New York State Department of Environmental Conservation
Division of Environmental Remediation • 625 Broadway • Albany, New York 12233-7013

Site Number 7-04-009A

Vestal Water Supply Site Quarterly Report

First Quarter 2008

New York State Department of Environmental Conservation Work Assignment D004443-4

May 2008

Report Prepared By:

Malcolm Pirnie, Inc.

43 British American Boulevard
Latham, New York 12110
518-782-2100

0266352

MALCOLM PIRNIE

Contents

Figures

Tables

Appendices

1. Introduction

The New York State Department of Environmental Conservation (NYSDEC) has issued a Work Assignment (# D004443-4) to Malcolm Pirnie, Inc. (Malcolm Pirnie) for Operation, Maintenance, and Monitoring at the Vestal Water Supply Site in New York State (Site # 7-04-009A). Malcolm Pirnie has prepared this Quarterly Report in accordance with the NYSDEC-approved Work Plan to summarize site activities.

2. Site Activities

2.1. Site Description

The Vestal Water Supply (Site 1-1) Site is located on Pumphouse Road, Vestal, Broome County, New York (Figure 2-1), along the southern bank of the Susquehanna River. Well 1-1 is located just south of the Susquehanna River and northwest of an industrial park located along Stage Road. Until 1980, Well 1-1 was the main source of water for Water District 1, which provides drinking water for several areas of the Town of Vestal. Currently, there are two other production wells, Wells 1-2A and 1-3 that function as the main source of water for Water District 1. Well 1-1A was installed in 1993 to replace Well 1-1 and is currently being used to pump and treat groundwater, which is then discharged to the Susquehanna River.

2.2. Operation and Maintenance

Malcolm Pirnie has maintained continuous operation of the groundwater treatment plant at the Vestal Water Supply Site. This includes the operation, maintenance, and influent/effluent sampling in accordance with the operations and maintenance (O&M) manual (Final Operation and Maintenance Manual, Long-Term Response, Operable Unit 1, Vestal Well 1-1 Site, Vestal, New York, October 2006, Tetra Tech EC, Inc.) (Final O&M Manual). However, as indicated in the Work Assignment, no work was performed on the Vestal Water Supply (Site 1-1) soil vapor extraction system.

As part of managing the Vestal Water Supply Site, Malcolm Pirnie has a subcontract with Environmental Compliance, Inc. (ECI), who has unique knowledge of operating the groundwater treatment plant. ECI provides all materials, labor, equipment, and supervision to maintain continuous operation of the groundwater treatment plant.

2.2.1. System Operation

The groundwater treatment system was operated with no interruption during the first quarter, 2008. As shown in the Monthly Reports and System O&M Logs provided by ECI (Appendix A), the prelube line was found to be frozen during the February 2008 O&M visit but this did not cause the system to shut down. The prelube line was repaired during the March 2008 O&M visit. Groundwater treatment system flow rates from the Monthly Reports and System O&M Logs are summarized on Table 2-1. As shown on Table 2-1, the flow rate for Well 1-1A decreased from 198 gallons per minute (GPM) in December 2007 to 170 GPM in January 2008. The pumping rate averaged 170 GPM throughout the first quarter, 2008. Table 2-1 also shows that approximately 139,900,000 gallons of water have

been treated since January 2007. The total flow for the first quarter 2008 operation and maintenance of the treatment system was approximately 22,000,000 gallons.

2.2.2. Influent – Effluent Sampling

First quarter, 2008 influent and effluent groundwater samples were collected from the Well 1-1A treatment system in accordance with the Work Plan. Influent and effluent groundwater samples were sent to Test America Laboratories (formerly Severn Trent Laboratories) following chain-of-custody protocols for analysis of volatile organic compounds (VOCs) by USEPA Method 8260B. The laboratory analytical reporting forms are provided in Appendix B. The laboratory data for the influent samples is presented in Table 2-2 and the effluent laboratory data is presented in table 2-3.

Influent sample concentrations of 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, trichloroethene, and vinyl chloride are consistent with previous sampling results and exceed the corresponding New York State Department of Environmental Conservation (NYSDEC) Class GA Standards in each of the three samples collected in the first quarter, 2008. Benzene and chloroethene were detected at estimated concentrations below their respective NYSDEC Class GA Standards.

Table 2-3 shows that methylene chloride (a common laboratory contaminant) was detected in the March 2008 effluent sample at a concentration of 1.2 ug/l, which is less than the NYSDEC Class GA Standard of 5 ug/l. This was the only VOC detected in any of the effluent samples collected during the first quarter, 2008. Based on influent sample concentrations and total flow volumes from the Well 1-1A treatment system, approximately 78.2 pounds of VOCs have been removed by the treatment system during the first quarter, 2008.

2.2.3. General Operation and Maintenance

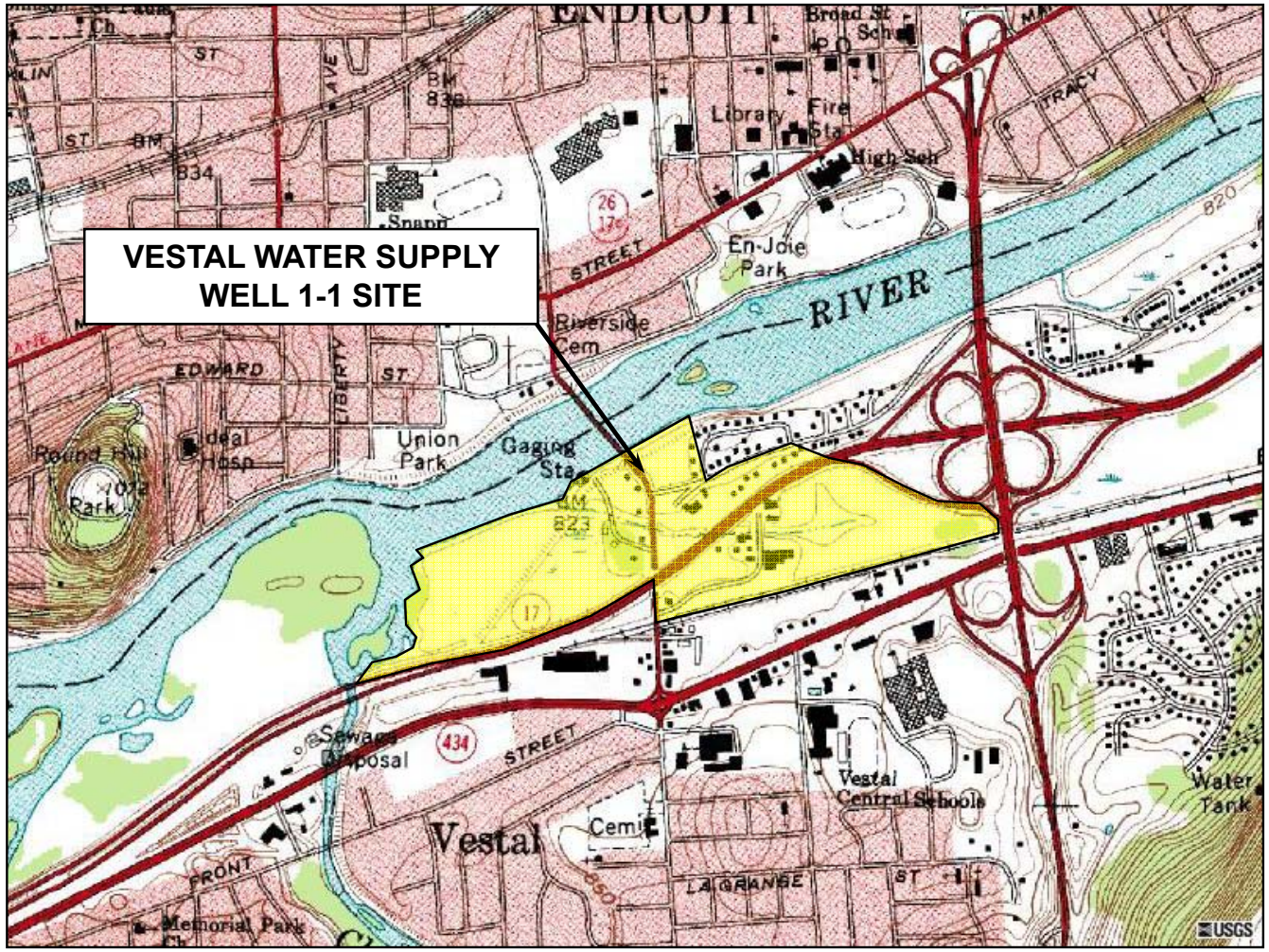
No major repairs or upgrades were performed during the first quarter of 2008.

2.3. Groundwater Monitoring Program

Groundwater monitoring wells were sampled in accordance with the Work Plan during the third quarter, 2007. The results of the sampling event were submitted with third quarter 2007 Vestal Water Supply Site Quarterly Report and Annual Groundwater Monitoring Summary (Malcolm Pirnie, 2007). The next annual groundwater monitoring event is scheduled for the fourth quarter, 2008.

3. Summary

The Vestal Well 1-1A groundwater treatment system operated with no interruption s during the first quarter, 2008 operation and maintenance period. The flow rate through the treatment system continued to decrease and is approximately 15 GPM less than the fourth quarter 2007 and approximately 105 GPM since January 2007. Total flow through the treatment system from October to December 2007 was approximately 22 million gallons. Based on monthly influent and effluent sampling, the treatment system successfully removes VOCs from groundwater in the capture zone. Approximately 78 pounds of VOCs were removed by the treatment system during the first quarter, 2008 operational period.



SCALE IN FEET

0 500 1000 2000

SOURCE: U.S.G.S 7.5 MIN. ONEONTA QUAD, 1988

MALCOLM PIRNIE

NYSDEC STANDBY CONTRACT NO. D004443-4
VESTAL WATER SUPPLY – NYSDEC SITE NO. 7-04-009A
VESTAL, NEW YORK

VESTAL WATER SUPPLY SITE 1-1 LOCATION

FIGURE 2-1

F:\PROJECT\0266352\FILE\Reports\Figure 1-1 Vestal Site Location.ppt

TABLE 2-1
WELL 1-1A FLOW SUMMARY
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE NO. 7-04-009A

Date	System Operation* (days/month)	Pumping Rate* (gpm)	Total Flow** (gallons)	Quarterly Flow (gallons)
January-07	31	280	12,499,200	
February-07	28	260	10,483,200	33,840,000
March-07	29 ***	260	10,857,600	
April-07	30	260	11,232,000	
May-07	31	260	11,606,400	31,910,400
June-07	30	210	9,072,000	
July-07	31	210	9,374,400	
August-07	31	200	8,928,000	26,942,400
September-07	30	200	8,640,000	
October-07	31	186	8,303,040	
November-07	29	198	8,268,480	24,874,560
December-07	31	186	8,303,040	
January-08	31	170	7,588,800	
February-08	29	170	7,099,200	22,321,440
March-08	31	171	7,633,440	
Total Flow			**139,888,800**	

Notes:
* - Based on monthly reports from Environmental Compliance, Inc.
** - Calculated assuming system operating 24-hours per day
*** - System shut down for 2-days due to flooding
**** - System shut down for 1-day for repairs
gpm - Gallons per minute

TABLE 2-2
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (INFLUENT)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	WELL 1A-INF 7/27/2007 WATER ug/L	WELL 1A-INF 8/27/2007 WATER ug/L	WELL 1A-INF 9/26/2007 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	**170**	**160**	**200**
1,1,2,2-Tetrachloroethane	5	10 U	5 U	20 U
1,1,2-Trichloroethane	1	10 U	5 U	20 U
1,1-Dichloroethane	5	**20**	**19**	**23**
1,1-Dichloroethene	5	**12**	**10**	**14 J**
1,2-Dichloroethane	0.6	10 U	5 U	20 U
1,2-Dichloropropane	5	10 U	5 U	20 U
2-Butanone (MEK)	50	20 U	10 U	40 U
2-Hexanone		20 U	10 U	40 U
4-Methyl-2-pentanone (MIBK)		20 U	10 U	40 U
Acetone		20 U	10 U	40 U
Benzene	1	10 U	0.39 J	20 U
Bromodichloromethane	50	10 U	5 U	20 U
Bromoform		10 U	5 U	20 U
Bromomethane	5	10 U	5 U	20 U
Carbon disulfide		10 U	5 U	20 U
Carbon tetrachloride	5	10 U	5 U	20 U
Chlorobenzene	5	10 U	5 U	20 U
Chloroethane	5	10 U	5 U	20 U
Chloroform	7	10 U	5 U	20 U
Chloromethane		10 U	5 U	20 U
cis-1,2-Dichloroethene	5	**55**	**54**	**58**
cis-1,3-Dichloropropene	0.4	10 U	5 U	20 U
Dibromochloromethane	50	10 U	5 U	20 U
Ethylbenzene	5	10 U	5 U	20 U
Methylene Chloride	5	10 U	5 U	20 U *
Styrene	5	10 U	5 U	20 U
Tetrachloroethene	5	1.3 J	5 U	20 U
Toluene	5	10 U	0.15 J	20 U
trans-1,2-Dichloroethene	5	10 U	5 U	20 U
trans-1,3-Dichloropropene	0.4	10 U	5 U	20 U
Trichloroethene	5	**46**	**47**	**53**
Vinyl chloride	2	**4.3 J**	**3.4 J**	**5.4 J**
Xylenes, Total	5	10 U	5 U	20 U

Notes

- Concentration exceeds corresponding NYSDEC Class GA Standard.

