

October 22, 2001

Mr. Carl Hoffman, P.E.
New York Department of Environmental Conservation
Operation and Maintenance Section – Bureau of Hazardous Site Control
Division of Environmental Remediation
625 Broadway
11th Floor
Albany, New York 12233 - 7016

Re: **ServAll Laundry Site**
Bay Shore, Suffolk County
Site No. 1-52-077, Work Assignment No. D003821-19
Monthly Report September 2001

Telephone

Dear Mr. Hoffmann:

518.458.1313

Please find enclosed for your review two copies of the September 2001 Operations and Maintenance Report for the above referenced site.

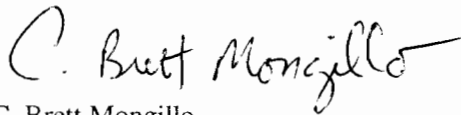
Facsimile

518.458.2472

Per our telephone conversation of last week I have notified H2M of the decision to discontinue operation of the water treatment plant. I discussed the details of this process with Mr. Phil Schade who acts as the H2M project manager. We will continue to operate the plant in the normal fashion for the next month after which we will begin the process of closing the facility and preparing the equipment for long term storage. I await your letter providing a punch list of tasks that you would like to see accomplished as we go forward with the plant shut down. Mr. Schade will also direct his staff to prepare an inventory of the plant components and their current condition.

Please let me know if there is anything else I can do to be of service as we approach the end of the project.

Very truly yours,



C. Brett Mongillo
Manager Chemistry and Sampling Services
Earth Tech, Inc.

Enclosures

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Re: **ServAll Laundry Site**
Bay Shore, Suffolk County
Site No. 1-52-077, Work Assignment No. D003821-19
Monthly Report September 2001

Telephone

Dear Mr. Hoffmann:

518.458.1313

This is the Monthly Report for September 2001, the eighth monthly report submitted under Work Assignment No. D003821-19

Facsimile

518.458.2472

The plant processed a total volume of 3,559,300 gallons of water at an average flow rate of 106.89 GPM for the month of September. In this sampling event the total influent volatile organic compounds (VOCs) concentration was 19.53 ppb (see discussion below regarding blank correction). Most compounds detected in the influent sample fell into the chlorinated solvent category, as would be expected with groundwater impacts arising from a dry cleaning operation. The plant removed approximately 84 percent of the influent VOCs. No iron was detected in the system effluent sample during this sampling event. The effluent manganese concentration was 574 ppb, which is below the discharge criteria of 600 ppb. Manganese levels of this scale are consistent with historical sampling results for manganese.

Review of the laboratory report for this sampling round found methyl-tert-butyl-ether(MTBE), cis-1,2-dichloroethene, chloroform, 1,1,1-trichloroethane, trichloroethene, methylene chloride and tetrachloroethene to be present at concentrations of 4.9, 0.54, 0.13, 0.31, 0.7, 0.11, and 13 ug/L, respectively, for the influent sample. In the effluent sample acetone, MTBE, bromodichloromethane, chloroform, and tetrachloroethene were found to be present at concentrations of 5.9, 0.28, 0.97, 1.5, and 0.36 ug/L, respectively.

Based on telephone conversations Earth Tech had with Severn Trent Laboratories, in February 2001, Methylene chloride, MTBE, and acetone are all common laboratory contaminants for this laboratory. USEPA data validation procedures state, that when contamination is seen in a laboratory method blank, trip blank, or field blank a factor of ten times the blank concentration for a common laboratory contaminant is used to "correct" sample results. For other blank contaminants, a factor of five times the blank concentration is used to "correct" sample results.



Mr. Carl Hoffman
 NYSDEC
 ServAll Laundry Site
 September 2001 Report

The table below presents a summary of the blank results and there associated sample results.

Compound	Blank (VBLKLG) Concentration	Trip Blank	Effluent Concentration	Influent Concentration	UV-OX
methyl-tert-butyl-ether	ND	ND	0.28	4.9	.32
methylene chloride	0.42	1.1	ND	0.11	0.19
Acetone	3.1	3.3	5.9	ND	7
chloroform	ND	ND	1.5	0.13	0.21
bromodichloromethane	ND	ND	0.97	ND	ND

ND: Non Detect

When evaluating the performance of the water treatment system the sample results for methylene chloride and acetone shown in the table above were "blank corrected" and negated. This correction was made, since the concentrations of methylene chloride and acetone found in the samples was lower than ten times the associated laboratory blank result for this compound.

As shown in the table above, MTBE was present in both the influent and effluent samples, but not in any of the associated blanks. Earth Tech reported in the February 2001 monthly summary report that the presence of MTBE, in the samples associated with that report, was the result of laboratory contamination. The blank data for this sampling event does not support that same conclusion. To be conservative the MTBE concentration present in the influent was included in the total volatile organics calculation, and when calculating the overall contaminant reduction efficiency. Earth Tech will continue to follow this issue in the future, and data will be evaluated as described above for blank correction with regards to MTBE when appropriate.

Chloroform is not a common laboratory contaminant, and it was not found to be present in any of the blanks analyzed with the samples. To be conservative the chloroform concentration present in the influent and effluent samples was included in the total volatile organics calculation, and when calculating the overall contaminant reduction efficiency.

Bromodichloromethane is not a common laboratory contaminant, or a historical contaminant of concern at the site. However, it is a member of the trihalomethane family. As the table above illustrates bromodichloromethane was shown to be present in the system effluent sample, however this compound was not found to be present in the influent sample or any of the blanks associated with the samples. In a telephone conversation with the Laboratory Director at Severn Trent Laboratories Mr. Jeffery Curran in March, regarding this contamination, he stated that trihalomethane compounds are not laboratory contaminants. Because there is no support for laboratory contamination (i.e. method blank) with bromodichloromethane, to be conservative the results for this compound in the effluent sample were included in the total volatile organics calculation, and when calculating the overall contaminant reduction efficiency.

Mr. Carl Hoffman
NYSDEC
ServAll Laundry Site
September 2001 Report

The typical effluent pH range at the plant is between 6 and 9 SU. The pH seen in the influent was just outside that range with a value of 5.95. The effluent was within the range (pH = 7.25). The overall effluent water quality data (TSS, Total Solids, Alkalinity, and pH) were consistent with historical laboratory and daily on-site monitoring data.

The following non-routine, system maintenance activities were conducted by H2M during the reporting period:

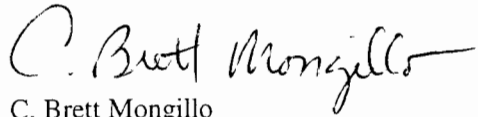
- On 9/10/01 the diaphragm pump for decanter tank 12A was cleaned and the tank was flushed out. The speed of the caustic soda pump was raised to elevate the pH readings.
- On 9/12/01 the speed of the peroxide pump was lowered to lower the peroxide residual reading.
- On 9/13/01 the speed of the chlorine pump was lowered to lower the chloride residual reading. Monthly samples were taken. However, Federal Express could not guarantee overnight delivery.
- On 9/18/01 samples were received at Severn Trent Laboratory. Again, the diaphragm pump for decanter tank 12A was cleaned and the tank was flushed.
- On 9/25/01 drums of 15% sodium hypochlorite solution were ordered.
- On 9/27/01 monthly samples were re-taken and sent to Severn Trent Laboratory via overnight delivery.
- 9/28/01 hydrochloric acid bath was refilled with a 1:2 acid to water solution. A total of 12 gallons of water was used.

A complete list of all maintenance activities for this month are in the attached operations and maintenance letter summary submitted by the H2M Group dated October 4 , 2001.

Mr. Carl Hoffman
NYSDEC
ServAll Laundry Site
September 2001 Report

If you have any questions or comments regarding this report please feel free to contact me at (518) 437-8310.

Very truly yours,



C. Brett Mongillo
Manager Chemistry and Sampling Services
Earth Tech, Inc.

Enclosures

Servall Laundry
 Site No. 1-52-077
 Groundwater Remediation -2001 Operation and Maintenance

