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 and Annual Groundwater Monitoring Summary

Second Quarter 2009

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

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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 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.

3. 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 materials, labor, equipment, and supervision to maintain continuous operation of the groundwater treatment plant.

A variable frequency drive (VFD) was installed in February 2009 to provide soft-start operation of the replacement well pump motor and Certa-Lock® PVC drop pipe for Well 1-1A. The VFD also has the potential to provide future energy savings by allowing the well pump motor to be operated at a reduced speed. The VFD setting for the second quarter 2009 was maintained at 48 HZ.

3.1. System Operation

The groundwater treatment system has operated with only one minor interruption during the second quarter, 2009. As shown in the Monthly Reports and System O&M Logs provided by ECI (Appendix A), the system was down for one night in May due to a power interruption.

Table 3-1 and Figure 3-1 summarize groundwater treatment system flow rates from the Monthly Reports and System O&M Logs. As shown in Table 3-1, the groundwater treatment system flow rate for Well 1-1A decreased from 300 gallons per minute (GPM) to 238 GPM between May and June, 2009, respectfully. Figure 3-1 shows that the Well 1-1A flow rate increased following the Aqua Gard well maintenance performed in March 2009. Since then, the flow has decreased steadily.

As shown on Table 3-1, approximately 34,257,600 gallons of water were treated during the second quarter 2009 operating period.

3.2. Influent – Effluent Sampling

Second quarter 2009 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 United States Environmental Protection Agency USEPA Method 8260B. The laboratory analytical reporting forms are provided in Appendix B. The laboratory analytical data for the treatment plan samples are summarized in Tables 3-2 (influent VOCs) and Table 3-3 (effluent VOCs) ; Figure 3-2 presents the Well 1-1A treatment plant total influent VOC concentrations over time.

As shown in Table 3-2, 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 NYSDEC Class GA Standards in each of the samples collected in the first quarter, 2009; however, Figure 3-2 shows that the total VOCs concentrations detected in the Well 1-1A influent samples have generally increased since the November 2007 sampling event. Methylene chloride (a common laboratory contaminant) was detected in the second quarter influent samples at estimated concentrations (indicated by the "J" qualifier) ranging from 2.3 ug/L in April to 14 ug/L in June, 2009, which exceeds the corresponding NYSDEC Class GA Standard of 5 ug/L. Acetone was reported in the April 16, 2009 and June 24, 2009 influent samples at estimated concentrations of 12 ug/L and 10 ug/L, respectively. The June 24, 2009 influent sample contained trans-1,2-dichloroethene at an estimated concentration of 1.2 ug/L, which is less than the applicable NYSDEC Class GA Standards (5 ug/L) for this compound.

Table 3-3 shows that VOCs were not detected in any of the second quarter 2009 effluent samples.

Based on influent sample concentrations and total flow volumes from the Well 1-1A treatment system, approximately 123 pounds of VOCs were removed by the treatment system during the second quarter 2009 operating period. This quantity is 41 percent greater that the VOC mass removed during the same period in 2008. This is principally due to a higher flow through the treatment system following the Well 1-1A well development and pump replacement.

3.3. General Operation and Maintenance

No significant repairs or maintenance were required during the second quarter 2009.

4. Groundwater Monitoring

The Vestal Well 1-1A groundwater monitoring program evaluates groundwater quality, monitors contaminant migration in the groundwater at the site, and assesses hydrogeologic site conditions, including groundwater flow. Figure 4-1 shows the location of the groundwater monitoring wells. Second quarter groundwater monitoring program activities were conducted in accordance with the Work Plan between June 22 and 24, 2009.

4.1. Well Inspection

In 2007, several groundwater monitoring wells shown in the Final O&M Manual (Figure 1, Location of Wells) either could not be located or did not spatially correlate to wells found during the well inspection process. Therefore, each well located during the well inspection survey was subsequently located using a hand-held global positioning system (GPS) and given a new identification. Appendix C contains a list of the old and new well identifications and GPS coordinates for each well. This and future reports will refer to the new well identifications.

Existing on-site groundwater monitoring wells and piezometers were evaluated for integrity and suitability for groundwater monitoring and water levels. The condition of each well and piezometer was recorded on a well inspection form, provided in Appendix D. As shown on the well inspection forms, the integrity of each well and/or piezometer is generally acceptable and no significant repair or maintenance is required at this time.

4.2. Water Level Survey

Prior to collecting groundwater samples, water levels were measured to the nearest hundredth of a foot and recorded on a groundwater level data form (Appendix E). Table 4-1 summarizes the groundwater levels and elevations from the site. As shown in Table 4-1, groundwater elevations in groundwater monitoring wells and piezometers screened in the shallow groundwater monitoring zone ranged from 806.07-feet above mean sea level (amsl) to 825.04-feet amsl; groundwater elevations in monitoring wells and piezometers screened in the deep groundwater monitoring zone unit ranged from 807.38-feet amsl to 808.61-feet amsl. Shallow and deep potentiometric surfaces map are provided on Figure 4-2 and Figure 4-3, respectfully. As shown on Figure 4-2, the direction of groundwater flow in the vicinity of the source area in the shallow groundwater monitoring zone is generally northwest toward the Well 1-1A groundwater treatment plant. Figure 4-3 shows that Well 1-1A is creating a groundwater depression in the vicinity of the treatment plant and a groundwater divide between Well 1-1A and the current Town of Vestal District 1 production wells (Wells 1-2A and 1-3) to the west.

4.3. Groundwater Sampling

Groundwater samples were collected from 18 groundwater monitoring wells (4009-1 through 4009-11, 4009-11A, 4009-12, 4009-12A, 4009-13, 4009-13A, 4009-14, and 4009-15) using low-flow groundwater purging and sampling procedures in accordance with the Work Plan. Prior to collecting groundwater samples, pH, conductivity, turbidity, dissolved oxygen (DO), temperature, salinity, total dissolved solids (TDS), and oxidation-reduction potential (REDOX) were measured using a Horiba U-22 water quality meter and recorded on groundwater sampling purge logs. Groundwater sampling purge logs are presented in Appendix F.

Groundwater samples collected during the groundwater monitoring program were sent to Test America – Connecticut (formerly STL-Connecticut) by chain-of-custody procedures and analyzed for target compound list (TCL) VOCs by USEPA Method 8260. Samples collected from groundwater monitoring wells 4009-12, 4009-12A, 4009-13, and 4009-15 were also analyzed for target analyte list (TAL) metals by USEPA Method ILM05.3 Analytical data packages are provided in Appendix B.

Groundwater sampling results for the second quarter, 2009 sampling event are summarized in Table 4-2 (VOCs) and Table 4-3 (Metals).

4.3.1. VOCs - Shallow Groundwater Monitoring Wells

As shown in Table 4-2, VOCs were detected at concentrations greater than the corresponding NYSDEC Class GA Standards in eight of the 13 groundwater samples collected from the shallow groundwater monitoring network. Figure 4-4 shows the horizontal distribution of total VOC concentrations from shallow monitoring well network. As shown on Figure 4-4, the greatest concentrations of total VOCs were detected in the samples from shallow groundwater monitoring wells 4009-3 (207 ug/L), 4009-7 (488 ug/L), and 4009-8 (1,100 ug/L). Figure 4-5 shows the total VOCs concentrations in samples collected from these wells over time. As shown in Figure 4-5, the concentrations of total VOCs have decreased over time, with the most significant reductions observed in samples from 4009-8. Table 4-2 shows that the concentrations of 1,1,1-trichloroethane (1,1,1-TCA) in the sample from 4009-3 (57 ug/L) decreased significantly from the concentration in the sample from this well (810 ug/L) in 2008, while the concentration of 1,1,1-TCA in the sample collected from 4009-8 increased from 130 ug/L in 2008 to 490 ug/L in 2008, which is consistent with the 2007 1,1,1-TCA result (540 ug/L) in samples from this well. The concentrations of 1,1,1-TCA (13 ug/L), 1-1, dichloroethane (35 ug/L), 1-1, dichloroethene (9.3 ug/L), cis-1,2-dichloroethene (160 ug/L) trichlorethene (52 ug/L), and vinyl chloride (210 ug/L) in the sample from 4009-7 increased as much as approximately two times compared to sample results from 2008. The concentration of 1,1-dichlorethane in the sample from up gradient well 4009-1 decreased from 6.7 ug/L in 2008 to 2.5 ug/L in 2009 which is less than the corresponding NYSDEC Class GA Standard of 5 ug/L. As shown in Table 4-2, the concentrations of VOCs in samples collected from the remainder of wells in the shallow groundwater monitoring

network (4009-2, 4009-4, 4009-5, and 4009-12A) were generally consistent with the 2007 and 2008 monitoring results. The concentrations of total VOCs greater than the applicable NYSDEC Class GA Standards in these wells ranged from 50 ug/L (4009-2) to 76 ug/L (4009-5). As shown in Table 4-2, the concentrations of toluene detected in the samples collected from groundwater monitoring wells 4009-6, 4009-10, 4009-11A, and 4009-13A were all less than 1 ug/L, which is less than the corresponding NYSDEC Class GA Standard of 5 ug/L. No other VOCs were detected in the samples from these wells.

One duplicate sample (4009-X) was collected from monitoring well 4009-8 and submitted as a laboratory quality assurance/quality control check. As shown in Table 4-2, the concentrations of VOCs in these samples correlate well.

4.3.2. VOCs – Deep Groundwater Monitoring Wells

Table 4-2 shows that the concentrations of total VOCs in the groundwater sample collected from monitoring well 4009-12 in 2009 (401 ug/L) increased compared to results reported in 2008 (312 ug/L). As shown in Table 4-2, the concentrations of 1,1,1-TCA (230 ug/L), trichloroethene (59 ug/L), cis-1,2-dichloroethene (56 ug/L), 1,1-dichloroethane (12 ug/L), and 1,1-dichloroethene (19 ug/L) are all greater than the corresponding NYSDEC Class GA Standard of 5 ug/L for these compounds. Table 4-2 also shows that the methylene chloride result in the sample from 4009-12 (14 ug/L) is greater than the NYSDEC Class GA Standard of 5 ug/L. This was the first reported methylene chloride exceedance in samples from this well. As shown in Table 4-2, groundwater samples collected from the remaining wells screened in the deep groundwater monitoring zone (4009-11, 4009-13, 4009-14, and 4009-15) did not contain any VOCs at concentrations greater than the applicable NYSDEC Class GA Standards.

4.3.3. Metals

Groundwater samples were collected from groundwater monitoring wells 4009-12 and 4009-12A, 4009-13, and 4009-15 and analyzed for TAL metals. Table 4-3 shows that the groundwater samples analyzed for metals in 2009 contained at least one metals concentration greater than the applicable NYSDEC Class GA Standards. As shown in Table 4-3, the maximum total iron concentration (3,790 ug/L) was reported in the sample from groundwater monitoring well 4009-15. The total iron concentrations in the other wells exceeding the corresponding NYSDEC Class GA standard of 300 ug/L, ranged from 1,260 ug/L (4009-13) to 1,770 ug/L (4009-12A). The concentrations of sodium greater than the applicable NYSDEC Class GA Standard (20,000 ug/L) ranged from 69,300 ug/L in the sample from 4009-15 to 109,000 ug/L in the sample from 4009-12 Based on the proximity of these sample locations to local highways and roadways, the sodium exceedances in these samples is likely the result of de-icing agents. Groundwater samples from 4009-12A (414 ug/L) and 4009-13 (652 ug/L) contained concentrations of manganese greater than the corresponding NYSDEC Class GA Standard of 300 ug/L.

5. Summary

The Vestal Well 1-1A groundwater treatment system operated with only one minor interruption during the second quarter, 2009 operation and maintenance period. The average flow rate through the treatment system during this period was 264 GPM, a decrease of approximately 18 percent compared to the average quarterly flow from the first quarter, 2009. Total flow through the treatment system from April 2009 to June 2009 was approximately 34.3-million gallons. Based on monthly influent and effluent sampling, the treatment system successfully removes VOCs from groundwater extracted from the capture zone. Approximately 123 pounds of VOCs were removed by the treatment system during the second quarter, 2009 operational period.

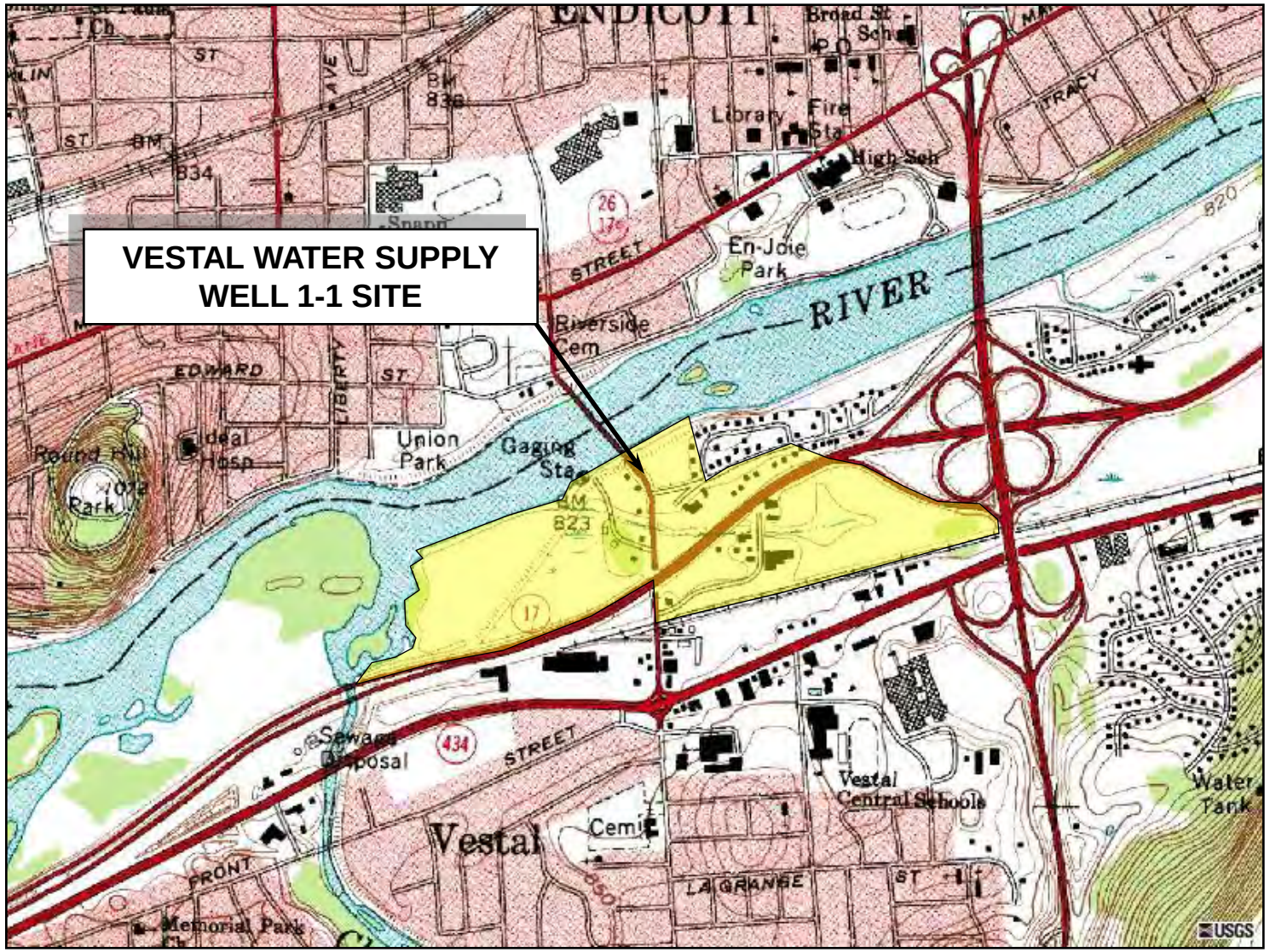
Second quarter groundwater monitoring activities were conducted between June 22 and 24, 2009. Based on the well inspection survey, the condition of monitoring wells and piezometers evaluated during the groundwater monitoring program were acceptable. Evaluations of groundwater flow indicate that the direction of shallow groundwater flow from the contaminant source area is generally toward the Well 1-1A treatment plant. Deep groundwater flow is generally toward Well 1-1A in the vicinity of the treatment plan.

The concentrations of VOCs in samples collected from the shallow groundwater monitoring network were greater than the corresponding NYSDEC Class GA Standards in eight of the 13 wells evaluated during the second quarter 2009 sampling event. The maximum concentration of total VOCs was 1,100 ug/L in the sample from shallow monitoring well 4009-8. Total VOC concentrations in the samples from shallow groundwater monitoring well 4009-7 increased while concentrations from the remainder of the shallow groundwater monitoring wells were within the range of results from the 2007 through 2009 sampling events. Only one deep groundwater monitoring well (4009-12) contained concentrations of VOCs greater than the applicable NYSDEC Class GA Standard. Total VOCs sample results from deep groundwater monitoring well 4009-12 increased compared to 2007 and 2008 sample results.

In general, groundwater samples collected from monitoring wells located downgradient of the contaminant source area contained the greatest concentrations of VOCs. No VOCs were detected in any of the groundwater samples collected from monitoring wells located downgradient of the Well 1-1A groundwater capture zone.

The concentrations of iron, sodium, and/or manganese were detected at concentrations greater than the corresponding NYSDEC Class GA Standards in each of groundwater samples analyzed for metals during the second quarter 2009 sampling event.

The next groundwater sampling event is scheduled for the first quarter 2010.



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

Figure 3-1
Well 1-1A Treatment Plant Flow
Vestal Water Supply Site
NYSDEC Site Number 7-04-009A

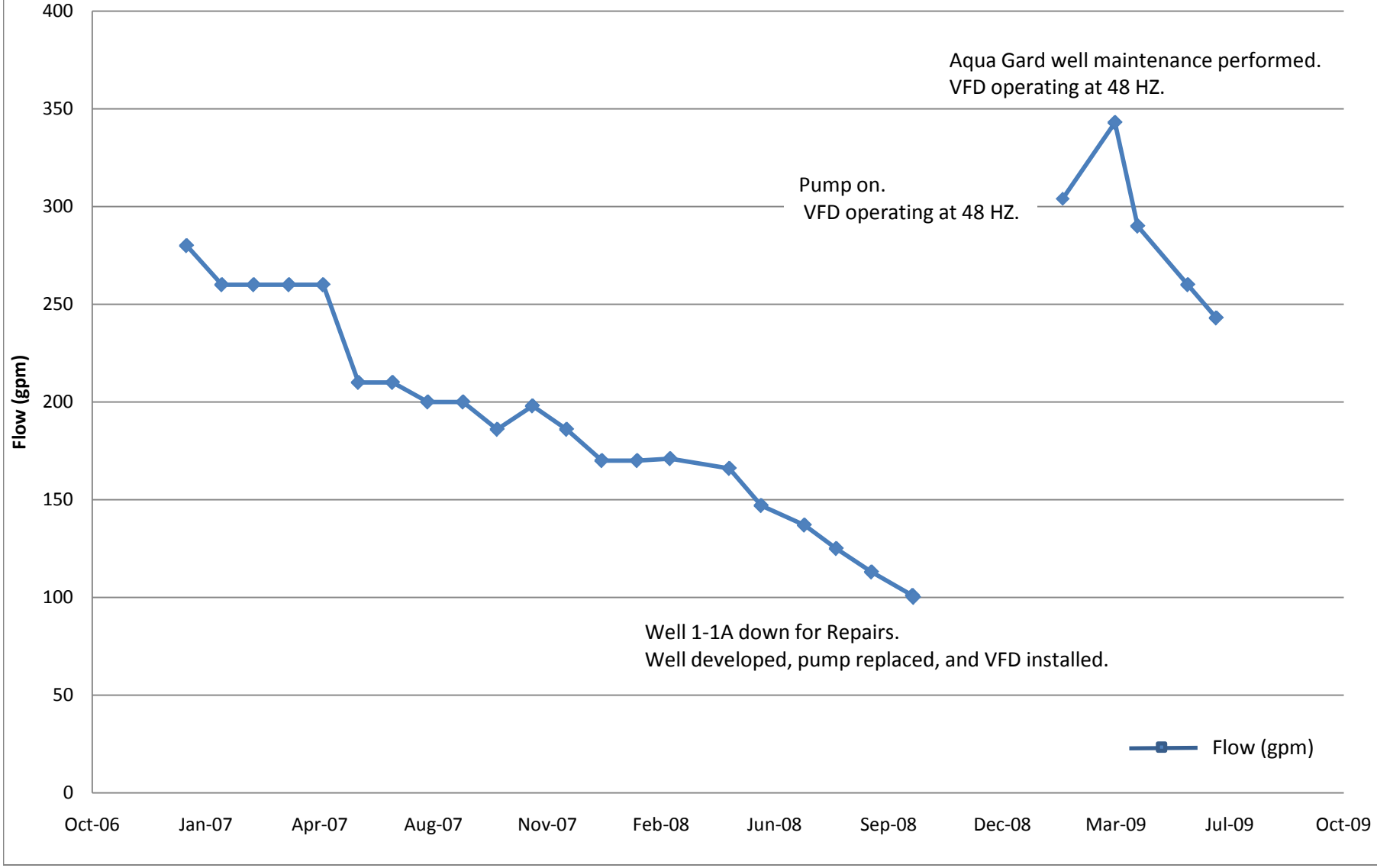
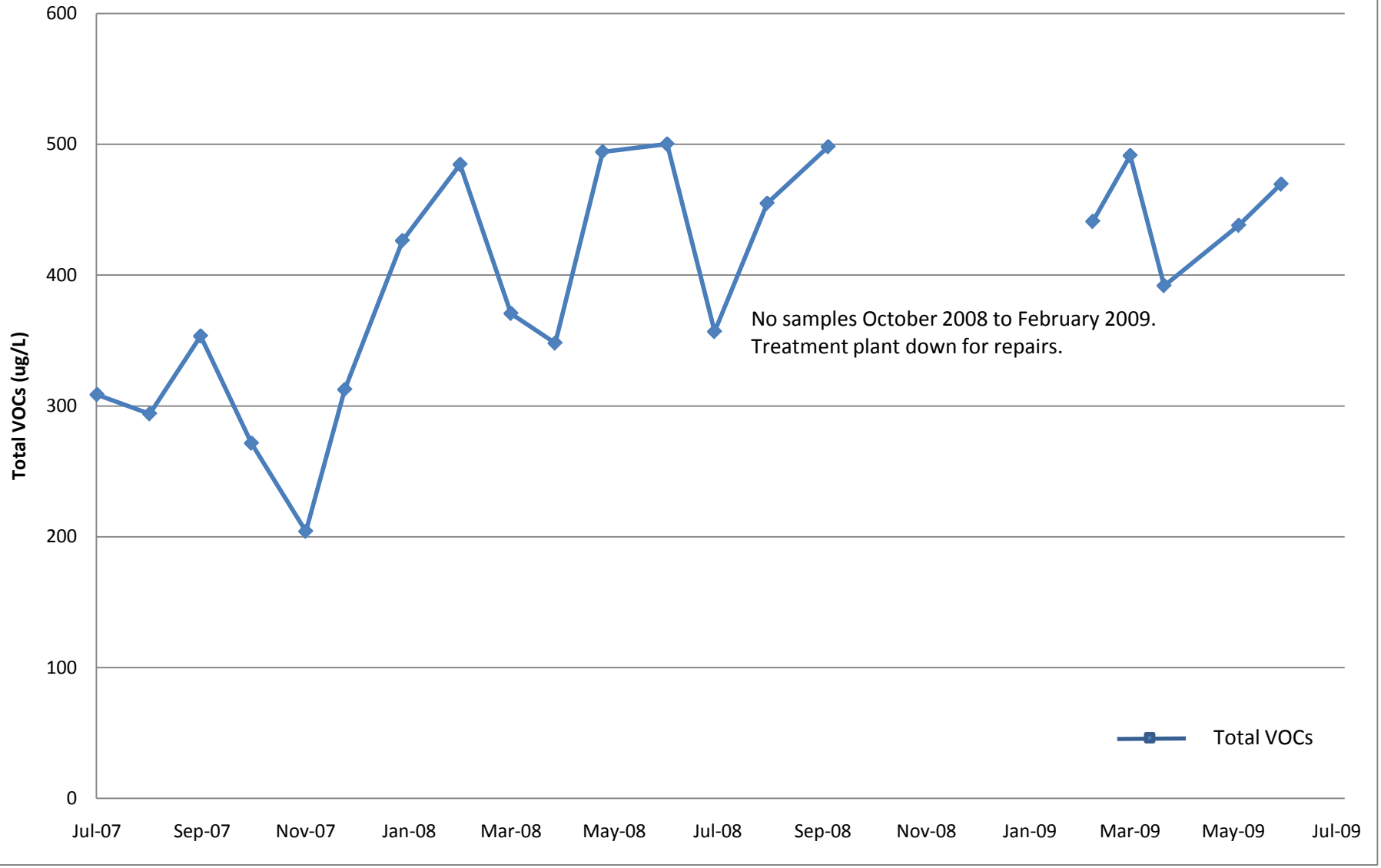
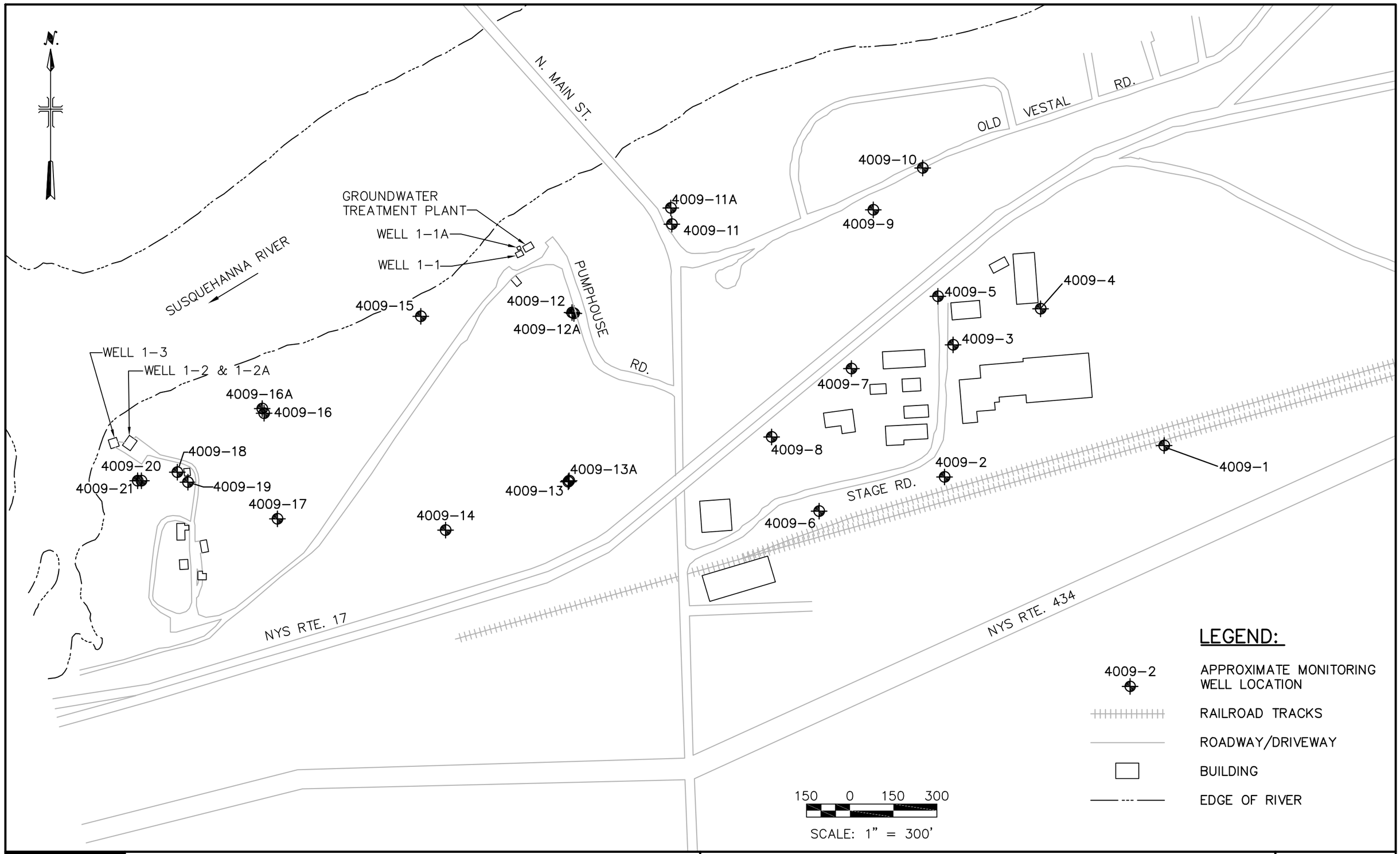


Figure 3-2
Well 1-1A Treatment Plant Total VOCs Concentrations
Vestal Water Supply Site
NYSDEC Site Number 7-04-009A





MALCOLM PIRNIE

NYSDEC STANDBY CONTRACT NO. D004443–4
NYSDEC SITE NO. 7–04–009

VESTAL WATER SUPPLY
VESTAL, NEW YORK

MONITORING WELL LOCATION MAP

SCALE: 1" = 300'

MALCOLM PIRNIE, INC.

APRIL 2009

FIGURE 4–1

N.

N. MAIN ST.

OLD VESTAL RD.

806.07
4009–10

814.84 (NOT USED)
4009–11A
4009–11

4009–9
806.14

GROUNDWATER
TREATMENT PLANT

WELL 1–1A

WELL 1–1

SUSQUEHANNA RIVER

PUMPHOUSE RD.

808

4009–15

4009–12

4009–12A
808.16

809.58
4009–5

4009–4
812.17

809.08
4009–3

WELL 1–3

WELL 1–2 & 1–2A

807.90
4009–16A

4009–16

4009–7
806.70

4009–8

4009–18

4009–20

4009–21

4009–19

4009–17

4009–14

4009–13

4009–13A
807.18

810.48
4009–2

4009–1
825.04

STAGE RD.

4009–6
808.17

NYS RTE. 17

NYS RTE. 434

808 810 812 814 816 818 820 822 824

LEGEND:

4009–2	APPROXIMATE MONITORING WELL LOCATION
808.06	GROUNDWATER ELEVATION
	RAILROAD TRACKS
	ROADWAY/DRIVEWAY
	BUILDING
	EDGE OF RIVER
	GROUNDWATER FLOW DIRECTION

150 0 150 300

SCALE: 1" = 300'

MALCOLM PIRNIE

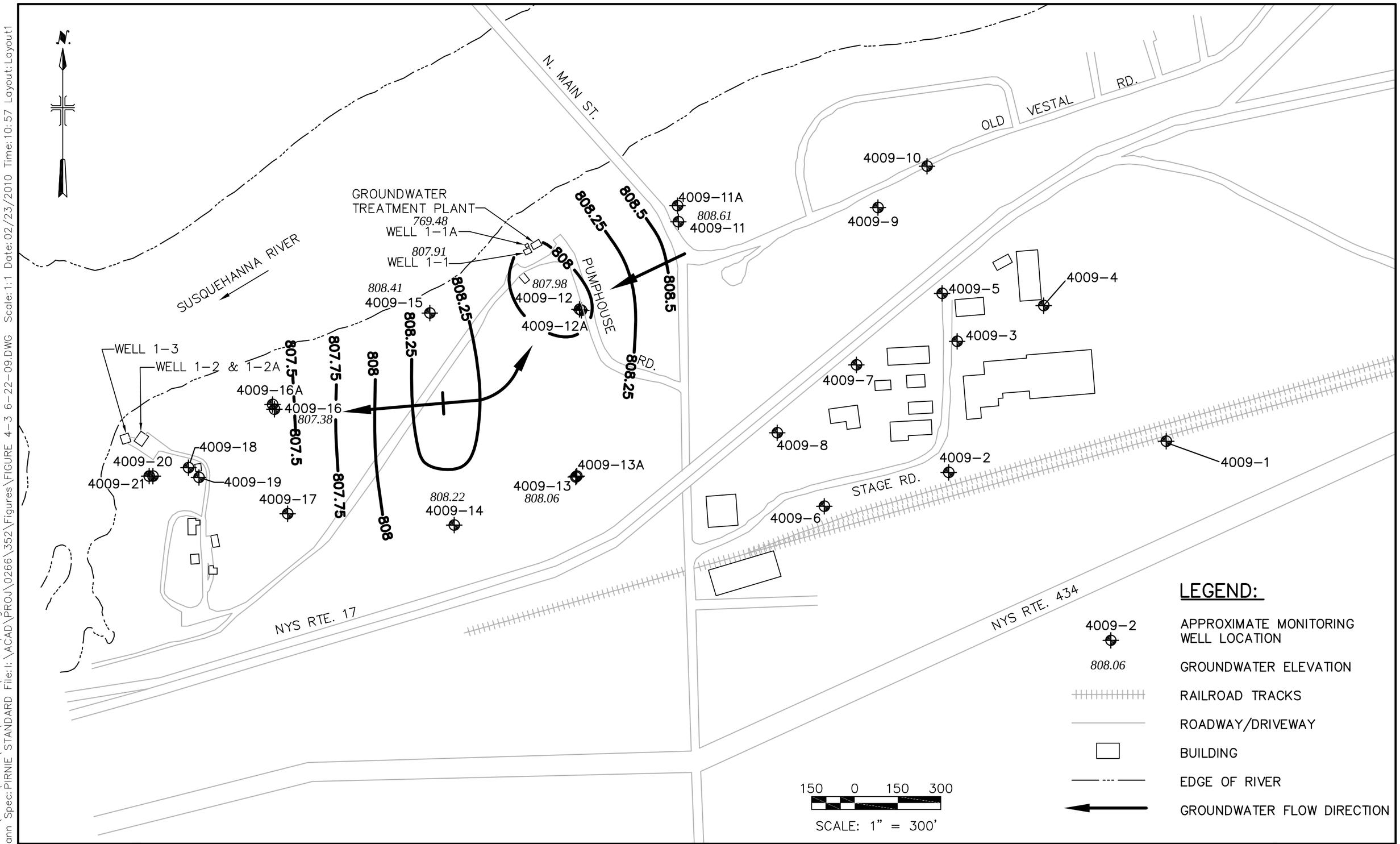
NYSDEC STANDBY CONTRACT NO. D004443–4
NYSDEC SITE NO. 7–04–009
VESTAL WATER SUPPLY
VESTAL, NEW YORK

SHALLOW POTENTIOMETRIC SURFACE (6/22/09)

SCALE: 1" = 300'

MALCOLM PIRNIE, INC.
NOVEMBER 2009
FIGURE 4–2

XREFS: I:\ACAD\PROJ\0266\352\X-Refs\Basemap.dwg IMAGES: None
User: Hausmann Spec: PIRNIE STANDARD File: I:\ACAD\PROJ\0266\352\Figures\FIGURE 4-2 6-22-09.DWG Scale: 1:1 Date: 12/08/2009 Time: 11:23 Layout: Layout1



MALCOLM PIRNIE

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

DEEP POTENTIOMETRIC SURFACE (6/22/09)
SCALE: 1" = 300'

MALCOLM PIRNIE, INC.
NOVEMBER 2009
FIGURE 4-3

N.

N. MAIN ST.

OLD VESTAL RD.

GROUNDWATER TREATMENT PLANT

WELL 1-1A

WELL 1-1

SUSQUEHANNA RIVER

PUMPHOUSE RD.

WELL 1-3

WELL 1-2 & 1-2A

4009-10 **1**

4009-11A **1**

4009-11

4009-9 **9**

4009-15

4009-12

4009-12A **54**

4009-5 **76**

4009-4 **48**

4009-3 **207**

4009-7 **488**

4009-16A

4009-16

4009-18

4009-20

4009-21

4009-19

4009-17

4009-14

4009-13A **1**

4009-13

1000

1100

4009-8

500

100

4009-2 **50**

4009-1 **8**

STAGE RD.

4009-6 **1**

NYS RTE. 17

NYS RTE. 434

NOTE:
ALL CONCENTRATIONS MEASURED IN ug/l.

150 0 150 300

SCALE: 1" = 300'

LEGEND:

- TOTAL VOCS ISOCONCENTRATION LINE
- ESTIMATED ISOCONCENTRATION LINE (LIMITED DATA)
- 4009-2 — APPROXIMATE MONITORING WELL LOCATION
- **1037** — TOTAL VOCS CONCENTRATION
- RAILROAD TRACKS
- ROADWAY/DRIVEWAY
- BUILDING
- EDGE OF RIVER

MALCOLM PIRNIE

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

TOTAL VOC CONCENTRATIONS (JUNE 2009) – SHALLOW MONITORING WELLS

SCALE: 1" = 300'

MALCOLM PIRNIE, INC.
NOVEMBER 2009
FIGURE 4-4

Figure 4--5
Historical Total VOCs Concentrations in Shallow Groundwater Monitoring Wells
Vestal Water Supply Site
NYSDEC Site Number 7-04-009

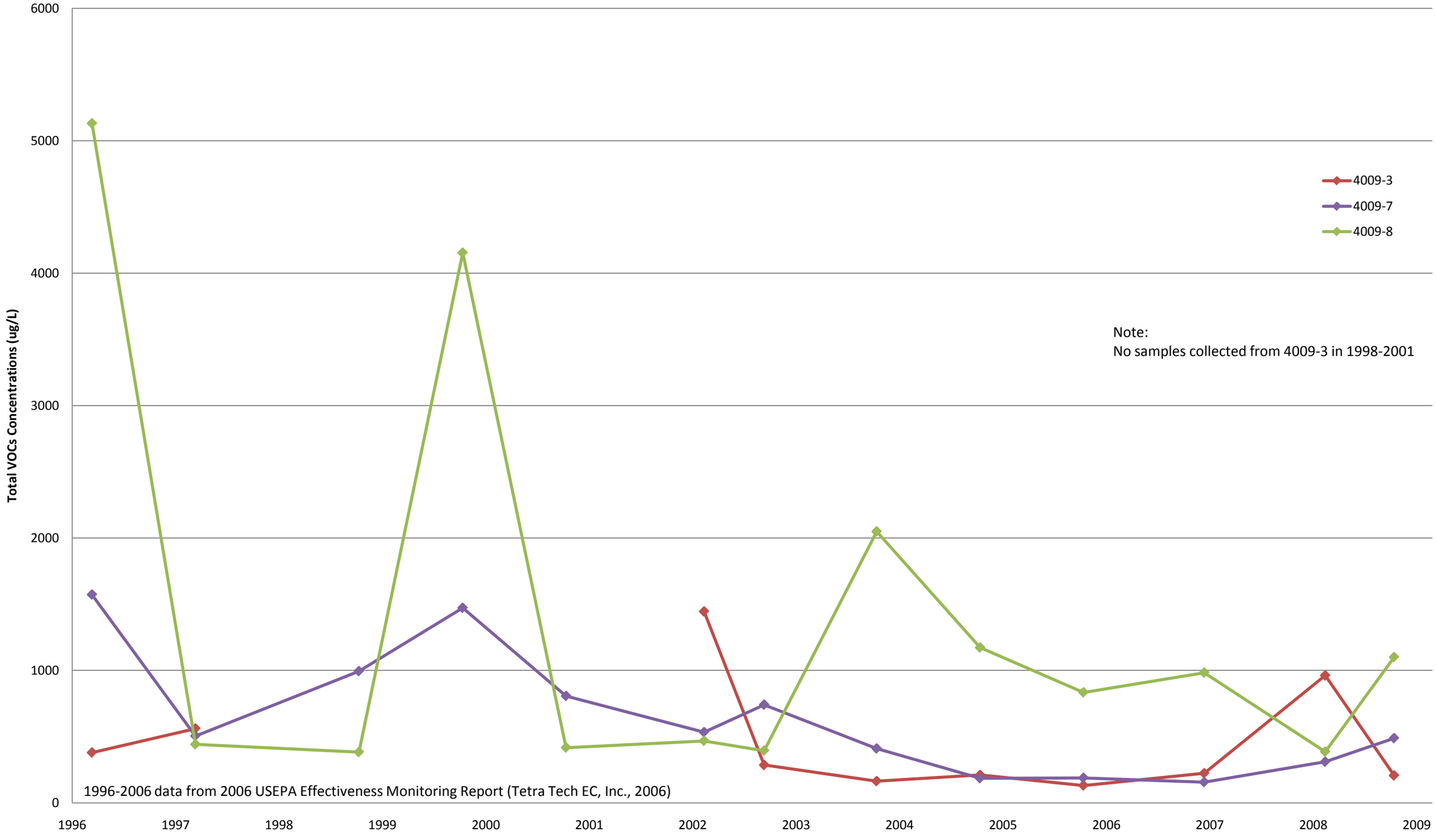


TABLE 3-1
WELL 1-1A FLOW SUMMARY
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE NO. 7-04-009A

Date	System Operation[1] (days/month)		Pumping Rate[1] (gpm)	Total Flow[2] (gallons)	Quarterly Flow (gallons)
January-07	31		280	12,499,200	
February-07	28		260	10,483,200	33,840,000
March-07	29	(3)	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	
April-08	30		166	7,171,200	
May-08	31		147	6,562,080	19,651,680
June-08	30		137	5,918,400	
July-08	31		125	5,580,000	
August-08	31		113	5,044,320	14,987,520
September-08	30		101	4,363,200	
October-08	6	(4)	100	864,000	
November-08	0	(4)	0	0	864,000
December-08	0	(4)	0	0	
January-09	0	(4)	0	0	
February-09	19	(4)	304	8,317,440	22,641,120
March-09	29	(3)	343	14,323,680	
April-09	30		290	12,528,000	
May-09	30	(5)	260	11,232,000	34,257,600
June-09	30		243	10,497,600	

Total Flow (2007) **117,567,360**
Toal Flow (2008) **57,824,640**
Toal Flow (2009) **56,898,720**

Notes:
1 - From Environmental Compliance, Inc. O&M Reports and Malcolm Pirnie, Inc. field notes.
2 - Calculated assuming system operating 24-hours per day
3 - System shut down for flooding
4 - System shut down for repairs
5 - System down due to power failure
gpm - Gallons per minute

TABLE 3-2
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-Hexanone		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
Methyl Ethyl Ketone	50	20 U	10 U	40 U
Methyl Isobutyl Ketone		20 U	10 U	40 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.

E - Concentration exceeds instrument calibration range.

* - MS or MSD exceeded control limits.

TABLE 3-2
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-Hexanone		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
Methyl Ethyl Ketone	50	10 U	20 U	40 U
Methyl Isobutyl Ketone		10 U	20 U	40 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.

E - Concentration exceeds instrument calibration range.

* - MS or MSD exceeded control limits.

TABLE 3-2
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-Hexanone		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
Methyl Ethyl Ketone	50	20 U *	20 U	10 U
Methyl Isobutyl Ketone		20 U	20 U	10 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.

E - Concentration exceeds instrument calibration range.

* - MS or MSD exceeded control limits.

TABLE 3-2
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 4/22/2008 WATER ug/L	WELL 1A-INF 5/20/2008 WATER ug/L	WELL 1A-INF 6/27/2008 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	**180**	**300 E**	**290**
1,1,2,2-Tetrachloroethane	5	10 U	10 U	20 U
1,1,2-Trichloroethane	1	10 U	10 U	20 U
1,1-Dichloroethane	5	**26**	**27**	**28**
1,1-Dichloroethene	5	**9.7 J**	**17**	**20 J**
1,2-Dichloroethane	0.6	10 U	10 U	20 U
1,2-Dichloropropane	5	10 U	10 U	20 U
2-Hexanone		20 U	10 U	40 U
Acetone		20 U	0.5 J B	11 J B
Benzene	1	10 U	10 U	20 U
Bromodichloromethane	50	10 U	10 U	20 U
Bromoform		10 U	10 U	20 U
Bromomethane	5	10 U	10 U	20 U
Carbon disulfide		10 U	10 U	20 U
Carbon tetrachloride	5	10 U	10 U	20 U
Chlorobenzene	5	10 U	10 U	20 U
Chloroethane	5	10 U	10 U	20 U
Chloroform	7	10 U	10 U	20 U
Chloromethane		10 U	10 U	20 U
cis-1,2-Dichloroethene	5	**72**	**78**	**77**
cis-1,3-Dichloropropene	0.4	10 U	10 U	20 U
Dibromochloromethane	50	10 U	10 U	20 U
Ethylbenzene	5	10 U	10 U	20 U
Methyl Ethyl Ketone	50	20 U	10 U	40 U
Methyl Isobutyl Ketone		20 U	10 U	40 U
Methylene Chloride	5	2.2 J B	0.32 JB	3.5 J B
Styrene	5	10 U	10 U	20 U
Tetrachloroethene	5	10 U	10 U	20 U
Toluene	5	10 U	10 U	20 U
trans-1,2-Dichloroethene	5	10 U	10 U	20 U
trans-1,3-Dichloropropene	0.4	10 U	10 U	20 U
Trichloroethene	5	**54 * B**	**65**	**64**
Vinyl chloride	2	**4.1 J**	**6.4 J**	**6.7 J**
Xylenes, Total	5	10 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.

