Lawler, Matusky & Skelly Engineers LLP

Environmental Science & Engineering Consultants

August 12, 2000
File No. 650-395

Mr. Carl Hoffman
New York State 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. D002676-39.2
Monthly Report – JUNE 2000

Dear Mr. Hoffman:

Attached please find the Monthly Report for June 2000, the eighth monthly report submitted under Work Assignment No. D002676-39.2.

The plant operated at an average flow rate of 144 gpm for the month and a total volume of 1,839,960 gallons of water was processed. The influent VOC concentration was 351 ppb; the plant removed approximately 93% of the influent VOCs. Effluent concentrations of total VOCs, manganese were within discharge limitations; effluent iron concentrations exceeded the discharge limit of 600 ppb with a concentration of 1780 ppb.

In addition, the effluent pH exceeded the typical range 6 – 9 SU. Overall, the effluent water quality data (TSS, Total solids, Alkalinity, pH) were inconsistent with past data and the daily recorded data which showed an effluent pH within the typical range. July sampling will be reviewed when available for comparative purposes. Influent compliance data has revealed that MTBE is present at concentrations of 0.89 ppb and styrene was detected in the effluent at a concentration of 5.5 ppb. The presence of MTBE (and styrene), gasoline constituents, is indicative of a gasoline spill and not typically found at a site impacted by dry cleaner operations. This may indicate that groundwater contained within the extraction system's radius of influence is impacted by a nearby gasoline spill. Effluent MTBE concentration in June 2000 was 0.23 ppb.

In addition, tetrahydrofuran was detected in May and June sampling events at influent concentrations of 73 and 310 ppb, respectively. Due to the inconsistent results on both the influent and effluent reported limits, LMS requested that STL review the data. STL-CT has reviewed the sample results from the above-mentioned project. There were no errors found in the reporting of any of the parameters. They did observe that the results were different from what we've found historically. Their GC/MS Volatiles group leader informed them that several months ago; the 524.2 method was updated to Revision 4. The Rev. 4 list includes several compounds (i.e. Tetrahydrofuran, the Ketone compounds) which were not included on the Rev. 3 list. This would explain why these compounds began to show up in the samples. What is noticeable is that the Tetrachlorethene concentration, which is typically the most predominant compound, has dropped off in May and June. It may appear that the tetrahydrofuran and tetrachlorethane are

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creating some interference in the analysis. Tetrahydrofuran has a groundwater class GA standard of 50 ug/L. The effluent samples from May and June were below this limit.

The air compressor circuit breaker was adjusted to prevent frequent shutdowns. LMS will continue to provide task management of the plant operations until September 30, 2000 unless otherwise directed by the NYSDEC. If you have any questions or comments please feel free to contact me at x 249.

Very Truly Yours,

Robert DeGiorgio, P.E.
Project Manager

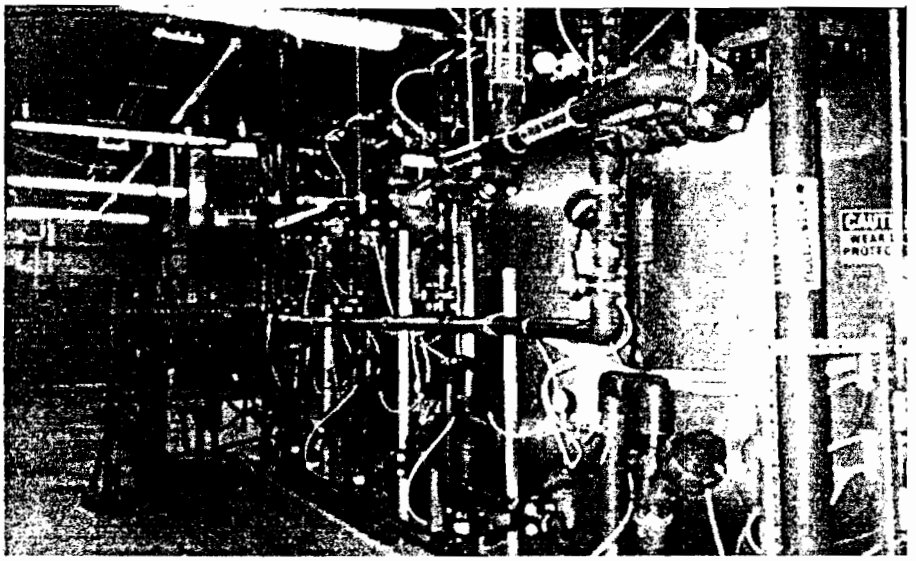
Enclosures

cc: Phil Schade, H2M

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

Monthly Operations Report

June-00



LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Environmental Science & Engineering Consultants
One Blue Hill Plaza
Pearl River, New York 10965

650-395

Serval Laundry
Site No. 1-52-077
Groundwater Remediation -2000 Operation and Maintenance

