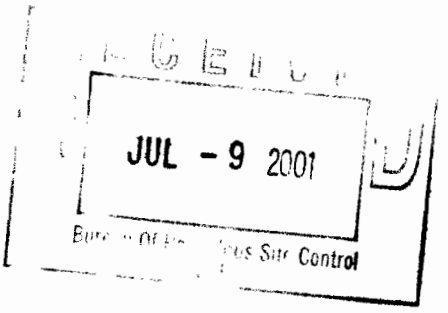
12 Metro Park Road, Albany, New York 12205



July 5, 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
50 Wolf Road
Albany, New York 12233 - 7010

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

Telephone
518.458.1313
Facsimile
518.458.2472

Dear Mr. Hoffmann:

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

The plant was shutdown for the majority of the month due to some maintenance problems with the flow control meters and valves. The plant processed a total volume of 326,040 gallons of water at an average flow rate of 101.99 GPM during operating conditions for the month of May. There were no samples taken or sent to the laboratory for analysis because the treatment system was shut down for most of the month.

There were many causes for long period of shutdown that the treatment system experienced in the month of May. This was mainly due to a problem with the flow control meters and valves. This problem is a continuation of the problems that were experienced last month where the flow meters were sending false signals to the valves that regulate influent flow causing great fluctuations in the flow rate of the water entering the system. This problem with the flow control meters and valves caused the effluent pumps to reinject water into the reinjection well in a cycle that caused high and low water levels to occur and shutdown the system. According to the summary letter provided by H2M, the final reason the system was shutdown for most of the month was that the UV-Oxidation unit needs at least two bulbs to work properly. During the month of April one of the three lamps failed meaning that the system was then running on its minimum of two lamps, then this month when a second lamp failed, Earth Tech and H2M made a decision to keep the system shutdown till the lamp could be replaced.

The following non-routine, system maintenance activities were conducted by H2M during

12 Metro Park Road, Albany, New York 12205

the reporting period:

- The system was shutdown on 5/2/01 to evaluate the cause of the influent flow fluctuation. H2M contacted the manufacturer of the flow valves to assist in troubleshooting the problem on 5/4/01 and 5/7/01. An unsuccessful attempt to troubleshoot the problem was conducted on 5/9/01 and a technician was called in to assist. The technician revised the wiring of the system and replaced two blown fuses on 5/16/01. The system was restarted.

- On 5/17/01 the system was down upon arrival and was restarted. It was discovered that the system cycles on and off due to the reinjection well level changing from high to low. This problem was troubleshot by lowering the influent flow rate. This solution was unsuccessful. The system was reset and shutdown for further investigation.

- On 5/18/01 the second of the three UV-oxidation bulbs failed. A new bulb was ordered on 5/24/01

- Four (4) drums of 15% sodium hypochlorite (NaOCl) solution were delivered to the site on 5/8/01. On 5/2/01 reagents for testing the influent, UV-OX, and effluent were received.

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 April 3, 2001.

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

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

Telephone
518.458.1313
Facsimile
518.458.2472

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	117	130	146.1	144.11	129.22	101.99	
Gallons processed	gallons	3401984	3026535	1,706,490	5,546,940	4,526,670	326,040	
Percent of Time Operating	%	1	2	790%	92%	68%	5%	
Pounds of VOCs Treated	lb	1	0	0.09	0.41	0.37	NA	
Influent VOC concentration	ug/L	115	15	8.1	14.79	22.43	NA	
Effluent VOC concentration	ug/L	9	7	2.1	6.01	12.54	NA	
Influent Total Iron	ug/L	1920	150	0	210	240	NA	
Effluent Total Iron	ug/L	367	0	0	0	0	NA	
Influent Total Manganese	ug/L	740	815	756	874	815	NA	
Effluent Total Manganese	ug/L	565	816	766	870	813	NA	
VOC removal efficiency	%	84.6%	44.38%	74.1%	59.4%	44.1%	0.0%	
Total Iron removal efficiency	%	48.0%	50.00%	0.0%	100.0%	100.0%	0.0%	
Total Manganese removal efficiency	%	10.9%	-0.15%	-1.3%	0.5%	0.2%	0.0%	
Cartridge Filters	ea	1	*NA*	*NA*	*NA*	*NA*	*NA*	
Sodium hypochlorite (12%)	lb	634	*NA*	*NA*	*NA*	*NA*	*NA*	
Polymer	lb	25	*NA*	*NA*	*NA*	*NA*	*NA*	
Hydrogen peroxide (50%)	lb	3705	*NA*	*NA*	*NA*	*NA*	*NA*	
Caustic (50%)	lb	2074	*NA*	*NA*	*NA*	*NA*	*NA*	
Hydrochloric Acid	lb	65	*NA*	*NA*	*NA*	*NA*	*NA*	
Spare Parts or other	at cost	443	*NA*	*NA*	*NA*	*NA*	*NA*	
Sludge generated (20% dewatered)	gal	21	0	0	0	0	0	
Sludge disposed of	gal	15	0	0	0	0	0	
Electricity (estimated)	kw hr	39891	37800	*NA*	*NA*	*NA*	*NA*	
Gas (estimated)	therms	854	800	*NA*	*NA*	*NA*	*NA*	
Compliance Sampling	at cost	893	650	*NA*	*NA*	*NA*	*NA*	
Operator	Month	8927	6700	*NA*	*NA*	*NA*	*NA*	
Redevelopment	at cost	2048	0	*NA*	*NA*	*NA*	*NA*	
Management & Engineering	at cost	2874	3200	*NA*	*NA*	*NA*	*NA*	
Consumables cost	*$*	$3,160	*NA*	*NA*	*NA*	*NA*	*NA*	
Sludge disposal cost	*$*	$50	*NA*	*NA*	*NA*	*NA*	*NA*	
Utilities cost	*$*	$3,889	*NA*	*NA*	*NA*	*NA*	*NA*	
Services cost	*$*	*$14,742*	*NA*	*NA*	*NA*	*NA*	*NA*	
Operating Cost (Estimated)	***$***	***$21,841***	***$0***	*NA*	*NA*	*NA*	*NA*	

