2004 Sampling

Compound	PQL mg/L	GWQS mg/L	Results mg/L
BENZENE	0.0005	0.001	0.0005U
BROMOBENZENE	0.0005	0.005	0.0005U
BROMOCHLOROMETHANE	0.0005	0.005	0.0005U
BROMODICHLOROMETHANE	0.0005		0.0005U
BROMOFORM	0.0005		0.0005U
BROMOMETHANE	0.0005	0.005	0.0005U
TERT-BUTYL ALCOHOL	0.02	0.005	0.02U
METHYL-TERT-BUTYL ETHER	0.0005	0.01	0.0005U
TERT-BUTYLBENZENE	0.0005	0.005	0.0005U
SEC-BUTYLBENZENE	0.0005	0.005	0.0005U
N-BUTYLBENZENE	0.0005	0.005	0.0005U
CARBON TETRACHLORIDE	0.0005	0.005	0.0005U
CHLOROBENZENE	0.0005	0.005	0.0005U
CHLOROETHANE	0.0005	0.005	0.0005U
CHLOROFORM	0.0005	0.007	0.0017
CHLOROMETHANE	0.0005		0.0005U
1,2-DIBROMO-3-CHLOROPROPANE	0.0005	0.00004	0.0005U
2-CHLOROTOLUENE	0.0005	0.005	0.0005U
4-CHLOROTOLUENE	0.0005	0.005	0.0005U
DIBROMOCHLOROMETHANE	0.0005		0.0005U
1,2-DIBROMOETHANE	0.0005		0.0005U
DIBROMOMETHANE	0.0005	0.005	0.0005U
1,2-DICHLOROBENZENE	0.0005	0.003	0.0005U
1,4-DICHLOROBENZENE	0.0005	0.003	0.0005U
1,3-DICHLOROBENZENE	0.0005	0.003	0.0005U
DICHLORODIFLUOROMETHANE	0.0005	0.005	0.0005U
1,1-DICHLOROETHANE	0.0005	0.0006	0.0005U
1,2-DICHLOROETHANE	0.0005	0.0006	0.0005U
1,1-DICHLOROETHENE	0.0005	0.005	0.0005U
TRANS-1,2-DICHLOROETHENE	0.0005	0.005	0.0005U
CIS-1,2-DICHLOROETHENE	0.0005	0.005	0.0005U
2,2-DICHLOROPROPANE	0.0005	0.005	0.0005U
1,2-DICHLOROPROPANE	0.0005	0.001	0.0005U
1,3-DICHLOROPROPANE	0.0005	0.005	0.0005U
1,1-DICHLOROPROPENE	0.0005	0.005	0.0005U
TRANS-1,3-DICHLOROPROPENE	0.0005	0.0004	0.0005U
CIS-1,3-DICHLOROPROPENE	0.0005	0.0004	0.0005U
ETHYLBENZENE	0.0005	0.005	0.0005U
HEXACHLOROBUTADIENE	0.0005	0.0005	0.0005U

Mamaroneck
Volatile Organics Analysis
Sample Location: SMH (Markowitz Residence)
September 23, 2004 Sampling

Compound	PQL mg/L	GWQS mg/L	Results mg/L
ISOPROPYLBENZENE	0.0005	0.005	0.0005U
P-ISOPROPYLTOLUENE	0.0005	0.005	0.0005U
METHYLENE CHLORIDE	0.0005	0.005	0.0005U
NAPHTHALENE	0.0005		0.0005U
N-PROPYLBENZENE	0.0005	0.005	0.0005U
STYRENE	0.0005	0.005	0.0005U
1,1,1,2-TETRACHLOROETHANE	0.0005	0.005	0.0005U
1,1,2,2-TETRACHLOROETHANE	0.0005	0.005	0.0005U
TETRACHLOROETHENE	0.0005	0.005	0.0005U
TOLUENE	0.0005	0.005	0.0005U
1,2,4-TRICHLOROBENZENE	0.0005	0.005	0.0005U
1,2,3-TRICHLOROBENZENE	0.0005	0.005	0.0005U
1,1,1-TRICHLOROETHANE	0.0005	0.005	0.0005U
1,1,2-TRICHLOROETHANE	0.0005	0.001	0.0005U
TRICHLOROETHENE	0.0005	0.005	0.0005U
TRICHLOROFLUOROMETHANE	0.0005	0.005	0.0005U
1,2,3-TRICHLOROPROPANE	0.0005	0.00004	0.0005U
1,3,5-TRIMETHYLBENZENE	0.0005	0.005	0.0005U
1,2,4-TRIMETHYLBENZENE	0.0005	0.005	0.0005U
VINYL CHLORIDE	0.0005	0.002	0.0005U
M+P-XYLENE	0.0005	0.005	0.0005U
O-XYLENE	0.0005	0.005	0.0005U

U = Analyte analyzed for but not detected

APPENDIX B

ANALYTICAL LABORATORY DATA SHEETS

Columbia Analytical Services inc.

A FULL SERVICE ENVIRONMENTAL LABORATORY

October 19, 2004

Mr. Brian Nichols
Shaw/Emcon/OWT
4 Commerce Dr. So.
Harriman, NY 10926

PROJECT:MAMARONECK
Submission #:R2423097

Dear Mr. Nichols

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (585) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Michael K. Perry For:
Mark Wilson
Client Service Manager

Enc.

Columbia Analytical Services inc.

1 Mustard ST.
Suite 250
Rochester, NY 14609
(585) 288-5380

THIS IS AN ANALYTICAL TEST REPORT FOR:

Client	: Shaw/Emcon/OWT
Project Reference	: MAMARONECK
Lab Submission #	: R2423097
Project Manager	: Mark Wilson
Reported	: 10/19/04

Report Contains a total of 49 pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal.

CASE NARRATIVE

Company: Shaw E & S, Inc.
Project: Mamaroneck
Submission #: R2423097

Water samples were collected on 09/23/04 and received at CAS on 09/24/04 in good condition at cooler temperatures of 1 - 4 °C.

INORGANIC ANALYSIS

Six water samples were analyzed for a Part 360 routine list of Total Metals and other Inorganic and leachate indicators by approved EPA MCAWW and SW-846 methods. These samples were also analyzed for additional Total Metals.

All metals were analyzed by SW-846 ICP method 6010A.

The Inorganic and Leachate Indicators were analyzed using the following methods: Alkalinity by EPA method 310.1, Ammonia by EPA method 350.1, Bromide, Chloride, and Sulfate by EPA method 300.0, BOD5 by EPA method 405.1, COD by EPA method 410.4, Total Hardness by EPA method 130.2, TKN by EPA method 351.2, Total Phenol by SW-846 method 9066, and TDS by EPA method 160.1. The water samples were analyzed for Turbidity by EPA method 180.1, TOC by SW-846 method 9060, and Color by EPA method 110.2.

Wet Chemistry Analyses:

All initial 5-point calibrations produced a correlation coefficient of at least 0.997.

A calibration including a blank and check standard were prepared with every batch of samples analyzed. All blank results were below the PQL. All check standards produced recoveries within the limits.

All Duplicate results and Matrix Spike Recoveries from sample MH32-604 and the Blank Spike recoveries were within established QC limits except the matrix spike recovery for Chloride which has been flagged with a "N"..

No other analytical or QC problems were encountered.

Metals Analyses:

All Initial and Continuing Instrument Calibration, CRDL standard, Initial and Continuing Calibration Blank, Preparation Blank, ICP Interference Check Sample, Matrix spike, Duplicate Sample, Instrument Detection Limit, Interelement Correction Factor, and ICP Linear Range criteria were met in accordance with the SAP Appendix V Validation Checklist, Trace Metals. The only exceptions are one of the Continuing Calibration Blanks for Sodium and the Prep Blank for Iron. In both cases the amounts detected in the samples were greater than 10 times the values detected in the blanks.

The Blank Spike recoveries (LCS) were all within QC limits.

The BOD analysis for sample BWH #4 was flagged with a "J" as estimated since the dissolve oxygen uptake (1.94 mg/l) was slightly less than the method minimum requirement of 2.00 mg/l.

No other analytical or QC problems were encountered.