U - Not detected at the indicated concentration.

J - Estimated concentration.

M - Manual integrated compound.

B - Analyte found in associated blank as well as the sample.

* - MS or MSD exceeded control limits.

TABLE 2-2
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (INFLUENT)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	WELL 1A-INF 10/26/2007 WATER ug/L	WELL 1A-INF 11/27/2007 WATER ug/L	WELL 1A-INF 12/20/2007 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	**140**	**110**	**170**
1,1,2,2-Tetrachloroethane	5	5 U	10 U	20 U
1,1,2-Trichloroethane	1	5 U	10 U	20 U
1,1-Dichloroethane	5	**22**	**15**	**24**
1,1-Dichloroethene	5	**11**	**8.2 J**	**13 J**
1,2-Dichloroethane	0.6	5 U	10 U	20 U
1,2-Dichloropropane	5	5 U	10 U	20 U *
2-Butanone (MEK)	50	10 U	20 U	40 U
2-Hexanone		10 U	20 U	40 U
4-Methyl-2-pentanone (MIBK)		10 U	20 U	40 U
Acetone		10 U	20 U	40 UM
Benzene	1	5 U	10 U	20 U
Bromodichloromethane	50	5 U	10 U	20 U
Bromoform		5 U	10 U	20 U
Bromomethane	5	5 U	10 U	20 U
Carbon disulfide		5 U	10 U	20 U
Carbon tetrachloride	5	5 U	10 U	20 U
Chlorobenzene	5	5 U	10 U	20 U
Chloroethane	5	5 U	10 U	20 U *
Chloroform	7	5 U	10 U	20 U
Chloromethane		5 U *	10 U	20 U *
cis-1,2-Dichloroethene	5	**50**	**39**	**57**
cis-1,3-Dichloropropene	0.4	5 U	10 U	20 U
Dibromochloromethane	50	5 U	10 U	20 U
Ethylbenzene	5	5 U	10 U	20 U
Methylene Chloride	5	5 U	10 U M	2.2 JMB
Styrene	5	5 U	10 U	20 U
Tetrachloroethene	5	0.97 J	10 U	20 U
Toluene	5	5 U	10 U	20 U
trans-1,2-Dichloroethene	5	5 U	10 U	20 U
trans-1,3-Dichloropropene	0.4	5 U	10 U	20 U
Trichloroethene	5	**41 B**	**29**	**37**
Vinyl chloride	2	**6.5 ***	**2.9 J**	**9.3 JM**
Xylenes, Total	5	5 U	10 U	20 U

Notes

- Concentration exceeds corresponding NYSDEC Class GA Standard.

U - Not detected at the indicated concentration.

J - Estimated concentration.

M - Manual integrated compound.

B - Analyte found in associated blank as well as the sample.

* - MS or MSD exceeded control limits.

TABLE 2-2
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (INFLUENT)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	WELL 1A-INF 1/23/2008 WATER ug/L	WELL 1A-INF 2/26/2008 WATER ug/L	WELL 1A-INF 3/27/2008 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	**230**	**250**	**180**
1,1,2,2-Tetrachloroethane	5	10 U	10 U	5 U
1,1,2-Trichloroethane	1	10 U	10 U	5 U
1,1-Dichloroethane	5	**30**	**31**	**27**
1,1-Dichloroethene	5	**18 M**	**18**	**17**
1,2-Dichloroethane	0.6	10 U	10 U	5 U
1,2-Dichloropropane	5	10 U	10 U	5 U
2-Butanone (MEK)	50	20 U *	20 U	10 U
2-Hexanone		20 U *	20 U	10 U
4-Methyl-2-pentanone (MIBK)		20 U	20 U	10 U
Acetone		20 U *	20 U	10 U
Benzene	1	0.6 J	10 U	0.38 J
Bromodichloromethane	50	10 U	10 U	5 U
Bromoform		10 U	10 U	5 U
Bromomethane	5	10 U *	10 U	5 U
Carbon disulfide		10 U	10 U	5 U
Carbon tetrachloride	5	10 U	**35**	5 U
Chlorobenzene	5	10 U	10 U	5 U
Chloroethane	5	10 U	10 U	0.79 J
Chloroform	7	10 U	10 U	5 U
Chloromethane		10 U	10 U	5 U
cis-1,2-Dichloroethene	5	**71**	**73**	**76**
cis-1,3-Dichloropropene	0.4	10 U	10 U	5 U
Dibromochloromethane	50	10 U	10 U	5 U
Ethylbenzene	5	10 U	10 U	5 U
Methylene Chloride	5	0.94 J	10 U	5 U
Styrene	5	10 U	10 U	5 U
Tetrachloroethene	5	10 U	10 U	5 U
Toluene	5	10 U	10 U	5 U
trans-1,2-Dichloroethene	5	10 U	10 U	5 U
trans-1,3-Dichloropropene	0.4	10 U	10 U	5 U
Trichloroethene	5	**62**	**69**	**62**
Vinyl chloride	2	**11**	**8.6 J**	**7.5**
Xylenes, Total	5	2.8 J	10 U	5 U

Notes

- Concentration exceeds corresponding NYSDEC Class GA Standard.

U - Not detected at the indicated concentration.

J - Estimated concentration.

M - Manual integrated compound.

B - Analyte found in associated blank as well as the sample.

* - MS or MSD exceeded control limits.

TABLE 2-3
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (EFFLUENT)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	WELL 1A-EFF 7/27/2007 WATER ug/L	WELL 1A-EFF 8/27/2007 WATER ug/L	WELL 1A-EFF 9/26/2007 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5	5 U	5 U	5 U
1,1,2-Trichloroethane	1	5 U	5 U	5 U
1,1-Dichloroethane	5	5 U	5 U	5 U
1,1-Dichloroethene	5	5 U	5 U	5 U
1,2-Dichloroethane	0.6	5 U	5 U	5 U
1,2-Dichloropropane	5	5 U	5 U	5 U
2-Butanone (MEK)	50	10 U	10 U	10 U
2-Hexanone		10 U	10 U	10 U
4-Methyl-2-pentanone (MIBK)		10 U	10 U	10 U
Acetone		10 U	10 U	10 U
Benzene	1	5 U	5 U	5 U
Bromodichloromethane	50	5 U	5 U	5 U
Bromoform		5 U	5 U	5 U
Bromomethane	5	5 U	5 U	5 U
Carbon disulfide		5 U	5 U	5 U
Carbon tetrachloride	5	5 U	5 U	5 U
Chlorobenzene	5	5 U	5 U	5 U
Chloroethane	5	5 U	5 U	5 U
Chloroform	7	5 U	5 U	5 U
Chloromethane		5 U	5 U	5 U
cis-1,2-Dichloroethene	5	5 U	5 U	5 U
cis-1,3-Dichloropropene	0.4	5 U	5 U	5 U
Dibromochloromethane	50	5 U	5 U	5 U
Ethylbenzene	5	5 U	5 U	5 U
Methylene Chloride	5	5 U	5 U	5 U *
Styrene	5	5 U	5 U	5 U
Tetrachloroethene	5	5 U	5 U	5 U
Toluene	5	5 U	5 U	5 U
trans-1,2-Dichloroethene	5	5 U	5 U	5 U
trans-1,3-Dichloropropene	0.4	5 U	5 U	5 U
Trichloroethene	5	5 U	5 U	5 U
Vinyl chloride	2	5 U	5 U	5 U
Xylenes, Total	5	5 U	5 U	5 U

Notes
U - Not detected at the indicated concentration.
J - Estimated concentration.
M - Manual integrated compound.
B - Analyte found in associated blank as well as the sample.
* - MS or MSD exceeded control limits.

TABLE 2-3
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (EFFLUENT)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	WELL 1A-EFF 10/26/2007 WATER ug/L	WELL 1A-EFF 11/27/2007 WATER ug/L	WELL 1A-EFF 12/20/2007 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5	5 U	5 U	5 U
1,1,2-Trichloroethane	1	5 U	5 U	5 U
1,1-Dichloroethane	5	5 U	5 U	5 U
1,1-Dichloroethene	5	5 U	5 U	5 U
1,2-Dichloroethane	0.6	5 U	5 U	5 U
1,2-Dichloropropane	5	5 U	5 U	5 U
2-Butanone (MEK)	50	10 U	10 U	10 U
2-Hexanone		10 U	10 U	10 U
4-Methyl-2-pentanone (MIBK)		10 U	10 U	10 U
Acetone		10 U	10 U	10 UM
Benzene	1	5 U	5 U	5 U
Bromodichloromethane	50	5 U	5 U	5 U
Bromoform		5 U	5 U	5 U
Bromomethane	5	5 U	5 U	5 U
Carbon disulfide		5 U	5 U	5 U
Carbon tetrachloride	5	5 U	5 U	5 U
Chlorobenzene	5	5 U	5 U	5 U
Chloroethane	5	5 U	5 U	5 U
Chloroform	7	5 U	5 U	5 U
Chloromethane		5 U *	5 U	5 U
cis-1,2-Dichloroethene	5	5 U	5 U	5 U
cis-1,3-Dichloropropene	0.4	5 U	5 U	5 U
Dibromochloromethane	50	5 U	5 U	5 U
Ethylbenzene	5	5 U	5 U	5 U
Methylene Chloride	5	5 U	5 U	0.38 JB
Styrene	5	5 U	5 U	5 U
Tetrachloroethene	5	5 U	5 U	5 U
Toluene	5	5 U	5 U	5 U
trans-1,2-Dichloroethene	5	5 U	5 U	5 U
trans-1,3-Dichloropropene	0.4	5 U	5 U	5 U
Trichloroethene	5	5 U	5 U	5 U
Vinyl chloride	2	5 U *	5 U	5 U
Xylenes, Total	5	5 U	5 U	5 U

Notes
U - Not detected at the indicated concentration.
J - Estimated concentration.
M - Manual integrated compound.
B - Analyte found in associated blank as well as the sample.
* - MS or MSD exceeded control limits.

TABLE 2-3
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (EFFLUENT)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	WELL 1A-EFF 1/23/2008 WATER ug/L	WELL 1A-EFF 2/26/2008 WATER ug/L	WELL 1A-EFF 3/27/2008 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5	5 U	5 U	5 U
1,1,2-Trichloroethane	1	5 U	5 U	5 U
1,1-Dichloroethane	5	5 U	5 U	5 U
1,1-Dichloroethene	5	5 U	5 U	5 U
1,2-Dichloroethane	0.6	5 U	5 U	5 U
1,2-Dichloropropane	5	5 U	5 U	5 U
2-Butanone (MEK)	50	10 U	10 U	10 U
2-Hexanone		10 U	10 U	10 U
4-Methyl-2-pentanone (MIBK)		10 U	10 U	10 U
Acetone		10 U	10 U	10 U
Benzene	1	5 U	5 U	5 U
Bromodichloromethane	50	5 U *	5 U	5 U
Bromoform		5 U	5 U	5 U
Bromomethane	5	5 U *	5 U	5 U
Carbon disulfide		5 U *	5 U	5 U
Carbon tetrachloride	5	5 U	5 U	5 U
Chlorobenzene	5	5 U	5 U	5 U
Chloroethane	5	5 U	5 U	5 U
Chloroform	7	5 U	5 U	5 U
Chloromethane		5 U	5 U	5 U
cis-1,2-Dichloroethene	5	5 U	5 U	5 U
cis-1,3-Dichloropropene	0.4	5 U	5 U	5 U
Dibromochloromethane	50	5 U	5 U	5 U
Ethylbenzene	5	5 U	5 U	5 U
Methylene Chloride	5	5 U	5 U	1.2 JB
Styrene	5	5 U	5 U	5 U
Tetrachloroethene	5	5 U	5 U	5 U
Toluene	5	5 U	5 U	5 U
trans-1,2-Dichloroethene	5	5 U	5 U	5 U
trans-1,3-Dichloropropene	0.4	5 U	5 U	5 U
Trichloroethene	5	5 U	5 U	5 U
Vinyl chloride	2	5 U	5 U	5 U
Xylenes, Total	5	5 U	5 U	5 U

Notes

U - Not detected at the indicated concentration.