Summary Report

Plant Operating Data	unit	Monthly Average (to date)	Monthly Average (2001)	February-01	March-01	April-01	May-01	June-01
Flow Rate	gpm	116	120	146.1	144.11	129.22	101.99	100.64
Gallons processed	gallons	3379998	3134561	1,706,490	5,546,940	4,526,670	326,040	1,710,410
Percent of Time Operating	%	1	1	790%	92%	68%	5%	26%
Pounds of VOCs Treated	lb	1	0	0.09	0.41	0.37	NA	0.15
Influent VOC concentration	ug/L	99	14	8.1	14.79	22.43	NA	10.53
Effluent VOC concentration	ug/L	8	5	2.1	6.01	12.54	NA	0
Influent Total Iron	ug/L	1656	181	0	210	240	NA	0
Effluent Total Iron	ug/L	311	0	0	0	0	NA	0
Influent Total Manganese	ug/L	736	756	756	874	815	NA	862
Effluent Total Manganese	ug/L	584	743	766	870	813	NA	866
VOC removal efficiency	%	81.8%	55.51%	74.1%	59.4%	44.1%	0.0%	100.0%
Total Iron removal efficiency	%	#DIV/0!	#DIV/0!	0.0%	100.0%	100.0%	0.0%	#DIV/0!
Total Manganese removal efficiency	%	9.7%	1.45%	-1.3%	0.5%	0.2%	0.0%	-0.5%
Cartridge Filters	ea	1	NA	NA	NA	NA	NA	NA
Sodium hypochlorite (12%)	lb	634	NA	NA	NA	NA	NA	NA
Polymer	lb	25	NA	NA	NA	NA	NA	NA
Hydrogen peroxide (50%)	lb	3705	NA	NA	NA	NA	NA	NA
Caustic (50%)	lb	2074	NA	NA	NA	NA	NA	NA
Hydrochloric Acid	lb	65	NA	NA	NA	NA	NA	NA
Spare Parts or other	at cost	443	NA	NA	NA	NA	NA	NA
Sludge generated (20% dewatered)	gal	18	0	0	0	0	0	0
Sludge disposed of	gal	13	0	0	0	0	0	0
Electricity (estimated)	kw hr	39891	37800	NA	NA	NA	NA	NA
Gas (estimated)	therms	854	800	NA	NA	NA	NA	NA
Compliance Sampling	at cost	893	650	NA	NA	NA	NA	NA
Operator	Month	8927	6700	NA	NA	NA	NA	NA
Redevelopment	at cost	2048	0	NA	NA	NA	NA	NA
Management & Engineering	at cost	2874	3200	NA	NA	NA	NA	NA
Consumables cost	\$	\$3,160	NA	NA	NA	NA	NA	NA
Sludge disposal cost	\$	\$50	NA	NA	NA	NA	NA	NA
Utilities cost	\$	\$3,889	NA	NA	NA	NA	NA	NA
Services cost	\$	\$14,742	NA	NA	NA	NA	NA	NA
Operating Cost (Estimated)	\$	\$21,841	\$0	NA	NA	NA	NA	NA

Notes:
 NA = Not Available

Summary Report

Plant Operating Data	unit	July-01	August-01	September-01	October-01	November-01	December-01	Total Year 2001
Flow Rate	gpm	117.3	113.73	106.89				
Gallons processed	gallons	3,476,630	4,224,010	3,559,300				25,076,490
Percent of Time Operating	%	54%	63%	53%				144%
Pounds of VOCs Treated	lb	0.06	0.30	0.49				1.86
Influent VOC concentration	ug/L	6.75	16.72	19.58				98.90
Effluent VOC concentration	ug/L	4.61	8.24	3.11				36.61
Influent Total Iron	ug/L	189	308	317				1,264
Effluent Total Iron	ug/L	0	0	0				0
Influent Total Manganese	ug/L	780	609	595				5,291
Effluent Total Manganese	ug/L	695	603	590				5,203
VOC removal efficiency	%	31.7%	50.7%	84.1%				55.5%
Total Iron removal efficiency	%	100.0%	100.0%	100.0%				#DIV/0!
Total Manganese removal efficiency	%	10.9%	1.0%	0.8%				1.5%
Cartridge Filters	ea	NA	NA	NA				0
Sodium hypochlorite (12%)	lb	NA	NA	NA				0
Polymer	lb	NA	NA	NA				0
Hydrogen peroxide (50%)	lb	NA	NA	NA				0
Caustic (50%)	lb	NA	NA	NA				0
Hydrochloric Acid	lb	NA	NA	NA				0
Spare Parts or other	at cost	NA	NA	NA				\$0
Sludge generated (20% dewatered)	gal	0	0	0				0
Sludge disposed of	gal	0	0	0				0
Electricity (estimated)	kw hr	NA	NA	NA				0
Gas (estimated)	therms	NA	NA	NA				7,200
Compliance Sampling	at cost	NA	NA	NA				\$0
Operator	Month	NA	NA	NA				\$0
Redevelopment	at cost	NA	NA	NA				\$0
Management & Engineering	at cost	NA	NA	NA				\$0
Consumables cost	\$	NA	NA	NA				\$0
Sludge disposal cost	\$	NA	NA	NA				\$0
Utilities cost	\$	NA	NA	NA				\$0
Services cost	\$	NA	NA	NA				\$0
Operating Cost (Estimated)	\$	NA	NA	NA				\$0

Notes:
 NA = Not Available

Servall Laundry Site
Site No. 1-52-077
Groundwater Remediation - Operation and Maintenance

2001 Compliance Sampling - UNCORRECTED

Influent		2001 DATA									
Constituents	Discharge Criteria	units	February	March	April	May	June				
Chlorobenzene	5	ug/L		U	U	U	NA	U			
Vinyl Chloride	2	ug/L		U	U	U	NA	U			
1,1-Dichloroethene	5	ug/L		U	U	U	NA	U			
Trichloroethene	5	ug/L	0.8	0.76	0.75	NA	0.83				
Tetrachloroethene	5	ug/L	5.1	11	15	NA	5.7				
1,1-Dichloroethane	5	ug/L		U	U	U	NA	U			
Toluene	5	ug/L		U	U	U	NA	U			
cis-1,2-Dichloroethene	5	ug/L		U	U	0.4	J	NA	U		
trans-1,2-Dichloroethene	5	ug/L		U	U	U	NA	U			
Methylene Chloride	N/A	ug/L	0.22	JB	0.43	JB	0.71	JB	NA	0.26	JB
1,1,1-Trichloroethane	N/A	ug/L	0.38	J	U	0.26	J	NA	U		
Chloroform	N/A	ug/L		U	U	U	NA	0.16	J		
Bromodichloromethane	N/A	ug/L		U	U	U	NA	U			
Trichlorofluoromethane	N/A	ug/L		U	U	U	NA	U			
Tetrahydrofuran	N/A	ug/L		U	U	U	NA	U			
Methyl tert-Butyl Ether	N/A	ug/L	1.6	JB	2.6	J	5	J	NA	4	J
Naphthalene	N/A	ug/L				0.31	J	NA	U		
Total VOCs	N/A	ug/L	8.10	14.79	22.43	0.00	10.95				
pH			6.2	5.8	5.85	NA	6.54				
Iron (total)	600 ⁴	ug/L		U	210	240	NA	U			
Manganese (total)	600 ⁴	ug/L	756	874	815	NA	862				
Alkalinity	N/A	mg/L	20	23.5	24	NA	21				
Total Suspended Solids	N/A	mg/L		U	U	U	NA	U			
Total Solids	N/A	mg/L	114	117	3360	NA	141				
Effluent		2001 DATA									
Constituents	Discharge Criteria	units	February	March	April	May	June				
Chlorobenzene	5	ug/L		U	U	U	NA	U			
Vinyl Chloride	2	ug/L		U	U	U	NA	U			
1,1-Dichloroethene	5	ug/L		U	U	U	NA	U			
Trichloroethene	5	ug/L		U	U	U	NA	U			
Tetrachloroethene	5	ug/L	0.9	0.29	J	0.2	J	NA	U		
1,1-Dichloroethane	5	ug/L		U	U	U	NA	U			
Styrene	5 (POC)	ug/L		U	U	U	NA	U			
Toluene	5	ug/L		U	U	U	NA	U			
cis-1,2-Dichloroethene	5	ug/L		U	U	U	NA	U			
trans-1,2-Dichloroethene	5	ug/L		U	U	U	NA	U			
Methylene Chloride	N/A	ug/L	0.36	JB	0.42	JB	0.75	JB	NA	0.35	JB
1,1,1-Trichloroethane	N/A	ug/L		U	U	U	NA	U			
Chloroform	N/A	ug/L	0.16	J	0.3	J	1.7	NA	0.67	U	
Tetrahydrofuran	50	ug/L		U	U	U	NA	U			
Acetone	N/A	ug/L		U	5	9.4	B	NA	3.6	B	
2-Butanone	N/A	ug/L		U	U	U	NA	U			
Bromodichloromethane	N/A	ug/L		U	U	0.3	J	NA	U		
Methyl tert-Butyl Ether	N/A	ug/L	0.68	JB	U	0.3	J	NA	U		
Total VOCs	N/A	ug/L	2.10	6.01	12.54	0.00	4.62				
pH			6.58	6.45	6.97	NA	7.56				
Iron (total)	600 ⁴	ug/L		U	U	U	NA	U			
Manganese (total)	600 ⁴	ug/L	766	870	813	NA	866				
Alkalinity	N/A	mg/L	22	36	67	NA	70				
Total Suspended Solids	N/A	mg/L		U	U	U	NA	U			
Total Solids	N/A	mg/L	92	134	159	NA	189				

Notes:

1. Analytical data analyzed by STL Laboratories.
2. (U) Undetected.
3. (J) Estimate value. Result is below sample practical quantitation limit, but above the instrument detection limit.
4. The combined effluent concentration of Iron and Manganese will not exceed 1,000 ug/L.
5. N/A - No limit established for this site.
6. (B) Estimate value.
7. NA - Not Analyzed
8. "-" indicates not performed.
9. Bold values exceed discharge limits.
10. (P) pesticide/aroclor target analyte. Greater than 25% difference between the two GC columns.
11. Concentration between EPA contract detection limit and instrument detection limit
12. POC = principal organic contaminant
13. LE - lab error or contamination likely

Servall Laundry Site
Site No. 1-52-077
Groundwater Remediation - Operation and Maintenance

