



**STS Consultants Ltd.**  
Consulting Engineers

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Wis. Dept. of Natural Resources

OCT 3 1986

ANTIGO AREA HEADQUARTERS  
ANTIGO, WISCONSIN

October 1, 1986

Wisconsin Department of Natural Resources  
Antigo Area Headquarters  
P. O. Box 310  
Antigo, Wisconsin 54409

Attention: Mr. Jack Saltes

STS Job 12776-B

Re: Wausau Chemical Corporation Groundwater Extraction  
Program Interim Report.

Dear Mr. Saltes:

In response to your September 17, 1986 request, we are submitting a brief progress report concerning the Wausau Chemical Corporation groundwater extraction program. Henceforth, field and laboratory data sheets will be submitted monthly.

System start-up was attempted in late May and early June, 1986. However, difficulties were encountered because the areal groundwater table had been lowered due to increased pumping from approximately 1000 to 1400 gpm in municipal pumping well #4. The lower water table reduced the extraction well yields significantly. However, the original design concept for the extraction system provided flexibility in adapting to changes. To alleviate the problem, the pumps in the wells were lowered. After a tuning period, the system was started on June 24, 1986. These operational problems generally were not encountered in 1985.

As indicated on the enclosed Daily Operational Logs, the overall pumping rate generally has been approximately 125 to 130 gpm. Small fluctuations on either side of this range have occurred. The pumps have operated continuously over the past 2-1/2 months except for three brief periods and one 3-day period in August. The longer shutdown occurred because the control box shorted out on a Saturday and was not discovered until Monday.

Wisconsin Department of Natural Resources

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The following table and the attached graph present a summary of the airstripper influent and effluent perchloroethylene concentration (parts per million) and the airstripper efficiency for sampling dates through August 29, 1986. Note that the influent and effluent concentrations generally have stabilized.

<u>Sampling Date</u>	<u>Stripper Influent (ppm)</u>	<u>Stripper Effluent (ppm)</u>	<u>Stripper Efficiency</u>
6-24-86	9.360	1.475	84.2%
6-26-86	7.770	1.350	82.5%
6-30-86	6.300	1.050	83.3%
7-7-86	5.290	0.815	84.6%
7-14-86	5.150	0.770	85.0%
7-21-86	3.870	0.605	84.4%
7-28-86	2.840	0.345	87.9%
8-4-86	3.240	0.410	87.3%
8-12-86	2.810	0.340	87.9%
8-20-86	3.140	0.370	88.2%
8-27-86	2.630	0.425	83.8%
8-29-86	2.840	0.337	88.1%

Calculated flow rates and perchloroethylene air emission quantities are included on the attached Daily Operational Logs. Up-to-date laboratory results also are enclosed. The perchloroethylene removal rate (air emission) has ranged from approximately 14.5 to 3.4 pounds per day.

Extraction Wells 10, 11 and 12 were sampled on August 27 and 29 for perchloroethylene. These results are included on the attached Zimpro reports. Although the concentrations increased slightly from August 27 to August 29, the increase in the three wells is consistent and it is our opinion that these increases are within the range of analytical error. The perchloroethylene concentration in Well 10 prior to system start-up in the fall of 1985 was 144.0 ppm. On August 29, 1986, the perchloroethylene concentration in Well 10 was 2.21 ppm. Thus, the quality has improved approximately 98.5% at that well. Although there are no original test results for Wells 11 and 12, we believe that water quality has improved similarly and perchloroethylene concentrations generally have stabilized.

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Because of the perchloroethylene concentration stabilization and a review of water level data (also attached), the pumps were moved from Wells 9 and 12, and re-installed in Wells 4 and 5; the pumps in Wells 7, 8, 10 and 11 remained as they were. This action was taken on September 20.

If you have any questions concerning this interim report or the attached data, please do not hesitate to contact us.

Yours very truly,

STS CONSULTANTS LTD.

*Mark D. Millsop*

Mark D. Millsop  
Environmental Geologist

*Doug J. Hermann* MDM

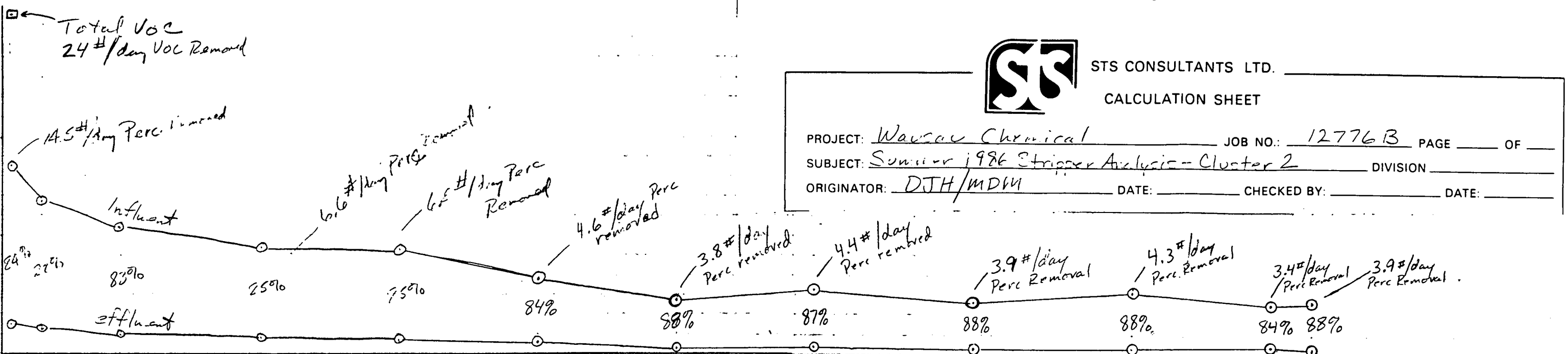
Douglas J. Hermann, P.E.  
Vice President-Environmental Division