E - Concentration exceeds instrument calibration range.

* - MS or MSD exceeded control limits.

TABLE 3-2
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 7/25/2008 WATER ug/L	WELL 1A-INF 8/25/2008 WATER ug/L	WELL 1A-INF 9/30/2008 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	**220**	**270**	**300**
1,1,2,2-Tetrachloroethane	5	20 U	20 U	25 U
1,1,2-Trichloroethane	1	20 U	20 U	25 U *
1,1-Dichloroethane	5	**23**	**27**	**28**
1,1-Dichloroethene	5	**13 J**	**19 J**	**19 J**
1,2-Dichloroethane	0.6	20 U	20 U	25 U
1,2-Dichloropropane	5	20 U	20 U	25 U
2-Hexanone		40 U	40 U	50 U
Acetone		40 U	4.7 J	5.2 J
Benzene	1	20 U	20 U	25 U
Bromodichloromethane	50	20 U	20 U	25 U
Bromoform		20 U	20 U	25 U
Bromomethane	5	20 U	20 U	25 U
Carbon disulfide		20 U	20 U	25 U
Carbon tetrachloride	5	20 U	20 U	25 U
Chlorobenzene	5	20 U	20 U	25 U
Chloroethane	5	20 U	20 U	25 U
Chloroform	7	20 U	20 U	25 U *
Chloromethane		20 U	20 U	25 U
cis-1,2-Dichloroethene	5	**50**	**68**	**75**
cis-1,3-Dichloropropene	0.4	20 U	20 U	25 U
Dibromochloromethane	50	20 U	20 U	25 U
Ethylbenzene	5	20 U	20 U	25 U
Methyl Ethyl Ketone	50	40 U	40 U	50 U
Methyl Isobutyl Ketone		40 U	40 U	50 U
Methylene Chloride	5	20 U	20 U	25 U
Styrene	5	20 U *	20 U	25 U
Tetrachloroethene	5	20 U	20 U	25 U
Toluene	5	20 U	20 U	25 U
trans-1,2-Dichloroethene	5	20 U	20 U	25 U
trans-1,3-Dichloropropene	0.4	20 U	20 U	25 U
Trichloroethene	5	**45**	**59**	**64**
Vinyl chloride	2	**5.8 J**	**7.2 J**	**6.9 J**
Xylenes, Total	5	20 U	20 U	25 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.

E - Concentration exceeds instrument calibration range.

* - MS or MSD exceeded control limits.

TABLE 3-2
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 3/5/2009 WATER ug/L	WELL 1A-INF 3/27/2009 WATER ug/L	WELL 1A-INF 4/16/2009 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	**260**	**280**	**220**
1,1,2,2-Tetrachloroethane	5	25 U	2 U	10 U
1,1,2-Trichloroethane	1	25 U	2 U	10 U
1,1-Dichloroethane	5	**28**	**31**	**25**
1,1-Dichloroethene	5	**19 J**	**22 ***	**20**
1,2-Dichloroethane	0.6	25 U	2 U	10 U
1,2-Dichloropropane	5	25 U	2 U	10 U
2-Hexanone		50 U	8 U	20 U
Acetone		50 U	2.3 J *	20 U *
Benzene	1	25 U	2 U	10 U
Bromodichloromethane	50	25 U	2 U	10 U
Bromoform		25 U	2 U	10 U
Bromomethane	5	25 U	4 U	10 U
Carbon disulfide		25 U	2 U	10 U
Carbon tetrachloride	5	25 U	2 U	10 U
Chlorobenzene	5	25 U	2 U	10 U
Chloroethane	5	25 U	4 U	10 U
Chloroform	7	25 U	0.67 J B	10 U
Chloromethane		25 U	2 U	10 U
cis-1,2-Dichloroethene	5	**65**	**63**	**60**
cis-1,3-Dichloropropene	0.4	25 U	2 U	10 U
Dibromochloromethane	50	25 U	2 U	10 U
Ethylbenzene	5	25 U	2 U	10 U
Methyl Ethyl Ketone	50	50 U	8 U	20 U
Methyl Isobutyl Ketone		50 U	8 U	20 U
Methylene Chloride	5	25 U	**7.9 J B**	**2.3 J B**
Styrene	5	25 U	2 U	10 U
Tetrachloroethene	5	25 U	2 U	10 U
Toluene	5	25 U	2 U	10 U
trans-1,2-Dichloroethene	5	25 U	0.51 J	10 U
trans-1,3-Dichloropropene	0.4	25 U	2 U	10 U
Trichloroethene	5	**59**	**58**	**55**
Vinyl chloride	2	**10 J**	**14**	**9.6 J**
Xylenes, Total	5	25 U	**12**	10 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.

E - Concentration exceeds instrument calibration range.

* - MS or MSD exceeded control limits.

TABLE 3-2
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 5/30/2009 WATER ug/L	WELL 1A-INF 6/24/2009 WATER ug/L
VOCs			
1,1,1-Trichloroethane	5	**250**	**270**
1,1,2,2-Tetrachloroethane	5	20 U	2 U
1,1,2-Trichloroethane	1	20 U	2 U
1,1-Dichloroethane	5	**27**	**27**
1,1-Dichloroethene	5	**24 ***	**22**
1,2-Dichloroethane	0.6	20 U	2 U
1,2-Dichloropropane	5	20 U	2 U
2-Hexanone		40 U	8 U
Acetone		12 J	10
Benzene	1	20 U	2 U
Bromodichloromethane	50	20 U	2 U
Bromoform		20 U	2 U
Bromomethane	5	20 U	4 U
Carbon disulfide		20 U	2 U
Carbon tetrachloride	5	20 U	2 U
Chlorobenzene	5	20 U	2 U
Chloroethane	5	20 U	4 U *
Chloroform	7	20 U	2 U
Chloromethane		20 U	2 U *
cis-1,2-Dichloroethene	5	**53**	**55**
cis-1,3-Dichloropropene	0.4	20 U	2 U
Dibromochloromethane	50	20 U	2 U
Ethylbenzene	5	20 U	2 U
Methyl Ethyl Ketone	50	40 U	8 U
Methyl Isobutyl Ketone		40 U	8 U
Methylene Chloride	5	**11 J B**	**14**
Styrene	5	20 U	2 U
Tetrachloroethene	5	20 U	2 U
Toluene	5	20 U	2 U
trans-1,2-Dichloroethene	5	20 U	1.5 J
trans-1,3-Dichloropropene	0.4	20 U	2 U
Trichloroethene	5	**50**	**59**
Vinyl chloride	2	**11 J**	**11**
Xylenes, Total	5	20 U	4 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.

E - Concentration exceeds instrument calibration range.

* - MS or MSD exceeded control limits.

TABLE 3-3
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-Hexanone		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
Methyl Ethyl Ketone	50	10 U	10 U	10 U
Methyl Isobutyl Ketone		10 U	10 U	10 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 3-3
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-Hexanone		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
Methyl Ethyl Ketone	50	10 U	10 U	10 U
Methyl Isobutyl Ketone		10 U	10 U	10 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 3-3
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-Hexanone		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
Methyl Ethyl Ketone	50	10 U	10 U	10 U
Methyl Isobutyl Ketone		10 U	10 U	10 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 3-3
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 4/22/2008 WATER ug/L	WELL 1A-EFF 5/20/2008 WATER ug/L	WELL 1A-EFF 6/27/2008 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	5 U	10 U	5 U
1,1,2,2-Tetrachloroethane	5	5 U	10 U	5 U
1,1,2-Trichloroethane	1	5 U	10 U	5 U
1,1-Dichloroethane	5	5 U	10 U	5 U
1,1-Dichloroethene	5	5 U	10 U	5 U *
1,2-Dichloroethane	0.6	5 U	10 U	5 U
1,2-Dichloropropane	5	5 U	10 U	5 U
2-Hexanone		10 U	10 U	10 U
Acetone		1.8 J	1.2 J B	10 U
Benzene	1	5 U	10 U	5 U
Bromodichloromethane	50	5 U	10 U	5 U
Bromoform		5 U	10 U	5 U
Bromomethane	5	5 U	10 U	5 U
Carbon disulfide		5 U	10 U	5 U *
Carbon tetrachloride	5	5 U	10 U	5 U
Chlorobenzene	5	5 U	10 U	5 U
Chloroethane	5	5 U	10 U	5 U *
Chloroform	7	5 U	10 U	5 U
Chloromethane		5 U	10 U	5 U
cis-1,2-Dichloroethene	5	5 U	0.3 J	5 U
cis-1,3-Dichloropropene	0.4	5 U	10 U	5 U
Dibromochloromethane	50	5 U	10 U	5 U
Ethylbenzene	5	5 U	10 U	5 U
Methyl Ethyl Ketone	50	10 U	10 U	10 U
Methyl Isobutyl Ketone		10 U	10 U	10 U
Methylene Chloride	5	5 U	0.34 J B	5 U
Styrene	5	5 U	10 U	5 U
Tetrachloroethene	5	5 U	10 U	5 U
Toluene	5	5 U	10 U	5 U
trans-1,2-Dichloroethene	5	5 U	10 U	5 U
trans-1,3-Dichloropropene	0.4	5 U	10 U	5 U
Trichloroethene	5	1.1 J*B	10 U	5 U
Vinyl chloride	2	5 U	10 U	5 U
Xylenes, Total	5	5 U	10 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 3-3
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 7/25/2008 WATER ug/L	WELL 1A-EFF 8/25/2008 WATER ug/L	WELL 1A-EFF 9/30/2008 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-Hexanone		10 U	10 U	10 U
Acetone		1 J B	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
Methyl Ethyl Ketone	50	10 U	10 U	10 U
Methyl Isobutyl Ketone		10 U	10 U	10 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 3-3
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 3/5/2009 WATER ug/L	WELL 1A-EFF 3/27/2009 WATER ug/L	WELL 1A-EFF 4/16/2009 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	1.5 J	0.5 U	5 U
1,1,2,2-Tetrachloroethane	5	5 U	0.5 U	5 U
1,1,2-Trichloroethane	1	5 U	0.5 U	5 U
1,1-Dichloroethane	5	5 U	0.27 J	5 U
1,1-Dichloroethene	5	5 U	0.16 J *	5 U
1,2-Dichloroethane	0.6	5 U	0.5 U	5 U
1,2-Dichloropropane	5	5 U	0.5 U	5 U
2-Hexanone		10 U	2 U	10 U
Acetone		1.1 J	2 U *	10 U *
Benzene	1	5 U	0.5 U	5 U
Bromodichloromethane	50	5 U	0.5 U	5 U
Bromoform		5 U	0.5 U	5 U
Bromomethane	5	5 U	1 U	5 U
Carbon disulfide		5 U	0.5 U	5 U
Carbon tetrachloride	5	5 U	0.5 U	5 U
Chlorobenzene	5	5 U	0.5 U	5 U
Chloroethane	5	5 U	1 U	5 U
Chloroform	7	5 U	0.5 U	5 U
Chloromethane		5 U	0.5 U	5 U
cis-1,2-Dichloroethene	5	5 U	0.82	5 U
cis-1,3-Dichloropropene	0.4	5 U	0.5 U	5 U
Dibromochloromethane	50	5 U	0.5 U	5 U
Ethylbenzene	5	5 U	0.5 U	5 U
Methyl Ethyl Ketone	50	10 U	2 U	10 U
Methyl Isobutyl Ketone		10 U	2 U	10 U
Methylene Chloride	5	5 U	2 U	5 U
Styrene	5	5 U	0.5 U	5 U
Tetrachloroethene	5	5 U	0.5 U	5 U
Toluene	5	5 U	0.33 J	5 U
trans-1,2-Dichloroethene	5	5 U	0.5 U	5 U
trans-1,3-Dichloropropene	0.4	5 U	0.5 U	5 U
Trichloroethene	5	5 U	0.5 J	5 U
Vinyl chloride	2	5 U	0.5 U	5 U
Xylenes, Total	5	5 U	3.4	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 3-3
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 5/30/2009 WATER ug/L	WELL 1A-EFF 6/24/2009 WATER ug/L
VOCs			
1,1,1-Trichloroethane	5	5 U	5 U
1,1,2,2-Tetrachloroethane	5	5 U	5 U
1,1,2-Trichloroethane	1	5 U	5 U
1,1-Dichloroethane	5	5 U	5 U
1,1-Dichloroethene	5	5 U *	5 U *
1,2-Dichloroethane	0.6	5 U	5 U
1,2-Dichloropropane	5	5 U	5 U
2-Hexanone		10 U	10 U *
Acetone		10 U	10 U
Benzene	1	5 U	5 U
Bromodichloromethane	50	5 U	5 U
Bromoform		5 U	5 U
Bromomethane	5	5 U	5 U
Carbon disulfide		5 U	5 U
Carbon tetrachloride	5	5 U	5 U
Chlorobenzene	5	5 U	5 U
Chloroethane	5	5 U	5 U
Chloroform	7	5 U	5 U
Chloromethane		5 U	5 U *
cis-1,2-Dichloroethene	5	5 U	5 U
cis-1,3-Dichloropropene	0.4	5 U	5 U
Dibromochloromethane	50	5 U	5 U
Ethylbenzene	5	5 U	5 U
Methyl Ethyl Ketone	50	10 U	10 U
Methyl Isobutyl Ketone		10 U	10 U
Methylene Chloride	5	5 U	5 U
Styrene	5	5 U	5 U
Tetrachloroethene	5	5 U	5 U
Toluene	5	5 U	5 U
trans-1,2-Dichloroethene	5	5 U	5 U *
trans-1,3-Dichloropropene	0.4	5 U	5 U
Trichloroethene	5	5 U	5 U
Vinyl chloride	2	5 U	5 U
Xylenes, Total	5	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 4-1
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)	6/22/2009	
				DTW (feet)	Elevation (feet)
4009-1	S-8	Shallow	832.20	7.16	825.04
4009-2	EB-33	Shallow	828.59	18.11	810.48
4009-3	S-7	Shallow	823.72	14.64	809.08
4009-4	S-6	Shallow	822.46	10.29	812.17
4009-5	EB-31	Shallow	825.77	16.19	809.58
4009-6	S-1	Shallow	827.16	18.99	808.17
4009-7	S-2	Shallow	823.72	17.02	806.70
4009-8	S-11	Shallow	**	17.77	-
4009-9	EB-41	Shallow	825.29 [2]	19.15	806.14
4009-10	EB-42	Shallow	831.54	25.47	806.07
4009-11	1-32	Deep	831.08	22.47	808.61
4009-11A	1-32A	Shallow	830.86	16.02	814.84
4009-12	1-29	Deep	823.55	15.57	807.98
4009-12A	1-29A	Shallow	824.08	16.02	808.06
4009-13	1-30	Deep	816.54	8.48	808.06
4009-13A	1-30A	Shallow	816.42	9.24	807.18
4009-14	1-23	Deep	820.91	12.69	808.22
4009-15	1-24	Deep	826.76	18.35	808.41
4009-16	1-20	Deep	825.93	18.55	807.38
4009-16A	1-20A	Shallow	826.32	18.42	807.90
4009-17	Piezo-levee*	Deep	-	NM	-
4009-18	well-west well house*	Deep	-	26.44	-
4009-19	well-south well house*	Deep	-	16.81	-
4009-20	Piezo-north*	Shallow	-	15.42	-
4009-21	Piezo-west*	Deep	-	14.75	-
Well 1-1	Former Pumping Well	Deep	832.53 [3]	24.62	807.91
Well 1-1A	Pumping Well	Deep	831.33 [3]	61.85	769.48

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 2007 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) - TOC elevation estimated following 4/22/08 well repair.

(3) - TOC Elevation from well level survey conducted on 3/13/08.

TABLE 4-2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS (VOCS)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Monitoring Interval Units	NYSDEC GA Standard ug/L	4009-1 8/14/2007 Shallow ug/L	4009-1 10/9/2008 Shallow ug/L	4009-1 6/22/2009 Shallow ug/L	4009-2 8/14/2007 Shallow ug/L	4009-2 10/9/2008 Shallow ug/L	4009-2 6/22/2009 Shallow ug/L	4009-3 8/14/2007 Shallow ug/L	4009-3 10/9/2008 Shallow ug/L	4009-3 6/23/2009 Shallow ug/L	4009-4 8/14/2007 Shallow ug/L	4009-4 10/9/2008 Shallow ug/L
1,1,1-Trichloroethane	5	10 U	5 U	5 U	10 U	5 U	5 U	**130**	**810**	**57**	10 U	5 U
1,1,2,2-Tetrachloroethane	5	10 U	5 U	5 U	10 U	5 U	5 U	10 U	50 U	5 U	10 U	5 U
1,1,2-Trichloroethane	1	10 U	5 U	5 U	10 U	5 U	5 U	10 U	50 U	5 U	10 U	5 U
1,1-Dichloroethane	5	3.2 J	**6.7**	2.5 J	2.4 J	3.3 J	3.2 J	**19**	**39 J**	**27**	10 U	5 U
1,1-Dichloroethene	5	10 U	5 U	5 U	10 U	5 U	5 U	1.4 J	50 U	2.4 J	10 U	5 U
1,2-Dichloroethane	0.6	10 U	5 U	5 U	10 U	5 U	5 U	10 U	50 U	5 U	10 U	5 U
1,2-Dichloropropane	1	10 U	5 U	5 U	10 U	5 U	5 U	10 U	50 U	5 U	10 U	5 U
2-Butanone (MEK)	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
2-Hexanone		10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
4-Methyl-2-pentanone (MIBK)		10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Acetone		10 U	1.1 J	1.5 J	10 U	1 J B	10 U	10 U	100 U	10 U	10 U	3.7 J B
Benzene	1	10 U	5 U	5 U	10 U	5 U	5 U	10 U	50 U	5 U	10 U	5 U
Bromodichloromethane	50	10 U	5 U	5 U	10 U	5 U	5 U	10 U	50 U	5 U	10 U	5 U
Bromoform		10 U	5 U	5 U	10 U	5 U	5 U	10 U	50 U	5 U	10 U	5 U
Bromomethane	5	10 U	5 U	5 U	10 U	5 U	5 U	10 U	50 U	5 U	10 U	5 U
Carbon disulfide		10 U	5 U	5 U	10 U	5 U	5 U	10 U	50 U	5 U	10 U	5 U
Carbon tetrachloride	5	10 U	5 U	5 U	10 U	5 U	5 U	10 U	50 U	5 U	10 U	5 U
Chlorobenzene	5	10 U	5 U	5 U	10 U	5 U	5 U	10 U	50 U	5 U	10 U	5 U
Chloroethane	5	10 U	5 U	5 U	10 U	5 U	5 U	10 U	50 U	5 U *	10 U	5 U
Chloroform	7	10 U	5 U	5 U	10 U	5 U	5 U	10 U	50 U	5 U	10 U	5 U
Chloromethane		10 U	5 U *	5 U	10 U	5 U	5 U	10 U	50 U *	5 U	10 U	5 U
cis-1,2-Dichloroethene	5	1.4 J	3 J	1.5 J	**34**	**34**	**37**	**26**	**37 J**	**28**	**15**	**13**
cis-1,3-Dichloropropene	0.4	10 U	5 U	5 U	10 U	5 U	5 U	10 U	50 U	5 U	10 U	5 U
Dibromochloromethane		10 U	5 U	5 U	10 U	5 U	5 U	10 U	50 U	5 U	10 U	5 U
Ethylbenzene	5	10 U	5 U	5 U	10 U	5 U	1.2 J	10 U	50 U	5 U	10 U	5 U
Methylene Chloride	5	10 U	5 U	5 U *	10 U	5 U	5 U *	0.24 J	50 U	5 U	10 U	5 U
Styrene	5	10 U	5 U	5 U	10 U	5 U	5 U	10 U	50 U	5 U	10 U	5 U
Tetrachloroethene	5	0.65 J	1.6 J	0.86 J	10 U	5 U	5 U	10 U	50 U	5 U	10 U	5 U
Toluene	5	10 U	5 U	5 U	10 U	5 U	0.95 J B	10 U	50 U	0.95 J	10 U	5 U
trans-1,2-Dichloroethene	5	10 U	5 U	5 U	0.83 J	1 J	1.1 J	0.46 J M	50 U	1 J	10 U	5 U
trans-1,3-Dichloropropene	0.4	10 U	5 U	5 U	10 U	5 U	5 U	10 U	50 U	5 U	10 U	5 U
Trichloroethene	5	0.95 J	2.1 J	1.4 J	2.5 J	2.5 J	3.8 J	**8 J**	**13 J**	**13**	**26**	**8.5**
Vinyl chloride	2	10 U	5 U	5 U	**12**	**15**	**3.9 J**	**40**	**63**	**79**	0.52 J	5 U
Xylenes, Total		10 U		5 U	10 U	5 U	5 U	10 U	50 U	5 U	10 U	5 U
Tentatively Identified Compound		None			None			None			None	
Total VOCs		6	15	8	52	57	50	224	962	207	42	25

Notes

- Concentration exceeds NYSDEC Class GA Standard

U - Compound was not detected at the indicated concentration

J - Compound detected below the reporting limit or
Concentration is estimated for TICS.

B - Analyte detected in the method blank and sample

M - Manual integrated compound

1 - Sample 4009-X is a duplicate sample from 4009-8

TABLE 4-2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS (VOCS)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Monitoring Interval Units	NYSDEC GA Standard ug/L	4009-4 6/23/2009 Shallow ug/L	4009-5 8/14/2007 Shallow ug/L	4009-5 10/9/2008 Shallow ug/L	4009-5 6/23/2009 Shallow ug/L	4009-6 8/14/2007 Shallow ug/L	4009-6 10/9/2008 Shallow ug/L	4009-6 6/23/2009 Shallow ug/L	4009-7 8/15/2007 Shallow ug/L	4009-7 10/9/2008 Shallow ug/L	4009-7 6/23/2009 Shallow ug/L	4009-8 8/14/2007 Shallow ug/L
1,1,1-Trichloroethane	5	5 U	10 U	5 U	5 U	10 U	5 U	5 U	1.9 J M	**7.2 J**	**13 J**	**540**
1,1,2,2-Tetrachloroethane	5	5 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	10 U	20 U	40 U
1,1,2-Trichloroethane	1	5 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	10 U	20 U	40 U
1,1-Dichloroethane	5	5 U	2.3 J	3.7 J	3.4 J	10 U	5 U	5 U	**6.1 J**	**20**	**35**	**73**
1,1-Dichloroethene	5	5 U	1.1 J	2.4 J	1.9 J	10 U	5 U	5 U	1.5 J	4.4 J	**9.3 J**	**17 J**
1,2-Dichloroethane	0.6	5 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	10 U	20 U	40 U
1,2-Dichloropropane	1	5 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	10 U	20 U	40 U
2-Butanone (MEK)	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U	40 U	40 U
2-Hexanone		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U	40 U	40 U
4-Methyl-2-pentanone (MIBK)		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U	40 U	40 U
Acetone		10 U	10 U	10 U	10 U	10 U	3.1 J B	10 U	10 U	2.8 J	5.2 J	40 U
Benzene	1	5 U	10 U	5 U	5 U	10 U	5 U	5 U	0.47 J	10 U	20 U	40 U
Bromodichloromethane	50	5 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	10 U	20 U	40 U
Bromoform		5 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	10 U	20 U	40 U
Bromomethane	5	5 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	10 U	20 U	40 U
Carbon disulfide		5 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	10 U	20 U	40 U
Carbon tetrachloride	5	5 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	10 U	20 U	40 U
Chlorobenzene	5	5 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	10 U	20 U	40 U
Chloroethane	5	5 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	10 U	20 U *	**5.8 J**
Chloroform	7	5 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	10 U	20 U	40 U
Chloromethane		5 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	10 U *	20 U	40 U
cis-1,2-Dichloroethene	5	**41**	**12**	**20**	**12**	10 U	5 U	5 U	**74**	**130**	**160**	**180**
cis-1,3-Dichloropropene	0.4	5 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	10 U	20 U	40 U
Dibromochloromethane		5 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	10 U	20 U	40 U
Ethylbenzene	5	5 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	10 U	20 U	40 U
Methylene Chloride	5	5 U *	10 U	5 U	5 U *	10 U	5 U	5 U *	10 U	10 U	20 U	1.9 J B
Styrene	5	5 U	10 U	5 U *	5 U	10 U	5 U	5 U	10 U	10 U	20 U	40 U
Tetrachloroethene	5	5 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	10 U	20 U	40 U
Toluene	5	0.91 J B	10 U	5 U	5 U	10 U	5 U	0.89 J B	10 U	10 U	3.7 J	40 U
trans-1,2-Dichloroethene	5	5 U	10 U	5 U	5 U	10 U	5 U	5 U	0.4 J M	10 U	20 U	40 U
trans-1,3-Dichloropropene	0.4	5 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	10 U	20 U	40 U
Trichloroethene	5	**6.3**	**40**	**63**	**55**	0.75 J	5 U	5 U	**45**	**46**	**52**	**79**
Vinyl chloride	2	5 U	0.89 J	**12**	**3.3 J**	10 U	5 U	5 U	**27**	**100**	**210**	**86**
Xylenes, Total		5 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	10 U	20 U	40 U
Tentatively Identified Compound			None			None			None			None
Total VOCs		48	56	101	76	1	3	1	156	310	488	983

Notes

- Concentration exceeds NYSDEC Class GA Standard

U - Compound was not detected at the indicated concentration

J - Compound detected below the reporting limit or
Concentration is estimated for TICS.

B - Analyte detected in the method blank and sample

M - Manual integrated compound

1 - Sample 4009-X is a duplicate sample from 4009-8

TABLE 4-2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS (VOCS)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Monitoring Interval Units	NYSDEC GA Standard ug/L	4009-8 10/9/2008 Shallow ug/L	4009-8 6/23/2009 Shallow ug/L	4009-X[(1)] 6/23/2009 Shallow ug/L	4009-9 8/14/2007 Shallow ug/L	4009-9 10/9/2008 Shallow ug/L	4009-9 6/23/2009 Shallow ug/L	4009-10 8/14/2007 Shallow ug/L	4009-10 10/10/2008 Shallow ug/L	4009-10 6/22/2009 Shallow ug/L	4009-11 8/14/2007 Deep ug/L	4009-11 10/10/2008 Deep ug/L
1,1,1-Trichloroethane	5	**130**	**490**	**520**	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
1,1,2,2-Tetrachloroethane	5	10 U	50 U	50 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
1,1,2-Trichloroethane	1	10 U	50 U	50 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
1,1-Dichloroethane	5	**16**	**49 J**	**50 J**	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
1,1-Dichloroethene	5	4.3 J	**23 J**	**24 J**	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
1,2-Dichloroethane	0.6	10 U	50 U	50 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
1,2-Dichloropropane	1	10 U	50 U	50 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
2-Butanone (MEK)	50	20 U	100 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone		20 U	100 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (MIBK)		20 U	100 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone		3.5 J	16 J	15 J	10 U	10 U	1.2 J	10 U	10 U	10 U	10 U	7.8 J B
Benzene	1	10 U	50 U	50 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
Bromodichloromethane	50	10 U	50 U	50 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
Bromoform		10 U	50 U	50 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
Bromomethane	5	10 U	50 U	50 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
Carbon disulfide		10 U	50 U	50 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
Carbon tetrachloride	5	10 U	50 U	50 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
Chlorobenzene	5	10 U	50 U	50 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
Chloroethane	5	10 U	50 U *	50 U *	10 U	5 U	5 U *	10 U	5 U	5 U *	10 U	5 U
Chloroform	7	10 U	50 U	50 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
Chloromethane		10 U	50 U	50 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
cis-1,2-Dichloroethene	5	**130**	**320**	**330**	**9.3 J**	**12**	**6.4**	10 U	5 U	5 U	10 U	5 U
cis-1,3-Dichloropropene	0.4	10 U	50 U	50 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
Dibromochloromethane		10 U	50 U	50 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
Ethylbenzene	5	10 U	50 U	50 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
Methylene Chloride	5	10 U	**7.9 J**	**9.1 J**	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
Styrene	5	10 U	50 U	50 U	10 U	5 U *	5 U	10 U	5 U *	5 U	10 U	5 U
Tetrachloroethene	5	10 U	50 U	50 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
Toluene	5	10 U	50 U	50 U	10 U	5 U	0.91 J	10 U	5 U	0.94 J	10 U	5 U
trans-1,2-Dichloroethene	5	10 U	50 U	50 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
trans-1,3-Dichloropropene	0.4	10 U	50 U	50 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
Trichloroethene	5	**85**	**160**	**160**	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
Vinyl chloride	2	**17**	**34 J**	**35 J**	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
Xylenes, Total		10 U	50 U	50 U	10 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
Tentatively Identified Compound					None			None			None	
Total VOCs		386	1100	1143	9	12	9	0	0	1	0	8

Notes

- Concentration exceeds NYSDEC Class GA Standard

U - Compound was not detected at the indicated concentration

J - Compound detected below the reporting limit or
Concentration is estimated for TICS.

B - Analyte detected in the method blank and sample

M - Manual integrated compound

1 - Sample 4009-X is a duplicate sample from 4009-8

TABLE 4-2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS (VOCS)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Monitoring Interval Units	NYSDEC GA Standard ug/L	4009-11 6/24/2009 Deep ug/L	4009-11A 8/14/2007 Shallow ug/L	4009-11A 10/10/2008 Shallow ug/L	4009-11A 6/24/2009 Shallow ug/L	4009-12 8/15/2007 Deep ug/L	4009-12 12/12/2008 Deep ug/L	4009-12 6/24/2009 Deep ug/L	4009-12A 8/15/2007 Shallow ug/L	4009-12A 10/10/2008 Shallow ug/L	4009-12A 6/24/2009 Shallow ug/L	4009-13 8/15/2007 Deep ug/L
1,1,1-Trichloroethane	5	0.5 U	10 U	5 U	0.5 U	0.39 J M	**200**	**230**	**8 J**	4.1 J	**12**	10 U
1,1,2,2-Tetrachloroethane	5	0.5 U	10 U	5 U	0.5 U	10 U	20 U	2 U	10 U	5 U	0.5 U	10 U
1,1,2-Trichloroethane	1	0.5 U	10 U	5 U	0.5 U	10 U	20 U	2 U	10 U	5 U	0.5 U	10 U
1,1-Dichloroethane	5	0.5 U	10 U	5 U	0.5 U	2.4 J	**10 J**	**12**	**7.4 J**	**10**	**11**	10 U
1,1-Dichloroethene	5	0.5 U *	10 U	5 U	0.5 U *	0.17 J M	**11 J**	**19**	1.6 J	2.1 J	3.4 *	10 U
1,2-Dichloroethane	0.6	0.5 U	10 U	5 U	0.5 U	10 U	20 U	2 U	10 U	5 U	0.5 U	10 U
1,2-Dichloropropane	1	0.5 U	10 U	5 U	0.5 U	10 U	20 U	2 U	10 U	5 U	0.5 U	10 U
2-Butanone (MEK)	50	2 U	10 U	10 U	2 U	10 U	40 U	8 U	10 U	10 U	2 U	10 U
2-Hexanone		2 U *	10 U	10 U	2 U *	10 U	40 U	8 U	10 U	10 U	2 U *	10 U
4-Methyl-2-pentanone (MIBK)		2 U	10 U	10 U	2 U	10 U	40 U	8 U	10 U	10 U	2 U	10 U
Acetone		2.7	10 U	2.4 J B	2 U	10 U	40 U	9.1	10 U	1.6 J	2 U	10 U
Benzene	1	0.5 U	10 U	5 U	0.5 U	10 U	20 U	2 U	10 U	5 U	0.5 U	10 U
Bromodichloromethane	50	0.5 U	10 U	5 U	0.5 U	10 U	20 U	2 U	10 U	5 U	0.5 U	10 U
Bromoform		0.5 U	10 U	5 U	0.5 U	10 U	20 U	2 U	10 U	5 U	0.5 U	10 U
Bromomethane	5	1 U	10 U	5 U	1 U	10 U	20 U	4 U	10 U	5 U	1 U	10 U
Carbon disulfide		0.67	10 U	5 U	0.5 U	20 J N	20 U	2 U	10 U	5 U	0.5 U	10 U
Carbon tetrachloride	5	0.5 U	10 U	5 U	0.5 U	10 U	20 U	2 U	0.96 J	5 U	0.5 U	10 U
Chlorobenzene	5	0.5 U	10 U	5 U	0.5 U	10 U	20 U	2 U	10 U	5 U	0.5 U	10 U
Chloroethane	5	1 U	10 U	5 U	1 U	10 U	20 U	4 U *	10 U	5 U	1 U	10 U
Chloroform	7	0.5 U	10 U	5 U	0.5 U	10 U	20 U	2 U	10 U	5 U	0.5 U	10 U
Chloromethane		0.5 U *	10 U	5 U	0.5 U *	10 U	20 U *	2 U *	10 U	5 U *	0.5 U *	10 U
cis-1,2-Dichloroethene	5	0.5 U	10 U	5 U	0.5 U	10 U	**48**	**56**	**17**	**18**	**21**	10 U
cis-1,3-Dichloropropene	0.4	0.5 U	10 U	5 U	0.5 U	**2.7 J**	20 U	2 U	10 U	5 U	0.5 U	10 U
Dibromochloromethane		0.5 U	10 U	5 U	0.5 U	10 U	20 U	2 U	10 U	5 U	0.5 U	10 U
Ethylbenzene	5	0.5 U	10 U	5 U	0.5 U	10 U	20 U	2 U	10 U	5 U	0.5 U	10 U
Methylene Chloride	5	2 U	10 U	5 U	2 U	10 U	20 U	**14**	10 U	5 U	2 U	10 U
Styrene	5	0.5 U	10 U	5 U	0.5 U	10 U	20 U	2 U	10 U	5 U	0.5 U	10 U
Tetrachloroethene	5	0.5 U	10 U	5 U	0.5 U	10 U	20 U	2 U	10 U	5 U	0.5 U	10 U
Toluene	5	0.99	10 U	5 U	0.95	10 U	20 U	2 U	10 U	5 U	0.94	10 U
trans-1,2-Dichloroethene	5	0.5 U *	10 U	5 U	0.5 U *	10 U	20 U	1.5 J	10 U	5 U	0.25 J *	10 U
trans-1,3-Dichloropropene	0.4	0.5 U	10 U	5 U	0.5 U	10 U	20 U	2 U	10 U	5 U	0.5 U	10 U
Trichloroethene	5	0.5 U	10 U	5 U	0.5 U	1.3 J	**43**	**59**	3.8 J	3.8 J	**5.7**	10 U
Vinyl chloride	2	0.5 U	10 U	5 U	0.5 U	10 U	20 U	2 U	10 U	5 U	0.5 U	10 U
Xylenes, Total		2.5	10 U	5 U	1 U	10 U	20 U	4 U	10 U	5 U	1 U	10 U
Tentatively Identified Compound			None			None			None			None
Total VOCs		7	0	2	1	27	312	401	39	40	54	0

Notes

- Concentration exceeds NYSDEC Class GA Standard

U - Compound was not detected at the indicated concentration
J - Compound detected below the reporting limit or
Concentration is estimated for TICS.
B - Analyte detected in the method blank and sample
M - Manual integrated compound
1 - Sample 4009-X is a duplicate sample from 4009-8

TABLE 4-2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS (VOCS)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Monitoring Interval Units	NYSDEC GA Standard ug/L	4009-13 10/10/2008 Deep ug/L	4009-13 2/3/2009 Deep ug/L	4009-13 6/24/2009 Deep ug/L	4009-13A 8/15/2007 Shallow ug/L	4009-13A 10/10/2008 Shallow ug/L	4009-13A 2/3/2009 Shallow ug/L	4009-13A 6/24/2009 Shallow ug/L	4009-14 8/15/2007 Deep ug/L	4009-14 10/9/2008 Deep ug/L	4009-14 6/22/2009 Deep ug/L	4009-15 8/15/2007 Deep ug/L
1,1,1-Trichloroethane	5	5 U	0.5 U	0.5 U	10 U	5 U	0.5 U	0.5 U	10 U	5 U	5 U	10 U
1,1,2,2-Tetrachloroethane	5	5 U	0.5 U	0.5 U	10 U	5 U	0.5 U	0.5 U	10 U	5 U	5 U	10 U
1,1,2-Trichloroethane	1	5 U	0.5 U	0.5 U	10 U	5 U	0.5 U	0.5 U	10 U	5 U	5 U	10 U
1,1-Dichloroethane	5	5 U	0.5 U	0.5 U	10 U	5 U	0.5 U	0.5 U	10 U	5 U	5 U	10 U
1,1-Dichloroethene	5	5 U	0.5 U	0.5 U *	10 U	5 U	0.5 U	0.5 U *	10 U	5 U	5 U	10 U
1,2-Dichloroethane	0.6	5 U	0.5 U *	0.5 U	10 U	5 U	0.5 U	0.5 U	10 U	5 U	5 U	10 U
1,2-Dichloropropane	1	5 U	0.5 U	0.5 U	10 U	5 U	0.5 U	0.5 U	10 U	5 U	5 U	10 U
2-Butanone (MEK)	50	10 U	2 U	2 U	10 U	10 U	2 U	2 U	10 U	10 U	10 U	10 U
2-Hexanone		10 U	2 U	2 U *	10 U	10 U	2 U	2 U *	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (MIBK)		10 U	2 U	2 U	10 U	10 U	2 U	2 U	10 U	10 U	10 U	10 U
Acetone		3.6 J B	2 U	2 U	10 U	1.4 J	1.7 J B	2 U	10 U	2.1 J B	10 U	10 U
Benzene	1	5 U	0.5 U	0.5 U	10 U	5 U	0.5 U	0.5 U	10 U	5 U	5 U	10 U
Bromodichloromethane	50	5 U	0.5 U	0.5 U	10 U	5 U	0.5 U	0.5 U	10 U	5 U	5 U	10 U
Bromoform		5 U	0.5 U	0.5 U	10 U	5 U	0.5 U	0.5 U	10 U	5 U	5 U	10 U
Bromomethane	5	5 U	1 U	1 U	10 U	5 U	1 U	1 U	10 U	5 U	5 U	10 U
Carbon disulfide		5 U	0.5 U	0.5 U	10 U	5 U	0.5 U	0.5 U	10 U	5 U	5 U	10 U
Carbon tetrachloride	5	5 U	0.5 U	0.5 U	10 U	5 U	0.5 U	0.5 U	10 U	5 U	5 U	10 U
Chlorobenzene	5	5 U	0.5 U	0.5 U	10 U	5 U	0.5 U	0.5 U	10 U	5 U	5 U	10 U
Chloroethane	5	5 U	1 U	1 U	10 U	5 U	1 U	1 U	10 U	5 U	5 U	10 U
Chloroform	7	5 U	0.5 U	0.5 U	10 U	5 U	0.5 U	0.5 U	10 U	5 U	5 U	10 U
Chloromethane		5 U	0.5 U	0.5 U *	10 U	5 U	0.5 U	0.5 U *	10 U	5 U	5 U	10 U
cis-1,2-Dichloroethene	5	5 U	0.5 U	0.5 U	10 U	5 U	0.5 U	0.5 U	10 U	5 U	5 U	10 U
cis-1,3-Dichloropropene	0.4	5 U	0.5 U	0.5 U	10 U	5 U	0.5 U	0.5 U	10 U	5 U	5 U	10 U
Dibromochloromethane		5 U	0.5 U	0.5 U	10 U	5 U	0.5 U	0.5 U	10 U	5 U	5 U	10 U
Ethylbenzene	5	5 U	0.5 U	0.5 U	10 U	5 U	0.5 U	0.5 U	10 U	5 U	5 U	10 U
Methylene Chloride	5	5 U	2 U	2 U	10 U	5 U	0.81 J B	2 U	10 U	5 U	5 U *	10 U
Styrene	5	5 U	0.5 U *	0.5 U	10 U	5 U *	0.5 U *	0.5 U	10 U	5 U	5 U	10 U
Tetrachloroethene	5	5 U	0.23 J	0.5 U	10 U	5 U	0.5 U	0.5 U	10 U	5 U	5 U	10 U
Toluene	5	5 U	0.5 U	1	10 U	5 U	0.5 U	0.9	10 U	5 U	1.1 J B	10 U
trans-1,2-Dichloroethene	5	5 U	0.5 U	0.5 U *	10 U	5 U	0.5 U	0.5 U *	10 U	5 U	5 U	10 U
trans-1,3-Dichloropropene	0.4	5 U	0.5 U	0.5 U	10 U	5 U	0.5 U	0.5 U	10 U	5 U	5 U	10 U
Trichloroethene	5	5 U	0.5 U	0.5 U	10 U	5 U	0.5 U	0.5 U	10 U	5 U	5 U	10 U
Vinyl chloride	2	5 U	0.5 U	0.5 U	10 U	5 U	0.5 U	0.5 U	10 U	5 U	5 U	10 U
Xylenes, Total		5 U	1.5 U	2.5	10 U	5 U	1.5 U	1 U	10 U	5 U	2.5 J	10 U
Tentatively Identified Compound					None				None			None
Total VOCs		4	0.2	3.5	0	1	3	1	0	2	4	0

Notes

- Concentration exceeds NYSDEC Class GA Standard

U - Compound was not detected at the indicated concentration

J - Compound detected below the reporting limit or
Concentration is estimated for TICS.

B - Analyte detected in the method blank and sample

M - Manual integrated compound

1 - Sample 4009-X is a duplicate sample from 4009-8

TABLE 4-2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS (VOCS)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Monitoring Interval Units	NYSDEC GA Standard ug/L	4009-15 10/10/2008 Deep ug/L	4009-15 2/3/2009 Deep ug/L	4009-15 6/22/2009 Deep ug/L	Trip Blank 6/23/2009 - ug/L	Trip Blank 6/24/2009 - ug/L
1,1,1-Trichloroethane	5	5 U	0.5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5	5 U	0.5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	1	5 U	0.5 U	5 U	5 U	5 U
1,1-Dichloroethane	5	5 U	0.5 U	1.3 J	5 U	5 U
1,1-Dichloroethene	5	5 U	0.5 U	5 U	5 U	5 U
1,2-Dichloroethane	0.6	5 U	0.5 U *	5 U	5 U	5 U
1,2-Dichloropropane	1	5 U	0.5 U	5 U	5 U	5 U
2-Butanone (MEK)	50	10 U	2 U	10 U	10 U	10 U
2-Hexanone		10 U	2 U	10 U	10 U	10 U
4-Methyl-2-pentanone (MIBK)		10 U	2 U	10 U	10 U	10 U
Acetone		2 J	1.4 J B	10 U	10 U	10 U
Benzene	1	5 U	0.5 U	5 U	5 U	5 U
Bromodichloromethane	50	5 U	0.5 U	5 U	5 U	5 U
Bromoform		5 U	0.5 U	5 U	5 U	5 U
Bromomethane	5	5 U	1 U	5 U	5 U	5 U
Carbon disulfide		5 U	0.5 U	5 U	5 U	5 U
Carbon tetrachloride	5	5 U	0.5 U	5 U	5 U	5 U
Chlorobenzene	5	5 U	0.5 U	5 U	5 U	5 U
Chloroethane	5	5 U	1 U	5 U *	5 U	5 U *
Chloroform	7	5 U	0.5 U	5 U	5 U	5 U
Chloromethane		5 U	0.5 U	5 U	5 U	5 U *
cis-1,2-Dichloroethene	5	5 U	0.5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	0.4	5 U	0.5 U	5 U	5 U	5 U
Dibromochloromethane		5 U	0.5 U	5 U	5 U	5 U
Ethylbenzene	5	5 U	0.5 U	5 U	5 U	5 U
Methylene Chloride	5	5 U	2 U	5 U	5 U *	5 U
Styrene	5	5 U	0.5 U *	5 U	5 U	5 U
Tetrachloroethene	5	5 U	0.71	5 U	5 U	5 U
Toluene	5	5 U	0.5 U	0.95 J	5 U	5 U
trans-1,2-Dichloroethene	5	5 U	0.5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	0.4	5 U	0.5 U	5 U	5 U	5 U
Trichloroethene	5	5 U	0.22 J	5 U	5 U	5 U
Vinyl chloride	2	5 U	0.5 U	5 U	5 U	5 U
Xylenes, Total		5 U	1.5 U	2.5 J	5 U	5 U
Tentatively Identified Compound						
Total VOCs		0	2	5		

Notes

- Concentration exceeds NYSDEC Class GA Standard

U - Compound was not detected at the indicated concentration

J - Compound detected below the reporting limit or
Concentration is estimated for TICS.