J - Estimated concentration.

M - Manual integrated compound.

B - Analyte found in associated blank as well as the sample.

* - MS or MSD exceeded control limits.

TABLE 2-4
SUMMARY OF GROUNDWATER ELEVATIONS
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE NO. 7-04-009A

New Well ID	Old Well ID	Monitored Interval	Measuring Point Elevation [1] (feet)	3/27/2008	
				DTW (feet)	Elevation (feet)
Well 1-1A [2]	-	Pumping Well	831.30	78.65	752.65
Well 1-1 [2]	-	Deep	833.06	24.67	808.39
4009-1	S-8	Shallow	832.20	NM	-
4009-2	EB-33	Shallow	828.59	15.09	813.50
4009-3	S-7	Shallow	823.72	12.34	811.38
4009-4	S-6	Shallow	822.46	NM	-
4009-5	EB-31	Shallow	825.77	14.10	811.67
4009-6	S-1	Shallow	827.16	15.39	811.77
4009-7	S-2	Shallow	823.72	NM	-
4009-8	S-11	Shallow	**	NM	-
4009-9	EB-41	Shallow	825.38	15.70	809.68
4009-10	EB-42	Shallow	831.54	21.73	809.81
4009-11	1-32	Deep	831.08	22.81	808.27
4009-11A	1-32A	Shallow	830.86	13.46	817.40
4009-12	1-29	Deep	823.55	15.83	807.72
4009-12A	1-29A	Shallow	824.08	15.44	808.64
4009-13	1-30	Deep	816.54	8.09	808.45
4009-13A	1-30A	Shallow	816.42	6.84	809.58
4009-14	1-23	Deep	820.91	12.67	808.24
4009-15	1-24	Deep	826.76	18.80	807.96
4009-16	1-20	Deep	825.93	19.24	806.69
4009-16A	1-20A	Shallow	826.32	19.00	807.32
4009-17	Piezo-levee*	Deep	-	NM	-
4009-18	well-west well house*	Deep	-	NM	-
4009-19	well-south well house*	Deep	-	NM	-
4009-20	Piezo-north*	Shallow	-	NM	-
4009-21	Piezo-west*	Deep	-	NM	-

Notes:

* - Could not identify well location from site map (Figure 1, Final Operation and Maintenance Manual, Long-Term Response, Operable Unit 1, Vestal Well 1-1 Site, Vestal, New York, October 2006, Tetra Tech EC, Inc.). Old Well ID based on field description of well location.

** - Well casing damaged. Measuring point elevation not known.

(1) - Data from Final Operation and Maintenance Manual, Long-Term Response, Operable Unit 1, Vestal Well 1-1 Site, Vestal, New York, October 2006, Tetra Tech EC, Inc.

(2) - Elevation from Malcolm Pirnie survey on 3/13/2008.

New York State Department of Environmental Conservation
Vestal Water Supply Site Quarterly Report

APPENDIX

A

Monthly Reports and System Operation and Maintenance Logs

MALCOLM PIRNIE

ENVIRONMENTAL COMPLIANCE, INC.
101 Mount Bethel Rd.
Warren, New Jersey 07059
908-754-1700
908-754-1866 (fax)
http://www.eci-nj.com
j.jimenez@eci-nj.com (email)

Vestal Well 1-1 Monthly Report
January 2008

SECTION I – SUMMARY OF ACTIVITIES

The system operated continuously the entire month.

The system flow rate as recorded by the digital flow meter was 170 GPM. Daily system checks are recorded on attached log.

Routine maintenance activities conducted during the month are outlined below.

SECTION II – MONTHLY OPERATIONS & MAINTENANCE

- Routine weekly inspection of facility
- Pumps checked & lubricated
- Filters cleaned or replaced, as needed
- Shoveled snow
- Removed calcium deposits from discharge pipe

SECTION III – REPAIR WORK COMPLETED

- None

SECTION IV – REPAIR WORK NEEDED

- None

SECTION V – RECOMMENDATIONS

- None

VESTAL WELL 1-1 MONTHLY O & M LOG January 2008

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
TIME																															
WELL HOUSE																															
WELL PUMP PACKING	X	X	X	X	X		X		X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X
PRE LUBE LINE	X	X	X	X	X		X		X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X
PUMP MOTOR OIL	X	X	X	X	X		X		X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X
PUMP VIBRATION / HEAT	X	X	X	X	X		X		X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X
CHEMICAL BUILDING																															
SUMP PUMP	X	X	X	X	X		X		X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X
DISCHARGE VALVES	X	X	X	X	X		X		X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X
FLOW METER (GPM)	186	170	170	170	170		170	170	170	170	170	170		170	170	170	170	170	170		170	170	170	170	170	170		170	170	170	170
DIALER - ALARMS	X	X	X	X	X		X		X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X
CHLORINE ROOM																															
GENERAL CONDITION	X	X	X	X	X		X		X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X
TOWER PACKING INSP.	X	X	X	X	X		X		X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X
MAIN PUMPHOUSE																															
BLOWER AND MOTOR	X	X	X	X	X		X		X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X
BLOWER AIR FILTERS	X	X	X	X	X		X		X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X
ALARM / CONTROL PANEL	X	X	X	X	X		X		X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X
CLEARWELL LEVEL	X	X	X	X	X		X		X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	<1	X	X
FLOAT & BYPASS LINE																															
H.S. PUMP PACKING	X	X	X	X	X		X		X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X
H.S. PUMP MOTOR OIL	X	X	X	X	X		X		X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X
PUMP VIBRATION / HEAT	X	X	X	X	X		X		X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X
SURGE RELIEF VALVE	X	X	X	X	X		X		X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X
DISCHARGE PRESSURE																															
DEMAND METER READ																															
MOTOR CONT. CENTER																															
OTHER																															
GROUNDS	X	X	X	X	X		X		X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X
INGROUND TANK LEVEL	X	X	X	X	X		X		X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X

X - Normal Operation

ENVIRONMENTAL COMPLIANCE, INC.
101 Mount Bethel Rd.
Warren, New Jersey 07059
908-754-1700
908-754-1866 (fax)
http://www.eci-nj.com
j.jimenez@eci-nj.com (email)

Vestal Well 1-1 Monthly Report
February 2008

SECTION I – SUMMARY OF ACTIVITIES

The system operated continuously the entire month.

The system flow rate as recorded by the digital flow meter ranged between 164 GPM and 174 GPM. Daily system checks are recorded on attached log.

Richard Green met with Jeremy Wyckoff and NYSDEC regarding installation of variable speed drive on blower and reconditioning well.

Prelube line froze and could not be repaired due to low temperatures.

Routine maintenance activities conducted during the month are outlined below.

SECTION II – MONTHLY OPERATIONS & MAINTENANCE

- Routine weekly inspection of facility
- Pumps checked & lubricated
- Filters cleaned or replaced, as needed
- Shoveled snow
- Assisted with water sampling

SECTION III – REPAIR WORK COMPLETED

- None

SECTION IV – REPAIR WORK NEEDED

- Repair prelube line when weather allows

SECTION V – RECOMMENDATIONS

- None other than repairing prelube line.

VESTAL WELL 1-1 MONTHLY O & M LOG February 2008

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
TIME																															
WELL HOUSE																															
WELL PUMP PACKING	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X		
PRE LUBE LINE	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X		
PUMP MOTOR OIL	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X		
PUMP VIBRATION / HEAT	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X		
CHEMICAL BUILDING																															
SUMP PUMP	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X		
DISCHARGE VALVES	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X		
FLOW METER (GPM)	174	174		174	174	174	174	174	174		169	169	169	169	169	169		171	171	171	171	171	171		164	164	164	164	164		
DIALER - ALARMS	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X		
CHLORINE ROOM																															
GENERAL CONDITION	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X		
TOWER PACKING INSP.	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X		
MAIN PUMPHOUSE																															
BLOWER AND MOTOR	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X		
BLOWER AIR FILTERS	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X		
ALARM / CONTROL PANEL	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X		
CLEARWELL LEVEL	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	<1		
FLOAT & BYPASS LINE																															
H.S. PUMP PACKING	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X		
H.S. PUMP MOTOR OIL	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X		
PUMP VIBRATION / HEAT	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X		
SURGE RELIEF VALVE	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X		
DISCHARGE PRESSURE																															
DEMAND METER READ																															
MOTOR CONT. CENTER																															
OTHER																															
GROUNDS	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X		
INGROUND TANK LEVEL	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X		

X - Normal Operation

ENVIRONMENTAL COMPLIANCE, INC.
101 Mount Bethel Rd.
Warren, New Jersey 07059
908-754-1700
908-754-1866 (fax)
http://www.eci-nj.com
j.jimenez@eci-nj.com (email)

Vestal Well 1-1 Monthly Report
March 2008

SECTION I – SUMMARY OF ACTIVITIES

The system operated continuously the entire month except for two days that the system was shut down at the request of the NYSDEC due to flooding conditions along the river.

The system flow rate as recorded by the digital flow meter ranged between 168 GPM and 173 GPM. Daily system checks are recorded on attached log.

Richard Green met with Jeremy Wyckoff who took water level readings from production well.

Routine maintenance activities conducted during the month are outlined below.

SECTION II – MONTHLY OPERATIONS & MAINTENANCE

- Routine weekly inspection of facility
- Pumps checked & lubricated
- Filters cleaned or replaced, as needed
- Shoveled snow
- Assisted with water level readings

SECTION III – REPAIR WORK COMPLETED

- Repaired frozen prelube line

SECTION IV – REPAIR WORK NEEDED

- None

SECTION V – RECOMMENDATIONS

- None

VESTAL WELL 1-1 MONTHLY O & M LOG March 2008

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
TIME																															
WELL HOUSE																															
WELL PUMP PACKING	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
PRE LUBE LINE	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
PUMP MOTOR OIL	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
PUMP VIBRATION / HEAT	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
CHEMICAL BUILDING																															
SUMP PUMP	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
DISCHARGE VALVES	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
FLOW METER (GPM)	173	173	173	173	173	173	173	173		170	170	170	170	170	170		168	168	168	168	168	168		173	173	173	173	173	173		173
DIALER - ALARMS	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
CHLORINE ROOM																															
GENERAL CONDITION	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
TOWER PACKING INSP.	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
MAIN PUMPHOUSE																															
BLOWER AND MOTOR	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
BLOWER AIR FILTERS	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
ALARM / CONTROL PANEL	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
CLEARWELL LEVEL	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	<1		X
FLOAT & BYPASS LINE																															
H.S. PUMP PACKING	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
H.S. PUMP MOTOR OIL	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
PUMP VIBRATION / HEAT	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
SURGE RELIEF VALVE	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
DISCHARGE PRESSURE																															
DEMAND METER READ																															
MOTOR CONT. CENTER																															
OTHER																															
GROUNDS	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
INGROUND TANK LEVEL	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X

X - Normal Operation

New York State Department of Environmental Conservation
Vestal Water Supply Site Quarterly Report

APPENDIX

B

Analytical Reporting Forms

MALCOLM PIRNIE

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 220-3974-1

SDG Number: 220-3974

Job Description: NYSDEC Standby - Vestal Water Supply

For:
Malcolm Pirnie, Inc.
43 British American Boulevard
1st Floor
Latham, NY 12110

Attention: Mr. Jeremy Wyckoff

Designee for
Johanna Dubauskas
Project Manager I
johanna.dubauskas@testamericainc.com
01/31/2008

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Project Manager.

TestAmerica Connecticut Certifications and Approvals: CTDOH PH-047, MADEP CT023, RIDOH A43, NYDOH 10602, NY NELAP 10602, NHDES 2528, NJDEP CT410, ME DOH CT023, UT DOH 2032614458

Case Narrative for Job: 220-3974-1

Client: Malcolm Pirnie, Inc.
Date: January 31, 2008

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Lawrence Decker
Laboratory Director

January 31, 2008
Date

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS VOA
No analytical or quality issues were noted.