MDM/pk

cc Wausau Chemical Corporation  
P. O. Box 953  
Wausau, Wisconsin 54401  
Attention: Mr. Jim Cherwinka

Charne, Glassner, Tehan, Clancy & Taitelman  
211 W. Wisconsin Avenue  
Milwaukee, WI 53203-2377  
Attention: Mr. Ray Krueger

TOTAL VOC PERCHLOROETHYLENE OPAM

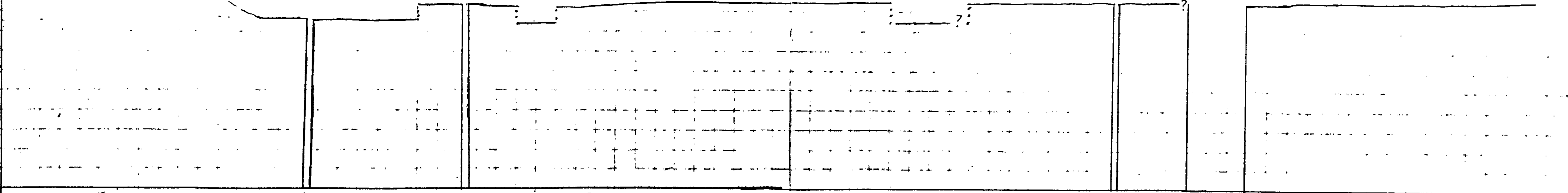


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CALCULATION SHEET

PROJECT: Wausau Chemical JOB NO.: 12776 B PAGE      OF       
 SUBJECT: Summer 1986 Stripper Analysis - Cluster 2 DIVISION       
 ORIGINATOR: DJH/MDM DATE:      CHECKED BY:      DATE:     

TOTAL DAILY FLOW (MGD)



24 26 28 30 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 2 4 6 8 10  
 JUNE JULY AUGUST SEPTEMBER

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE <u>6-24-86</u> TIME (Hour)												DATE <u>6-25-86</u>												Comments
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24	
Cluster No.:	Pumps On	7																							6-24-86 Water me 137,000 12:00 hr  6-25-86 357,600 2:15 pm (140 gpm  Test sam taken 1:00 pm 6-24-86	
		8																								
		9																								
		10																								
		11																								
		12																								
Total Pumping Rate (gpm) #1																										
PCE (ppm)	Well																								Elapsed Time = 1575 min Volume = 220,600 gal Flow Rate = 140 gpm Perc Mass Removal = 14.5 #/day	
Stripper	Inlet							9.4																		
	Outlet							1.5																		
	% Rem.							84.9																		
PCE Emitted (lb/hr)								0.55																		

\*1 : Estimated pumping rate = 27 gpm/pump  
 \*2 : Limited by max. pumping capacity of 150 gpm  
 \*3 : Using initial concentration  
 \*4 : Using final concentration