B - Analyte detected in the method blank and sample

M - Manual integrated compound

1 - Sample 4009-X is a duplicate sample from 4009-8

TABLE 4-3
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS (METALS)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Monitoring Interval Units	NYSDEC GA Standard ug/L	4009-11A 10/10/2008 Deep ug/L	4009-11A(1) 10/10/2008 Deep ug/L	4009-12 8/15/2007 Deep ug/L	4009-12 10/10/2008 Deep ug/L	4009-12(1) 10/10/2008 Deep ug/L	4009-12 6/24/2009 Deep ug/L
Aluminum		115 B	200 U	200 U	8360	456	85.5 U
Antimony		60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60 U
Arsenic	25	10.0 U	10.0 U	10.0 U	8.6 B	10.0 U	10 U
Barium	1000	81.2 B	79.6 B	24.9 B	117 B	72.8 B	66.6 B
Beryllium		5.0 U	5.0 U	5.0 U	0.40 B	5.0 U	0.2 U
Cadmium	5	0.6 B	0.4 B	5.0 U	0.5 B	5.0 U	5 U
Calcium		111000	106000	63900	150000	135000	148000
Chromium	50	1.6 B	10.0 U	10.0 U	16.5	10.0 U	10 U
Cobalt		4.6 B	3.5 B	50.0 U	29.6 B	2.3 B	50 J B
Copper	200	3.3 B	2.0 B	3.1 B	28.9	1.6 B	25 J
Iron	300	**323**	67.6 B	**8940**	**59500**	**3890**	**1300**
Lead	25	10.0 U	10.0 U	10.0 U	93.3	4.2 B	2.4 J
Magnesium		44100	42300	11400	25300	21500	22100
Manganese	300	**369**	**365**	247	**546**	54.6	18.9
Mercury	0.7	0.200 U	0.200 U	0.20 U	0.200 U	0.200 U	0.2 U
Nickel	100	14.0 B	13.9 B	1.7 B	21.0 B	2.1 B	40 U
Potassium		984 B	1060 B	4380 B	3890 B	2540 B	2360
Selenium	10	35.0 U	35.0 U	35.0 U	35.0 U	35.0 U	35 U
Silver	50	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U
Sodium	20000	**52700**	**50400**	**32400**	**104000**	**102000**	**109000**
Thallium		25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25 U
Vanadium		50.0 U	50.0 U	0.84 B	10.8 B	50.0 U	50 U
Zinc		11.6 B	6.5 B	60.0 U	156	10.0 B	12.5

Notes
U - The compound was not detected at the indicated concentration.
B - Analyte detected in the associated method blank.
J - Concentration greater than MDL but less than RL, result estimated
(1) - Sample results for dissolved metals.

TABLE 4-3
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS (METALS)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Monitoring Interval Units	NYSDEC GA Standard ug/L	4009-12A 8/15/2007 Shallow ug/L	4009-12A[(1)] 8/15/2007 Shallow ug/L	4009-12A 10/10/2008 Shallow ug/L	4009-12A[(1)] 10/10/2008 Shallow ug/L	4009-12A 6/24/2009 Shallow ug/L	4009-13 6/24/2009 Shallow ug/L
Aluminum		200 U	67.2 B	200 U	200 U	200 U	200 U
Antimony		60.0 U	60.0 U	60.0 U	60.0 U	20 U	20 U
Arsenic	25	10.0 U	10.0 U	10.0 U	10.0 U	10 U	6.9 J
Barium	1000	51.2 B	49.4 B	2.0 B	0.90 B	51.0	128 B
Beryllium		0.29 B	5.0 U	5.0 U	5.0 U	2 U	2 U
Cadmium	5	5.0 U	5.0 U	5.0 U	5.0 U	1 U	1 U
Calcium		125000	126000	3960 B	2170 B	134000	114000
Chromium	50	10.0 U	10.0 U	2.1 B	10.0 U	4 U	4 U
Cobalt		50.0 U	50.0 U	50.0 U	50.0 U	4 U	4 U
Copper	200	3.2 B	2.0 B	25.0 U	25.0 U	10 U	10 U
Iron	300	**590**	**566**	**5480**	100 U	**1770 B**	**1260**
Lead	25	10.0 U	10.0 U	10.0 U	10.0 U	5 U	5 U
Magnesium		23200	23500	7770	9270	25600 B	42000
Manganese	300	**335**	**337**	33.3	1.3 B	**414 B**	**652**
Mercury	0.7	0.20 U	0.20 U	0.200 U	0.200 U	0.2 U	0.2 U
Nickel	100	1.7 B	1.4 B	2.2 B	40.0 U	10 U	1.9 J
Potassium		2160 B	2220 B	2080 B	2160 B	2280	2160
Selenium	10	35.0 U	35.0 U	35.0 U	35.0 U	15 U	15 U
Silver	50	10.0 U	10.0 U	10.0 U	10.0 U	3 U	3 U
Sodium	20000	**93500**	**93300**	**94700**	**102000**	**107000**	**97500**
Thallium		25.0 U	25.0 U	25.0 U	25.0 U	20 U	20 U
Vanadium		0.85 B	50.0 U	50.0 U	50.0 U	5 U	5 U
Zinc		60.0 U	60.0 U	5.2 B	60.0 U	10.1	24.0

Notes
U - The compound was not detected at the indicated concentration.
B - Analyte detected in the associated method blank.
J - Concentration greater than MDL but less than RL, result estimate
(1) - Sample results for dissolved metals.

TABLE 4-3
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS (METALS)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Monitoring Interval Units	NYSDEC GA Standard ug/L	4009-13A 8/15/2007 Shallow ug/L	4009-13A 10/10/2008 Shallow ug/L	4009-13A(1) 10/10/2008 Shallow ug/L	4009-15 8/15/2007 Deep ug/L	4009-15 6/22/2009 Deep ug/L	WELL 1-A EFF 8/27/2007 Pumping Well ug/L
Aluminum		200 U	200 U	200 U	200 U	80.5 J	200 U
Antimony		60.0 U	60.0 U	60.0 U	60.0 U	20.0 U	60.0 U
Arsenic	25	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Barium	1000	74.1 B	80.7 B	78.5 B	4.6 B	9.5 B	48.3 B
Beryllium		5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	5.0 U
Cadmium	5	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U
Calcium		155000	166000	154000	5650	32000 B	101000
Chromium	50	10.0 U	10.0 U	10.0 U	10.0 U	4 U	10.0 U
Cobalt		50.0 U	1.3 B	1.4 B	50.0 U	1.4 J B	50.0 U
Copper	200	3.8 B	25.0 U	25.0 U	3.1 B	5.2 J	25.0 U
Iron	300	31.2 B	**435**	176	**638**	**3790**	100 U
Lead	25	10.0 U	10.0 U	10.0 U	10.0 U	5 U	10.0 U
Magnesium		21200	22900	21600	1520 B	23900	15300
Manganese	300	2.6 B	6.1 B	4.7 B	8.6 B	49.4	99.1
Mercury	0.7	0.20 U	0.200 U	0.200 U	0.20 U	0.2 U	0.20 U
Nickel	100	1.6 B	1.7 B	1.5 B	1.6 B	1.4 J	1.6 B
Potassium		3080 B	3130 B	3170 B	6160	2460	1810 B
Selenium	10	35.0 U	35.0 U	35.0 U	35.0 U	15 U	35.0 U
Silver	50	10.0 U	10.0 U	10.0 U	10.0 U	3 U	10.0 U
Sodium	20000	**116000**	**137000**	**129000**	8750	**69300**	**65400**
Thallium		25.0 U	25.0 U	25.0 U	25.0 U	20 U	25.0 U
Vanadium		50.0 U	50.0 U	50.0 U	0.78 B	5 U	50.0 U
Zinc		60.0 U	4.6 B	60.0 U	4.6 B	104	60.0 U

Notes
U - The compound was not detected at the indicated concentration.
B - Analyte detected in the associated method blank.
J - Concentration greater than MDL but less than RL, result estimate
(1) - Sample results for dissolved metals.

New York State Department of Environmental Conservation
Vestal Water Supply Site Quarterly Report and Annual Groundwater Monitoring Summary

Appendix A

Monthly Reports and System Operation and Maintenance Logs

0266352 / ALB

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
April 2009

SECTION I – SUMMARY OF ACTIVITIES

System ran continuously during the month. System flow dropped (at 48 HTZ) from 300 GPD at beginning of month to 282 GPD at end of month.

Routine system checks are recorded on attached log. Routine maintenance activities conducted during the month are outlined below.

SECTION II – MONTHLY OPERATIONS & MAINTENANCE

- Routine inspection of site
- Cleaned up litter
- Cut grass
- Checked belts and air filters on blower
- Removed calcium buildup on flapper

SECTION III – REPAIR WORK COMPLETED

- None

SECTION IV – REPAIR WORK NEEDED

- Fill depressions created during pump replacement

SECTION V – RECOMMENDATIONS

- Fill depressions.

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
May 2009

SECTION I – SUMMARY OF ACTIVITIES

System shut down one night due to power failure. System was started up next day and continues to run in manual mode but control panel is not operating. System flow ranged from 268 GPD at beginning of month to 252 GPD at end of month.

Routine system checks are recorded on attached log. Routine maintenance activities conducted during the month are outlined below.

SECTION II – MONTHLY OPERATIONS & MAINTENANCE

- Routine inspection of site
- Cleaned up litter
- Cut grass
- Checked belts and air filters on blower

SECTION III – REPAIR WORK COMPLETED

- None

SECTION IV – REPAIR WORK NEEDED

- Repair control panel
- Fill depressions created during pump replacement

SECTION V – RECOMMENDATIONS

- Repair control panel
- Fill depressions.

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
June 2009

SECTION I – SUMMARY OF ACTIVITIES

System operated entire month without interruption. System continues to run in manual mode due to ongoing problem with control panel. System flow ranged from 249 GPD at beginning of month to 238 GPD at end of month.

Routine system checks are recorded on attached log. Routine maintenance activities conducted during the month are outlined below.

SECTION II – MONTHLY OPERATIONS & MAINTENANCE

- Routine inspection of site
- Cleaned up litter
- Cut grass
- Checked belts and air filters on blower

SECTION III – REPAIR WORK COMPLETED

- None

SECTION IV – REPAIR WORK NEEDED

- Repair control panel
- Fill depressions created during pump replacement

SECTION V – RECOMMENDATIONS

- Repair control panel
- Fill depressions.

VESTAL WELL 1-1 MONTHLY O & M LOG April 2009

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																															
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)	300												292							287							282				
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	X	X	X	
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	

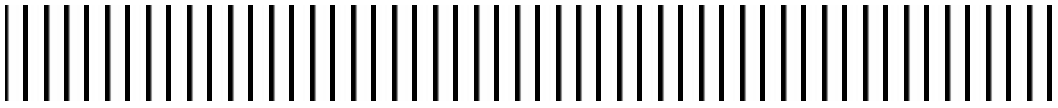
ENVIRONMENTAL COMPLIANCE, INC.											VESTAL WELL 1-1 MONTHLY O & M LOG															May 2009						
DAY	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**
TIME																															
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)	268										262							258							252						
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	X	X	X	
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	

ENVIRONMENTAL COMPLIANCE, INC.								VESTAL WELL 1-1 MONTHLY O & M LOG															June 2009									
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																															
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)	249							247							240							238							238		
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	X		X	X	
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	

New York State Department of Environmental Conservation
Vestal Water Supply Site Quarterly Report and Annual Groundwater Monitoring Summary

Appendix B

Analytical Reporting Forms



0266352 / ALB

MALCOLM PIRNIE

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 220-8806-1

SDG Number: 220-8806

Job Description: NYSDEC Standby - Vestal Water Supply

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

Attention: Mr. Jeremy Wyckoff

Approved for release.
Cheryl Cascella
4/28/2009 11:57 AM

Designee for
Johanna Dubauskas
Project Manager I
johanna.dubauskas@testamericainc.com
04/28/2009

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

Comments
No additional comments.

Receipt
The following sample was received at the laboratory with no sample collection time documented on the chain of custody: TRIP BLANK (220-8806-3). As a result, a sample collection time of 12:00 a.m. on the date of collection has been used.

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

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

Case Narrative for Job: 220-8806

Client: MPI
Date: April 28, 2009

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 28, 2009
Date

FORMULAS FOR NYSDEC SAMPLE CALCULATIONS

Volatiles

$$\frac{(Ax)(IS)(DF)}{(AIS)(RRF)(V)(\%\ solids)} = C$$

$$\frac{(AX)(IS)(VT)(1000)(DF)}{(AIS)(RRF)(VA)(V)(\%\ solids)} = C \quad \text{(for medium level soils)}$$

SemiVolatiles

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

Pesticides

$$\frac{(AX)(VE)(DF)}{(RRF)(V)(\%\ solids)(volume\ injected)} = C$$

PCBs for compound/retention time

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

DRO/CTETPH

$$\frac{(AX)(VE)(DF)}{(RRF)(V)(\%\ solids)(volume\ injected)} = C$$

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: 220-8806-1
Sdg Number: 220-8806

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
220-8806-1	WELL 1-1A INF	Water	04/16/2009 1135	04/17/2009 1000
220-8806-2	WELL 1-1A EFF	Water	04/16/2009 1150	04/17/2009 1000
220-8806-3TB	TRIP BLANK	Water	04/16/2009 0000	04/17/2009 1000

METHOD SUMMARY

Client: Malcolm Pirnie, Inc.

Job Number: 220-8806-1
Sdg Number: 220-8806

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (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: 220-8806-1
Sdg Number: 220-8806

Method	Analyst	Analyst ID
SW846 8260B	Kostrzewska, Barbara	BK

Client: Malcolm Pirnie, Inc.

Job Number: 220-8806-1
Sdg Number: 220-8806

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

Lab Sample ID: 220-8806-1
Client Matrix: Water

Date Sampled: 04/16/2009 1135
Date Received: 04/17/2009 1000

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 2.0
Date Analyzed: 04/20/2009 1626
Date Prepared: 04/20/2009 1626

Analysis Batch: 220-26455

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L4445.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	20	U *	2.1	20
Benzene	10	U	1.5	10
Bromodichloromethane	10	U	0.96	10
Bromoform	10	U	0.92	10
Bromomethane	10	U	4.2	10
Methyl Ethyl Ketone	20	U	2.2	20
Carbon disulfide	10	U	1.8	10
Carbon tetrachloride	10	U	2.1	10
Chlorobenzene	10	U	1.4	10
Chloroethane	10	U	2.1	10
Chloroform	10	U	1.3	10
Chloromethane	10	U	2.2	10
Dibromochloromethane	10	U	1.1	10
1,1-Dichloroethane	25		2.1	10
1,2-Dichloroethane	10	U	1.4	10
1,1-Dichloroethene	20		1.7	10
1,2-Dichloropropane	10	U	1.4	10
cis-1,3-Dichloropropene	10	U	0.56	10
trans-1,3-Dichloropropene	10	U	1.1	10
Ethylbenzene	10	U	1.7	10
2-Hexanone	20	U	2.2	20
Methylene Chloride	2.3	J B	1.6	10
methyl isobutyl ketone	20	U	0.76	20
Styrene	10	U	1.3	10
1,1,2,2-Tetrachloroethane	10	U	1.6	10
Tetrachloroethene	10	U	1.6	10
Toluene	10	U	1.4	10
1,1,1-Trichloroethane	220		1.4	10
1,1,2-Trichloroethane	10	U	1.3	10
Trichloroethene	55		1.2	10
Vinyl chloride	9.6	J	2.0	10
Xylenes, Total	10	U	4.5	10
cis-1,2-Dichloroethene	60		2.0	10
trans-1,2-Dichloroethene	10	U	1.5	10

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92	65 - 136
4-Bromofluorobenzene	87	51 - 142
Dibromofluoromethane	97	68 - 132
Toluene-d8 (Surr)	91	63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-8806-1
Sdg Number: 220-8806

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

Lab Sample ID: 220-8806-2
Client Matrix: Water

Date Sampled: 04/16/2009 1150
Date Received: 04/17/2009 1000

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 04/20/2009 1451
Date Prepared: 04/20/2009 1451

Analysis Batch: 220-26455

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L4441.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	96	65 - 136
4-Bromofluorobenzene	87	51 - 142
Dibromofluoromethane	98	68 - 132
Toluene-d8 (Surr)	93	63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-8806-1
Sdg Number: 220-8806

Client Sample ID: **TRIP BLANK**

Lab Sample ID: 220-8806-3TB
Client Matrix: Water

Date Sampled: 04/16/2009 0000
Date Received: 04/17/2009 1000

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 04/20/2009 1316
Date Prepared: 04/20/2009 1316

Analysis Batch: 220-26455

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L4437.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	1.5	J B	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106	65 - 136
4-Bromofluorobenzene	97	51 - 142
Dibromofluoromethane	111	68 - 132
Toluene-d8 (Surr)	105	63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-8806-1
Sdg Number: 220-8806

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	12DCE %Rec	TOL %Rec	BFB %Rec
220-8806-1	WELL 1-1A INF	97	92	91	87
220-8806-2	WELL 1-1A EFF	98	96	93	87
220-8806-3	TRIP BLANK	111	106	105	97
MB 220-26455/3		106	103	101	96
LCS 220-26455/2		111	103	100	93

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane	68-132
12DCE = 1,2-Dichloroethane-d4 (Surr)	65-136
TOL = Toluene-d8 (Surr)	63-127
BFB = 4-Bromofluorobenzene	51-142

Client: Malcolm Pirnie, Inc.

Job Number: 220-8806-1
Sdg Number: 220-8806

Method Blank - Batch: 220-26455

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 220-26455/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/20/2009 1252
Date Prepared: 04/20/2009 1252

Analysis Batch: 220-26455
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L4436.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Acetone	10	U	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	1.5	J	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103	65 - 136
4-Bromofluorobenzene	96	51 - 142
Dibromofluoromethane	106	68 - 132
Toluene-d8 (Surr)	101	63 - 127

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

Client: Malcolm Pirnie, Inc.

Job Number: 220-8806-1
Sdg Number: 220-8806

Lab Control Sample - Batch: 220-26455

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 220-26455/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/20/2009 1141
Date Prepared: 04/20/2009 1141

Analysis Batch: 220-26455
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L4433.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	20.0	30.4	152	41 - 150	*
Benzene	20.0	22.6	113	66 - 131	
Bromodichloromethane	20.0	20.9	105	78 - 120	
Bromoform	20.0	17.5	87	66 - 120	
Bromomethane	20.0	15.3	76	47 - 150	
Methyl Ethyl Ketone	20.0	20.4	102	42 - 150	
Carbon disulfide	20.0	17.9	90	55 - 150	
Carbon tetrachloride	20.0	22.0	110	69 - 135	
Chlorobenzene	20.0	19.6	98	68 - 120	
Chloroethane	20.0	19.4	97	49 - 150	
Chloroform	20.0	22.4	112	77 - 126	
Chloromethane	20.0	20.2	101	33 - 150	
Dibromochloromethane	20.0	19.1	96	75 - 120	
1,1-Dichloroethane	20.0	22.0	110	75 - 130	
1,2-Dichloroethane	20.0	21.4	107	73 - 127	
1,1-Dichloroethene	20.0	28.4	142	65 - 142	
1,2-Dichloropropane	20.0	21.8	109	69 - 129	
cis-1,3-Dichloropropene	20.0	20.9	105	63 - 120	
trans-1,3-Dichloropropene	20.0	20.7	103	73 - 120	
Ethylbenzene	20.0	19.8	99	62 - 120	
2-Hexanone	20.0	16.3	82	46 - 150	
Methylene Chloride	20.0	22.0	110	56 - 138	
methyl isobutyl ketone	20.0	17.5	87	70 - 122	
Styrene	20.0	18.1	90	47 - 120	
1,1,2,2-Tetrachloroethane	20.0	17.7	88	75 - 124	
Tetrachloroethene	20.0	19.4	97	50 - 120	
Toluene	20.0	20.0	100	66 - 120	
1,1,1-Trichloroethane	20.0	22.4	112	73 - 135	
1,1,2-Trichloroethane	20.0	21.2	106	76 - 125	
Trichloroethene	20.0	22.2	111	60 - 122	
Vinyl chloride	20.0	19.6	98	61 - 150	
Xylenes, Total	60.0	58.1	97	58 - 120	
cis-1,2-Dichloroethene	20.0	20.8	104	65 - 120	
trans-1,2-Dichloroethene	20.0	23.0	115	58 - 120	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103	65 - 136
4-Bromofluorobenzene	93	51 - 142
Dibromofluoromethane	111	68 - 132
Toluene-d8 (Surr)	100	63 - 127

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

DATA REPORTING QUALIFIERS

Client: Malcolm Pirnie, Inc.

Job Number: 220-8806-1
Sdg Number: 220-8806

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
	B	The analyte was found in an associated blank, as well as in the sample.

Client: Malcolm Pirnie, Inc.

Job Number: 220-8806-1
Sdg Number: 220-8806

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:220-26455					
LCS 220-26455/2	Lab Control Sample	T	Water	8260B	
MB 220-26455/3	Method Blank	T	Water	8260B	
220-8806-1	WELL 1-1A INF	T	Water	8260B	
220-8806-2	WELL 1-1A EFF	T	Water	8260B	
220-8806-3TB	TRIP BLANK	T	Water	8260B	

Report Basis
T = Total

Client: Malcolm Pirnie, Inc.

Job Number: 220-8806-1
SDG: 220-8806

Laboratory Chronicle

Lab ID: 220-8806-1 **Client ID: WELL 1-1A INF**

Sample Date/Time: 04/16/2009 11:35 Received Date/Time: 04/17/2009 10:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-8806-B-1		220-26455		04/20/2009 16:26	2	TAL CT	BK
A:8260B	220-8806-B-1		220-26455		04/20/2009 16:26	2	TAL CT	BK

Lab ID: 220-8806-2 **Client ID: WELL 1-1A EFF**

Sample Date/Time: 04/16/2009 11:50 Received Date/Time: 04/17/2009 10:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-8806-B-2		220-26455		04/20/2009 14:51	1	TAL CT	BK
A:8260B	220-8806-B-2		220-26455		04/20/2009 14:51	1	TAL CT	BK

Lab ID: 220-8806-3 **Client ID: TRIP BLANK**

Sample Date/Time: 04/16/2009 00:00 Received Date/Time: 04/17/2009 10:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-8806-A-3		220-26455		04/20/2009 13:16	1	TAL CT	BK
A:8260B	220-8806-A-3		220-26455		04/20/2009 13:16	1	TAL CT	BK

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	MB 220-26455/3		220-26455		04/20/2009 12:52	1	TAL CT	BK
A:8260B	MB 220-26455/3		220-26455		04/20/2009 12:52	1	TAL CT	BK

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCS 220-26455/2		220-26455		04/20/2009 11:41	1	TAL CT	BK
A:8260B	LCS 220-26455/2		220-26455		04/20/2009 11:41	1	TAL CT	BK

Lab References:
TAL CT = TestAmerica Connecticut

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 220-9219-1

SDG Number: 220-9219

Job Description: NYSDEC Standby - Vestal Water Supply

For:
Malcolm Pirnie, Inc.
855 Route 146
Suite 210
Clifton Park, NY 12065

Attention: Mr. Jeremy Wyckoff

Approved for release.
Joan Widomski
6/16/2009 6:16 PM

Designee for
Johanna Dubauskas
Project Manager I
johanna.dubauskas@testamericainc.com
06/16/2009

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: 220-9219

Client: Malcolm Pirnie, Inc.
Date: June 16, 2009

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

June 16, 2009
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

$$\frac{(Ax)(IS)(DF)}{(AIS)(RRF)(V)(\%\ solids)} = C$$

$$\frac{(AX)(IS)(VT)(1000)(DF)}{(AIS)(RRF)(VA)(V)(\%\ solids)} = C \quad \text{(for medium level soils)}$$

SemiVolatiles

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

Pesticides

$$\frac{(AX)(VE)(DF)}{(RRF)(V)(\%\ solids)(volume\ injected)} = C$$

PCBs for compound/retention time

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

DRO/CTETPH

$$\frac{(AX)(VE)(DF)}{(RRF)(V)(\%\ solids)(volume\ injected)} = C$$

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: 220-9219-1
Sdg Number: 220-9219

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
220-9219-1	Well 1-1A INF	Water	05/30/2009 0750	06/02/2009 0940
220-9219-2	Well 1-1A EFF	Water	05/30/2009 0755	06/02/2009 0940
220-9219-3TB	Trip Blank	Water	05/30/2009 0000	06/02/2009 0940

EXECUTIVE SUMMARY - Detections

Client: Malcolm Pirnie, Inc.

Job Number: 220-9219-1
Sdg Number: 220-9219

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
220-9219-1	**WELL 1-1A INF**					
Acetone		12	J	40	ug/L	8260B
1,1-Dichloroethane		27		20	ug/L	8260B
1,1-Dichloroethene		24	*	20	ug/L	8260B
Methylene Chloride		11	J B	20	ug/L	8260B
1,1,1-Trichloroethane		250		20	ug/L	8260B
Trichloroethene		50		20	ug/L	8260B
Vinyl chloride		11	J	20	ug/L	8260B
cis-1,2-Dichloroethene		53		20	ug/L	8260B

METHOD SUMMARY

Client: Malcolm Pirnie, Inc.

Job Number: 220-9219-1
Sdg Number: 220-9219

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (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: 220-9219-1
Sdg Number: 220-9219

Method	Analyst	Analyst ID
SW846 8260B	Kostrzewska, Barbara	BK

Client: Malcolm Pirnie, Inc.

Job Number: 220-9219-1
Sdg Number: 220-9219

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

Lab Sample ID: 220-9219-1
Client Matrix: Water

Date Sampled: 05/30/2009 0750
Date Received: 06/02/2009 0940

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 4.0
Date Analyzed: 06/05/2009 1249
Date Prepared: 06/05/2009 1249

Analysis Batch: 220-27847

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V4618.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	12	J	4.1	40
Benzene	20	U	3.0	20
Bromodichloromethane	20	U	1.9	20
Bromoform	20	U	1.8	20
Bromomethane	20	U	8.5	20
Methyl Ethyl Ketone	40	U	4.4	40
Carbon disulfide	20	U	3.6	20
Carbon tetrachloride	20	U	4.3	20
Chlorobenzene	20	U	2.9	20
Chloroethane	20	U	4.2	20
Chloroform	20	U	2.7	20
Chloromethane	20	U	4.4	20
Dibromochloromethane	20	U	2.2	20
1,1-Dichloroethane	27		4.1	20
1,2-Dichloroethane	20	U	2.9	20
1,1-Dichloroethene	24	*	3.3	20
1,2-Dichloropropane	20	U	2.8	20
cis-1,3-Dichloropropene	20	U	1.1	20
trans-1,3-Dichloropropene	20	U	2.3	20
Ethylbenzene	20	U	3.5	20
2-Hexanone	40	U	4.4	40
Methylene Chloride	11	J B	3.1	20
methyl isobutyl ketone	40	U	1.5	40
Styrene	20	U	2.6	20
1,1,2,2-Tetrachloroethane	20	U	3.2	20
Tetrachloroethene	20	U	3.2	20
Toluene	20	U	2.9	20
1,1,1-Trichloroethane	250		2.8	20
1,1,2-Trichloroethane	20	U	2.6	20
Trichloroethene	50		2.5	20
Vinyl chloride	11	J	4.0	20
Xylenes, Total	20	U	9.1	20
cis-1,2-Dichloroethene	53		4.0	20
trans-1,2-Dichloroethene	20	U	3.0	20

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	114	65 - 136
4-Bromofluorobenzene	99	51 - 142
Dibromofluoromethane	113	68 - 132
Toluene-d8 (Surr)	104	63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-9219-1
Sdg Number: 220-9219

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

Lab Sample ID: 220-9219-2
Client Matrix: Water

Date Sampled: 05/30/2009 0755
Date Received: 06/02/2009 0940

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 06/05/2009 1314
Date Prepared: 06/05/2009 1314

Analysis Batch: 220-27847

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V4619.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U *	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	115	65 - 136
4-Bromofluorobenzene	98	51 - 142
Dibromofluoromethane	109	68 - 132
Toluene-d8 (Surr)	104	63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-9219-1
Sdg Number: 220-9219

Client Sample ID: **Trip Blank**

Lab Sample ID: 220-9219-3TB
Client Matrix: Water

Date Sampled: 05/30/2009 0000
Date Received: 06/02/2009 0940

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 06/05/2009 1224
Date Prepared: 06/05/2009 1224

Analysis Batch: 220-27847

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V4617.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U *	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	112	65 - 136
4-Bromofluorobenzene	100	51 - 142
Dibromofluoromethane	108	68 - 132
Toluene-d8 (Surr)	104	63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-9219-1
Sdg Number: 220-9219

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	12DCE %Rec	TOL %Rec	BFB %Rec
220-9219-1	Well 1-1A INF	113	114	104	99
220-9219-2	Well 1-1A EFF	109	115	104	98
220-9219-3	Trip Blank	108	112	104	100
MB 220-27847/2		107	107	107	107
LCS 220-27847/3		104	109	104	99

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane	68-132
12DCE = 1,2-Dichloroethane-d4 (Surr)	65-136
TOL = Toluene-d8 (Surr)	63-127
BFB = 4-Bromofluorobenzene	51-142

Client: Malcolm Pirnie, Inc.

Job Number: 220-9219-1
Sdg Number: 220-9219

Method Blank - Batch: 220-27847

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 220-27847/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/05/2009 1109
Date Prepared: 06/05/2009 1109

Analysis Batch: 220-27847
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V4614.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Acetone	10	U	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	2.5	J	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107	65 - 136
4-Bromofluorobenzene	107	51 - 142
Dibromofluoromethane	107	68 - 132
Toluene-d8 (Surr)	107	63 - 127

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

Client: Malcolm Pirnie, Inc.

Job Number: 220-9219-1
Sdg Number: 220-9219

Lab Control Sample - Batch: 220-27847

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 220-27847/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/05/2009 1134
Date Prepared: 06/05/2009 1134

Analysis Batch: 220-27847
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V4615.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	10.0	13.0	130	41 - 150	
Benzene	10.0	10.8	108	66 - 131	
Bromodichloromethane	10.0	10.7	107	78 - 120	
Bromoform	10.0	9.40	94	66 - 120	
Bromomethane	10.0	10.5	105	47 - 150	
Methyl Ethyl Ketone	10.0	14.0	140	42 - 150	
Carbon disulfide	10.0	12.4	124	55 - 150	
Carbon tetrachloride	10.0	12.2	122	69 - 135	
Chlorobenzene	10.0	10.0	100	68 - 120	
Chloroethane	10.0	13.6	136	49 - 150	
Chloroform	10.0	11.5	115	77 - 126	
Chloromethane	10.0	14.7	147	33 - 150	
Dibromochloromethane	10.0	10.4	104	75 - 120	
1,1-Dichloroethane	10.0	11.9	119	75 - 130	
1,2-Dichloroethane	10.0	11.7	117	73 - 127	
1,1-Dichloroethene	10.0	14.4	144	65 - 142	*
1,2-Dichloropropane	10.0	10.9	109	69 - 129	
cis-1,3-Dichloropropene	10.0	9.08	91	63 - 120	
trans-1,3-Dichloropropene	10.0	10.4	104	73 - 120	
Ethylbenzene	10.0	9.99	100	62 - 120	
2-Hexanone	10.0	8.14	81	46 - 150	J
Methylene Chloride	10.0	10.3	103	56 - 138	
methyl isobutyl ketone	10.0	10.7	107	70 - 122	
Styrene	10.0	8.46	85	47 - 120	
1,1,2,2-Tetrachloroethane	10.0	11.4	114	75 - 124	
Tetrachloroethene	10.0	9.02	90	50 - 120	
Toluene	10.0	10.9	109	66 - 120	
1,1,1-Trichloroethane	10.0	11.5	115	73 - 135	
1,1,2-Trichloroethane	10.0	10.6	106	76 - 125	
Trichloroethene	10.0	10.1	101	60 - 122	
Vinyl chloride	10.0	14.2	142	61 - 150	
Xylenes, Total	30.0	28.2	94	58 - 120	
cis-1,2-Dichloroethene	10.0	9.51	95	65 - 120	
trans-1,2-Dichloroethene	10.0	10.8	108	58 - 120	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109	65 - 136
4-Bromofluorobenzene	99	51 - 142
Dibromofluoromethane	104	68 - 132
Toluene-d8 (Surr)	104	63 - 127

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

DATA REPORTING QUALIFIERS

Client: Malcolm Pirnie, Inc.

Job Number: 220-9219-1
Sdg Number: 220-9219

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
	B	The analyte was found in an associated blank, as well as in the sample.

Client: Malcolm Pirnie, Inc.

Job Number: 220-9219-1
Sdg Number: 220-9219

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:220-27847					
LCS 220-27847/3	Lab Control Sample	T	Water	8260B	
MB 220-27847/2	Method Blank	T	Water	8260B	
220-9219-1	Well 1-1A INF	T	Water	8260B	
220-9219-2	Well 1-1A EFF	T	Water	8260B	
220-9219-3TB	Trip Blank	T	Water	8260B	

Report Basis
T = Total

Client: Malcolm Pirnie, Inc.

Job Number: 220-9219-1
SDG: 220-9219

Laboratory Chronicle

Lab ID: 220-9219-1 **Client ID: Well 1-1A INF**

Sample Date/Time: 05/30/2009 07:50 Received Date/Time: 06/02/2009 09:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9219-B-1		220-27847		06/05/2009 12:49	4	TAL CT	BK
A:8260B	220-9219-B-1		220-27847		06/05/2009 12:49	4	TAL CT	BK

Lab ID: 220-9219-2 **Client ID: Well 1-1A EFF**

Sample Date/Time: 05/30/2009 07:55 Received Date/Time: 06/02/2009 09:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9219-A-2		220-27847		06/05/2009 13:14	1	TAL CT	BK
A:8260B	220-9219-A-2		220-27847		06/05/2009 13:14	1	TAL CT	BK

Lab ID: 220-9219-3 **Client ID: Trip Blank**

Sample Date/Time: 05/30/2009 00:00 Received Date/Time: 06/02/2009 09:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9219-A-3		220-27847		06/05/2009 12:24	1	TAL CT	BK
A:8260B	220-9219-A-3		220-27847		06/05/2009 12:24	1	TAL CT	BK

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	MB 220-27847/2		220-27847		06/05/2009 11:09	1	TAL CT	BK
A:8260B	MB 220-27847/2		220-27847		06/05/2009 11:09	1	TAL CT	BK

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCS 220-27847/3		220-27847		06/05/2009 11:34	1	TAL CT	BK
A:8260B	LCS 220-27847/3		220-27847		06/05/2009 11:34	1	TAL CT	BK

Lab References:
TAL CT = TestAmerica Connecticut

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 220-9442-1

SDG Number: 220-9442

Job Description: NYSDEC Standby - Vestal Water Supply

For:
Malcolm Pirnie, Inc.
855 Route 146
Suite 210
Clifton Park, NY 12065

Attention: Mr. Jeremy Wyckoff

Approved for release.
Joan Widomski
7/13/2009 3:12 PM

Designee for
Johanna Dubauskas
Project Manager I
johanna.dubauskas@testamericainc.com
07/13/2009

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: 220-9442

Client: Malcolm Pirnie, Inc.
Date: July 13, 2009

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

July 13, 2009
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: 220-9442-1
Sdg Number: 220-9442

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
220-9442-1	4009-15	Water	06/22/2009 1545	06/24/2009 0950
220-9442-2	4009-14	Water	06/22/2009 1710	06/24/2009 0950
220-9442-3	4009-1	Water	06/22/2009 1545	06/24/2009 0950
220-9442-4	4009-2	Water	06/22/2009 1735	06/24/2009 0950
220-9442-5	4009-6	Water	06/23/2009 0910	06/24/2009 0950
220-9442-6	4009-4	Water	06/23/2009 1207	06/24/2009 0950
220-9442-7	4009-5	Water	06/23/2009 1407	06/24/2009 0950
220-9442-8	4009-7	Water	06/23/2009 1430	06/24/2009 0950
220-9442-9	4009-8	Water	06/23/2009 1540	06/24/2009 0950
220-9442-10	4009-X	Water	06/23/2009 1130	06/24/2009 0950
220-9442-11	4009-9	Water	06/23/2009 1725	06/24/2009 0950
220-9442-12TB	TRIP BLANK	Water	06/23/2009 0000	06/24/2009 0950
220-9442-13	4009-3	Water	06/23/2009 1630	06/24/2009 0950
220-9442-14	4009-10	Water	06/23/2009 1735	06/24/2009 0950

EXECUTIVE SUMMARY - Detections

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
220-9442-1	**4009-15**					
1,1-Dichloroethane		1.3	J	5.0	ug/L	8260B
Toluene		0.95	J	5.0	ug/L	8260B
Xylenes, Total		2.5	J	5.0	ug/L	8260B
220-9442-2	**4009-14**					
Toluene		1.1	J B	5.0	ug/L	8260B
Xylenes, Total		2.5	J	5.0	ug/L	8260B
220-9442-3	**4009-1**					
Acetone		1.5	J	10	ug/L	8260B
1,1-Dichloroethane		2.5	J	5.0	ug/L	8260B
Tetrachloroethene		0.86	J	5.0	ug/L	8260B
Trichloroethene		1.4	J	5.0	ug/L	8260B
cis-1,2-Dichloroethene		1.5	J	5.0	ug/L	8260B
220-9442-4	**4009-2**					
1,1-Dichloroethane		3.2	J	5.0	ug/L	8260B
Ethylbenzene		1.2	J	5.0	ug/L	8260B
Toluene		0.95	J B	5.0	ug/L	8260B
Trichloroethene		3.8	J	5.0	ug/L	8260B
Vinyl chloride		3.9	J	5.0	ug/L	8260B
cis-1,2-Dichloroethene		37		5.0	ug/L	8260B
trans-1,2-Dichloroethene		1.1	J	5.0	ug/L	8260B
220-9442-5	**4009-6**					
Toluene		0.89	J B	5.0	ug/L	8260B
220-9442-6	**4009-4**					
Toluene		0.91	J B	5.0	ug/L	8260B
Trichloroethene		6.3		5.0	ug/L	8260B
cis-1,2-Dichloroethene		41		5.0	ug/L	8260B

EXECUTIVE SUMMARY - Detections

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
220-9442-7	**4009-5**					
1,1-Dichloroethane		3.4	J	5.0	ug/L	8260B
1,1-Dichloroethene		1.9	J	5.0	ug/L	8260B
Trichloroethene		55		5.0	ug/L	8260B
Vinyl chloride		3.3	J	5.0	ug/L	8260B
cis-1,2-Dichloroethene		12		5.0	ug/L	8260B
220-9442-8	**4009-7**					
Acetone		5.2	J	40	ug/L	8260B
1,1-Dichloroethane		35		20	ug/L	8260B
1,1-Dichloroethene		9.3	J	20	ug/L	8260B
Toluene		3.7	J	20	ug/L	8260B
1,1,1-Trichloroethane		13	J	20	ug/L	8260B
Trichloroethene		52		20	ug/L	8260B
Vinyl chloride		210		20	ug/L	8260B
cis-1,2-Dichloroethene		160		20	ug/L	8260B
220-9442-9	**4009-8**					
Acetone		16	J	100	ug/L	8260B
1,1-Dichloroethane		49	J	50	ug/L	8260B
1,1-Dichloroethene		23	J	50	ug/L	8260B
Methylene Chloride		7.9	J	50	ug/L	8260B
1,1,1-Trichloroethane		490		50	ug/L	8260B
Trichloroethene		160		50	ug/L	8260B
Vinyl chloride		34	J	50	ug/L	8260B
cis-1,2-Dichloroethene		320		50	ug/L	8260B
220-9442-10	**4009-X**					
Acetone		15	J	100	ug/L	8260B
1,1-Dichloroethane		50	J	50	ug/L	8260B
1,1-Dichloroethene		24	J	50	ug/L	8260B
Methylene Chloride		9.1	J	50	ug/L	8260B
1,1,1-Trichloroethane		520		50	ug/L	8260B
Trichloroethene		160		50	ug/L	8260B
Vinyl chloride		35	J	50	ug/L	8260B
cis-1,2-Dichloroethene		330		50	ug/L	8260B
220-9442-11	**4009-9**					
Acetone		1.2	J	10	ug/L	8260B
Toluene		0.91	J	5.0	ug/L	8260B
cis-1,2-Dichloroethene		6.4		5.0	ug/L	8260B

EXECUTIVE SUMMARY - Detections

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
220-9442-13	**4009-3**					
1,1-Dichloroethane		27		5.0	ug/L	8260B
1,1-Dichloroethene		2.4	J	5.0	ug/L	8260B
Toluene		0.95	J	5.0	ug/L	8260B
1,1,1-Trichloroethane		57		5.0	ug/L	8260B
Trichloroethene		13		5.0	ug/L	8260B
Vinyl chloride		79		5.0	ug/L	8260B
cis-1,2-Dichloroethene		28		5.0	ug/L	8260B
trans-1,2-Dichloroethene		1.0	J	5.0	ug/L	8260B
220-9442-14	**4009-10**					
Toluene		0.94	J	5.0	ug/L	8260B

METHOD SUMMARY

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL CT	SW846 8260B	
Purge and Trap	TAL CT		SW846 5030B
ILM05.3 Metals	TAL BUF	ILM05.3 ILM05.3	

Lab References:

TAL BUF = TestAmerica Buffalo

TAL CT = TestAmerica Connecticut

Method References:

ILM05.3 = U.S. Environmental Protection Agency

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: 220-9442-1
Sdg Number: 220-9442

Method	Analyst	Analyst ID
SW846 8260B	Kostrzewska, Barbara	BK

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Client Sample ID: 4009-15

Lab Sample ID: 220-9442-1
Client Matrix: Water

Date Sampled: 06/22/2009 1545
Date Received: 06/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 07/02/2009 1326
Date Prepared: 07/02/2009 1326

Analysis Batch: 220-28726

Instrument ID: MSW
Lab File ID: W6565.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U *	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	1.3	J	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	0.95	J	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	2.5	J	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	127		65 - 136
4-Bromofluorobenzene	90		51 - 142
Dibromofluoromethane	116		68 - 132
Toluene-d8 (Surr)	105		63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Client Sample ID: 4009-14

Lab Sample ID: 220-9442-2
Client Matrix: Water

Date Sampled: 06/22/2009 1710
Date Received: 06/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 07/01/2009 1900
Date Prepared: 07/01/2009 1900

Analysis Batch: 220-28686

Instrument ID: MSW
Lab File ID: W6534.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U *	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	1.1	J B	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	2.5	J	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	125		65 - 136
4-Bromofluorobenzene	94		51 - 142
Dibromofluoromethane	119		68 - 132
Toluene-d8 (Surr)	110		63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Client Sample ID: 4009-1

Lab Sample ID: 220-9442-3
Client Matrix: Water

Date Sampled: 06/22/2009 1545
Date Received: 06/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 07/01/2009 1926
Date Prepared: 07/01/2009 1926

Analysis Batch: 220-28686

Instrument ID: MSW
Lab File ID: W6535.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.5	J	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	2.5	J	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U *	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	0.86	J	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	1.4	J	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	1.5	J	0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	126		65 - 136
4-Bromofluorobenzene	92		51 - 142
Dibromofluoromethane	118		68 - 132
Toluene-d8 (Surr)	109		63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Client Sample ID: 4009-2