Summary Report

Plant Operating Data	unit	Monthly Average (to date)	Monthly Average (2000)	January-00	February-00	March-00	April-00	May-00	June-00	Total Year 2000
Flow Rate	gpm	112	156	160.44	160.39	160.2	158.57	152.09	144.05	156
Gallons processed	gallons	3,608,901	3,733,380	4,154,420	5,390,400	3,744,760	3,862,440	3,408,300	1,839,960	22,400,280
Percent of Time Operating	%	55%	57%	62%	86%	56%	60%	51%	28%	57%
Pounds of VOCs Treated	lb	1.7	4.1	2.16	4.42	4.51	4.58	3.63	5.00	24
Influent VOC concentration	ug/L	135	157	63.9	100.3	150.6	145.45	131.82	350.93	-
Effluent VOC concentration	ug/L	3.72	6.99	1.5	2	6.1	3.22	3.97	25.16	-
Influent Total Iron	ug/L	988	1741	1270	308	689	426	1430	6320	-
Effluent Total Iron	ug/L	394	838	100	32	32	75.5	3010	1780	-
Influent Total Manganese	ug/L	744	986	593	542	517	499	864	2900	-
Effluent Total Manganese	ug/L	513	425	583	533	492	506	417	16.6	-
VOC removal efficiency	%	97.1%	96.5%	97.7%	98.0%	95.9%	97.8%	97.0%	92.8%	-
Total Iron removal efficiency	%	63.5%	53.5%	92.1%	89.6%	95.4%	82.3%	-110.5%	71.8%	-
Total Manganese removal efficiency	%	12.1%	26.3%	1.7%	1.7%	4.8%	-1.4%	51.7%	99.4%	-
Cartridge Filters	ea	1	1	3	0	0	0	0	0	3
Sodium hypochlorite (12%)	lb	648	500	500	500	500	500	500	500	3,000
Polymer	lb	28	0	0	0	0	0	0	0	0
Hydrogen peroxide (50%)	lb	3616	4514	4538	4538	4538	4538	4538	4392	27,083
Caustic (50%)	lb	1995	5415	5534	5177	5534	5355	5534	5355	32,487
Hydrochloric Acid	lb	72	0	0	0	0	0	0	0	0
Spare Parts or other	at cost	$491	$33	$196	$0	$0	$0	$0	$0	$196
Sludge generated (20% dewatered)	gal	25	25	25	25	25	25	25	25	150
Sludge disposed of	gal	20	0	0	0	0	0	0	0	0
Electricity (estimated)	kw hr	40061	36833	37,800	37,800	37,800	37,800	37,800	32,000	221,000
Gas (estimated)	therms	860	800	800	800	800	800	800	800	4,800
Compliance Sampling	at cost	$918.76	$650.92	$655.50	$650.00	$650.00	$650.00	$650.00	$650.00	3,906
Operator	Month	$9,107	$5,679	$5,790	$6,500	$7,190	$4,548	$4,549	$5,500	34,077
Redevelopment	at cost	$2,263	$0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0
Management & Engineering	at cost	$2,887	$1,025	$931	$1,239.99	$1,200.00	$856.00	$856.00	$1,065.00	6,148
Consumables cost	*$*	*$3,180*	*$3,587*	*$4,162*	*$3,441*	*$3,516*	*$3,479*	*$3,516*	*$3,406*	$21,520
Sludge disposal cost	*$*	*$55.72*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	$0
Utilities cost	*$*	*$3,906*	*$3,595*	*$3,682*	*$3,682*	*$3,682*	*$3,682*	*$3,682*	*$3,160*	$21,570
Services cost	*$*	*$15,176*	*$7,355*	*$7,376*	*$8,390*	*$9,040*	*$6,054*	*$6,055*	*$7,215*	$44,130
Operating Cost (Estimated)	***$***	***$22,318***	***$14,537***	***$15,221***	***$15,513***	***$16,238***	***$13,215***	***$13,253***	***$13,781***	**$87,220**

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

2000 Compliance Sampling

Influent														
Constituents	Discharge Criteria	units	January		February		March		April		May		June	
Chlorobenzene	5	ug/L		U				U		U		U		
Vinyl Chloride	2	ug/L		U				U		U		U		
1,1-Dichloroethene	5	ug/L	0.1	J				U		U		U		
Trichloroethene	5	ug/L	1		1		1		1.1		0.8			
Tetrachloroethene	5	ug/L	54	E	87		140	E	130	E	47	E	14	
1,1-Dichloroethane	5	ug/L	0.2	J				U		U		U		
Toluene	5	ug/L		U	0.5			U		U		U	0.34	JD
cis-1,2-Dichloroethene	5	ug/L	0.3	J	0.6		0.8		0.6		0.3	J	7.5	
trans-1,2-Dichloroethene	5	ug/L		U				U		U		U		
Methylene Chloride	N/A	ug/L		U	1.6	JD		U	2.6	JDB	0.4	JB	13	DB
1,1,1-Trichloroethane	N/A	ug/L	0.5					U	0.4	J	0.4	J		
Chloroform	N/A	ug/L	0.2	J	0.2			U	1.9	JDB	6.4		5.2	
Bromodichloromethane	N/A	ug/L		U				U		U	0.38	J		
Trichlorofluoromethane	N/A	ug/L		U				U		U	0.1	J		
Tetrahydydrofuran	N/A	ug/L									73		310	E
Methyl tert-Butly Ether	N/A	ug/L	7.6		9.4		8.8		8.8	J	3.1	J	0.89	J
Total VOCs	**N/A**	**ug/L**	**63.9**		**100.3**		**150.6**		**145.5**		**131.8**		**350.93**	
Iron (total)	600[4]	ug/L	1270		308		689		426		1430		6320	
Manganese (total)	600[4]	ug/L	593		542		517		499		864		2900	
Alkalinity	N/A	mg/L	27		29		16		15		89		44.2	
Total Suspended Solids	N/A	mg/L	10	U	10	U	10	U	5	U	6		7	
Total Solids	N/A	mg/L	159		162		145		156		261		344	
Effluent														
Constituents	Discharge Criteria	units	January		February		March		April		May		June	
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		U				U		U		U		
Tetrachloroethene	5	ug/L	0.7		1.4		4.2		2.4		2.2		0.98	
1,1-Dichloroethane	5	ug/L		U				U		U		U		
Styrene	5 (POC)	ug/L											5.5	DB
Toluene	5	ug/L		U	0.2	JB		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		U				U	0.2	JB	0.38	JB	7.6LE	DB
1,1,1-Trichloroethane	N/A	ug/L	0.3	J				U		U		U		
Chloroform	N/A	ug/L	0.3	J			0.7	B	0.1	JB	0.84		0.45	J
Tetrahydydrofuran	50	ug/L											18	J
Acetone	N/A	ug/L											100LE	
2-Butanone	N/A	ug/L											49LE	DB
Bromodichloromethane	N/A	ug/L	0.2	J			0.4	J		U		U		
Methyl tert-Butly Ether	N/A	ug/L		U	0.4		0.8		0.5	J	0.55	J	0.23	J
Total VOCs	**N/A**	**ug/L**	**1.5**		**2**		**6.1**		**3.2**		**3.97**		**25.16**	
Iron (total)	600[4]	ug/L	100		32		32	U	75.5	B	**3010**		**1780**	
Manganese (total)	600[4]	ug/L	583		533		492		506		417		16.6	
Alkalinity	N/A	mg/L	2	U	38		41		43		25.8		2100	
Total Suspended Solids	N/A	mg/L	10	U	10	U	10	U	5	U	5	U	43	
Total Solids	N/A	mg/L	170		171		163		183		168		2420	