VOLATILE ORGANICS

Six water samples and one Trip Blank were analyzed for the Drinking Water List of Volatile Organics plus MTBE by EPA method 524.2.

The pH was <2 for all samples at the time of analysis.

All Tuning criteria for BFB were within QC limits.

All the initial and continuing calibration criteria were met for all analytes.

All Internal Standard Areas were within QC limits.

All surrogate standard recoveries were within acceptance limits for all samples.

The Blank Spike (Reference Check) recoveries; and the RPD were all acceptable.

The Method Blanks and Trip Blank associated with these samples were free of contamination.

Samples MW-14S #2 and MW-25 #7 were re-analyzed at dilutions to bring target analytes within the calibration range of the method. Both dilutions were reported with analytes over the calibration range flagged with an "E".

No other analytical or QC problems were encountered.

Columbia Analytical Services, Inc.

This report contains analytical results for the following samples:

Submission #: R2423097

Lab ID	Client ID
760662	MW-35 #1
760663	MW-14S #2
760664	MW-9S #3
760665	BWH #4
760666	SS-1 #5
760667	SMH #6
760668	TRIP BLANK
761351	MW-25 #7

Columbia Analytical Services INC.
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ACCREDITED IN ACCORDANCE WITH nelac

Ethics Service Quality ACIL 2003 SEAL OF EXCELLENCE PROGRAM Environmental

ORGANIC QUALIFIERS

U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.

J - Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.

N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search.

P - This flag is used for a pesticide/Aroclor target analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.

B - This flag is used when the analyte is found in the associated blank as well as in the sample.

E - This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and ALL concentration values reported on that Form I are flagged with the "D" flag.

A - This flag indicates that a TIC is a suspected aldol-condensation product.

X - As specified in Case Narrative.

* - This flag identifies compounds associated with a quality control parameter which exceeds laboratory limits.

CAS/Rochester Lab ID # for State Certifications

Army Corp of Engineers Validated
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved
Nebraska Accredited
NELAP Accredited
New York ID #. 10145
New Jersey ID # NY004
New Hampshire ID # 294100 A/B
Pennsylvania Registration 68-786
Rhode Island ID # 158
South Carolina ID #91012
West Virginia ID # 292

Columbia Analytical Services INC.
An Employee - Owned Company

ACCREDITED IN ACCORDANCE WITH nelac

Service Quality Ethics ACIL 2003 SEAL OF EXCELLENCE PROGRAM Environmental

INORGANIC QUALIFIERS

C (Concentration) qualifier –

- B - if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but was greater than or equal to the Instrument Detection Limit (IDL).
- U - if the analyte was analyzed for, but not detected

Q qualifier - Specified entries and their meanings are as follows:

- D - Spike was diluted out
- E - The reported value is estimated because of the presence of interference.
- J - Estimated Value
- M - Duplicate injection precision not met.
- N - Spiked sample recovery not within control limits.
- S - The reported value was determined by the Method of Standard Additions (MSA).
- W - Post-digestion spike for Furnace AA Analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
- * - Duplicate analysis not within control limits.
- + - Correlation coefficient for the MSA is less than 0.995.

M (Method) qualifier:

- "P" for ICP
- "A" for Flame AA
- "F" for Furnace AA
- "PM" for ICP when Microwave Digestion is used
- "AM" for Flame AA when Microwave Digestion is used
- "FM" for Furnace M when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for Automated Cold Vapor AA
- "CA" for Midi-Distillation Spectrophotometric
- "AS" for Semi-Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- " " where no data has been entered
- "NR" if the analyte is not required to be analyzed.

CAS/Rochester Lab ID # for State Certifications

Army Corp of Engineers Validated
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved
Nebraska Accredited
NELAP Accredited
New York ID # 10145
New Jersey ID # NY004
New Hampshire ID # 294100 A/B
Pennsylvania Registration 68-786
Rhode Island ID # 158
South Carolina ID #91012
West Virginia ID # 292

COLUMBIA ANALYTICAL SERVICES

Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : MW-35 #1

Date Sampled : 09/23/04 13:35 **Order #:** 760662 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1	0.0500	0.0500 U	MG/L	09/28/04	09:16	1.0
BOD-5	405.1	2.00	2.00 U	MG/L	09/24/04	13:57	1.0
BROMIDE	300.0	0.100	1.00 U	MG/L	09/24/04	11:37	10.0
CHEMICAL OXYGEN DEMAND	410.4	5.00	12.5	MG/L	09/30/04	13:00	1.0
CHLORIDE	300.0	0.200	184	MG/L	09/27/04	16:13	40.0
NITRATE NITROGEN	300.0	0.0500	0.563	MG/L	09/24/04	11:37	10.0
SULFATE	300.0	0.200	49.1	MG/L	09/24/04	11:37	10.0
TOTAL ALKALINITY	310.1	2.00	192	MG/L	09/28/04	13:00	1.0
TOTAL DISSOLVED SOLIDS	160.1	10.0	530	MG/L	09/28/04	09:30	1.0
TOTAL HARDNESS	130.2	2.00	325	MG/L	10/04/04	09:00	1.0
TOTAL KJELDAHL NITROGEN	351.2	0.200	0.264	MG/L	09/29/04	09:00	1.0
TOTAL ORGANIC CARBON	9060	1.00	2.50	MG/L	09/27/04	18:07	1.0
TOTAL ORGANIC CARBON	9060	1.00	2.12	MG/L	09/27/04	18:16	1.0
TOTAL ORGANIC CARBON	9060	1.00	2.11	MG/L	09/27/04	18:25	1.0
TOTAL ORGANIC CARBON	9060	1.00	2.15	MG/L	09/27/04	18:34	1.0
TOTAL PHENOLICS	9066	0.00500	0.00500 U	MG/L	10/01/04	11:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : MW-35 #1

Date Sampled : 09/23/04 13:35 **Order #:** 760662 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
ARSENIC	6010B	0.0100	0.0100 U	MG/L	10/05/04	1.0
CADMIUM	6010B	0.00500	0.00500 U	MG/L	10/05/04	1.0
CALCIUM	6010B	0.500	52.2	MG/L	10/05/04	1.0
COPPER	6010B	0.0200	0.0268	MG/L	10/05/04	1.0
IRON	6010B	0.100	70.0	MG/L	10/05/04	1.0
LEAD	6010B	0.00500	0.0125	MG/L	10/05/04	1.0
MAGNESIUM	6010B	0.500	51.1	MG/L	10/05/04	1.0
MANGANESE	6010B	0.0100	0.294	MG/L	10/05/04	1.0
MERCURY	7470A	0.000300	0.000300 U	MG/L	09/28/04	1.0
POTASSIUM	6010B	2.00	5.87	MG/L	10/05/04	1.0
SODIUM	6010B	0.500	68.4	MG/L	10/05/04	1.0
ZINC	6010B	0.0200	0.0341	MG/L	10/05/04	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : MW-14S #2

Date Sampled : 09/23/04 14:16 **Order #:** 760663 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1	0.0500	2.55	MG/L	09/28/04	09:16	2.0
BOD-5	405.1	2.00	27.2	MG/L	09/24/04	13:58	1.0
BROMIDE	300.0	0.100	1.00 U	MG/L	09/24/04	11:51	10.0
CHEMICAL OXYGEN DEMAND	410.4	5.00	150	MG/L	09/30/04	13:00	1.0
CHLORIDE	300.0	0.200	139	MG/L	09/28/04	11:09	40.0
NITRATE NITROGEN	300.0	0.0500	0.500 U	MG/L	09/24/04	11:51	10.0
SULFATE	300.0	0.200	2.00 U	MG/L	09/24/04	11:51	10.0
TOTAL ALKALINITY	310.1	2.00	345	MG/L	09/28/04	13:00	1.0
TOTAL DISSOLVED SOLIDS	160.1	10.0	564	MG/L	09/28/04	09:30	1.0
TOTAL HARDNESS	130.2	2.00	389	MG/L	10/04/04	09:00	1.0
TOTAL KJELDAHL NITROGEN	351.2	0.200	4.35	MG/L	09/29/04	09:00	1.0
TOTAL ORGANIC CARBON	9060	1.00	9.80	MG/L	09/27/04	18:44	1.0
TOTAL ORGANIC CARBON	9060	1.00	10.1	MG/L	09/27/04	18:54	1.0
TOTAL ORGANIC CARBON	9060	1.00	10.7	MG/L	09/27/04	19:03	1.0
TOTAL ORGANIC CARBON	9060	1.00	10.2	MG/L	09/27/04	19:12	1.0
TOTAL PHENOLICS	9066	0.00500	0.00500 U	MG/L	10/01/04	11:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : MW-14S #2