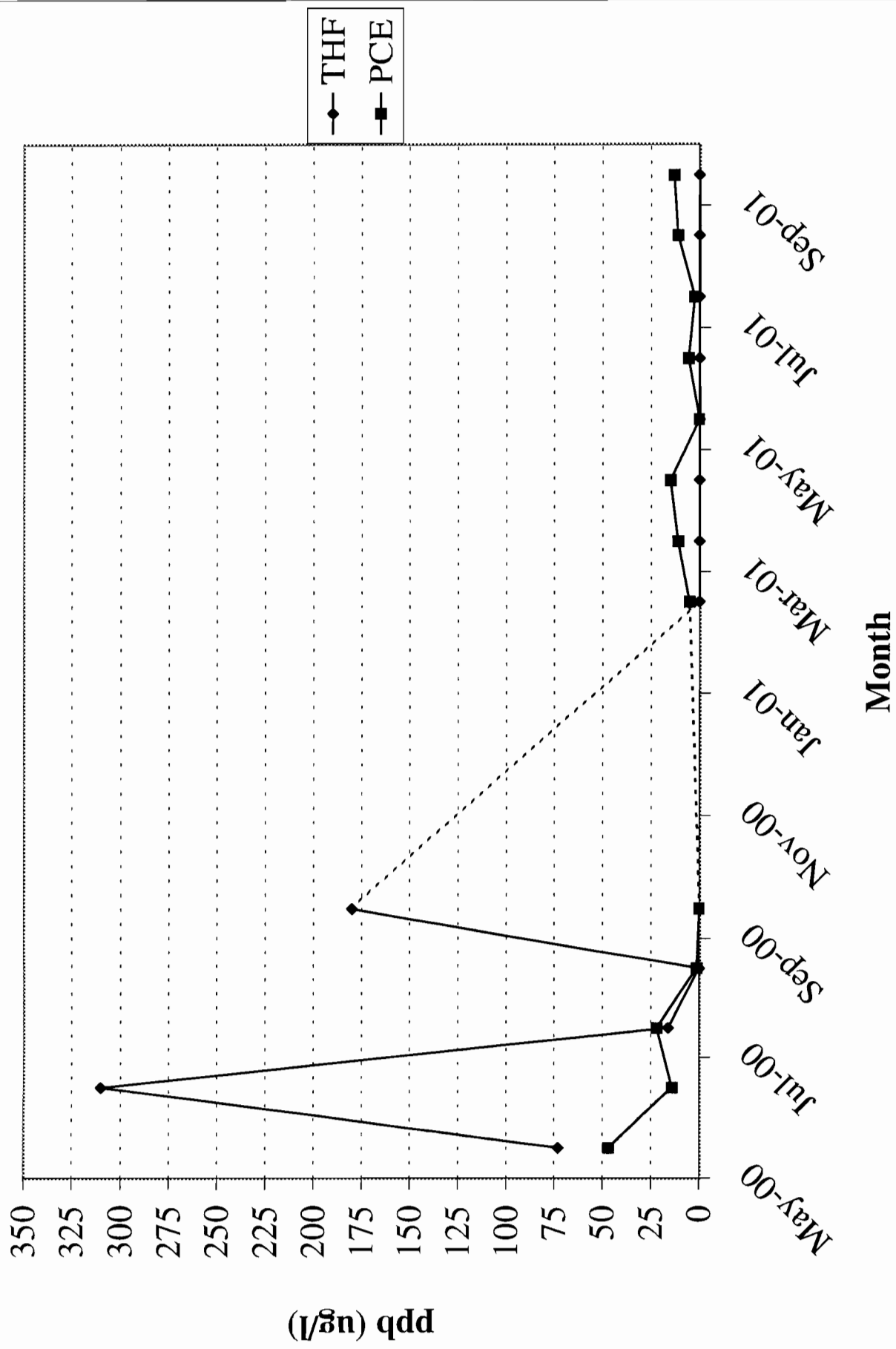
2001 Compliance Sampling - UNCORRECTED

Influent			2001 DATA						
Constituents	Discharge Criteria	units	July	August	September	October	November	December	
Chlorobenzene	5	ug/L	U	U	U	U			
Vinyl Chloride	2	ug/L	U	U	U	U			
1,1-Dichloroethene	5	ug/L	U	U	U	U			
Trichloroethene	5	ug/L	0.8	0.7	0.7				
Tetrachloroethene	5	ug/L	2.5	11	13				
1,1-Dichloroethane	5	ug/L	U	U	U	U			
Toluene	5	ug/L	U	U	U	U			
cis-1,2-Dichloroethene	5	ug/L	U	0.23	J	0.54			
trans-1,2-Dichloroethene	5	ug/L	U	U	U	U			
Methylene Chloride	N/A	ug/L	0.41	JB	U	0.11			
1,1,1-Trichloroethane	N/A	ug/L	0.41	J	0.37	J	0.31		
Chloroform	N/A	ug/L	0.14	J	0.22	J	0.13		
Bromodichloromethane	N/A	ug/L	U	U	U	U			
Trichlorofluoromethane	N/A	ug/L	U	U	U	U			
Tetrahydrofuran	N/A	ug/L	U	U	U	U			
Methyl tert-Butyl Ether	N/A	ug/L	2.9	J	4.2	J	4.9		
Naphthalene	N/A	ug/L	U	U	U	U			
Total VOCs	N/A	ug/L	7.16	16.72	19.69	0.00	0.00	0.00	
pH			6.2	6.18	5.95				
Iron (total)	600 ⁴	ug/L	189	308	317				
Manganese (total)	600 ⁴	ug/L	780	609	595				
Alkalinity	N/A	mg/L	23	25	26				
Total Suspended Solids	N/A	mg/L	U	0	0				
Total Solids	N/A	mg/L	134	173	181				
Effluent			2001 DATA						
Constituents	Discharge Criteria	units	July	August	September	October	November	December	
Chlorobenzene	5	ug/L	U	U	U	U			
Vinyl Chloride	2	ug/L	U	U	U	U			
1,1-Dichloroethene	5	ug/L	U	U	U	U			
Trichloroethene	5	ug/L	0.12	J	U	U			
Tetrachloroethene	5	ug/L	0.27	J	0.18	J	0.36		
1,1-Dichloroethane	5	ug/L	U	U	U	U			
Styrene	5 (POC)	ug/L	U	U	U	U			
Toluene	5	ug/L	U	U	U	U			
cis-1,2-Dichloroethene	5	ug/L	U	U	U	U			
trans-1,2-Dichloroethene	5	ug/L	U	U	U	U			
Methylene Chloride	N/A	ug/L	0.68	JB	U	U			
1,1,1-Trichloroethane	N/A	ug/L	U	U	U	U			
Chloroform	N/A	ug/L	1.8	2.7	1.5				
Tetrahydrofuran	50	ug/L	U	U	U	U			
Acetone	N/A	ug/L	U	4.1	5.9				
2-Butanone	N/A	ug/L	U	U	U	U			
Bromodichloromethane	N/A	ug/L	0.62	1.1	0.97				
Methyl tert-Butyl Ether	N/A	ug/L	1.8	J	0.16	J	0.28		
Total VOCs	N/A	ug/L	5.29	8.24	9.01	0.00	0.00	0.00	
pH			7.13	6.33	7.25				
Iron (total)	600 ⁴	ug/L	U	U	U	U			
Manganese (total)	600 ⁴	ug/L	695	603	590				
Alkalinity	N/A	mg/L	62	24	62				
Total Suspended Solids	N/A	mg/L	U	U	U	U			
Total Solids	N/A	mg/L	184	174	226				

Notes:

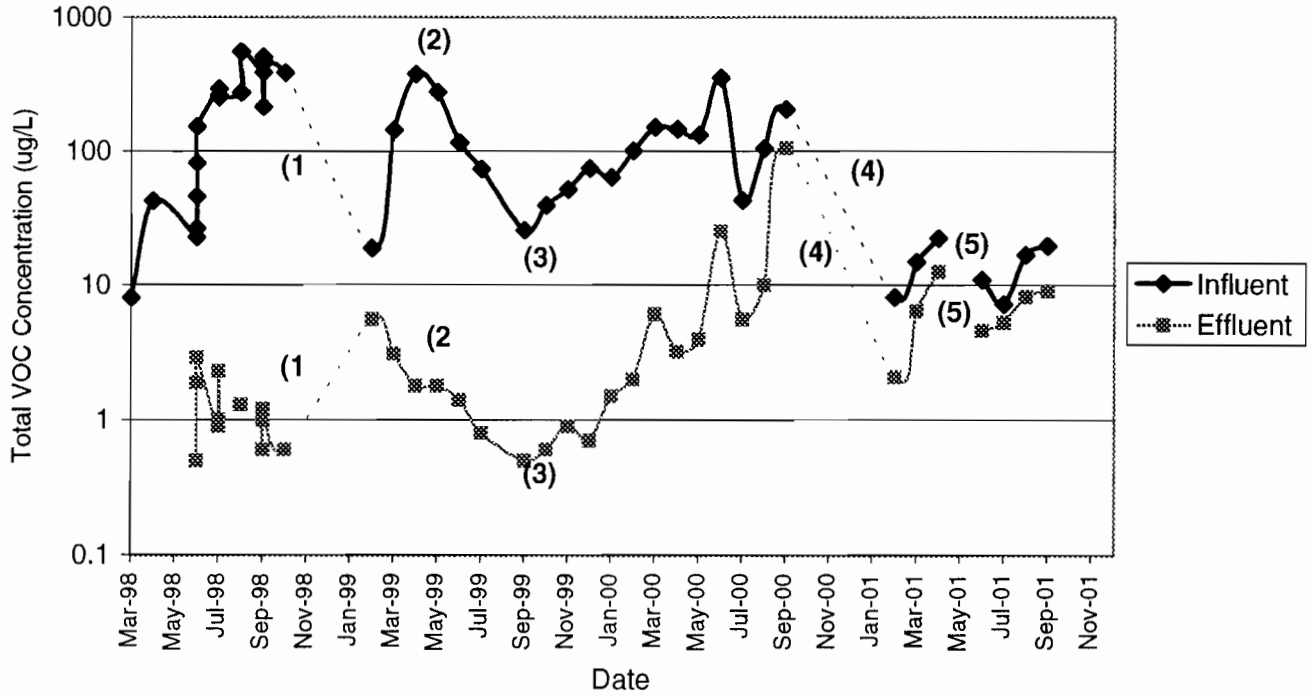
1. Analytical data analyzed by STL Laboratories.
2. (U) Undetected.
3. (J) Estimate value. Result is below sample practical quantitation limit.
4. The combined effluent concentration of Iron and Manganese.
5. N/A - No limit established for this site.
6. (E) Estimate value.
7. NA - Not Analyzed
8. " " indicates not performed.
9. Bold values exceed discharge limits.
10. (P) pesticide/aroclor target analyte. Greater than 25% di
11. Concentration between EPA contract detection limit and
12. POC = principal organic contaminant
13. LE - lab error or contamination likely