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

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

2000 Compliance Sampling

Influent								
Constituents	Discharge Criteria	units	July	August	September	October	November	December
Chlorobenzene	5	ug/L						
Vinyl Chloride	2	ug/L						
1,1-Dichloroethene	5	ug/L						
Trichloroethene	5	ug/L						
Tetrachloroethene	5	ug/L						
1,1-Dichloroethane	5	ug/L						
Toluene	5	ug/L						
cis-1,2-Dichloroethene	5	ug/L						
trans-1,2-Dichloroethene	5	ug/L						
Methylene Chloride	N/A	ug/L[3]						
1,1,1-Trichloroethane	N/A	ug/L						
Chloroform	N/A	ug/L						
Bromodichloromethane	N/A	ug/L						
Trichlorofluoromethane	N/A	ug/L						
Tetrahydydrofuran	N/A	ug/L						
Methyl tert-Butly Ether	N/A	ug/L						
Total VOCs	**N/A**	**ug/L**						
Iron (total)	600[4]	ug/L						
Manganese (total)	600[4]	ug/L						
Alkalinity	N/A	mg/L						
Total Suspended Solids	N/A	mg/L						
Total Solids	N/A	mg/L						
Effluent								
Constituents	Discharge Criteria	units	July	August	September	October	November	December
Chlorobenzene	5	ug/L						
Vinyl Chloride	2	ug/L						
1,1-Dichloroethene	5	ug/L						
Trichloroethene	5	ug/L						
Tetrachloroethene	5	ug/L						
1,1-Dichloroethane	5	ug/L						
Styrene	5 (POC)	ug/L[3]						
Toluene	5	ug/L						
cis-1,2-Dichloroethene	5	ug/L						
trans-1,2-Dichloroethene	5	ug/L						
Methylene Chloride	N/A	ug/L[3]						
1,1,1-Trichloroethane	N/A	ug/L						
Chloroform	N/A	ug/L						
Tetrahydydrofuran	50	ug/L						
Acetone	N/A	ug/L						
2-Butanone	N/A	ug/L[3]						
Bromodichloromethane	N/A	ug/L						
Methyl tert-Butly Ether	N/A	ug/L						
Total VOCs	**N/A**	**ug/L**						
Iron (total)	600[4]	ug/L						
Manganese (total)	600[4]	ug/L						
Alkalinity	N/A	mg/L						
Total Suspended Solids	N/A	mg/L						
Total Solids	N/A	mg/L						

Notes:
1. Analytical data analyzed by STL Laboratories.
2. (U) Undetected.
3. (J) Estimate value. Result is below sample practical qu
instrument detection limit.
4. The combined effluent concentration of Iron and Manga
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%
11. Concentration between EPA contract detection limit a
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

Graphical Data Trends

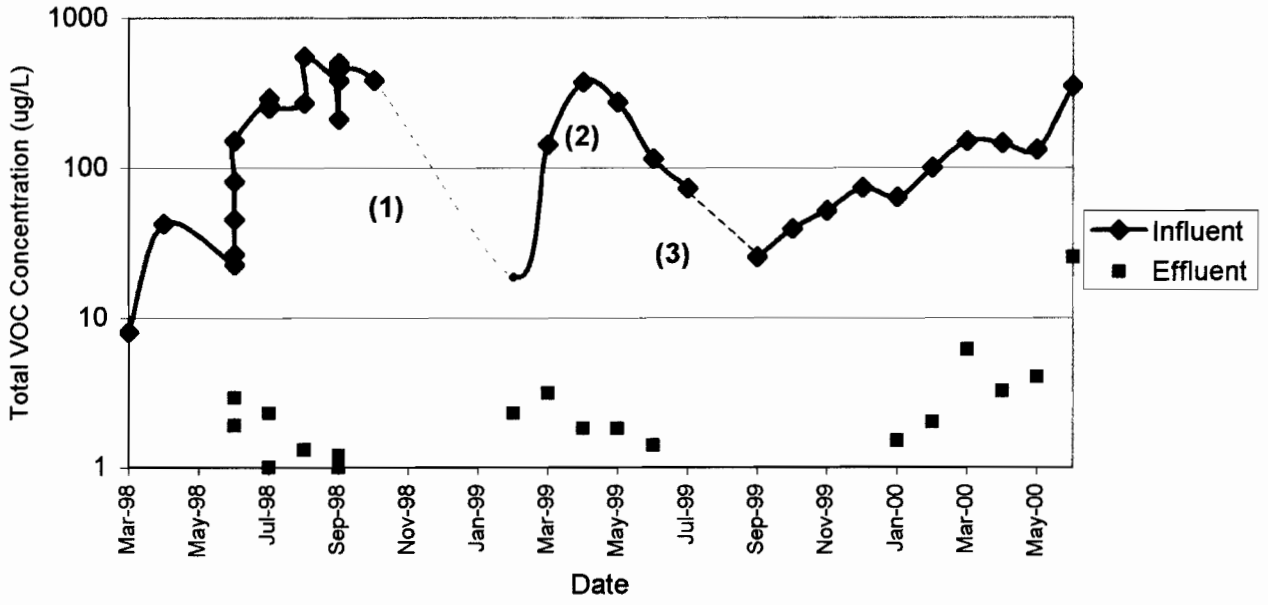


Figure 1 - Total Volatile Organic Compound (VOC) Influent and Effluent Trends

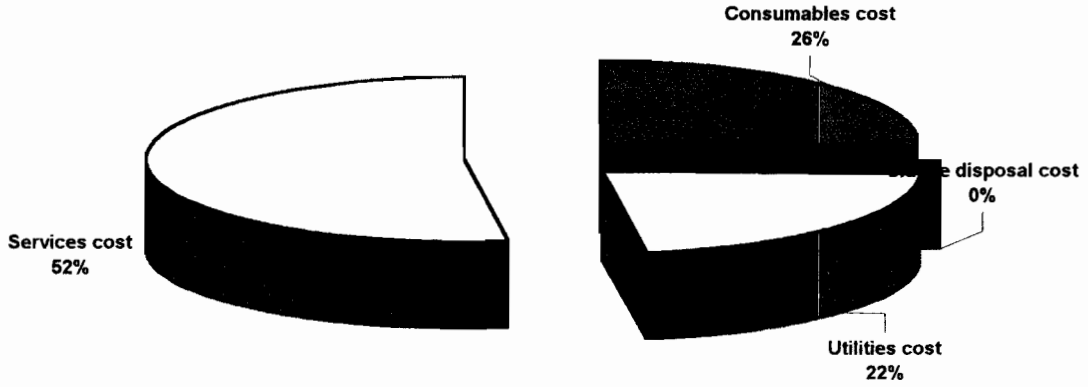


Figure 2 - Monthly Average Operating Cost Breakdown - to date is $23,915
Avg. Monthly operating costs in the Year 2000 is $14,537

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.