Date Sampled : 09/23/04 14:16 **Order #:** 760663 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
ARSENIC	6010B	0.0100	0.0100 U	MG/L	10/05/04	1.0
CADMIUM	6010B	0.00500	0.00500 U	MG/L	10/05/04	1.0
CALCIUM	6010B	0.500	92.8	MG/L	10/05/04	1.0
COPPER	6010B	0.0200	0.0731	MG/L	10/05/04	1.0
IRON	6010B	0.100	27.0	MG/L	10/05/04	1.0
LEAD	6010B	0.00500	0.376	MG/L	10/05/04	1.0
MAGNESIUM	6010B	0.500	32.6	MG/L	10/05/04	1.0
MANGANESE	6010B	0.0100	0.332	MG/L	10/05/04	1.0
MERCURY	7470A	0.000300	0.000300 U	MG/L	09/28/04	1.0
POTASSIUM	6010B	2.00	19.0	MG/L	10/05/04	1.0
SODIUM	6010B	0.500	56.4	MG/L	10/05/04	1.0
ZINC	6010B	0.0200	0.176	MG/L	10/05/04	1.0

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : MW-14S #2

Date Sampled : 09/23/04 14:16 **Order #:** 760663 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097 **Analytical Run** 109455

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 10/06/04			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	UG/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYL ALCOHOL	20	89	UG/L
METHYL-TERT-BUTYL ETHER	0.50	44 E	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
CHLOROFORM	0.50	0.50 U	UG/L
CHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
P-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : MW-14S #2

Date Sampled : 09/23/04 14:16 **Order #:** 760663 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097 **Analytical Run** 109455

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 10/06/04			
ANALYTICAL DILUTION: 1.00			
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
VINYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(70 - 130 %)	91	%
1,2-DICHLOROBENZENE-D4	(70 - 130 %)	113	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : MW-14S #2

Date Sampled : 09/23/04 14:16 **Order #:** 760663 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097 **Analytical Run** 109455

DATE ANALYZED : 10/07/04
ANALYTICAL DILUTION: 2.00

ANALYTE	PQL	RESULT	UNITS
BENZENE	0.50	1.0 U	UG/L
BROMOBENZENE	0.50	1.0 U	UG/L
BROMOCHLOROMETHANE	0.50	1.0 U	UG/L
BROMODICHLOROMETHANE	0.50	1.0 U	UG/L
BROMOFORM	0.50	1.0 U	UG/L
BROMOMETHANE	0.50	1.0 U	UG/L
TERT-BUTYL ALCOHOL	20	88	UG/L
METHYL-TERT-BUTYL ETHER	0.50	42	UG/L
TERT-BUTYLBENZENE	0.50	1.0 U	UG/L
SEC-BUTYLBENZENE	0.50	1.0 U	UG/L
N-BUTYLBENZENE	0.50	1.0 U	UG/L
CARBON TETRACHLORIDE	0.50	1.0 U	UG/L
CHLOROBENZENE	0.50	1.0 U	UG/L
CHLOROETHANE	0.50	1.0 U	UG/L
CHLOROFORM	0.50	1.0 U	UG/L
CHLOROMETHANE	0.50	1.0 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	1.0 U	UG/L
2-CHLOROTOLUENE	0.50	1.0 U	UG/L
4-CHLOROTOLUENE	0.50	1.0 U	UG/L
DIBROMOCHLOROMETHANE	0.50	1.0 U	UG/L
1,2-DIBROMOETHANE	0.50	1.0 U	UG/L
DIBROMOMETHANE	0.50	1.0 U	UG/L
1,2-DICHLOROBENZENE	0.50	1.0 U	UG/L
1,4-DICHLOROBENZENE	0.50	1.0 U	UG/L
1,3-DICHLOROBENZENE	0.50	1.0 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	1.0 U	UG/L
1,1-DICHLOROETHANE	0.50	1.0 U	UG/L
1,2-DICHLOROETHANE	0.50	1.0 U	UG/L
1,1-DICHLOROETHENE	0.50	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	1.0 U	UG/L
2,2-DICHLOROPROPANE	0.50	1.0 U	UG/L
1,2-DICHLOROPROPANE	0.50	1.0 U	UG/L
1,3-DICHLOROPROPANE	0.50	1.0 U	UG/L
1,1-DICHLOROPROPENE	0.50	1.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	1.0 U	UG/L
ETHYLBENZENE	0.50	1.0 U	UG/L
HEXACHLOROBUTADIENE	0.50	1.0 U	UG/L
ISOPROPYLBENZENE	0.50	1.0 U	UG/L
P-ISOPROPYLTOLUENE	0.50	1.0 U	UG/L
METHYLENE CHLORIDE	0.50	1.0 U	UG/L
NAPHTHALENE	0.50	1.0 U	UG/L
N-PROPYLBENZENE	0.50	1.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : MW-14S #2

Date Sampled : 09/23/04 14:16 **Order #:** 760663 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097 **Analytical Run** 109455

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 10/07/04			
ANALYTICAL DILUTION: 2.00			
STYRENE	0.50	1.0 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	0.50	1.0 U	UG/L
TETRACHLOROETHENE	0.50	1.0 U	UG/L
TOLUENE	0.50	1.0 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	1.0 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	1.0 U	UG/L
1,1,1-TRICHLOROETHANE	0.50	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	1.0 U	UG/L
TRICHLOROETHENE	0.50	1.0 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	1.0 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	1.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	1.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	1.0 U	UG/L
VINYL CHLORIDE	0.50	1.0 U	UG/L
M+P-XYLENE	0.50	1.0 U	UG/L
O-XYLENE	0.50	1.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(70 - 130 %)	94	%
1,2-DICHLOROBENZENE-D4	(70 - 130 %)	101	%

COLUMBIA ANALYTICAL SERVICES

Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : MW-9S #3

Date Sampled : 09/23/04 15:12 **Order #:** 760664 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1	0.0500	0.0500 U	MG/L	09/28/04	09:16	1.0
BOD-5	405.1	2.00	2.00 U	MG/L	09/24/04	13:59	1.0
BROMIDE	300.0	0.100	1.00 U	MG/L	09/24/04	12:06	10.0
CHEMICAL OXYGEN DEMAND	410.4	5.00	5.00 U	MG/L	09/30/04	13:00	1.0
CHLORIDE	300.0	0.200	32.4	MG/L	09/24/04	12:06	10.0
NITRATE NITROGEN	300.0	0.0500	0.912	MG/L	09/24/04	12:06	10.0
SULFATE	300.0	0.200	16.7	MG/L	09/24/04	12:06	10.0
TOTAL ALKALINITY	310.1	2.00	46.0	MG/L	09/28/04	13:00	1.0
TOTAL DISSOLVED SOLIDS	160.1	10.0	141	MG/L	09/28/04	09:30	1.0
TOTAL HARDNESS	130.2	2.00	51.2	MG/L	10/04/04	09:00	1.0
TOTAL KJELDAHL NITROGEN	351.2	0.200	0.710	MG/L	09/29/04	09:00	1.0
TOTAL ORGANIC CARBON	9060	1.00	2.28	MG/L	09/27/04	19:22	1.0
TOTAL ORGANIC CARBON	9060	1.00	2.36	MG/L	09/27/04	19:31	1.0
TOTAL ORGANIC CARBON	9060	1.00	2.36	MG/L	09/27/04	19:41	1.0
TOTAL ORGANIC CARBON	9060	1.00	2.30	MG/L	09/27/04	19:50	1.0
TOTAL PHENOLICS	9066	0.00500	0.00500 U	MG/L	10/01/04	11:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : MW-9S #3