Notes:
NA = Not Available

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

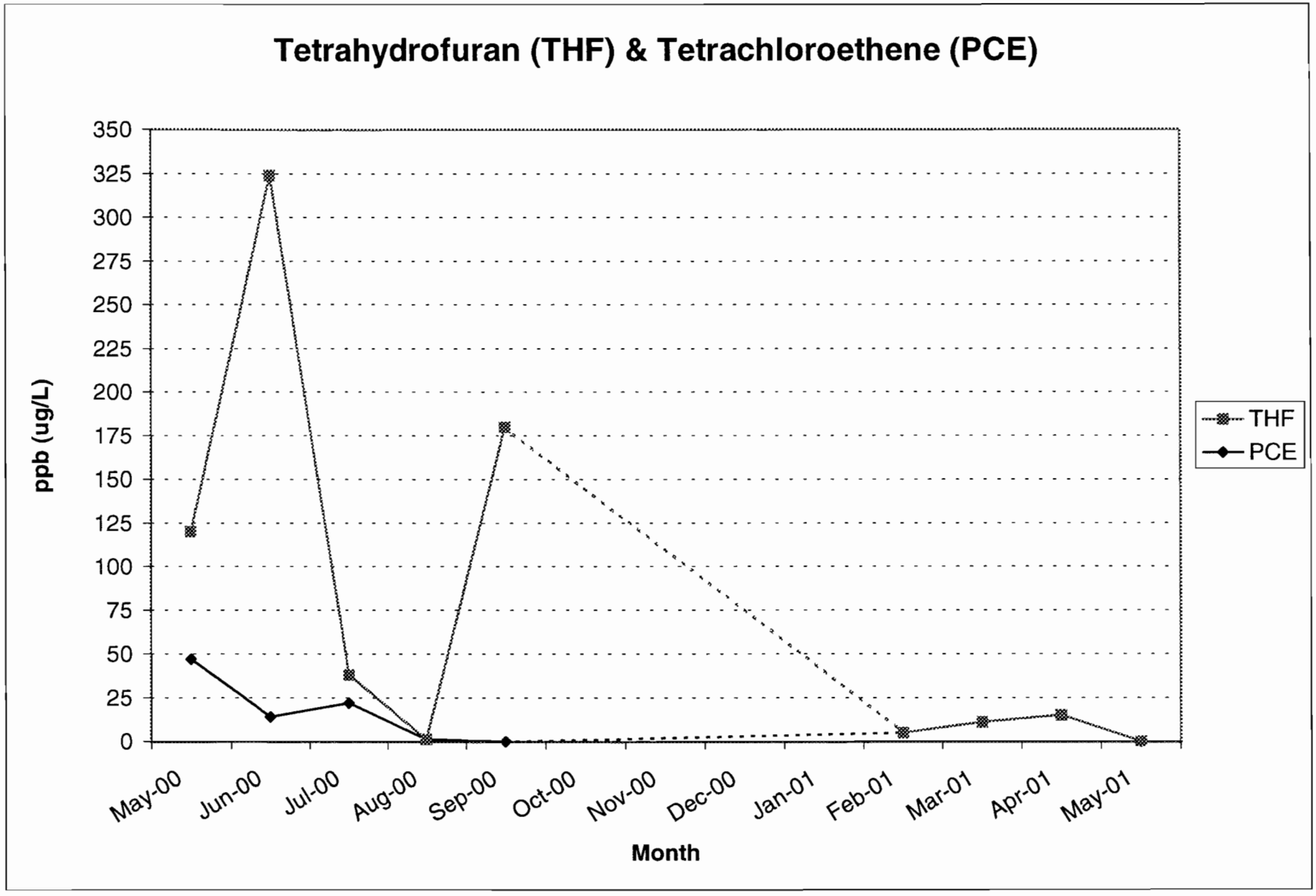
2001 Compliance Sampling - UNCORRETED

Influent	2001 DATA											
Constituents	Discharge Criteria	units	February		March		April		May		June	
Chlorobenzene	5	ug/L		U		U			NA			
Vinyl Chloride	2	ug/L		U		U			NA			
1,1-Dichloroethene	5	ug/L		U		U			NA			
Trichloroethene	5	ug/L	0.8		0.76		0.75		NA			
Tetrachloroethene	5	ug/L	5.1		11		15		NA			
1,1-Dichloroethane	5	ug/L		U		U			NA			
Toluene	5	ug/L		U		U			NA			
cis-1,2-Dichloroethene	5	ug/L		U		U	0.4	J	NA			
trans-1,2-Dichloroethene	5	ug/L		U		U			NA			
Methylene Chloride	N/A	ug/L	0.22	JB	0.43	JB	0.71	JB	NA			
1,1,1-Trichloroethane	N/A	ug/L	0.38	J		U	0.26	J	NA			
Chloroform	N/A	ug/L		U		U			NA			
Bromodichloromethane	N/A	ug/L		U		U			NA			
Trichlorofluoromethane	N/A	ug/L		U		U			NA			
Tetrahydrofuran	N/A	ug/L		U		U			NA			
Methyl tert-Butly Ether	N/A	ug/L	1.6	JB	2.6	J	5	J	NA			
Naphthalene	N/A	ug/L					0.31	J	NA			
Total VOCs	**N/A**	**ug/L**	**8.10**		**14.79**		**22.43**		**0.00**		**0.00**	
pH			**6.2**		**5.8**		**5.85**		**NA**			
Iron (total)	600[4]	ug/L		U	210		240		NA			
Manganese (total)	600[4]	ug/L	**756**		**874**		**815**		NA			
Alkalinity	N/A	mg/L	20		23.5		24		NA			
Total Suspended Solids	N/A	mg/L		U		U		U	NA			