Tetrahydrofuran (THF) & Tetrachloroethene (PCE)



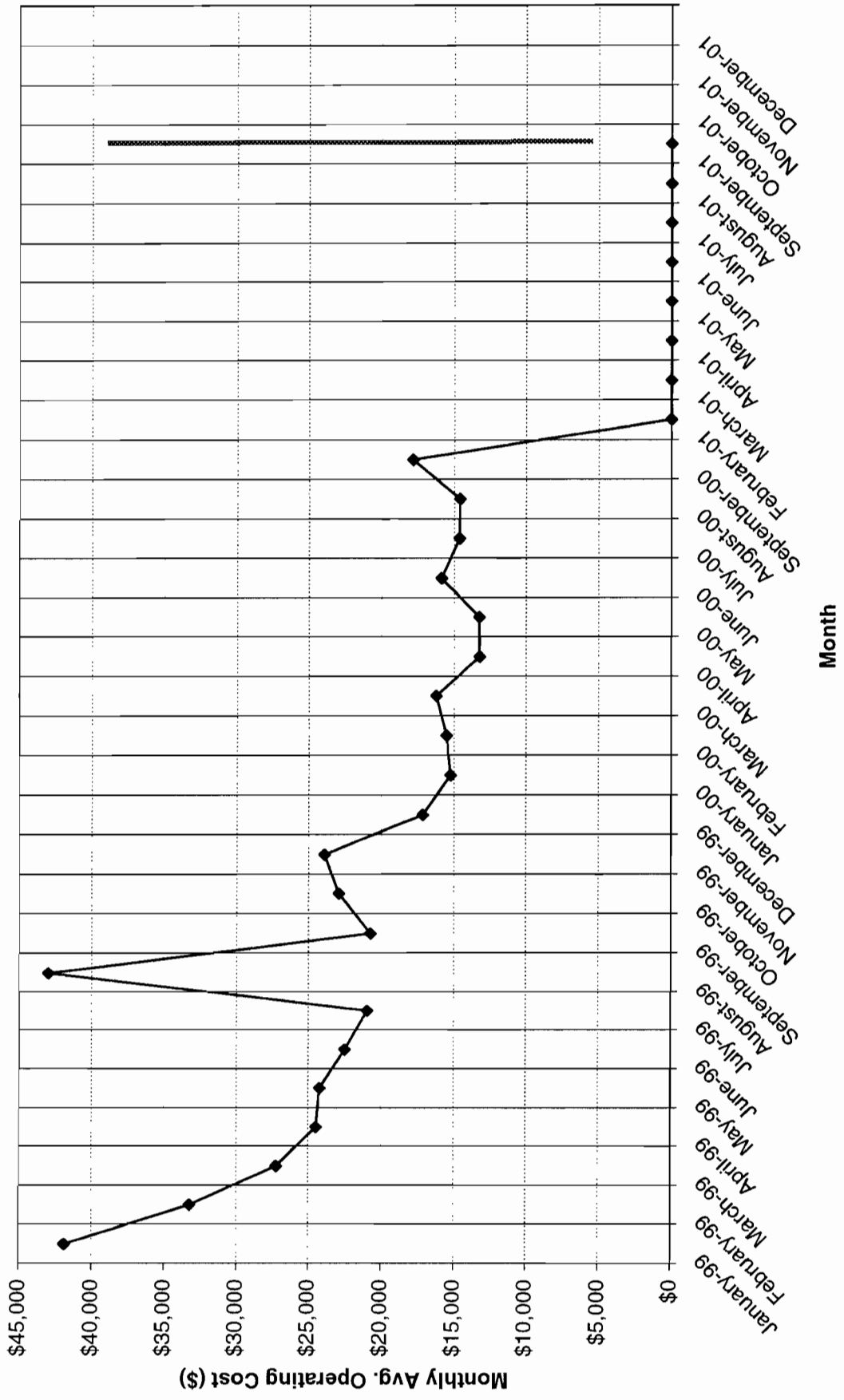
Servall Laundry Site
 Site No. 1-52-077
 Groundwater Remediation - Operation and Maintenance

Total Volatile Organic Compound (VOC) Influent and Effluent Trends



NOTES

1. Plant down due to reinjection well fouling (November 19, 1998 to January 23, 1999)
2. Brief Shut down in May: May 8 - May 10, 1999
3. Low influent flow due to reinjection well fouling.



Servall Laundry Site
 Site No. 1-52-077
 Groundwater Remediation

Summary Notes and Action Items

Month	Notes	Action	Resolutions
February	NYSDEC project manager requested repair of broken windows at the site.	Earth Tech requested that the O&M subcontractor (H2M) arrange for repairs	H2M had windows repaired.
	H2M Reported failure of three pH probes and one transmitter unit. They provided cost of replacement from original supplier	Earth Tech confirmed cost of replacement and received authorization to purchase replacements from NYSDEC	pH Probes and transmitter was replaced
	H2M has suggested that the UV lamp system may be ready for replacement lamps.	Earth Tech and H2M will track total VOC removal efficiency to verify the need to replace the UV lamps	
March	Nothing to Report		
April	See Discussion in Report		
May	See Discussion in Report		
June	Nothing to Report		
July	Nothing to Report		
August	Nothing to Report		
September	Original monthly compliance samples taken on 9/13/01 were not received at lab in timely manner (5 days after sampling)	Plant was Resampled on 9/27/01	

Servall Laundry Site
 Site No. 1-52-077
 Summary of Off-Site Analytical Results

		Date	Mar-98	Apr-98	Jun-98	Jun-98	Jun-98	Jun-98	Jun-98	Jun-98	Jul-98	Jul-98
		Time	8am	8am	9am	1pm	2:50pm	6:50am	9am	6:30am	3pm	
	Design Concentration (ug/l)	Average of Sampling Results (ug/l)										
INFLUENT												
TOTAL VOCs	14,104	159	8	42.5	22.6	26.4	45.5	81.4	151.3	291.7	261.4	
Iron (mg/L)	0.5 - 5	30	0.19	0.98	0.67	1.1	1.1	1.2	1.7	1.8	1.5	
Manganese (mg/L)	0.675	121	0.73	1	0.97	1.1	1.1	1.1	1.1	1.2	1	
EFFLUENT												
TOTAL VOCs		6	0	0	0	0	0.5	1.9	2.9	0.9	2.3	
Removal Efficiencies		96.51%	100%	100%	100%	100%	99%	98%	98%	100%	99%	
Iron (mg/L)		0.28	0.1	0.45	0.08	0.06	0.05	0.04	0.06	0.14	0.14	
Manganese (mg/L)		118.8	0.66	0.87	0.91	1.7	1	1.1	1	1.2	1.1	

* Numbers vary from published values in the Final Prove-out Report by Consumers Applied Technologies and Enviroclean Northeast, Inc., not dated. Published values, 2.2 and 23, were changed to 2.2 and 2.3, respectively, as determined by the trends in VOC concentrations sampled.

Servall Laundry Site
 Site No. 1-52-077
 Summary of Off-Site Analytical Results

	Design Concentration (ug/l)	Average of Sampling Results (ug/l)	Date		Jul-98		Aug-98		Sep-98		Sep-98		Sep-98		Oct-98	
			Time	9:30am	4:30pm	4pm	8am	1pm	8am	1pm	9am					
INFLUENT																
TOTAL VOCs	14,104	159	252	272.2	552.5	382.8	503.2	473.1	213	453.6	383.3					
Iron (mg/L)	0.5 - 5	30	1.5	1.7	1.4	1.2	1.1	1.1	1.2	1.1	0.9					
Manganese (mg/L)	0.675	121	0.96	0.82	0.85	0.8	0.74	0.69	0.73	0.67						
EFFLUENT																
TOTAL VOCs		6	1	0	1.3	0	1.1	1	0.6	1.2	0.6					
Removal Efficiencies		96.51%	100%	100%	100%	100%	100%	100%	100%	100%	100%					
Iron (mg/L)		0.28		0.17	2.4	0.19	0.05	0.11	0.05	0.15	0.06					
Manganese (mg/L)		118.8		0.97	0.79	0.84	0.79	0.74	0.72	0.72	0.66					

* Numbers vary from published values in the Final Prove-out Report by Consumers Applied Technologies and Enviroclean Northeast, Inc., not dated. Published values, 2.2 and 23, were changed to 2.2 and 2.3, respectively, as determined by the trends in VOC concentrations sampled.