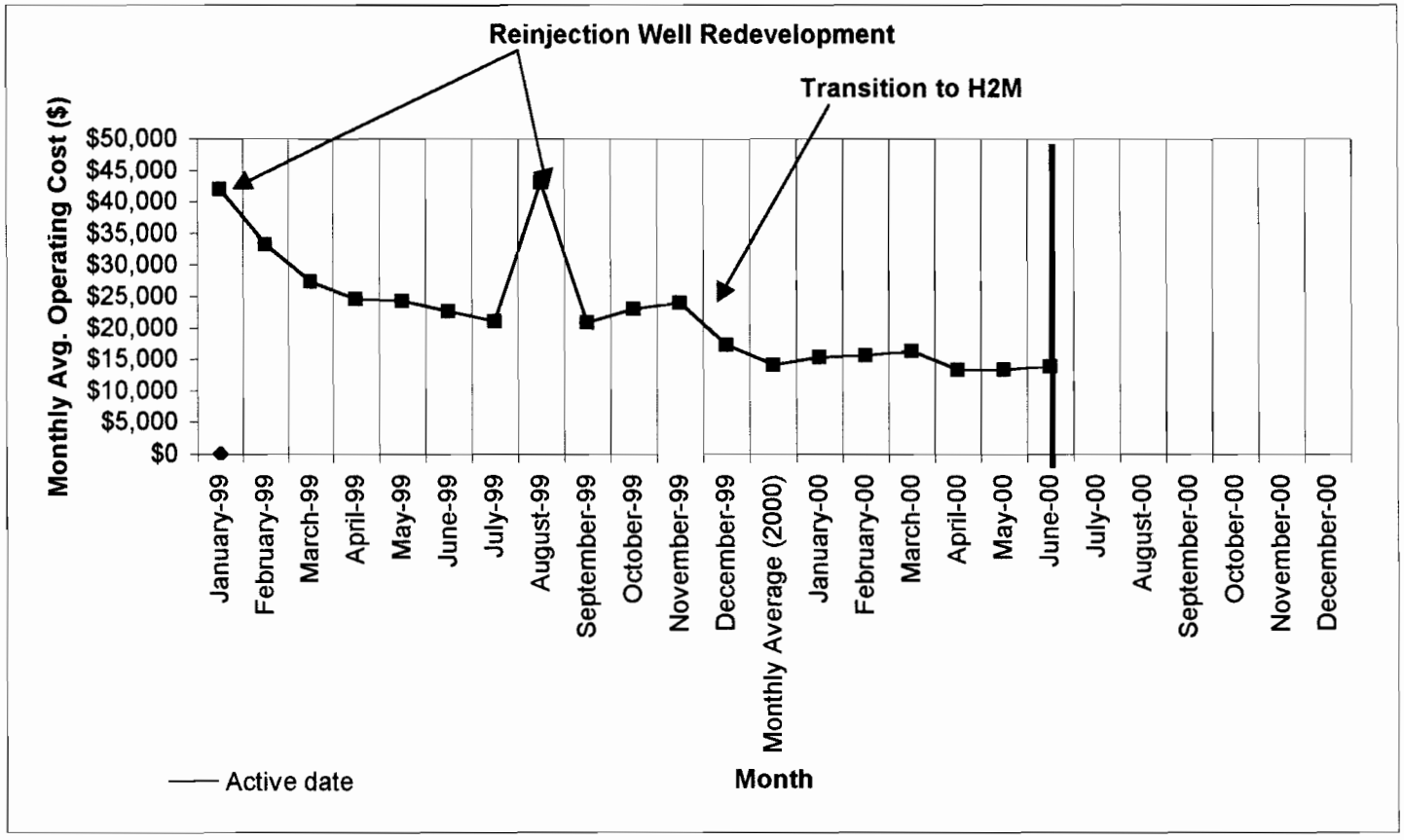


Figure 3 - Average Operating Cost Trends (Estimated)

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

Summary Notes and Action Items

Month	Notes	Action	Resolutions
January	None		
February	MTBE detected, indicative of a gasoline spill unrelated to Servall site		
March	Increase in PCE concentration. Air compressor circuit trip was often	Effluent concentrations below effluent limit.	Recommend the air compressor circuit is re-designed to prevent frequent faults. NYSDEC to respond.
April	None		
May			
June	Analytical data reveals anomaly compounds such as Tetrahydrofuran, Styrene and Acetone. It is likely that the Acetone, 2 butanone in the effluent is due to lab error; the presence of styrene is indicative of gasoline or motor oil as is the case for the MTBE. MTBE has been present for a few months and of all the gasoline constituents travels the fastest in groundwater and appears before the other gas. compounds such as BTEX or styrene. Toluene and Styrene have now been observed in the influent lending more credence to the presence of a gas plume being drawn inward.	Continue to monitor for SPDES compliance	
July			
August			
September			
October			
November			
December			

Servall Laundry Site
Site No. 1-52-077

Groundwater Remediation
UV Oxidation Treatability Testing

Constituents / Sample ID	**INFLUENT FEB 1999**	1EH	2EH	3EH	**INFLUENT MARCH 1999**	1EH	1EL	1EL (dup)
Peroxide Dose Influent (ppm)		28	28	28		28	50	67
Peroxide Dose Residual (ppm)		22	22	22		22	38	53
Chlorobenzene								
Vinyl Chloride								
Methylene Chloride								
1,1-Dichloroethene							0.3	0.3
Trichloroethene	1.2				1.9			
Benzene								
Tetrachloroethene	17	0.4			140	3.2	**7.4**	**7.7**
1,1-Dichloroethane								
Chlorobenzene								
Toluene								
cis-1,2-Dichloroethene	0.6				1.7			
trans-1,2-Dichloroethene								
1,1,1-Trichloroethane	0.7	0.5	0.5	0.5	0.5	0.5	0.5	
Chloroform								
Bromodichloromethane								
Methyl tert-Butly Ether							0.3	
Trichlorofluoromethane								
Total	19.5	0.9	0.5	0.5	144.1	3.7	**8.5**	**8**

Notes:
1. Analytical data analyzed by STL Laboratories. Units are ug/L unless otherwise noted.
2. Bold values exceed discharge limits.