Lab Sample ID: 220-9442-4
Client Matrix: Water

Date Sampled: 06/22/2009 1735
Date Received: 06/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 07/01/2009 1951
Date Prepared: 07/01/2009 1951

Analysis Batch: 220-28686

Instrument ID: MSW
Lab File ID: W6536.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	3.2	J	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	1.2	J	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U *	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	0.95	J B	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	3.8	J	0.62	5.0
Vinyl chloride	3.9	J	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	37		0.99	5.0
trans-1,2-Dichloroethene	1.1	J	0.76	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	120		65 - 136
4-Bromofluorobenzene	86		51 - 142
Dibromofluoromethane	113		68 - 132
Toluene-d8 (Surr)	105		63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Client Sample ID: 4009-6

Lab Sample ID: 220-9442-5
Client Matrix: Water

Date Sampled: 06/23/2009 0910
Date Received: 06/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 07/01/2009 2016
Date Prepared: 07/01/2009 2016

Analysis Batch: 220-28686

Instrument ID: MSW
Lab File ID: W6537.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U *	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	0.89	J B	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	130		65 - 136
4-Bromofluorobenzene	98		51 - 142
Dibromofluoromethane	121		68 - 132
Toluene-d8 (Surr)	115		63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Client Sample ID: 4009-4

Lab Sample ID: 220-9442-6
Client Matrix: Water

Date Sampled: 06/23/2009 1207
Date Received: 06/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 07/01/2009 2042
Date Prepared: 07/01/2009 2042

Analysis Batch: 220-28686

Instrument ID: MSW
Lab File ID: W6538.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U *	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	0.91	J B	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	6.3		0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	41		0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	124		65 - 136
4-Bromofluorobenzene	94		51 - 142
Dibromofluoromethane	117		68 - 132
Toluene-d8 (Surr)	109		63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Client Sample ID: 4009-5

Lab Sample ID: 220-9442-7
Client Matrix: Water

Date Sampled: 06/23/2009 1407
Date Received: 06/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 07/01/2009 2106
Date Prepared: 07/01/2009 2106

Analysis Batch: 220-28686

Instrument ID: MSW
Lab File ID: W6539.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	3.4	J	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	1.9	J	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U *	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	55		0.62	5.0
Vinyl chloride	3.3	J	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	12		0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	126		65 - 136
4-Bromofluorobenzene	92		51 - 142
Dibromofluoromethane	119		68 - 132
Toluene-d8 (Surr)	111		63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Client Sample ID: 4009-7

Lab Sample ID: 220-9442-8
Client Matrix: Water

Date Sampled: 06/23/2009 1430
Date Received: 06/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 4.0
Date Analyzed: 07/02/2009 1829
Date Prepared: 07/02/2009 1829

Analysis Batch: 220-28726

Instrument ID: MSW
Lab File ID: W6577.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	5.2	J	4.1	40
Benzene	20	U	3.0	20
Bromodichloromethane	20	U	1.9	20
Bromoform	20	U	1.8	20
Bromomethane	20	U	8.5	20
Methyl Ethyl Ketone	40	U	4.4	40
Carbon disulfide	20	U	3.6	20
Carbon tetrachloride	20	U	4.3	20
Chlorobenzene	20	U	2.9	20
Chloroethane	20	U *	4.2	20
Chloroform	20	U	2.7	20
Chloromethane	20	U	4.4	20
Dibromochloromethane	20	U	2.2	20
1,1-Dichloroethane	35		4.1	20
1,2-Dichloroethane	20	U	2.9	20
1,1-Dichloroethene	9.3	J	3.3	20
1,2-Dichloropropane	20	U	2.8	20
cis-1,3-Dichloropropene	20	U	1.1	20
trans-1,3-Dichloropropene	20	U	2.3	20
Ethylbenzene	20	U	3.5	20
2-Hexanone	40	U	4.4	40
Methylene Chloride	20	U	3.1	20
methyl isobutyl ketone	40	U	1.5	40
Styrene	20	U	2.6	20
1,1,2,2-Tetrachloroethane	20	U	3.2	20
Tetrachloroethene	20	U	3.2	20
Toluene	3.7	J	2.9	20
1,1,1-Trichloroethane	13	J	2.8	20
1,1,2-Trichloroethane	20	U	2.6	20
Trichloroethene	52		2.5	20
Vinyl chloride	210		4.0	20
Xylenes, Total	20	U	9.1	20
cis-1,2-Dichloroethene	160		4.0	20
trans-1,2-Dichloroethene	20	U	3.0	20

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	112		65 - 136
4-Bromofluorobenzene	85		51 - 142
Dibromofluoromethane	105		68 - 132
Toluene-d8 (Surr)	100		63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Client Sample ID: 4009-8

Lab Sample ID: 220-9442-9
Client Matrix: Water

Date Sampled: 06/23/2009 1540
Date Received: 06/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 10
Date Analyzed: 07/02/2009 1854
Date Prepared: 07/02/2009 1854

Analysis Batch: 220-28726

Instrument ID: MSW
Lab File ID: W6578.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	16	J	10	100
Benzene	50	U	7.4	50
Bromodichloromethane	50	U	4.8	50
Bromoform	50	U	4.6	50
Bromomethane	50	U	21	50
Methyl Ethyl Ketone	100	U	11	100
Carbon disulfide	50	U	9.0	50
Carbon tetrachloride	50	U	11	50
Chlorobenzene	50	U	7.2	50
Chloroethane	50	U *	11	50
Chloroform	50	U	6.7	50
Chloromethane	50	U	11	50
Dibromochloromethane	50	U	5.5	50
1,1-Dichloroethane	49	J	10	50
1,2-Dichloroethane	50	U	7.2	50
1,1-Dichloroethene	23	J	8.3	50
1,2-Dichloropropane	50	U	7.1	50
cis-1,3-Dichloropropene	50	U	2.8	50
trans-1,3-Dichloropropene	50	U	5.7	50
Ethylbenzene	50	U	8.7	50
2-Hexanone	100	U	11	100
Methylene Chloride	7.9	J	7.8	50
methyl isobutyl ketone	100	U	3.8	100
Styrene	50	U	6.4	50
1,1,2,2-Tetrachloroethane	50	U	8.1	50
Tetrachloroethene	50	U	8.1	50
Toluene	50	U	7.2	50
1,1,1-Trichloroethane	490		6.9	50
1,1,2-Trichloroethane	50	U	6.5	50
Trichloroethene	160		6.2	50
Vinyl chloride	34	J	9.9	50
Xylenes, Total	50	U	23	50
cis-1,2-Dichloroethene	320		9.9	50
trans-1,2-Dichloroethene	50	U	7.6	50

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	116		65 - 136
4-Bromofluorobenzene	86		51 - 142
Dibromofluoromethane	108		68 - 132
Toluene-d8 (Surr)	103		63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Client Sample ID: 4009-X

Lab Sample ID: 220-9442-10
Client Matrix: Water

Date Sampled: 06/23/2009 1130
Date Received: 06/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 10
Date Analyzed: 07/02/2009 1919
Date Prepared: 07/02/2009 1919

Analysis Batch: 220-28726

Instrument ID: MSW
Lab File ID: W6579.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	15	J	10	100
Benzene	50	U	7.4	50
Bromodichloromethane	50	U	4.8	50
Bromoform	50	U	4.6	50
Bromomethane	50	U	21	50
Methyl Ethyl Ketone	100	U	11	100
Carbon disulfide	50	U	9.0	50
Carbon tetrachloride	50	U	11	50
Chlorobenzene	50	U	7.2	50
Chloroethane	50	U *	11	50
Chloroform	50	U	6.7	50
Chloromethane	50	U	11	50
Dibromochloromethane	50	U	5.5	50
1,1-Dichloroethane	50	J	10	50
1,2-Dichloroethane	50	U	7.2	50
1,1-Dichloroethene	24	J	8.3	50
1,2-Dichloropropane	50	U	7.1	50
cis-1,3-Dichloropropene	50	U	2.8	50
trans-1,3-Dichloropropene	50	U	5.7	50
Ethylbenzene	50	U	8.7	50
2-Hexanone	100	U	11	100
Methylene Chloride	9.1	J	7.8	50
methyl isobutyl ketone	100	U	3.8	100
Styrene	50	U	6.4	50
1,1,2,2-Tetrachloroethane	50	U	8.1	50
Tetrachloroethene	50	U	8.1	50
Toluene	50	U	7.2	50
1,1,1-Trichloroethane	520		6.9	50
1,1,2-Trichloroethane	50	U	6.5	50
Trichloroethene	160		6.2	50
Vinyl chloride	35	J	9.9	50
Xylenes, Total	50	U	23	50
cis-1,2-Dichloroethene	330		9.9	50
trans-1,2-Dichloroethene	50	U	7.6	50

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	111		65 - 136
4-Bromofluorobenzene	81		51 - 142
Dibromofluoromethane	104		68 - 132
Toluene-d8 (Surr)	96		63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Client Sample ID: 4009-9

Lab Sample ID: 220-9442-11
Client Matrix: Water

Date Sampled: 06/23/2009 1725
Date Received: 06/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 07/02/2009 2034
Date Prepared: 07/02/2009 2034

Analysis Batch: 220-28726

Instrument ID: MSW
Lab File ID: W6582.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.2	J	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U *	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	0.91	J	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	6.4		0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	122		65 - 136
4-Bromofluorobenzene	84		51 - 142
Dibromofluoromethane	111		68 - 132
Toluene-d8 (Surr)	98		63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Client Sample ID: **TRIP BLANK**

Lab Sample ID: 220-9442-12TB
Client Matrix: Water

Date Sampled: 06/23/2009 0000
Date Received: 06/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 07/01/2009 2245
Date Prepared: 07/01/2009 2245

Analysis Batch: 220-28686

Instrument ID: MSW
Lab File ID: W6543.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U *	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	125		65 - 136
4-Bromofluorobenzene	88		51 - 142
Dibromofluoromethane	118		68 - 132
Toluene-d8 (Surr)	105		63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Client Sample ID: 4009-3

Lab Sample ID: 220-9442-13
Client Matrix: Water

Date Sampled: 06/23/2009 1630
Date Received: 06/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 07/02/2009 1944
Date Prepared: 07/02/2009 1944

Analysis Batch: 220-28726

Instrument ID: MSW
Lab File ID: W6580.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U *	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	27		1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	2.4	J	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	0.95	J	0.72	5.0
1,1,1-Trichloroethane	57		0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	13		0.62	5.0
Vinyl chloride	79		0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	28		0.99	5.0
trans-1,2-Dichloroethene	1.0	J	0.76	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	116		65 - 136
4-Bromofluorobenzene	84		51 - 142
Dibromofluoromethane	108		68 - 132
Toluene-d8 (Surr)	98		63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Client Sample ID: 4009-10

Lab Sample ID: 220-9442-14
Client Matrix: Water

Date Sampled: 06/23/2009 1735
Date Received: 06/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 07/02/2009 2009
Date Prepared: 07/02/2009 2009

Analysis Batch: 220-28726

Instrument ID: MSW
Lab File ID: W6581.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U *	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	0.94	J	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	119		65 - 136
4-Bromofluorobenzene	82		51 - 142
Dibromofluoromethane	111		68 - 132
Toluene-d8 (Surr)	100		63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	12DCE %Rec	TOL %Rec	BFB %Rec
220-9442-1	4009-15	116	127	105	90
220-9442-2	4009-14	119	125	110	94
220-9442-3	4009-1	118	126	109	92
220-9442-4	4009-2	113	120	105	86
220-9442-5	4009-6	121	130	115	98
220-9442-6	4009-4	117	124	109	94
220-9442-7	4009-5	119	126	111	92
220-9442-8	4009-7	105	112	100	85
220-9442-9	4009-8	108	116	103	86
220-9442-10	4009-X	104	111	96	81
220-9442-11	4009-9	111	122	98	84
220-9442-12	TRIP BLANK	118	125	105	88
220-9442-13	4009-3	108	116	98	84
220-9442-14	4009-10	111	119	100	82
MB 220-28686/3		109	113	112	100
MB 220-28726/2		116	126	108	91
LCS 220-28686/10		89	100	87	84
LCS 220-28726/3		102	112	92	88
220-9452-H-3 MS		99	105	95	85
220-9452-H-3 MSD		103	107	103	93

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane	68-132
12DCE = 1,2-Dichloroethane-d4 (Surr)	65-136
TOL = Toluene-d8 (Surr)	63-127
BFB = 4-Bromofluorobenzene	51-142

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Method Blank - Batch: 220-28686

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 220-28686/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/01/2009 1309
Date Prepared: 07/01/2009 1309

Analysis Batch: 220-28686
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W6520.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Acetone	10	U	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	0.91	J	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	113	65 - 136
4-Bromofluorobenzene	100	51 - 142
Dibromofluoromethane	109	68 - 132
Toluene-d8 (Surr)	112	63 - 127

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

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Lab Control Sample - Batch: 220-28686

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 220-28686/10
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/01/2009 1153
Date Prepared: 07/01/2009 1153

Analysis Batch: 220-28686
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W6517.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	10.0	11.8	118	41 - 150	
Benzene	10.0	10.9	109	66 - 131	
Bromodichloromethane	10.0	10.2	102	78 - 120	
Bromoform	10.0	9.04	90	66 - 120	
Bromomethane	10.0	10.7	107	47 - 150	
Methyl Ethyl Ketone	10.0	10.6	106	42 - 150	
Carbon disulfide	10.0	10.8	108	55 - 150	
Carbon tetrachloride	10.0	11.6	116	69 - 135	
Chlorobenzene	10.0	9.97	100	68 - 120	
Chloroethane	10.0	13.4	134	49 - 150	
Chloroform	10.0	11.1	111	77 - 126	
Chloromethane	10.0	13.2	132	33 - 150	
Dibromochloromethane	10.0	9.66	97	75 - 120	
1,1-Dichloroethane	10.0	10.8	108	75 - 130	
1,2-Dichloroethane	10.0	10.5	105	73 - 127	
1,1-Dichloroethene	10.0	13.1	131	65 - 142	
1,2-Dichloropropane	10.0	10.2	102	69 - 129	
cis-1,3-Dichloropropene	10.0	8.41	84	63 - 120	
trans-1,3-Dichloropropene	10.0	9.19	92	73 - 120	
Ethylbenzene	10.0	9.51	95	62 - 120	
2-Hexanone	10.0	6.13	61	46 - 150	J
Methylene Chloride	10.0	14.7	147	56 - 138	*
methyl isobutyl ketone	10.0	8.21	82	70 - 122	J
Styrene	10.0	8.45	85	47 - 120	
1,1,2,2-Tetrachloroethane	10.0	9.53	95	75 - 124	
Tetrachloroethene	10.0	9.67	97	50 - 120	
Toluene	10.0	9.97	100	66 - 120	
1,1,1-Trichloroethane	10.0	11.4	114	73 - 135	
1,1,2-Trichloroethane	10.0	9.88	99	76 - 125	
Trichloroethene	10.0	10.5	105	60 - 122	
Vinyl chloride	10.0	12.4	124	61 - 150	
Xylenes, Total	30.0	27.2	91	58 - 120	
cis-1,2-Dichloroethene	10.0	9.61	96	65 - 120	
trans-1,2-Dichloroethene	10.0	10.8	108	58 - 120	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100	65 - 136
4-Bromofluorobenzene	84	51 - 142
Dibromofluoromethane	89	68 - 132
Toluene-d8 (Surr)	87	63 - 127

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

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Method Blank - Batch: 220-28726

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 220-28726/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/02/2009 1141
Date Prepared: 07/02/2009 1141

Analysis Batch: 220-28726
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W6561.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Acetone	10	U	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	126	65 - 136
4-Bromofluorobenzene	91	51 - 142
Dibromofluoromethane	116	68 - 132
Toluene-d8 (Surr)	108	63 - 127

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

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Lab Control Sample - Batch: 220-28726

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 220-28726/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/02/2009 1206
Date Prepared: 07/02/2009 1206

Analysis Batch: 220-28726
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W6562.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	10.0	12.9	129	41 - 150	
Benzene	10.0	11.0	110	66 - 131	
Bromodichloromethane	10.0	10.8	108	78 - 120	
Bromoform	10.0	9.37	94	66 - 120	
Bromomethane	10.0	12.7	127	47 - 150	
Methyl Ethyl Ketone	10.0	12.2	122	42 - 150	
Carbon disulfide	10.0	11.3	113	55 - 150	
Carbon tetrachloride	10.0	11.5	115	69 - 135	
Chlorobenzene	10.0	9.94	99	68 - 120	
Chloroethane	10.0	15.4	154	49 - 150	*
Chloroform	10.0	11.9	119	77 - 126	
Chloromethane	10.0	14.9	149	33 - 150	
Dibromochloromethane	10.0	10.1	101	75 - 120	
1,1-Dichloroethane	10.0	11.2	112	75 - 130	
1,2-Dichloroethane	10.0	11.9	119	73 - 127	
1,1-Dichloroethene	10.0	12.5	125	65 - 142	
1,2-Dichloropropane	10.0	10.1	101	69 - 129	
cis-1,3-Dichloropropene	10.0	7.93	79	63 - 120	
trans-1,3-Dichloropropene	10.0	8.90	89	73 - 120	
Ethylbenzene	10.0	9.01	90	62 - 120	
2-Hexanone	10.0	6.37	64	46 - 150	J
Methylene Chloride	10.0	9.61	96	56 - 138	
methyl isobutyl ketone	10.0	7.97	80	70 - 122	J
Styrene	10.0	7.74	77	47 - 120	
1,1,2,2-Tetrachloroethane	10.0	9.92	99	75 - 124	
Tetrachloroethene	10.0	9.23	92	50 - 120	
Toluene	10.0	9.79	98	66 - 120	
1,1,1-Trichloroethane	10.0	11.7	117	73 - 135	
1,1,2-Trichloroethane	10.0	10.7	107	76 - 125	
Trichloroethene	10.0	10.6	106	60 - 122	
Vinyl chloride	10.0	12.7	127	61 - 150	
Xylenes, Total	30.0	24.9	83	58 - 120	
cis-1,2-Dichloroethene	10.0	9.03	90	65 - 120	
trans-1,2-Dichloroethene	10.0	10.3	103	58 - 120	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	112	65 - 136
4-Bromofluorobenzene	88	51 - 142
Dibromofluoromethane	102	68 - 132
Toluene-d8 (Surr)	92	63 - 127

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

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 220-28726

Method: 8260B
Preparation: 5030B

MS Lab Sample ID: 220-9452-H-3 MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/02/2009 1713
Date Prepared: 07/02/2009 1713

Analysis Batch: 220-28726
Prep Batch: N/A

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W6574.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

MSD Lab Sample ID: 220-9452-H-3 MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/02/2009 1738
Date Prepared: 07/02/2009 1738

Analysis Batch: 220-28726
Prep Batch: N/A

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W6575.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acetone	75	78	41 - 150	3	20		
Benzene	112	110	66 - 131	2	20		
Bromodichloromethane	109	107	78 - 120	2	20		
Bromoform	87	87	66 - 120	1	20		
Bromomethane	112	113	47 - 150	1	20		
Methyl Ethyl Ketone	89	93	42 - 150	4	20		
Carbon disulfide	105	103	55 - 150	2	20		
Carbon tetrachloride	141	135	69 - 135	4	20	*	
Chlorobenzene	102	99	68 - 120	4	20		
Chloroethane	148	146	49 - 150	1	20		
Chloroform	116	113	77 - 126	3	20		
Chloromethane	116	122	33 - 150	5	20		
Dibromochloromethane	103	100	75 - 120	2	20		
1,1-Dichloroethane	119	116	75 - 130	3	20		
1,2-Dichloroethane	113	109	73 - 127	3	20		
1,1-Dichloroethene	119	122	65 - 142	2	20		
1,2-Dichloropropane	104	104	69 - 129	1	20		
cis-1,3-Dichloropropene	77	78	63 - 120	1	20		
trans-1,3-Dichloropropene	90	88	73 - 120	2	20		
Ethylbenzene	102	99	62 - 120	3	20		
2-Hexanone	81	84	46 - 150	4	20		
Methylene Chloride	85	83	56 - 138	3	20		
methyl isobutyl ketone	81	82	70 - 122	1	20		
Styrene	90	89	47 - 120	1	20		
1,1,2,2-Tetrachloroethane	97	95	75 - 124	3	20		
Tetrachloroethene	103	103	50 - 120	0	20		
Toluene	100	99	66 - 120	1	20		
1,1,1-Trichloroethane	133	130	73 - 135	2	20		
1,1,2-Trichloroethane	102	102	76 - 125	0	20		
Trichloroethene	115	111	60 - 122	4	20		

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

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 220-28726

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	220-9452-H-3 MS	Analysis Batch: 220-28726	Instrument ID: HP 6890/5973 GC/MS
Client Matrix:	Water	Prep Batch: N/A	Lab File ID: W6574.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	07/02/2009 1713		Final Weight/Volume: 5 mL
Date Prepared:	07/02/2009 1713		

MSD Lab Sample ID:	220-9452-H-3 MSD	Analysis Batch: 220-28726	Instrument ID: HP 6890/5973 GC/MS
Client Matrix:	Water	Prep Batch: N/A	Lab File ID: W6575.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	07/02/2009 1738		Final Weight/Volume: 5 mL
Date Prepared:	07/02/2009 1738		

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Vinyl chloride	130	138	61 - 150	6	20		
Xylenes, Total	92	92	58 - 120	0	20		
cis-1,2-Dichloroethene	104	104	65 - 120	0	20		
trans-1,2-Dichloroethene	106	105	58 - 120	1	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105	107	65 - 136
4-Bromofluorobenzene	85	93	51 - 142
Dibromofluoromethane	99	103	68 - 132
Toluene-d8 (Surr)	95	103	63 - 127

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

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

Matrix Spike/
Matrix Spike Duplicate Data Report - Batch: 220-28726

Method: 8260B
Preparation: 5030B

MS Lab Sample ID: 220-9452-H-3 MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/02/2009 1713
Date Prepared: 07/02/2009 1713

Units: ug/L

MSD Lab Sample ID: 220-9452-H-3 MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/02/2009 1738
Date Prepared: 07/02/2009 1738

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual
Acetone	10	U	20.0	20.0	15.1		15.6
Benzene	5.0	U	20.0	20.0	22.5		22.0
Bromodichloromethane	5.0	U	20.0	20.0	21.8		21.4
Bromoform	5.0	U	20.0	20.0	17.3		17.5
Bromomethane	5.0	U	20.0	20.0	22.4		22.6
Methyl Ethyl Ketone	10	U	20.0	20.0	17.9		18.7
Carbon disulfide	5.0	U	20.0	20.0	21.1		20.6
Carbon tetrachloride	5.0	U	20.0	20.0	28.1	*	27.1
Chlorobenzene	5.0	U	20.0	20.0	20.5		19.7
Chloroethane	5.0	U	20.0	20.0	29.5		29.2
Chloroform	5.0	U	20.0	20.0	23.2		22.6
Chloromethane	5.0	U	20.0	20.0	23.2		24.3
Dibromochloromethane	5.0	U	20.0	20.0	20.5		20.1
1,1-Dichloroethane	5.0	U	20.0	20.0	23.9		23.1
1,2-Dichloroethane	5.0	U	20.0	20.0	22.5		21.8
1,1-Dichloroethene	5.0	U	20.0	20.0	23.8		24.4
1,2-Dichloropropane	5.0	U	20.0	20.0	20.8		20.9
cis-1,3-Dichloropropene	5.0	U	20.0	20.0	15.4		15.6
trans-1,3-Dichloropropene	5.0	U	20.0	20.0	18.0		17.6
Ethylbenzene	5.0	U	20.0	20.0	20.4		19.8
2-Hexanone	10	U	20.0	20.0	16.1		16.8
Methylene Chloride	5.0	U	20.0	20.0	17.0		16.5
methyl isobutyl ketone	10	U	20.0	20.0	16.2		16.4
Styrene	5.0	U	20.0	20.0	18.0		17.8
1,1,2,2-Tetrachloroethane	5.0	U	20.0	20.0	19.5		19.0
Tetrachloroethene	5.0	U	20.0	20.0	20.6		20.5
Toluene	5.0	U	20.0	20.0	20.0		19.7
1,1,1-Trichloroethane	5.0	U	20.0	20.0	26.7		26.0
1,1,2-Trichloroethane	5.0	U	20.0	20.0	20.4		20.3
Trichloroethene	5.0	U	20.0	20.0	23.0		22.2
Vinyl chloride	5.0	U	20.0	20.0	25.9		27.6
Xylenes, Total	5.0	U	60.0	60.0	55.4		55.4
cis-1,2-Dichloroethene	5.0	U	20.0	20.0	20.8		20.8
trans-1,2-Dichloroethene	5.0	U	20.0	20.0	21.2		20.9

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

DATA REPORTING QUALIFIERS

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

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
	*	MS or MSD exceeds the control limits
	B	The analyte was found in an associated blank, as well as in the sample.

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
Sdg Number: 220-9442

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:220-28686					
LCS 220-28686/10	Lab Control Sample	T	Water	8260B	
MB 220-28686/3	Method Blank	T	Water	8260B	
220-9442-2	4009-14	T	Water	8260B	
220-9442-3	4009-1	T	Water	8260B	
220-9442-4	4009-2	T	Water	8260B	
220-9442-5	4009-6	T	Water	8260B	
220-9442-6	4009-4	T	Water	8260B	
220-9442-7	4009-5	T	Water	8260B	
220-9442-12TB	TRIP BLANK	T	Water	8260B	
Analysis Batch:220-28726					
LCS 220-28726/3	Lab Control Sample	T	Water	8260B	
MB 220-28726/2	Method Blank	T	Water	8260B	
220-9442-1	4009-15	T	Water	8260B	
220-9442-8	4009-7	T	Water	8260B	
220-9442-9	4009-8	T	Water	8260B	
220-9442-10	4009-X	T	Water	8260B	
220-9442-11	4009-9	T	Water	8260B	
220-9442-13	4009-3	T	Water	8260B	
220-9442-14	4009-10	T	Water	8260B	
220-9452-H-3 MS	Matrix Spike	T	Water	8260B	
220-9452-H-3 MSD	Matrix Spike Duplicate	T	Water	8260B	

Report Basis
T = Total

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
SDG: 220-9442

Laboratory Chronicle

Lab ID: 220-9442-1 **Client ID: 4009-15**

Sample Date/Time: 06/22/2009 15:45 Received Date/Time: 06/24/2009 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9442-B-1		220-28726		07/02/2009 13:26	1	TAL CT	BK
A:8260B	220-9442-B-1		220-28726		07/02/2009 13:26	1	TAL CT	BK

Lab ID: 220-9442-2 **Client ID: 4009-14**

Sample Date/Time: 06/22/2009 17:10 Received Date/Time: 06/24/2009 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9442-A-2		220-28686		07/01/2009 19:00	1	TAL CT	BK
A:8260B	220-9442-A-2		220-28686		07/01/2009 19:00	1	TAL CT	BK

Lab ID: 220-9442-3 **Client ID: 4009-1**

Sample Date/Time: 06/22/2009 15:45 Received Date/Time: 06/24/2009 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9442-A-3		220-28686		07/01/2009 19:26	1	TAL CT	BK
A:8260B	220-9442-A-3		220-28686		07/01/2009 19:26	1	TAL CT	BK

Lab ID: 220-9442-4 **Client ID: 4009-2**

Sample Date/Time: 06/22/2009 17:35 Received Date/Time: 06/24/2009 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9442-A-4		220-28686		07/01/2009 19:51	1	TAL CT	BK
A:8260B	220-9442-A-4		220-28686		07/01/2009 19:51	1	TAL CT	BK

Lab ID: 220-9442-5 **Client ID: 4009-6**

Sample Date/Time: 06/23/2009 09:10 Received Date/Time: 06/24/2009 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9442-A-5		220-28686		07/01/2009 20:16	1	TAL CT	BK
A:8260B	220-9442-A-5		220-28686		07/01/2009 20:16	1	TAL CT	BK

Lab ID: 220-9442-6 **Client ID: 4009-4**

Sample Date/Time: 06/23/2009 12:07 Received Date/Time: 06/24/2009 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9442-A-6		220-28686		07/01/2009 20:42	1	TAL CT	BK
A:8260B	220-9442-A-6		220-28686		07/01/2009 20:42	1	TAL CT	BK

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
SDG: 220-9442

Laboratory Chronicle

Lab ID: 220-9442-7 **Client ID: 4009-5**

Sample Date/Time: 06/23/2009 14:07 Received Date/Time: 06/24/2009 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9442-A-7		220-28686		07/01/2009 21:06	1	TAL CT	BK
A:8260B	220-9442-A-7		220-28686		07/01/2009 21:06	1	TAL CT	BK

Lab ID: 220-9442-8 **Client ID: 4009-7**

Sample Date/Time: 06/23/2009 14:30 Received Date/Time: 06/24/2009 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9442-B-8		220-28726		07/02/2009 18:29	4	TAL CT	BK
A:8260B	220-9442-B-8		220-28726		07/02/2009 18:29	4	TAL CT	BK

Lab ID: 220-9442-9 **Client ID: 4009-8**

Sample Date/Time: 06/23/2009 15:40 Received Date/Time: 06/24/2009 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9442-B-9		220-28726		07/02/2009 18:54	10	TAL CT	BK
A:8260B	220-9442-B-9		220-28726		07/02/2009 18:54	10	TAL CT	BK

Lab ID: 220-9442-10 **Client ID: 4009-X**

Sample Date/Time: 06/23/2009 11:30 Received Date/Time: 06/24/2009 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9442-B-10		220-28726		07/02/2009 19:19	10	TAL CT	BK
A:8260B	220-9442-B-10		220-28726		07/02/2009 19:19	10	TAL CT	BK

Lab ID: 220-9442-11 **Client ID: 4009-9**

Sample Date/Time: 06/23/2009 17:25 Received Date/Time: 06/24/2009 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9442-A-11		220-28726		07/02/2009 20:34	1	TAL CT	BK
A:8260B	220-9442-A-11		220-28726		07/02/2009 20:34	1	TAL CT	BK

Lab ID: 220-9442-12 **Client ID: TRIP BLANK**

Sample Date/Time: 06/23/2009 00:00 Received Date/Time: 06/24/2009 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9442-A-12		220-28686		07/01/2009 22:45	1	TAL CT	BK
A:8260B	220-9442-A-12		220-28686		07/01/2009 22:45	1	TAL CT	BK

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
SDG: 220-9442

Laboratory Chronicle

Lab ID: 220-9442-13 **Client ID: 4009-3**

Sample Date/Time: 06/23/2009 16:30 Received Date/Time: 06/24/2009 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9442-B-13		220-28726		07/02/2009 19:44	1	TAL CT	BK
A:8260B	220-9442-B-13		220-28726		07/02/2009 19:44	1	TAL CT	BK

Lab ID: 220-9442-14 **Client ID: 4009-10**

Sample Date/Time: 06/23/2009 17:35 Received Date/Time: 06/24/2009 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9442-B-14		220-28726		07/02/2009 20:09	1	TAL CT	BK
A:8260B	220-9442-B-14		220-28726		07/02/2009 20:09	1	TAL CT	BK

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	MB 220-28686/3		220-28686		07/01/2009 13:09	1	TAL CT	BK
A:8260B	MB 220-28686/3		220-28686		07/01/2009 13:09	1	TAL CT	BK
P:5030B	MB 220-28726/2		220-28726		07/02/2009 11:41	1	TAL CT	BK
A:8260B	MB 220-28726/2		220-28726		07/02/2009 11:41	1	TAL CT	BK

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCS 220-28686/10		220-28686		07/01/2009 11:53	1	TAL CT	BK
A:8260B	LCS 220-28686/10		220-28686		07/01/2009 11:53	1	TAL CT	BK
P:5030B	LCS 220-28726/3		220-28726		07/02/2009 12:06	1	TAL CT	BK
A:8260B	LCS 220-28726/3		220-28726		07/02/2009 12:06	1	TAL CT	BK

Lab ID: MS **Client ID: N/A**

Sample Date/Time: 06/24/2009 15:40 Received Date/Time: 06/25/2009 08:05

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9452-H-3 MS		220-28726		07/02/2009 17:13	1	TAL CT	BK
A:8260B	220-9452-H-3 MS		220-28726		07/02/2009 17:13	1	TAL CT	BK

Client: Malcolm Pirnie, Inc.

Job Number: 220-9442-1
SDG: 220-9442

Laboratory Chronicle

Lab ID: MSD **Client ID: N/A**

Sample Date/Time: 06/24/2009 15:40 Received Date/Time: 06/25/2009 08:05

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9452-H-3 MSD		220-28726		07/02/2009 17:38	1	TAL CT	BK
A:8260B	220-9452-H-3 MSD		220-28726		07/02/2009 17:38	1	TAL CT	BK

Lab References:
TAL CT = TestAmerica Connecticut

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

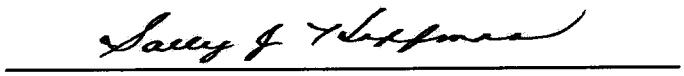
Analytical Report

SDG Number: 220-9442

Project Description(s)
Work Order RSF0997 - NYSDEC Standby - Vestal

For:

Johanna Dubauskas
TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484



Sally Hoffman
Project Manager
Sally.Hoffman@testamericainc.com

Thursday, July 9, 2009

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9442

Project: NYSDEC Standby - Vestal
Project Number: 220-9442

Received: 06/25/09
Reported: 07/09/09 16:37

TestAmerica Buffalo
Current Certifications

As of 1/27/2009

STATE	Program	Cert # / Lab ID
Arkansas	CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA,NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA,CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP,SDWA, CWA, RCRA,	NY455
New York*	NELAP, AIR, SDWA, CWA, RCRA,CLP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania*	NELAP CWA,RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	T104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington*	NELAP CWA,RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA,RCRA	252

*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report.

SAMPLE DATA SUMMARY PACKAGE

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9442

Project: NYSDEC Standby - Vestal
Project Number: 220-9442

Received: 06/25/09
Reported: 07/09/09 16:37

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
4009-15	RSF0997-01	Water	06/22/09 15:45	06/25/09 09:00	

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9442

Project: NYSDEC Standby - Vestal
Project Number: 220-9442

Received: 06/25/09
Reported: 07/09/09 16:37

DATA QUALIFIERS AND DEFINITIONS

B	Analyte was detected in the associated Method Blank.
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
NR	Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9442

Project: NYSDEC Standby - Vestal
Project Number: 220-9442

Received: 06/25/09
Reported: 07/09/09 16:37

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: 4009-15 (RSF0997-01 - Water)							**Sampled: 06/22/09 15:45**		**Recvd: 06/25/09 09:00**	
CLP Metals										
Aluminum, Dissolved	**80.5**	J	200	39.8	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Barium, Dissolved	**9.5**	B	2.0	0.1	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Calcium, Dissolved	**32000**	B	500	38.0	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Cobalt, Dissolved	**1.4**	J, B	4.0	0.5	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Copper, Dissolved	**5.2**	J	10.0	1.3	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Iron, Dissolved	**3790**		50.0	19.3	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Magnesium, Dissolved	**23900**		200	43.0	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Manganese, Dissolved	**49.4**		3.0	0.2	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Nickel, Dissolved	**1.4**	J	10.0	1.3	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Potassium, Dissolved	**2460**		500	31.0	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Sodium, Dissolved	**69300**		1000	256	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Zinc, Dissolved	**104**		10.0	1.5	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9442

Project: NYSDEC Standby - Vestal
Project Number: 220-9442

Received: 06/25/09
Reported: 07/09/09 16:37

Analytical Report

Client ID: 4009-15 (RSF0997-01 - Water) **Sampled: 06/22/09 15:45 Recvd: 06/25/09 09:00**

CLP Metals

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Aluminum, Dissolved	**80.5**	J	200	39.8	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Antimony, Dissolved	ND		20.0	5.5	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Arsenic, Dissolved	ND		10.0	5.5	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Barium, Dissolved	**9.5**	B	2.0	0.1	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Beryllium, Dissolved	ND		2.0	0.2	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Cadmium, Dissolved	ND		1.0	0.3	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Calcium, Dissolved	**32000**	B	500	38.0	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Chromium, Dissolved	ND		4.0	0.9	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Cobalt, Dissolved	**1.4**	J, B	4.0	0.5	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Copper, Dissolved	**5.2**	J	10.0	1.3	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Iron, Dissolved	**3790**		50.0	19.3	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Lead, Dissolved	ND		5.0	1.8	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Magnesium, Dissolved	**23900**		200	43.0	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Manganese, Dissolved	**49.4**		3.0	0.2	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Mercury, Dissolved	ND		0.2	0.1	ug/L	1.00	07/02/09 14:44	MM	9G02014	CLP-M
Nickel, Dissolved	**1.4**	J	10.0	1.3	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Potassium, Dissolved	**2460**		500	31.0	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Selenium, Dissolved	ND		15.0	8.7	ug/L	1.00	07/02/09 13:17	AMH	9F29040	CLP-M
Silver, Dissolved	ND		3.0	1.2	ug/L	1.00	07/01/09 12:57	DAN	9F29040	CLP-M
Sodium, Dissolved	**69300**		1000	256	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Thallium, Dissolved	ND		20.0	7.7	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Vanadium, Dissolved	ND		5.0	1.1	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Zinc, Dissolved	**104**		10.0	1.5	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9442

Project: NYSDEC Standby - Vestal
Project Number: 220-9442

Received: 06/25/09
Reported: 07/09/09 16:37

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
CLP Metals									
CLP-M	9F29040	RSF0997-01	50.00	mL	50.00	mL	06/30/09 08:00	MLD	CLP Metals Prep (Water)
CLP-M	9G02014	RSF0997-01	30.00	mL	50.00	mL	07/02/09 10:00	MM	CLP Metals Prep (Water)

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9442

Project: NYSDEC Standby - Vestal
Project Number: 220-9442

Received: 06/25/09
Reported: 07/09/09 16:47

Case Narrative

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. field-pH), they were not analyzed immediately, but as soon as possible after laboratory receipt.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverables has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Sally Hoffman
Project Manager

Thursday, July 9, 2009

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

BATCH QC

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9442

Project: NYSDEC Standby - Vestal
Project Number: 220-9442

Received: 06/25/09
Reported: 07/09/09 16:37

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
CLP Metals											
Blank Analyzed: 06/30/09 (Lab Number:9F29040-BLK1, Batch: 9F29040)											
Aluminum, Dissolved			200	39.8	ug/L	ND					
Antimony, Dissolved			20.0	5.5	ug/L	ND					
Arsenic, Dissolved			10.0	5.5	ug/L	ND					
Barium, Dissolved			2.0	0.1	ug/L	0.1					B,J
Beryllium, Dissolved			2.0	0.2	ug/L	ND					
Cadmium, Dissolved			1.0	0.3	ug/L	ND					
Calcium, Dissolved			500	38.0	ug/L	69.2					B,J
Chromium, Dissolved			4.0	0.9	ug/L	ND					
Cobalt, Dissolved			4.0	0.5	ug/L	0.7					B,J
Copper, Dissolved			10.0	1.3	ug/L	ND					
Iron, Dissolved			50.0	19.3	ug/L	ND					
Lead, Dissolved			5.0	1.8	ug/L	ND					
Magnesium, Dissolved			200	43.0	ug/L	ND					
Manganese, Dissolved			3.0	0.2	ug/L	ND					
Nickel, Dissolved			10.0	1.3	ug/L	ND					
Potassium, Dissolved			500	31.0	ug/L	ND					
Sodium, Dissolved			1000	256	ug/L	ND					
Thallium, Dissolved			20.0	7.7	ug/L	ND					
Vanadium, Dissolved			5.0	1.1	ug/L	ND					
Zinc, Dissolved			10.0	1.5	ug/L	ND					
Blank Analyzed: 07/01/09 (Lab Number:9F29040-BLK2, Batch: 9F29040)											
Silver, Dissolved			3.0	1.2	ug/L	ND					
Blank Analyzed: 07/02/09 (Lab Number:9F29040-BLK3, Batch: 9F29040)											
Selenium, Dissolved			15.0	8.7	ug/L	ND					
LCS Analyzed: 06/30/09 (Lab Number:9F29040-BS1, Batch: 9F29040)											
Aluminum, Dissolved		10000	200	39.8	ug/L	10300	103	75-125			
Antimony, Dissolved		200	20.0	5.5	ug/L	203	102	75-125			
Arsenic, Dissolved		200	10.0	5.5	ug/L	209	105	75-125			
Barium, Dissolved		200	2.0	0.1	ug/L	203	102	75-125			B
Beryllium, Dissolved		200	2.0	0.2	ug/L	215	108	75-125			
Cadmium, Dissolved		200	1.0	0.3	ug/L	203	102	75-125			
Calcium, Dissolved		10000	500	38.0	ug/L	10500	105	75-125			B
Chromium, Dissolved		200	4.0	0.9	ug/L	217	108	75-125			
Cobalt, Dissolved		200	4.0	0.5	ug/L	217	108	75-125			B
Copper, Dissolved		200	10.0	1.3	ug/L	206	103	75-125			
Iron, Dissolved		10000	50.0	19.3	ug/L	10300	103	75-125			

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9442

Project: NYSDEC Standby - Vestal
Project Number: 220-9442

Received: 06/25/09
Reported: 07/09/09 16:37

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
CLP Metals											
LCS Analyzed: 06/30/09 (Lab Number:9F29040-BS1, Batch: 9F29040)											
Lead, Dissolved		200	5.0	1.8	ug/L	210	105	75-125			
Magnesium, Dissolved		10000	200	43.0	ug/L	10800	108	75-125			
Manganese, Dissolved		200	3.0	0.2	ug/L	210	105	75-125			
Nickel, Dissolved		200	10.0	1.3	ug/L	207	104	75-125			
Potassium, Dissolved		10000	500	31.0	ug/L	10300	103	75-125			
Sodium, Dissolved		10000	1000	256	ug/L	10400	104	75-125			
Thallium, Dissolved		200	20.0	7.7	ug/L	197	99	75-125			
Vanadium, Dissolved		200	5.0	1.1	ug/L	204	102	75-125			
Zinc, Dissolved		200	10.0	1.5	ug/L	219	109	75-125			
LCS Analyzed: 07/01/09 (Lab Number:9F29040-BS2, Batch: 9F29040)											
Silver, Dissolved		50.0	3.0	1.2	ug/L	51.8	104	75-125			
LCS Analyzed: 07/02/09 (Lab Number:9F29040-BS3, Batch: 9F29040)											
Selenium, Dissolved		200	15.0	8.7	ug/L	215	107	75-125			
CLP Metals											
Blank Analyzed: 07/02/09 (Lab Number:9G02014-BLK1, Batch: 9G02014)											
Mercury, Dissolved			0.2	0.1	ug/L	ND					
LCS Analyzed: 07/02/09 (Lab Number:9G02014-BS1, Batch: 9G02014)											
Mercury, Dissolved		3.33	0.2	0.1	ug/L	3.22	97	75-125			

SAMPLE DATA PACKAGE

SDG NARRATIVE

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9442

Project: NYSDEC Standby - Vestal
Project Number: 220-9442

Received: 06/25/09
Reported: 07/09/09 16:37

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
4009-15	RSF0997-01	Water	06/22/09 15:45	06/25/09 09:00	

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9442

Project: NYSDEC Standby - Vestal
Project Number: 220-9442

Received: 06/25/09
Reported: 07/09/09 16:37

DATA QUALIFIERS AND DEFINITIONS

B	Analyte was detected in the associated Method Blank.
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
NR	Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9442

Project: NYSDEC Standby - Vestal
Project Number: 220-9442

Received: 06/25/09
Reported: 07/09/09 16:37

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: 4009-15 (RSF0997-01 - Water)							**Sampled: 06/22/09 15:45**		**Recvd: 06/25/09 09:00**	
CLP Metals										
Aluminum, Dissolved	**80.5**	J	200	39.8	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Barium, Dissolved	**9.5**	B	2.0	0.1	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Calcium, Dissolved	**32000**	B	500	38.0	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Cobalt, Dissolved	**1.4**	J, B	4.0	0.5	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Copper, Dissolved	**5.2**	J	10.0	1.3	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Iron, Dissolved	**3790**		50.0	19.3	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Magnesium, Dissolved	**23900**		200	43.0	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Manganese, Dissolved	**49.4**		3.0	0.2	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Nickel, Dissolved	**1.4**	J	10.0	1.3	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Potassium, Dissolved	**2460**		500	31.0	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Sodium, Dissolved	**69300**		1000	256	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M
Zinc, Dissolved	**104**		10.0	1.5	ug/L	1.00	06/30/09 17:34	DAN	9F29040	CLP-M

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9442

Project: NYSDEC Standby - Vestal
Project Number: 220-9442

Received: 06/25/09
Reported: 07/09/09 16:37

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
CLP Metals									
CLP-M	9F29040	RSF0997-01	50.00	mL	50.00	mL	06/30/09 08:00	MLD	CLP Metals Prep (Water)
CLP-M	9G02014	RSF0997-01	30.00	mL	50.00	mL	07/02/09 10:00	MM	CLP Metals Prep (Water)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9442

Project: NYSDEC Standby - Vestal
Project Number: 220-9442

Received: 06/25/09
Reported: 07/09/09 16:47

Case Narrative

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. field-pH), they were not analyzed immediately, but as soon as possible after laboratory receipt.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverables has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Sally J Hoffman

Sally Hoffman
Project Manager

Thursday, July 9, 2009

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

CHAIN OF CUSTODY DOCUMENTS

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484
Phone (203) 929-8140 Fax (203) 929-8142

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Dubauskas, Johanna	Carrier Tracking No(s):	COC No: 220-3770.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: johanna.dubauskas@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		**Analysis Requested**		Job #: 220-9442-1
Address: 10 Hazelwood Drive, ,	Due Date Requested: 7/7/2009			**Preservation Codes:** A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
City: Amherst	TAT Requested (days):			
State, Zip: NY, 14228-2298				
Phone: 716-691-2600(Tel) 716-691-7991(Fax)	PO #:			**Other:**
Email:	WO #:			
Project Name: NYSDEC Standby - Vestal Water Supply	Project #: 22000749			
Site:	SSOW#:			

Sample Identification - Client ID	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT/ ILM05.3 Dissolved TAL Metals	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
4009-15	6/22/09	15:45		Water			X	1	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	6.24.09 1701		[signature]	6/25/09 0900	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2-0°

TestAmerica Buffalo

Work Order RS f0997 **Storage #** 6053

Shipment ID _____ Strict Internal COC: YES / NO
Radiation Check <0.02 mR/hr: YES / NO
Residual Chlorine Check: ☐

Client TA Connecticut Project Dupec Stanley Vera

Pre-log RS _____

TAT 7 BD/_____CD # OF SAMPLES 1 TRIP BLANK Y/N # —

SHIPPED BY	Fedex	ATTACH SHIPPING TAGS
RECEIVED DATE / TIME:		6/25/09 09:00

COOLER TEMP 2.0 °C (<6 °C) OK NO

Cooler Custody Seal intact? YES/NO NONE SEAL # —

If NO to cooler temp or seal, PM notified? YES _____ (PM Name)

WORKSHARE/SUB YES/NO LAB _____ Analysis _____

COMMENTS: SAMPLE TIME (ET) (CT) (MT) (PT) NONE

Sample received outside hold time _____

Condition (Issues) Yes/NO _____

Resolved at login _____ ARRF —

Tests added from All Analyses list _____

PRESERVATION CHECKED YES___ NO X NA___ Initials ___

ARE SAMPLE DATES AND TIMES CORRECT? Initials ___

WERE ALL THE APPROPRIATE TESTS ASSIGNED? Initials ___

Temp.Cert.Loss: Alkalinity by Method SM 2320B for Non Potable Water for Massachusetts and New York.