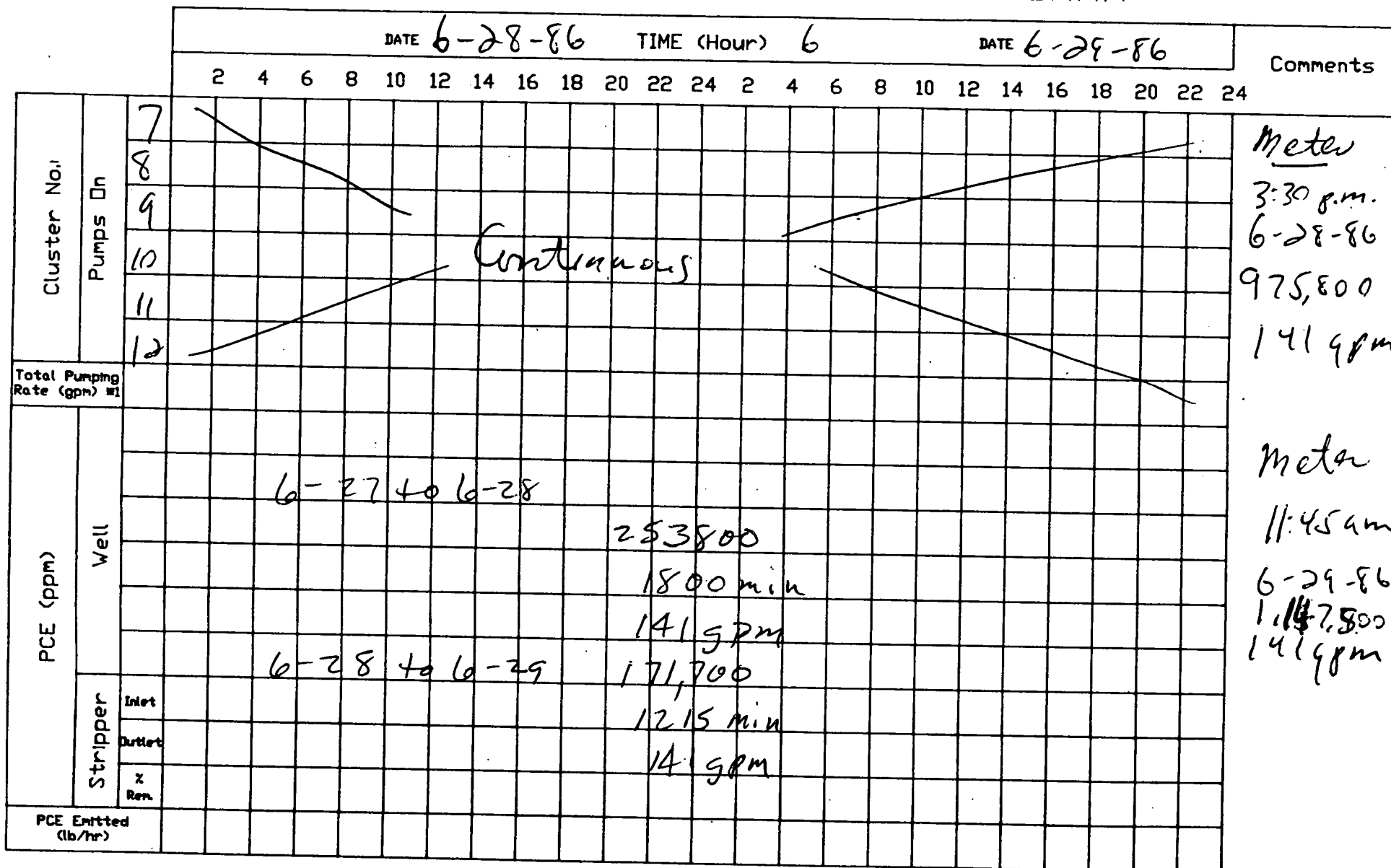


# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 6-26-86												TIME (Hour)												DATE 6-27-86												Comments
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24													
Cluster No.:	Pumps On	7																									Meter 6-26-86 11:00am 531,300 140 gpm											
		8																																				
		9																																				
		10																																				
		11																																				
		12																																				
Total Pumping Rate (gpm) #1																										Meter 6-27-86 9:30am 722,000 141 gpm												
PCE (ppm)	Well	6-25 to 6-26		173,707 gal																								Sample 9:30 am. 6-27-86										
		Elapsed Time		1245 min																																		
		Flow Rate		139.5 gpm																																		
	Stripper	Inlet	6-26 to 6-27		190,693 gal																																	
		Outlet			350 min																																	
% Rem.				141 gpm																																		
PCE Emitted (lb/hr)																																						

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM



- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration



# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 6-30-86												TIME (Hour)												DATE 7-1-86												Comments
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24													
Cluster No.	Pumps On	7	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Continuous</p> </div> <div style="text-align: center;"> <p>1,315,000</p> <p>1419 gpm</p> </div> </div>																								<p>Meter</p> <p>7:30 a.m.</p> <p>6-30-86</p>											
		8																																				
		9																																				
		10																																				
		11																																				
		12																																				
Total Pumping Rate (gpm) #1																																						
PCE (ppm)	Well	6-29 to 6-30																								167,500 gal	<p>Meter</p> <p>7-1-86</p> <p>10:00 am</p> <p>1,472,400</p> <p>99 gpm</p>											
		1185 min																								141 gpm												
		miss reading																																				
		1590																								which pumps off												
	Stripper	Inlet	6-30 to 7-1																								157400 gal	<p>Sample</p> <p>6-30-86</p> <p>9:00 am</p>										
		Outlet																																				
	X Ren.																																					
PCE Entered (lb/hr)																																						

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 7-2-86												TIME (Hour)												DATE 7-3-86												Comments
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24													
Cluster No.	Pumps On	7	Continuous																								Total Pumping Rate (gpm) #1											
		8																																				
		9																																				
		10																																				
		11																																				
		12																																				
PCE (ppm)	Well	7-1 to 7-2		277200 gal 1500 min 184 gpm impossible! miss reading #1																																		
		Stripper	Inlet	7-2 to 7-3		175900 gal																																
			Outlet	1290 min																																		
	% Rem.		136 gpm																																			
	PCE Emitted (lb/hr)																																					

Meter  
7-2-86  
11:00 am  
1.749,600  
170 1/2 gpm

Meter  
8:30 am  
1,425,500  
7-3-86  
136 1/2 gpm  
Sample  
9:00 am

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 7-4-86												TIME (Hour)												DATE 7-5-86												Comments
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24													
Cluster No.:	Pumps On	7	<div style="position: relative; height: 100px;"> <span style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; opacity: 0.5; font-size: 2em;">Continuous</span> </div>																								Meter Pending <hr/> Not taken 7-4-86											
		8																																				
		9																																				
		10																																				
		11																																				
		12																																				
Total Pumping Rate (gpm) #1																																						
PCE (ppm)	Well																									7-5-86 <hr/> 2:30 gm 2,360,900 135 gpm												
		7-3 to 7-5												437400													✓											
		2880 + 240												3120																								
		140 gpm																																				
	Stripper	Inlet																																				
		Outlet																																				
% Rem.																																						
PCE Emitted (lb/hr)																																						

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 7-6-86										TIME (Hour)										DATE 7-7-86										Comments
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24							
Cluster No.	Pumps On	7	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p style="font-size: 2em; font-weight: bold;">Continuous</p> </div> <div style="width: 50%;"> </div> </div>																								<p style="font-size: 1.5em;">Meter</p> <p>7-6-86</p> <p><u>No Reading</u></p>					
		8																														
		9																														
		10																														
		11																														
		12																														
Total Pumping Rate (gpm) #1																																
PCE (ppm)	Well	<p>7-5 to 7-7<del>0</del> 320,200 gal</p> <p>2640</p> <p>121 gpm      What happened here?</p>																								<p style="font-size: 1.5em;">Meter</p> <p>7-7-86</p> <p>8:30am</p> <p>2,683,100</p> <p>127 gpm</p> <p>Sample Taken</p> <p>8:30am</p>						
		Stripper	Inlet																													
			Outlet																													
			% Rem.																													
PCE Emitted (lb/hr)																																