Total Solids	N/A	mg/L	114		117		3360		NA			

Effluent	2001 DATA											
Constituents	Discharge Criteria	units	February		March		April		May		June	
Chlorobenzene	5	ug/L		U		U			NA			
Vinyl Chloride	2	ug/L		U		U			NA			
1,1-Dichloroethene	5	ug/L		U		U			NA			
Trichloroethene	5	ug/L		U		U			NA			
Tetrachloroethene	5	ug/L	0.9		0.29	J	0.2	J	NA			
1,1-Dichloroethane	5	ug/L		U		U			NA			
Styrene	5 (POC)	ug/L		U		U			NA			
Toluene	5	ug/L		U		U			NA			
cis-1,2-Dichloroethene	5	ug/L		U		U			NA			
trans-1,2-Dichloroethene	5	ug/L		U		U			NA			
Methylene Chloride	N/A	ug/L	0.36	JB	0.42	JB	0.75	JB	NA			
1,1,1-Trichloroethane	N/A	ug/L		U		U			NA			
Chloroform	N/A	ug/L	0.16	J	0.3	J	1.7		NA			
Tetrahydrofuran	50	ug/L		U		U			NA			
Acetone	N/A	ug/L		U	5		9.4	B	NA			
2-Butanone	N/A	ug/L		U		U			NA			
Bromodichloromethane	N/A	ug/L		U		U	0.3	J	NA			
Methyl tert-Butly Ether	N/A	ug/L	0.68	JB		U	0.3	J	NA			
Total VOCs	**N/A**	**ug/L**	**2.10**		**6.01**		**12.54**		**0.00**		**0.00**	
pH			**6.58**		**6.45**		**6.97**		**NA**			
Iron (total)	600[4]	ug/L		U		U		U	NA			
Manganese (total)	600[4]	ug/L	**766**		**870**		**813**		NA			
Alkalinity	N/A	mg/L	22		36		67		NA			
Total Suspended Solids	N/A	mg/L		U		U		U	NA			
Total Solids	N/A	mg/L	92		134		159		NA			

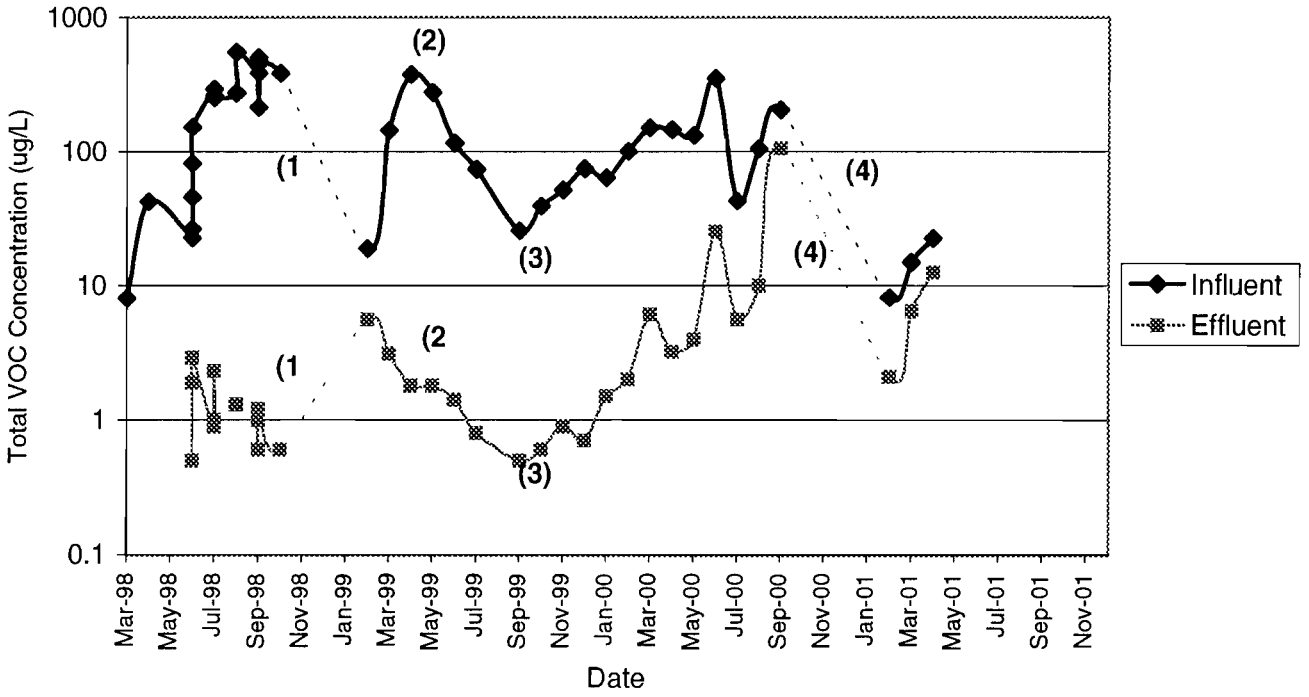
Notes:

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. (E) Estimate value.
7. N-A - Not Analyzed
8. "-" indicates not performed.
9. Bold values exceed discharge limits.
10. (P) pestiside/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


Tetrahydrofuran (THF) & Tetrachloroethene (PCE)
ppb (ug/L)
350
325
300
275
250
225
200
175
150
125
100
75
50
25
0
May-00
Jun-00
Jul-00
Aug-00
Sep-00
Oct-00
Nov-00
Dec-00
Jan-01
Feb-01
Mar-01
Apr-01
May-01
Month
THF
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 No. 1-52-077
Groundwater Remediation - Operations and Maintenance Costs to Date

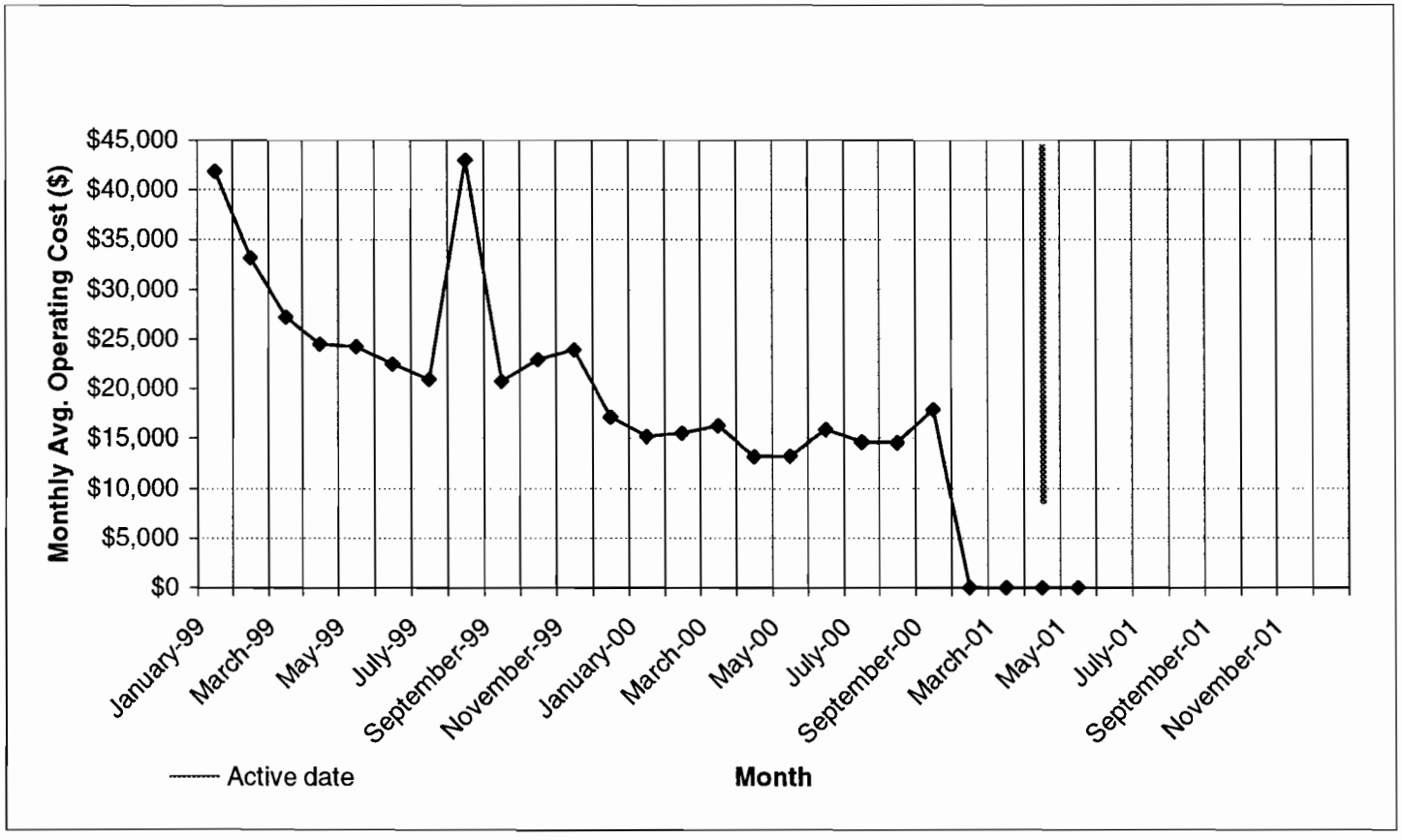


Figure 3 - Average Operating Cost Trends (Estimated)