METALS DATA

ANALYSES DATA PACKAGE COVER PAGE

CLP-M

Laboratory: TestAmerica Buffalo

Client: TestAmerica Connecticut

SDG: 220-9442

Project: NYSDEC Standby - Vestal

Client Sample Id:	Lab Sample Id:
4009-15	RSF0997-01

4009-15

Form 1
INORGANIC ANALYSIS DATA SHEET
CLP-M

Laboratory: TestAmerica Buffalo | SDG: 220-9442

Client: TestAmerica Connecticut | Project: NYSDEC Standby - Vestal

Matrix: Water | Laboratory ID: RSF0997-01 | File ID: 1063009-064

Sampled: 06/22/09 15:45 | Prepared: 06/30/09 08:00 | Analyzed: 06/30/09 17:34

Solids: 0.00 | Preparation: CLP Metals Prep (Water | Initial/Final: 50 mL / 50 mL

Batch: 9F29040 | Sequence: RG90111 | Calibration: R9G0102 | Instrument: Trace 1

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
7429-90-5	Aluminum, Dissolved	80.5	ug/L	1	J	CLP-M
7440-36-0	Antimony, Dissolved	20.0	ug/L	1	U	CLP-M
7440-38-2	Arsenic, Dissolved	10.0	ug/L	1	U	CLP-M
7440-39-3	Barium, Dissolved	9.5	ug/L	1	B	CLP-M
7440-41-7	Beryllium, Dissolved	2.0	ug/L	1	U	CLP-M
7440-43-9	Cadmium, Dissolved	1.0	ug/L	1	U	CLP-M
7440-70-2	Calcium, Dissolved	32000	ug/L	1	B	CLP-M
7440-47-3	Chromium, Dissolved	4.0	ug/L	1	U	CLP-M
7440-48-4	Cobalt, Dissolved	1.4	ug/L	1	JB	CLP-M
7440-50-8	Copper, Dissolved	5.2	ug/L	1	J	CLP-M
7439-89-6	Iron, Dissolved	3790	ug/L	1		CLP-M
7439-92-1	Lead, Dissolved	5.0	ug/L	1	U	CLP-M
7439-95-4	Magnesium, Dissolved	23900	ug/L	1		CLP-M
7439-96-5	Manganese, Dissolved	49.4	ug/L	1		CLP-M
7440-02-0	Nickel, Dissolved	1.4	ug/L	1	J	CLP-M
7440-09-7	Potassium, Dissolved	2460	ug/L	1		CLP-M
7440-23-5	Sodium, Dissolved	69300	ug/L	1		CLP-M
7440-28-0	Thallium, Dissolved	20.0	ug/L	1	U	CLP-M
7440-62-2	Vanadium, Dissolved	5.0	ug/L	1	U	CLP-M
7440-66-6	Zinc, Dissolved	104	ug/L	1		CLP-M

4009-15

Form 1
INORGANIC ANALYSIS DATA SHEET
CLP-M

Laboratory: TestAmerica Buffalo
SDG: 220-9442
Client: TestAmerica Connecticut
Project: NYSDEC Standby - Vestal
Matrix: Water
Laboratory ID: RSF0997-01
File ID: 1070109-015
Sampled: 06/22/09 15:45
Prepared: 06/30/09 08:00
Analyzed: 07/01/09 12:57
Solids: 0.00
Preparation: CLP Metals Prep (Water
Initial/Final: 50 mL / 50 mL
Batch: 9F29040
Sequence: RG90727
Calibration: R9G0708
Instrument: Trace 1

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
7440-22-4	Silver, Dissolved	3.0	ug/L	1	U	CLP-M

4009-15

Form 1
INORGANIC ANALYSIS DATA SHEET
CLP-M

Laboratory: TestAmerica Buffalo | SDG: 220-9442

Client: TestAmerica Connecticut | Project: NYSDEC Standby - Vestal

Matrix: Water | Laboratory ID: RSF0997-01 | File ID: A070209-015

Sampled: 06/22/09 15:45 | Prepared: 06/30/09 08:00 | Analyzed: 07/02/09 13:17

Solids: 0.00 | Preparation: CLP Metals Prep (Water | Initial/Final: 50 mL / 50 mL

Batch: 9F29040 | Sequence: RG90728 | Calibration: R9G0710 | Instrument: Trace 2

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
7782-49-2	Selenium, Dissolved	15.0	ug/L	1	U	CLP-M

4009-15

Form 1
INORGANIC ANALYSIS DATA SHEET
CLP-M

Laboratory: TestAmerica Buffalo | SDG: 220-9442

Client: TestAmerica Connecticut | Project: NYSDEC Standby - Vestal

Matrix: Water | Laboratory ID: RSF0997-01 | File ID: H07029CS-39

Sampled: 06/22/09 15:45 | Prepared: 07/02/09 10:00 | Analyzed: 07/02/09 14:44

Solids: 0.00 | Preparation: CLP Metals Prep (Water | Initial/Final: 30 mL / 50 mL

Batch: 9G02014 | Sequence: RG90219 | Calibration: R9G0208 | Instrument: Leeman 2

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
7439-97-6	Mercury, Dissolved	0.2	ug/L	1	U	CLP-M

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 220-9462-1

SDG Number: 220-9462

Job Description: NYSDEC Standby - Vestal Water Supply

For:
Malcolm Pirnie, Inc.
855 Route 146
Suite 210
Clifton Park, NY 12065

Attention: Mr. Jeremy Wyckoff

Approved for release.
Cheryl Cascella
7/20/2009 4:26 PM

Designee for
Johanna Dubauskas
Project Manager I
johanna.dubauskas@testamericainc.com
07/20/2009

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

Comments
No additional comments.

Receipt
Sample 4009-12A (220-9462-6) was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC). Client was contacted on June 26, 2009 to ask if analysis required. Client responded on July 2, 2009 to confirm the lab is to analyze volume for dissolved metals.

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

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

Case Narrative for Job: 220-9462

Client: MPI
Date: July 20, 2009

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

July 20, 2009
Date

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: 220-9462-1
Sdg Number: 220-9462

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
220-9462-1	4009-13	Water	06/24/2009 0855	06/25/2009 0948
220-9462-1MS	4009-13	Water	06/24/2009 0855	06/25/2009 0948
220-9462-1MSD	4009-13	Water	06/24/2009 0855	06/25/2009 0948
220-9462-2	4009-13A	Water	06/24/2009 1020	06/25/2009 0948
220-9462-3	4009-11	Water	06/24/2009 0940	06/25/2009 0948
220-9462-4	4009-11A	Water	06/24/2009 0835	06/25/2009 0948
220-9462-5	4009-12	Water	06/24/2009 1120	06/25/2009 0948
220-9462-6	4009-12A	Water	06/24/2009 1130	06/25/2009 0948
220-9462-7	WELL 1-1A INF	Water	06/24/2009 1150	06/25/2009 0948
220-9462-8	WELL 1-1A EFF	Water	06/24/2009 1155	06/25/2009 0948
220-9462-9TB	TRIP BLANK	Water	06/24/2009 0000	06/25/2009 0948

METHOD SUMMARY

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
Sdg Number: 220-9462

Description	Lab Location	Method	Preparation Method
Matrix Water			
Volatile Organic Compounds (GC/MS)	TAL CT	SW846 8260B	
Volatile Organic Compounds (GC/MS)	TAL CT	SW846 8260B	
Purge and Trap	TAL CT		SW846 5030B
Purge and Trap	TAL CT		SW846 5030B
ILM05.3 Metals	TAL BUF	ILM05.3 ILM05.3	

Lab References:

TAL BUF = TestAmerica Buffalo

TAL CT = TestAmerica Connecticut

Method References:

ILM05.3 = U.S. Environmental Protection Agency

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: 220-9462-1
Sdg Number: 220-9462

Method	Analyst	Analyst ID
SW846 8260B	Kostrzewska, Barbara	BK

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
Sdg Number: 220-9462

Client Sample ID: 4009-13

Lab Sample ID: 220-9462-1
Client Matrix: Water

Date Sampled: 06/24/2009 0855
Date Received: 06/25/2009 0948

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 07/06/2009 1852
Date Prepared: 07/06/2009 1852

Analysis Batch: 220-28825

Instrument ID: MSW
Lab File ID: W6630.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	2.0	U	0.58	2.0
Benzene	0.50	U	0.14	0.50
Bromodichloromethane	0.50	U	0.078	0.50
Bromoform	0.50	U	0.13	0.50
Bromomethane	1.0	U	0.21	1.0
Methyl Ethyl Ketone	2.0	U	0.32	2.0
Carbon disulfide	0.50	U	0.077	0.50
Carbon tetrachloride	0.50	U	0.10	0.50
Chlorobenzene	0.50	U	0.057	0.50
Chloroethane	1.0	U	0.15	1.0
Chloroform	0.50	U	0.12	0.50
Chloromethane	0.50	U *	0.20	0.50
Dibromochloromethane	0.50	U	0.088	0.50
1,1-Dichloroethane	0.50	U	0.13	0.50
1,2-Dichloroethane	0.50	U	0.12	0.50
1,1-Dichloroethene	0.50	U *	0.19	0.50
cis-1,2-Dichloroethene	0.50	U	0.21	0.50
trans-1,2-Dichloroethene	0.50	U *	0.24	0.50
1,2-Dichloropropane	0.50	U	0.11	0.50
cis-1,3-Dichloropropene	0.50	U	0.13	0.50
trans-1,3-Dichloropropene	0.50	U	0.19	0.50
Ethylbenzene	0.50	U	0.14	0.50
2-Hexanone	2.0	U *	0.51	2.0
Methylene Chloride	2.0	U	0.091	2.0
methyl isobutyl ketone	2.0	U	0.30	2.0
Styrene	0.50	U	0.17	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.15	0.50
Tetrachloroethene	0.50	U	0.11	0.50
Toluene	1.0		0.18	0.50
1,1,1-Trichloroethane	0.50	U	0.16	0.50
1,1,2-Trichloroethane	0.50	U	0.11	0.50
Trichloroethene	0.50	U	0.11	0.50
Vinyl chloride	0.50	U	0.14	0.50
Xylenes, Total	2.5		0.30	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		57 - 121
4-Bromofluorobenzene	78		57 - 121
Dibromofluoromethane	102		67 - 133
Toluene-d8 (Surr)	92		62 - 121

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
Sdg Number: 220-9462

Client Sample ID: 4009-13A

Lab Sample ID: 220-9462-2
Client Matrix: Water

Date Sampled: 06/24/2009 1020
Date Received: 06/25/2009 0948

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 07/06/2009 2149
Date Prepared: 07/06/2009 2149

Analysis Batch: 220-28825

Instrument ID: MSW
Lab File ID: W6637.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	2.0	U	0.58	2.0
Benzene	0.50	U	0.14	0.50
Bromodichloromethane	0.50	U	0.078	0.50
Bromoform	0.50	U	0.13	0.50
Bromomethane	1.0	U	0.21	1.0
Methyl Ethyl Ketone	2.0	U	0.32	2.0
Carbon disulfide	0.50	U	0.077	0.50
Carbon tetrachloride	0.50	U	0.10	0.50
Chlorobenzene	0.50	U	0.057	0.50
Chloroethane	1.0	U	0.15	1.0
Chloroform	0.50	U	0.12	0.50
Chloromethane	0.50	U *	0.20	0.50
Dibromochloromethane	0.50	U	0.088	0.50
1,1-Dichloroethane	0.50	U	0.13	0.50
1,2-Dichloroethane	0.50	U	0.12	0.50
1,1-Dichloroethene	0.50	U *	0.19	0.50
cis-1,2-Dichloroethene	0.50	U	0.21	0.50
trans-1,2-Dichloroethene	0.50	U *	0.24	0.50
1,2-Dichloropropane	0.50	U	0.11	0.50
cis-1,3-Dichloropropene	0.50	U	0.13	0.50
trans-1,3-Dichloropropene	0.50	U	0.19	0.50
Ethylbenzene	0.50	U	0.14	0.50
2-Hexanone	2.0	U *	0.51	2.0
Methylene Chloride	2.0	U	0.091	2.0
methyl isobutyl ketone	2.0	U	0.30	2.0
Styrene	0.50	U	0.17	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.15	0.50
Tetrachloroethene	0.50	U	0.11	0.50
Toluene	0.90		0.18	0.50
1,1,1-Trichloroethane	0.50	U	0.16	0.50
1,1,2-Trichloroethane	0.50	U	0.11	0.50
Trichloroethene	0.50	U	0.11	0.50
Vinyl chloride	0.50	U	0.14	0.50
Xylenes, Total	1.0	U	0.30	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	115		57 - 121
4-Bromofluorobenzene	82		57 - 121
Dibromofluoromethane	111		67 - 133
Toluene-d8 (Surr)	98		62 - 121

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
Sdg Number: 220-9462

Client Sample ID: 4009-11

Lab Sample ID: 220-9462-3
Client Matrix: Water

Date Sampled: 06/24/2009 0940
Date Received: 06/25/2009 0948

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 07/06/2009 1917
Date Prepared: 07/06/2009 1917

Analysis Batch: 220-28825

Instrument ID: MSW
Lab File ID: W6631.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	2.7		0.58	2.0
Benzene	0.50	U	0.14	0.50
Bromodichloromethane	0.50	U	0.078	0.50
Bromoform	0.50	U	0.13	0.50
Bromomethane	1.0	U	0.21	1.0
Methyl Ethyl Ketone	2.0	U	0.32	2.0
Carbon disulfide	0.67		0.077	0.50
Carbon tetrachloride	0.50	U	0.10	0.50
Chlorobenzene	0.50	U	0.057	0.50
Chloroethane	1.0	U	0.15	1.0
Chloroform	0.50	U	0.12	0.50
Chloromethane	0.50	U *	0.20	0.50
Dibromochloromethane	0.50	U	0.088	0.50
1,1-Dichloroethane	0.50	U	0.13	0.50
1,2-Dichloroethane	0.50	U	0.12	0.50
1,1-Dichloroethene	0.50	U *	0.19	0.50
cis-1,2-Dichloroethene	0.50	U	0.21	0.50
trans-1,2-Dichloroethene	0.50	U *	0.24	0.50
1,2-Dichloropropane	0.50	U	0.11	0.50
cis-1,3-Dichloropropene	0.50	U	0.13	0.50
trans-1,3-Dichloropropene	0.50	U	0.19	0.50
Ethylbenzene	0.50	U	0.14	0.50
2-Hexanone	2.0	U *	0.51	2.0
Methylene Chloride	2.0	U	0.091	2.0
methyl isobutyl ketone	2.0	U	0.30	2.0
Styrene	0.50	U	0.17	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.15	0.50
Tetrachloroethene	0.50	U	0.11	0.50
Toluene	0.99		0.18	0.50
1,1,1-Trichloroethane	0.50	U	0.16	0.50
1,1,2-Trichloroethane	0.50	U	0.11	0.50
Trichloroethene	0.50	U	0.11	0.50
Vinyl chloride	0.50	U	0.14	0.50
Xylenes, Total	2.5		0.30	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107		57 - 121
4-Bromofluorobenzene	82		57 - 121
Dibromofluoromethane	105		67 - 133
Toluene-d8 (Surr)	99		62 - 121

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
Sdg Number: 220-9462

Client Sample ID: 4009-11A

Lab Sample ID: 220-9462-4
Client Matrix: Water

Date Sampled: 06/24/2009 0835
Date Received: 06/25/2009 0948

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 07/06/2009 1942
Date Prepared: 07/06/2009 1942

Analysis Batch: 220-28825

Instrument ID: MSW
Lab File ID: W6632.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	2.0	U	0.58	2.0
Benzene	0.50	U	0.14	0.50
Bromodichloromethane	0.50	U	0.078	0.50
Bromoform	0.50	U	0.13	0.50
Bromomethane	1.0	U	0.21	1.0
Methyl Ethyl Ketone	2.0	U	0.32	2.0
Carbon disulfide	0.50	U	0.077	0.50
Carbon tetrachloride	0.50	U	0.10	0.50
Chlorobenzene	0.50	U	0.057	0.50
Chloroethane	1.0	U	0.15	1.0
Chloroform	0.50	U	0.12	0.50
Chloromethane	0.50	U *	0.20	0.50
Dibromochloromethane	0.50	U	0.088	0.50
1,1-Dichloroethane	0.50	U	0.13	0.50
1,2-Dichloroethane	0.50	U	0.12	0.50
1,1-Dichloroethene	0.50	U *	0.19	0.50
cis-1,2-Dichloroethene	0.50	U	0.21	0.50
trans-1,2-Dichloroethene	0.50	U *	0.24	0.50
1,2-Dichloropropane	0.50	U	0.11	0.50
cis-1,3-Dichloropropene	0.50	U	0.13	0.50
trans-1,3-Dichloropropene	0.50	U	0.19	0.50
Ethylbenzene	0.50	U	0.14	0.50
2-Hexanone	2.0	U *	0.51	2.0
Methylene Chloride	2.0	U	0.091	2.0
methyl isobutyl ketone	2.0	U	0.30	2.0
Styrene	0.50	U	0.17	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.15	0.50
Tetrachloroethene	0.50	U	0.11	0.50
Toluene	0.95		0.18	0.50
1,1,1-Trichloroethane	0.50	U	0.16	0.50
1,1,2-Trichloroethane	0.50	U	0.11	0.50
Trichloroethene	0.50	U	0.11	0.50
Vinyl chloride	0.50	U	0.14	0.50
Xylenes, Total	1.0	U	0.30	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106		57 - 121
4-Bromofluorobenzene	79		57 - 121
Dibromofluoromethane	104		67 - 133
Toluene-d8 (Surr)	94		62 - 121

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
Sdg Number: 220-9462

Client Sample ID: 4009-12

Lab Sample ID: 220-9462-5
Client Matrix: Water

Date Sampled: 06/24/2009 1120
Date Received: 06/25/2009 0948

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 4.0
Date Analyzed: 07/07/2009 1454
Date Prepared: 07/07/2009 1454

Analysis Batch: 220-28826

Instrument ID: MSW
Lab File ID: W6667.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	9.1		2.3	8.0
Benzene	2.0	U	0.56	2.0
Bromodichloromethane	2.0	U	0.31	2.0
Bromoform	2.0	U	0.52	2.0
Bromomethane	4.0	U	0.84	4.0
Methyl Ethyl Ketone	8.0	U	1.3	8.0
Carbon disulfide	2.0	U	0.31	2.0
Carbon tetrachloride	2.0	U	0.40	2.0
Chlorobenzene	2.0	U	0.23	2.0
Chloroethane	4.0	U *	0.60	4.0
Chloroform	2.0	U	0.48	2.0
Chloromethane	2.0	U *	0.80	2.0
Dibromochloromethane	2.0	U	0.35	2.0
1,1-Dichloroethane	12		0.52	2.0
1,2-Dichloroethane	2.0	U	0.48	2.0
1,1-Dichloroethene	19		0.76	2.0
cis-1,2-Dichloroethene	56		0.84	2.0
trans-1,2-Dichloroethene	1.5	J	0.96	2.0
1,2-Dichloropropane	2.0	U	0.44	2.0
cis-1,3-Dichloropropene	2.0	U	0.52	2.0
trans-1,3-Dichloropropene	2.0	U	0.76	2.0
Ethylbenzene	2.0	U	0.56	2.0
2-Hexanone	8.0	U	2.0	8.0
Methylene Chloride	14		0.36	8.0
methyl isobutyl ketone	8.0	U	1.2	8.0
Styrene	2.0	U	0.68	2.0
1,1,2,2-Tetrachloroethane	2.0	U	0.60	2.0
Tetrachloroethene	2.0	U	0.44	2.0
Toluene	2.0	U	0.72	2.0
1,1,1-Trichloroethane	230		0.64	2.0
1,1,2-Trichloroethane	2.0	U	0.44	2.0
Trichloroethene	59		0.44	2.0
Vinyl chloride	2.0	U	0.56	2.0
Xylenes, Total	4.0	U	1.2	4.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	118		57 - 121
4-Bromofluorobenzene	82		57 - 121
Dibromofluoromethane	111		67 - 133
Toluene-d8 (Surr)	97		62 - 121

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
Sdg Number: 220-9462

Client Sample ID: 4009-12A

Lab Sample ID: 220-9462-6
Client Matrix: Water

Date Sampled: 06/24/2009 1130
Date Received: 06/25/2009 0948

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 07/06/2009 2033
Date Prepared: 07/06/2009 2033

Analysis Batch: 220-28825

Instrument ID: MSW
Lab File ID: W6634.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	2.0	U	0.58	2.0
Benzene	0.50	U	0.14	0.50
Bromodichloromethane	0.50	U	0.078	0.50
Bromoform	0.50	U	0.13	0.50
Bromomethane	1.0	U	0.21	1.0
Methyl Ethyl Ketone	2.0	U	0.32	2.0
Carbon disulfide	0.50	U	0.077	0.50
Carbon tetrachloride	0.50	U	0.10	0.50
Chlorobenzene	0.50	U	0.057	0.50
Chloroethane	1.0	U	0.15	1.0
Chloroform	0.50	U	0.12	0.50
Chloromethane	0.50	U *	0.20	0.50
Dibromochloromethane	0.50	U	0.088	0.50
1,1-Dichloroethane	11		0.13	0.50
1,2-Dichloroethane	0.50	U	0.12	0.50
1,1-Dichloroethene	3.4	*	0.19	0.50
cis-1,2-Dichloroethene	21		0.21	0.50
trans-1,2-Dichloroethene	0.25	J *	0.24	0.50
1,2-Dichloropropane	0.50	U	0.11	0.50
cis-1,3-Dichloropropene	0.50	U	0.13	0.50
trans-1,3-Dichloropropene	0.50	U	0.19	0.50
Ethylbenzene	0.50	U	0.14	0.50
2-Hexanone	2.0	U *	0.51	2.0
Methylene Chloride	2.0	U	0.091	2.0
methyl isobutyl ketone	2.0	U	0.30	2.0
Styrene	0.50	U	0.17	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.15	0.50
Tetrachloroethene	0.50	U	0.11	0.50
Toluene	0.94		0.18	0.50
1,1,1-Trichloroethane	12		0.16	0.50
1,1,2-Trichloroethane	0.50	U	0.11	0.50
Trichloroethene	5.7		0.11	0.50
Vinyl chloride	0.50	U	0.14	0.50
Xylenes, Total	1.0	U	0.30	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110		57 - 121
4-Bromofluorobenzene	82		57 - 121
Dibromofluoromethane	108		67 - 133
Toluene-d8 (Surr)	99		62 - 121

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
Sdg Number: 220-9462

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

Lab Sample ID: 220-9462-7
Client Matrix: Water

Date Sampled: 06/24/2009 1150
Date Received: 06/25/2009 0948

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 4.0
Date Analyzed: 07/07/2009 1520
Date Prepared: 07/07/2009 1520

Analysis Batch: 220-28826

Instrument ID: MSW
Lab File ID: W6668.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10		2.3	8.0
Benzene	2.0	U	0.56	2.0
Bromodichloromethane	2.0	U	0.31	2.0
Bromoform	2.0	U	0.52	2.0
Bromomethane	4.0	U	0.84	4.0
Methyl Ethyl Ketone	8.0	U	1.3	8.0
Carbon disulfide	2.0	U	0.31	2.0
Carbon tetrachloride	2.0	U	0.40	2.0
Chlorobenzene	2.0	U	0.23	2.0
Chloroethane	4.0	U *	0.60	4.0
Chloroform	2.0	U	0.48	2.0
Chloromethane	2.0	U *	0.80	2.0
Dibromochloromethane	2.0	U	0.35	2.0
1,1-Dichloroethane	27		0.52	2.0
1,2-Dichloroethane	2.0	U	0.48	2.0
1,1-Dichloroethene	22		0.76	2.0
cis-1,2-Dichloroethene	55		0.84	2.0
trans-1,2-Dichloroethene	1.5	J	0.96	2.0
1,2-Dichloropropane	2.0	U	0.44	2.0
cis-1,3-Dichloropropene	2.0	U	0.52	2.0
trans-1,3-Dichloropropene	2.0	U	0.76	2.0
Ethylbenzene	2.0	U	0.56	2.0
2-Hexanone	8.0	U	2.0	8.0
Methylene Chloride	14		0.36	8.0
methyl isobutyl ketone	8.0	U	1.2	8.0
Styrene	2.0	U	0.68	2.0
1,1,2,2-Tetrachloroethane	2.0	U	0.60	2.0
Tetrachloroethene	2.0	U	0.44	2.0
Toluene	2.0	U	0.72	2.0
1,1,1-Trichloroethane	270		0.64	2.0
1,1,2-Trichloroethane	2.0	U	0.44	2.0
Trichloroethene	59		0.44	2.0
Vinyl chloride	11		0.56	2.0
Xylenes, Total	4.0	U	1.2	4.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	114		57 - 121
4-Bromofluorobenzene	77		57 - 121
Dibromofluoromethane	109		67 - 133
Toluene-d8 (Surr)	95		62 - 121

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
Sdg Number: 220-9462

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

Lab Sample ID: 220-9462-8
Client Matrix: Water

Date Sampled: 06/24/2009 1155
Date Received: 06/25/2009 0948

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 07/06/2009 2123
Date Prepared: 07/06/2009 2123

Analysis Batch: 220-28825

Instrument ID: MSW
Lab File ID: W6636.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U *	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U *	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U *	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
trans-1,2-Dichloroethene	5.0	U *	0.76	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	119		65 - 136
4-Bromofluorobenzene	83		51 - 142
Dibromofluoromethane	114		68 - 132
Toluene-d8 (Surr)	102		63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
Sdg Number: 220-9462

Client Sample ID: **TRIP BLANK**

Lab Sample ID: 220-9462-9TB
Client Matrix: Water

Date Sampled: 06/24/2009 0000
Date Received: 06/25/2009 0948

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 07/07/2009 1429
Date Prepared: 07/07/2009 1429

Analysis Batch: 220-28826

Instrument ID: MSW
Lab File ID: W6666.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U *	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U *	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	119		65 - 136
4-Bromofluorobenzene	82		51 - 142
Dibromofluoromethane	109		68 - 132
Toluene-d8 (Surr)	97		63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
Sdg Number: 220-9462

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	12DCE %Rec	TOL %Rec	BFB %Rec
220-9462-1	4009-13	102	104	92	78
220-9462-2	4009-13A	111	115	98	82
220-9462-3	4009-11	105	107	99	82
220-9462-4	4009-11A	104	106	94	79
220-9462-5	4009-12	111	118	97	82
220-9462-6	4009-12A	108	110	99	82
220-9462-7	WELL 1-1A INF	109	114	95	77
MB 220-28825/3		101	103	93	79
LCS 220-28825/2		106	103	105	93
220-9462-1 MS	4009-13 MS	102	99	103	93
220-9462-1 MSD	4009-13 MSD	103	98	104	93

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane	67-133
12DCE = 1,2-Dichloroethane-d4 (Surr)	57-121
TOL = Toluene-d8 (Surr)	62-121
BFB = 4-Bromofluorobenzene	57-121

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
Sdg Number: 220-9462

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	12DCE %Rec	TOL %Rec	BFB %Rec
220-9462-8	WELL 1-1A EFF	114	119	102	83
220-9462-9	TRIP BLANK	109	119	97	82
MB 220-28826/3		112	121	101	84
LCS 220-28826/2		109	118	96	83

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane	68-132
12DCE = 1,2-Dichloroethane-d4 (Surr)	65-136
TOL = Toluene-d8 (Surr)	63-127
BFB = 4-Bromofluorobenzene	51-142

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
Sdg Number: 220-9462

Method Blank - Batch: 220-28825

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 220-28825/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/06/2009 1349
Date Prepared: 07/06/2009 1349

Analysis Batch: 220-28825
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W6618.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Acetone	2.0	U	0.58	2.0
Benzene	0.50	U	0.14	0.50
Bromodichloromethane	0.50	U	0.078	0.50
Bromoform	0.50	U	0.13	0.50
Bromomethane	1.0	U	0.21	1.0
Methyl Ethyl Ketone	2.0	U	0.32	2.0
Carbon disulfide	0.50	U	0.077	0.50
Carbon tetrachloride	0.50	U	0.10	0.50
Chlorobenzene	0.50	U	0.057	0.50
Chloroethane	1.0	U	0.15	1.0
Chloroform	0.50	U	0.12	0.50
Chloromethane	0.50	U	0.20	0.50
Dibromochloromethane	0.50	U	0.088	0.50
1,1-Dichloroethane	0.50	U	0.13	0.50
1,2-Dichloroethane	0.50	U	0.12	0.50
1,1-Dichloroethene	0.50	U	0.19	0.50
cis-1,2-Dichloroethene	0.50	U	0.21	0.50
trans-1,2-Dichloroethene	0.50	U	0.24	0.50
1,2-Dichloropropane	0.50	U	0.11	0.50
cis-1,3-Dichloropropene	0.50	U	0.13	0.50
trans-1,3-Dichloropropene	0.50	U	0.19	0.50
Ethylbenzene	0.50	U	0.14	0.50
2-Hexanone	2.0	U	0.51	2.0
Methylene Chloride	2.0	U	0.091	2.0
methyl isobutyl ketone	2.0	U	0.30	2.0
Styrene	0.50	U	0.17	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.15	0.50
Tetrachloroethene	0.50	U	0.11	0.50
Toluene	0.50	U	0.18	0.50
1,1,1-Trichloroethane	0.50	U	0.16	0.50
1,1,2-Trichloroethane	0.50	U	0.11	0.50
Trichloroethene	0.50	U	0.11	0.50
Vinyl chloride	0.50	U	0.14	0.50
Xylenes, Total	1.0	U	0.30	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103	57 - 121
4-Bromofluorobenzene	79	57 - 121
Dibromofluoromethane	101	67 - 133
Toluene-d8 (Surr)	93	62 - 121

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

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
Sdg Number: 220-9462

Lab Control Sample - Batch: 220-28825

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 220-28825/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/06/2009 1233
Date Prepared: 07/06/2009 1233

Analysis Batch: 220-28825
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W6615.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	10.0	9.23	92	33 - 150	
Benzene	10.0	11.6	116	72 - 123	
Bromodichloromethane	10.0	10.7	107	71 - 128	
Bromoform	10.0	9.73	97	66 - 120	
Bromomethane	10.0	12.3	123	35 - 150	
Methyl Ethyl Ketone	10.0	9.19	92	30 - 150	
Carbon disulfide	10.0	12.7	127	51 - 140	
Carbon tetrachloride	10.0	12.8	128	67 - 134	
Chlorobenzene	10.0	10.2	102	68 - 120	
Chloroethane	10.0	14.5	145	35 - 150	
Chloroform	10.0	11.8	118	72 - 131	
Chloromethane	10.0	15.8	158	30 - 150	*
Dibromochloromethane	10.0	10.0	100	66 - 120	
1,1-Dichloroethane	10.0	11.3	113	74 - 127	
1,2-Dichloroethane	10.0	10.8	108	64 - 136	
1,1-Dichloroethene	10.0	15.1	151	70 - 134	*
cis-1,2-Dichloroethene	10.0	10.5	105	70 - 120	
trans-1,2-Dichloroethene	10.0	12.1	121	63 - 120	*
1,2-Dichloropropane	10.0	10.6	106	71 - 120	
cis-1,3-Dichloropropene	10.0	8.64	86	66 - 120	
trans-1,3-Dichloropropene	10.0	9.53	95	70 - 120	
Ethylbenzene	10.0	10.1	101	63 - 120	
2-Hexanone	10.0	1.08	11	29 - 150	J *
Methylene Chloride	10.0	9.20	92	47 - 150	
methyl isobutyl ketone	10.0	8.06	81	52 - 137	
Styrene	10.0	8.64	86	52 - 120	
1,1,2,2-Tetrachloroethane	10.0	8.95	90	62 - 129	
Tetrachloroethene	10.0	10.8	108	55 - 120	
Toluene	10.0	10.4	104	64 - 120	
1,1,1-Trichloroethane	10.0	12.5	125	70 - 134	
1,1,2-Trichloroethane	10.0	10.4	104	73 - 126	
Trichloroethene	10.0	11.7	117	66 - 120	
Vinyl chloride	10.0	14.3	143	48 - 150	
Xylenes, Total	30.0	28.9	96	61 - 120	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103	57 - 121
4-Bromofluorobenzene	93	57 - 121
Dibromofluoromethane	106	67 - 133
Toluene-d8 (Surr)	105	62 - 121

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

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
Sdg Number: 220-9462

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 220-28825

Method: 8260B
Preparation: 5030B

MS Lab Sample ID: 220-9462-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/06/2009 1711
Date Prepared: 07/06/2009 1711

Analysis Batch: 220-28825
Prep Batch: N/A

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W6626.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

MSD Lab Sample ID: 220-9462-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/06/2009 1736
Date Prepared: 07/06/2009 1736

Analysis Batch: 220-28825
Prep Batch: N/A

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W6627.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acetone	65	62	33 - 150	4	20		
Benzene	122	117	72 - 123	5	20		
Bromodichloromethane	117	111	71 - 128	5	20		
Bromoform	94	89	66 - 120	5	20		
Bromomethane	111	112	35 - 150	1	20		
Methyl Ethyl Ketone	87	82	30 - 150	6	20		
Carbon disulfide	141	135	51 - 140	4	20	*	
Carbon tetrachloride	155	146	67 - 134	6	20	*	*
Chlorobenzene	109	102	68 - 120	6	20		
Chloroethane	175	188	35 - 150	7	20	*	*
Chloroform	122	115	72 - 131	6	20		
Chloromethane	123	120	30 - 150	2	20		
Dibromochloromethane	111	103	66 - 120	7	20		
1,1-Dichloroethane	125	118	74 - 127	6	20		
1,2-Dichloroethane	112	105	64 - 136	7	20		
1,1-Dichloroethene	147	142	70 - 134	4	20	*	*
cis-1,2-Dichloroethene	122	117	70 - 120	4	20	*	
trans-1,2-Dichloroethene	129	123	63 - 120	5	20	*	*
1,2-Dichloropropane	114	108	71 - 120	5	20		
cis-1,3-Dichloropropene	95	90	66 - 120	5	20		
trans-1,3-Dichloropropene	100	94	70 - 120	6	20		
Ethylbenzene	108	102	63 - 120	5	20		
2-Hexanone	81	77	29 - 150	5	20		
Methylene Chloride	95	90	47 - 150	5	20		
methyl isobutyl ketone	82	79	52 - 137	4	20		
Styrene	97	93	52 - 120	5	20		
1,1,2,2-Tetrachloroethane	92	88	62 - 129	5	20		
Tetrachloroethene	123	116	55 - 120	6	20	*	
Toluene	103	97	64 - 120	6	20		
1,1,1-Trichloroethane	145	136	70 - 134	6	20	*	*

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

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
Sdg Number: 220-9462

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 220-28825

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	220-9462-1	Analysis Batch:	220-28825	Instrument ID:	HP 6890/5973 GC/MS
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	W6626.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	07/06/2009 1711			Final Weight/Volume:	5 mL
Date Prepared:	07/06/2009 1711				

MSD Lab Sample ID:	220-9462-1	Analysis Batch:	220-28825	Instrument ID:	HP 6890/5973 GC/MS
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	W6627.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	07/06/2009 1736			Final Weight/Volume:	5 mL
Date Prepared:	07/06/2009 1736				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1,2-Trichloroethane	109	102	73 - 126	6	20		
Trichloroethene	131	123	66 - 120	6	20	*	*
Vinyl chloride	135	133	48 - 150	1	20		
Xylenes, Total	100	94	61 - 120	6	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99	98	57 - 121
4-Bromofluorobenzene	93	93	57 - 121
Dibromofluoromethane	102	103	67 - 133
Toluene-d8 (Surr)	103	104	62 - 121

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

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
Sdg Number: 220-9462

Matrix Spike/
Matrix Spike Duplicate Data Report - Batch: 220-28825

Method: 8260B
Preparation: 5030B

MS Lab Sample ID: 220-9462-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/06/2009 1711
Date Prepared: 07/06/2009 1711

Units: ug/L

MSD Lab Sample ID: 220-9462-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/06/2009 1736
Date Prepared: 07/06/2009 1736

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Acetone	2.0	U	20.0	20.0	12.9		12.5	
Benzene	0.50	U	20.0	20.0	24.5		23.3	
Bromodichloromethane	0.50	U	20.0	20.0	23.4		22.3	
Bromoform	0.50	U	20.0	20.0	18.7		17.7	
Bromomethane	1.0	U	20.0	20.0	22.1		22.4	
Methyl Ethyl Ketone	2.0	U	20.0	20.0	17.5		16.4	
Carbon disulfide	0.50	U	20.0	20.0	28.2	*	27.0	
Carbon tetrachloride	0.50	U	20.0	20.0	31.1	*	29.2	*
Chlorobenzene	0.50	U	20.0	20.0	21.7		20.5	
Chloroethane	1.0	U	20.0	20.0	35.1	*	37.6	*
Chloroform	0.50	U	20.0	20.0	24.4		23.0	
Chloromethane	0.50	U	20.0	20.0	24.6		24.1	
Dibromochloromethane	0.50	U	20.0	20.0	22.2		20.6	
1,1-Dichloroethane	0.50	U	20.0	20.0	25.0		23.6	
1,2-Dichloroethane	0.50	U	20.0	20.0	22.4		21.0	
1,1-Dichloroethene	0.50	U	20.0	20.0	29.4	*	28.3	*
cis-1,2-Dichloroethene	0.50	U	20.0	20.0	24.4	*	23.4	
trans-1,2-Dichloroethene	0.50	U	20.0	20.0	25.7	*	24.6	*
1,2-Dichloropropane	0.50	U	20.0	20.0	22.7		21.6	
cis-1,3-Dichloropropene	0.50	U	20.0	20.0	19.0		18.0	
trans-1,3-Dichloropropene	0.50	U	20.0	20.0	20.0		18.8	
Ethylbenzene	0.50	U	20.0	20.0	21.6		20.4	
2-Hexanone	2.0	U	20.0	20.0	16.3		15.5	
Methylene Chloride	2.0	U	20.0	20.0	18.9		18.0	
methyl isobutyl ketone	2.0	U	20.0	20.0	16.4		15.7	
Styrene	0.50	U	20.0	20.0	19.5		18.5	
1,1,2,2-Tetrachloroethane	0.50	U	20.0	20.0	18.5		17.5	
Tetrachloroethene	0.50	U	20.0	20.0	24.6	*	23.1	
Toluene	1.0		20.0	20.0	21.6		20.4	
1,1,1-Trichloroethane	0.50	U	20.0	20.0	28.9	*	27.2	*
1,1,2-Trichloroethane	0.50	U	20.0	20.0	21.7		20.5	
Trichloroethene	0.50	U	20.0	20.0	26.2	*	24.6	*
Vinyl chloride	0.50	U	20.0	20.0	26.9		26.7	
Xylenes, Total	2.5		60.0	60.0	62.4		58.7	

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

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
Sdg Number: 220-9462

Method Blank - Batch: 220-28826

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 220-28826/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/07/2009 1223
Date Prepared: 07/07/2009 1223

Analysis Batch: 220-28826
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W6661.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Acetone	10	U	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	121	65 - 136
4-Bromofluorobenzene	84	51 - 142
Dibromofluoromethane	112	68 - 132
Toluene-d8 (Surr)	101	63 - 127

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

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
Sdg Number: 220-9462

Lab Control Sample - Batch: 220-28826

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 220-28826/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/07/2009 1133
Date Prepared: 07/07/2009 1133

Analysis Batch: 220-28826
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W6659.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	10.0	11.9	119	41 - 150	
Benzene	10.0	10.7	107	66 - 131	
Bromodichloromethane	10.0	10.6	106	78 - 120	
Bromoform	10.0	9.30	93	66 - 120	
Bromomethane	10.0	12.8	128	47 - 150	
Methyl Ethyl Ketone	10.0	10.8	108	42 - 150	
Carbon disulfide	10.0	11.6	116	55 - 150	
Carbon tetrachloride	10.0	12.2	122	69 - 135	
Chlorobenzene	10.0	9.50	95	68 - 120	
Chloroethane	10.0	15.2	152	49 - 150	*
Chloroform	10.0	11.9	119	77 - 126	
Chloromethane	10.0	15.3	153	33 - 150	*
Dibromochloromethane	10.0	9.51	95	75 - 120	
1,1-Dichloroethane	10.0	11.1	111	75 - 130	
1,2-Dichloroethane	10.0	11.3	113	73 - 127	
1,1-Dichloroethene	10.0	13.0	130	65 - 142	
1,2-Dichloropropane	10.0	9.86	99	69 - 129	
cis-1,3-Dichloropropene	10.0	7.81	78	63 - 120	
trans-1,3-Dichloropropene	10.0	8.94	89	73 - 120	
Ethylbenzene	10.0	8.84	88	62 - 120	
2-Hexanone	10.0	5.82	58	46 - 150	J
Methylene Chloride	10.0	9.63	96	56 - 138	
methyl isobutyl ketone	10.0	7.66	77	70 - 122	J
Styrene	10.0	7.43	74	47 - 120	
1,1,2,2-Tetrachloroethane	10.0	9.06	91	75 - 124	
Tetrachloroethene	10.0	9.29	93	50 - 120	
Toluene	10.0	9.38	94	66 - 120	
1,1,1-Trichloroethane	10.0	11.7	117	73 - 135	
1,1,2-Trichloroethane	10.0	10.3	103	76 - 125	
Trichloroethene	10.0	10.8	108	60 - 122	
Vinyl chloride	10.0	13.7	137	61 - 150	
Xylenes, Total	30.0	24.0	80	58 - 120	
cis-1,2-Dichloroethene	10.0	9.10	91	65 - 120	
trans-1,2-Dichloroethene	10.0	10.8	108	58 - 120	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	118	65 - 136
4-Bromofluorobenzene	83	51 - 142
Dibromofluoromethane	109	68 - 132
Toluene-d8 (Surr)	96	63 - 127

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

DATA REPORTING QUALIFIERS

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
Sdg Number: 220-9462

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
	*	MS or MSD exceeds the control limits

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
Sdg Number: 220-9462

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:220-28825					
LCS 220-28825/2	Lab Control Sample	T	Water	8260B	
MB 220-28825/3	Method Blank	T	Water	8260B	
220-9462-1	4009-13	T	Water	8260B	
220-9462-1MS	Matrix Spike	T	Water	8260B	
220-9462-1MSD	Matrix Spike Duplicate	T	Water	8260B	
220-9462-2	4009-13A	T	Water	8260B	
220-9462-3	4009-11	T	Water	8260B	
220-9462-4	4009-11A	T	Water	8260B	
220-9462-6	4009-12A	T	Water	8260B	
220-9462-8	WELL 1-1A EFF	T	Water	8260B	
Analysis Batch:220-28826					
LCS 220-28826/2	Lab Control Sample	T	Water	8260B	
MB 220-28826/3	Method Blank	T	Water	8260B	
220-9462-5	4009-12	T	Water	8260B	
220-9462-7	WELL 1-1A INF	T	Water	8260B	
220-9462-9TB	TRIP BLANK	T	Water	8260B	

Report Basis
T = Total

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
SDG: 220-9462

Laboratory Chronicle

Lab ID: 220-9462-1 **Client ID: 4009-13**

Sample Date/Time: 06/24/2009 08:55 Received Date/Time: 06/25/2009 09:48

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9462-C-1		220-28825		07/06/2009 18:52	1	TAL CT	BK
A:8260B	220-9462-C-1		220-28825		07/06/2009 18:52	1	TAL CT	BK

Lab ID: 220-9462-1 **Client ID: 4009-13**

Sample Date/Time: 06/24/2009 08:55 Received Date/Time: 06/25/2009 09:48

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9462-B-1 MS		220-28825		07/06/2009 17:11	1	TAL CT	BK
A:8260B	220-9462-B-1 MS		220-28825		07/06/2009 17:11	1	TAL CT	BK

Lab ID: 220-9462-1 **Client ID: 4009-13**

Sample Date/Time: 06/24/2009 08:55 Received Date/Time: 06/25/2009 09:48

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9462-C-1 MSD		220-28825		07/06/2009 17:36	1	TAL CT	BK
A:8260B	220-9462-C-1 MSD		220-28825		07/06/2009 17:36	1	TAL CT	BK

Lab ID: 220-9462-2 **Client ID: 4009-13A**

Sample Date/Time: 06/24/2009 10:20 Received Date/Time: 06/25/2009 09:48

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9462-A-2		220-28825		07/06/2009 21:49	1	TAL CT	BK
A:8260B	220-9462-A-2		220-28825		07/06/2009 21:49	1	TAL CT	BK

Lab ID: 220-9462-3 **Client ID: 4009-11**

Sample Date/Time: 06/24/2009 09:40 Received Date/Time: 06/25/2009 09:48

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9462-A-3		220-28825		07/06/2009 19:17	1	TAL CT	BK
A:8260B	220-9462-A-3		220-28825		07/06/2009 19:17	1	TAL CT	BK

Lab ID: 220-9462-4 **Client ID: 4009-11A**

Sample Date/Time: 06/24/2009 08:35 Received Date/Time: 06/25/2009 09:48

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9462-B-4		220-28825		07/06/2009 19:42	1	TAL CT	BK
A:8260B	220-9462-B-4		220-28825		07/06/2009 19:42	1	TAL CT	BK

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
SDG: 220-9462

Laboratory Chronicle

Lab ID: 220-9462-5 **Client ID: 4009-12**

Sample Date/Time: 06/24/2009 11:20 Received Date/Time: 06/25/2009 09:48

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9462-C-5		220-28826		07/07/2009 14:54	4	TAL CT	BK
A:8260B	220-9462-C-5		220-28826		07/07/2009 14:54	4	TAL CT	BK

Lab ID: 220-9462-6 **Client ID: 4009-12A**

Sample Date/Time: 06/24/2009 11:30 Received Date/Time: 06/25/2009 09:48

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9462-B-6		220-28825		07/06/2009 20:33	1	TAL CT	BK
A:8260B	220-9462-B-6		220-28825		07/06/2009 20:33	1	TAL CT	BK

Lab ID: 220-9462-7 **Client ID: WELL 1-1A INF**

Sample Date/Time: 06/24/2009 11:50 Received Date/Time: 06/25/2009 09:48

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9462-B-7		220-28826		07/07/2009 15:20	4	TAL CT	BK
A:8260B	220-9462-B-7		220-28826		07/07/2009 15:20	4	TAL CT	BK

Lab ID: 220-9462-8 **Client ID: WELL 1-1A EFF**

Sample Date/Time: 06/24/2009 11:55 Received Date/Time: 06/25/2009 09:48

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9462-B-8		220-28825		07/06/2009 21:23	1	TAL CT	BK
A:8260B	220-9462-B-8		220-28825		07/06/2009 21:23	1	TAL CT	BK

Lab ID: 220-9462-9 **Client ID: TRIP BLANK**

Sample Date/Time: 06/24/2009 00:00 Received Date/Time: 06/25/2009 09:48

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9462-A-9		220-28826		07/07/2009 14:29	1	TAL CT	BK
A:8260B	220-9462-A-9		220-28826		07/07/2009 14:29	1	TAL CT	BK

Client: Malcolm Pirnie, Inc.