Legend
1 = Lamp Number (1, 2 or 3)
E = Effluent
H = High Power Lamp
L = Low Power Lamp
dup = duplicate sample

Servall [illegible]ndry Site
Site No. 1-52-077

Groundwater Remediation
UV Oxidation Treatability Testing

Constituents / Sample ID	INFLUENT APRIL 1999	1EH + 2EH	1EH+2EL	INFLUENT MAY 1999	1EH	1EL + 2 EL	INFLUENT JUNE 1999	1EL	1EH + 2 EL	INFLUENT JULY 1999	1EL	1EH + 2 EL
Peroxide Dose Influent (ppm)		50	50		28	28		28	28		28	28
Peroxide Dose Residual (ppm)		38	38		20	20		20	20		20	20
Chlorobenzene												
Vinyl Chloride												
Methylene Chloride	12	0.2		4.5			1.3					
1,1-Dichloroethene			0.2							0.2		
Trichloroethene	5.6			3			1.3			1.1		
Benzene												
Tetrachloroethene	350	0.3	0.6	260	4.7	0.5	110	0.1	0.1	53		
1,1-Dichloroethane								0.1	0.1	0.2		
Chlorobenzene												
Toluene			0.1	4.6		0.1	1					
cis-1,2-Dichloroethene	3.8						0.6			0.3		
trans-1,2-Dichloroethene												
1,1,1-Trichloroethane	0	0.5	0.5		0.5	0.8	0.6	0.5	0.5	0.6	0.6	
Chloroform	2.3	0.1	0.2					0.1	0.1	0.1	0.1	
Bromodichloromethane												
Methyl tert-Butly Ether										3		
Trichlorofluoromethane										0.1	0.1	
Total	373.7	1.1	1.6	272.1	**5.2**	1.4	114.8	0.8	0.8	55.5	0.8	0

Notes:
1. Analytical data analyzed by STL Laboratories. Units are ug/L unless otherwise noted.
2. Bold values exceed discharge limits.

Legend
1 = Lamp Number (1, 2 or 3)
E = Effluent
H = High Power Lamp
L = Low Power Lamp
dup = duplicate sample

Servall ıdry 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
		Time	8am	8am	9am	1pm	2:50pm	6:50am	9am	6:30am	3pm
INFLUENT	Design Concentration (ug/l)	Average of Samplig Results (ug/l)									
TOTAL VOCs	**14,104**	**200**	**8**	**42.5**	**22.6**	**26.4**	**45.5**	**81.4**	**151.3**	**291.7**	**261.4**
Iron (mg/L)	0.5 - 5	1.14	0.19	0.98	0.67	1.1	1.1	1.2	1.7	1.8	1.5
Manganese (mg/L)	0.675	0.88	0.73	1	0.97	1.1	1.1	1.1	1.1	1.2	1
EFFLUENT											
TOTAL VOCs		**1**	**0**	**0**	**0**	**0**	**0.5**	**1.9**	**2.9**	**0.9**	**2.3**
Removal Efficiencies		99.48%	100%	100%	100%	100%	99%	98%	98%	100%	99%
Iron (mg/L)		0.24	0.1	0.45	0.08	0.06	0.05	0.04	0.06	0.14	0.14
Manganese (mg/L)		0.89	0.66	0.87	0.91	1.7	1	1.1	1	1.2	1.1

Servall [illegible] idry Site
Site No. 1-52-077
Summary of Off-Site Analytical Results

		Date	Jul-98	Aug-98	Aug-98	Sep-98	Sep-98	Sep-98	Sep-98	Sep-98	Oct-98
		Time	9:30am	4:30pm	4pm		8am			1pm	9am
INFLUENT	Design Concentration (ug/l)	Average of Samplig Results (ug/l)									
TOTAL VOCs	**14,104**	**200**	**252**	**272.2**	**552.5**	**382.8**	**503.2**	**473.1**	**213**	**453.6**	**383.3**
Iron (mg/L)	0.5 - 5	1.14		1.5	1.7	1.4	1.2	1.4	1.2	1.1	0.9
Manganese (mg/L)	0.675	0.88		0.96	0.82	0.85	0.8	0.74	0.69	0.73	0.67
EFFLUENT											
TOTAL VOCs		**1**	**1**	**0**	**1.3**	**0**	**1.1**	**1**	**0.6**	**1.2**	**0.6**
Removal Efficiencies		99.48%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Iron (mg/L)		0.24		0.17	2.4	0.19	0.05	0.11	0.05	0.15	0.06
Manganese (mg/L)		0.89		0.97	0.79	0.84	0.79	0.74	0.72	0.72	0.66

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	Aug-99
		Time							
INFLUENT	Design Concentration (ug/l)	Average of Samplig Results (ug/l)							
TOTAL VOCs	**14,104**	**200**	**18.8**	**143.6**	**373.7**	**275.3**	**114.8**	**73.5**	**-**
Iron (mg/L)	0.5 - 5	1.14	0.574	0.42	0.564	0.385	0.236	0.321	#VALUE!
Manganese (mg/L)	0.675	0.88	0.629	0.565	0.496	0.517	0.492	0.719	#VALUE!
EFFLUENT									
TOTAL VOCs		**1**	**2.3**	**3.1**	**1.8**	**1.8**	**1.4**	**0.8**	**-**
Removal Efficiencies		99.48%	88%	98%	100%	99%	99%	99%	#VALUE!
Iron (mg/L)		0.24	0.134	0.0604	0.05	0.05	0.199	0.1	#VALUE!
Manganese (mg/L)		0.89	0.612	0.569	0.49	0.542	0.507	0.71	#VALUE!