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		

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	Jul-98	Jul-98	Jul-98	Aug-98	Aug-98
		Time	8am	8am	9am	1pm	2:50pm	6:50am	9am	6:30am	3pm	9:30am	4:30pm	4pm
INFLUENT	Design Concentration (ug/l)	Average of Samplig Results (ug/l)												
TOTAL VOCs	**14,104**	**174**	**8**	**42.5**	**22.6**	**26.4**	**45.5**	**81.4**	**151.3**	**291.7**	**261.4**	**252**	**272.2**	**552.5**
Iron (mg/L)	0.5 - 5	13	0.19	0.98	0.67	1.1	1.1	1.2	1.7	1.8	1.5		1.5	1.7
Manganese (mg/L)	0.675	62	0.73	1	0.97	1.1	1.1	1.1	1.1	1.2	1		0.96	0.82
EFFLUENT														
TOTAL VOCs		**5**	**0**	**0**	**0**	**0**	**0.5**	**1.9**	**2.9**	**0.9**	**2.3**	**1**	**0**	**1.3**
Removal Efficiencies		96.87%	100%	100%	100%	100%	99%	98%	98%	100%	99%	100%	100%	100%
Iron (mg/L)		0.31	0.1	0.45	0.08	0.06	0.05	0.04	0.06	0.14	0.14		0.17	2.4
Manganese (mg/L)		61.9	0.66	0.87	0.91	1.7	1	1.1	1	1.2	1.1		0.97	0.79

* 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	Sep-98	Sep-98	Sep-98	Sep-98	Sep-98	Oct-98
		Time		8am			1pm	9am
INFLUENT	Design Concentration (ug/l)	Average of Samplig Results (ug/l)						
TOTAL VOCs	**14,104**	**174**	**382.8**	**503.2**	**473.1**	**213**	**453.6**	**383.3**
Iron (mg/L)	0.5 - 5	13	1.4	1.2	1.4	1.2	1.1	0.9
Manganese (mg/L)	0.675	62	0.85	0.8	0.74	0.69	0.73	0.67
EFFLUENT								
TOTAL VOCs		**5**	**0**	**1.1**	**1**	**0.6**	**1.2**	**0.6**
Removal Efficiencies		96.87%	100%	100%	100%	100%	100%	100%
Iron (mg/L)		0.31	0.19	0.05	0.11	0.05	0.15	0.06
Manganese (mg/L)		61.9	0.84	0.79	0.74	0.72	0.72	0.66

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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									
INFLUENT	Design Concentration (ug/l)	Average of Samplig Results (ug/l)									
TOTAL VOCs	**14,104**	**174**	**18.8**	**143.6**	**373.7**	**275.3**	**114.8**	**73.5**	**25.5**	**39.1**	**51.6**
Iron (mg/L)	0.5 - 5	13	0.574	0.42	0.564	0.385	0.236	0.321	0.172	0.979	0.716
Manganese (mg/L)	0.675	62	0.629	0.565	0.496	0.517	0.492	0.719	0.63	0.622	0.521
EFFLUENT											
TOTAL VOCs		**5**	**5.57**	**3.1**	**1.8**	**1.8**	**1.4**	**0.8**	**0.5**	**0.6**	**0.9**
Removal Efficiencies		96.87%	70%	98%	100%	99%	99%	99%	98%	98%	98%
Iron (mg/L)		0.31	0.134	0.0604	0.05	0.05	0.199	0.1	0.13	0.035	0.035
Manganese (mg/L)		61.9	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
		Time									
INFLUENT	Design Concentration (ug/l)	Average of Samplig Results (ug/l)									
TOTAL VOCs	**14,104**	**174**	**73.9**	**63.9**	**100.3**	**150.6**	**145.45**	**131.82**	**350.93**	**42.89**	**104.46**
Iron (mg/L)	0.5 - 5	13	0.248	1.27	0.308	0.689	0.426	1.43	6.32	0.444	0.583
Manganese (mg/L)	0.675	62	0.548	0.593	0.542	0.517	0.499	0.864	2.9	0.992	0.514
EFFLUENT											
TOTAL VOCs		**5**	**0.7**	**1.5**	**2**	**6.1**	**3.22**	**3.97**	**25.16**	**5.57**	**10.05**
Removal Efficiencies		96.87%	99%	98%	98%	96%	98%	97%	93%	87%	90%
Iron (mg/L)		0.31	0.035	0.1	0.032	0.032	0.0755	3.01	1.78	0.732	1.4
Manganese (mg/L)		61.9	0.524	0.583	0.533	0.492	0.506	0.417	0.0166	0.841	0.399

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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
		Time									
INFLUENT	Design Concentration (ug/l)	Average of Samplig Results (ug/l)									
TOTAL VOCs	**14,104**	**174**	**204.19**	**8.1**	**14.79**	**22.43**	**NA**				
Iron (mg/L)	0.5 - 5	13	25.7	0	210	240	0				
Manganese (mg/L)	0.675	62	0.682	756	874	815	0				
EFFLUENT											
TOTAL VOCs		**5**	**105.99**	**2.1**	**6.45**	**12.54**	**NA**				
Removal Efficiencies		96.87%	48%	74%	56%	44%	0%				
Iron (mg/L)		0.31	0.0845	0	0	0	0				
Manganese (mg/L)		61.9	0.439	766	870	813	0				

* 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.