Date Sampled : 09/23/04 15:12 **Order #:** 760664 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
ARSENIC	6010B	0.0100	0.200 U	MG/L	10/05/04	20.0
CADMIUM	6010B	0.00500	0.0138	MG/L	10/05/04	1.0
CALCIUM	6010B	0.500	16.0	MG/L	10/05/04	1.0
COPPER	6010B	0.0200	0.578	MG/L	10/05/04	1.0
IRON	6010B	0.100	382	MG/L	10/05/04	5.0
LEAD	6010B	0.00500	0.0650	MG/L	10/05/04	1.0
MAGNESIUM	6010B	0.500	25.8	MG/L	10/05/04	1.0
MANGANESE	6010B	0.0100	3.05	MG/L	10/05/04	1.0
MERCURY	7470A	0.000300	0.000300 U	MG/L	09/28/04	1.0
POTASSIUM	6010B	2.00	16.4	MG/L	10/05/04	1.0
SODIUM	6010B	0.500	35.7	MG/L	10/05/04	1.0
ZINC	6010B	0.0200	0.112	MG/L	10/05/04	1.0

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : MW-9S #3

Date Sampled : 09/23/04 15:12 **Order #:** 760664 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097 **Analytical Run** 109455

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 10/06/04			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	UG/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYL ALCOHOL	20	20 U	UG/L
METHYL-TERT-BUTYL ETHER	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
CHLOROFORM	0.50	23	UG/L
CHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
P-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : MW-9S #3

Date Sampled : 09/23/04 15:12 **Order #:** 760664 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097 **Analytical Run** 109455

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 10/06/04			
ANALYTICAL DILUTION: 1.00			
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
VINYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(70 - 130 %)	97	%
1,2-DICHLOROBENZENE-D4	(70 - 130 %)	105	%

COLUMBIA ANALYTICAL SERVICES

Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : BWH #4

Date Sampled : 09/23/04 10:20 **Order #:** 760665 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1	0.0500	0.348	MG/L	09/28/04	09:16	1.0
BOD-5	405.1	2.00	4.14 J	MG/L	09/24/04	13:59	1.0
BROMIDE	300.0	0.100	1.00 U	MG/L	09/24/04	12:21	10.0
CHEMICAL OXYGEN DEMAND	410.4	5.00	88.6	MG/L	09/30/04	13:00	1.0
CHLORIDE	300.0	0.200	113	MG/L	09/28/04	11:23	40.0
NITRATE NITROGEN	300.0	0.0500	0.500 U	MG/L	09/24/04	12:21	10.0
SULFATE	300.0	0.200	16.3	MG/L	09/24/04	12:21	10.0
TOTAL ALKALINITY	310.1	2.00	257	MG/L	09/28/04	13:00	1.0
TOTAL DISSOLVED SOLIDS	160.1	10.0	482	MG/L	09/28/04	09:30	1.0
TOTAL HARDNESS	130.2	2.00	268	MG/L	10/04/04	09:00	1.0
TOTAL KJELDAHL NITROGEN	351.2	0.200	2.83	MG/L	09/29/04	09:00	1.0
TOTAL ORGANIC CARBON	9060	1.00	63.4	MG/L	09/27/04	20:00	10.0
TOTAL ORGANIC CARBON	9060	1.00	64.2	MG/L	09/27/04	20:09	10.0
TOTAL ORGANIC CARBON	9060	1.00	67.4	MG/L	09/27/04	20:19	10.0
TOTAL ORGANIC CARBON	9060	1.00	68.2	MG/L	09/27/04	20:28	10.0
TOTAL PHENOLICS	9066	0.00500	0.00500 U	MG/L	10/01/04	11:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : BWH #4

Date Sampled : 09/23/04 10:20 **Order #:** 760665 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
ARSENIC	6010B	0.0100	0.0286	MG/L	10/05/04	1.0
CADMIUM	6010B	0.00500	0.00500 U	MG/L	10/05/04	1.0
CALCIUM	6010B	0.500	80.2	MG/L	10/05/04	1.0
COPPER	6010B	0.0200	0.0332	MG/L	10/05/04	1.0
IRON	6010B	0.100	100	MG/L	10/05/04	1.0
LEAD	6010B	0.00500	0.0210	MG/L	10/05/04	1.0
MAGNESIUM	6010B	0.500	21.3	MG/L	10/05/04	1.0
MANGANESE	6010B	0.0100	2.58	MG/L	10/05/04	1.0
MERCURY	7470A	0.000300	0.000300 U	MG/L	09/28/04	1.0
POTASSIUM	6010B	2.00	4.73	MG/L	10/05/04	1.0
SODIUM	6010B	0.500	75.3	MG/L	10/05/04	1.0
ZINC	6010B	0.0200	0.0867	MG/L	10/05/04	1.0

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : BWH #4

Date Sampled : 09/23/04 10:20 **Order #:** 760665 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097 **Analytical Run** 109455

DATE ANALYZED : 10/06/04
ANALYTICAL DILUTION: 1.00

ANALYTE	PQL	RESULT	UNITS
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	UG/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYL ALCOHOL	20	20 U	UG/L
METHYL-TERT-BUTYL ETHER	0.50	2.4	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
CHLOROFORM	0.50	0.50 U	UG/L
CHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
P-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : BWH #4

Date Sampled : 09/23/04 10:20 **Order #:** 760665 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097 **Analytical Run** 109455

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 10/06/04			
ANALYTICAL DILUTION: 1.00			
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
VINYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(70 - 130 %)	93	%
1,2-DICHLOROBENZENE-D4	(70 - 130 %)	110	%

COLUMBIA ANALYTICAL SERVICES

Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : SS-1 #5

Date Sampled : 09/23/04 11:15 **Order #:** 760666 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1	0.0500	0.424	MG/L	09/28/04	09:16	1.0
BOD-5	405.1	2.00	2.00 U	MG/L	09/24/04	13:59	1.0
BROMIDE	300.0	0.100	1.00 U	MG/L	09/24/04	13:24	10.0
CHEMICAL OXYGEN DEMAND	410.4	5.00	82.8	MG/L	09/30/04	13:00	1.0
CHLORIDE	300.0	0.200	139	MG/L	09/28/04	11:38	40.0
NITRATE NITROGEN	300.0	0.0500	1.05	MG/L	09/24/04	13:24	10.0
SULFATE	300.0	0.200	15.2	MG/L	09/24/04	13:24	10.0
TOTAL ALKALINITY	310.1	2.00	220	MG/L	09/28/04	13:00	1.0
TOTAL DISSOLVED SOLIDS	160.1	10.0	540	MG/L	09/28/04	09:30	1.0
TOTAL HARDNESS	130.2	2.00	309	MG/L	10/04/04	09:00	1.0
TOTAL KJELDAHL NITROGEN	351.2	0.200	3.67	MG/L	09/29/04	09:00	1.0
TOTAL ORGANIC CARBON	9060	1.00	10.4	MG/L	09/27/04	20:38	1.0
TOTAL ORGANIC CARBON	9060	1.00	10.7	MG/L	09/27/04	20:47	1.0
TOTAL ORGANIC CARBON	9060	1.00	10.8	MG/L	09/27/04	20:57	1.0
TOTAL ORGANIC CARBON	9060	1.00	11.4	MG/L	09/27/04	21:06	1.0
TOTAL PHENOLICS	9066	0.00500	0.00500 U	MG/L	10/01/04	11:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : SS-1 #5

Date Sampled : 09/23/04 11:15 **Order #:** 760666 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
ARSENIC	6010B	0.0100	0.0100 U	MG/L	10/05/04	1.0
CADMIUM	6010B	0.00500	0.00500 U	MG/L	10/05/04	1.0
CALCIUM	6010B	0.500	89.2	MG/L	10/05/04	1.0
COPPER	6010B	0.0200	0.0200 U	MG/L	10/05/04	1.0
IRON	6010B	0.100	10.3	MG/L	10/05/04	1.0
LEAD	6010B	0.00500	0.00500 U	MG/L	10/05/04	1.0
MAGNESIUM	6010B	0.500	30.1	MG/L	10/05/04	1.0
MANGANESE	6010B	0.0100	1.64	MG/L	10/05/04	1.0
MERCURY	7470A	0.000300	0.000300 U	MG/L	09/28/04	1.0
POTASSIUM	6010B	2.00	7.79	MG/L	10/05/04	1.0
SODIUM	6010B	0.500	63.4	MG/L	10/05/04	1.0
ZINC	6010B	0.0200	0.0200 U	MG/L	10/05/04	1.0