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

ACEC Member
Supporting Excellence
In Engineering

575 Broad Hollow Road, Melville, NY 11747-5076
(516) 756-8000 • Fax: (516) 694-4122

August 7, 2000

Robert J. DiGiorgio
Lawler, Matusky, & Skelly Engineers, LLP
One Blue Hill Plaza
Pearl River, NY 10965

Re: Servall Laundry QWETP
Bay Shore, New York
June 2000 Operations Report

Dear Mr. DeGiorgio:

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 June 2000 is provided below.

Overview

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

Event Schedule

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

- 6/1/00 Clean effluent filters were installed into their respective canisters.
- 6/2/00 Called electrician to schedule an appointment for the air compressor situation. Air compressor circuit breaker tripped and was reset.
- 6/9/00 Electrician came to inspect the air compressor and its circuit breaker. The trips on the breaker were switched to their highest settings.

  A leak was repaired in the line that is between the air compressor and the compressed air dryer.

  Clean effluent filters were installed into their respective canisters.
- 6/26/00 Clean effluent filters were installed into their respective canisters.

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- 6/27/00 Called chemical supply companies for quotes on the replenishment of the caustic tank. Made arrangements with Captree Chemical to supply approximately 1,000 gallons in early July.

- 6/28/00 The monthly water compliance samples were collected, packed in ice, and shipped to Severn-Trent Laboratories via Federal Express, overnight delivery.

Available treatment chemical volumes as of the end of June, 2000 are as follows:

Tank	Level	Volume
Acid	54 in.	2644 gal
Caustic	2 in.	90 gal
Peroxide	26 in.	1350 gal

Plant Performance

Between June 1, 2000 and June 30, 2000, the treatment plant discharged 1,839,960 gallons of treated water. The total plant flow for the month was significantly lower than previous months. The lower flow was the result of frequent plant shutdowns during the reporting month. These shutdowns typically did not result in an alarm condition and the plant restarted on its own. The cause of the shutdowns is being investigated. The average flowrate of the UV/Oxidation system during operating conditions was 144.05 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

David Nadler
Environmental Scientist

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

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Daily Operation Check List

Servall Laundry Site

Day	~~Thurs~~	~~Wed~~Fri	Mon	Tues	Wed	Thurs	Fri	Mon	Tues	Wed
Date	6/1	6/2	6/5	6/6	6/7	6/8	6/9	6/12	6/13	6/14
Time	8:20	8:25	8:00	8:15	7:55	8:10	8:00	7:50	7:50	8:00
Extraction Well Level (feet)	56.9	55.9	56.1	56.3	54.2	53.9	52.0	52.7	53.1	52.6
Influent Flow Rate (gpm)	149.38	145.22	149.22	149.35	145.60	144.23	149.50	148.63	147.11	149.21
Influent Filter in Service (yes/no)	NO	no	no	no	no	no	NO	NO	NO	NO
Inlet Pressure (psi)	20	22	20	20	20	20	22	20	20	20
Outlet Pressure (psi)	16	16	18	16	18	16	16	14	16	16
Cartridge Filter Flow Rate (gpm)	142.14	140.91	141.38	140.72	141.98	142.91	148.37	146.77	145.32	144.91
Equalization Tank										
Level (inches)	52.39	53.61	52.91	53.50	54.10	53.22	54.11	54.60	55.12	54.22
pH	7.69	7.60	7.60	7.59	7.58	7.81	7.73	7.82	7.69	7.70
Mixer (on/off)	OFF	OFF	OFF	Off	off	OFF	OFF	OFF	off	OFF
Acid Pump Settings: Speed / Stroke	~~4B~~OFF	OFF	OFF	off	off	OFF	OFF	OFF	off	OFF
UV/Oxidation Pump in Service (4A/4B)	4B	4B	4B	4B	4B	4B	4B	4A	4A	4A
UV/Oxidation Flow Rate (gpm)	147.80	146.39	144.19	145.33	146.72	149.12	148.16	149.91	142.90	141.53
UV/Oxidation Unit										
Lamp # 1 (on/off)	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
KV	252	252	252	252	252	252	252	252	252	252
Amps	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
Time	11164.41	11179.50	1195.51	1205.72	1220.61	1230.14	1253.16	1262.40	1274.55	1290.52
Lamp # 2 (on/off)	OFF	OFF	Off	off	off	OFF	OFF	Off	OFF	OFF
KV	0	0	0	0	0	OFF	0	0	OFF	0
Amps	0	0	0	0	0	0	0	0	0	0
Time	5984.86	5984.86	5984.86	5984.86	5984.86	5984.86	5984.86	5984.86	5984.86	5984.86
Lamp # 3 (on/off)	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
KV	258	258	258	258	258	258	258	258	258	258
Amps	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Time	9598.55	9613.61	9627.61	9647.80	9692.73	9702.24	9725.25	9734.49	9746.64	9762.61
Peroxide Pump Settings: Speed / Stroke	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50
Peroxide Residual Concentration (mg/l)	12	13	13	12	13	14	13	13	12	12
Totalizer Reading (gpm)	91508110	91603120	91688370	91754350	91823410	91911070	92003780	92060710	92155710	92208120