Servall Laundry Site
 Site No. 1-52-077
 Summary of Off-Site Analytical Results

		Date	Feb-99	Mar-99	Apr-99	May-99	Jun-99	Jul-99	Sep-99	Oct-99	Nov-99
		Time									
	Design Concentration (ug/l)	Average of Sampling Results (ug/l)									
INFLUENT											
TOTAL VOCs	14,104	159	18.8	143.6	373.7	275.3	114.8	73.5	25.5	39.1	51.6
Iron (mg/L)	0.5 - 5	30	0.574	0.42	0.564	0.385	0.236	0.321	0.172	0.979	0.716
Manganese (mg/L)	0.675	121	0.629	0.565	0.496	0.517	0.492	0.719	0.63	0.622	0.521
EFFLUENT											
TOTAL VOCs		6	5.57	3.1	1.8	1.8	1.4	0.8	0.5	0.6	0.9
Removal Efficiencies		96.51%	70%	98%	100%	99%	99%	99%	98%	98%	98%
Iron (mg/L)		0.28	0.134	0.0604	0.05	0.05	0.199	0.1	0.13	0.035	0.035
Manganese (mg/L)		118.8	0.612	0.569	0.49	0.542	0.507	0.71	0.66	0.613	0.519

* Numbers vary from published values in the Final Prove-out Report by Consumers Applied Technologies and Enviroclean Northeast, Inc., not dated. Published values, 2.2 and 23, were changed to 22 and 2.3, respectively, as determined by the trends in VOC concentrations sampled.

Servall Laundry Site
 Site No. 1-52-077
 Summary of Off-Site Analytical Results

		Date	Dec-99	Jan-00	Feb-00	Mar-00	Apr-00	May-00	Jun-00	Jul-00	Aug-00
	Design Concentration (ug/l)	Average of Sampling Results (ug/l)									
INFLUENT											
TOTAL VOCs	14,104	159	73.9	63.9	100.3	150.6	145.45	131.82	350.93	42.89	104.46
Iron (mg/L)	0.5 - 5	30	0.248	1.27	0.308	0.689	0.426	1.43	6.32	0.444	0.583
Manganese (mg/L)	0.675	121	0.548	0.593	0.542	0.517	0.499	0.864	2.9	0.992	0.514
EFFLUENT											
TOTAL VOCs		6	0.7	1.5	2	6.1	3.22	3.97	25.16	5.57	10.05
Removal Efficiencies		96.51%	99%	98%	98%	96%	98%	97%	93%	87%	90%
Iron (mg/L)		0.28	0.035	0.1	0.032	0.032	0.0755	3.01	1.78	0.732	1.4
Manganese (mg/L)		118.8	0.524	0.583	0.533	0.492	0.506	0.417	0.0166	0.841	0.399

* Numbers vary from published values in the Final Prove-out Report by Consumers Applied Technologies and Enviroclean Northeast, Inc., not dated. Published values, 2.2 and 23, were changed to 2.2 and 2.3, respectively, as determined by the trends in VOC concentrations sampled.

Servall Laundry Site
 Site No. 1-52-077
 Summary of Off-Site Analytical Results

		Date	Sep-00	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
	Design Concentration (ug/l)	Average of Sampling Results (ug/l)									
INFLUENT											
TOTAL VOCs	14,104	159	204.19	8.1	14.79	22.43	NA	10.95	7.16	16.72	19.69
Iron (mg/L)	0.5 - 5	30	25.7	0	210	240	0	0	189	308	317
Manganese (mg/L)	0.675	121	0.682	756	874	815	0	862	780	609	595
EFFLUENT											
TOTAL VOCs		6	105.99	2.1	6.45	12.54	NA	4.62	5.29	8.24	9.01
Removal Efficiencies		96.51%	48%	74%	56%	44%	0%	58%	26%	51%	54%
Iron (mg/L)		0.28	0.0845	0	0	0	0	0	0	0	0
Manganese (mg/L)		118.8	0.439	766	870	813	0	866	695	603	590

* Numbers vary from published values in the Final Prove-out Report by Consumers Applied Technologies and Enviroclean Northeast, Inc., not dated. Published values, 2.2 and 2.3, were changed to 2.2 and 2.3, respectively, as determined by the trends in VOC concentrations sampled.

Servall Laundry Site
 Site No. 1-52-077
 Summary of Off-Site Analytical Results

	Design Concentration (ug/l)	Date			
		Average of Sampling Results (ug/l)	Time	Oct-01	Nov-01
INFLUENT					
TOTAL VOCs	14,104	159			
Iron (mg/L)	0.5 - 5	30			
Manganese (mg/L)	0.675	121			
EFFLUENT					
TOTAL VOCs		6			
Removal Efficiencies		96.51%			
Iron (mg/L)		0.28			
Manganese (mg/L)		118.8			

* Numbers vary from published values in the Final Prove-out Report by Consumers Applied Technologies and Enviroclean Northeast, Inc., not dated. Published values, 2.2 and 23, were changed to 22 and 2.3, respectively, as determined by the trends in VOC concentrations sampled.

TABLE VO-1.0
7001-2334A
EARTH TECHNOLOGY
524.2 VOLATILE ORGANICS

002 Rev

Aqueous
page 1 of 3

All values are ug/L.

Client Sample I.D.	Method Blank	INFLUENT	UV-OX	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKL7	012334A-01	012334A-02	
Method Blank I.D.	VBLKL7	VBLKL7	VBLKL7	
Quant. Factor	1.00	1.00	1.00	
Dichlorodifluoromethane	U	U	U	0.50
Chloromethane	U	U	U	0.50
Vinyl Chloride	U	U	U	0.50
Bromomethane	U	U	U	0.50
Chloroethane	U	U	U	0.50
Freon 123A	U	U	U	0.50
Trichlorofluoromethane	U	U	U	0.50
Diethyl ether	U	U	U	25
1,1,2-Trichloro(1,2,2)trifluor	U	U	U	0.50
1,1-Dichloroethene	U	U	U	0.50
Acetone	3.1	U	7B	2.5
Propionitrile	U	U	U	25
Methyl tert-Butyl ether	U	4.9J	.32J	25
Carbon Disulfide	U	U	U	25
Bromodichloromethane	U	U	U	0.50
Iodomethane	U	U	U	0.50
Allyl Chloride	U	U	U	25
Acrylonitrile	U	U	U	25
Methylene Chloride	.42J	.11JB	.19JB	1.0
trans-1,2-Dichloroethene	U	U	U	0.50
1,1-Dichloroethane	U	U	U	0.50
2,2-Dichloropropane	U	U	U	0.50
2-Butanone	U	U	U	2.5
cis-1,2-Dichloroethane	U	.54	U	0.50
Bromochloromethane	U	U	U	0.50
Chloroform	U	.13J	.21J	0.50
1,1,1-Trichloroethane	U	.31J	U	0.50
Carbon Tetrachloride	U	U	U	0.50
1,1-Dichloropropene	U	U	U	0.50
Methacrylonitrile	U	U	U	25
Benzene	U	U	U	0.50
1,2-Dichloroethane	U	U	U	0.50
Ethyl Methacrylate	U	U	U	25
1,4-Dioxane	U	U	U	50
Chloroacetonitrile	U	U	U	25
Date Received		09/28/01	09/28/01	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	10/02/01	10/02/01	10/02/01	

See Appendix for qualifier definitions

Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.0
7001-2334A
EARTH TECHNOLOGY
524.2 VOLATILE ORGANICS

003 Rev

Aqueous
page 2 of 3

All values are ug/L.

Client Sample I.D.	Method Blank	INFLUENT	UV-OX	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKL7	012334A-01	012334A-02	
Method Blank I.D.	VBLKL7	VBLKL7	VBLKL7	
Quant. Factor	1.00	1.00	1.00	
1-Chlorobutane	U	U	U	25
1,1-Dichloro-2-propanone	U	U	U	2.5
Trichloroethene	U	.7	U	0.50
Tetrahydrofuran	U	U	U	25
1,2-Dichloropropane	U	U	U	0.50
Methyl Acrylate	U	U	U	25
Dibromomethane	U	U	U	0.50
cis-1,3-Dichloropropene	U	U	U	0.50
4-Methyl-2-pentanone	U	U	U	2.5
Methyl Methacrylate	U	U	U	25
Toluene	U	U	U	0.50
trans-1,3-Dichloropropene	U	U	U	0.50
2-Chloroethylvinylether	U	U	U	0.50
1,1,2-Trichloroethane	U	U	U	0.50
Tetrachloroethene	U	13	.26J	0.50
2-Hexanone	U	U	U	2.5
1,3-Dichloropropane	U	U	U	0.50
Dibromochloromethane	U	U	U	0.50
1,2-Dibromoethane	U	U	U	0.50
Chlorobenzene	U	U	U	0.50
1,1,1,2-Tetrachloroethane	U	U	U	0.50
Ethylbenzene	U	U	U	0.50
mp-xylene	U	U	U	1.0
o-Xylene	U	U	U	0.50
Styrene	U	U	U	0.50
Bromoform	U	U	U	0.50
Isopropylbenzene	U	U	U	0.50
Bromobenzene	U	U	U	0.50
1,1,2,2-Tetrachloroethane	U	U	U	0.50
1,2,3-Trichloropropane	U	U	U	0.50
n-Propylbenzene	U	U	U	0.50
2-Chlorotoluene	U	U	U	0.50
4-Chlorotoluene	U	U	U	0.50
1,3,5-Trimethylbenzene	U	U	U	0.50
tert-Butylbenzene	U	U	U	0.50
Date Received		09/28/01	09/28/01	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	10/02/01	10/02/01	10/02/01	

See Appendix for qualifier definitions

Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.0
7001-2334A
EARTH TECHNOLOGY
524.2 VOLATILE ORGANICS

Aqueous
page 3 of 3

004REV

All values are ug/L.