H2M GROUP

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

June 18, 2001

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

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

Dear Mr. Mongillo:

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

- 5/1/01 Changed UV-Ox pump from 4A to 4B.
- 5/2/01 System shutdown to evaluate cause of influent flow fluctuation. Ordered 4 more drums of 15% sodium hypochlorite solution. Received reagents for testing of the influent, UV-Ox and effluent.
- 5/3/01 Obtained the information from flow control valve unit in order to troubleshoot.
- 5/4/01 Contacted Sparling Instruments, manufacturer of the Tiger-Mag flow sensors, to assist in troubleshooting the flow control valve problem.
- 5/7/01 Discussed flow control valve problem with Carl Allen from Sparling Instruments.
- 5/8/01 Received shipment of 4 drums of 15% sodium hypochlorite solution.

- 5/9/01 Attempted to troubleshoot flow control valves by switching sensor wires. Not successful.

- 5/16/01 Field technician from Eagle Controls arrived onsite to assist in the troubleshooting of the flow meters. Revised system wiring and replaced two blown fuses. Started system at 17:00.

- 5/17/01 System down upon arrival. Restarted system at 8:15. System cycles on and off due to reinjection well level constantly becoming high and low. Problem was control setting on effluent pumps. Attempted to troubleshoot reinjection well situation by lowering plant flow from 150 gallons per minute to 100 gallons per minute. Did not work. Reset the previous parameters and shut system down for further investigation.

- 5/18/01 On of the two operating UV-Ox lamps failed. System down for remainder of month awaiting a new UV-Ox system lamp.

- 5/24/01 Ordered a new 30kw UV-Ox lamp.

Plant Performance

Due to the above described problems with the flow control valves and the failed UV-Ox lamp, the treatment system was down for the majority of the month. On May 1st the treatment system had a totalizer reading of 13,765,820 gallons of treated water and the end of the month reading was 14,091,860. The average flow rate through the UV/Oxidation system was 101.99 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.

The treatment system was shut down for the month of May for a number of reasons. The main reason as to why the treatment system was shutdown was the problem with the flow control meters. The problem with the flow control meters then led to other problems, such as the effluent pumps causing the reinjection well to constantly cycle high and low. The final reason as to why the treatment system was shutdown is the UV-Ox unit. We had previously determined that the treatment of the water would need a minimum of two lamps. When the second lamp went down, the decision was made to keep the system shutdown until the lamp was replaced.

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

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H2MGROUP

Daily Operations Checklist
Servall Laundry Site

Day	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday
Date	5/1/2001	5/2/2001	5/3/2001	5/4/2001	5/7/2001	5/8/2001	5/9/2001	5/10/2001	5/11/2001	5/14/2001	5/15/2001
Time	8:25	***	***	***	***	***	***	***	***	***	***
Extraction Well Level (feet)	65.3	***	***	***	***	***	***	***	***	***	***
Influent Flow Rate (gpm)	193.41	***	***	***	***	***	***	***	***	***	***
Influent Filter in Service (yes/no)	No	***	***	***	***	***	***	***	***	***	***
Inlet Pressure (psi)	80	***	***	***	***	***	***	***	***	***	***
Outlet Pressure (psi)	80	***	***	***	***	***	***	***	***	***	***
Cartridge Filter Flow Rate (gpm)	*	*	*	*	*	*	*	*	*	*	*
Equalization Tank											
Level (inches)	51.71	***	***	***	***	***	***	***	***	***	***
pH	5.78	***	***	***	***	***	***	***	***	***	***
Mixer (on/off)	Off	***	***	***	***	***	***	***	***	***	***
Acid Pump Settings: Speed / Stroke	Off	***	***	***	***	***	***	***	***	***	***
UV/Oxidation Pump in Service (4A/4B)	4A	***	***	***	***	***	***	***	***	***	***
UV/Oxidation Flow Rate (gpm)	101.99	***	***	***	***	***	***	***	***	***	***
UV/Oxidation Unit											
Lamp # 1 (on/off)	On	***	***	***	***	***	***	***	***	***	***
KV	252	***	***	***	***	***	***	***	***	***	***
Amps	7.6	***	***	***	***	***	***	***	***	***	***
Time	12858.77	***	***	***	***	***	***	***	***	***	***
Lamp # 2 (on/off)	On	***	***	***	***	***	***	***	***	***	***
KV	258	***	***	***	***	***	***	***	***	***	***
Amps	6.8	***	***	***	***	***	***	***	***	***	***
Time	6135.33	***	***	***	***	***	***	***	***	***	***
Lamp # 3 (on/off)	Off	***	***	***	***	***	***	***	***	***	***
KV	N/A	***	***	***	***	***	***	***	***	***	***
Amps	N/A	***	***	***	***	***	***	***	***	***	***
Time	N/A	***	***	***	***	***	***	***	***	***	***
Peroxide Pump Settings: Speed / Stroke	50/50	***	***	***	***	***	***	***	***	***	***
Peroxide Residual Concentration (mg/l)	9	***	***	***	***	***	***	***	***	***	***
Totalizer Reading (gallons)	13765820	***	***	***	***	***	***	***	***	***	***