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Daily Operation Check List

Servall Laundry Site

Date	6/1	6/2	6/5	6/6	6/7	6/8	6/9	6/12	6/13	6/14
pH Adjust Tank										
Level (inches)	52.11	52.50	51.29	53.61	51.91	52.38	51.49	51.37	52.28	53.08
pH	6.93	6.99	7.11	7.20	7.25	7.26	7.28	7.30	7.40	7.50
Mixer (on/off)	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Caustic Pump Settings: Speed / Stroke	45/35	45/35	43/35	43/35	43/35	43/35	43/35	43/35	43/35	43/35
Polmer Feed Settings	off	OFF	OFF	OFF	OFF	OFF	OFF	off	OFF	OFF
Solution Pump: Speed / Stroke										
Dilution Water Rate										
Polymeer Bucket Weight (lbs.)										
Sand Filter Feed Pump in Service (6A/6B)	6A	6A	6A	6A	6A	6A	6A	6A	6A	6B
Sand Filters										
Filter # 1 inlet pressure (psi)	20	20	20	20	20	22	20	20	22	18
Filter #1 outlet pressure (psi)	18	20	18	20	18	24	20	22	20	20
Filter # 2 inlet pressure (psi)	20	20	22	20	20	24	20	22	20	20
Filter #2 outlet pressure (psi)	16	22	20	20	20	22	20	20	20	18
Filter # 3 inlet pressure (psi)	20	20	22	20	22	20	22	20	22	20
Filter #3 outlet pressure (psi)	20	20	20	20	20	22	18	20	20	20
Filter # 4 inlet pressure (psi)	20	22	16	20	22	22	20	20	20	20
Filter #4 outlet pressure (psi)	18	20	20	18	22	22	20	20	20	20
Effluent Flow Rate (gpm)	140.82	141.19	140.39	142.39	145.10	146.39	145.42	146.30	143.60	140.91
Effluent Filter in Service (yes/no)	YES	Yes	Yes	Yes	YES	YES	YES	YES	Yes	Yes
Inlet Pressure (psi)	16	16	18	18	20	20	20	16	16	16
Outlet Pressure (psi)	10	12	12	14	16	16	18	10	10	10
Reinjection Well Level (feet)	57.14	58.31	59.04	58.71	59.40	58.62	57.21	56.43	55.90	56.11
Chemical Storage Levels										
Caustic Level (NaOH)	0.00	0.00	0.00	0 00	0.00	0.00	0.00	0.00	0.00	0.00
Peroxide Level (H_2O_2)	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3
Acid Level (H_2SO_4)	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9
Air Compressor (psi)	140	150	140	140	150	150	150	140	150	160
Compressed Air Dryer (on/off)	ON	ON	ON	ON	ON	ON	ON	ON	on	ON
Chlorine Pump: Speed / Stroke	60/85	60/85	60/85	60/85	60/85	60/85	60/85	60/85	60/85	60/85
Chlorine Residual Concentration (mg/l)	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2

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Daily Operation Check List

Servall Laundry Site

Day	Thurs	Fri	Mon	Tue	Wed	Thurs	Fri	Mon	Tues	Wed
Date	6/15	6/16	6/19	6/20	6/21	6/22	6/23	6/26	6/27	6/28
Time	7:50	8:15	8:00	8:10	8:10	8:00	8:05	8:10	7:50	7:50
Extraction Well Level (feet)	51.20	52.29	54.0	53.9	54.8	53.7	54.2	55.1	56.1	58.3
Influent Flow Rate (gpm)	150.27	146.38	149.20	148.72	149.91	148.79	149.38	150.20	151.33	149.46
Influent Filter in Service (yes/no)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Inlet Pressure (psi)	20	20	20	20	18	18	18	18	20	20
Outlet Pressure (psi)	18	16	16	18	16	16	16	16	16	16
Cartridge Filter Flow Rate (gpm)	141.33	142.39	143.71	144.96	143.31	144.29	145.33	146.61	145.54	143.80
Equalization Tank										
Level (inches)	52.41	51.98	52.59	53.47	54.29	53.77	54.29	53.61	54.29	54.60
pH	7.71	7.78	7.79	7.78	7.77	7.76	7.78	7.77	7.79	7.77
Mixer (on/off)	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Off	OFF	~~7.75~~
Acid Pump Settings: Speed / Stroke	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Off	OFF	OFF
UV/Oxidation Pump in Service (4A/4B)	4A	4A	4B	4B	4B	4B	4B	4A	4A	4A
UV/Oxidation Flow Rate (gpm)	140.90	141.06	142.41	143.98	143.91	140.98	141.88	142.39	141.96	140.89
UV/Oxidation Unit										
Lamp # 1 (on/off)	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
KV	252	252	252	252	252	252	252	252	252	252
Amps	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
Time	1310.51	1319.29	1351.37	1365.49	1380.71	1392.70	1400.69	1422.48	1436.77	1449.69
Lamp # 2 (on/off)	OFF	OFF	OFF	OFF	OFF	off	Off	Off	Off	off
KV	0	0	0	0	0	~~off~~ 0	0	0	0	0
Amps	0	0	0	0	0	0	0	0	0	0
Time	5984.86	5984.86	5984.86	5984.86	5984.86	5984.86	5984.86	5984.86	5984.86	5984.86
Lamp # 3 (on/off)	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
KV	258	258	258	258	258	258	258	258	258	258
Amps	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Time	9782.63	9790.34	9822.42	9836.54	9851.66	9863.65	9871.65	9893.43	9907.82	9920.74
Peroxide Pump Settings: Speed / Stroke	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50
Peroxide Residual Concentration (mg/l)	12	13	12	11	12	11	12	12	11	12
Totalizer Reading (gpm)	92306320	92403580	92503560	92592790	92680490	92780010	92858670	92915590	93070320	93160240

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Daily Operation Check List

Servall Laundry Site

Date	6/15	6/16	6/19	6/20	6/21	6/22	6/23	6/26	6/27	6/28
pH Adjust Tank										
Level (inches)	53.49	54.27	56.19	55.39	51.86	52.63	51.17	52.22	53.06	54.12
pH	7.61	7.63	7.79	7.82	7.90	7.91	7.90	8.09	8.07	8.09
Mixer (on/off)	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Caustic Pump Settings: Speed / Stroke	45/35	45/35	45/35	45/35	45/35	45/35	45/35	45/35	40/30	40/30
Polmer Feed Settings	OFF	OFF	off	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Solution Pump: Speed / Stroke										
Dilution Water Rate										
Polymeer Bucket Weight (lbs.)										
Sand Filter Feed Pump in Service (6A/6B)	6B	6B	6B	6B	6B	6B	6B	6B	6B	6B
Sand Filters										
Filter # 1 inlet pressure (psi)	20	20	20	20	20	20	20	22	20	22
Filter #1 outlet pressure (psi)	20	18	20	20	20	20	22	20	20	20
Filter # 2 inlet pressure (psi)	20	18	20	20	20	20	22	20	20	20
Filter #2 outlet pressure (psi)	18	20	16	22	20	20	22	20	20	20
Filter # 3 inlet pressure (psi)	20	22	20	22	22	18	20	22	20	20
Filter #3 outlet pressure (psi)	20	22	22	20	22	20	20	20	20	20
Filter # 4 inlet pressure (psi)	20	20	22	24	20	20	24	20	20	20
Filter #4 outlet pressure (psi)	18	20	22	20	20	20	20	22	20	22
Effluent Flow Rate (gpm)	141.23	144.49	143.72	141.61	143.67	140.83	141.13	142.69	143.22	142.90
Effluent Filter in Service (yes/no)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Inlet Pressure (psi)	16	16	16	16	16	16	16	18	16	16
Outlet Pressure (psi)	12	12	12	12	10	10	10	12	12	12
Reinjection Well Level (feet)	56.81	55.72	54.86	55.84	55.63	55.45	54.92	54.81	54.36	54.28
Chemical Storage Levels										
Caustic Level (NaOH)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Peroxide Level (H_2O_2)	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3
Acid Level (H_2SO_4)	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9
Air Compressor (psi)	150	140	150	150	150	140	150	160	150	150
Compressed Air Dryer (on/off)	ON	on	on	on	ON	on	ON	ON	on	on
Chlorine Pump: Speed / Stroke	60/85	60/85	60/85	60/85	60/85	60/85	60/85	60/85	60/85	60/85
Chlorine Residual Concentration (mg/l)	0.3	0.2	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.2