FORMULAS FOR NYSDEC SAMPLE CALCULATIONS

Volatiles

(Ax)(IS)(DF)
(AIS)(RRF)(V)(% solids) = C

(AX)(IS)(VT)(1000)(DF)
(AIS)(RRF)(VA)(V)(% solids) = C (for medium level soils)

SemiVolatiles

(AX)(IS)(VE)(DF)(GPC factor is 2 if needed)
(AIS)(RRF)(volume injected)(V)(% solids) = C

Pesticides

(AX)(VE)(DF)
(RRF)(V)(% solids)(volume injected) = C

PCBs for compound/retention time

(AX)(VE)(DF)
(RRF of compound at the stated retention time)(V)(% solids)(volume injected) = C

DRO/CTETPH

(AX)(VE)(DF)
(RRF)(V)(% solids)(volume injected) = C

AX = area of the target Ion
AIS = Area of Internal standard
C = concentration as ug/L or ug/Kg
DF = dilution
IS = Internal standard concentration (ng)
RRF = average RF (from initial cal except CLP methods from continuing cal)
V = sample volume for liquids in mls or sample weight for solids in grams
VA = volume of aliquot for medium level soils
VE = volume of concentrated extract
VT = volume of methanol for volatile medium level soils

SAMPLE SUMMARY

Client: Malcolm Pirnie, Inc.

Job Number: 220-3974-1
Sdg Number: 220-3974

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
220-3974-1	WELL 1-1A INF	Water	01/23/2008 0800	01/24/2008 0955
220-3974-2	WELL 1-1A EFF	Water	01/23/2008 0810	01/24/2008 0955
220-3974-3TB	TRIP BLANK	Water	01/23/2008 0000	01/24/2008 0955

METHOD SUMMARY

Client: Malcolm Pirnie, Inc.

Job Number: 220-3974-1
Sdg Number: 220-3974

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS	TAL CT	SW846 8260B	
Purge-and-Trap	TAL CT		SW846 5030B

Lab References:

TAL CT = TestAmerica Connecticut

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Malcolm Pirnie, Inc.

Job Number: 220-3974-1
Sdg Number: 220-3974

Method	Analyst	Analyst ID
SW846 8260B	Kostrzewska, Barbara	BK

Client: Malcolm Pirnie, Inc.

Job Number: 220-3974-1
Sdg Number: 220-3974

Client Sample ID: **WELL 1-1A INF**

Lab Sample ID: 220-3974-1
Client Matrix: Water

Date Sampled: 01/23/2008 0800
Date Received: 01/24/2008 0955

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation: 5030B
Dilution: 2.0
Date Analyzed: 01/25/2008 1900
Date Prepared: 01/25/2008 1900

Analysis Batch: 220-12967

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L4056.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	20	U *	3.2	20
Benzene	0.60	J	0.46	10
Bromodichloromethane	10	U	0.48	10
Bromoform	10	U	2.3	10
Bromomethane	10	U *	2.0	10
Methyl Ethyl Ketone	20	U *	2.1	20
Carbon disulfide	10	U	0.28	10
Carbon tetrachloride	10	U	0.58	10
Chlorobenzene	10	U	0.30	10
Chloroethane	10	U	0.96	10
Chloroform	10	U	0.54	10
Chloromethane	10	U	0.48	10
Dibromochloromethane	10	U	0.42	10
1,1-Dichloroethane	30		0.46	10
1,2-Dichloroethane	10	U	0.50	10
1,1-Dichloroethene	18	M	0.50	10
1,2-Dichloropropane	10	U	0.64	10
cis-1,3-Dichloropropene	10	U	0.56	10
trans-1,3-Dichloropropene	10	U	0.56	10
Ethylbenzene	10	U	0.56	10
2-Hexanone	20	U *	0.74	20
Methylene Chloride	0.94	J	0.52	10
methyl isobutyl ketone	20	U	0.76	20
Styrene	10	U	1.4	10
1,1,2,2-Tetrachloroethane	10	U	0.46	10
Tetrachloroethene	10	U	0.60	10
Toluene	10	U	0.18	10
1,1,1-Trichloroethane	230		0.76	10
1,1,2-Trichloroethane	10	U	0.66	10
Trichloroethene	62		0.52	10
Vinyl chloride	11		0.60	10
Xylenes, Total	2.8	J	0.92	10
cis-1,2-Dichloroethene	71		0.66	10
trans-1,2-Dichloroethene	10	U	0.44	10

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95	53 - 125
4-Bromofluorobenzene	111	73 - 127
Dibromofluoromethane	94	54 - 137
Toluene-d8 (Surr)	87	63 - 121

Client: Malcolm Pirnie, Inc.

Job Number: 220-3974-1
Sdg Number: 220-3974

Client Sample ID: **WELL 1-1A EFF**

Lab Sample ID: 220-3974-2
Client Matrix: Water

Date Sampled: 01/23/2008 0810
Date Received: 01/24/2008 0955

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 01/24/2008 1511
Date Prepared: 01/24/2008 1511

Analysis Batch: 220-12941

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L4028.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.6	10
Benzene	5.0	U	0.23	5.0
Bromodichloromethane	5.0	U *	0.24	5.0
Bromoform	5.0	U	1.2	5.0
Bromomethane	5.0	U *	1.0	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U *	0.14	5.0
Carbon tetrachloride	5.0	U	0.29	5.0
Chlorobenzene	5.0	U	0.15	5.0
Chloroethane	5.0	U	0.48	5.0
Chloroform	5.0	U	0.27	5.0
Chloromethane	5.0	U	0.24	5.0
Dibromochloromethane	5.0	U	0.21	5.0
1,1-Dichloroethane	5.0	U	0.23	5.0
1,2-Dichloroethane	5.0	U	0.25	5.0
1,1-Dichloroethene	5.0	U	0.25	5.0
1,2-Dichloropropane	5.0	U	0.32	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.28	5.0
Ethylbenzene	5.0	U	0.28	5.0
2-Hexanone	10	U	0.37	10
Methylene Chloride	5.0	U	0.26	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.70	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.23	5.0
Tetrachloroethene	5.0	U	0.30	5.0
Toluene	5.0	U	0.090	5.0
1,1,1-Trichloroethane	5.0	U	0.38	5.0
1,1,2-Trichloroethane	5.0	U	0.33	5.0
Trichloroethene	5.0	U	0.26	5.0
Vinyl chloride	5.0	U	0.30	5.0
Xylenes, Total	5.0	U	0.46	5.0
cis-1,2-Dichloroethene	5.0	U	0.33	5.0
trans-1,2-Dichloroethene	5.0	U	0.22	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92	53 - 125
4-Bromofluorobenzene	115	73 - 127
Dibromofluoromethane	89	54 - 137
Toluene-d8 (Surr)	90	63 - 121

Client: Malcolm Pirnie, Inc.

Job Number: 220-3974-1
Sdg Number: 220-3974

Client Sample ID: **TRIP BLANK**

Lab Sample ID: 220-3974-3TB
Client Matrix: Water

Date Sampled: 01/23/2008 0000
Date Received: 01/24/2008 0955

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 01/24/2008 1535
Date Prepared: 01/24/2008 1535

Analysis Batch: 220-12941

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L4029.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.6	10
Benzene	5.0	U	0.23	5.0
Bromodichloromethane	5.0	U *	0.24	5.0
Bromoform	5.0	U	1.2	5.0
Bromomethane	5.0	U *	1.0	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U *	0.14	5.0
Carbon tetrachloride	5.0	U	0.29	5.0
Chlorobenzene	5.0	U	0.15	5.0
Chloroethane	5.0	U	0.48	5.0
Chloroform	5.0	U	0.27	5.0
Chloromethane	5.0	U	0.24	5.0
Dibromochloromethane	5.0	U	0.21	5.0
1,1-Dichloroethane	5.0	U	0.23	5.0
1,2-Dichloroethane	5.0	U	0.25	5.0
1,1-Dichloroethene	5.0	U	0.25	5.0
1,2-Dichloropropane	5.0	U	0.32	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.28	5.0
Ethylbenzene	5.0	U	0.28	5.0
2-Hexanone	10	U	0.37	10
Methylene Chloride	2.3	J	0.26	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.70	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.23	5.0
Tetrachloroethene	5.0	U	0.30	5.0
Toluene	5.0	U	0.090	5.0
1,1,1-Trichloroethane	5.0	U	0.38	5.0
1,1,2-Trichloroethane	5.0	U	0.33	5.0
Trichloroethene	5.0	U	0.26	5.0
Vinyl chloride	5.0	U	0.30	5.0
Xylenes, Total	5.0	U	0.46	5.0
cis-1,2-Dichloroethene	5.0	U	0.33	5.0
trans-1,2-Dichloroethene	5.0	U	0.22	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	82	53 - 125
4-Bromofluorobenzene	101	73 - 127
Dibromofluoromethane	80	54 - 137
Toluene-d8 (Surr)	81	63 - 121

Client: Malcolm Pirnie, Inc.

Job Number: 220-3974-1
Sdg Number: 220-3974

Surrogate Recovery Report

8260B Volatile Organic Compounds by GC/MS

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	12DCE %Rec	TOL %Rec	BFB %Rec
220-3974-1	WELL 1-1A INF	94	95	87	111
220-3974-2	WELL 1-1A EFF	89	92	90	115
220-3974-3	TRIP BLANK	80	82	81	101
MB 220-12941/3		90	89	93	113
MB 220-12967/2		87	92	92	108
LCS 220-12941/2		89	91	90	92
LCS 220-12967/3		87	91	89	96

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane	54-137
12DCE = 1,2-Dichloroethane-d4 (Surr)	53-125
TOL = Toluene-d8 (Surr)	63-121
BFB = 4-Bromofluorobenzene	73-127

Client: Malcolm Pirnie, Inc.

Job Number: 220-3974-1
Sdg Number: 220-3974

Method Blank - Batch: 220-12941

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 220-12941/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/24/2008 1019
Date Prepared: 01/24/2008 1019

Analysis Batch: 220-12941
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L4016.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Acetone	10	U	1.6	10
Benzene	5.0	U	0.23	5.0
Bromodichloromethane	5.0	U	0.24	5.0
Bromoform	5.0	U	1.2	5.0
Bromomethane	5.0	U	1.0	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.14	5.0
Carbon tetrachloride	5.0	U	0.29	5.0
Chlorobenzene	5.0	U	0.15	5.0
Chloroethane	5.0	U	0.48	5.0
Chloroform	5.0	U	0.27	5.0
Chloromethane	5.0	U	0.24	5.0
Dibromochloromethane	5.0	U	0.21	5.0
1,1-Dichloroethane	5.0	U	0.23	5.0
1,2-Dichloroethane	5.0	U	0.25	5.0
1,1-Dichloroethene	5.0	U	0.25	5.0
1,2-Dichloropropane	5.0	U	0.32	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.28	5.0
Ethylbenzene	5.0	U	0.28	5.0
2-Hexanone	10	U	0.37	10
Methylene Chloride	5.0	U	0.26	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.70	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.23	5.0
Tetrachloroethene	5.0	U	0.30	5.0
Toluene	5.0	U	0.090	5.0
1,1,1-Trichloroethane	5.0	U	0.38	5.0
1,1,2-Trichloroethane	5.0	U	0.33	5.0
Trichloroethene	5.0	U	0.26	5.0
Vinyl chloride	5.0	U	0.30	5.0
Xylenes, Total	5.0	U	0.46	5.0
cis-1,2-Dichloroethene	5.0	U	0.33	5.0
trans-1,2-Dichloroethene	5.0	U	0.22	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	89	53 - 125
4-Bromofluorobenzene	113	73 - 127
Dibromofluoromethane	90	54 - 137
Toluene-d8 (Surr)	93	63 - 121

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Malcolm Pirnie, Inc.