Client Sample I.D.	Method Blank	INFLUENT	UV-OX	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKL7	012334A-01	012334A-02	
Method Blank I.D.	VBLKL7	VBLKL7	VBLKL7	
Quant. Factor	1.00	1.00	1.00	
1,2,4-Trimethylbenzene	U	U	U	0.50
1-Chlorohexane	U	U	U	0.50
sec-Butylbenzene	U	U	U	0.50
1,3-Dichlorobenzene	U	U	U	0.50
4-Isopropyltoluene	U	U	U	0.50
1,4-Dichlorobenzene	U	U	U	0.50
1,2-Dichlorobenzene	U	U	U	0.50
n-Butylbenzene	U	U	U	0.50
1,2-Dibromo-3-Chloropropane	U	U	U	0.50
Benzyl Chloride	U	U	U	0.50
trans-1,4-Dichloro-2-butene	U	U	U	25
Hexachloroethane	U	U	U	25
Nitrobenzene	U	U	U	25
Pentachloroethane	U	U	U	0.50
2-Nitropropane	U	U	U	25
1,2,4-Trichlorobenzene	U	U	U	0.50
Hexachlorobutadiene	U	U	U	0.50
Naphthalene	U	U	U	0.50
1,2,3-Trichlorobenzene	U	U	U	0.50
Date Received		09/28/01	09/28/01	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	10/02/01	10/02/01	10/02/01	

See Appendix for qualifier definitions

Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.1
7001-2334A
EARTH TECHNOLOGY
524.2 VOLATILE ORGANICS

005 rev

Aqueous
page 1 of 3

All values are ug/L.

Client Sample I.D.	EFFLUENT	TB092701		Quant. Limits with no Dilution
Lab Sample I.D.	012334A-03	012334A-04		
Method Blank I.D.	VBLKL7	VBLKL7		
Quant. Factor	1.00	1.00		
Dichlorodifluoromethane	U	U		0.50
Chloromethane	U	U		0.50
Vinyl Chloride	U	U		0.50
Bromomethane	U	U		0.50
Chloroethane	U	U		0.50
Freon 123A	U	U		0.50
Trichlorofluoromethane	U	U		0.50
Diethyl ether	U	U		25
1,1,2-Trichloro(1,2,2)trifluor	U	U		0.50
1,1-Dichloroethene	U	U		0.50
Acetone	5.9B	3.3B		2.5
Propionitrile	U	U		25
Methyl tert-Butyl ether	.28JB	U		25
Carbon Disulfide	U	U		25
Bromodichloromethane	.97B	U		0.50
Iodomethane	U	U		0.50
Allyl Chloride	U	U		25
Acrylonitrile	U	U		25
Methylene Chloride	U	1.1B		1.0
trans-1,2-Dichloroethene	U	U		0.50
1,1-Dichloroethane	U	U		0.50
2,2-Dichloropropane	U	U		0.50
2-Butanone	U	U		2.5
cis-1,2-Dichloroethene	U	U		0.50
Bromochloromethane	U	U		0.50
Chloroform	1.5B	U		0.50
1,1,1-Trichloroethane	U	U		0.50
Carbon Tetrachloride	U	U		0.50
1,1-Dichloropropene	U	U		0.50
Methacrylonitrile	U	U		25
Benzene	U	U		0.50
1,2-Dichloroethane	U	U		0.50
Ethyl Methacrylate	U	U		25
1,4-Dioxane	U	U		50
Chloroacetonitrile	U	U		25
Date Received	09/28/01	09/28/01		
Date Extracted	N/A	N/A		
Date Analyzed	10/02/01	10/02/01		

See Appendix for qualifier definitions

Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any
variation in sample weight/volume, % moisture and
sample dilution.

TABLE VO-1.1
7001-2334A
EARTH TECHNOLOGY
524.2 VOLATILE ORGANICS

005A

Aqueous
page 2 of 3

All values are ug/L.

Client Sample I.D.	EFFLUENT	TB092701		Quant. Limits with no Dilution
Lab Sample I.D.	012334A-03	012334A-04		
Method Blank I.D.	VBLKL7	VBLKL7		
Quant. Factor	1.00	1.00		
1-Chlorobutane	U	U		25
1,1-Dichloro-2-propanone	U	U		2.5
Trichloroethene	U	U		0.50
Tetrahydrofuran	U	U		25
1,2-Dichloropropane	U	U		0.50
Methyl Acrylate	U	U		25
Dibromomethane	U	U		0.50
cis-1,3-Dichloropropene	U	U		0.50
4-Methyl-2-pentanone	U	U		2.5
Methyl Methacrylate	U	U		25
Toluene	U	.09JB		0.50
trans-1,3-Dichloropropene	U	U		0.50
2-Chloroethylvinylether	U	U		0.50
1,1,2-Trichloroethane	U	U		0.50
Tetrachloroethene	.36JB	U		0.50
2-Hexanone	U	U		2.5
1,3-Dichloropropane	U	U		0.50
Dibromochloromethane	U	U		0.50
1,2-Dibromoethane	U	U		0.50
Chlorobenzene	U	U		0.50
1,1,1,2-Tetrachloroethane	U	U		0.50
Ethylbenzene	U	U		0.50
mp-xylene	U	U		1.0
o-Xylene	U	U		0.50
Styrene	U	U		0.50
Bromoform	U	U		0.50
Isopropylbenzene	U	U		0.50
Bromobenzene	U	U		0.50
1,1,2,2-Tetrachloroethane	U	U		0.50
1,2,3-Trichloropropane	U	U		0.50
n-Propylbenzene	U	U		0.50
2-Chlorotoluene	U	U		0.50
4-Chlorotoluene	U	U		0.50
1,3,5-Trimethylbenzene	U	U		0.50
tert-Butylbenzene	U	U		0.50
Date Received	09/28/01	09/28/01		
Date Extracted	N/A	N/A		
Date Analyzed	10/02/01	10/02/01		

See Appendix for qualifier definitions

Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any
variation in sample weight/volume, % moisture and
sample dilution.

TABLE VO-1.1
7001-2334A
EARTH TECHNOLOGY
524.2 VOLATILE ORGANICS

0058

Aqueous
page 3 of 3

All values are ug/L.

Client Sample I.D.	EFFLUENT	TB092701		Quant. Limits with no Dilution
Lab Sample I.D.	012334A-03	012334A-04		
Method Blank I.D.	VBLKL7	VBLKL7		
Quant. Factor	1.00	1.00		
1,2,4-Trimethylbenzene	U	U		0.50
1-Chlorohexane	U	U		0.50
sec-Butylbenzene	U	U		0.50
1,3-Dichlorobenzene	U	U		0.50
4-Isopropyltoluene	U	U		0.50
1,4-Dichlorobenzene	U	U		0.50
1,2-Dichlorobenzene	U	U		0.50
n-Butylbenzene	U	U		0.50
1,2-Dibromo-3-Chloropropane	U	U		0.50
Benzyl Chloride	U	U		0.50
trans-1,4-Dichloro-2-butene	U	U		25
Hexachloroethane	U	U		25
Nitrobenzene	U	U		25
Pentachloroethane	U	U		0.50
2-Nitropropane	U	U		25
1,2,4-Trichlorobenzene	U	U		0.50
Hexachlorobutadiene	U	U		0.50
Naphthalene	U	U		0.50
1,2,3-Trichlorobenzene	U	U		0.50
Date Received	09/28/01	09/28/01		
Date Extracted	N/A	N/A		
Date Analyzed	10/02/01	10/02/01		

See Appendix for qualifier definitions

Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any
variation in sample weight/volume, % moisture and
sample dilution.

TABLE AS-1.0
7001-2334A
EARTH TECHNOLOGY
MISCELLANEOUS ATOMIC SPECTROSCOPY

Aqueous

All values are ug/L.

Client Sample I.D.	INFLUENT	UV-OX	EFFLUENT	
Lab Sample I.D.	012334A-01	012334A-02	012334A-03	
Iron	317.	322.	100.U	
Manganese	595.	590.	574.	