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 7-8-86												TIME (Hour)												DATE 7-9-86												Comments	
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24		
Cluster No.:	Pumps On	7	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p style="font-size: 2em; font-weight: bold;">Continuous</p> </div> <div style="width: 50%; text-align: right;"> <p>Elapsed Time = 1500 min</p> <p>Volume = 185306 gal</p> <p>Flow Rate = 123.5 gpm</p> <p>Perc Removal = 10.6% / day</p> </div> </div>																																				
		8																																					
		9																																					
		10																																					
		11																																					
		12																																					
Total Pumping Rate (gpm) #1																																							
PCE (ppm)	Well																																						
Stripper	Inlet																																						
	Outlet																																						
	% Rem.																																						
PCE Stripped (lb/hr)																																							

Meter  
 7-8-86  
 8:00am  
 2,857,300  
  
 7-9-86  
 9:01am  
 3,042,600

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 7-10-86												TIME (Hour)												DATE 7-11-86												Comments
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24	
Cluster No.:	Pumps On	7																									Total Pumping Rate (gpm) #1											
		8																																				
		9																																				
		10																																				
		11																																				
		12																																				
PCE (ppm)	Well																																					
	Stripper	Inlet																																				
Outlet																																						
x Ren.																																						
PCE Emitted (lb/hr)																																						

Mits  
 7-10-86  
 8:30am  
 3,217,290  
 124gpm

7-11-86  
 9:30am  
 3,403,200  
 124gpm

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 7-12-86 TIME (Hour)												DATE 7-13-86												Comments	
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24		
Cluster No.	Pumps On	7	Continuous																								
		8																									
		9																									
		10																									
		4																									
		12																									
Total Pumping Rate (gpm) #1																											
PCE (ppm)	Well																										
	Stripper	Inlet																									
		Outlet																									
		x Ren.																									
	PCE Entitled (lb/hr)																										

No readings Taken — Weekend

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 7-14-86 TIME (Hour)												DATE 7-15-86												Comments	
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24		
Cluster No.	Pumps On	7	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p style="font-size: 2em; font-weight: bold;">Continuous</p> </div> <div style="width: 45%;"> <p>Elapsed time = 15600 min                      Volume = 201,900 gal                      Flow Rate = 129 gpm                      Perc Mass Removal = 6.8 #/day</p> </div> </div>																								7-14-86 Meter 8:15am 3,879,300  Sample 11:30am  7-15-86 Meter 10:15am 4,081,200
		8																									
		9																									
		10																									
		11																									
		12																									
Total Pumping Rate (gpm) #1																											
PCE (ppm)	Well																										
	Stripper	Inlet																									
Outlet																											
X Ren.																											
PCE Emitted (lb/hr)																											

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration



# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 7-16-86												DATE 7-17-86												Comments	
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24		
Cluster No.	Pumps On	7	(Continuation)																								7-16-86 meter 4,276,200 11:15 am 130 gpm
		8																									
		9																									
		10																									
		11																									
		12																									
Total Pumping Rate (gpm) #1																											
PCE (ppm)	Well	Elapsed Time = 1275 min Volume = 165200 gal Flow rate = 129.6 gpm Perc Removal = 6.81 #/day (used 7-14 influent)																								7-17-86 meter 8:30 am 4,441,400 129 1/2 gpm	
Stripper:																											
PCE Emitted (lb/hr)																											

- \*1 : Estimated pumping rate = 27 gpm/pump.
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 7-18-86												TIME (Hour)												DATE 7-19-86												Comments
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24													
Cluster No.	Pumps On	7	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p style="font-size: 2em; font-weight: bold;">Continuous</p> </div> <div style="width: 45%;"> <p style="font-size: 2em; font-weight: bold;">OFF <del>at</del> ON</p> <p style="font-size: 1.5em;">at 9:00am till 2:00pm</p> </div> </div>																																			
		8																																				
		9																																				
		10																																				
		11																																				
		12																																				
Total Pumping Rate (gpm) #1																																						
PCE (ppm)	Well																																					
		Stripper	Inlet																																			
	Outlet																																					
	x Ren.																																					
PCE Emitted (lb/hr)																																						

7-18-86  
 Meter  
 4,622,700  
 8:00am  
 1284 gpm

Elapsed Time = 1500 min  
 Volume = 192800 gal  
 Flow Rate = 128.5 gpm  
 Perc Removal = 5.03 #/day  
 (Used 7-21 influent)

7-19-86  
 9:00am  
 4,815,500

- #1 : Estimated pumping rate = 27 gpm/pump
- #2 : Limited by max. pumping capacity of 150 gpm
- #3 : Using Initial concentration
- #4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE <u>7-20-86</u> TIME (Hour)												DATE <u>7-21-86</u>												Comments	
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24		
Cluster No.:	Pumps On	7	<div style="position: relative; height: 100px;"> </div>																								<div style="border: 1px solid black; border-radius: 50%; padding: 10px; width: fit-content; margin: auto;">                     No reading 7-20                 </div>
		8																									
		9																									
		10																									
		11																									
	12																										
Total Pumping Rate (gpm) #1																											
PCE (ppm)	Well	7-19 to 7-21: Elapsed Time = 2960 min Volume = 350700 gal Flow Rate = 118.5 gpm Perc Removal = 4.64#/day (Used 7-21 influent)																									
	Stripper	Inlet																									
		Outlet																									
		X Ren.																									
	PCE Emitted (lb/hr)																										

meta  
 7-20-86  
 10:20am  
 5,166,200  
 Sample  
 1:45pm

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 7-22-86												TIME (Hour)												DATE 7-23-86												Comments
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24													
Cluster No.:	Pumps On	7	<div style="position: relative; height: 100px;"> </div>																								Meter 7-23-86 5,512,900 7:30am. 1289gm											
		8																																				
		9																																				
		10																																				
		11																																				
		12																																				
Total Pumping Rate (gpm) #1																																						
PCE (ppm)	Well	7-21 to 7-23: Elapsed Time = 2710 min Volume = 346700 gal Flow Rate = 127.9 gpm Perc Removal = 5.01 #/day (used 7-21 influent)																																				
		Stripper	Inlet																																			
			Outlet																																			
			X Ren.																																			
		PCE Entred (lb/hr)																																				