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : SS-1 #5

Date Sampled : 09/23/04 11:15 **Order #:** 760666 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097 **Analytical Run** 109455

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 10/06/04			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	UG/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYL ALCOHOL	20	52	UG/L
METHYL-TERT-BUTYL ETHER	0.50	15	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
CHLOROFORM	0.50	0.50 U	UG/L
CHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
P-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : SS-1 #5

Date Sampled : 09/23/04 11:15 **Order #:** 760666 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097 **Analytical Run** 109455

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 10/06/04			
ANALYTICAL DILUTION: 1.00			
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
VINYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(70 - 130 %)	81	%
1,2-DICHLOROBENZENE-D4	(70 - 130 %)	99	%

COLUMBIA ANALYTICAL SERVICES

Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : SMH #6

Date Sampled : 09/23/04 11:50 **Order #:** 760667 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1	0.0500	0.0500 U	MG/L	09/28/04	09:16	1.0
BOD-5	405.1	2.00	2.00 U	MG/L	09/24/04	14:00	1.0
BROMIDE	300.0	0.100	1.00 U	MG/L	09/24/04	13:39	10.0
CHEMICAL OXYGEN DEMAND	410.4	5.00	5.00 U	MG/L	09/30/04	13:00	1.0
CHLORIDE	300.0	0.200	90.9	MG/L	09/24/04	13:39	10.0
NITRATE NITROGEN	300.0	0.0500	5.26	MG/L	09/24/04	13:39	10.0
SULFATE	300.0	0.200	39.3	MG/L	09/24/04	13:39	10.0
TOTAL ALKALINITY	310.1	2.00	154	MG/L	09/28/04	13:00	1.0
TOTAL DISSOLVED SOLIDS	160.1	10.0	363	MG/L	09/28/04	09:30	1.0
TOTAL HARDNESS	130.2	2.00	244	MG/L	10/04/04	09:00	1.0
TOTAL KJELDAHL NITROGEN	351.2	0.200	0.400 U	MG/L	09/29/04	09:00	2.0
TOTAL ORGANIC CARBON	9060	1.00	1.37	MG/L	09/27/04	21:16	1.0
TOTAL ORGANIC CARBON	9060	1.00	1.44	MG/L	09/27/04	21:25	1.0
TOTAL ORGANIC CARBON	9060	1.00	1.45	MG/L	09/27/04	21:34	1.0
TOTAL ORGANIC CARBON	9060	1.00	1.43	MG/L	09/27/04	21:44	1.0
TOTAL PHENOLICS	9066	0.00500	0.00500 U	MG/L	10/01/04	11:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : SMH #6

Date Sampled : 09/23/04 11:50 **Order #:** 760667 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
ARSENIC	6010B	0.0100	0.0100 U	MG/L	10/05/04	1.0
CADMIUM	6010B	0.00500	0.00500 U	MG/L	10/05/04	1.0
CALCIUM	6010B	0.500	55.5	MG/L	10/05/04	1.0
COPPER	6010B	0.0200	0.0200 U	MG/L	10/05/04	1.0
IRON	6010B	0.100	0.100 U	MG/L	10/05/04	1.0
LEAD	6010B	0.00500	0.00500 U	MG/L	10/05/04	1.0
MAGNESIUM	6010B	0.500	26.4	MG/L	10/05/04	1.0
MANGANESE	6010B	0.0100	0.0419	MG/L	10/05/04	1.0
MERCURY	7470A	0.000300	0.000300 U	MG/L	09/28/04	1.0
POTASSIUM	6010B	2.00	2.91	MG/L	10/05/04	1.0
SODIUM	6010B	0.500	34.2	MG/L	10/05/04	1.0
ZINC	6010B	0.0200	0.0200 U	MG/L	10/05/04	1.0

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : SMH #6

Date Sampled : 09/23/04 11:50 **Order #:** 760667 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097 **Analytical Run** 109455

DATE ANALYZED : 10/06/04
ANALYTICAL DILUTION: 1.00

ANALYTE	PQL	RESULT	UNITS
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	UG/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYL ALCOHOL	20	20 U	UG/L
METHYL-TERT-BUTYL ETHER	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
CHLOROFORM	0.50	1.7	UG/L
CHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
P-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : SMH #6

Date Sampled : 09/23/04 11:50 **Order #:** 760667 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097 **Analytical Run** 109455

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 10/06/04			
ANALYTICAL DILUTION: 1.00			
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
VINYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(70 - 130 %)	90	%
1,2-DICHLOROBENZENE-D4	(70 - 130 %)	105	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : TRIP BLANK

Date Sampled : 09/23/04 **Order #:** 760668 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097 **Analytical Run** 109455

DATE ANALYZED : 10/06/04
ANALYTICAL DILUTION: 1.00

ANALYTE	PQL	RESULT	UNITS
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	UG/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYL ALCOHOL	20	20 U	UG/L
METHYL-TERT-BUTYL ETHER	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
CHLOROFORM	0.50	0.50 U	UG/L
CHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
P-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : TRIP BLANK

Date Sampled : 09/23/04 **Order #:** 760668 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097 **Analytical Run** 109455

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 10/06/04			
ANALYTICAL DILUTION: 1.00			
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
VINYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(70 - 130 %)	84	%
1,2-DICHLOROBENZENE-D4	(70 - 130 %)	99	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : MW-25 #7

Date Sampled : 09/23/04 13:06 **Order #:** 761351 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097 **Analytical Run** 109455

DATE ANALYZED : 10/06/04
ANALYTICAL DILUTION: 1.00

ANALYTE	PQL	RESULT	UNITS
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	UG/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYL ALCOHOL	20	180	UG/L
METHYL-TERT-BUTYL ETHER	0.50	350 E	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
CHLOROFORM	0.50	0.50 U	UG/L
CHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
P-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : MW-25 #7

Date Sampled : 09/23/04 13:06 **Order #:** 761351 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097 **Analytical Run** 109455

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 10/06/04			
ANALYTICAL DILUTION: 1.00			
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
VINYL CHLORIDE	0.50	0.59	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(70 - 130 %)	89	%
1,2-DICHLOROBENZENE-D4	(70 - 130 %)	89	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : MW-25 #7

Date Sampled : 09/23/04 13:06 **Order #:** 761351 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097 **Analytical Run** 109455

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 10/07/04			
ANALYTICAL DILUTION: 10.00			
BENZENE	0.50	5.0 U	UG/L
BROMOBENZENE	0.50	5.0 U	UG/L
BROMOCHLOROMETHANE	0.50	5.0 U	UG/L
BROMODICHLOROMETHANE	0.50	5.0 U	UG/L
BROMOFORM	0.50	5.0 U	UG/L
BROMOMETHANE	0.50	5.0 U	UG/L
TERT-BUTYL ALCOHOL	20	200 U	UG/L
METHYL-TERT-BUTYL ETHER	0.50	360	UG/L
TERT-BUTYLBENZENE	0.50	5.0 U	UG/L
SEC-BUTYLBENZENE	0.50	5.0 U	UG/L
N-BUTYLBENZENE	0.50	5.0 U	UG/L
CARBON TETRACHLORIDE	0.50	5.0 U	UG/L
CHLOROBENZENE	0.50	5.0 U	UG/L
CHLOROETHANE	0.50	5.0 U	UG/L
CHLOROFORM	0.50	5.0 U	UG/L
CHLOROMETHANE	0.50	5.0 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	5.0 U	UG/L
2-CHLOROTOLUENE	0.50	5.0 U	UG/L
4-CHLOROTOLUENE	0.50	5.0 U	UG/L
DIBROMOCHLOROMETHANE	0.50	5.0 U	UG/L
1,2-DIBROMOETHANE	0.50	5.0 U	UG/L
DIBROMOMETHANE	0.50	5.0 U	UG/L
1,2-DICHLOROBENZENE	0.50	5.0 U	UG/L
1,4-DICHLOROBENZENE	0.50	5.0 U	UG/L
1,3-DICHLOROBENZENE	0.50	5.0 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	5.0 U	UG/L
1,1-DICHLOROETHANE	0.50	5.0 U	UG/L
1,2-DICHLOROETHANE	0.50	5.0 U	UG/L
1,1-DICHLOROETHENE	0.50	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	5.0 U	UG/L
2,2-DICHLOROPROPANE	0.50	5.0 U	UG/L
1,2-DICHLOROPROPANE	0.50	5.0 U	UG/L
1,3-DICHLOROPROPANE	0.50	5.0 U	UG/L
1,1-DICHLOROPROPENE	0.50	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	5.0 U	UG/L
ETHYLBENZENE	0.50	5.0 U	UG/L
HEXACHLOROBUTADIENE	0.50	5.0 U	UG/L
ISOPROPYLBENZENE	0.50	5.0 U	UG/L
P-ISOPROPYLTOLUENE	0.50	5.0 U	UG/L
METHYLENE CHLORIDE	0.50	5.0 U	UG/L
NAPHTHALENE	0.50	5.0 U	UG/L
N-PROPYLBENZENE	0.50	5.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 10/19/04