Job Number: 220-9462-1
SDG: 220-9462

Laboratory Chronicle

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	MB 220-28825/3		220-28825		07/06/2009 13:49	1	TAL CT	BK
A:8260B	MB 220-28825/3		220-28825		07/06/2009 13:49	1	TAL CT	BK
P:5030B	MB 220-28826/3		220-28826		07/07/2009 12:23	1	TAL CT	BK
A:8260B	MB 220-28826/3		220-28826		07/07/2009 12:23	1	TAL CT	BK

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCS 220-28825/2		220-28825		07/06/2009 12:33	1	TAL CT	BK
A:8260B	LCS 220-28825/2		220-28825		07/06/2009 12:33	1	TAL CT	BK
P:5030B	LCS 220-28826/2		220-28826		07/07/2009 11:33	1	TAL CT	BK
A:8260B	LCS 220-28826/2		220-28826		07/07/2009 11:33	1	TAL CT	BK

Lab References:
TAL CT = TestAmerica Connecticut

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

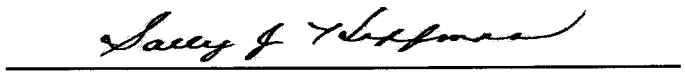
Analytical Report

SDG Number: 220-9462

Project Description(s)
Work Order RSF1110 - NYSDEC Standby - Vestal

For:

Johanna Dubauskas
TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484



Sally Hoffman
Project Manager
Sally.Hoffman@testamericainc.com

Friday, July 17, 2009

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9462

Project: NYSDEC Standby - Vestal
Project Number: 220-9462

Received: 06/27/09
Reported: 07/17/09 13:32

TestAmerica Buffalo
Current Certifications

As of 1/27/2009

STATE	Program	Cert # / Lab ID
Arkansas	CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA,NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA,CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP,SDWA, CWA, RCRA,	NY455
New York*	NELAP, AIR, SDWA, CWA, RCRA,CLP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania*	NELAP CWA,RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	T104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington*	NELAP CWA,RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA,RCRA	252

*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report.

SAMPLE DATA SUMMARY PACKAGE

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9462

Project: NYSDEC Standby - Vestal
Project Number: 220-9462

Received: 06/27/09
Reported: 07/17/09 13:32

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
4009-12A	RSF1110-05	Water	06/24/09 11:30	06/27/09 09:15	
4009-12	RSF1110-04	Water	06/24/09 11:20	06/27/09 09:15	
4009-13	RSF1110-01	Water	06/24/09 08:55	06/27/09 09:15	

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9462

Project: NYSDEC Standby - Vestal
Project Number: 220-9462

Received: 06/27/09
Reported: 07/17/09 13:32

DATA QUALIFIERS AND DEFINITIONS

B	Analyte was detected in the associated Method Blank.
E	Concentration exceeds the calibration range and therefore result is semi-quantitative.
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
M1	The MS and/or MSD were outside the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
R3	The RPD exceeded the acceptance limit due to sample matrix effects.
NR	Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9462

Project: NYSDEC Standby - Vestal
Project Number: 220-9462

Received: 06/27/09
Reported: 07/17/09 13:32

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: 4009-12A (RSF1110-05 - Water)							**Sampled: 06/24/09 11:30**		**Recvd: 06/27/09 09:15**	
CLP Metals										
Barium	**51.0**		2.0	0.1	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Calcium	**134000**		500	38.0	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Iron	**1770**	B	50.0	19.3	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Magnesium	**25600**	B	200	43.0	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Manganese	**414**	B	3.0	0.2	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Potassium	**2280**		500	31.0	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Sodium	**107000**		1000	256	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Zinc	**10.1**		10.0	1.5	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Client ID: 4009-12 (RSF1110-04 - Water)							**Sampled: 06/24/09 11:20**		**Recvd: 06/27/09 09:15**	
CLP Metals										
Barium	**68.3**	B	2.0	0.1	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Calcium	**147000**		500	38.0	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Cobalt	**0.8**	J, B	4.0	0.5	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Copper	**1.4**	J	10.0	1.3	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Iron	**717**		50.0	19.3	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Magnesium	**23200**		200	43.0	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Manganese	**14.1**		3.0	0.2	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Potassium	**2500**		500	31.0	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Sodium	**110000**		1000	256	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Zinc	**14.0**		10.0	1.5	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Aluminum	**85.5**	J, B	200	39.8	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Barium	**66.6**	J, B	200	0.1	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Beryllium	**0.2**	J	5.0	0.2	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Calcium	**148000**	B	5000	38.0	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Iron	**1300**		100	19.3	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Lead	**2.4**	J	10.0	1.8	ug/L	1.00	07/02/09 13:14	AMH	9F29041	CLP-M
Magnesium	**22100**		5000	43.0	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Manganese	**18.9**		15.0	0.2	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Potassium	**2360**	J	5000	31.0	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Sodium	**109000**		5000	256	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Zinc	**12.5**	J	60.0	1.5	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9462

Project: NYSDEC Standby - Vestal
Project Number: 220-9462

Received: 06/27/09
Reported: 07/17/09 13:32

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: 4009-13 (RSF1110-01 - Water)							**Sampled: 06/24/09 08:55**		**Recvd: 06/27/09 09:15**	
CLP Metals										
Arsenic	**6.9**	J	10.0	5.5	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Barium	**128**	B	2.0	0.1	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Calcium	**114000**		500	38.0	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Iron	**1260**		50.0	19.3	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Magnesium	**42000**		200	43.0	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Manganese	**652**		3.0	0.2	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Nickel	**1.9**	J	10.0	1.3	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Potassium	**2160**		500	31.0	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Sodium	**97500**		1000	256	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Zinc	**24.0**		10.0	1.5	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9462

Project: NYSDEC Standby - Vestal
Project Number: 220-9462

Received: 06/27/09
Reported: 07/17/09 13:32

Analytical Report

Client ID: 4009-12A (RSF1110-05 - Water) **Sampled: 06/24/09 11:30** **Recvd: 06/27/09 09:15**

CLP Metals

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Aluminum	ND		200	39.8	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Antimony	ND		20.0	5.5	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Arsenic	ND		10.0	5.5	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Barium	**51.0**		2.0	0.1	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Beryllium	ND		2.0	0.2	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Cadmium	ND		1.0	0.3	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Calcium	**134000**		500	38.0	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Chromium	ND		4.0	0.9	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Cobalt	ND		4.0	0.5	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Copper	ND		10.0	1.3	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Iron	**1770**	B	50.0	19.3	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Lead	ND		5.0	1.8	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Magnesium	**25600**	B	200	43.0	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Manganese	**414**	B	3.0	0.2	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Mercury	ND		0.2	0.1	ug/L	1.00	07/02/09 14:57	MM	9G02014	CLP-M
Nickel	ND		10.0	1.3	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Potassium	**2280**		500	31.0	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Selenium	ND		15.0	8.7	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Silver	ND		3.0	1.2	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Sodium	**107000**		1000	256	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Thallium	ND		20.0	7.7	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Vanadium	ND		5.0	1.1	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Zinc	**10.1**		10.0	1.5	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9462

Project: NYSDEC Standby - Vestal
Project Number: 220-9462

Received: 06/27/09
Reported: 07/17/09 13:32

Analytical Report

Client ID: 4009-12 (RSF1110-04 - Water) **Sampled: 06/24/09 11:20** **Recvd: 06/27/09 09:15**

CLP Metals

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Mercury	ND		0.2	0.1	ug/L	1.00	07/02/09 14:12	MM	9G02013	CLP-HG
Aluminum	ND		200	39.8	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Antimony	ND		20.0	5.5	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Arsenic	ND		10.0	5.5	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Barium	**68.3**	B	2.0	0.1	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Beryllium	ND		2.0	0.2	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Cadmium	ND		1.0	0.3	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Calcium	**147000**		500	38.0	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Chromium	ND		4.0	0.9	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Cobalt	**0.8**	J, B	4.0	0.5	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Copper	**1.4**	J	10.0	1.3	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Iron	**717**		50.0	19.3	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Lead	ND		5.0	1.8	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Magnesium	**23200**		200	43.0	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Manganese	**14.1**		3.0	0.2	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Mercury	ND		0.2	0.1	ug/L	1.00	07/02/09 14:55	MM	9G02014	CLP-M
Nickel	ND		10.0	1.3	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Potassium	**2500**		500	31.0	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Selenium	ND		15.0	8.7	ug/L	1.00	07/02/09 13:47	AMH	9F29040	CLP-M
Silver	ND		3.0	1.2	ug/L	1.00	07/01/09 13:29	DAN	9F29040	CLP-M
Sodium	**110000**		1000	256	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Thallium	ND		20.0	7.7	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Vanadium	ND		5.0	1.1	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Zinc	**14.0**		10.0	1.5	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Aluminum	**85.5**	J, B	200	39.8	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Antimony	ND		60.0	5.5	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Arsenic	ND		10.0	5.5	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Barium	**66.6**	J, B	200	0.1	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Beryllium	**0.2**	J	5.0	0.2	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Cadmium	ND		5.0	0.3	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Calcium	**148000**	B	5000	38.0	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Chromium	ND		10.0	0.9	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Cobalt	ND		50.0	0.5	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Copper	ND		25.0	1.3	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Iron	**1300**		100	19.3	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Lead	**2.4**	J	10.0	1.8	ug/L	1.00	07/02/09 13:14	AMH	9F29041	CLP-M
Magnesium	**22100**		5000	43.0	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Manganese	**18.9**		15.0	0.2	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Nickel	ND		40.0	1.3	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Potassium	**2360**	J	5000	31.0	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Selenium	ND		35.0	8.7	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Silver	ND		10.0	1.2	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Sodium	**109000**		5000	256	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Thallium	ND		25.0	7.7	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Vanadium	ND		50.0	1.1	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Zinc	**12.5**	J	60.0	1.5	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9462

Project: NYSDEC Standby - Vestal
Project Number: 220-9462

Received: 06/27/09
Reported: 07/17/09 13:32

Analytical Report

Client ID: 4009-13 (RSF1110-01 - Water) **Sampled: 06/24/09 08:55** **Recvd: 06/27/09 09:15**

CLP Metals

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Aluminum	ND		200	39.8	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Antimony	ND		20.0	5.5	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Arsenic	**6.9**	J	10.0	5.5	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Barium	**128**	B	2.0	0.1	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Beryllium	ND		2.0	0.2	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Cadmium	ND		1.0	0.3	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Calcium	**114000**		500	38.0	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Chromium	ND		4.0	0.9	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Cobalt	ND		4.0	0.5	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Copper	ND		10.0	1.3	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Iron	**1260**		50.0	19.3	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Lead	ND		5.0	1.8	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Magnesium	**42000**		200	43.0	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Manganese	**652**		3.0	0.2	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Mercury	ND		0.2	0.1	ug/L	1.00	07/02/09 14:46	MM	9G02014	CLP-M
Nickel	**1.9**	J	10.0	1.3	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Potassium	**2160**		500	31.0	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Selenium	ND		15.0	8.7	ug/L	1.00	07/02/09 13:22	AMH	9F29040	CLP-M
Silver	ND		3.0	1.2	ug/L	1.00	07/01/09 13:04	DAN	9F29040	CLP-M
Sodium	**97500**		1000	256	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Thallium	ND		20.0	7.7	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Vanadium	ND		5.0	1.1	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Zinc	**24.0**		10.0	1.5	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M

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SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
CLP Metals									
CLP-HG	9G02013	RSF1110-04	30.00	mL	50.00	mL	07/02/09 10:00	MM	CLP Metals Prep (Water)
CLP-M	9G07069	RSF1110-05	50.00	mL	50.00	mL	07/08/09 08:45	KCW	CLP Metals Prep (Water)
CLP-M	9F29040	RSF1110-01	50.00	mL	50.00	mL	06/30/09 08:00	MLD	CLP Metals Prep (Water)
CLP-M	9F29040	RSF1110-04	50.00	mL	50.00	mL	06/30/09 08:00	MLD	CLP Metals Prep (Water)
CLP-M	9F29041	RSF1110-04	50.00	mL	50.00	mL	06/30/09 08:00	MLD	CLP Metals Prep (Water)
CLP-M	9F29041	RSF1110-04	50.00	mL	50.00	mL	06/30/09 08:00	MLD	CLP Metals Prep (Water)
CLP-M	9G02014	RSF1110-01	30.00	mL	50.00	mL	07/02/09 10:00	MM	CLP Metals Prep (Water)
CLP-M	9G02014	RSF1110-04	30.00	mL	50.00	mL	07/02/09 10:00	MM	CLP Metals Prep (Water)
CLP-M	9G02014	RSF1110-05	30.00	mL	50.00	mL	07/02/09 10:00	MM	CLP Metals Prep (Water)

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Case Narrative

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. field-pH), they were not analyzed immediately, but as soon as possible after laboratory receipt.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverables has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Sally Hoffman
Project Manager

Friday, July 17, 2009

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

BATCH QC

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9462

Project: NYSDEC Standby - Vestal
Project Number: 220-9462

Received: 06/27/09
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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
CLP Metals											
Blank Analyzed: 06/30/09 (Lab Number:9F29040-BLK1, Batch: 9F29040)											
Aluminum			200	39.8	ug/L	ND					
Antimony			60.0	5.5	ug/L	ND					
Arsenic			10.0	5.6	ug/L	ND					
Barium			200	0.1	ug/L	0.1					B,J
Beryllium			5.0	0.2	ug/L	ND					
Cadmium			5.0	0.3	ug/L	ND					
Calcium			5000	100	ug/L	ND					B
Chromium			10.0	0.9	ug/L	ND					
Cobalt			50.0	0.5	ug/L	0.7					B,J
Copper			25.0	1.3	ug/L	ND					
Iron			100	19.3	ug/L	ND					
Lead			10.0	2.9	ug/L	ND					
Magnesium			5000	43.4	ug/L	ND					
Manganese			15.0	0.2	ug/L	ND					
Nickel			40.0	1.3	ug/L	ND					
Potassium			5000	50.0	ug/L	ND					
Sodium			5000	300	ug/L	ND					
Thallium			25.0	7.7	ug/L	ND					
Vanadium			50.0	1.1	ug/L	ND					
Zinc			60.0	1.5	ug/L	ND					
Blank Analyzed: 07/01/09 (Lab Number:9F29040-BLK2, Batch: 9F29040)											
Silver			10.0	1.2	ug/L	ND					
Blank Analyzed: 07/02/09 (Lab Number:9F29040-BLK3, Batch: 9F29040)											
Selenium			35.0	8.7	ug/L	ND					
LCS Analyzed: 06/30/09 (Lab Number:9F29040-BS1, Batch: 9F29040)											
Aluminum		10000	200	39.8	ug/L	10300	103	75-125			
Antimony		200	60.0	5.5	ug/L	203	102	75-125			
Arsenic		200	10.0	5.6	ug/L	209	105	75-125			
Barium		200	200	0.1	ug/L	203	102	75-125			B
Beryllium		200	5.0	0.2	ug/L	215	108	75-125			
Cadmium		200	5.0	0.3	ug/L	203	102	75-125			
Calcium		10000	5000	100	ug/L	10500	105	75-125			
Chromium		200	10.0	0.9	ug/L	217	108	75-125			
Cobalt		200	50.0	0.5	ug/L	217	108	75-125			B
Copper		200	25.0	1.3	ug/L	206	103	75-125			
Iron		10000	100	19.3	ug/L	10300	103	75-125			

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
CLP Metals											
LCS Analyzed: 06/30/09 (Lab Number:9F29040-BS1, Batch: 9F29040)											
Lead		200	10.0	2.9	ug/L	210	105	75-125			
Magnesium		10000	5000	43.4	ug/L	10800	108	75-125			
Manganese		200	15.0	0.2	ug/L	210	105	75-125			
Nickel		200	40.0	1.3	ug/L	207	104	75-125			
Potassium		10000	5000	50.0	ug/L	10300	103	75-125			
Sodium		10000	5000	300	ug/L	10400	104	75-125			
Thallium		200	25.0	7.7	ug/L	197	99	75-125			
Vanadium		200	50.0	1.1	ug/L	204	102	75-125			
Zinc		200	60.0	1.5	ug/L	219	109	75-125			
LCS Analyzed: 07/01/09 (Lab Number:9F29040-BS2, Batch: 9F29040)											
Silver		50.0	10.0	1.2	ug/L	51.8	104	75-125			
LCS Analyzed: 07/02/09 (Lab Number:9F29040-BS3, Batch: 9F29040)											
Selenium		200	35.0	8.7	ug/L	215	107	75-125			
Duplicate Analyzed: 06/30/09 (Lab Number:9F29040-DUP1, Batch: 9F29040)											
QC Source Sample: RSF1110-01											
Aluminum	ND		200	39.8	ug/L	ND				20	
Antimony	ND		60.0	5.5	ug/L	ND				20	
Arsenic	6.93		10.0	5.6	ug/L	9.04			26	20	R3,J
Barium	128		200	0.1	ug/L	125			2	20	J,B
Beryllium	ND		5.0	0.2	ug/L	ND				20	
Cadmium	ND		5.0	0.3	ug/L	ND				20	
Calcium	114000		5000	100	ug/L	112000			1	20	
Chromium	ND		10.0	0.9	ug/L	ND				20	
Cobalt	ND		50.0	0.5	ug/L	0.700				20	J,B
Copper	ND		25.0	1.3	ug/L	ND				20	
Iron	1260		100	19.3	ug/L	1250			0.6	20	
Lead	ND		10.0	2.9	ug/L	ND				20	
Magnesium	42000		5000	43.4	ug/L	42200			0.5	20	
Manganese	652		15.0	0.2	ug/L	639			2	20	
Nickel	1.86		40.0	1.3	ug/L	ND				20	
Potassium	2160		5000	50.0	ug/L	2190			1	20	J
Sodium	97500		5000	300	ug/L	97900			0.4	20	
Thallium	ND		25.0	7.7	ug/L	ND				20	
Vanadium	ND		50.0	1.1	ug/L	ND				20	
Zinc	24.0		60.0	1.5	ug/L	24.7			3	20	J
Duplicate Analyzed: 07/01/09 (Lab Number:9F29040-DUP2, Batch: 9F29040)											

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
CLP Metals											
Duplicate Analyzed: 07/01/09 (Lab Number:9F29040-DUP2, Batch: 9F29040)											
QC Source Sample: RSF1110-01											
Silver	ND		10.0	1.2	ug/L	ND				20	
Duplicate Analyzed: 07/02/09 (Lab Number:9F29040-DUP3, Batch: 9F29040)											
QC Source Sample: RSF1110-01											
Selenium	ND		35.0	8.7	ug/L	ND				20	
Matrix Spike Analyzed: 06/30/09 (Lab Number:9F29040-MS1, Batch: 9F29040)											
QC Source Sample: RSF1110-01											
Aluminum	ND	2000	200	39.8	ug/L	2130	107	75-125			
Antimony	ND	100	60.0	5.5	ug/L	104	104	75-125			
Arsenic	6.93	40.0	10.0	5.6	ug/L	53.0	115	75-125			
Barium	128	2000	200	0.1	ug/L	2210	104	75-125			B
Beryllium	ND	50.0	5.0	0.2	ug/L	54.9	110	75-125			
Cadmium	ND	50.0	5.0	0.3	ug/L	51.4	103	75-125			
Chromium	ND	200	10.0	0.9	ug/L	213	106	75-125			
Cobalt	ND	500	50.0	0.5	ug/L	548	110	75-125			B
Copper	ND	250	25.0	1.3	ug/L	260	104	75-125			
Iron	1260	1000	100	19.3	ug/L	2350	110	75-125			
Lead	ND	20.0	10.0	2.9	ug/L	20.8	104	75-125			
Manganese	652	500	15.0	0.2	ug/L	1200	110	75-125			
Nickel	1.86	500	40.0	1.3	ug/L	528	105	75-125			
Thallium	ND	50.0	25.0	7.7	ug/L	49.7	99	75-125			
Vanadium	ND	500	50.0	1.1	ug/L	523	105	75-125			
Zinc	24.0	500	60.0	1.5	ug/L	561	107	75-125			
Matrix Spike Analyzed: 07/01/09 (Lab Number:9F29040-MS2, Batch: 9F29040)											
QC Source Sample: RSF1110-01											
Silver	ND	50.0	10.0	1.2	ug/L	52.9	106	75-125			
Matrix Spike Analyzed: 07/02/09 (Lab Number:9F29040-MS3, Batch: 9F29040)											
QC Source Sample: RSF1110-01											
Selenium	ND	50.0	35.0	8.7	ug/L	49.6	99	75-125			
CLP Metals											
Blank Analyzed: 07/02/09 (Lab Number:9F29041-BLK1, Batch: 9F29041)											
Lead			10.0	1.8	ug/L	ND					
Blank Analyzed: 06/30/09 (Lab Number:9F29041-BLK2, Batch: 9F29041)											
Aluminum			200	39.8	ug/L	47.7					B,J
Antimony			60.0	5.5	ug/L	ND					

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
CLP Metals											
Blank Analyzed: 06/30/09 (Lab Number:9F29041-BLK2, Batch: 9F29041)											
Arsenic			10.0	5.5	ug/L	ND					
Barium			200	0.1	ug/L	0.2					B,J
Beryllium			5.0	0.2	ug/L	ND					
Cadmium			5.0	0.3	ug/L	ND					
Calcium			5000	38.0	ug/L	56.7					B,J
Chromium			10.0	0.9	ug/L	ND					
Cobalt			50.0	0.5	ug/L	ND					
Copper			25.0	1.3	ug/L	ND					
Iron			100	19.3	ug/L	ND					
Magnesium			5000	43.0	ug/L	ND					
Manganese			15.0	0.2	ug/L	ND					
Nickel			40.0	1.3	ug/L	ND					
Potassium			5000	50.0	ug/L	ND					
Selenium			35.0	8.7	ug/L	ND					
Silver			10.0	1.2	ug/L	ND					
Sodium			5000	300	ug/L	ND					
Thallium			25.0	7.7	ug/L	ND					
Vanadium			50.0	1.1	ug/L	ND					
Zinc			60.0	1.5	ug/L	ND					
LCS Analyzed: 07/02/09 (Lab Number:9F29041-BS1, Batch: 9F29041)											
Lead		200	10.0	1.8	ug/L	208	104	75-125			
LCS Analyzed: 06/30/09 (Lab Number:9F29041-BS2, Batch: 9F29041)											
Aluminum		10000	200	39.8	ug/L	10300	103	75-125			B
Antimony		200	60.0	5.5	ug/L	209	105	75-125			
Arsenic		200	10.0	5.5	ug/L	207	104	75-125			
Barium		200	200	0.1	ug/L	203	102	75-125			B
Beryllium		200	5.0	0.2	ug/L	207	103	75-125			
Cadmium		200	5.0	0.3	ug/L	209	104	75-125			
Calcium		10000	5000	38.0	ug/L	10300	103	75-125			B
Chromium		200	10.0	0.9	ug/L	212	106	75-125			
Cobalt		200	50.0	0.5	ug/L	214	107	75-125			
Copper		200	25.0	1.3	ug/L	202	101	75-125			
Iron		10000	100	19.3	ug/L	10400	104	75-125			
Magnesium		10000	5000	43.0	ug/L	10400	104	75-125			
Manganese		200	15.0	0.2	ug/L	205	102	75-125			
Nickel		200	40.0	1.3	ug/L	209	104	75-125			
Potassium		10000	5000	50.0	ug/L	10300	103	75-125			

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SDG Number: 220-9462

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Project Number: 220-9462

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
CLP Metals											
LCS Analyzed: 06/30/09 (Lab Number:9F29041-BS2, Batch: 9F29041)											
Selenium		200	35.0	8.7	ug/L	207	104	75-125			
Silver		50.0	10.0	1.2	ug/L	51.6	103	75-125			
Sodium		10000	5000	300	ug/L	10100	101	75-125			
Thallium		200	25.0	7.7	ug/L	208	104	75-125			
Vanadium		200	50.0	1.1	ug/L	204	102	75-125			
Zinc		200	60.0	1.5	ug/L	210	105	75-125			
Duplicate Analyzed: 07/02/09 (Lab Number:9F29041-DUP1, Batch: 9F29041)											
QC Source Sample: RSF1110-04											
Lead	2.42		10.0	1.8	ug/L	ND				20	
Duplicate Analyzed: 06/30/09 (Lab Number:9F29041-DUP2, Batch: 9F29041)											
QC Source Sample: RSF1110-04											
Aluminum	85.5		200	39.8	ug/L	74.6			14	20	J,B
Antimony	ND		60.0	5.5	ug/L	ND				20	
Arsenic	ND		10.0	5.5	ug/L	ND				20	
Barium	66.6		200	0.1	ug/L	68.9			3	20	J,B
Beryllium	ND		5.0	0.2	ug/L	ND				20	
Cadmium	ND		5.0	0.3	ug/L	ND				20	
Calcium	148000		5000	38.0	ug/L	153000			3	20	B,E
Chromium	ND		10.0	0.9	ug/L	ND				20	
Cobalt	ND		50.0	0.5	ug/L	0.710				20	J
Copper	ND		25.0	1.3	ug/L	ND				20	
Iron	1300		100	19.3	ug/L	1340			3	20	
Magnesium	22100		5000	43.0	ug/L	22700			3	20	
Manganese	18.9		15.0	0.2	ug/L	19.3			2	20	
Nickel	ND		40.0	1.3	ug/L	ND				20	
Potassium	2360		5000	50.0	ug/L	2430			3	20	J
Selenium	ND		35.0	8.7	ug/L	ND				20	
Silver	ND		10.0	1.2	ug/L	ND				20	
Sodium	109000		5000	300	ug/L	113000			3	20	E
Thallium	ND		25.0	7.7	ug/L	ND				20	
Vanadium	ND		50.0	1.1	ug/L	ND				20	
Zinc	12.5		60.0	1.5	ug/L	13.0			4	20	J
Matrix Spike Analyzed: 07/02/09 (Lab Number:9F29041-MS1, Batch: 9F29041)											
QC Source Sample: RSF1110-04											
Lead	2.42	20.0	10.0	1.8	ug/L	22.5	100	75-125			
Matrix Spike Analyzed: 06/30/09 (Lab Number:9F29041-MS2, Batch: 9F29041)											
QC Source Sample: RSF1110-04											

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
CLP Metals											
Matrix Spike Analyzed: 06/30/09 (Lab Number:9F29041-MS2, Batch: 9F29041)											
Aluminum	85.5	2000	200	39.8	ug/L	2210	106	75-125			B
Antimony	ND	100	60.0	5.5	ug/L	129	129	75-125			M1
Arsenic	ND	40.0	10.0	5.5	ug/L	42.1	105	75-125			
Barium	66.6	2000	200	0.1	ug/L	2160	105	75-125			B,E
Beryllium	ND	50.0	5.0	0.2	ug/L	52.7	105	75-125			
Cadmium	ND	50.0	5.0	0.3	ug/L	52.0	104	75-125			
Chromium	ND	200	10.0	0.9	ug/L	208	104	75-125			
Cobalt	ND	500	50.0	0.5	ug/L	539	108	75-125			
Copper	ND	250	25.0	1.3	ug/L	257	103	75-125			
Iron	1300	1000	100	19.3	ug/L	2390	109	75-125			
Manganese	18.9	500	15.0	0.2	ug/L	542	105	75-125			
Nickel	ND	500	40.0	1.3	ug/L	524	105	75-125			
Selenium	ND	50.0	35.0	8.7	ug/L	51.8	104	75-125			
Silver	ND	50.0	10.0	1.2	ug/L	52.7	105	75-125			
Thallium	ND	50.0	25.0	7.7	ug/L	66.0	132	75-125			M1
Vanadium	ND	500	50.0	1.1	ug/L	517	103	75-125			
Zinc	12.5	500	60.0	1.5	ug/L	534	104	75-125			
CLP Metals											
Blank Analyzed: 07/02/09 (Lab Number:9G02013-BLK1, Batch: 9G02013)											
Mercury			0.2	0.1	ug/L	ND					
LCS Analyzed: 07/02/09 (Lab Number:9G02013-BS1, Batch: 9G02013)											
Mercury		3.33	0.2	0.1	ug/L	3.07	92	75-125			
CLP Metals											
Blank Analyzed: 07/02/09 (Lab Number:9G02014-BLK1, Batch: 9G02014)											
Mercury			0.2	0.1	ug/L	ND					
LCS Analyzed: 07/02/09 (Lab Number:9G02014-BS1, Batch: 9G02014)											
Mercury		3.33	0.2	0.1	ug/L	3.22	97	75-125			
Duplicate Analyzed: 07/02/09 (Lab Number:9G02014-DUP1, Batch: 9G02014)											
QC Source Sample: RSF1110-01											
Mercury	ND		0.2	0.1	ug/L	ND				20	
Matrix Spike Analyzed: 07/02/09 (Lab Number:9G02014-MS1, Batch: 9G02014)											
QC Source Sample: RSF1110-01											
Mercury	ND	1.67	0.2	0.1	ug/L	1.63	98	75-125			

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
CLP Metals											
Blank Analyzed: 07/08/09 (Lab Number:9G07069-BLK1, Batch: 9G07069)											
Aluminum			200	39.8	ug/L	83.2					B,J
Antimony			60.0	5.5	ug/L	ND					
Arsenic			10.0	5.6	ug/L	ND					
Barium			200	0.1	ug/L	ND					
Beryllium			5.0	0.2	ug/L	ND					
Cadmium			5.0	0.3	ug/L	ND					
Calcium			5000	100	ug/L	ND					B
Chromium			10.0	0.9	ug/L	ND					
Cobalt			50.0	0.5	ug/L	ND					
Copper			25.0	1.3	ug/L	ND					
Iron			100	19.3	ug/L	28.6					B,J
Lead			10.0	2.9	ug/L	ND					
Magnesium			5000	43.4	ug/L	73.8					B,J
Manganese			15.0	0.2	ug/L	0.2					B,J
Nickel			40.0	1.3	ug/L	ND					
Potassium			5000	50.0	ug/L	ND					
Selenium			35.0	8.7	ug/L	ND					
Silver			10.0	1.2	ug/L	ND					
Sodium			5000	300	ug/L	ND					
Thallium			25.0	7.7	ug/L	ND					
Vanadium			50.0	1.1	ug/L	ND					
Zinc			60.0	1.5	ug/L	ND					
LCS Analyzed: 07/08/09 (Lab Number:9G07069-BS1, Batch: 9G07069)											
Aluminum		10000	200	39.8	ug/L	10300	103	75-125			B
Antimony		200	60.0	5.5	ug/L	210	105	75-125			
Arsenic		200	10.0	5.6	ug/L	203	101	75-125			
Barium		200	200	0.1	ug/L	204	102	75-125			
Beryllium		200	5.0	0.2	ug/L	201	100	75-125			
Cadmium		200	5.0	0.3	ug/L	203	101	75-125			
Calcium		10000	5000	100	ug/L	10200	102	75-125			
Chromium		200	10.0	0.9	ug/L	207	103	75-125			
Cobalt		200	50.0	0.5	ug/L	209	104	75-125			
Copper		200	25.0	1.3	ug/L	198	99	75-125			
Iron		10000	100	19.3	ug/L	10100	101	75-125			B
Lead		200	10.0	2.9	ug/L	205	103	75-125			
Magnesium		10000	5000	43.4	ug/L	10200	102	75-125			B
Manganese		200	15.0	0.2	ug/L	200	100	75-125			B

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
CLP Metals											
LCS Analyzed: 07/08/09 (Lab Number:9G07069-BS1, Batch: 9G07069)											
Nickel		200	40.0	1.3	ug/L	204	102	75-125			
Potassium		10000	5000	50.0	ug/L	10500	105	75-125			
Selenium		200	35.0	8.7	ug/L	209	104	75-125			
Silver		50.0	10.0	1.2	ug/L	51.6	103	75-125			
Sodium		10000	5000	300	ug/L	10200	102	75-125			
Thallium		200	25.0	7.7	ug/L	213	106	75-125			
Vanadium		200	50.0	1.1	ug/L	201	101	75-125			
Zinc		200	60.0	1.5	ug/L	203	101	75-125			
Duplicate Analyzed: 07/08/09 (Lab Number:9G07069-DUP1, Batch: 9G07069)											
QC Source Sample: RSF1110-05											
Aluminum	ND		200	39.8	ug/L	ND				20	
Antimony	ND		60.0	5.5	ug/L	ND				20	
Arsenic	ND		10.0	5.6	ug/L	ND				20	
Barium	51.0		200	0.1	ug/L	49.1			4	20	J
Beryllium	ND		5.0	0.2	ug/L	ND				20	
Cadmium	ND		5.0	0.3	ug/L	ND				20	
Calcium	134000		5000	100	ug/L	129000			4	20	E
Chromium	ND		10.0	0.9	ug/L	ND				20	
Cobalt	ND		50.0	0.5	ug/L	ND				20	
Copper	ND		25.0	1.3	ug/L	ND				20	
Iron	1770		100	19.3	ug/L	1710			4	20	B
Lead	ND		10.0	2.9	ug/L	ND				20	
Magnesium	25600		5000	43.4	ug/L	24900			3	20	B
Manganese	414		15.0	0.2	ug/L	402			3	20	B
Nickel	ND		40.0	1.3	ug/L	ND				20	
Potassium	2280		5000	50.0	ug/L	2200			4	20	J
Selenium	ND		35.0	8.7	ug/L	ND				20	
Silver	ND		10.0	1.2	ug/L	ND				20	
Sodium	107000		5000	300	ug/L	103000			4	20	E
Thallium	ND		25.0	7.7	ug/L	ND				20	
Vanadium	ND		50.0	1.1	ug/L	ND				20	
Zinc	10.1		60.0	1.5	ug/L	9.83			3	20	J
Matrix Spike Analyzed: 07/08/09 (Lab Number:9G07069-MS1, Batch: 9G07069)											
QC Source Sample: RSF1110-05											
Aluminum	ND	2000	200	39.8	ug/L	2140	107	75-125			B
Antimony	ND	100	60.0	5.5	ug/L	108	108	75-125			
Arsenic	ND	40.0	10.0	5.6	ug/L	45.2	113	75-125			

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
CLP Metals											
Matrix Spike Analyzed: 07/08/09 (Lab Number:9G07069-MS1, Batch: 9G07069)											
QC Source Sample: RSF1110-05											
Barium	51.0	2000	200	0.1	ug/L	2140	105	75-125			E
Beryllium	ND	50.0	5.0	0.2	ug/L	51.9	104	75-125			
Cadmium	ND	50.0	5.0	0.3	ug/L	51.0	102	75-125			
Chromium	ND	200	10.0	0.9	ug/L	205	103	75-125			
Cobalt	ND	500	50.0	0.5	ug/L	533	107	75-125			
Copper	ND	250	25.0	1.3	ug/L	254	102	75-125			
Iron	1770	1000	100	19.3	ug/L	2810	104	75-125			B
Lead	ND	20.0	10.0	2.9	ug/L	20.4	102	75-125			
Manganese	414	500	15.0	0.2	ug/L	929	103	75-125			B
Nickel	ND	500	40.0	1.3	ug/L	518	104	75-125			
Selenium	ND	50.0	35.0	8.7	ug/L	52.6	105	75-125			
Silver	ND	50.0	10.0	1.2	ug/L	51.5	103	75-125			
Thallium	ND	50.0	25.0	7.7	ug/L	71.1	142	75-125			M1
Vanadium	ND	500	50.0	1.1	ug/L	514	103	75-125			
Zinc	10.1	500	60.0	1.5	ug/L	521	102	75-125			

SAMPLE DATA PACKAGE

SDG NARRATIVE

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9462

Project: NYSDEC Standby - Vestal
Project Number: 220-9462

Received: 06/27/09
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Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
4009-12A	RSF1110-05	Water	06/24/09 11:30	06/27/09 09:15	
4009-12	RSF1110-04	Water	06/24/09 11:20	06/27/09 09:15	
4009-13	RSF1110-01	Water	06/24/09 08:55	06/27/09 09:15	

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DATA QUALIFIERS AND DEFINITIONS

B	Analyte was detected in the associated Method Blank.
E	Concentration exceeds the calibration range and therefore result is semi-quantitative.
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
M1	The MS and/or MSD were outside the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
R3	The RPD exceeded the acceptance limit due to sample matrix effects.
NR	Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

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Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: 4009-12A (RSF1110-05 - Water)							**Sampled: 06/24/09 11:30**		**Recvd: 06/27/09 09:15**	
CLP Metals										
Barium	**51.0**		2.0	0.1	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Calcium	**134000**		500	38.0	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Iron	**1770**	B	50.0	19.3	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Magnesium	**25600**	B	200	43.0	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Manganese	**414**	B	3.0	0.2	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Potassium	**2280**		500	31.0	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Sodium	**107000**		1000	256	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Zinc	**10.1**		10.0	1.5	ug/L	1.00	07/08/09 13:04	DAN	9G07069	CLP-M
Client ID: 4009-12 (RSF1110-04 - Water)							**Sampled: 06/24/09 11:20**		**Recvd: 06/27/09 09:15**	
CLP Metals										
Barium	**68.3**	B	2.0	0.1	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Calcium	**147000**		500	38.0	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Cobalt	**0.8**	J, B	4.0	0.5	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Copper	**1.4**	J	10.0	1.3	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Iron	**717**		50.0	19.3	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Magnesium	**23200**		200	43.0	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Manganese	**14.1**		3.0	0.2	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Potassium	**2500**		500	31.0	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Sodium	**110000**		1000	256	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Zinc	**14.0**		10.0	1.5	ug/L	1.00	06/30/09 18:04	DAN	9F29040	CLP-M
Aluminum	**85.5**	J, B	200	39.8	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Barium	**66.6**	J, B	200	0.1	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Beryllium	**0.2**	J	5.0	0.2	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Calcium	**148000**	B	5000	38.0	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Iron	**1300**		100	19.3	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Lead	**2.4**	J	10.0	1.8	ug/L	1.00	07/02/09 13:14	AMH	9F29041	CLP-M
Magnesium	**22100**		5000	43.0	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Manganese	**18.9**		15.0	0.2	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Potassium	**2360**	J	5000	31.0	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Sodium	**109000**		5000	256	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M
Zinc	**12.5**	J	60.0	1.5	ug/L	1.00	06/30/09 20:08	LMH	9F29041	CLP-M

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Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: 4009-13 (RSF1110-01 - Water)							**Sampled: 06/24/09 08:55**		**Recvd: 06/27/09 09:15**	
CLP Metals										
Arsenic	**6.9**	J	10.0	5.5	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Barium	**128**	B	2.0	0.1	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Calcium	**114000**		500	38.0	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Iron	**1260**		50.0	19.3	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Magnesium	**42000**		200	43.0	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Manganese	**652**		3.0	0.2	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Nickel	**1.9**	J	10.0	1.3	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Potassium	**2160**		500	31.0	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Sodium	**97500**		1000	256	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M
Zinc	**24.0**		10.0	1.5	ug/L	1.00	06/30/09 17:39	DAN	9F29040	CLP-M

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SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
CLP Metals									
CLP-HG	9G02013	RSF1110-04	30.00	mL	50.00	mL	07/02/09 10:00	MM	CLP Metals Prep (Water)
CLP-M	9G07069	RSF1110-05	50.00	mL	50.00	mL	07/08/09 08:45	KCW	CLP Metals Prep (Water)
CLP-M	9F29040	RSF1110-01	50.00	mL	50.00	mL	06/30/09 08:00	MLD	CLP Metals Prep (Water)
CLP-M	9F29040	RSF1110-04	50.00	mL	50.00	mL	06/30/09 08:00	MLD	CLP Metals Prep (Water)
CLP-M	9F29041	RSF1110-04	50.00	mL	50.00	mL	06/30/09 08:00	MLD	CLP Metals Prep (Water)
CLP-M	9F29041	RSF1110-04	50.00	mL	50.00	mL	06/30/09 08:00	MLD	CLP Metals Prep (Water)
CLP-M	9G02014	RSF1110-01	30.00	mL	50.00	mL	07/02/09 10:00	MM	CLP Metals Prep (Water)
CLP-M	9G02014	RSF1110-04	30.00	mL	50.00	mL	07/02/09 10:00	MM	CLP Metals Prep (Water)
CLP-M	9G02014	RSF1110-05	30.00	mL	50.00	mL	07/02/09 10:00	MM	CLP Metals Prep (Water)

TestAmerica Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

SDG Number: 220-9462

Project: NYSDEC Standby - Vestal
Project Number: 220-9462

Received: 06/27/09
Reported: 07/17/09 13:32

Case Narrative

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. field-pH), they were not analyzed immediately, but as soon as possible after laboratory receipt.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverables has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Sally Hoffman
Project Manager

Friday, July 17, 2009

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

New York State Department of Environmental Conservation
Vestal Water Supply Site Quarterly Report and Annual Groundwater Monitoring Summary

Appendix C

Well Identification Summary

MALCOLM PIRNIE

APPENDIX C
WELL IDENTIFICATION SUMMARY
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE NO. 7-04-009A

Old Well ID	New Well ID	Coordinates*	
		Easting	Northing
S-8	4009-1	413364	4660154
EB-33	4009-2	413133	4660121
S-7	4009-3	413142	4660260
S-6	4009-4	413234	4660298
EB-31	4009-5	413126	4660311
S-1	4009-6	413001	4660085
S-2	4009-7	413035	4660235
S-11	4009-8	412951	4660163
EB-41	4009-9	413058	4660402
EB-42	4009-10	413110	4660446
1-32	4009-11	412845	4660404
1-32A	4009-11A	412846	4660387
1-29	4009-12	412743	4660293
1-29A	4009-12A	412741	4660294
1-30	4009-13	412737	4660116
1-30A	4009-13A	412738	4660117
1-23	4009-14	412608	4660065
1-24	4009-15	412582	4660290
1-20	4009-16	412417	4660188
1-20A	4009-16A	412415	4660193
Piezometer - between levee and tree line	4009-17	412431	4660077
Well - west of well house	4009-18	412324	4660137
Well - south of well house	4009-19	412327	4660120
Piezometer -northernmost in fire training area	4009-20	412288	4660117
Piezometer - westernmost in fire training area	4009-21	412284	4660117

Notes:
* -GPS survey conducted on 8/28/2007 in NAD 83 coordinate system.