See Appendix for qualifier definitions

1
WET CHEM ANALYSIS DATA SHEET

0007
SAMPLE NO.

INFLUENT

Lab Name: STL

Contract: _____

Lab Code: STL

Case No.: 2334A

SAS No.: _____

SDG No.: A2334

Matrix (soil/water): WATER

Lab Sample ID: 012334A-01

% Solids: 0

Date Received: 09/28/01

CAS No.	Analyte	Concentration	C	Units	Q	M
471-34-1	Alkalinity	26.0		mg/L		T
12408-02-5	pH	5.95		S.U.		D
	TDS	181.		mg/L		G
	TSS	5.0	U	mg/L		G

Comments:

1
WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

UV-OX

Lab Name: STL_____

Contract: _____

Lab Code: STL Case No.: 2334A

SAS No.: _____

SDG No.: A2334

Matrix (soil/water): WATER

Lab Sample ID: 012334A-02

% Solids: 0

Date Received: 09/28/01

CAS No.	Analyte	Concentration	C	Units	Q	M
471-34-1	Alkalinity	26.0		mg/L		T
12408-02-5	pH	6.76		S.U.		D
	TDS	181.		mg/L		G
	TSS	5.0	U	mg/L		G

Comments:

0009

1
WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

EFFLUENT

Lab Name: STL

Contract: _____

Lab Code: STL Case No.: 2334A

SAS No.: _____

SDG No.: A2334

Matrix (soil/water): WATER

Lab Sample ID: 012334A-03

% Solids: 0

Date Received: 09/28/01

CAS No.	Analyte	Concentration	C	Units	Q	M
471-34-1	Alkalinity	62.0		mg/L		T
12408-02-5	pH	7.25		S.U.		D
	TDS	226.		mg/L		G
	TSS	5.0	U	mg/L		G

Comments:



October 4, 2001

Brett Mongillo
Earth Tech, Inc.
12 Metro Park Rd.
Albany, NY 12205

Holzmacher, McLendon & Murrell, P.C. ▴ H2M Associates, Inc.
H2M Labs, Inc. ▴ H2M Construction Management, Inc.

575 Broad Hollow Road, Melville, New York 11747
(631) 756-8000, Fax: (631) 694-4122

e-mail: h2m@h2m.com
web: www.h2m.com

Re: Servall Laundry
Bay Shore, New York
September 2001 Operations Report

Dear Mr. Mongillo:

As you are aware, Holzmacher, McLendon, & Murrell, P.C. (H2M) is currently conducting daily operation and maintenance duties at the above referenced site. A summary of activity with respect to the groundwater extraction and treatment plant for the month of September is provided below.

Overview

Routine equipment maintenance was performed and daily process equipment readings were compiled during the month.

Event Schedule

The following timeline represents specific tasks completed during the month of September.

- 9/4/01 Changed Circular Charts at 16:45.
- 9/10/01 Changed circular charts @ 9:00. Cleaned out diaphragm pump for decanter tank 12A. Flushed out tank 12A. Changed effluent canister filter. Raised speed of caustic soda pump from 55 to 60 to raise pH readings.
- 9/12/01 Due to a higher reading in the peroxide residual, lowered the speed of the pump from 50 to 45.
- 9/13/01 Due to a higher reading in the chlorine residual, lowered the speed of the pump from 50 to 45. Took monthly compliance samples and sent them to Severn Trent Labs via Federal Express. The customer service representative at Federal Express notified H2M that they could not guarantee overnight delivery.

- 9/18/01 Received message from Severn Trent Labs that samples were not received in a timely manner (Federal Express did not deliver until 5 days later). Cleaned out diaphragm pump and pumped out separation tank 12A.
- 9/25/01 Changed circular charts at 8:15 am. Ordered more 15% sodium hypochlorite solution.
- 9/27/01 Re-sampled for monthly compliance monitoring and shipped samples overnight to Severn Trent Labs.
- 9/28/01 Refilled the HCl bath with approximately 12 gallons of water and 6 gallons of HCl.

Plant Performance

Between September 1, 2001 and September 30, 2001, the treatment plant discharged 3,559,300 gallons of treated water. The average flow rate through the UV/Oxidation system was 106.89 gallons per minute during operating conditions. Operational data and daily chemistry records for the respective monitoring period have been included as an attachment to this report.

Waste Disposal

No waste was shipped off-site during the reporting period.

If you should have any questions or require additional information, please contact Philip Schade at (631) 756-8000, extension 1623.

Very truly yours,

HOLZMACHER, McLENDON, & MURRELL, P.C.



Philip J. Schade, P.E.
Project Manager



Rocky W. Wenskus
Environmental Scientist

RWW/
enclosures

cc: Gary J. Miller, P.E./H2M

Daily Operations Checklist Servall Laundry Site

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday	Thursday	Friday
Date	9/3/01	9/4/01	9/5/01	9/6/01	9/7/01	9/10/01	9/11/01	9/12/01	9/13/01	9/14/01
Time		16:45	8:11	8:15	8:09	8:05	8:05	8:15	8:15	8:15
Extraction Well Level (feet)		57.4	56.4	56.3	56.3	56.3	56.3	56.9	56.8	56.9
Influent Flow Rate (gpm)		*125.73	*55.70	*69.70	*74.94	*23.53	97.42	*24.75	*70.38	*59.49
Influent Filter in Service (yes/no)		No	No	No	No	No	No	No	No	No
Inlet Pressure (psi)		10	10	10	10	10	10	10	10	10
Outlet Pressure (psi)		10	10	10	10	10	10	10	10	10
Cartridge Filter Flow Rate (gpm)		*	*55.50	*69.19	*74.92	*21.24	*10.88	*25.41	*69.73	*57.61
Equalization Tank										
Level (inches)		52.50	52.04	52.01	52.01	52.01	52.01	51.93	51.97	51.95
pH		6.06	6.07	6.08	6.07	6.07	6.08	6.07	6.08	6.09
Mixer (on/off)		Off	Off	Off	Off	Off	Off	Off	Off	Off
Acid Pump Settings: Speed / Stroke		Off	Off	Off	Off	Off	Off	Off	Off	Off
UV/Oxidation Pump in Service (4A/4B)		4A	4A	4A	4A	4A	4A	4A	4A	4A
UV/Oxidation Flow Rate (gpm)		176.45	106.38	106.65	108.12	111.99	109.06	110.46	104.29	107.81
UV/Oxidation Unit										
Lamp # 1 (on/off)		On	On	On	On	On	On	On	On	On
KV		252	252	252	252	252	252	252	252	252
Amps		8.0	7.8	7.8	7.7	7.7	7.7	7.7	7.7	7.7
Time		14520.95	14536.47	14560.37	14584.23	14656.18	14680.26	14704.32	14728.41	14752.34
Lamp # 2 (on/off)		Off	Off	Off	Off	Off	Off	Off	Off	Off
KV		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Amps		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Time		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lamp # 3 (on/off)		On	On	On	On	On	On	On	On	On
KV		242	245	245	245	245	245	245	245	245
Amps		7.6	7.6	7.7	7.7	7.4	7.4	7.4	7.4	7.4
Time		12749.82	12765.35	12789.21	12813.09	12885.04	12909.12	12933.18	12957.28	12981.20
Peroxide Pump Settings: Speed / Stroke		50/50	50/50	50/50	50/50	50/50	50/50	50/50	45/50	45/50
Peroxide Residual Concentration (mg/l)		12	11	12	12	11	11	16	11	12
Totalizer Reading (gallons)		24580690	24682030	24835680	24988480	25456380	25614360	25769400	25923670	26077500

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday	Thursday	Friday
Date	9/3/01	9/4/01	9/5/01	9/6/01	9/7/01	9/10/01	9/11/01	9/12/01	9/13/01	9/14/01
pH Adjust Tank		50.80	50.03	50.06	50.01	50.02	50.00	49.99	49.99	49.92
Level (inches)		7.30	6.91	6.92	6.91	6.87	6.90	6.91	6.91	6.91
pH		On	On	On	On	On	On	On	On	On
Mixer (on/off)		55/55	55/55	55/55	55/55	60/55	60/55	60/55	60/55	60/55
Caustic Pump Settings: Speed / Stroke		Off	Off	Off	Off	Off	Off	Off	Off	Off
Polymer Feed Settings		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Solution Pump: Speed / Stroke		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dilution Water Rate		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Polymer Bucket Weight (lbs.)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sand Filter Feed Pump in Service (6A/6B)		6B	6B	6B	6B	6B	6B	6B	6B	6B
Sand Filters										
Filter # 1 inlet pressure (psi)		28	18	10	20	20	19	18	16	20
Filter # 1 outlet pressure (psi)		28	16	11	17	20	16	16	18	18
Filter # 2 inlet pressure (psi)		28	17	1	15	20	18	17	19	14
Filter # 2 outlet pressure (psi)		28	17	1	16	20	18	17	20	16
Filter # 3 inlet pressure (psi)		28	17	12	18	20	20	18	17	19
Filter # 3 outlet pressure (psi)		28	18	12	19	20	19	19	19	20
Filter # 4 inlet pressure (psi)		28	21	12	20	22	21	20	21	21
Filter # 4 outlet pressure (psi)		28	18	12	17	18	17	16	18	19
Effluent Flow Rate (gpm)		136.80	101.95	101.75	102.35	103.11	105.55	105.28	98.42	95.82
Influent Filter in Service (yes/no)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Inlet Pressure (psi)		12	12	12	12	12	12	12	12	12
Outlet Pressure (psi)		12	12	12	12	12	12	12	12	12
Reinjection Well Level (feet)		56.39	66.27	66.00	66.09	65.79	66.23	66.05	65.94	65.52
Chemical Storage Levels										
Caustic Level (NaOH) (inches)		49	48	48	48	48	48	48	48	48
Peroxide Level (H ₂ O ₂) (inches)		49	48	48	48	48	48	48	48	48
Acid Level (H ₂ SO ₄) (inches)		53	53	53	53	53	53	53	53	53
Air Compressor (psi)		150	150	160	160	130	150	135	140	155
Compressed Air Dryer (on/off)		On	On	On	On	On	On	On	On	On
Chlorine pump: Speed / Stroke		50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	45/50
Chlorine Residual Concentration (mg/l)		0.9	0.5	0.7	0.6	0.7	0.8	0.7	0.9	0.7