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 7-24-86												TIME (Hour)												DATE 7-25-86												Comments
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24													
Cluster No.:	Pumps On	7																									7-24-86 2:45am 5699000											
		8																																				
		9																																				
		10																																				
		11																																				
		12																																				
Total Pumping Rate (gpm) #1																																						
PCE (ppm)	Well																									Elapsed Time = 1590 min Volume = 203,700 gal Flow Rate = 128.1 gpm Perc Removal = 5.02 #/day (used 7-21 influent)	7-25-86 5,902,700 10:15am											
Stripper	Inlet																																					
	Outlet																																					
	R. Run																																					
PCE Entered (lb/hr)																																						

- #1 : Estimated pumping rate = 27 gpm/pump
- #2 : Limited by max. pumping capacity of 150 gpm
- #3 : Using initial concentration
- #4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE <u>7-26-86</u> TIME (Hour)												DATE <u>7-27-86</u>												Comments	
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24		
Cluster No.	Pumps On	7	Continuous																								<div style="border: 1px solid black; border-radius: 50%; padding: 10px; width: fit-content; margin: auto;">                     No meta readings                 </div>
		8																									
		9																									
		10																									
		11																									
		12																									
Total Pumping Rate (gpm) #1																											
PCE (ppm)	Well																										
Stripper	Inlet																										
	Outlet																										
	R. Rem.																										
PCE Entered (lb/hr)																											

- #1 : Estimated pumping rate = 27 gpm/pump
- #2 : Limited by max. pumping capacity of 150 gpm
- #3 : Using initial concentration
- #4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 7-28-86												TIME (Hour)												DATE 7-29-86												Comments																																					
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24																																						
Cluster No.	Pumps On	7	Continuous																																				<p>Elapsed Time = 137.5 min</p> <p>Volume = 168400 gal</p> <p>Flow Rate = 128.1 gpm</p> <p>Perc Removal = 3.84 #/day (used 7-28 influent)</p>																																				7-28-86 6,464,200 11:05 am
		8																																																																									
		9																																																																									
		10																																																																									
		11																																																																									
		12																																																																									
Total Pumping Rate (gpm) #1																																						<p>7-29-86</p> <p>6,632,600</p> <p>9:00 am</p> <p>Sample</p> <p>11:30 am</p>																																					
PCE (ppm)	Well																																																																										
	Stripper	Inlet																																																																									
Outlet																																																																											
x Ren.																																																																											
PCE Emitted (lb/hr)																																																																											

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 7-30-86												TIME (Hour)												DATE 7-31-86												Comments
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24													
Cluster No.:	Pumps On	7	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> </div> <div style="width: 50%; text-align: right;"> <p>(7-29 to 7-31):</p> <p>Elapsed Time = 3165 min</p> <p>Volume = 408,500 gal</p> <p>Flow Rate = 129.1 gpm</p> <p>Perc Removal = 3.87 #/day</p> <p>(used 7-28 influent)</p> </div> </div>																								<p>7-30-86</p> <p><u>No Reading</u></p>											
		8																																				
		9																																				
		10																																				
		11																																				
		12																																				
Total Pumping Rate (gpm) #1																																						
PCE (ppm)	Well																									<p>7-31-86</p> <p>1.45 cm.</p> <p>7,041,100</p>												
Stripper	Inlet																																					
	Outlet																																					
	x Rem.																																					
PCE Effluent (lb/hr)																																						