New York State Department of Environmental Conservation
Vestal Water Supply Site Quarterly Report and Annual Groundwater Monitoring Summary

Appendix D

Groundwater Monitoring Well Inspection Forms

0266352 / ALB

MALCOLM PIRNIE

MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 6/22/09 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 4009-1

WELL LOCATION: _____

Outward Appearance

Flushmount Diameter	____ inches	N/A [ ]	
Approximate Stickup Height	2.5 feet	N/A [ ]	
Integrity of Protective Casing	Describe: ok cover hinge broken		
Protective Casing Material	Steel [X]	Stainless Steel [ ]	Other ____
Protective Casing Width or Dia.	4 inches		
Weep Hole in Protective Casing	Yes [ ]	No [X]	
Surface Seal/Apron Material	Cement [ ]	Bentonite [ ]	Not apparent [X] Other ____
Integrity of Surface Seal/Apron	Describe: ____		
Surface Drainage	Away from Wellhead [X]	Toward Wellhead [ ]	
Bollards Present?	Yes [ ]	No [X] Describe: ____	
Well ID. Visible?	Yes [X]	No [ ] Describe: ____	
Lock Present and Functional?	Yes [X]	No [ ] Describe: ____	
Photograph Taken? Photo #	Yes [ ]	No [X] Describe: ____	

Inner Appearance

Integrity of Well Casing	Describe: ok		
Integrity of Cap Seal	Describe: ok		
Surface Water in Casing?	Yes [ ]	No [X] Describe: ____	
Well Casing Diameter	2 inches		
Well Casing Material	PVC [ ]	Steel [ ]	Stainless Steel [X]
Inner Cap	Threaded [ ]	Slip [ ]	Expansion Plug [X] None [ ]
Reference/Measuring Point	Groove [ ]	Indelible Mark [X]	None [ ]
Evidence of Double Casing?	Yes [ ]	No [X] Describe: ____	

Downhole

Odor	Yes [ ]	No [X] Describe: ____	
PID Reading	0.0 ppm		
Depth to Water (to top of casing)	7.16 feet (nearest 0.01)	Depth to LNAPL	____ feet (nearest 0.01) N/A [ ]
Total Well Depth (to top of casing)	____ feet (nearest 0.1)		
Sediment (Hard/Soft Bottom)	Describe: ____		

Additional Comments:

MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 6/22/09 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 4009-2

WELL LOCATION: _____

Outward Appearance

Flushmount Diameter	____ inches	N/A [ ]	
Approximate Stickup Height	2.5 feet	N/A [ ]	
Integrity of Protective Casing	Describe: Good		
Protective Casing Material	Steel [X]	Stainless Steel [ ]	Other ____
Protective Casing Width or Dia.	6 inches		
Weep Hole in Protective Casing	Yes [ ]	No [X]	
Surface Seal/Apron Material	Cement [X]	Bentonite [ ]	Not apparent [ ] Other ____
Integrity of Surface Seal/Apron	Describe: good		
Surface Drainage	Away from Wellhead [ ]	Toward Wellhead [X]	
Bollards Present?	Yes [ ]	No [X]	Describe: ____
Well ID. Visible?	Yes [X]	No [ ]	Describe: ____
Lock Present and Functional?	Yes [X]	No [ ]	Describe: ____
Photograph Taken? Photo #	Yes [ ]	No [X]	Describe: ____

Inner Appearance

Integrity of Well Casing	Describe: ok		
Integrity of Cap Seal	Describe: None		
Surface Water in Casing?	Yes [ ]	No [X]	Describe: ____
Well Casing Diameter	4 inches		
Well Casing Material	PVC [ ]	Steel [ ]	Stainless Steel [X]
Inner Cap	Threaded [ ]	Slip [ ]	Expansion Plug [ ] None [X]
Reference/Measuring Point	Groove [ ]	Indelible Mark [X]	None [ ]
Evidence of Double Casing?	Yes [ ]	No [X]	Describe: ____

Downhole

Odor	Yes [ ]	No [X]	Describe: ____
PID Reading	0.6 ppm		
Depth to Water (to top of casing)	18.11 feet (nearest 0.01)	Depth to LNAPL	____ feet (nearest 0.01) N/A [ ]
Total Well Depth (to top of casing)	____ feet (nearest 0.1)		
Sediment (Hard/Soft Bottom)	Describe: ____		

Additional Comments:

MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 6/22/09 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 9009-3

WELL LOCATION: _____

Outward Appearance

Flushmount Diameter	____ inches	N/A [ ]	
Approximate Stickup Height	3.5 feet	N/A [ ]	
Integrity of Protective Casing	Describe: good		
Protective Casing Material	Steel [X]	Stainless Steel [ ]	Other ____
Protective Casing Width or Dia.	6 inches		
Weep Hole in Protective Casing	Yes [ ]	No [X]	
Surface Seal/Apron Material	Cement [X]	Bentonite [ ]	Not apparent [ ] Other ____
Integrity of Surface Seal/Apron	Describe: good		
Surface Drainage	Away from Wellhead [X]	Toward Wellhead [ ]	
Bollards Present?	Yes [ ]	No [X] Describe:	____
Well ID. Visible?	Yes [X]	No [ ] Describe:	____
Lock Present and Functional?	Yes [X]	No [ ] Describe:	____
Photograph Taken? Photo #	Yes [ ]	No [X] Describe:	____

Inner Appearance

Integrity of Well Casing	Describe: good		
Integrity of Cap Seal	Describe: good		
Surface Water in Casing?	Yes [ ]	No [X] Describe:	____
Well Casing Diameter	2 inches		
Well Casing Material	PVC [ ]	Steel [ ]	Stainless Steel [X]
Inner Cap	Threaded [ ]	Slip [ ]	Expansion Plug [X] None [ ]
Reference/Measuring Point	Groove [ ]	Indelible Mark [X]	None [ ]
Evidence of Double Casing?	Yes [ ]	No [X] Describe:	____

Downhole

Odor	Yes [ ]	No [X] Describe:	____
PID Reading	0.4 ppm		
Depth to Water (to top of casing)	14.64 feet (nearest 0.01)	Depth to LNAPL	____ feet (nearest 0.01) N/A [ ]
Total Well Depth (to top of casing)	____ feet (nearest 0.1)		
Sediment (Hard/Soft Bottom)	Describe: ____		

Additional Comments:

MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 4009-4 6/2/09 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 4009-4

WELL LOCATION:

Outward Appearance

Flushmount Diameter	____ inches	N/A [ ]	
Approximate Stickup Height	1.0 feet	N/A [ ]	
Integrity of Protective Casing	Describe: OK		
Protective Casing Material	Steel [X]	Stainless Steel [ ]	Other ____
Protective Casing Width or Dia.	4 inches		
Weep Hole in Protective Casing	Yes [ ]	No [X]	
Surface Seal/Apron Material	Cement [X]	Bentonite [ ]	Not apparent [ ] Other ____
Integrity of Surface Seal/Apron	Describe: In sidewalk		
Surface Drainage	Away from Wellhead [X]	Toward Wellhead [ ]	
Bollards Present?	Yes [ ]	No [X] Describe:	
Well ID. Visible?	Yes [X]	No [ ] Describe:	
Lock Present and Functional?	Yes [X]	No [ ] Describe:	
Photograph Taken? Photo #	Yes [ ]	No [X] Describe:	

Inner Appearance

Integrity of Well Casing	Describe: OK		
Integrity of Cap Seal	Describe: OK		
Surface Water in Casing?	Yes [X]	No [ ] Describe:	
Well Casing Diameter	2 inches		
Well Casing Material	PVC [ ]	Steel [X]	Stainless Steel [ ]
Inner Cap	Threaded [ ]	Slip [ ]	Expansion Plug [X] None [ ]
Reference/Measuring Point	Groove [ ]	Indelible Mark [X]	None [ ]
Evidence of Double Casing?	Yes [ ]	No [X] Describe:	

Downhole

Odor	Yes [ ]	No [X] Describe:	
PID Reading	0.5 ppm		
Depth to Water (to top of casing)	10.29 feet (nearest 0.01)	Depth to LNAPL	____ feet (nearest 0.01) N/A [ ]
Total Well Depth (to top of casing)	____ feet (nearest 0.1)		
Sediment (Hard/Soft Bottom)	Describe:		

Additional Comments:

MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 6/22/09 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 4009-5

WELL LOCATION: _____

Outward Appearance

Flushmount Diameter: - inches N/A [ ]

Approximate Stickup Height: 2.6 feet N/A [ ]

Integrity of Protective Casing: Describe: OK

Protective Casing Material: Steel [X] Stainless Steel [ ] Other _____

Protective Casing Width or Dia.: 6 inches

Weep Hole in Protective Casing: Yes [ ] No [X]

Surface Seal/Apron Material: Cement [X] Bentonite [ ] Not apparent [ ] Other _____

Integrity of Surface Seal/Apron: Describe: deteriorated

Surface Drainage: Away from Wellhead [X] Toward Wellhead [ ]

Bollards Present? Yes [ ] No [X] Describe: _____

Well ID. Visible? Yes [X] No [ ] Describe: _____

Lock Present and Functional? Yes [X] No [ ] Describe: _____

Photograph Taken? Photo # Yes [ ] No [X] Describe: _____

Inner Appearance

Integrity of Well Casing: Describe: OK

Integrity of Cap Seal: Describe: OK

Surface Water in Casing? Yes [ ] No [X] Describe: _____

Well Casing Diameter: 4 inches

Well Casing Material: PVC [ ] Steel [ ] Stainless Steel [X]

Inner Cap: Threaded [ ] Slip [ ] Expansion Plug [X] None [ ]

Reference/Measuring Point: Groove [ ] Indelible Mark [X] None [ ]

Evidence of Double Casing? Yes [ ] No [X] Describe: _____

Downhole

Odor: Yes [ ] No [X] Describe: _____

PID Reading: 0.4 ppm

Depth to Water (to top of casing): 16.19 feet (nearest 0.01) Depth to LNAPL _____ feet (nearest 0.01) N/A [ ]

Total Well Depth (to top of casing) _____ feet (nearest 0.1)

Sediment (Hard/Soft Bottom) Describe: _____

Additional Comments:

_____

_____

_____

_____

_____

_____

MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 6/22/05 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 4009-L

WELL LOCATION: _____

Outward Appearance

Flushmount Diameter	____ inches	N/A [ ]	
Approximate Stickup Height	2.5 feet	N/A [ ]	
Integrity of Protective Casing	Describe: OK		
Protective Casing Material	Steel [X]	Stainless Steel [ ]	Other ____
Protective Casing Width or Dia.	4.0 inches		
Weep Hole in Protective Casing	Yes [ ]	No [X]	
Surface Seal/Apron Material	Cement [ ]	Bentonite [ ]	Not apparent [X] Other ____
Integrity of Surface Seal/Apron	Describe:		
Surface Drainage	Away from Wellhead [X]	Toward Wellhead [ ]	
Bollards Present?	Yes [ ]	No [X] Describe:	
Well ID. Visible?	Yes [X]	No [ ] Describe:	
Lock Present and Functional?	Yes [X]	No [ ] Describe:	
Photograph Taken? Photo #	Yes [ ]	No [X] Describe:	

Inner Appearance

Integrity of Well Casing	Describe: OK		
Integrity of Cap Seal	Describe: cap was off/loose		
Surface Water in Casing?	Yes [ ]	No [X] Describe:	
Well Casing Diameter	2 inches		
Well Casing Material	PVC [ ]	Steel [ ]	Stainless Steel [X]
Inner Cap	Threaded [ ]	Slip [ ]	Expansion Plug [X] None [ ]
Reference/Measuring Point	Groove [ ]	Indelible Mark [X]	None [ ]
Evidence of Double Casing?	Yes [ ]	No [X] Describe:	

Downhole

Odor	Yes [ ]	No [X] Describe:	
PID Reading	0.0 ppm		
Depth to Water (to top of casing)	18.99 feet (nearest 0.01)	Depth to LNAPL	____ feet (nearest 0.01) N/A [ ]
Total Well Depth (to top of casing)	____ feet (nearest 0.1)		
Sediment (Hard/Soft Bottom)	Describe:		

Additional Comments:

MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 6/22/09 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 4009-7

WELL LOCATION: _____

Outward Appearance

Flushmount Diameter	_____ inches	N/A [ ]	
Approximate Stickup Height	3.0 feet	N/A [ ]	
Integrity of Protective Casing	Describe: ok		
Protective Casing Material	Steel [X]	Stainless Steel [ ]	Other _____
Protective Casing Width or Dia.	4 inches		
Weep Hole in Protective Casing	Yes [ ]	No [ ]	
Surface Seal/Apron Material	Cement [X]	Bentonite [ ]	Not apparent [ ] Other _____
Integrity of Surface Seal/Apron	Describe: ok		
Surface Drainage	Away from Wellhead [ ]	Toward Wellhead [X]	
Bollards Present?	Yes [ ]	No [X]	Describe: _____
Well ID. Visible?	Yes [X]	No [ ]	Describe: _____
Lock Present and Functional?	Yes [X]	No [ ]	Describe: _____
Photograph Taken? Photo #	Yes [ ]	No [X]	Describe: _____

Inner Appearance

Integrity of Well Casing	Describe: ok		
Integrity of Cap Seal	Describe: ok		
Surface Water in Casing?	Yes [X]	No [ ]	Describe: _____
Well Casing Diameter	2 inches		
Well Casing Material	PVC [ ]	Steel [ ]	Stainless Steel [X]
Inner Cap	Threaded [ ]	Slip [ ]	Expansion Plug [X] None [ ]
Reference/Measuring Point	Groove [ ]	Indelible Mark [X]	None [ ]
Evidence of Double Casing?	Yes [ ]	No [X]	Describe: _____

Downhole

Odor	Yes [ ]	No [X]	Describe: _____
PID Reading	0.6 ppm		
Depth to Water (to top of casing)	17.02 feet (nearest 0.01)	Depth to LNAPL	_____ feet (nearest 0.01) N/A [ ]
Total Well Depth (to top of casing)	_____ feet (nearest 0.1)		
Sediment (Hard/Soft Bottom)	Describe: _____		

Additional Comments:

_____

_____

_____

_____

_____

_____

MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 6/22/09 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 4005-8

WELL LOCATION: _____

Outward Appearance

Flushmount Diameter	— inches	N/A [ ]	
Approximate Stickup Height	3.5 feet	N/A [ ]	
Integrity of Protective Casing	Describe: ok		
Protective Casing Material	Steel [X]	Stainless Steel [ ]	Other _____
Protective Casing Width or Dia.	4 inches		
Weep Hole in Protective Casing	Yes [ ]	No [X]	
Surface Seal/Apron Material	Cement [X]	Bentonite [ ]	Not apparent [ ] Other _____
Integrity of Surface Seal/Apron	Describe: Good		
Surface Drainage	Away from Wellhead [X]	Toward Wellhead [ ]	
Bollards Present?	Yes [X]	No [X]	Describe: _____
Well ID. Visible?	Yes [X]	No [ ]	Describe: _____
Lock Present and Functional?	Yes [X]	No [ ]	Describe: _____
Photograph Taken? Photo #	Yes [ ]	No [X]	Describe: _____

Inner Appearance

Integrity of Well Casing	Describe: OK		
Integrity of Cap Seal	Describe: OK		
Surface Water in Casing?	Yes [ ]	No [X]	Describe: _____
Well Casing Diameter	2 inches		
Well Casing Material	PVC [X]	Steel [ ]	Stainless Steel [ ]
Inner Cap	Threaded [ ]	Slip [ ]	Expansion Plug [X] None [ ]
Reference/Measuring Point	Groove [ ]	Indelible Mark [X]	None [ ]
Evidence of Double Casing?	Yes [ ].	No [X]	Describe: _____

Downhole

Odor	Yes [ ]	No [X]	Describe: _____
PID Reading	0.6 ppm		
Depth to Water (to top of casing)	17.77 feet (nearest 0.01)	Depth to LNAPL	_____ feet (nearest 0.01) N/A [ ]
Total Well Depth (to top of casing)	_____ feet (nearest 0.1)		
Sediment (Hard/Soft Bottom)	Describe: _____		

Additional Comments:

_____

_____

_____

_____

_____

_____

MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 6/22/09 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 4009-9

WELL LOCATION: _____

Outward Appearance

Flushmount Diameter	10 inches	N/A [ ]	
Approximate Stickup Height	— feet	N/A [ ]	
Integrity of Protective Casing	Describe: OK		
Protective Casing Material	Steel [ ]	Stainless Steel [ ]	Other _____
Protective Casing Width or Dia.	_____ inches		
Weep Hole in Protective Casing	Yes [X]	No [ ]	
Surface Seal/Apron Material	Cement [X]	Bentonite [ ]	Not apparent [ ] Other _____
Integrity of Surface Seal/Apron	Describe: OK		
Surface Drainage	Away from Wellhead [ ]	Toward Wellhead [X]	
Bollards Present?	Yes [ ]	No [X]	Describe: _____
Well ID. Visible?	Yes [X]	No [ ]	Describe: _____
Lock Present and Functional?	Yes [X]	No [ ]	Describe: _____
Photograph Taken? Photo #	Yes [ ]	No [X]	Describe: _____

Inner Appearance

Integrity of Well Casing	Describe: OK		
Integrity of Cap Seal	Describe: OK		
Surface Water in Casing?	Yes [X]	No [ ]	Describe: _____
Well Casing Diameter	4 inches		
Well Casing Material	PVC [ ]	Steel [ ]	Stainless Steel [X]
Inner Cap	Threaded [ ]	Slip [ ]	Expansion Plug [X] None [ ]
Reference/Measuring Point	Groove [ ]	Indelible Mark [ ]	None [X]
Evidence of Double Casing?	Yes [ ]	No [X]	Describe: _____

Downhole

Odor	Yes [ ]	No [X]	Describe: _____
PID Reading	0.6 ppm		
Depth to Water (to top of casing)	19.15 feet (nearest 0.01)	Depth to LNAPL	_____ feet (nearest 0.01) N/A [ ]
Total Well Depth (to top of casing)	_____ feet (nearest 0.1)		
Sediment (Hard/Soft Bottom)	Describe: _____		

Additional Comments:

_____

_____

_____

_____

_____

_____

MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 6/22/09 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 4009-10

WELL LOCATION: _____

Outward Appearance

Flushmount Diameter	10 inches	N/A [ ]	
Approximate Stickup Height	— feet	N/A [ ]	
Integrity of Protective Casing	Describe: ok		
Protective Casing Material	Steel [ ]	Stainless Steel [ ]	Other _____
Protective Casing Width or Dia.	_____ inches		
Weep Hole in Protective Casing	Yes [X]	No [ ]	
Surface Seal/Apron Material	Cement [ ]	Bentonite [ ]	Not apparent [X] Other _____
Integrity of Surface Seal/Apron	Describe: _____		
Surface Drainage	Away from Wellhead [X]	Toward Wellhead [ ]	
Bollards Present?	Yes [ ]	No [X]	Describe: _____
Well ID. Visible?	Yes [X]	No [ ]	Describe: _____
Lock Present and Functional?	Yes [X]	No [ ]	Describe: _____
Photograph Taken? Photo #	Yes [ ]	No [X]	Describe: _____

Inner Appearance

Integrity of Well Casing	Describe: ok		
Integrity of Cap Seal	Describe: ok		
Surface Water in Casing?	Yes [ ]	No [X]	Describe: _____
Well Casing Diameter	4 inches		
Well Casing Material	PVC [ ]	Steel [ ]	Stainless Steel [X]
Inner Cap	Threaded [ ]	Slip [ ]	Expansion Plug [X] None [ ]
Reference/Measuring Point	Groove [ ]	Indelible Mark [ ]	None [X]
Evidence of Double Casing?	Yes [ ]	No [X]	Describe: _____

Downhole

Odor	Yes [ ]	No [X]	Describe: _____
PID Reading	0.0 ppm		
Depth to Water (to top of casing)	25.47 feet (nearest 0.01)	Depth to LNAPL	_____ feet (nearest 0.01) N/A [ ]
Total Well Depth (to top of casing)	_____ feet (nearest 0.1)		
Sediment (Hard/Soft Bottom)	Describe: _____		

Additional Comments:

_____

_____

_____

_____

_____

_____

MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 6/22/09 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 4009-11

WELL LOCATION: _____

Outward Appearance

Flushmount Diameter: 8 inches N/A [ ]

Approximate Stickup Height: _____ feet N/A [ ]

Integrity of Protective Casing: Describe: OK

Protective Casing Material: Steel [ ] Stainless Steel [ ] Other _____

Protective Casing Width or Dia.: _____ inches

Weep Hole in Protective Casing: Yes [X] No [ ]

Surface Seal/Apron Material: Cement [X] Bentonite [ ] Not apparent [ ] Other _____

Integrity of Surface Seal/Apron: Describe: good

Surface Drainage: Away from Wellhead [X] Toward Wellhead [ ]

Bollards Present?: Yes [ ] No [X] Describe: _____

Well ID. Visible?: Yes [X] No [ ] Describe: _____

Lock Present and Functional?: Yes [X] No [ ] Describe: _____

Photograph Taken? Photo #: Yes [ ] No [ ] Describe: _____

Inner Appearance

Integrity of Well Casing: Describe: good

Integrity of Cap Seal: Describe: good

Surface Water in Casing?: Yes [ ] No [X] Describe: _____

Well Casing Diameter: 2 inches

Well Casing Material: PVC [ ] Steel [ ] Stainless Steel [X]

Inner Cap: Threaded [ ] Slip [ ] Expansion Plug [X] None [ ]

Reference/Measuring Point: Groove [ ] Indelible Mark [ ] None [X]

Evidence of Double Casing?: Yes [ ] No [X] Describe: _____

Downhole

Odor: Yes [ ] No [X] Describe: _____

PID Reading: 0.6 ppm

Depth to Water (to top of casing): 22.47 feet (nearest 0.01) Depth to LNAPL _____ feet (nearest 0.01) N/A [ ]

Total Well Depth (to top of casing) _____ feet (nearest 0.1)

Sediment (Hard/Soft Bottom) Describe: _____

Additional Comments:

MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 6/22/09 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 4009 - 11A

WELL LOCATION: _____

Outward Appearance

Flushmount Diameter 8 inches N/A [ ]

Approximate Stickup Height — feet N/A [ ]

Integrity of Protective Casing Describe: Good

Protective Casing Material Steel [ ] Stainless Steel [ ] Other _____

Protective Casing Width or Dia. _____ inches

Weep Hole in Protective Casing Yes [X] No [ ]

Surface Seal/Apron Material Cement [X] Bentonite [ ] Not apparent [ ] Other _____

Integrity of Surface Seal/Apron Describe: Good

Surface Drainage Away from Wellhead [ ] Toward Wellhead [X]

Bollards Present? Yes [ ] No [X] Describe: _____

Well ID. Visible? Yes [X] No [ ] Describe: _____

Lock Present and Functional? Yes [X] No [ ] Describe: _____

Photograph Taken? Photo # Yes [ ] No [X] Describe: _____

Inner Appearance

Integrity of Well Casing Describe: ok

Integrity of Cap Seal Describe: ok

Surface Water in Casing? Yes [ ] No [X] Describe: _____

Well Casing Diameter 2 inches

Well Casing Material PVC [ ] Steel [ ] Stainless Steel [X]

Inner Cap Threaded [ ] Slip [ ] Expansion Plug [X] None [ ]

Reference/Measuring Point Groove [ ] Indelible Mark [ ] None [X]

Evidence of Double Casing? Yes [ ] No [X] Describe: _____

Downhole

Odor Yes [ ] No [X] Describe: _____

PID Reading 0.0 ppm

Depth to Water (to top of casing) 16.02 feet (nearest 0.01) Depth to LNAPL _____ feet (nearest 0.01) N/A [ ]

Total Well Depth (to top of casing) _____ feet (nearest 0.1)

Sediment (Hard/Soft Bottom) Describe: _____

Additional Comments:

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MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 6/22/09 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 4009-12

WELL LOCATION: _____

Outward Appearance

Flushmount Diameter	8 inches	N/A [ ]	
Approximate Stickup Height	— feet	N/A [ ]	
Integrity of Protective Casing	Describe: OK		
Protective Casing Material	Steel [ ]	Stainless Steel [ ]	Other _____
Protective Casing Width or Dia.	_____ inches		
Weep Hole in Protective Casing	Yes [X]	No [ ]	
Surface Seal/Apron Material	Cement [X]	Bentonite [ ]	Not apparent [ ] Other _____
Integrity of Surface Seal/Apron	Describe: Good		
Surface Drainage	Away from Wellhead [X]	Toward Wellhead [ ]	
Bollards Present?	Yes [ ]	No [X]	Describe: _____
Well ID. Visible?	Yes [X]	No [ ]	Describe: _____
Lock Present and Functional?	Yes [X]	No [ ]	Describe: _____
Photograph Taken? Photo #	Yes [ ]	No [X]	Describe: _____

Inner Appearance

Integrity of Well Casing	Describe: Good		
Integrity of Cap Seal	Describe: Good		
Surface Water in Casing?	Yes [ ]	No [X]	Describe: _____
Well Casing Diameter	2 inches		
Well Casing Material	PVC [X]	Steel [ ]	Stainless Steel [ ]
Inner Cap	Threaded [ ]	Slip [ ]	Expansion Plug [X] None [ ]
Reference/Measuring Point	Groove [ ]	Indelible Mark [X]	None [ ]
Evidence of Double Casing?	Yes [ ]	No [X]	Describe: _____

Downhole

Odor	Yes [ ]	No [X]	Describe: _____
PID Reading	0.1 ppm		
Depth to Water (to top of casing)	15.57 feet (nearest 0.01)	Depth to LNAPL	_____ feet (nearest 0.01) N/A [ ]
Total Well Depth (to top of casing)	_____ feet (nearest 0.1)		
Sediment (Hard/Soft Bottom)	Describe: _____		

Additional Comments:

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MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 6/22/09 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 4009-12A

WELL LOCATION: _____

Outward Appearance

Flushmount Diameter	8 inches	N/A [ ]	
Approximate Stickup Height	— feet	N/A [ ]	
Integrity of Protective Casing	Describe: OK		
Protective Casing Material	Steel [ ]	Stainless Steel [ ]	Other _____
Protective Casing Width or Dia.	_____ inches		
Weep Hole in Protective Casing	Yes [X]	No [ ]	
Surface Seal/Apron Material	Cement [X]	Bentonite [ ]	Not apparent [ ] Other _____
Integrity of Surface Seal/Apron	Describe: Good		
Surface Drainage	Away from Wellhead [X]	Toward Wellhead [ ]	
Bollards Present?	Yes [ ]	No [X] Describe:	_____
Well ID. Visible?	Yes [X]	No [ ] Describe:	_____
Lock Present and Functional?	Yes [X]	No [ ] Describe:	_____
Photograph Taken? Photo #	Yes [ ]	No [X] Describe:	_____

Inner Appearance

Integrity of Well Casing	Describe: OK		
Integrity of Cap Seal	Describe: OK		
Surface Water in Casing?	Yes [ ]	No [X] Describe:	_____
Well Casing Diameter	2 inches		
Well Casing Material	PVC [X]	Steel [ ]	Stainless Steel [ ]
Inner Cap	Threaded [ ]	Slip [ ]	Expansion Plug [X] None [ ]
Reference/Measuring Point	Groove [ ]	Indelible Mark [X]	None [ ]
Evidence of Double Casing?	Yes [ ]	No [X] Describe:	_____

Downhole

Odor	Yes [ ]	No [X] Describe:	_____
PID Reading	0.0 ppm		
Depth to Water (to top of casing)	16.02 feet (nearest 0.01)	Depth to LNAPL	_____ feet (nearest 0.01) N/A [ ]
Total Well Depth (to top of casing)	_____ feet (nearest 0.1)		
Sediment (Hard/Soft Bottom)	Describe: _____		

Additional Comments:

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MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 6/24/08 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 4009-13

WELL LOCATION: _____

Outward Appearance

Flushmount Diameter	8 inches	N/A [ ]	
Approximate Stickup Height	- feet	N/A [ ]	
Integrity of Protective Casing	Describe:		
Protective Casing Material	Steel [ ]	Stainless Steel [ ]	Other
Protective Casing Width or Dia.	_____ inches		
Weep Hole in Protective Casing	Yes [X]	No [ ]	
Surface Seal/Apron Material	Cement [X]	Bentonite [ ]	Not apparent [ ] Other
Integrity of Surface Seal/Apron	Describe: Good		
Surface Drainage	Away from Wellhead [X]	Toward Wellhead [ ]	
Bollards Present?	Yes [ ]	No [X]	Describe:
Well ID. Visible?	Yes [X]	No [ ]	Describe:
Lock Present and Functional?	Yes [X]	No [ ]	Describe:
Photograph Taken? Photo #	Yes [ ]	No [X]	Describe:

Inner Appearance

Integrity of Well Casing	Describe: OK		
Integrity of Cap Seal	Describe: OK		
Surface Water in Casing?	Yes [ ]	No [X]	Describe:
Well Casing Diameter	2 inches		
Well Casing Material	PVC [X]	Steel [ ]	Stainless Steel [ ]
Inner Cap	Threaded [ ]	Slip [ ]	Expansion Plug [X] None [ ]
Reference/Measuring Point	Groove [ ]	Indelible Mark [X]	None [ ]
Evidence of Double Casing?	Yes [ ]	No [X]	Describe:

Downhole

Odor	Yes [ ]	No [X]	Describe:
PID Reading	21 ppm		
Depth to Water (to top of casing)	8.48 feet (nearest 0.01)	Depth to LNAPL	_____ feet (nearest 0.01) N/A [ ]
Total Well Depth (to top of casing)	_____ feet (nearest 0.1)		
Sediment (Hard/Soft Bottom)	Describe:		

Additional Comments:

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MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 6/22/09 INSPECTOR: JRW, J. Natalle (Aztec)

WELL DESIGNATION: 4009 - 13A

WELL LOCATION: _____

Outward Appearance

Flushmount Diameter	8 inches	N/A [ ]	
Approximate Stickup Height	– feet	N/A [ ]	
Integrity of Protective Casing	Describe: Good		
Protective Casing Material	Steel [ ]	Stainless Steel [ ]	Other _____
Protective Casing Width or Dia.	_____ inches		
Weep Hole in Protective Casing	Yes [X]	No [ ]	
Surface Seal/Apron Material	Cement [X]	Bentonite [ ]	Not apparent [ ] Other _____
Integrity of Surface Seal/Apron	Describe: Good		
Surface Drainage	Away from Wellhead [X]	Toward Wellhead [ ]	
Bollards Present?	Yes [ ]	No [X] Describe:	_____
Well ID. Visible?	Yes [X]	No [ ] Describe:	_____
Lock Present and Functional?	Yes [X]	No [ ] Describe:	_____
Photograph Taken? Photo #	Yes [ ]	No [X] Describe:	_____

Inner Appearance

Integrity of Well Casing	Describe: Good		
Integrity of Cap Seal	Describe: Good		
Surface Water in Casing?	Yes [ ]	No [X] Describe:	_____
Well Casing Diameter	2 inches		
Well Casing Material	PVC [X]	Steel [ ]	Stainless Steel [ ]
Inner Cap	Threaded [ ]	Slip [ ]	Expansion Plug [X] None [ ]
Reference/Measuring Point	Groove [ ]	Indelible Mark [X]	None [ ]
Evidence of Double Casing?	Yes [ ]	No [X] Describe:	_____

Downhole

Odor	Yes [ ]	No [X] Describe:	_____
PID Reading	1.1 ppm		
Depth to Water (to top of casing)	9.74 feet (nearest 0.01)	Depth to LNAPL	_____ feet (nearest 0.01) N/A [ ]
Total Well Depth (to top of casing)	_____ feet (nearest 0.1)		
Sediment (Hard/Soft Bottom)	Describe: _____		

Additional Comments:

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MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 6/22/09 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 4009-14

WELL LOCATION: _____

Outward Appearance

Flushmount Diameter	___ inches	N/A [ ]	
Approximate Stickup Height	3.5 feet	N/A [ ]	
Integrity of Protective Casing	Describe: good		
Protective Casing Material	Steel [X]	Stainless Steel [ ]	Other _____
Protective Casing Width or Dia.	4 inches		
Weep Hole in Protective Casing	Yes [ ]	No [X]	
Surface Seal/Apron Material	Cement [X]	Bentonite [ ]	Not apparent [ ] Other _____
Integrity of Surface Seal/Apron	Describe: Good		
Surface Drainage	Away from Wellhead [X]	Toward Wellhead [ ]	
Bollards Present?	Yes [ ]	No [X]	Describe: _____
Well ID. Visible?	Yes [X]	No [ ]	Describe: _____
Lock Present and Functional?	Yes [X]	No [ ]	Describe: _____
Photograph Taken? Photo #	Yes [ ]	No [X]	Describe: _____

Inner Appearance

Integrity of Well Casing	Describe: Good		
Integrity of Cap Seal	Describe: Good		
Surface Water in Casing?	Yes [ ]	No [X]	Describe: _____
Well Casing Diameter	2 inches		
Well Casing Material	PVC [X]	Steel [ ]	Stainless Steel [ ]
Inner Cap	Threaded [ ]	Slip [ ]	Expansion Plug [X] None [ ]
Reference/Measuring Point	Groove [ ]	Indelible Mark [X]	None [ ]
Evidence of Double Casing?	Yes [ ]	No [X]	Describe: _____

Downhole

Odor	Yes [ ]	No [X]	Describe: _____
PID Reading	0.0 ppm		
Depth to Water (to top of casing)	12.69 feet (nearest 0.01)	Depth to LNAPL	___ feet (nearest 0.01) N/A [ ]
Total Well Depth (to top of casing)	___ feet (nearest 0.1)		
Sediment (Hard/Soft Bottom)	Describe: _____		

Additional Comments:

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MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 6/22/09 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 4009-15

WELL LOCATION: _____

Outward Appearance

Flushmount Diameter	____ inches	N/A [ ]	
Approximate Stickup Height	3.5 feet	N/A [ ]	
Integrity of Protective Casing	Describe: Good		
Protective Casing Material	Steel [X]	Stainless Steel [ ]	Other ____
Protective Casing Width or Dia.	4 inches		
Weep Hole in Protective Casing	Yes [ ]	No [X]	
Surface Seal/Apron Material	Cement [ ]	Bentonite [ ]	Not apparent [X] Other ____
Integrity of Surface Seal/Apron	Describe: ____		
Surface Drainage	Away from Wellhead [X]	Toward Wellhead [ ]	
Bollards Present?	Yes [ ]	No [X]	Describe: ____
Well ID. Visible?	Yes [X]	No [ ]	Describe: ____
Lock Present and Functional?	Yes [X]	No [ ]	Describe: ____
Photograph Taken? Photo #	Yes [ ]	No [X]	Describe: ____

Inner Appearance

Integrity of Well Casing	Describe: ok		
Integrity of Cap Seal	Describe: ok		
Surface Water in Casing?	Yes [ ]	No [X]	Describe: ____
Well Casing Diameter	2 inches		
Well Casing Material	PVC [X]	Steel [ ]	Stainless Steel [ ]
Inner Cap	Threaded [ ]	Slip [ ]	Expansion Plug [X] None [ ]
Reference/Measuring Point	Groove [ ]	Indelible Mark [X]	None [ ]
Evidence of Double Casing?	Yes [ ]	No [X]	Describe: ____

Downhole

Odor	Yes [ ]	No [X]	Describe: ____
PID Reading	0.0 ppm		
Depth to Water (to top of casing)	18.35 feet (nearest 0.01)	Depth to LNAPL	____ feet (nearest 0.01) N/A [ ]
Total Well Depth (to top of casing)	____ feet (nearest 0.1)		
Sediment (Hard/Soft Bottom)	Describe: ____		

Additional Comments:

MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 6/22/09 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 4009-16

WELL LOCATION: _____

Outward Appearance

Flushmount Diameter	_____ inches	N/A [ ]	
Approximate Stickup Height	3.5 feet	N/A [ ]	
Integrity of Protective Casing	Describe: good		
Protective Casing Material	Steel [X]	Stainless Steel [ ]	Other _____
Protective Casing Width or Dia.	4 inches		
Weep Hole in Protective Casing	Yes [ ]	No [X]	
Surface Seal/Apron Material	Cement [ ]	Bentonite [ ]	Not apparent [X] Other _____
Integrity of Surface Seal/Apron	Describe: _____		
Surface Drainage	Away from Wellhead [X]	Toward Wellhead [ ]	
Bollards Present?	Yes [ ]	No [X] Describe: _____	
Well ID. Visible?	Yes [X]	No [ ] Describe: _____	
Lock Present and Functional?	Yes [X]	No [ ] Describe: _____	
Photograph Taken? Photo #	Yes [ ]	No [X] Describe: _____	

Inner Appearance

Integrity of Well Casing	Describe: ok		
Integrity of Cap Seal	Describe: ok		
Surface Water in Casing?	Yes [ ]	No [X] Describe: _____	
Well Casing Diameter	2 inches		
Well Casing Material	PVC [X]	Steel [ ]	Stainless Steel [ ]
Inner Cap	Threaded [ ]	Slip [ ]	Expansion Plug [X] None [ ]
Reference/Measuring Point	Groove [ ]	Indelible Mark [X]	None [ ]
Evidence of Double Casing?	Yes [ ]	No [X] Describe: _____	

Downhole

Odor	Yes [ ]	No [X] Describe: _____	
PID Reading	0.0 ppm		
Depth to Water (to top of casing)	18.55 feet (nearest 0.01)	Depth to LNAPL	_____ feet (nearest 0.01) N/A [ ]
Total Well Depth (to top of casing)	_____ feet (nearest 0.1)		
Sediment (Hard/Soft Bottom)	Describe: _____		

Additional Comments:

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MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 6/22/09 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 4009-16A

WELL LOCATION: _____

Outward Appearance

Flushmount Diameter	- inches	N/A [ ]	
Approximate Stickup Height	3 feet	N/A [ ]	
Integrity of Protective Casing	Describe: good		
Protective Casing Material	Steel [X]	Stainless Steel [ ]	Other _____
Protective Casing Width or Dia.	4 inches		
Weep Hole in Protective Casing	Yes [ ]	No [X]	
Surface Seal/Apron Material	Cement [ ]	Bentonite [ ]	Not apparent [X] Other _____
Integrity of Surface Seal/Apron	Describe: _____		
Surface Drainage	Away from Wellhead [X]	Toward Wellhead [ ]	
Bollards Present?	Yes [ ]	No [X] Describe: _____	
Well ID. Visible?	Yes [X]	No [ ] Describe: _____	
Lock Present and Functional?	Yes [X]	No [ ] Describe: _____	
Photograph Taken? Photo #	Yes [ ]	No [X] Describe: _____	

Inner Appearance

Integrity of Well Casing	Describe: good		
Integrity of Cap Seal	Describe: good		
Surface Water in Casing?	Yes [ ]	No [X] Describe: _____	
Well Casing Diameter	2 inches		
Well Casing Material	PVC [X]	Steel [ ]	Stainless Steel [ ]
Inner Cap	Threaded [ ]	Slip [ ]	Expansion Plug [X] None [ ]
Reference/Measuring Point	Groove [ ]	Indelible Mark [X]	None [ ]
Evidence of Double Casing?	Yes [ ]	No [X] Describe: _____	

Downhole

Odor	Yes [ ]	No [X] Describe: _____	
PID Reading	0.0 ppm		
Depth to Water (to top of casing)	18.42 feet (nearest 0.01)	Depth to LNAPL	_____ feet (nearest 0.01) N/A [ ]
Total Well Depth (to top of casing)	_____ feet (nearest 0.1)		
Sediment (Hard/Soft Bottom)	Describe: _____		

Additional Comments:

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MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 4009-18 6/22/07 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 4009-18

WELL LOCATION:

Outward Appearance

Flushmount Diameter	— inches	N/A [ ]	
Approximate Stickup Height	3.5 feet	N/A [ ]	
Integrity of Protective Casing	Describe: good		
Protective Casing Material	Steel [X]	Stainless Steel [ ]	Other
Protective Casing Width or Dia.	4 inches		
Weep Hole in Protective Casing	Yes [ ]	No [X]	
Surface Seal/Apron Material	Cement [X]	Bentonite [ ]	Not apparent [ ] Other
Integrity of Surface Seal/Apron	Describe: Fair, Concrete deteriorated		
Surface Drainage	Away from Wellhead [X]	Toward Wellhead [ ]	
Bollards Present?	Yes [ ]	No [X]	Describe:
Well ID. Visible?	Yes [X]	No [ ]	Describe:
Lock Present and Functional?	Yes [X]	No [ ]	Describe: New Lock installed
Photograph Taken? Photo #	Yes [ ]	No [X]	Describe:

Inner Appearance

Integrity of Well Casing	Describe: Good			
Integrity of Cap Seal	Describe: Good			
Surface Water in Casing?	Yes [ ]	No [X]	Describe:	
Well Casing Diameter	2 inches			
Well Casing Material	PVC [X]	Steel [ ]	Stainless Steel [ ]	
Inner Cap	Threaded [ ]	Slip [X]	Expansion Plug [ ]	None [ ]
Reference/Measuring Point	Groove [ ]	Indelible Mark [X]	None [ ]	
Evidence of Double Casing?	Yes [ ]	No [X]	Describe:	

Downhole

Odor	Yes [ ]	No [X]	Describe:
PID Reading	0.1 ppm		
Depth to Water (to top of casing)	26.44 feet (nearest 0.01)	Depth to LNAPL	feet (nearest 0.01) N/A [ ]
Total Well Depth (to top of casing)	feet (nearest 0.1)		
Sediment (Hard/Soft Bottom)	Describe:		

Additional Comments:

MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 6/22/09 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 4009-19

WELL LOCATION: _____

Outward Appearance

Flushmount Diameter	___ inches	N/A [ ]	
Approximate Stickup Height	3.0 feet	N/A [ ]	
Integrity of Protective Casing	Describe: Good		
Protective Casing Material	Steel [X]	Stainless Steel [ ]	Other _____
Protective Casing Width or Dia.	4 inches		
Weep Hole in Protective Casing	Yes [ ]	No [X]	
Surface Seal/Apron Material	Cement [ ]	Bentonite [ ]	Not apparent [X] Other _____
Integrity of Surface Seal/Apron	Describe: _____		
Surface Drainage	Away from Wellhead [X]	Toward Wellhead [ ]	
Bollards Present?	Yes [ ]	No [X]	Describe: _____
Well ID. Visible?	Yes [X]	No [ ]	Describe: _____
Lock Present and Functional?	Yes [X]	No [ ]	Describe: _____
Photograph Taken? Photo #	Yes [ ]	No [X]	Describe: _____

Inner Appearance

Integrity of Well Casing	Describe: Good		
Integrity of Cap Seal	Describe: Good		
Surface Water in Casing?	Yes [ ]	No [X]	Describe: _____
Well Casing Diameter	2 inches		
Well Casing Material	PVC [X]	Steel [ ]	Stainless Steel [ ]
Inner Cap	Threaded [ ]	Slip [ ]	Expansion Plug [X] None [ ]
Reference/Measuring Point	Groove [ ]	Indelible Mark [X]	None [ ]
Evidence of Double Casing?	Yes [ ]	No [X]	Describe: _____

Downhole

Odor	Yes [ ]	No [X]	Describe: _____
PID Reading	0.7 ppm		
Depth to Water (to top of casing)	16.81 feet (nearest 0.01)	Depth to LNAPL	___ feet (nearest 0.01) N/A [ ]
Total Well Depth (to top of casing)	___ feet (nearest 0.1)		
Sediment (Hard/Soft Bottom)	Describe: _____		

Additional Comments:

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MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 6/22/09 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 4009-20

WELL LOCATION: _____

Outward Appearance

Flushmount Diameter ___ inches N/A [ ]

Approximate Stickup Height ___ feet N/A [ ]

Integrity of Protective Casing Describe: None

Protective Casing Material Steel [ ] Stainless Steel [ ] Other _____

Protective Casing Width or Dia. ___ inches

Weep Hole in Protective Casing Yes [ ] No [ ]

Surface Seal/Apron Material Cement [ ] Bentonite [ ] Not apparent [ ] Other _____

Integrity of Surface Seal/Apron Describe: _____

Surface Drainage Away from Wellhead [ ] Toward Wellhead [ ]

Bollards Present? Yes [ ] No [X] Describe: _____

Well ID. Visible? Yes [ ] No [X] Describe: _____

Lock Present and Functional? Yes [ ] No [X] Describe: _____

Photograph Taken? Photo # Yes [ ] No [X] Describe: _____

Inner Appearance

Integrity of Well Casing Describe: ok

Integrity of Cap Seal Describe: ok

Surface Water in Casing? Yes [ ] No [ ] Describe: NA

Well Casing Diameter 2 inches

Well Casing Material PVC [ ] Steel [X] Stainless Steel [ ]

Inner Cap Threaded [X] Slip [ ] Expansion Plug [ ] None [ ]

Reference/Measuring Point Groove [ ] Indelible Mark [ ] None [X]

Evidence of Double Casing? Yes [ ] No [X] Describe: _____

Downhole

Odor Yes [ ] No [X] Describe: _____

PID Reading 0.0 ppm

Depth to Water (to top of casing) 15.42 feet (nearest 0.01) Depth to LNAPL ___ feet (nearest 0.01) N/A [ ]

Total Well Depth (to top of casing) ___ feet (nearest 0.1)

Sediment (Hard/Soft Bottom) Describe: _____

Additional Comments:

MALCOLM PIRNIE

GROUNDWATER MONITORING WELL INSPECTION

SITE/PROJECT NAME: Vestal Water Supply PROJECT NUMBER: 0266352

DATE OF INSPECTION: 6/22/09 INSPECTOR: JRW, J. Natalle (Aztech)

WELL DESIGNATION: 4009-21

WELL LOCATION: _____

Outward Appearance

Flushmount Diameter	— inches	N/A [ ]	
Approximate Stickup Height	— feet	N/A [ ]	
Integrity of Protective Casing	Describe: None		
Protective Casing Material	Steel [ ]	Stainless Steel [ ]	Other _____
Protective Casing Width or Dia.	_____ inches		
Weep Hole in Protective Casing	Yes [ ]	No [ ]	
Surface Seal/Apron Material	Cement [ ]	Bentonite [ ]	Not apparent [ ] Other _____
Integrity of Surface Seal/Apron	Describe: _____		
Surface Drainage	Away from Wellhead [ ]	Toward Wellhead [ ]	
Bollards Present?	Yes [ ]	No [X]	Describe: _____
Well ID. Visible?	Yes [ ]	No [X]	Describe: _____
Lock Present and Functional?	Yes [ ]	No [X]	Describe: _____
Photograph Taken? Photo #	Yes [ ]	No [X]	Describe: _____

Inner Appearance

Integrity of Well Casing	Describe: Good		
Integrity of Cap Seal	Describe: Good		
Surface Water in Casing?	Yes [ ]	No [✓]	Describe: N/A
Well Casing Diameter	_____ inches		
Well Casing Material	PVC [ ]	Steel [X]	Stainless Steel [ ]
Inner Cap	Threaded [X]	Slip [ ]	Expansion Plug [ ] None [ ]
Reference/Measuring Point	Groove [ ]	Indelible Mark [ ]	None [X]
Evidence of Double Casing?	Yes [ ]	No [X]	Describe: _____

Downhole

Odor	Yes [ ]	No [X]	Describe: _____
PID Reading	0.0 ppm		
Depth to Water (to top of casing)	14.75' feet (nearest 0.01)	Depth to LNAPL	_____ feet (nearest 0.01) N/A [ ]
Total Well Depth (to top of casing)	_____ feet (nearest 0.1)		
Sediment (Hard/Soft Bottom)	Describe: _____		

Additional Comments:

_____

_____

_____

_____

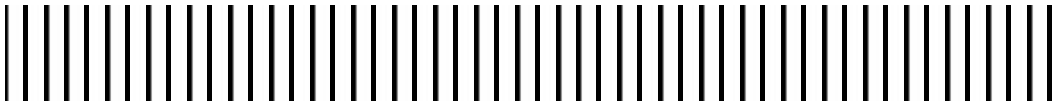
_____

_____

New York State Department of Environmental Conservation
Vestal Water Supply Site Quarterly Report and Annual Groundwater Monitoring Summary

Appendix E

Water Level Data Form



0266352 / ALB

MALCOLM PIRNIE

GROUNDWATER LEVEL DATA FORM

PROJECT NAME: Vestal Water Supply
PROJECT NUMBER: 0266352

DATE: 6/22/2009
PERSONNEL: JRW (MPI), JN (Aztech)

NEW WELL ID	OLD WELL ID	Date	Headspace VOCs (ppm)	Depth to LNAPL (feet)	Depth to Water (feet)	Reference Point
4009-1	S-8	6/22/2009	0	-	7.16	TOC
4009-2	EB-33	6/22/2009	0	-	18.11	TOC
4009-3	S-7	6/22/2009	0	-	14.64	TOC
4009-4	S-6	6/22/2009	0.5	-	10.29	TOC
4009-5	EB-31	6/22/2009	0.4	-	16.19	TOC
4009-6	S-1	6/22/2009	0	-	18.99	TOC
4009-7	S-2	6/22/2009	0.6	-	17.02	TOC
4009-8	S-11	6/22/2009	0.6	-	17.77	TOC
4009-9	EB-41	6/22/2009	0.6	-	19.15	TOC
4009-10	EB-42	6/22/2009	0	-	25.47	TOC
4009-11	1-32	6/22/2009	0.6	-	22.47	TOC
4009-11A	1-32A	6/22/2009	0	-	16.02	TOC
4009-12	1-29	6/22/2009	0.1	-	15.57	TOC
4009-12A	1-29A	6/22/2009	0	-	16.02	TOC
4009-13	1-30	6/22/2009	21	-	8.48	TOC
4009-13A	1-30A	6/22/2009	1.1	-	9.24	TOC
4009-14	1-23	6/22/2009	0	-	12.69	TOC
4009-15	1-24	6/22/2009	0	-	18.35	TOC
4009-16	1-20	6/22/2009	0	-	18.55	TOC
4009-16A	1-20A	6/22/2009	0	-	18.42	TOC
4009-17	Piezo-levee*	6/22/2009	NM	-	NM	TOC
4009-18	well-west well house*	6/22/2009	0.1	-	26.44	TOC
4009-19	well-south well house*	6/22/2009	0.7	-	16.81	TOC
4009-20	Piezo-north*	6/22/2009	0	-	15.42	TOC
4009-21	Piezo-west*	6/22/2009	0	-	14.75	TOC
Well 1-1		6/22/2009	NM	-	61.85	TOC**
Well 1-1A		6/22/2009	NM	-	24.62	TOC

Notes:

* - Could not identify well location from Tetra Tech site map. Old Well ID based on field description of well location.

** - Measured from top of Aqua Gard pipe.

TOC - Top of casing

Well 1-1A flow = 250 GPM @ 48 Hz

New York State Department of Environmental Conservation
Vestal Water Supply Site Quarterly Report and Annual Groundwater Monitoring Summary

Appendix F

Groundwater Sampling Purge Logs

0266352 / ALB

MALCOLM PIRNIE

MALCOLM PIRNIE

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 4009-1 DATE: 6/22/09

PROJECT NAME: Vestal Water Supply
PROJECT NUMBER: 0266352
SAMPLERS: JRW, J. Natalle (Aztech)

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: 2"

C: Water Level Below Top of Casing: _____

D: Volume of Water in Casing: 7.12

v = 0.0408 (B)^2 x (A-C) = D

v = 0.0408 ( )^2 x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	2:20	2:25	2:30	2:35	2:40	2:46	2:52	3:00	3:05	3:11	3:16	3:21	3:27
Gallons	—	—	—	—	45.	—	3?.	—	—	45.	—	59.	—
Depth to Water	7.70	7.97	8.06	8.09	8.08	8.09	8.10	8.10	8.09	8.09	8.10	8.10	8.10
pH	6.01	6.11	6.11	6.12	6.09	6.11	6.13	6.25	6.31	6.35	6.37	6.40	6.44
Conductivity (mohm/cm	1.53	1.47	1.44	1.44	1.43	1.42	1.42	1.40	1.39	1.37	1.36	1.34	1.30
Turbidity (ntu)	450?	330?	323?	289.0	252.0	181.0	@140°	101.0	72.0	62.0	62.0	62.4	60.0
Disolved Oxygen (mg/l)	0.53	0.02	0.00	0.90	0	0	0	0	0	0	0	0	0
Temperature (°C)	13.71	13.49	13.52	13.56	13.72	14.01	14.03	14.00	14.13	14.08	13.91	13.96	14.41
Salinity	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TDS	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8
Redox (mV)	-52	-59	-60	-51	-45	-52	-59	-63	-72	-80	-84	-86	-88

Notes: Recalibrated Meter before starting
Started @ 2:20pm

(Page 1)

MALCOLM PIRNIE

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 4009-1 DATE: 6/22/09

PROJECT NAME: Vestal Water Supply
PROJECT NUMBER: 0266352
SAMPLERS: JRW, J. Natalle (Aztech)

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: 2"

C: Water Level Below Top of Casing: _____

D: Volume of Water in Casing: _____

$v = 0.0408 (B)^2 \times (A-C) = D$

v = 0.0408 ( )² x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	3:32	3:38	3:44										
Gallons	69.	—	79.										
Depth to Water	8.07	8.06	8.06										
pH	6.44	6.44	6.44										
Conductivity (mohm/cm	1.25	1.23	1.22										
Turbidity (ntu)	58.8	59.9	61.2										
Disolved Oxygen (mg/l)	0	0	0										
Temperature (°C)	14.11	13.93	14.09										
Salinity	0.1	0.1	0.1										
TDS	0.8	0.8	0.8										
Redox (mV)	-88	-89	-89										

Notes: (Continued - Page 2)
- Sample taken @ 3:45pm

MALCOLM PIRNIE

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 4009-2 DATE: 6/22/09

PROJECT NAME: Vestal Water Supply
PROJECT NUMBER: 0266352
SAMPLERS: JRW, J. Natalle (Aztech)

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: _____

C: Water Level Below Top of Casing: _____

D: Volume of Water in Casing: 18.25 (at start of pumping)

v = 0.0408 (B)^2 x (A-C) = D

v = 0.0408 ( )^2 x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	4:10	4:17	4:23	4:29	4:34	4:39	4:45	4:51	4:56	5:02	5:08	5:14	5:19
Gallons	—	—	—	—	—	—	—	—	—	3 gal	—	—	—
Depth to Water	18.25	18.84	18.84	18.86	18.99	19.04	19.12	19.19	19.21	19.26	19.29	19.35	19.40
pH	6.79	6.76	6.77	6.77	6.75	6.75	6.75	6.79	6.74	6.74	6.74	6.73	6.73
Conductivity (mohm/cm	1.67	1.65	1.65	1.64	1.64	1.64	1.64	1.63	1.64	1.64	1.65	1.64	1.64
Turbidity (ntu)	869.0	222.0	170.1	104.0	90.6	88.0	134.0	100.0	81.7	69.3	60.3	57.2	62.6
Disolved Oxygen (mg/l)	3.09	0	0	0	0	0	0	0	0	0	0	0	0
Temperature (°C)	14.99	14.25	13.98	13.94	13.91	13.83	13.92	14.09	14.13	14.15	14.07	14.42	14.13
Salinity	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TDS	1.1	1.1	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.1
Redox (mV)	-26	9	-14	-26	-34	-39	-42	-43	-50	-51	-54	-57	-59

Notes: Started Purging @ 4:10 pm
- Emptied cylinder water to clear Turbidity (then refilled) @ 4:50 pm

MALCOLM PIRNIE

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 4009-2 DATE: 6/22/09

PROJECT NAME: Vestal Water Supply
PROJECT NUMBER: 0266352
SAMPLERS: JRW, J. Natalle (Aztech)

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: _____

C: Water Level Below Top of Casing: _____

D: Volume of Water in Casing: _____

v = 0.0408 $(B)^2$ x (A-C) = D

v = 0.0408 ( )^2 x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	5:24	5:29	5:34										
Gallons	—	—	5½										
Depth to Water	9.42	9.45	9.47										
pH	6.72	6.72	6.71										
Conductivity (mohm/cm	1.64	1.65	1.64										
Turbidity (ntu)	58.2	58.4	57.2										
Disolved Oxygen (mg/l)	~~0~~	~~0~~	~~0~~										
Temperature (°C)	14.56	13.69	13.88										
Salinity	0.1	0.1	0.1										
TDS	1.1	1.1	1.1										
Redox (mV)	-60	-61	-62										

Notes: - Sample called @ 5:35pm

(Page 2)

MALCOLM PIRNIE

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 4009-3 DATE: 6/23/09

PROJECT NAME: Vestal Water Supply
PROJECT NUMBER: 0266352
SAMPLERS: JRW, J. Natalle (Aztech)

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: _____

C: Water Level Below Top of Casing: _____

D: Volume of Water in Casing: 14.55

v = 0.0408 (B)^2 x (A-C) = D

v = 0.0408 ( )^2 x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	3:30	3:36	3:42	3:49	3:54	4:01	4:07	4:12	4:19	4:24	4:29		
Gallons	—	—	—	—	—	—	—	—	—	—	59		
Depth to Water	15.32	15.52	15.54	15.52	15.51	15.51	15.51	15.52	15.52	15.51	15.52		
pH	6.12	6.15	6.09	6.23	6.32	6.39	6.38	6.40	6.40	6.38	6.39		
Conductivity (mohm/cm	0.46	0.49	0.54	1.18	1.29	1.35	1.38	1.38	1.39	1.39	1.39		
Turbidity (ntu)	over	700	523.9	321.3	212.8	113.1	125.1	102.0	121.0	131.0	102.1		
Disolved Oxygen (mg/l)	0.19	4.92	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖		
Temperature (°C)	16.92	16.05	16.27	16.93	16.23	16.47	16.19	16.53	16.58	16.55	16.44		
Salinity	⊖	⊖	⊖	⊖	⊖	0.1	0.1	0.1	0.1	0.1	0.1		
TDS	0.30	0.33	0.35	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9		
Redox (mV)	2	-16	-33	-61	-75	-85	-85	-91	-92	-94	-94		

Notes: Started Purging @ 3:30 pm
- Emptied cylinder @ 4:40 pm (to clear turbidity)
- Sampled @ 4:30 pm

MALCOLM PIRNIE

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 4009-4 DATE: 6/23/09

PROJECT NAME: Vestal Water Supply
PROJECT NUMBER: 0266352
SAMPLERS: JRW, J. Natalle (Aztech)

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: _____

C: Water Level Below Top of Casing: _____

D: Volume of Water in Casing: 10.39

v = 0.0408 $(B)^2$ x (A-C) = D

v = 0.0408 ( )^2 x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	11:00	11:06	11:12	11:20	11:26	11:31	11:37	11:44	11:49	11:54	11:59	12:06
Gallons	—	—	—	—	—	—	—	—	—	—	—	4g.
Depth to Water	10.49	10.51	10.47	10.46	10.46	10.46	10.47	10.47	10.49	10.47	10.47	10.47
pH	6.71	6.59	6.51	6.47	6.41	6.41	6.40	6.41	6.42	6.41	6.45	6.45
Conductivity (mohm/cm	2.39	2.35	2.32	2.17	2.23	2.20	2.21	2.21	2.21	2.19	2.17	2.18
Turbidity (ntu)	982.0	898.0	700.0	514.0	360.0	297.0	260.0	254.0	260.0	253.0	228.0	221.0
Disolved Oxygen (mg/l)	5.22	0.89	0	0	0	0	0	0	0	0	0	0
Temperature (°C)	13.70	13.43	13.26	13.14	13.45	13.91	13.85	13.75	14.00	13.43	13.42	13.23
Salinity	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TDS	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Redox (mV)	-107	-109	-111	-110	-113	-115	-115	-111	-114	-115	-116	-117

Notes: Start purging @ 11:00am
Sample taken @ 12:07 pm

MALCOLM PIRNIE

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 4009-5 DATE: 6/23/09

PROJECT NAME: Vestal Water Supply
PROJECT NUMBER: 0266352
SAMPLERS: JRW, J. Natalle (Aztech)

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: _____

C: Water Level Below Top of Casing: _____

D: Volume of Water in Casing: 16.22

v = 0.0408 (B)^2 x (A-C) = D

v = 0.0408 ( )^2 x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	1:35	1:40	1:45	1:51	1:58	2:05	2:10	2:15	2:21	2:26	2:31	2:39	2:48
Gallons	—	—	—	—	—	—	—	—	—	55	—	—	60
Depth to Water	16.41	17.01	17.81	18.65	19.10	19.22	19.31	19.97	20.31	20.55	21.05	21.13	21.41
pH	6.69	6.64	6.63	6.58	6.61	6.67	6.65	6.67	6.65	6.65	6.72	6.72	6.73
Conductivity (mohm/cm	1.09	1.08	1.07	1.07	1.07	1.07	1.06	1.05	1.06	1.06	1.05	1.05	1.05
Turbidity (ntu)	399.0	344.0	166.0	168.0	160.1	159.0	172.0	82.8	103.0	101.0	132.0	149.0	149.0
Disolved Oxygen (mg/l)	2.96	1.05	1.06	0.76	0.73	0.72	0.77	0.74	0.65	0.66	0.73	0.72	0.70
Temperature (°C)	14.55	14.72	14.89	14.39	14.90	14.92	15.01	14.91	14.51	14.46	14.70	14.54	14.62
Salinity	0	0	0	0	0	0	0	0	0	0	0	0	0
TDS	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Redox (mV)	63	47	50	50	44	41	35	26	22	18	12	11	10

Notes: Start Purging @ 1:35pm
Sample taken @ 2:50pm

MALCOLM PIRNIE

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 4009-6 DATE: 6/23/09

PROJECT NAME: Vestal Water Supply
PROJECT NUMBER: 0266352
SAMPLERS: JRW, J. Natalle (Aztech)

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: _____

C: Water Level Below Top of Casing: _____

D: Volume of Water in Casing: 5.90

v = 0.0408 $(B)^2$ x (A-C) = D

v = 0.0408 ( )^2 x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	7:48	7:54	8:00	8:05	8:10	8:15	8:21	8:29	8:36	8:41	8:50	9:00	9:10
Gallons	—	—	—	—	—	—	—	—	—	—	—	—	—
Depth to Water	19.11	19.55	19.72	19.81	19.76	19.70	19.69	19.70	19.69	19.68	19.68	19.66	19.69
pH	6.74	6.50	6.45	6.51	6.58	6.61	6.65	6.65	6.67	6.69	6.69	6.69	6.69
Conductivity (mohm/cm	0.88	0.82	0.81	0.81	0.81	0.81	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Turbidity (ntu)	551	410.0	287.0	201.0	178.0	179.0	180.0	169.0	199.0	163.0	190.0	189.0	186.0
Disolved Oxygen (mg/l)	1.30	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Temperature (°C)	12.67	11.54	11.55	11.50	11.65	11.69	11.76	11.65	11.70	11.84	11.95	11.98	11.82
Salinity	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
TDS	0.57	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
Redox (mV)	-39	-5	1	-3	-9	-6	-12	-14	-16	-18	-21	-22	-23

Notes: Start purging @ 7:45 am
Sample taken @ 9:10 am

MALCOLM PIRNIE

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 4009-7

DATE: 6/23/09

PROJECT NAME: Vestal Water Supply

PROJECT NUMBER: 0266352

SAMPLERS: JRW, J. Natalle (Aztech)

A: Total Casing and Screen Length: __________

B: Casing Internal Diameter: __________

C: Water Level Below Top of Casing: __________

D: Volume of Water in Casing: __________

$v = 0.0408\ (B)^2 \times (A-C) = D$

$v = 0.0408\ (\quad)^2 \times (\quad - \quad) =$ __________ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	1330	1335	1340	1345	1350	1355	1405	1410	1415	1420	1425	1430	
Gallons													
Depth to Water													
pH	4.61	4.71	4.73	4.73	4.76	4.78	4.81	4.85	4.89	4.93	4.93	4.96	
Conductivity (mohm/cm	11.9	11.9	11.9	11.9	11.9	11.7	11.5	11.3	11.1	11.0	10.9	10.7	
Turbidity (ntu)	222	148	90	62.7	66.2	81.1	43.9	53.6	23.1	32.6	30.0	32.1	
Disolved Oxygen (mg/l)	2.02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Temperature (°C)	19.19	17.94	17.31	17.73	17.53	16.86	18.16	18.21	17.89	17.44	17.47	17.83	
Salinity	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	
TDS	7	7	7	7	7	7	7	7	7	7	7	7	
Redox (mV)	77	53	46	42	35	31	25	15	8	1	-1	-5	

Notes: 1325 - initiate purge

1430 - Finish purge, collect sample.

- Purged ≈ 6 gallons.

- Bubbles/gassing with turbidity readings fluctuate. Readings drop once [illegible]

MALCOLM PIRNIE

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 4009-8 DATE: 6/22/09

PROJECT NAME: Vestal Water Supply
PROJECT NUMBER: 0266352
SAMPLERS: JRW, J. Natalle (Aztech)

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: _____

C: Water Level Below Top of Casing: 17.24

D: Volume of Water in Casing: _____

$v = 0.0408 (B)^2 \times (A-C) = D$

v = 0.0408 ( )^2 x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	1505	1510	1515	1520	1525	1535	1540						
Gallons													
Depth to Water	17.28	17.30	17.30	17.30	17.30	17.30	17.30						
pH	6.03	6.11	6.15	6.17	6.17	6.17	6.17						
Conductivity (mohm/cm	.886	.892	.840	.841	.839	.838	.837						
Turbidity (ntu)	130	109	29.1	9.6	0.0	0.0	0.0						
Disolved Oxygen (mg/l)	4.11	.37	0.0	0.0	0.0	0.0	0.0						
Temperature (°C)	17.12	15.60	14.63	14.16	13.91	13.93	13.78						
Salinity	0.0	0.0	0.0	0.0	0.0	0.0	0.0						
TDS	.56	.54	.54	.54	.54	.54	.54						
Redox (mV)	-109	-118	-124	-123	-120	-118	-118						

Notes: 1505- Initiate Purge.
- Finish purge, collect samples, collect duplicate sample 4009 - X (time=1130 on dup sample)
- Purged ≈ 3.5 gallons.

MALCOLM PIRNIE

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 4009-9 DATE: 6/23/09

PROJECT NAME: Vestal Water Supply
PROJECT NUMBER: 0266352
SAMPLERS: JRW, J. Natalle (Aztech)

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: _____

C: Water Level Below Top of Casing: 18.45

D: Volume of Water in Casing: _____

v = 0.0408 $(B)^2$ x (A-C) = D

v = 0.0408 ( )^2 x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	1630	1640	1645	1650	1655	1700	1705	1710	1715	1720	1725		
Gallons	0												
Depth to Water	18.60	18.69	18.69	18.64	18.64	18.64	18.64	18.64	18.65	18.65	18.66		
pH	6.20	6.03	6.01	6.00	6.00	6.01	6.01	6.02	6.02	6.03	6.03		
Conductivity (mohm/cm	1.18	1.80	1.80	1.80	1.79	1.78	1.78	1.79	1.79	1.78	1.78		
Turbidity (ntu)	462	189	150	99.7	81.2	63	51.4	57.3	48.1	50.2	52.1		
Disolved Oxygen (mg/l)	5.35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Temperature (°C)	14.93	13.97	13.71	13.66	13.69	14.14	14.08	14.06	13.94	13.87	13.94		
Salinity	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
TDS	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1		
Redox (mV)	7	14	13	17	19	24	29	29	26	24	23		

Notes: 1630 - Initiate purge.
- Finish purge, collect samples.
- Purged ~ gallons. - water rusty color.

MALCOLM PIRNIE

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 4009-10 DATE: 6/23/09

PROJECT NAME: Vestal Water Supply
PROJECT NUMBER: 0266352
SAMPLERS: JRW, J. Natalle (Aztech)

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: _____

C: Water Level Below Top of Casing: _____

D: Volume of Water in Casing: 24.80

v = 0.0408 $(B)^2$ x (A-C) = D

v = 0.0408 ( )^2 x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED													
Time	4:51	5:00	5:05	5:10	5:16	5:22	5:28	5:34						
Gallons	1	—	—	—	—	—	—	2½ g.						
Depth to Water	3	24.80	24.80	24.81	24.81	24.81	24.81	24.81						
pH	7.8	6.73	6.75	6.71	6.71	6.71	6.71	6.71						
Conductivity (mohm/cm	208	3.50	3.51	3.48	3.47	3.47	3.45	3.46						
Turbidity (ntu)	5	↑	800.0	623.0	461.2	321.0	294.0	221.0						
Disolved Oxygen (mg/l)	0.0	0.06	1.01	0	0	0	0	0						
Temperature (°C)	8.5	14.58	15.06	15.03	15.11	15.19	15.21	15.11						
Salinity	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2						
TDS	2.0	2.3	2.2	2.2	2.2	2.2	2.2	2.2						
Redox (mV)	0.9	34	41	45	45	46	46	46						
	1.5													
	0.6													
	1													

Notes: Start purging @ 4:50pm

Sampled @ 5:35pm

MALCOLM PIRNIE

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 4009-11 DATE: 6/24/09

PROJECT NAME: Vestal Water Supply
PROJECT NUMBER: 0266352
SAMPLERS: JRW, J. Natalle (Aztech)

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: _____

C: Water Level Below Top of Casing: _____

D: Volume of Water in Casing: 24.26

$v = 0.0408 (B)^2 \times (A-C) = D$

v = 0.0408 ( )² x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	7:52	8:58	9:05	9:11	9:17	9:23	9:30	9:39					
Gallons	—	—	—	—	—	—	—	4g.					
Depth to Water	24.25	24.29	24.30	24.30	24.29	24.30	24.31	24.30					
pH	11.41	11.45	11.50	11.51	11.54	11.57	11.61	11.58					
Conductivity (mohm/cm	1.41	1.46	1.49	1.50	1.50	1.50	1.51	1.50					
Turbidity (ntu)	93.5	93.1	86.3	105?	80.2	72.6	75	73.1					
Disolved Oxygen (mg/l)	1.66	0.12	0	0	0	0	0	0					
Temperature (°C)	13.52	13.53	13.64	13.63	13.72	13.82	14.00	14.06					
Salinity	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1					
TDS	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0					
Redox (mV)	-142	-175	-182	-185	-186	-186	-187	-186					

Notes: Start Purging @ 8:50 am
- Not sure about the Ph levels being right ??
- Sample taken @ 9:40 am

MALCOLM PIRNIE

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 4009-11A DATE: 6/24/09

PROJECT NAME: Vestal Water Supply

PROJECT NUMBER: 0266352

SAMPLERS: JRW, J. Natalle (Aztech)

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: _____

C: Water Level Below Top of Casing: _____

D: Volume of Water in Casing: 15.71

v = 0.0408 $(B)^2$ x (A-C) = D

v = 0.0408 ( )^2 x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	7:32	7:36	7:41	7:47	7:53	7:59	8:06	8:12	8:20	8:26	8:34		
Gallons	—	—	—	—	—	—	—	—	—	—	4g.		
Depth to Water	16.51	17.44	18.71	20.63	20.96	22.34	23.21	23.32	22.24	24.68	24.69		
pH	6.31	6.43	5.96	5.97	5.96	5.99	6.02	6.04	6.06	6.06	6.08		
Conductivity (mohm/cm	0	1.24	1.07	0.43	0.43	0.45	0.49	0.51	0.53	0.54	0.55		
Turbidity (ntu)	548.0	97.1	78.0	89.3	78.1	78.7	92.1	104	115.0	125.0	66.0		
Disolved Oxygen (mg/l)	10.11	9.36	0.19	2.67	3.40	3.50	4.00	3.42	4.46	5.74	6.32		
Temperature (°C)	10.46	15.21	12.29	12.34	12.59	12.74	13.31	13.56	13.59	13.73	13.64		
Salinity	0	0.1	0	0	0	0	0	0	0	0	0		
TDS	0	0.6	0.7	0.28	0.29	0.30	0.31	0.33	0.34	0.36	0.34		
Redox (mV)	170	119	89	81	76	70	62	59	56	57	54		

Notes: Start purging @ 7:30am
Sample @ 8:35am

MALCOLM PIRNIE

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 4009-12 DATE: 6/24/09

PROJECT NAME: Vestal Water Supply
PROJECT NUMBER: 0266352
SAMPLERS: JRW, J. Natalle (Aztech)

Recalibrated Meter before use.

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: _____

C: Water Level Below Top of Casing: _____

D: Volume of Water in Casing: 17.01

v = 0.0408 (B)^2 x (A-C) = D

v = 0.0408 ( )^2 x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	10:22	10:25	10:34	10:38	10:43	10:49	10:57	11:03	11:09	11:14	11:19		
Gallons	—	—	—	—	—	—	—	—	—	—	59.		
Depth to Water	17.04	17.04	17.04	17.04	17.04	17.04	17.04	17.04	17.04	17.04	17.04		
pH	6.36	7.01	6.96	6.86	6.80	6.78	6.77	6.77	6.77	6.77	6.77		
Conductivity (mohm/cm	1.13	0.63	1.34	1.41	1.42	1.43	1.42	1.43	1.42	1.41	1.42		
Turbidity (ntu)	↑	439.0	511.0	366.0	420.0	286.0	331.0	289.0	411.0	575.0	528.0		
Disolved Oxygen (mg/l)	2.59	⊖	⊖	0.36	⊖	⊖	⊖	⊖	⊖	⊖	⊖		
Temperature (°C)	14.96	14.36	14.54	14.94	14.80	14.85	14.84	14.92	14.71	14.67	14.64		
Salinity	0.1	⊖	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
TDS	0.7	0.42	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9		
Redox (mV)	-204	-212	-163	-118	-100	-92	-86	-82	-85	-86	-86		

Notes: Started purging @ 10:20am (Turbidity high @ first)
- Emptied cylinder 3 times to clear out
- Sample @ 11:20 am

MALCOLM PIRNIE

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 4009-12A DATE: 6/24/09

PROJECT NAME: Vestal Water Supply
PROJECT NUMBER: 0266352
SAMPLERS: JRW, J. Natalle (Aztech)

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: _____

C: Water Level Below Top of Casing: 17.82

D: Volume of Water in Casing: _____

v = 0.0408 (B)^2 x (A-C) = D

v = 0.0408 ( )^2 x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	1040	1050	1055	1100	1105	1110	1115	1120	1125	1130			
Gallons	0												
Depth to Water	17.82	17.82	17.81	17.81	17.81	17.81	17.81	17.81	17.81	17.81			
pH	7.78	7.62	7.05	6.87	6.75	6.67	6.61	6.57	6.55	6.53			
Conductivity (mohm/cm	.743	.516	1.16	1.22	1.26	1.29	1.30	1.32	1.32	1.32			
Turbidity (ntu)	241	261	128	79.3	45.1	33.4	24.7	14.0	13.0	14.0			
Disolved Oxygen (mg/l)	2.11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Temperature (°C)	13.02	12.85	12.77	12.89	12.90	12.85	12.86	12.82	12.90	12.88			
Salinity	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1			
TDS	.29	.33	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8			
Redox (mV)	-147	-243	-173	-160	-153	-150	-147	-145	-144	-143			
Empty Flow cell	X	X											

Notes: 1040 - Initiate purge - water Black/gray, slight sheen.
1130 - Finish purge, collect sample.
- Purged ~ 4.5 gallons.

MALCOLM PIRNIE

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 4009-13 DATE: 6/24/09

PROJECT NAME: Vestal Water Supply
PROJECT NUMBER: 0266352
SAMPLERS: JRW, J. Natalle (Aztech)

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: _____

C: Water Level Below Top of Casing: 9.34

D: Volume of Water in Casing: _____

v = 0.0408 $(B)^2$ x (A-C) = D

v = 0.0408 ( )^2 x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	0730	0735	0740	0745	0750	0755	0800	0805	0810	0815	0820	0825	0830
Gallons	0												5.0
Depth to Water	10.30	11.73	11.97	12.42	12.55	12.69	12.73	12.78	12.82	12.83	12.83	12.83	12.83
pH	8.10	8.68	8.79	8.65	8.49	8.28	8.16	7.95	7.75	7.55	7.39	7.28	7.12
Conductivity (mohm/cm	1.409	0.94	.94	.96	1.01	1.06	1.11	1.15	1.18	1.19	1.24	1.30	1.33
Turbidity (ntu)	[illegible]	112	81.8	76.4	67.1	87.6	111	100	90.1	76.9	44.8	24.0	20.3
Disolved Oxygen (mg/l)	6.17	.48	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature (°C)	13.09	13.20	13.15	13.19	13.15	13.23	13.22	13.19	13.21	13.22	13.06	12.91	12.87
Salinity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
TDS	1.27	.60	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.9
Redox (mV)	-133	-215	-228	-232	-246	-269	-278	-275	-260	-250	-242	-237	-231

Notes: 0730 ; initiate purge
0855- Finish Purge, Collect samples, Collect MS/MSD
- purged ≈ 6.5 gallons water has grey-black tint

MALCOLM PIRNIE

WELL DEVELOPMENT/ PURGING LOG

P8262

WELL NUMBER: 4009-13 DATE: 6/24/09

PROJECT NAME: Vestal Water Supply
PROJECT NUMBER: 0266352
SAMPLERS: JRW, J. Natalle (Aztech)

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: _____

C: Water Level Below Top of Casing: _____

D: Volume of Water in Casing: _____

v = 0.0408 $(B)^2$ x (A-C) = D

v = 0.0408 ( )^2 x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED													
Time	0835	0840	0845	0850	0855									
Gallons	5.0				6.5									
Depth to Water	12.84	12.84	12.83	12.83	12.83									
pH	7.05	6.98	6.92	6.88	6.85									
Conductivity (mohm/cm	1.35	1.36	1.37	1.37	1.37									
Turbidity (ntu)	9.5	8.9	19.5	20.3	19.6									
Disolved Oxygen (mg/l)	0.0	0.0	0.0	0.0	0.0									
Temperature (°C)	12.86	12.87	12.92	13.09	13.10									
Salinity	0.1	0.1	0.1	0.1	0.1									
TDS	0.9	0.9	0.9	0.9	0.9									
Redox (mV)	-229	-227	-224	-223	-221									

Notes: _____

MALCOLM PIRNIE

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 4009-13A DATE: 6/24/09

PROJECT NAME: Vestal Water Supply
PROJECT NUMBER: 0266352
SAMPLERS: JRW, J. Natalle (Aztech)

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: 2

C: Water Level Below Top of Casing: 9.22

D: Volume of Water in Casing: _____

v = 0.0408 (B)² x (A-C) = D

v = 0.0408 ( )² x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	0920	0925	0930	0935	0940	0945	0950	0955	1000	1005	1010	1015	1020
Gallons	0												
Depth to Water	9.22	9.22	9.22	9.22	9.22	9.23	9.23	9.23	9.23	9.23	9.23	9.23	9.23
pH	6.66	6.59	6.45	6.44	6.42	6.39	6.37	6.35	6.33	6.20	6.32	6.30	6.27
Conductivity (mohm/cm	1.88	1.84	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.84	1.84	1.83	1.84
Turbidity (ntu)	999	577	223	129	103	77.5	70.0	62.6	47.1	44.1	33.2	33.3	33.4
Disolved Oxygen (mg/l)	3.80	4.03	.38	1.17	1.25	1.47	1.58	1.64	1.68	1.73	1.74	1.77	1.79
Temperature (°C)	14.11	13.51	13.48	13.27	13.29	13.29	13.24	13.17	13.20	13.24	13.22	13.26	13.43
Salinity	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TDS	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Redox (mV)	-134	-112	-84	-54	-41	-21	-12	-3	6	13	14	18	23
Dump Flow cell		X	X										

Notes: 0920 - Initiate purge.
1020 - Finish purge, collect samples.
- purged ~5.5 gallons. water has rusty tint.

MALCOLM PIRNIE

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 4009-14 DATE: 6/22/09

PROJECT NAME: Vestal Water Supply
PROJECT NUMBER: 0266352
SAMPLERS: JRW, J. Natalle (Aztech)

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: _____

C: Water Level Below Top of Casing: _____

D: Volume of Water in Casing: _____

$v = 0.0408 (B)^2 \times (A-C) = D$

v = 0.0408 ( )^2 x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	1615	1620	1625	1630	1635	1645	1650	1655	1700	1705	1710		
Gallons													
Depth to Water	12.85	14.35	14.64	14.75	14.76	14.77	14.77	14.77	14.77	14.77	14.		
pH	5.62	6.91	7.39	7.66	7.62	7.51	7.46	7.40	7.36	7.32	7.29		
Conductivity (mohm/cm	.271	.281	.282	.290	.326	.365	.388	.404	.407	.419	.419		
Turbidity (ntu)	998	7.1	0.0	67.5	80.3	48.1	27.0	32.6	0.0	0.0	0.0		
Disolved Oxygen (mg/l)	.16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Temperature (°C)	15.29	14.24	14.27	14.04	14.33	14.09	14.01	14.00	13.98	13.95	14.31		
Salinity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
TDS	.18	.18	.18	.19	.21	.24	.25	.26	.26	.27	.27		
Redox (mV)	-121	-298	-281	-293	-303	-298	-293	-289	-285	-280	-277		
Clear flow cell	X												

Notes: 1615 - Initiate purge.
1710 - Finish purge, collect sample
- purged ≈ 4.5 gallons.

24 4009-15
29 12
29A 12A
30 13

MALCOLM PIRNIE

WELL DEVELOPMENT/ PURGING LOG

Pg 1 of 2

WELL NUMBER: 4009-15 DATE: 6/22/09

PROJECT NAME: Vestal Water Supply
PROJECT NUMBER: 0266352
SAMPLERS: JRW, J. Natalle (Aztech)

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: _____

C: Water Level Below Top of Casing: _____

D: Volume of Water in Casing: _____

$v = 0.0408 (B)^2 \times (A-C) = D$

v = 0.0408 ( )² x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	1410	1425	1420	1425	1430	1435	1440	1445	1450	1455	1500	1505	1510
Gallons	0												5 -
Depth to Water	18.24	18.24	18.24	18.24	18.24	18.24	18.24	18.24	18.24	18.24	18.24	18.24	18.24
pH	6.53	7.55	8.45	8.71	8.86	9.11	9.15	9.18	9.20	9.21	9.24	9.31	9.34
Conductivity (mohm/cm	.086	0.084	0.085	.084	.083	.083	.083	0.084	0.089	0.092	0.100	.124	.139
Turbidity (ntu)	55.5	13.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
Disolved Oxygen (mg/l)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature (°C)	12.66	12.27	12.24	12.23	12.18	12.22	12.20	12.14	12.06	12.07	12.10	12.09	12.18
Salinity %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TDS g/L	0.06	0.05	0.06	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.08	0.09
Redox (mV)	-2	-38	-87	-101	-113	-130	-135	-139	-142	-144	-148	-156	-160

Notes: 1410 - Initiate purge.
1545 - Finish purge, collect sample
purged ≈ 7 gallons

HM5 7164 Johnson
203 - 944 - 1305

MALCOLM PIRNIE

WELL DEVELOPMENT/ PURGING LOG

PS-24

WELL NUMBER: 4009-15 DATE: 6/22/09

PROJECT NAME: Vestal Water Supply
PROJECT NUMBER: 0266352
SAMPLERS: JRW, J. Natalle (Aztech)

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: _____

C: Water Level Below Top of Casing: _____

D: Volume of Water in Casing: _____

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$v = 0.0408 (B)^2 \times (A-C) = D$

$v = 0.0408 (\quad)^2 \times (\quad - \quad) =$ _____ gal.

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	1515	1520	1525	1530	1535	1540	1545						
Gallons													
Depth to Water	~~14.23~~ 18.24	18.24	18.24	18.24	18.24	18.24	18.24						
pH	9.39	9.41	9.45	9.47	9.47	9.46	9.45						
Conductivity (mohm/cm	.151	.163	.186	.200	.223	.224	.226						
Turbidity (ntu)	9.5	9.9	0.0	0.0	0.0	0.0	0.0						
Disolved Oxygen (mg/l)	0.0	0.0	0.0	0.0	0.0	0.0	0.0						
Temperature (°C)	12.06	12.08	12.33	12.32	12.23	12.35	12.39						
Salinity	0.0	0.0	0.0	0.0	0.0	0.0	0.0						
TDS	0.10	0.10	0.12	0.13	0.15	.016	0.17						
Redox (mV)	-162	-164	-160	-158	-155	-153	-151						

Notes: _____