Shaw/Emcon/OWT
Project Reference: MAMARONECK
Client Sample ID : MW-25 #7

Date Sampled : 09/23/04 13:06 **Order #:** 761351 **Sample Matrix:** WATER
Date Received: 09/24/04 **Submission #:** R2423097 **Analytical Run** 109455

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 10/07/04			
ANALYTICAL DILUTION: 10.00			
STYRENE	0.50	5.0 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	0.50	5.0 U	UG/L
TETRACHLOROETHENE	0.50	5.0 U	UG/L
TOLUENE	0.50	5.0 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	5.0 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	0.50	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	5.0 U	UG/L
TRICHLOROETHENE	0.50	5.0 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	5.0 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	5.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	5.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	5.0 U	UG/L
VINYL CHLORIDE	0.50	5.0 U	UG/L
M+P-XYLENE	0.50	5.0 U	UG/L
O-XYLENE	0.50	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(70 - 130 %)	79	%
1,2-DICHLOROBENZENE-D4	(70 - 130 %)	102	%

COLUMBIA ANALYTICAL SERVICES

INORGANIC BLANK SPIKE SUMMARY

CAS Submission #: R2423097
Client: Shaw/Emcon/OWT
MAMARONECK

BLANK SPIKES

	BLANK	FOUND	ADDED	% REC	LIMITS	RUN	UNITS
MERCURY	0.000300 U	0.00105	0.00100	105	80 - 120	108721	MG/L
ARSENIC	0.0100 U	0.0377	0.0400	94	80 - 120	108997	MG/L
CADMIUM	0.00500 U	0.0520	0.0500	104	80 - 120	108997	MG/L
CALCIUM	0.500 U	2.08	2.00	104	80 - 120	108997	MG/L
COPPER	0.0200 U	0.265	0.250	106	80 - 120	108997	MG/L
IRON	0.100 U	1.06	1.00	106	80 - 120	108997	MG/L
LEAD	0.00500 U	0.511	0.500	102	80 - 120	108997	MG/L
MAGNESIUM	0.500 U	1.98	2.00	99	80 - 120	108997	MG/L
MANGANESE	0.0100 U	0.510	0.500	102	80 - 120	108997	MG/L
ZINC	0.0200 U	0.536	0.500	107	80 - 120	108997	MG/L

COLUMBIA ANALYTICAL SERVICES

INORGANIC BLANK SPIKE SUMMARY

CAS Submission #: R2423097
Client: Shaw/Emcon/OWT
MAMARONECK

BLANK SPIKES

	BLANK	FOUND	ADDED	% REC	LIMITS	RUN	UNITS
IRON	0.100 U	1.11	1.00	111	80 - 120	109007	MG/L
POTASSIUM	2.00 U	21.4	20.0	107	80 - 120	109007	MG/L
SODIUM	0.500 U	21.8	20.0	109	80 - 120	109007	MG/L
BOD-5	2.00 U	211	200	106	83 - 114	108593	MG/L
CHLORIDE	0.200 U	2.00	2.00	100	90 - 110	108638	MG/L
SULFATE	0.200 U	1.97	2.00	99	90 - 110	108639	MG/L
BROMIDE	0.100 U	1.00	1.00	100	90 - 110	108640	MG/L
NITRATE NITROGEN	0.0500 U	0.985	1.00	99	90 - 110	108641	MG/L
TOTAL ORGANIC CARBON	1.00 U	10.1	10.0	101	82 - 111	108668	MG/L
CHLORIDE	0.200 U	2.09	2.00	105	90 - 110	108671	MG/L

COLUMBIA ANALYTICAL SERVICES

INORGANIC BLANK SPIKE SUMMARY

CAS Submission #: R2423097
Client: Shaw/Emcon/OWT
MAMARONECK

BLANK SPIKES

	BLANK	FOUND	ADDED	% REC	LIMITS	RUN	UNITS
TOTAL DISSOLVED SOLIDS	10.0 U	890	901	99	80 - 120	108698	MG/L
TOTAL KJELDAHL NITROGEN	0.200 U	2.25	2.50	90	63 - 117	108703	MG/L
TOTAL ALKALINITY	2.00 U	19.7	20.0	99	92 - 109	108704	MG/L
AMMONIA	0.0500 U	0.507	0.500	101	90 - 110	108706	MG/L
CHLORIDE	0.200 U	2.09	2.00	104	90 - 110	108719	MG/L
CHEMICAL OXYGEN DEMAND	5.00 U	22.0	25.0	88	75 - 124	108795	MG/L
TOTAL PHENOLICS	0.00500 U	0.0381	0.0400	95	84 - 114	108831	MG/L
TOTAL HARDNESS	2.00 U	19.9	20.0	100	91 - 114	108871	MG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD: 524.2 DRINKING WATER VOLATILES

LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 767327 ANALYTICAL RUN # : 109455

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 10/ 6/2004			
ANALYTICAL DILUTION: 1.0			
BENZENE	2.00	88	70 - 130
BROMOBENZENE	2.00	92	70 - 130
BROMOCHLOROMETHANE	2.00	77	70 - 130
BROMODICHLOROMETHANE	2.00	89	70 - 130
BROMOFORM	2.00	82	70 - 130
BROMOMETHANE	2.00	98	70 - 130
TERT-BUTYL ALCOHOL	40.0	91	70 - 130
METHYL-TERT-BUTYL ETHER	2.00	90	70 - 130
TERT-BUTYLBENZENE	2.00	87	70 - 130
SEC-BUTYLBENZENE	2.00	88	70 - 130
N-BUTYLBENZENE	2.00	80	70 - 130
CARBON TETRACHLORIDE	2.00	88	70 - 130
CHLOROBENZENE	2.00	90	70 - 130
CHLOROETHANE	2.00	88	70 - 130
CHLOROFORM	2.00	91	70 - 130
CHLOROMETHANE	2.00	95	70 - 130
1,2-DIBROMO-3-CHLOROPROPANE	2.00	96	70 - 130
2-CHLOROTOLUENE	2.00	94	70 - 130
4-CHLOROTOLUENE	2.00	94	70 - 130
DIBROMOCHLOROMETHANE	2.00	85	70 - 130
1,2-DIBROMOETHANE	2.00	89	70 - 130
DIBROMOMETHANE	2.00	88	70 - 130
1,2-DICHLOROBENZENE	2.00	91	70 - 130
1,4-DICHLOROBENZENE	2.00	95	70 - 130
1,3-DICHLOROBENZENE	2.00	95	70 - 130
DICHLORODIFLUOROMETHANE	2.00	84	70 - 130
1,1-DICHLOROETHANE	2.00	88	70 - 130
1,2-DICHLOROETHANE	2.00	88	70 - 130
1,1-DICHLOROETHENE	2.00	100	70 - 130
TRANS-1,2-DICHLOROETHENE	2.00	88	70 - 130
CIS-1,2-DICHLOROETHENE	2.00	87	70 - 130
2,2-DICHLOROPROPANE	2.00	90	70 - 130
1,2-DICHLOROPROPANE	2.00	87	70 - 130
1,3-DICHLOROPROPANE	2.00	89	70 - 130
1,1-DICHLOROPROPENE	2.00	85	70 - 130
TRANS-1,3-DICHLOROPROPENE	2.00	86	70 - 130
CIS-1,3-DICHLOROPROPENE	2.00	82	70 - 130
ETHYLBENZENE	2.00	82	70 - 130
HEXACHLOROBUTADIENE	2.00	117	70 - 130
ISOPROPYLBENZENE	2.00	89	70 - 130
P-ISOPROPYLTOLUENE	2.00	90	70 - 130