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration



# WAUSAU CHEMICAL EXTRACTION PROGRAM

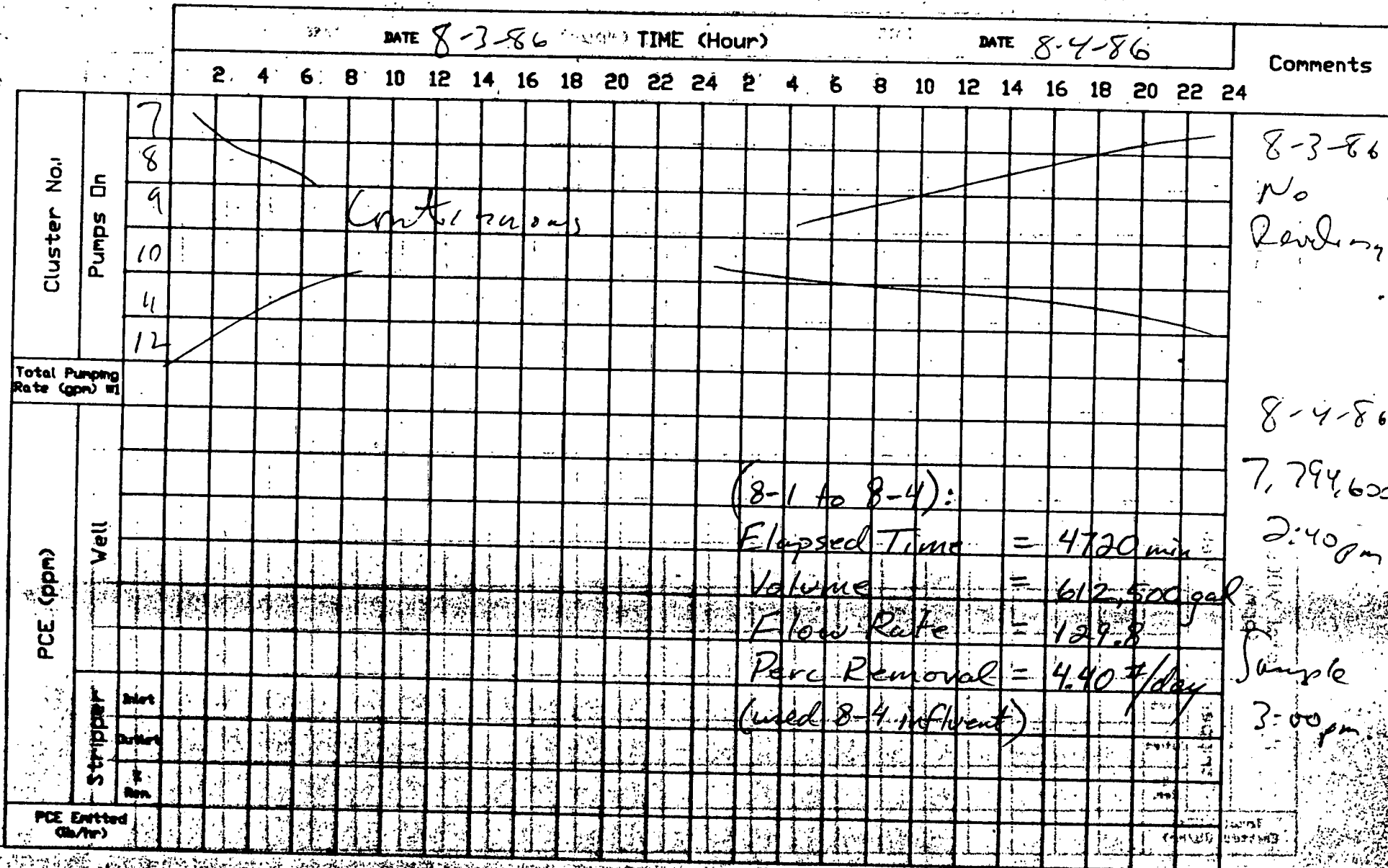
		DATE 8-1-86 TIME (Hour)												DATE 8-2-86												Comments	
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24		
Cluster No.	Pumps On	7																									
		8																									
		9																									
		10																									
		11																									
		12																									
Total Pumping Rate (gpm) #1																											
PCE (ppm)	Well	<p>(7-31 to 8-1):</p> <p>Elapsed Time = 1095 min</p> <p>Volume = 141,000 gal</p> <p>Flow Rate = 128.8 gpm</p> <p>Perc Removal = 3.86 #/day</p> <p>(used 7-28 influent)</p>																									
																										Stripper	1
																											2
																											3
PCE Effluent (lb/hr)																											

8-1-86  
8:00am  
7,182,100

00007  
00000/ADCP

#1 : Estimated pumping rate = 27 gpm/pump  
 #2 : limited by max. pumping capacity of 150 gpm  
 #3 : Using initial concentration  
 #4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM



- #1 : Estimated pumping rate = 27 gpm/pump
- #2 : Limited by max. pumping capacity of 300 gpm
- #3 : Using initial concentration
- #4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 8-5-86 TIME (Hour)												DATE 8-6-86												Comments		
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24			
Cluster No.	Pumps On	7																									8-5-86 No Reading	
		8																										
		9																										
		10																										
		11																										
		12																										
Total Pumping Rate (gpm) #1																										8-6-86		
PCE (ppm)	Well	(8-4 to 8-6): Elapsed Time = 2900 min Volume = 377,700 gal Flow Rate = 130.2 gpm Perc Removal = 4.42 #/day (used 8-4 influent)																								3,000 ppm 8,172,300		
		Stripper	Dist																									
			Artic																									
			X																									
			Rem.																									
PCE Extracted (lb/yr)																												

- #1 : Estimated pumping rate = 27 gpm/pump
- #2 : Limited by max. pumping capacity of 150 gpm
- #3 : Using initial concentration
- #4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 7-7-86												TIME (Hour)												DATE 7-8-86												Comments	
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24		
Cluster No.:	Pumps On	7	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p style="font-size: 2em; opacity: 0.5;">Continuation</p> </div> <div style="width: 48%;"> <p>(8-6 to 8-8):</p> <p>Elapsed Time = 2820 min</p> <p>Volume = 367000 gal</p> <p>Flow Rate = 130.1 gpm</p> <p>Perc Removal = 4.41 #/day</p> <p>(used 8-4 results)</p> </div> </div>																																				
		8																																					
		9																																					
		10																																					
		11																																					
		12																																					
Total Pumping Rate (gpm) #1																																							
PCE (ppm)	Well																																						
Stripper	Inlet																																						
	Outlet																																						
	x Rem.																																						
PCE Entitled (lb/hr)																																							

7-8-86  
Diagram  
8,539.310

- #1 : Estimated pumping rate = 27 gpm/pump
- #2 : Limited by max. pumping capacity of 150 gpm
- #3 : Using initial concentration
- #4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 9-9-86 TIME (Hour)												DATE 8-10-86												Comments	
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24		
Cluster No.:	Pumps On	7																									
		8																									
		9																									
		10	Continuous																								
		11																									
		12																									
Total Pumping Rate (gpm) #1																											
PCE (ppm)	Well																										
	Stripper	Inlet																									
		Outlet																									
		x																									
		Res.																									
PCE Emitted (lb/hr)																											