Job Number: 220-3974-1
Sdg Number: 220-3974

Lab Control Spike - Batch: 220-12941

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 220-12941/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/24/2008 0905
Date Prepared: 01/24/2008 0905

Analysis Batch: 220-12941
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L4012.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	20.0	52.2	261	18 - 263	
Benzene	20.0	25.1	125	68 - 126	
Bromodichloromethane	20.0	23.8	119	67 - 118	*
Bromoform	20.0	17.5	88	63 - 115	
Bromomethane	20.0	40.3	201	27 - 171	M *
Methyl Ethyl Ketone	20.0	41.9	210	30 - 222	B
Carbon disulfide	20.0	28.9	145	44 - 142	*
Carbon tetrachloride	20.0	22.1	111	56 - 131	
Chlorobenzene	20.0	20.5	102	71 - 114	
Chloroethane	20.0	31.1	156	53 - 167	
Chloroform	20.0	24.4	122	70 - 124	
Chloromethane	20.0	26.2	131	43 - 134	
Dibromochloromethane	20.0	20.9	105	65 - 114	
1,1-Dichloroethane	20.0	23.2	116	67 - 121	
1,2-Dichloroethane	20.0	22.8	114	68 - 124	
1,1-Dichloroethene	20.0	27.3	136	57 - 137	
1,2-Dichloropropane	20.0	23.8	119	69 - 122	
cis-1,3-Dichloropropene	20.0	23.3	116	60 - 122	
trans-1,3-Dichloropropene	20.0	21.9	109	55 - 126	
Ethylbenzene	20.0	19.9	100	71 - 115	
2-Hexanone	20.0	35.7	178	54 - 179	
Methylene Chloride	20.0	24.9	125	61 - 129	
methyl isobutyl ketone	20.0	26.0	130	61 - 140	
Styrene	20.0	17.3	87	69 - 112	
1,1,2,2-Tetrachloroethane	20.0	23.3	117	66 - 129	
Tetrachloroethene	20.0	18.7	93	62 - 118	
Toluene	20.0	21.4	107	70 - 116	
1,1,1-Trichloroethane	20.0	21.7	109	60 - 128	
1,1,2-Trichloroethane	20.0	22.3	111	70 - 119	
Trichloroethene	20.0	24.6	123	58 - 125	
Vinyl chloride	20.0	27.0	135	51 - 139	
Xylenes, Total	60.0	58.6	98	66 - 118	
cis-1,2-Dichloroethene	20.0	22.9	115	65 - 120	
trans-1,2-Dichloroethene	20.0	22.9	114	57 - 129	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	91	53 - 125
4-Bromofluorobenzene	92	73 - 127
Dibromofluoromethane	89	54 - 137
Toluene-d8 (Surr)	90	63 - 121

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Malcolm Pirnie, Inc.

Job Number: 220-3974-1
Sdg Number: 220-3974

Method Blank - Batch: 220-12967

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 220-12967/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/25/2008 1315
Date Prepared: 01/25/2008 1315

Analysis Batch: 220-12967
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L4042.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Acetone	10	U	1.6	10
Benzene	5.0	U	0.23	5.0
Bromodichloromethane	5.0	U	0.24	5.0
Bromoform	5.0	U	1.2	5.0
Bromomethane	5.0	U	1.0	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.14	5.0
Carbon tetrachloride	5.0	U	0.29	5.0
Chlorobenzene	5.0	U	0.15	5.0
Chloroethane	5.0	U	0.48	5.0
Chloroform	5.0	U	0.27	5.0
Chloromethane	5.0	U	0.24	5.0
Dibromochloromethane	5.0	U	0.21	5.0
1,1-Dichloroethane	5.0	U	0.23	5.0
1,2-Dichloroethane	5.0	U	0.25	5.0
1,1-Dichloroethene	5.0	U	0.25	5.0
1,2-Dichloropropane	5.0	U	0.32	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.28	5.0
Ethylbenzene	5.0	U	0.28	5.0
2-Hexanone	10	U	0.37	10
Methylene Chloride	5.0	U M	0.26	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.70	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.23	5.0
Tetrachloroethene	5.0	U	0.30	5.0
Toluene	5.0	U	0.090	5.0
1,1,1-Trichloroethane	5.0	U	0.38	5.0
1,1,2-Trichloroethane	5.0	U	0.33	5.0
Trichloroethene	5.0	U	0.26	5.0
Vinyl chloride	5.0	U	0.30	5.0
Xylenes, Total	5.0	U	0.46	5.0
cis-1,2-Dichloroethene	5.0	U	0.33	5.0
trans-1,2-Dichloroethene	5.0	U	0.22	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92	53 - 125
4-Bromofluorobenzene	108	73 - 127
Dibromofluoromethane	87	54 - 137
Toluene-d8 (Surr)	92	63 - 121

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Malcolm Pirnie, Inc.

Job Number: 220-3974-1
Sdg Number: 220-3974

Lab Control Spike - Batch: 220-12967

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 220-12967/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/25/2008 1405
Date Prepared: 01/25/2008 1405

Analysis Batch: 220-12967
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L4044.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	20.0	59.9	299	18 - 263	*
Benzene	20.0	22.6	113	68 - 126	
Bromodichloromethane	20.0	22.1	111	67 - 118	
Bromoform	20.0	17.9	90	63 - 115	
Bromomethane	20.0	34.4	172	27 - 171	M *
Methyl Ethyl Ketone	20.0	49.3	247	30 - 222	*
Carbon disulfide	20.0	23.3	116	44 - 142	
Carbon tetrachloride	20.0	17.6	88	56 - 131	
Chlorobenzene	20.0	18.3	91	71 - 114	
Chloroethane	20.0	27.4	137	53 - 167	
Chloroform	20.0	23.1	115	70 - 124	
Chloromethane	20.0	26.7	133	43 - 134	
Dibromochloromethane	20.0	19.1	95	65 - 114	
1,1-Dichloroethane	20.0	21.6	108	67 - 121	
1,2-Dichloroethane	20.0	21.9	110	68 - 124	
1,1-Dichloroethene	20.0	22.1	111	57 - 137	
1,2-Dichloropropane	20.0	22.3	112	69 - 122	
cis-1,3-Dichloropropene	20.0	22.0	110	60 - 122	
trans-1,3-Dichloropropene	20.0	21.4	107	55 - 126	
Ethylbenzene	20.0	17.8	89	71 - 115	
2-Hexanone	20.0	40.9	204	54 - 179	*
Methylene Chloride	20.0	24.2	121	61 - 129	
methyl isobutyl ketone	20.0	27.6	138	61 - 140	M
Styrene	20.0	16.2	81	69 - 112	
1,1,2,2-Tetrachloroethane	20.0	22.9	114	66 - 129	
Tetrachloroethene	20.0	15.7	79	62 - 118	
Toluene	20.0	18.9	94	70 - 116	
1,1,1-Trichloroethane	20.0	18.3	92	60 - 128	
1,1,2-Trichloroethane	20.0	22.5	112	70 - 119	
Trichloroethene	20.0	22.5	112	58 - 125	
Vinyl chloride	20.0	23.5	118	51 - 139	
Xylenes, Total	60.0	51.8	86	66 - 118	
cis-1,2-Dichloroethene	20.0	20.5	103	65 - 120	
trans-1,2-Dichloroethene	20.0	20.5	102	57 - 129	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	91	53 - 125
4-Bromofluorobenzene	96	73 - 127
Dibromofluoromethane	87	54 - 137
Toluene-d8 (Surr)	89	63 - 121

Calculations are performed before rounding to avoid round-off errors in calculated results.

DATA REPORTING QUALIFIERS

Client: Malcolm Pirnie, Inc.

Job Number: 220-3974-1
Sdg Number: 220-3974

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	*	LCS or LCSD exceeds the control limits
	M	Manual integrated compound.
	B	The analyte was found in an associated blank, as well as in the sample.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 220-4253-1

SDG Number: 220-4253

Job Description: NYSDEC Standby - Vestal Water Supply

For:
Malcolm Pirnie, Inc.
43 British American Boulevard
1st Floor
Latham, NY 12110

Attention: Mr. Jeremy Wyckoff

Designee for
Johanna Dubauskas
Project Manager I
johanna.dubauskas@testamericainc.com
03/20/2008

TestAmerica Connecticut Certifications and Approvals: CTDOH PH-047, MADEP CT023, RIDOH A43, NYDOH 10602, NY NELAP 10602, NHDES 2528, NJDEP CT410, ME DOH CT023, UT DOH 2032614458

TestAmerica Laboratories, Inc.
TestAmerica Connecticut 128 Long Hill Cross Road, Shelton, CT 06484
Tel (203) 929-8140 Fax (203) 929-8142 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

Case Narrative for Job: 220-4253-1

Client: Malcolm Pirnie, Inc.
Date: March 20, 2008

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Lawrence Decker
Laboratory Director

March 20, 2008
Date

Job Narrative
220-J4253-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS VOA
Method(s) 8260B: Internal standard (ISTD) response for the following sample was outside control limits: WELL 1-1A INF (220-4253-1). The sample was re-analyzed with concurring results. Both sets of data have been reported. Also surrogate was outside control limits for primary run.

No other analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

FORMULAS FOR NYSDEC SAMPLE CALCULATIONS

Volatiles

(Ax)(IS)(DF)
(AIS)(RRF)(V)(% solids) = C

(AX)(IS)(VT)(1000)(DF)
(AIS)(RRF)(VA)(V)(% solids) = C (for medium level soils)

SemiVolatiles

(AX)(IS)(VE)(DF)(GPC factor is 2 if needed)
(AIS)(RRF)(volume injected)(V)(% solids) = C

Pesticides

(AX)(VE)(DF)
(RRF)(V)(% solids)(volume injected) = C

PCBs for compound/retention time

(AX)(VE)(DF)
(RRF of compound at the stated retention time)(V)(% solids)(volume injected) = C

DRO/CTETPH

(AX)(VE)(DF)
(RRF)(V)(% solids)(volume injected) = C

AX = area of the target Ion
AIS = Area of Internal standard
C = concentration as ug/L or ug/Kg
DF = dilution
IS = Internal standard concentration (ng)
RRF = average RF (from initial cal except CLP methods from continuing cal)
V = sample volume for liquids in mls or sample weight for solids in grams
VA = volume of aliquot for medium level soils
VE = volume of concentrated extract
VT = volume of methanol for volatile medium level soils

SAMPLE SUMMARY

Client: Malcolm Pirnie, Inc.

Job Number: 220-4253-1
Sdg Number: 220-4253

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
220-4253-1	WELL 1-1A INF	Water	02/26/2008 1310	02/27/2008 0945
220-4253-2	WELL 1-1A EFF	Water	02/26/2008 1320	02/27/2008 0945
220-4253-3TB	TRIP BLANK	Water	02/26/2008 0000	02/27/2008 0945

METHOD SUMMARY

Client: Malcolm Pirnie, Inc.

Job Number: 220-4253-1
Sdg Number: 220-4253

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS	TAL CT	SW846 8260B	
Purge-and-Trap	TAL CT		SW846 5030B
Hardness by Calculation	TAL CT	SM20 SM 2340B	
pH Electrometric Measurement	TAL CT	SW846 9040B	
Alkalinity, Titration Method	TAL CT	SM18 SM 2320B	
Total Dissolved Solids (Dried at 180 °C)	TAL CT	SM18 SM 2540C	

Lab References:

TAL CT = TestAmerica Connecticut

Method References:

SM18 = "Standard Methods For The Examination Of Water And Wastewater", 18th Edition, 1992.

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Malcolm Pirnie, Inc.

Job Number: 220-4253-1
Sdg Number: 220-4253

Method	Analyst	Analyst ID
SW846 8260B	Kostrzewska, Barbara	BK
SM20 SM 2340B	Petronchak, Nestor	NP
SW846 9040B	Mendoza, Julia	JM
SM18 SM 2320B	Mendoza, Julia	JM
SM18 SM 2540C	Mendoza, Julia	JM

Client: Malcolm Pirnie, Inc.

Job Number: 220-4253-1
Sdg Number: 220-4253

Client Sample ID: **WELL 1-1A INF**

Lab Sample ID: 220-4253-1
Client Matrix: Water

Date Sampled: 02/26/2008 1310
Date Received: 02/27/2008 0945

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/05/2008 1813
Date Prepared: 03/05/2008 1813

Analysis Batch: 220-13898

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L4836.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95	53 - 125
4-Bromofluorobenzene	126	73 - 127
Dibromofluoromethane	88	54 - 137
Toluene-d8 (Surr)	85	63 - 121

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/05/2008 1813
Date Prepared: 03/05/2008 1813

Analysis Batch: 220-13898

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L4836.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.6	10
Benzene	5.0	U	0.23	5.0
Bromodichloromethane	5.0	U	0.24	5.0
Bromoform	5.0	U	1.2	5.0
Bromomethane	5.0	U *	1.0	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.14	5.0
Carbon tetrachloride	5.0	U	0.29	5.0
Chlorobenzene	5.0	U	0.15	5.0
Chloroethane	0.89	J	0.48	5.0
Chloroform	5.0	U	0.27	5.0
Chloromethane	5.0	U	0.24	5.0
Dibromochloromethane	5.0	U	0.21	5.0
1,1-Dichloroethane	31		0.23	5.0
1,2-Dichloroethane	5.0	U	0.25	5.0
1,1-Dichloroethene	19		0.25	5.0
1,2-Dichloropropane	5.0	U *	0.32	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.28	5.0
Ethylbenzene	5.0	U	0.28	5.0
2-Hexanone	10	U	0.37	10
Methylene Chloride	5.0	U	0.26	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.70	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.23	5.0
Tetrachloroethene	5.0	U	0.30	5.0
Toluene	5.0	U	0.090	5.0
1,1,1-Trichloroethane	260	E	0.38	5.0
1,1,2-Trichloroethane	5.0	U	0.33	5.0
Trichloroethene	68		0.26	5.0

Client: Malcolm Pirnie, Inc.