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Daily Operation Check List
Servall Laundry Site

Day	Thurs	Fri								
Date	6/29	6/30								
Time	8:00	5:10								
Extraction Well Level (feet)	56.1	56.3								
Influent Flow Rate (gpm)	149.72	148.66								
Influent Filter in Service (yes/no)	NO	NO								
Inlet Pressure (psi)	20	20								
Outlet Pressure (psi)	18	16								
Cartridge Filter Flow Rate (gpm)	145.23	144.27								
Equalization Tank										
Level (inches)	53.61	54.50								
pH	8.01	7.79								
Mixer (on/off)	OFF	OFF								
Acid Pump Settings: Speed / Stroke	OFF	OFF								
UV/Oxidation Pump in Service (4A/4B)	4B	4B								
UV/Oxidation Flow Rate (gpm)	140.29	141.27								
UV/Oxidation Unit										
Lamp # 1 (on/off)	ON	ON								
KV	252	252								
Amps	7.8	7.8								
Time	1471.33	1481.49								
Lamp # 2 (on/off)	OFF	OFF								
KV	0	0								
Amps	0	0								
Time	5984.86	5984.86								
Lamp # 3 (on/off)	ON	ON								
KV	258	258								
Amps	7.0	7.0								
Time	9942.46	9952.51								
Peroxide Pump Settings: Speed / Stroke	50/50	50/50								
Peroxide Residual Concentration (mg/l)	12	11								
Totalizer Reading (gpm)	93237490	93348070								

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Daily Operation Check List
Servall Laundry Site

Date	6/29	6/30								
pH Adjust Tank										
Level (inches)	55.27	54.36								
pH	8.12	8.06								
Mixer (on/off)	ON	ON								
Caustic Pump Settings: Speed / Stroke	40/30	35/30								
Polmer Feed Settings	OFF	OFF								
Solution Pump: Speed / Stroke										
Dilution Water Rate										
Polymeer Bucket Weight (lbs.)										
Sand Filter Feed Pump in Service (6A/6B)	6B	6B								
Sand Filters										
Filter # 1 inlet pressure (psi)	20	20								
Filter #1 outlet pressure (psi)	22	22								
Filter # 2 inlet pressure (psi)	20	20								
Filter #2 outlet pressure (psi)	22	22								
Filter # 3 inlet pressure (psi)	20	22								
Filter #3 outlet pressure (psi)	20	20								
Filter # 4 inlet pressure (psi)	22	20								
Filter #4 outlet pressure (psi)	20	22								
Effluent Flow Rate (gpm)	143.16	144.26								
Effluent Filter in Service (yes/no)	Yes	Yes								
Inlet Pressure (psi)	16	16								
Outlet Pressure (psi)	12	12								
Reinjection Well Level (feet)	57.10	56.27								
Chemical Storage Levels										
Caustic Level (NaOH)	0.00	0.00								
Peroxide Level (H_2O_2)	58.3	58.3								
Acid Level (H_2SO_4)	76.9	76.9								
Air Compressor (psi)	150	150								
Compressed Air Dryer (on/off)	ON	ON								
Chlorine Pump: Speed / Stroke	60/85	60/85								
Chlorine Residual Concentration (mg/l)	0.2	0.2								

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Servall Laundry Process Control Samples

Date	6/1	6/2	6/5	6/6	6/7	6/8	6/9	6/12	6/13	6/14	6/15	6/16
Time	9:10	9:00	9:00	8:30	8:45	8:30	9:05	8:30	9:00	8:25	8:40	9:00
Influent												
Flow	149.38	145.22	149.22	149.35	145.60	144.23	149.50	148.63	147.11	149.21	150.27	146.38
pH	5.89	5.88	5.86	5.84	5.86	5.79	5.89	5.90	5.83	5.84	5.90	5.92
Iron	0.8	0.7	1.0	1.1	0.8	0.9	1.1	1.0	0.8	0.9	0.8	1.0
UVOX												
Peroxide Residual	12	13	13	12	13	14	13	13	12	12	12	13
pH	5.90	5.88	5.92	5.93	5.92	5.94	5.87	5.89	5.92	5.94	5.85	5.90
Effluent												
pH	7.89	7.84	7.86	7.85	7.90	7.92	8.01	7.96	7.90	8.00	8.21	8.20
Iron	0.9	0.8	0.9	0.9	0.8	0.7	0.6	0.7	0.9	0.8	0.7	0.8
Chlorine	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.2

Date	6/19	6/20	6/21	6/22	6/23	6/26	6/27	6/28	6/29	6/30		
Time	9 05	9:10	9:00	8:50	8:40	9:10	9:10	9:15	9:00	9:00		
Influent												
Flow	149.20	148.72	149.91	148.79	149.38	150.20	151.33	149.46	149.72	148.66		
pH	5 90	5.92	5.95	5.91	5.88	5.81	5.90	5.93	5.92	5.99		
Iron	0.7	0.8	1.2	0.9	0.6	0.6	0.7	1 0	0.8	0.9		
UVOX												
Peroxide Residual	12	11	12	11	12	12	11	12	12	11		
pH	5.83	5 92	5.86	5.99	5.93	5.94	5.89	5.96	5.98	5.99		
Effluent												
pH	8.23	8.19	8.20	8.21	8.22	8.19	8.18	8.18	8.09	8.10		
Iron	0.7	0.6	0.7	0.7	0.6	0.6	0.5	0.5	0.5	0.6		
Chlorine	0.3	0 2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2		