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 8-11-86												TIME (Hour)												DATE 8-12-86												Comments	
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24		
Cluster No.	Pumps On	7	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>(8-8 to 8-11):</p> <p>Elapsed Time = 4380 min</p> <p>Volume = 522,000 gal</p> <p>Flow Rate = 119.2</p> <p>Perc Removal = 3.53 #/day (used 8-12 results)</p> </div> <div style="width: 45%;"> <p>(8-11 to 8-12):</p> <p>Elapsed Time = 990 min</p> <p>Volume = 183400 gal</p> <p>Flow Rate = 185.3 gpm</p> <p>Perc Removal = X (used 8-12 results)</p> </div> </div>																																				<p>8-11-86</p> <p>7:00 am</p> <p>9,261,700</p>
		9																																					
		10																																					
		11																																					
		12																																					
Total Pumping Rate (gpm) #1																																						<p>8-12-86</p> <p>7:20 am</p> <p>9,244,700</p>	
PCE (ppm)	Well																																						
Stripper	Inlet																																					<p>Sample</p> <p>7:30 am</p>	
	Outlet																																						
	X																																						
	Rem.																																						
PCE Emitted (lb/hr)																																							

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration



# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 8-15-86 TIME (Hour)												DATE 8-16-86												Comments	
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24		
Cluster No.:	Pumps On	7	<div style="position: relative; height: 100px;"> </div>																								8-15-86 9-30am 9827,000
		8																									
		9																									
		10																									
		11																									
		12																									
Total Pumping Rate (gpm) #1																											
PCE (ppm)	Well	(8-13 to 8-15): Elapsed Time = 2910 min Volume = 382200 gal Flow Rate = 131.34 gpm Perc Removal = 3.89 #/day (used 8-12 results)																									
		Stripper	Inlet																								
			Outlet																								
			% Ren.																								
PCE Entitled (lb/hr)																											

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration



# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 8-17-86												TIME (Hour)												DATE 8-18-86												Comments
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24													
Cluster No:	Pumps On	7	<div style="position: relative; height: 100px;"> </div>																																			
		8																																				
		9																																				
		10																																				
		11																																				
		12																																				
Total Pumping Rate (gpm) #1																																						
PCE (ppm)	Well																																					
Stripper	Inlet																																					
	Outlet																																					
	% Rem.																																					
PCE Emitted (lb/hr)																																						

(8-15 to 8-18):  
 Elapsed Time = 4470 min  
 Volume = 590600 gal  
 Flow Rate = 132.1 gpm  
 Perc Removal = 4.39 #/day  
 (used 8-20 results)

\*1 : Estimated pumping rate = 27 gpm/pump  
 \*2 : Limited by max. pumping capacity of 150 gpm  
 \*3 : Using initial concentration  
 \*4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 8-19-86										TIME (Hour)										DATE 8-20-86										Comments						
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12		14	16	18	20	22	24
Cluster No.:	Pumps On	7																																				
		8																																				
		9																																				
		10																																				
		4																																				
		12																																				
Total Pumping Rate (gpn) #1		7:30										11:00																										
PCE (ppm)	Well	(8-18 to 8-19):										(8-19 to 8-20):																										
		Elapsed Time = 1170 min										Elapsed Time = 1410 min																										
		Volume = 153800 gal										Volume = 183000 gal																										
		Flow Rate = 131.5 gpm										Flow Rate = 129.8 gpm																										
		Perc Removal = 4.37 #/day										Perc Removal = 4.31 #/day																										
		(used 8-20 results)										(used 8-20 results)																										
Stripper	Inlet																																					
	Outlet																																					
	% Rem.																																					
PCE Emitted (lb/hr)																																						

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration

8-19  
7:30am  
10571400

8-20  
10784400  
10:30am  
X pie  
Taken  
8-20-86

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 8-21-86 TIME (Hour)												DATE 8-22-86												Comments		
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24			
Cluster No.:	Pumps On	7																									8-21-86 8:30am 1092500	
		8																										
		9																										
		10																										
		11																										
		12																										
Total Pumping Rate (gpm) #1		(8-20 to 8-21):												(8-21 to 8-22):														
PCE (ppm)		Well		Elapsed Time = 1320 min												Elapsed Time = 1590 min												
				Volume = 170600 gal												Volume = 206700 gal												
				Flow Rate = 129.2 gpm												Flow Rate = 130 gpm												
				Perc Removal = 4.29 #/day												Perc Removal = 4.32 #/day												
				(used 8-20 results)												(used 8-20 results)												
Stripper		Inlet																										
		Outlet																										
		% Rem.																										
PCE Entitled (lb/hr)																												

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration

8-27-86  
11:00am  
11131700

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 8-23-86 TIME (Hour)												DATE 8-24-86												Comments			
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24				
Cluster No.:	Pumps On	7	Sometime over weekend control box shorted out & burned out wiring which shut system down. Discussed Monday morning 8-25-86 about 10:00 am. Meter reading 11,230,480																										
		8																											
		9																											
		10																											
		11																											
		12																											
Total Pumping Rate (gpm) #1																													
PCE (ppm)	Well																												
		Stripper	Inlet																										
			Outlet																										
			% Rem.																										
		PCE Emitted (lb/hr)																											

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using Initial concentration
- \*4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 8-25-86 TIME (Hour)												DATE 8-26-86												Comments	
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24		
Cluster No.	Pumps On	7	<div style="display: flex; justify-content: space-between;"> <span>Down for Repair</span> <span>Continuous</span> </div>																								Start up 10:00 am 11,230,40
		8																									
		9																									
		10																									
		11																									
		12																									
Total Pumping Rate (gpm) #1																											
PCE (ppm)	Well																										
Stripper	Inlet																										
	Outlet																										
	% Rem.																										
PCE Emitted (lb/hr)																											