Job Number: 220-4253-1
Sdg Number: 220-4253

Client Sample ID: **WELL 1-1A INF**

Lab Sample ID: 220-4253-1
Client Matrix: Water

Date Sampled: 02/26/2008 1310
Date Received: 02/27/2008 0945

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/05/2008 1813
Date Prepared: 03/05/2008 1813

Analysis Batch: 220-13898

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L4836.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	7.6		0.30	5.0
Xylenes, Total	5.0	U	0.46	5.0
cis-1,2-Dichloroethene	74		0.33	5.0
trans-1,2-Dichloroethene	5.0	U	0.22	5.0

Client: Malcolm Pirnie, Inc.

Job Number: 220-4253-1
Sdg Number: 220-4253

Client Sample ID: **WELL 1-1A INF**

Lab Sample ID: 220-4253-1
Client Matrix: Water

Date Sampled: 02/26/2008 1310
Date Received: 02/27/2008 0945

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation: 5030B
Dilution: 2.0
Date Analyzed: 03/06/2008 1504
Date Prepared: 03/06/2008 1504

Analysis Batch: 220-13998
Run Type: DL

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L4864.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	20	U	3.2	20
Benzene	10	U	0.46	10
Bromodichloromethane	10	U	0.48	10
Bromoform	10	U	2.3	10
Bromomethane	10	U	2.0	10
Methyl Ethyl Ketone	20	U	2.1	20
Carbon disulfide	10	U	0.28	10
Carbon tetrachloride	35		0.58	10
Chlorobenzene	10	U	0.30	10
Chloroethane	10	U	0.96	10
Chloroform	10	U	0.54	10
Chloromethane	10	U	0.48	10
Dibromochloromethane	10	U	0.42	10
1,1-Dichloroethane	31		0.46	10
1,2-Dichloroethane	10	U	0.50	10
1,1-Dichloroethene	18		0.50	10
1,2-Dichloropropane	10	U	0.64	10
cis-1,3-Dichloropropene	10	U	0.56	10
trans-1,3-Dichloropropene	10	U	0.56	10
Ethylbenzene	10	U	0.56	10
2-Hexanone	20	U	0.74	20
Methylene Chloride	10	U	0.52	10
methyl isobutyl ketone	20	U	0.76	20
Styrene	10	U	1.4	10
1,1,2,2-Tetrachloroethane	10	U	0.46	10
Tetrachloroethene	10	U	0.60	10
Toluene	10	U	0.18	10
1,1,1-Trichloroethane	250		0.76	10
1,1,2-Trichloroethane	10	U	0.66	10
Trichloroethene	69		0.52	10
Vinyl chloride	8.6	J	0.60	10
Xylenes, Total	10	U	0.92	10
cis-1,2-Dichloroethene	73		0.66	10
trans-1,2-Dichloroethene	10	U	0.44	10

Surrogate	%Rec		Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		53 - 125
4-Bromofluorobenzene	129	*	73 - 127
Dibromofluoromethane	93		54 - 137
Toluene-d8 (Surr)	88		63 - 121

Client: Malcolm Pirnie, Inc.

Job Number: 220-4253-1
Sdg Number: 220-4253

Client Sample ID: **WELL 1-1A EFF**

Lab Sample ID: 220-4253-2
Client Matrix: Water

Date Sampled: 02/26/2008 1320
Date Received: 02/27/2008 0945

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/06/2008 1213
Date Prepared: 03/06/2008 1213

Analysis Batch: 220-13998

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L4857.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.6	10
Benzene	5.0	U	0.23	5.0
Bromodichloromethane	5.0	U	0.24	5.0
Bromoform	5.0	U	1.2	5.0
Bromomethane	5.0	U	1.0	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.14	5.0
Carbon tetrachloride	5.0	U	0.29	5.0
Chlorobenzene	5.0	U	0.15	5.0
Chloroethane	5.0	U	0.48	5.0
Chloroform	5.0	U	0.27	5.0
Chloromethane	5.0	U	0.24	5.0
Dibromochloromethane	5.0	U	0.21	5.0
1,1-Dichloroethane	5.0	U	0.23	5.0
1,2-Dichloroethane	5.0	U	0.25	5.0
1,1-Dichloroethene	5.0	U	0.25	5.0
1,2-Dichloropropane	5.0	U	0.32	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.28	5.0
Ethylbenzene	5.0	U	0.28	5.0
2-Hexanone	10	U	0.37	10
Methylene Chloride	5.0	U	0.26	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.70	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.23	5.0
Tetrachloroethene	5.0	U	0.30	5.0
Toluene	5.0	U	0.090	5.0
1,1,1-Trichloroethane	5.0	U	0.38	5.0
1,1,2-Trichloroethane	5.0	U	0.33	5.0
Trichloroethene	5.0	U	0.26	5.0
Vinyl chloride	5.0	U	0.30	5.0
Xylenes, Total	5.0	U	0.46	5.0
cis-1,2-Dichloroethene	5.0	U	0.33	5.0
trans-1,2-Dichloroethene	5.0	U	0.22	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	53 - 125
4-Bromofluorobenzene	124	73 - 127
Dibromofluoromethane	87	54 - 137
Toluene-d8 (Surr)	86	63 - 121

Client: Malcolm Pirnie, Inc.

Job Number: 220-4253-1
Sdg Number: 220-4253

Client Sample ID: **TRIP BLANK**

Lab Sample ID: 220-4253-3TB
Client Matrix: Water

Date Sampled: 02/26/2008 0000
Date Received: 02/27/2008 0945

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/06/2008 1237
Date Prepared: 03/06/2008 1237

Analysis Batch: 220-13998

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L4858.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.6	10
Benzene	5.0	U	0.23	5.0
Bromodichloromethane	5.0	U	0.24	5.0
Bromoform	5.0	U	1.2	5.0
Bromomethane	5.0	U	1.0	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.14	5.0
Carbon tetrachloride	5.0	U	0.29	5.0
Chlorobenzene	5.0	U	0.15	5.0
Chloroethane	5.0	U	0.48	5.0
Chloroform	5.0	U	0.27	5.0
Chloromethane	5.0	U	0.24	5.0
Dibromochloromethane	5.0	U	0.21	5.0
1,1-Dichloroethane	5.0	U	0.23	5.0
1,2-Dichloroethane	5.0	U	0.25	5.0
1,1-Dichloroethene	5.0	U	0.25	5.0
1,2-Dichloropropane	5.0	U	0.32	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.28	5.0
Ethylbenzene	5.0	U	0.28	5.0
2-Hexanone	10	U	0.37	10
Methylene Chloride	0.83	J	0.26	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.70	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.23	5.0
Tetrachloroethene	5.0	U	0.30	5.0
Toluene	5.0	U	0.090	5.0
1,1,1-Trichloroethane	5.0	U	0.38	5.0
1,1,2-Trichloroethane	5.0	U	0.33	5.0
Trichloroethene	5.0	U	0.26	5.0
Vinyl chloride	5.0	U	0.30	5.0
Xylenes, Total	5.0	U	0.46	5.0
cis-1,2-Dichloroethene	5.0	U	0.33	5.0
trans-1,2-Dichloroethene	5.0	U	0.22	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	53 - 125
4-Bromofluorobenzene	125	73 - 127
Dibromofluoromethane	89	54 - 137
Toluene-d8 (Surr)	80	63 - 121

Client: Malcolm Pirnie, Inc.

Job Number: 220-4253-1
Sdg Number: 220-4253

Client Sample ID: WELL 1-1A INF

Lab Sample ID: 220-4253-1
Client Matrix: Water

Date Sampled: 02/26/2008 1310
Date Received: 02/27/2008 0945

SM 2340B Hardness by Calculation

Method: SM 2340B
Preparation: N/A
Dilution: 1.0
Date Analyzed: 02/28/2008 1811
Date Prepared: N/A

Analysis Batch: 220-13805

Instrument ID: NONE
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 1.0 mL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Hardness as calcium carbonate	333		1.0	1.0

Client: Malcolm Pirnie, Inc.

Job Number: 220-4253-1
Sdg Number: 220-4253

General Chemistry

Client Sample ID: WELL 1-1A INF

Lab Sample ID: 220-4253-1
Client Matrix: Water

Date Sampled: 02/26/2008 1310
Date Received: 02/27/2008 0945

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity	260		mg/L	0.17	2.0	1.0	SM 2320B
Anly Batch: 220-13743	Date Analyzed		02/27/2008 1701				
Total Dissolved Solids	527		mg/L	2.5	10.0	1.0	SM 2540C
Anly Batch: 220-13693	Date Analyzed		02/27/2008 1110				

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH	7.53	HF	SU	0.100	0.100	1.0	9040B
Anly Batch: 220-13740	Date Analyzed		02/27/2008 1701				

Client: Malcolm Pirnie, Inc.

Job Number: 220-4253-1
Sdg Number: 220-4253

Surrogate Recovery Report

8260B Volatile Organic Compounds by GC/MS

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	12DCE %Rec	TOL %Rec	BFB %Rec
220-4253-1	WELL 1-1A INF	88	95	85	126
220-4253-1 DL	WELL 1-1A INF DL	93	101	88	129*
220-4253-2	WELL 1-1A EFF	87	93	86	124
220-4253-3	TRIP BLANK	89	93	80	125
MB 220-13898/3		91	93	86	117
MB 220-13998/3		89	94	87	114
LCS 220-13898/2		91	95	86	85
LCS 220-13998/2		89	94	84	86

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane	54-137
12DCE = 1,2-Dichloroethane-d4 (Surr)	53-125
TOL = Toluene-d8 (Surr)	63-121
BFB = 4-Bromofluorobenzene	73-127

Client: Malcolm Pirnie, Inc.

Job Number: 220-4253-1
Sdg Number: 220-4253

Method Blank - Batch: 220-13898

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 220-13898/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/05/2008 1019
Date Prepared: 03/05/2008 1019

Analysis Batch: 220-13898
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L4817.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Acetone	10	U	1.6	10
Benzene	5.0	U	0.23	5.0
Bromodichloromethane	5.0	U	0.24	5.0
Bromoform	5.0	U	1.2	5.0
Bromomethane	5.0	U	1.0	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.14	5.0
Carbon tetrachloride	5.0	U	0.29	5.0
Chlorobenzene	5.0	U	0.15	5.0
Chloroethane	5.0	U	0.48	5.0
Chloroform	5.0	U	0.27	5.0
Chloromethane	5.0	U	0.24	5.0
Dibromochloromethane	5.0	U	0.21	5.0
1,1-Dichloroethane	5.0	U	0.23	5.0
1,2-Dichloroethane	5.0	U	0.25	5.0
1,1-Dichloroethene	5.0	U	0.25	5.0
1,2-Dichloropropane	5.0	U	0.32	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.28	5.0
Ethylbenzene	5.0	U	0.28	5.0
2-Hexanone	10	U	0.37	10
Methylene Chloride	5.0	U	0.26	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.70	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.23	5.0
Tetrachloroethene	5.0	U	0.30	5.0
Toluene	5.0	U	0.090	5.0
1,1,1-Trichloroethane	5.0	U	0.38	5.0
1,1,2-Trichloroethane	5.0	U	0.33	5.0
Trichloroethene	5.0	U	0.26	5.0
Vinyl chloride	5.0	U	0.30	5.0
Xylenes, Total	5.0	U	0.46	5.0
cis-1,2-Dichloroethene	5.0	U	0.33	5.0
trans-1,2-Dichloroethene	5.0	U	0.22	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	53 - 125
4-Bromofluorobenzene	117	73 - 127
Dibromofluoromethane	91	54 - 137
Toluene-d8 (Surr)	86	63 - 121

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Malcolm Pirnie, Inc.