Day	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday
Date	5/1/2001	5/2/2001	5/3/2001	5/4/2001	5/7/2001	5/8/2001	5/9/2001	5/10/2001	5/11/2001	5/14/2001	5/15/2001
pH Adjust Tank											
Level (inches)	50.01	***	***	***	***	***	***	***	***	***	***
pH	7.17	***	***	***	***	***	***	***	***	***	***
Mixer (on/off)	On	***	***	***	***	***	***	***	***	***	***
Caustic Pump Settings: Speed / Stroke	60/60	***	***	***	***	***	***	***	***	***	***
Polymer Feed Settings	Off	***	***	***	***	***	***	***	***	***	***
Solution Pump: Speed / Stroke	N/A	***	***	***	***	***	***	***	***	***	***
Dilution Water Rate	N/A	***	***	***	***	***	***	***	***	***	***
Polymeer Bucket Weight (lbs.)	N/A	***	***	***	***	***	***	***	***	***	***
Sand Filter Feed Pump in Service (6A/6B)	6A	***	***	***	***	***	***	***	***	***	***
Sand Filters											
Filter # 1 inlet pressure (psi)	20	***	***	***	***	***	***	***	***	***	***
Filter # 1 outlet pressure (psi)	20	***	***	***	***	***	***	***	***	***	***
Filter # 2 inlet pressure (psi)	16	***	***	***	***	***	***	***	***	***	***
Filter # 2 outlet pressure (psi)	14	***	***	***	***	***	***	***	***	***	***
Filter # 3 inlet pressure (psi)	22	***	***	***	***	***	***	***	***	***	***
Filter # 3 outlet pressure (psi)	20	***	***	***	***	***	***	***	***	***	***
Filter # 4 inlet pressure (psi)	20	***	***	***	***	***	***	***	***	***	***
Filter # 4 outlet pressure (psi)	18	***	***	***	***	***	***	***	***	***	***
Effluent Flow Rate (gpm)	106.60	***	***	***	***	***	***	***	***	***	***
Effluent Filter in Service (yes/no)	Yes	***	***	***	***	***	***	***	***	***	***
Inlet Pressure (psi)	12	***	***	***	***	***	***	***	***	***	***
Outlet Pressure (psi)	12	***	***	***	***	***	***	***	***	***	***
Reinjection Well Level (feet)	64.03	***	***	***	***	***	***	***	***	***	***
Chemical Storage Levels											
Caustic Level (NaOH) (inches)	34	***	***	***	***	***	***	***	***	***	***
Peroxide Level (H_2O_2) (inches)	52	***	***	***	***	***	***	***	***	***	***
Acid Level (H_2SO_4) (inches)	54	***	***	***	***	***	***	***	***	***	***
Air Compressor (psi)	160	***	***	***	***	***	***	***	***	***	***
Compressed Air Dryer (on/off)	On	***	***	***	***	***	***	***	***	***	***
Chlorine pump: Speed / Stroke	60/60	***	***	***	***	***	***	***	***	***	***
Chlorine Residual Concentration (mg/l)	0.6	***	***	***	***	***	***	***	***	***	***

* - Unit inoperable

*** - No readings due to problem in system

Day	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday	Thursday
Date	5/16/2001	5/17/2001	5/18/2001	5/21/2001	5/22/2001	5/23/2001	5/24/2001	5/25/2001	5/28/2001	5/29/2001	5/30/2001	5/31/2001
Time	***	***	***	***	***	***	***	***	***	***	***	***
Extraction Well Level (feet)	***	***	***	***	***	***	***	***	***	***	***	***
Influent Flow Rate (gpm)	***	***	***	***	***	***	***	***	***	***	***	***
Influent Filter in Service (yes/no)	***	***	***	***	***	***	***	***	***	***	***	***
Inlet Pressure (psi)	***	***	***	***	***	***	***	***	***	***	***	***
Outlet Pressure (psi)	***	***	***	***	***	***	***	***	***	***	***	***
Cartridge Filter Flow Rate (gpm)	*	*	*	*	*	*	*	*	*	*	*	*
Equalization Tank												
Level (inches)	***	***	***	***	***	***	***	***	***	***	***	***
pH	***	***	***	***	***	***	***	***	***	***	***	***
Mixer (on/off)	***	***	***	***	***	***	***	***	***	***	***	***
Acid Pump Settings: Speed / Stroke	***	***	***	***	***	***	***	***	***	***	***	***
UV/Oxidation Pump in Service (4A/4B)	***	***	***	***	***	***	***	***	***	***	***	***
UV/Oxidation Flow Rate (gpm)	***	***	***	***	***	***	***	***	***	***	***	***
UV/Oxidation Unit												
Lamp # 1 (on/off)	***	***	***	***	***	***	***	***	***	***	***	***
KV	***	***	***	***	***	***	***	***	***	***	***	***
Amps	***	***	***	***	***	***	***	***	***	***	***	***
Time	***	***	***	***	***	***	***	***	***	***	***	***
Lamp # 2 (on/off)	***	***	***	***	***	***	***	***	***	***	***	***
KV	***	***	***	***	***	***	***	***	***	***	***	***
Amps	***	***	***	***	***	***	***	***	***	***	***	***
Time	***	***	***	***	***	***	***	***	***	***	***	***
Lamp # 3 (on/off)	***	***	***	***	***	***	***	***	***	***	***	***
KV	***	***	***	***	***	***	***	***	***	***	***	***
Amps	***	***	***	***	***	***	***	***	***	***	***	***
Time	***	***	***	***	***	***	***	***	***	***	***	***
Peroxide Pump Settings: Speed / Stroke	***	***	***	***	***	***	***	***	***	***	***	***
Peroxide Residual Concentration (mg/l)	***	***	***	***	***	***	***	***	***	***	***	***
Totalizer Reading (gallons)	***	***	***	***	***	***	***	***	***	***	***	***