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD: 524.2 DRINKING WATER VOLATILES

LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 767327 ANALYTICAL RUN # : 109455

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 10/ 6/2004			
ANALYTICAL DILUTION: 1.0			
METHYLENE CHLORIDE	2.00	91	70 - 130
NAPHTHALENE	2.00	89	70 - 130
N-PROPYLBENZENE	2.00	90	70 - 130
STYRENE	2.00	80	70 - 130
1,1,1,2-TETRACHLOROETHANE	2.00	89	70 - 130
1,1,2,2-TETRACHLOROETHANE	2.00	92	70 - 130
TETRACHLOROETHENE	2.00	86	70 - 130
TOLUENE	2.00	89	70 - 130
1,2,4-TRICHLOROBENZENE	2.00	95	70 - 130
1,2,3-TRICHLOROBENZENE	2.00	95	70 - 130
1,1,1-TRICHLOROETHANE	2.00	82	70 - 130
1,1,2-TRICHLOROETHANE	2.00	89	70 - 130
TRICHLOROETHENE	2.00	88	70 - 130
TRICHLOROFLUOROMETHANE	2.00	88	70 - 130
1,2,3-TRICHLOROPROPANE	2.00	97	70 - 130
1,3,5-TRIMETHYLBENZENE	2.00	93	70 - 130
1,2,4-TRIMETHYLBENZENE	2.00	83	70 - 130
VINYL CHLORIDE	2.00	93	70 - 130
M+P-XYLENE	4.00	85	70 - 130
O-XYLENE	2.00	87	70 - 130

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD: 524.2 DRINKING WATER VOLATILES

LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 767329 ANALYTICAL RUN # : 109455

DATE ANALYZED : 10/ 7/2004
ANALYTICAL DILUTION: 1.0

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
BENZENE	2.00	108	70 - 130
BROMOBENZENE	2.00	108	70 - 130
BROMOCHLOROMETHANE	2.00	101	70 - 130
BROMODICHLOROMETHANE	2.00	104	70 - 130
BROMOFORM	2.00	113	70 - 130
BROMOMETHANE	2.00	102	70 - 130
TERT-BUTYL ALCOHOL	40.0	108	70 - 130
METHYL-TERT-BUTYL ETHER	2.00	101	70 - 130
TERT-BUTYLBENZENE	2.00	90	70 - 130
SEC-BUTYLBENZENE	2.00	90	70 - 130
N-BUTYLBENZENE	2.00	92	70 - 130
CARBON TETRACHLORIDE	2.00	104	70 - 130
CHLOROBENZENE	2.00	105	70 - 130
CHLOROETHANE	2.00	98	70 - 130
CHLOROFORM	2.00	109	70 - 130
CHLOROMETHANE	2.00	111	70 - 130
1,2-DIBROMO-3-CHLOROPROPANE	2.00	90	70 - 130
2-CHLOROTOLUENE	2.00	106	70 - 130
4-CHLOROTOLUENE	2.00	104	70 - 130
DIBROMOCHLOROMETHANE	2.00	107	70 - 130
1,2-DIBROMOETHANE	2.00	100	70 - 130
DIBROMOMETHANE	2.00	112	70 - 130
1,2-DICHLOROBENZENE	2.00	109	70 - 130
1,4-DICHLOROBENZENE	2.00	108	70 - 130
1,3-DICHLOROBENZENE	2.00	110	70 - 130
DICHLORODIFLUOROMETHANE	2.00	110	70 - 130
1,1-DICHLOROETHANE	2.00	108	70 - 130
1,2-DICHLOROETHANE	2.00	99	70 - 130
1,1-DICHLOROETHENE	2.00	118	70 - 130
TRANS-1,2-DICHLOROETHENE	2.00	106	70 - 130
CIS-1,2-DICHLOROETHENE	2.00	100	70 - 130
2,2-DICHLOROPROPANE	2.00	106	70 - 130
1,2-DICHLOROPROPANE	2.00	100	70 - 130
1,3-DICHLOROPROPANE	2.00	105	70 - 130
1,1-DICHLOROPROPENE	2.00	96	70 - 130
TRANS-1,3-DICHLOROPROPENE	2.00	103	70 - 130
CIS-1,3-DICHLOROPROPENE	2.00	99	70 - 130
ETHYLBENZENE	2.00	93	70 - 130
HEXACHLOROBUTADIENE	2.00	106	70 - 130
ISOPROPYLBENZENE	2.00	95	70 - 130
P-ISOPROPYLTOLUENE	2.00	99	70 - 130

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD: 524.2 DRINKING WATER VOLATILES

LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 767329 ANALYTICAL RUN # : 109455

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 10/ 7/2004			
ANALYTICAL DILUTION: 1.0			
METHYLENE CHLORIDE	2.00	113	70 - 130
NAPHTHALENE	2.00	90	70 - 130
N-PROPYLBENZENE	2.00	100	70 - 130
STYRENE	2.00	90	70 - 130
1,1,1,2-TETRACHLOROETHANE	2.00	103	70 - 130
1,1,2,2-TETRACHLOROETHANE	2.00	105	70 - 130
TETRACHLOROETHENE	2.00	104	70 - 130
TOLUENE	2.00	102	70 - 130
1,2,4-TRICHLOROBENZENE	2.00	99	70 - 130
1,2,3-TRICHLOROBENZENE	2.00	97	70 - 130
1,1,1-TRICHLOROETHANE	2.00	104	70 - 130
1,1,2-TRICHLOROETHANE	2.00	110	70 - 130
TRICHLOROETHENE	2.00	106	70 - 130
TRICHLOROFLUOROMETHANE	2.00	107	70 - 130
1,2,3-TRICHLOROPROPANE	2.00	127	70 - 130
1,3,5-TRIMETHYLBENZENE	2.00	104	70 - 130
1,2,4-TRIMETHYLBENZENE	2.00	99	70 - 130
VINYL CHLORIDE	2.00	103	70 - 130
M+P-XYLENE	4.00	94	70 - 130
O-XYLENE	2.00	106	70 - 130

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 10/19/04

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 767326 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 109455

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 10/06/04			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	UG/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYL ALCOHOL	20	20 U	UG/L
METHYL-TERT-BUTYL ETHER	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
CHLOROFORM	0.50	0.50 U	UG/L
CHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
P-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L
STYRENE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 10/19/04

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 767326 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 109455

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 10/06/04			
ANALYTICAL DILUTION: 1.00			
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
VINYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(70 - 130 %)	92	%
1,2-DICHLOROBENZENE-D4	(70 - 130 %)	104	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 10/19/04

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 767328 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 109455

DATE ANALYZED : 10/07/04
ANALYTICAL DILUTION: 1.00

ANALYTE	PQL	RESULT	UNITS
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	UG/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYL ALCOHOL	20	20 U	UG/L
METHYL-TERT-BUTYL ETHER	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
CHLOROFORM	0.50	0.50 U	UG/L
CHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
P-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L
STYRENE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 10/19/04

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 767328 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 109455

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 10/07/04			
ANALYTICAL DILUTION: 1.00			
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
VINYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(70 - 130 %)	90	%
1,2-DICHLOROBENZENE-D4	(70 - 130 %)	101	%