Job Number: 220-4253-1
Sdg Number: 220-4253

Lab Control Spike - Batch: 220-13898

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 220-13898/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/05/2008 0905
Date Prepared: 03/05/2008 0905

Analysis Batch: 220-13898
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L4814.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	20.0	37.8	189	18 - 263	
Benzene	20.0	23.9	119	68 - 126	
Bromodichloromethane	20.0	23.5	117	67 - 118	
Bromoform	20.0	20.4	102	63 - 115	
Bromomethane	20.0	36.0	180	27 - 171	*
Methyl Ethyl Ketone	20.0	33.7	169	30 - 222	
Carbon disulfide	20.0	27.7	139	44 - 142	
Carbon tetrachloride	20.0	24.6	123	56 - 131	
Chlorobenzene	20.0	20.4	102	71 - 114	
Chloroethane	20.0	24.9	125	53 - 167	
Chloroform	20.0	23.8	119	70 - 124	
Chloromethane	20.0	21.3	107	43 - 134	
Dibromochloromethane	20.0	22.7	113	65 - 114	
1,1-Dichloroethane	20.0	24.1	121	67 - 121	
1,2-Dichloroethane	20.0	24.0	120	68 - 124	
1,1-Dichloroethene	20.0	24.7	124	57 - 137	
1,2-Dichloropropane	20.0	24.6	123	69 - 122	*
cis-1,3-Dichloropropene	20.0	23.6	118	60 - 122	
trans-1,3-Dichloropropene	20.0	23.5	118	55 - 126	
Ethylbenzene	20.0	21.1	106	71 - 115	
2-Hexanone	20.0	27.2	136	54 - 179	
Methylene Chloride	20.0	24.6	123	61 - 129	
methyl isobutyl ketone	20.0	22.6	113	61 - 140	
Styrene	20.0	18.6	93	69 - 112	
1,1,2,2-Tetrachloroethane	20.0	25.6	128	66 - 129	
Tetrachloroethene	20.0	20.2	101	62 - 118	
Toluene	20.0	21.0	105	70 - 116	
1,1,1-Trichloroethane	20.0	22.7	113	60 - 128	
1,1,2-Trichloroethane	20.0	21.6	108	70 - 119	
Trichloroethene	20.0	23.6	118	58 - 125	
Vinyl chloride	20.0	21.9	110	51 - 139	
Xylenes, Total	60.0	61.7	103	66 - 118	
cis-1,2-Dichloroethene	20.0	22.7	114	65 - 120	
trans-1,2-Dichloroethene	20.0	23.7	119	57 - 129	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95	53 - 125
4-Bromofluorobenzene	85	73 - 127
Dibromofluoromethane	91	54 - 137
Toluene-d8 (Surr)	86	63 - 121

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Malcolm Pirnie, Inc.

Job Number: 220-4253-1
Sdg Number: 220-4253

Method Blank - Batch: 220-13998

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 220-13998/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/06/2008 1100
Date Prepared: 03/06/2008 1100

Analysis Batch: 220-13998
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L4854.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Acetone	10	U	1.6	10
Benzene	5.0	U	0.23	5.0
Bromodichloromethane	5.0	U	0.24	5.0
Bromoform	5.0	U	1.2	5.0
Bromomethane	5.0	U	1.0	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.14	5.0
Carbon tetrachloride	5.0	U	0.29	5.0
Chlorobenzene	5.0	U	0.15	5.0
Chloroethane	5.0	U	0.48	5.0
Chloroform	5.0	U	0.27	5.0
Chloromethane	5.0	U	0.24	5.0
Dibromochloromethane	5.0	U	0.21	5.0
1,1-Dichloroethane	5.0	U	0.23	5.0
1,2-Dichloroethane	5.0	U	0.25	5.0
1,1-Dichloroethene	5.0	U	0.25	5.0
1,2-Dichloropropane	5.0	U	0.32	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.28	5.0
Ethylbenzene	5.0	U	0.28	5.0
2-Hexanone	10	U	0.37	10
Methylene Chloride	5.0	U	0.26	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.70	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.23	5.0
Tetrachloroethene	5.0	U	0.30	5.0
Toluene	5.0	U	0.090	5.0
1,1,1-Trichloroethane	5.0	U	0.38	5.0
1,1,2-Trichloroethane	5.0	U	0.33	5.0
Trichloroethene	5.0	U	0.26	5.0
Vinyl chloride	5.0	U	0.30	5.0
Xylenes, Total	5.0	U	0.46	5.0
cis-1,2-Dichloroethene	5.0	U	0.33	5.0
trans-1,2-Dichloroethene	5.0	U	0.22	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	94	53 - 125
4-Bromofluorobenzene	114	73 - 127
Dibromofluoromethane	89	54 - 137
Toluene-d8 (Surr)	87	63 - 121

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Malcolm Pirnie, Inc.

Job Number: 220-4253-1
Sdg Number: 220-4253

Lab Control Spike - Batch: 220-13998

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 220-13998/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/06/2008 0946
Date Prepared: 03/06/2008 0946

Analysis Batch: 220-13998
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L4851.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	20.0	34.6	173	18 - 263	
Benzene	20.0	23.8	119	68 - 126	
Bromodichloromethane	20.0	22.7	113	67 - 118	
Bromoform	20.0	19.3	96	63 - 115	
Bromomethane	20.0	32.0	160	27 - 171	
Methyl Ethyl Ketone	20.0	28.7	144	30 - 222	
Carbon disulfide	20.0	25.6	128	44 - 142	
Carbon tetrachloride	20.0	21.8	109	56 - 131	
Chlorobenzene	20.0	19.5	98	71 - 114	
Chloroethane	20.0	24.2	121	53 - 167	
Chloroform	20.0	23.4	117	70 - 124	
Chloromethane	20.0	18.8	94	43 - 134	
Dibromochloromethane	20.0	22.2	111	65 - 114	
1,1-Dichloroethane	20.0	22.7	114	67 - 121	
1,2-Dichloroethane	20.0	23.6	118	68 - 124	
1,1-Dichloroethene	20.0	24.2	121	57 - 137	
1,2-Dichloropropane	20.0	23.0	115	69 - 122	
cis-1,3-Dichloropropene	20.0	22.8	114	60 - 122	
trans-1,3-Dichloropropene	20.0	22.2	111	55 - 126	
Ethylbenzene	20.0	19.2	96	71 - 115	
2-Hexanone	20.0	24.2	121	54 - 179	
Methylene Chloride	20.0	23.7	118	61 - 129	
methyl isobutyl ketone	20.0	20.7	103	61 - 140	
Styrene	20.0	17.7	89	69 - 112	
1,1,2,2-Tetrachloroethane	20.0	25.0	125	66 - 129	
Tetrachloroethene	20.0	18.7	94	62 - 118	
Toluene	20.0	20.5	102	70 - 116	
1,1,1-Trichloroethane	20.0	22.2	111	60 - 128	
1,1,2-Trichloroethane	20.0	21.0	105	70 - 119	
Trichloroethene	20.0	23.6	118	58 - 125	
Vinyl chloride	20.0	19.8	99	51 - 139	
Xylenes, Total	60.0	57.6	96	66 - 118	
cis-1,2-Dichloroethene	20.0	21.5	108	65 - 120	
trans-1,2-Dichloroethene	20.0	21.7	108	57 - 129	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	94	53 - 125
4-Bromofluorobenzene	86	73 - 127
Dibromofluoromethane	89	54 - 137
Toluene-d8 (Surr)	84	63 - 121

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Malcolm Pirnie, Inc.

Job Number: 220-4253-1
Sdg Number: 220-4253

Method Blank - Batch: 220-13740

Method: 9040B
Preparation: N/A

Lab Sample ID: MB 220-13740/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/27/2008 1653
Date Prepared: N/A

Analysis Batch: 220-13740
Prep Batch: N/A
Units: SU

Instrument ID: PC AutoTitrator-Mantech
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 20 mL

Analyte	Result	Qual	RL	RL
pH	4.96		0.100	0.100

Duplicate - Batch: 220-13740

Method: 9040B
Preparation: N/A

Lab Sample ID: 220-4253-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/27/2008 1708
Date Prepared: N/A

Analysis Batch: 220-13740
Prep Batch: N/A
Units: SU

Instrument ID: PC AutoTitrator-Mantech
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 20 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH	7.53	7.550	0	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Malcolm Pirnie, Inc.

Job Number: 220-4253-1
Sdg Number: 220-4253

Method Blank - Batch: 220-13743

Method: SM 2320B
Preparation: N/A

Lab Sample ID: MB 220-13743/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/27/2008 1653
Date Prepared: N/A

Analysis Batch: 220-13743
Prep Batch: N/A
Units: mg/L

Instrument ID: PC AutoTitrator-Mantech
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	MDL	RL
Alkalinity	2.0	U	0.17	2.0

Lab Control Spike - Batch: 220-13743

Method: SM 2320B
Preparation: N/A

Lab Sample ID: LCS 220-13743/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/27/2008 1643
Date Prepared: N/A

Analysis Batch: 220-13743
Prep Batch: N/A
Units: mg/L

Instrument ID: PC AutoTitrator-Mantech
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Alkalinity	236	234.3	99	85 - 115	

Duplicate - Batch: 220-13743

Method: SM 2320B
Preparation: N/A

Lab Sample ID: 220-4253-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/27/2008 1708
Date Prepared: N/A

Analysis Batch: 220-13743
Prep Batch: N/A
Units: mg/L

Instrument ID: PC AutoTitrator-Mantech
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Alkalinity	260	262.0	1	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Malcolm Pirnie, Inc.

Job Number: 220-4253-1
Sdg Number: 220-4253

Method Blank - Batch: 220-13693

Method: SM 2540C
Preparation: N/A

Lab Sample ID: MB 220-13693/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/27/2008 1045
Date Prepared: N/A

Analysis Batch: 220-13693
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Total Dissolved Solids	10.0	U	2.5	10.0

Lab Control Spike - Batch: 220-13693

Method: SM 2540C
Preparation: N/A

Lab Sample ID: LCS 220-13693/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/27/2008 1050
Date Prepared: N/A

Analysis Batch: 220-13693
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Dissolved Solids	1090	1100	101	89 - 111	

Duplicate - Batch: 220-13693

Method: SM 2540C
Preparation: N/A

Lab Sample ID: 220-4246-E-1 DU
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/27/2008 1100
Date Prepared: N/A

Analysis Batch: 220-13693
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Dissolved Solids	313	323.0	3	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

DATA REPORTING QUALIFIERS

Client: Malcolm Pirnie, Inc.

Job Number: 220-4253-1
Sdg Number: 220-4253

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	*	LCS or LCSD exceeds the control limits
	M	Manual integrated compound.
	*	Surrogate exceeds the control limit
General Chemistry		
	HF	Field parameter with a holding time of 15 minutes
	U	Indicates analyzed for but not detected.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 220-4572-1

SDG Number: 220-4572

Job Description: NYSDEC Standby - Vestal Water Supply

For:
Malcolm Pirnie, Inc.
43 British American Boulevard
1st Floor
Latham, NY 12110

Attention: Mr. Jeremy Wyckoff

Designee for
Johanna Dubauskas
Project Manager I
johanna.dubauskas@testamericainc.com
04/15/2008

TestAmerica Connecticut Certifications and Approvals: CTDOH PH-047, MADEP CT023, RIDOH A43, NYDOH 10602, NY NELAP 10602, NHDES 2528, NJDEP CT410, ME DOH CT023, UT DOH 2032614458

TestAmerica Laboratories, Inc.
TestAmerica Connecticut 128 Long Hill Cross Road, Shelton, CT 06484
Tel (203) 929-8140 Fax (203) 929-8142 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

Case Narrative for Job: 220-4572-1

Client: Malcolm Pirnie, Inc.
Date: April 15, 2008

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Lawrence Decker
Laboratory Director

April 15, 2008
Date

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS VOA
No analytical or quality issues were noted.

FORMULAS FOR NYSDEC SAMPLE CALCULATIONS

Volatiles

(Ax)(IS)(DF)
(AIS)(RRF)(V)(% solids) = C

(AX)(IS)(VT)(1000)(DF)
(AIS)(RRF)(VA)(V)(% solids) = C (for medium level soils)

SemiVolatiles

(AX)(IS)(VE)(DF)(GPC factor is 2 if needed)
(AIS)(RRF)(volume injected)(V)(% solids) = C

Pesticides

(AX)(VE)(DF)
(RRF)(V)(% solids)(volume injected) = C

PCBs for compound/retention time

(AX)(VE)(DF)
(RRF of compound at the stated retention time)(V)(% solids)(volume injected) = C

DRO/CTETPH

(AX)(VE)(DF)
(RRF)(V)(% solids)(volume injected) = C

AX = area of the target Ion
AIS = Area of Internal standard
C = concentration as ug/L or ug/Kg
DF = dilution
IS = Internal standard concentration (ng)
RRF = average RF (from initial cal except CLP methods from continuing cal)
V = sample volume for liquids in mls or sample weight for solids in grams
VA = volume of aliquot for medium level soils
VE = volume of concentrated extract
VT = volume of methanol for volatile medium level soils

SAMPLE SUMMARY

Client: Malcolm Pirnie, Inc.

Job Number: 220-4572-1
Sdg Number: 220-4572

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
220-4572-1	WELL 1-1A INF	Water	03/27/2008 1030	03/28/2008 0935
220-4572-2	WELL 1-1A EFF	Water	03/27/2008 1040	03/28/2008 0935
220-4572-3TB	TRIP BLANK	Water	03/27/2008 0000	03/28/2008 0935

METHOD SUMMARY

Client: Malcolm Pirnie, Inc.