Day	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday	Thursday
Date	5/16/2001	5/17/2001	5/18/2001	5/21/2001	5/22/2001	5/23/2001	5/24/2001	5/25/2001	5/28/2001	5/29/2001	5/30/2001	5/31/2001
pH Adjust Tank												
Level (inches)	***	***	***	***	***	***	***	***	***	***	***	***
pH	***	***	***	***	***	***	***	***	***	***	***	***
Mixer (on/off)	***	***	***	***	***	***	***	***	***	***	***	***
Caustic Pump Settings: Speed / Stroke	***	***	***	***	***	***	***	***	***	***	***	***
Polymer Feed Settings	***	***	***	***	***	***	***	***	***	***	***	***
Solution Pump: Speed / Stroke	***	***	***	***	***	***	***	***	***	***	***	***
Dilution Water Rate	***	***	***	***	***	***	***	***	***	***	***	***
Polymeer Bucket Weight (lbs.)	***	***	***	***	***	***	***	***	***	***	***	***
Sand Filter Feed Pump in Service (6A/6B)	***	***	***	***	***	***	***	***	***	***	***	***
Sand Filters												
Filter # 1 inlet pressure (psi)	***	***	***	***	***	***	***	***	***	***	***	***
Filter # 1 outlet pressure (psi)	***	***	***	***	***	***	***	***	***	***	***	***
Filter # 2 inlet pressure (psi)	***	***	***	***	***	***	***	***	***	***	***	***
Filter # 2 outlet pressure (psi)	***	***	***	***	***	***	***	***	***	***	***	***
Filter # 3 inlet pressure (psi)	***	***	***	***	***	***	***	***	***	***	***	***
Filter # 3 outlet pressure (psi)	***	***	***	***	***	***	***	***	***	***	***	***
Filter # 4 inlet pressure (psi)	***	***	***	***	***	***	***	***	***	***	***	***
Filter # 4 outlet pressure (psi)	***	***	***	***	***	***	***	***	***	***	***	***
Effluent Flow Rate (gpm)	***	***	***	***	***	***	***	***	***	***	***	***
Effluent Filter in Service (yes/no)	***	***	***	***	***	***	***	***	***	***	***	***
Inlet Pressure (psi)	***	***	***	***	***	***	***	***	***	***	***	***
Outlet Pressure (psi)	***	***	***	***	***	***	***	***	***	***	***	***
Reinjection Well Level (feet)	***	***	***	***	***	***	***	***	***	***	***	***
Chemical Storage Levels												
Caustic Level (NaOH) (inches)	***	***	***	***	***	***	***	***	***	***	***	***
Peroxide Level (H_2O_2) (inches)	***	***	***	***	***	***	***	***	***	***	***	***
Acid Level (H_2SO_4) (inches)	***	***	***	***	***	***	***	***	***	***	***	***
Air Compressor (psi)	***	***	***	***	***	***	***	***	***	***	***	***
Compressed Air Dryer (on/off)	***	***	***	***	***	***	***	***	***	***	***	***
Chlorine pump: Speed / Stroke	***	***	***	***	***	***	***	***	***	***	***	***
Chlorine Residual Concentration (mg/l)	***	***	***	***	***	***	***	***	***	***	***	***

* - Unit inoperable

*** - No readings due to problem in system

H2MGROUP

Process Control Samples
Servall Laundry Site

Day	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday
Date	5/1/2001	5/2/2001	5/3/2001	5/4/2001	5/7/2001	5/8/2001	5/9/2001	5/10/2001	5/11/2001	5/14/2001	5/15/2001	5/16/2001
Time	8:45	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\
Influent												
pH	5.21	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\
Iron (mg/L)	0.3	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\
UVOX												
pH	5.26	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\
Peroxide Residual (mg/L)	9	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\
Effluent												
pH	6.50	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\
Iron (mg/L)	0.0	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\
Chlorine (mg/L)	0.6	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\

Day	Thursday	Friday	Monday	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday	Thursday	
Date	5/17/2001	5/18/2001	5/21/2001	5/22/2001	5/23/2001	5/24/2001	5/25/2001	5/28/2001	5/29/2001	5/30/2001	5/31/2001	
Time	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	
Influent												
pH	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	
Iron (mg/L)	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	
UVOX												
pH	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	
Peroxide Residual (mg/L)	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	
Effluent												
pH	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	
Iron (mg/L)	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	
Chlorine (mg/L)	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	\\\	

\\\ - No readings due to problem in system