CHAIN OF CUSTODY / BOTTLE ORDER AND ANALYSIS REQUEST FORM

Columbia Analytical Services, Inc.
An Employee - Owned Company
www.caslab.com

One Mustard St., Suite 250 • Rochester, NY 14609-0859 • (585) 288-5380 • 800-695-7222 x11 • FAX (585) 288-8475

PAGE 1 OF 1

CAS Contact

Project Name: Mamaroneck	Project Number: 791158-01
Project Manager: Brian Nichols	Report CC:
Company/Address: Shaw Emcon/OWT, Inc.	
4 Commerce Drive South	
Harriman, NY 10926	
Phone #: 800 845 492 3100	FAX #: 845 492 3101
Sampler's Signature:	Sampler's Printed Name: Brian Nichols

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's 8260 ☐ 624 ☐ CLP	GC/MS SVOA's 8270 ☐ 625 ☐ CLP	GC VOA's 8021 ☐ 601/602	PESTICIDES 8081 ☐ 608 ☐ CLP	PCB's 8082 ☐ 608 ☐ CLP	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	VOA's 524.2	VOA's TOC
BWH Set # 4		9-23-04	1020	GW	13						1		3	3
SS-1 Set # 5			1115	GW	13						1		3	3
SMH Set # 6			1150	GW	13						1		3	3
MW-14S Set # 2			1416	GW	13						1		3	3
MW-9S Set # 3			1512	GW	13						1		3	3
MW-3S Set # 1			1335	GW	10						1			3
MW-2S Set # 7		9-23-04	1306	GW	3								3	
Trip Blank		—	—	DI	3								3	

Preser
1. NO
1. HC
2. HN
3. H_2
4. Na
5. Zn
6. Me
7. Na
8. Oil

REMARK
ALTERNATE DES

SPECIAL INSTRUCTIONS/COMMENTS
Metals

- NYSDEC Part 360 Routine Parameters
- Total metals - Arsenic, Cadmium, Copper, Lead, mercury, Zinc
- VOC's

See QAPP ☐

SAMPLE RECEIPT: CONDITION/COOLER TEMP: 4°C CUSTODY SEALS: Y N

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 24 hr ____ 48 hr ____ 5 day
X STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORM
PO#
BILL TO:
SUBMISSION #: 5573 84

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name: Brian Nichols	Printed Name: Gregory O. Emerman	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Shaw Emcon OWT	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 9-23-04 1800	Date/Time: 9/24/04 940	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained By Client

Cooler Receipt And Preservation Check Form

Project/Client Shaw Submission Number R24-23097.

Cooler received on 9-24-04 by: [initials] COURIER: CAS (UPS) FEDEX CD&L CLIENT

1. Were custody seals on outside of cooler? (YES) NO
2. Were custody papers properly filled out (ink, signed, etc.)? (YES) NO
3. Did all bottles arrive in good condition (unbroken)? (YES) NO
4. Did any VOA vials have significant air bubbles? YES (NO) N/A
5. Were (Ice) or **Ice packs** present? (YES) NO
6. Where did the bottles originate? (CAS/ROC) CLIENT
7. Temperature of cooler(s) upon receipt: 1° 4° ___ ___ ___

Is the temperature within 0° - 6° C?: (Yes) (Yes) Yes Yes Yes

If No, Explain Below No No No No No

Date/Time Temperatures Taken: 9-24-04 @ 9:56

Thermometer ID: 161 or (IR GUN) Reading From: Temp Blank or (Sample Bottle)

If out of Temperature, Client Approval to Run Samples__________

Cooler Breakdown: Date : 9/24/04 by: [initials]

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies: __________

		YES	NO	Sample I.D.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO_3	X				
2	H_2SO_4	X				
Residual Chlorine (+/-)	for TCN & Phenol	X				
5-9**	P/PCBs (608 only)					

YES = All samples OK NO = Samples were preserved at lab as listed PC OK to adjust pH________

**If pH adjustment is required, use NaOH and/or H_2SO_4

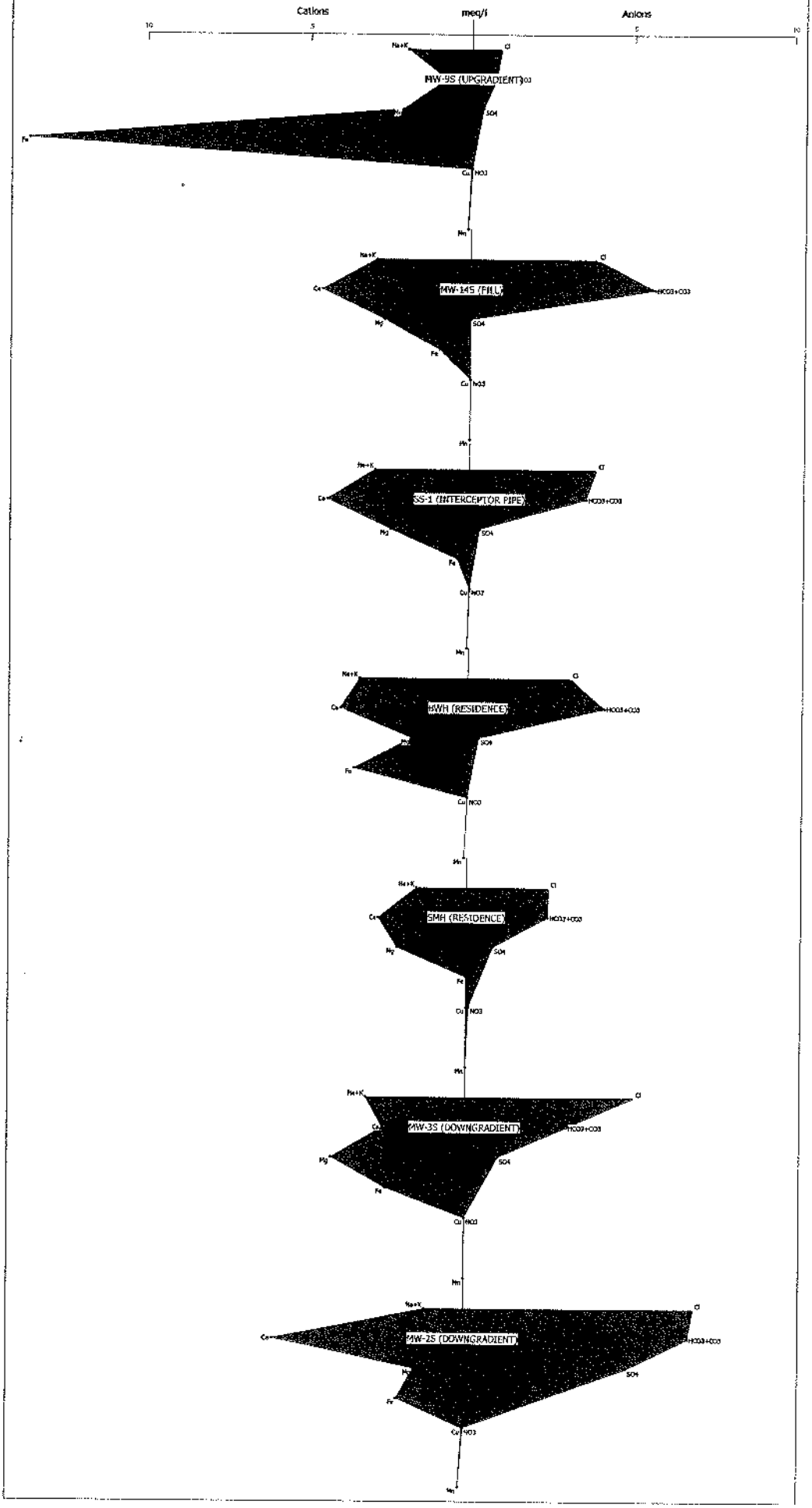
VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2				

Other Comments:

APPENDIX C

STIFF DIAGRAMS

STIFF DIAGRAMS
TAYLORS LANE COMPOST SITE



APPENDIX D

NYSDEC REPORT

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
REGION 3 OFFICE

Leachate Investigation
at
Mamaroneck Taylor Lane Leaf Compost Site
Site Number 360021

December 2004