Job Number: 220-4572-1
Sdg Number: 220-4572

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS	TAL CT	SW846 8260B	
Purge-and-Trap	TAL CT		SW846 5030B

Lab References:

TAL CT = TestAmerica Connecticut

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Malcolm Pirnie, Inc.

Job Number: 220-4572-1
Sdg Number: 220-4572

Method	Analyst	Analyst ID
SW846 8260B	Kostrzewska, Barbara	BK

Client: Malcolm Pirnie, Inc.

Job Number: 220-4572-1
Sdg Number: 220-4572

Client Sample ID: **WELL 1-1A INF**

Lab Sample ID: 220-4572-1
Client Matrix: Water

Date Sampled: 03/27/2008 1030
Date Received: 03/28/2008 0935

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 04/08/2008 1545
Date Prepared: 04/08/2008 1545

Analysis Batch: 220-14946

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L5603.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.6	10
Benzene	0.38	J	0.23	5.0
Bromodichloromethane	5.0	U	0.24	5.0
Bromoform	5.0	U	1.2	5.0
Bromomethane	5.0	U	1.0	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.14	5.0
Carbon tetrachloride	5.0	U	0.29	5.0
Chlorobenzene	5.0	U	0.15	5.0
Chloroethane	0.79	J	0.48	5.0
Chloroform	5.0	U	0.27	5.0
Chloromethane	5.0	U	0.24	5.0
Dibromochloromethane	5.0	U	0.21	5.0
1,1-Dichloroethane	27		0.23	5.0
1,2-Dichloroethane	5.0	U	0.25	5.0
1,1-Dichloroethene	17		0.25	5.0
1,2-Dichloropropane	5.0	U	0.32	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.28	5.0
Ethylbenzene	5.0	U	0.28	5.0
2-Hexanone	10	U	0.37	10
Methylene Chloride	5.0	U	0.26	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.70	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.23	5.0
Tetrachloroethene	5.0	U	0.30	5.0
Toluene	5.0	U	0.090	5.0
1,1,1-Trichloroethane	180		0.38	5.0
1,1,2-Trichloroethane	5.0	U	0.33	5.0
Trichloroethene	62		0.26	5.0
Vinyl chloride	7.5		0.30	5.0
Xylenes, Total	5.0	U	0.46	5.0
cis-1,2-Dichloroethene	76		0.33	5.0
trans-1,2-Dichloroethene	5.0	U	0.22	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	70	53 - 125
4-Bromofluorobenzene	115	73 - 127
Dibromofluoromethane	87	54 - 137
Toluene-d8 (Surr)	102	63 - 121

Client: Malcolm Pirnie, Inc.

Job Number: 220-4572-1
Sdg Number: 220-4572

Client Sample ID: **WELL 1-1A EFF**

Lab Sample ID: 220-4572-2
Client Matrix: Water

Date Sampled: 03/27/2008 1040
Date Received: 03/28/2008 0935

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 04/08/2008 1609
Date Prepared: 04/08/2008 1609

Analysis Batch: 220-14946

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L5604.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.6	10
Benzene	5.0	U	0.23	5.0
Bromodichloromethane	5.0	U	0.24	5.0
Bromoform	5.0	U	1.2	5.0
Bromomethane	5.0	U	1.0	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.14	5.0
Carbon tetrachloride	5.0	U	0.29	5.0
Chlorobenzene	5.0	U	0.15	5.0
Chloroethane	5.0	U	0.48	5.0
Chloroform	5.0	U	0.27	5.0
Chloromethane	5.0	U	0.24	5.0
Dibromochloromethane	5.0	U	0.21	5.0
1,1-Dichloroethane	5.0	U	0.23	5.0
1,2-Dichloroethane	5.0	U	0.25	5.0
1,1-Dichloroethene	5.0	U	0.25	5.0
1,2-Dichloropropane	5.0	U	0.32	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.28	5.0
Ethylbenzene	5.0	U	0.28	5.0
2-Hexanone	10	U	0.37	10
Methylene Chloride	5.0	U	0.26	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.70	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.23	5.0
Tetrachloroethene	5.0	U	0.30	5.0
Toluene	5.0	U	0.090	5.0
1,1,1-Trichloroethane	5.0	U	0.38	5.0
1,1,2-Trichloroethane	5.0	U	0.33	5.0
Trichloroethene	5.0	U	0.26	5.0
Vinyl chloride	5.0	U	0.30	5.0
Xylenes, Total	5.0	U	0.46	5.0
cis-1,2-Dichloroethene	5.0	U	0.33	5.0
trans-1,2-Dichloroethene	5.0	U	0.22	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	66	53 - 125
4-Bromofluorobenzene	109	73 - 127
Dibromofluoromethane	82	54 - 137
Toluene-d8 (Surr)	100	63 - 121

Client: Malcolm Pirnie, Inc.

Job Number: 220-4572-1
Sdg Number: 220-4572

Client Sample ID: **TRIP BLANK**

Lab Sample ID: 220-4572-3TB
Client Matrix: Water

Date Sampled: 03/27/2008 0000
Date Received: 03/28/2008 0935

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 04/08/2008 1634
Date Prepared: 04/08/2008 1634

Analysis Batch: 220-14946

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L5605.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.6	10
Benzene	5.0	U	0.23	5.0
Bromodichloromethane	5.0	U	0.24	5.0
Bromoform	5.0	U	1.2	5.0
Bromomethane	5.0	U	1.0	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.14	5.0
Carbon tetrachloride	5.0	U	0.29	5.0
Chlorobenzene	5.0	U	0.15	5.0
Chloroethane	5.0	U	0.48	5.0
Chloroform	5.0	U	0.27	5.0
Chloromethane	5.0	U	0.24	5.0
Dibromochloromethane	5.0	U	0.21	5.0
1,1-Dichloroethane	5.0	U	0.23	5.0
1,2-Dichloroethane	5.0	U	0.25	5.0
1,1-Dichloroethene	5.0	U	0.25	5.0
1,2-Dichloropropane	5.0	U	0.32	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.28	5.0
Ethylbenzene	5.0	U	0.28	5.0
2-Hexanone	10	U	0.37	10
Methylene Chloride	1.2	J B	0.26	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.70	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.23	5.0
Tetrachloroethene	5.0	U	0.30	5.0
Toluene	5.0	U	0.090	5.0
1,1,1-Trichloroethane	5.0	U	0.38	5.0
1,1,2-Trichloroethane	5.0	U	0.33	5.0
Trichloroethene	5.0	U	0.26	5.0
Vinyl chloride	5.0	U	0.30	5.0
Xylenes, Total	5.0	U	0.46	5.0
cis-1,2-Dichloroethene	5.0	U	0.33	5.0
trans-1,2-Dichloroethene	5.0	U	0.22	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	68	53 - 125
4-Bromofluorobenzene	109	73 - 127
Dibromofluoromethane	80	54 - 137
Toluene-d8 (Surr)	98	63 - 121

Client: Malcolm Pirnie, Inc.

Job Number: 220-4572-1
Sdg Number: 220-4572

Surrogate Recovery Report

8260B Volatile Organic Compounds by GC/MS

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	12DCE %Rec	TOL %Rec	BFB %Rec
220-4572-1	WELL 1-1A INF	87	70	102	115
220-4572-2	WELL 1-1A EFF	82	66	100	109
220-4572-3	TRIP BLANK	80	68	98	109
MB 220-14946/3		86	69	101	108
LCS 220-14946/2		89	74	103	103

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane	54-137
12DCE = 1,2-Dichloroethane-d4 (Surr)	53-125
TOL = Toluene-d8 (Surr)	63-121
BFB = 4-Bromofluorobenzene	73-127

Client: Malcolm Pirnie, Inc.

Job Number: 220-4572-1
Sdg Number: 220-4572

Method Blank - Batch: 220-14946

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 220-14946/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/08/2008 1204
Date Prepared: 04/08/2008 1204

Analysis Batch: 220-14946
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L5594.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Acetone	10	U	1.6	10
Benzene	5.0	U	0.23	5.0
Bromodichloromethane	5.0	U	0.24	5.0
Bromoform	5.0	U	1.2	5.0
Bromomethane	5.0	U	1.0	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.14	5.0
Carbon tetrachloride	5.0	U	0.29	5.0
Chlorobenzene	5.0	U	0.15	5.0
Chloroethane	5.0	U	0.48	5.0
Chloroform	5.0	U	0.27	5.0
Chloromethane	5.0	U	0.24	5.0
Dibromochloromethane	5.0	U	0.21	5.0
1,1-Dichloroethane	5.0	U	0.23	5.0
1,2-Dichloroethane	5.0	U	0.25	5.0
1,1-Dichloroethene	5.0	U	0.25	5.0
1,2-Dichloropropane	5.0	U	0.32	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.28	5.0
Ethylbenzene	5.0	U	0.28	5.0
2-Hexanone	10	U	0.37	10
Methylene Chloride	0.62	J	0.26	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.70	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.23	5.0
Tetrachloroethene	5.0	U	0.30	5.0
Toluene	5.0	U	0.090	5.0
1,1,1-Trichloroethane	5.0	U	0.38	5.0
1,1,2-Trichloroethane	5.0	U	0.33	5.0
Trichloroethene	5.0	U	0.26	5.0
Vinyl chloride	5.0	U	0.30	5.0
Xylenes, Total	5.0	U	0.46	5.0
cis-1,2-Dichloroethene	5.0	U	0.33	5.0
trans-1,2-Dichloroethene	5.0	U	0.22	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	69	53 - 125
4-Bromofluorobenzene	108	73 - 127
Dibromofluoromethane	86	54 - 137
Toluene-d8 (Surr)	101	63 - 121

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Malcolm Pirnie, Inc.

Job Number: 220-4572-1
Sdg Number: 220-4572

Lab Control Spike - Batch: 220-14946

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 220-14946/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/08/2008 1051
Date Prepared: 04/08/2008 1051

Analysis Batch: 220-14946
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L5591.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	20.0	17.1	85	18 - 263	
Benzene	20.0	20.0	100	68 - 126	
Bromodichloromethane	20.0	15.3	77	67 - 118	
Bromoform	20.0	13.5	67	63 - 115	
Bromomethane	20.0	16.1	80	27 - 171	
Methyl Ethyl Ketone	20.0	17.1	86	30 - 222	
Carbon disulfide	20.0	20.6	103	44 - 142	
Carbon tetrachloride	20.0	13.8	69	56 - 131	
Chlorobenzene	20.0	18.5	92	71 - 114	
Chloroethane	20.0	15.8	79	53 - 167	
Chloroform	20.0	16.0	80	70 - 124	
Chloromethane	20.0	19.4	97	43 - 134	
Dibromochloromethane	20.0	13.9	70	65 - 114	
1,1-Dichloroethane	20.0	17.5	88	67 - 121	
1,2-Dichloroethane	20.0	13.7	69	68 - 124	
1,1-Dichloroethene	20.0	19.6	98	57 - 137	
1,2-Dichloropropane	20.0	20.2	101	69 - 122	
cis-1,3-Dichloropropene	20.0	17.2	86	60 - 122	
trans-1,3-Dichloropropene	20.0	15.0	75	55 - 126	
Ethylbenzene	20.0	18.4	92	71 - 115	
2-Hexanone	20.0	14.4	72	54 - 179	
Methylene Chloride	20.0	19.3	97	61 - 129	
methyl isobutyl ketone	20.0	15.0	75	61 - 140	
Styrene	20.0	16.7	83	69 - 112	
1,1,2,2-Tetrachloroethane	20.0	18.5	92	66 - 129	
Tetrachloroethene	20.0	17.2	86	62 - 118	
Toluene	20.0	18.1	90	70 - 116	
1,1,1-Trichloroethane	20.0	14.4	72	60 - 128	
1,1,2-Trichloroethane	20.0	19.3	97	70 - 119	
Trichloroethene	20.0	19.5	98	58 - 125	
Vinyl chloride	20.0	16.0	80	51 - 139	
Xylenes, Total	60.0	53.5	89	66 - 118	
cis-1,2-Dichloroethene	20.0	19.9	100	65 - 120	
trans-1,2-Dichloroethene	20.0	18.7	94	57 - 129	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	74	53 - 125
4-Bromofluorobenzene	103	73 - 127
Dibromofluoromethane	89	54 - 137
Toluene-d8 (Surr)	103	63 - 121

Calculations are performed before rounding to avoid round-off errors in calculated results.

DATA REPORTING QUALIFIERS

Client: Malcolm Pirnie, Inc.

Job Number: 220-4572-1
Sdg Number: 220-4572

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	B	The analyte was found in an associated blank, as well as in the sample.