* - Unit inoperable

Daily Operations Checklist Servall Laundry Site

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday	Thursday	Friday
Date	9/17/01	9/18/01	9/19/01	9/20/01	9/21/01	9/24/01	9/25/01	9/26/01	9/27/01	9/28/01
Time	8:15	8:40	13:04	13:55	14:00	**	8:15	8:00	15:00	8:00
Extraction Well Level (feet)	56.8	56.7	56.8	56.8	56.8	**	56.7	56.9	56.5	56.5
Influent Flow Rate (gpm)	*21.58	*76.60	*190.16	*16.20	*76.93	**	100.25	105.33	*60.46	54.60
Influent Filter in Service (yes/no)	No	No	No	No	No	**	No	No	No	No
Inlet Pressure (psi)	10	10	10	10	10	**	10	10	10	10
Outlet Pressure (psi)	10	10	10	10	10	**	10	10	10	10
Cartridge Filter Flow Rate (gpm)	*20.69	*77.58	*190.14	*15.51	*74.28	**	*13.26	*14.85	*60.23	*55.21
Equalization Tank										
Level (inches)	51.98	52.00	51.93	52.01	51.99	**	55.77	52.01	51.97	51.98
pH	6.10	6.11	6.14	6.18	6.17	**	6.24	6.24	6.25	6.25
Mixer (on/off)	Off	Off	Off	Off	Off	**	Off	Off	Off	Off
Acid Pump Settings: Speed / Stroke	Off	Off	Off	Off	Off	**	Off	Off	Off	Off
UV/Oxidation Pump in Service (4A/4B)	4A	4A	4A	4A	4A	**	4A	4A	4A	4A
UV/Oxidation Flow Rate (gpm)	102.78	103.74	105.96	107.22	105.99	**	49.68	102.52	101.86	103.09
UV/Oxidation Unit										
Lamp # 1 (on/off)	On	On	On	On	On	**	On	On	On	On
KV	252	252	252	252	252	**	252	252	252	252
Amps	7.7	7.7	7.7	7.7	7.7	**	7.7	7.7	7.7	7.7
Time	14823.48	14847.41	14875.49	14900.39	14924.47	**	15014.70	15038.49	15069.45	15086.50
Lamp # 2 (on/off)	Off	Off	Off	Off	Off	**	Off	Off	Off	Off
KV	N/A	N/A	N/A	N/A	N/A	**	N/A	N/A	N/A	N/A
Amps	N/A	N/A	N/A	N/A	N/A	**	N/A	N/A	N/A	N/A
Time	N/A	N/A	N/A	N/A	N/A	**	N/A	N/A	N/A	N/A
Lamp # 3 (on/off)	On	On	On	On	On	**	On	On	On	On
KV	245	245	245	245	245	**	245	245	245	245
Amps	7.4	7.5	7.5	7.5	7.5	**	7.4	7.4	7.4	7.4
Time	13052.34	13076.26	13104.33	13129.23	13153.31	**	13243.54	13267.32	13298.29	13315.34
Peroxide Pump Settings: Speed / Stroke	45/50	45/50	45/50	45/50	45/50	**	45/50	45/50	45/50	45/50
Peroxide Residual Concentration (mg/l)	11	12	12	13	12	**	11	12	12	11
Totalizer Reading (gallons)	26150830	26656820	26829560	2684130	26986682	**	27697100	27844790	28035380	28139990

Daily Operations Checklist Servall Laundry Site

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday	Thursday	Friday
Date	9/17/01	9/18/01	9/19/01	9/20/01	9/21/01	9/24/01	9/25/01	9/26/01	9/27/01	9/28/01
pH Adjust Tank										
Level (inches)	49.96	49.98	50.10	49.99	50.01	**	50.02	50.12	49.98	50.02
pH	6.92	7.15	6.88	6.87	6.89	**	6.88	6.88	6.88	6.89
Mixer (on/off)	On	On	On	On	On	**	On	On	On	On
Caustic Pump Settings: Speed / Stroke	60/50	60/50	60/50	60/50	60/50	**	60/50	60/50	60/50	60/50
Polymer Feed Settings	Off	Off	Off	Off	Off	**	Off	Off	Off	Off
Solution Pump: Speed / Stroke	N/A	N/A	N/A	N/A	N/A	**	N/A	N/A	N/A	N/A
Dilution Water Rate	N/A	N/A	N/A	N/A	N/A	**	N/A	N/A	N/A	N/A
Polymer Bucket Weight (lbs.)	N/A	N/A	N/A	N/A	N/A	**	N/A	N/A	N/A	N/A
Sand Filter Feed Pump in Service (6A/6B)	6B	6A	6A	6A	6A	**	6A	6A	6A	6A
Sand Filters										
Filter # 1 inlet pressure (psi)	18	14	18	16	16	**	10	10	18	19
Filter # 1 outlet pressure (psi)	18	14	18	14	14	**	10	10	17	18
Filter # 2 inlet pressure (psi)	19	15	16	15	16	**	12	10	18	19
Filter # 2 outlet pressure (psi)	20	16	14	14	17	**	11	15	18	18
Filter # 3 inlet pressure (psi)	18	16	16	14	14	**	0	16	19	17
Filter # 3 outlet pressure (psi)	20	15	16	15	16	**	5	16	18	18
Filter # 4 inlet pressure (psi)	23	20	20	20	21	**	16	18	21	20
Filter # 4 outlet pressure (psi)	18	16	16	15	18	**	12	20	17	18
Influent Flow Rate (gpm)	89.95	96.88	97.40	106.54	104.33	**	50.14	88.35	95.52	94.35
Effluent Filter in Service (yes/no)	Yes	Yes	Yes	Yes	Yes	**	Yes	Yes	Yes	Yes
Inlet Pressure (psi)	12	12	12	12	12	**	12	12	12	12
Outlet Pressure (psi)	12	12	12	12	12	**	12	12	12	12
Reinjection Well Level (feet)	66.06	65.94	65.84	66.09	66.07	**	57.44	66.32	66.48	67.21
Chemical Storage Levels										
Caustic Level (NaOH) (inches)	47	47	47	47	47	**	46	46	46	46
Peroxide Level (H ₂ O ₂) (inches)	47	47	47	47	47	**	46	46	46	46
Acid Level (H ₂ SO ₄) (inches)	53	53	53	53	53	**	53	53	53	53
Air Compressor (psi)	125	140	140	155	150	**	150	160	140	160
Compressed Air Dryer (on/off)	On	On	On	On	On	**	On	On	On	On
Chlorine pump: Speed / Stroke	45/50	45/50	45/50	45/50	45/50	**	45/50	45/50	45/50	45/50
Chlorine Residual Concentration (mg/l)	0.7	0.5	0.6	0.3	0.4	**	0.5	0.6	0.3	0.4

* - Unit inoperable

** - No readings taken

Servall Laundry
Process Control Samples

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday	Thursday	Friday
Date	9/3/01	9/4/01	9/5/01	9/6/01	9/7/01	9/10/01	9/11/01	9/12/01	9/13/01	9/14/01
Time		17:00	8:25	8:30	8:30	9:00	8:20	8:25	8:30	8:30
Influent										
pH		5.20	5.11	5.15	5.17	5.10	5.13	5.07	5.11	5.12
Iron (mg/L)		0.7	0.5	0.4	0.5	0.6	0.5	0.3	0.4	0.3
UVOX										
pH		5.27	5.20	5.21	5.23	5.54	5.48	5.19	5.20	5.22
Peroxide Residual (mg/L)		12	11	12	12	11	11	16	11	12
Effluent										
pH		6.21	6.08	6.09	6.10	6.26	6.25	6.11	6.16	6.18
Iron (mg/L)		0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Chlorine (mg/L)		0.9	0.5	0.7	0.6	0.7	0.8	0.7	0.9	0.7

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday	Thursday	Friday
Date	9/17/01	9/18/01	9/19/01	9/20/01	9/21/01	9/24/01	9/25/01	9/26/01	9/27/01	9/28/01
Time	8:30	8:55	13:20	14:10	14:15	**	8:30	8:30	15:10	8:15
Influent										
pH	5.11	5.11	5.14	5.13	5.16	**	5.18	5.17	5.14	5.15
Iron (mg/L)	0.5	0.6	0.5	0.7	0.8	**	0.6	0.7	0.6	0.6
UVOX										
pH	5.21	5.47	5.45	5.22	5.25	**	5.23	5.24	5.17	5.19
Peroxide Residual (mg/L)	11	12	12	13	12	**	11	12	12	11
Effluent										
pH	6.20	6.24	6.23	6.16	6.18	**	6.20	6.21	6.07	6.11
Iron (mg/L)	0.0	0.0	0.0	0.0	0.2	**	0.0	0.0	0.0	0.0
Chlorine (mg/L)	0.7	0.5	0.6	0.3	0.4	**	0.5	0.6	0.3	0.4

** - No Readings Taken