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE <u>8-27-86</u> TIME (Hour)												DATE <u>8-28-86</u>												Comments	
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24		
Cluster No.	Pumps On	7	Containers																								
		8																									
		9																									
		10																									
		11																									
		12																									
Total Pumping Rate (gpm) #1		(8-26 to 8-27):												(8-27 to 8-28):												8-27-86 2:00pm 11,443,500 Samples Taken 1:30pm Influent Effluent Well #1's 10, 11, 12 8-28-86 11:45am 11611600	
PCE (ppm)	Well	Elapsed Time = 1680 min												Elapsed Time = 1305 min													
		Volume = 213100 gal												Volume = 168100 gal													
		Flow Rate = 126.8 gpm												Flow Rate = 128.8 gpm													
		Perc Removal = 3.35 %/day (used 8-27 results)												Perc Removal = 3.41 %/day (used 8-27 results)													
Stripper	Inlet																										
	Outlet																										
	X Ren.																										
PCE Entered (lb/hr)																											

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 8-29-86												TIME (Hour)												DATE 8-30-86												Comments	
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24		
Cluster No.:	Pumps On	7	<div style="position: relative; height: 100px;"> </div>																																				
		8																																					
		9																																					
		10																																					
		11																																					
		12																																					
Total Pumping Rate (gpm) #1																																							
PCE (ppm)	Well	(8-28 to 8-29): Elapsed Time = 1665 min Volume = 214500 gal Flow Rate = 128.8 gpm Perc Removal = 3.87 %/day (used 8-29 results)																																					
		Stripper	Inlet																																				
			Outlet																																				
			X Ren.																																				
		PCE Emitted (lb/hr)																																					

8-29  
Metw  
3:30pm  
11826100

—  
Samples  
Taken  
8-29-86  
4:00pm

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

DATE 8-31-86

TIME (Hour)

DATE 9-1-96

Comments

		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24																									
Cluster No.	Pumps On	7	<div style="position: relative; height: 100%; width: 100%;"> </div>																																															
		8																																																
		9																																																
		10																																																
		11																																																
		12																																																
Total Pumping Rate (gpm) #1																																																		
PCE (ppm)	Well																																																	
	Stripper	Inlet																																																
		Outlet																																																
		x Rev.																																																
	PCE Entered (lb/hr)																																																	

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration



# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 9-2-86												TIME (Hour)												DATE 9-3-86												Comments
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24													
Cluster No.:	Pumps On	7	<div style="position: absolute; top: 0; left: 0; width: 100%; height: 100%; border: 1px solid black; pointer-events: none;"> <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 2em; font-weight: bold;">                     Constant                 </div> </div>																																			
		8																																				
		9																																				
		10																																				
		11																																				
PCE (ppm)	Well																																					
Stripper	Inlet																																					
	Outlet																																					
	X Ren.																																					
PCE Entired (lb/hr)																																						
Total Pumping Rate (gpm) #1																																						
		<p>(8-29 to 9-2):</p> <p>Elapsed Time = 5550 min</p> <p>Volume = 718400 gal</p> <p>Flow Rate = 129.4 gpm</p> <p>Perc Removal = 3.88 #/day</p> <p>(used 8-29 results)</p>																																				

9-2-86  
12,544,50  
noon

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 9-4-86										TIME (Hour)				DATE 9-5-86				Comments										
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12		14	16	18	20	22	24				
Cluster No.:	Pumps On	7																											9-4-86 10:00 a.m. 12,903.3	
		8																												
		9																												
		10																												
		11																												
		12																												
Total Pumping Rate (gpm) #1																														
PCE (ppm)	Well																													
Stripper	Inlet																													
	Outlet																													
	% Rem.																													
PCE Extracted (lb/hr)																														

Continuous

(9-2 to 9-4) :

Elapsed Time = 2760 min

Volume = 358800 gal

Flow Rate = 130.0 gpm

Perc Removal = 3.90 #/day

(used 8-29 results)

- \*1 : Estimated pumping rate = 27 gpm/pump
- \*2 : Limited by max. pumping capacity of 150 gpm
- \*3 : Using initial concentration
- \*4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 9-6-86												TIME (Hour)												DATE 9-7-86												Comments
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24													
Cluster No.	Pumps On	7	<div style="position: relative; height: 100px;"> </div>																								9-6-86 9:00am 13,272.70											
		8																																				
		9																																				
		10																																				
		11																																				
		12																																				
Total Pumping Rate (gpm) #1																																						
PCE (ppm)	Well																									(9-4 to 9-6): Elapsed Time = 2820 min Volume = 369400 gal Flow Rate = 130.0 gpm Perc Removal = 2 (no recent results)												
Stripper	Inlet																																					
	Outlet																																					
	X Rev.																																					
PCE Entered (lb/yr)																																						

- #1 : Estimated pumping rate = 27 gpm/pump
- #1 : Estimated pumping rate = 27 gpm/pump
  - #2 : Limited by max. pumping capacity of 150 gpm
  - #3 : Using initial concentration
  - #4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM

		DATE 9-8-86												TIME (Hour)												DATE 9-9-86												Comments
		2	4	6	8	10	12	14	16	18	20	22	24	2	4	6	8	10	12	14	16	18	20	22	24													
Cluster No.	Pumps On	7	<div style="position: absolute; top: 0; left: 0; width: 100%; height: 100%; border: 1px solid black;"> <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 2em; font-weight: bold;">                     Continuum                 </div> </div>																								9-8-86 8:30 am  13,657.40											
		9																																				
		10																																				
		11																																				
		12																																				
Total Pumping Rate (gpm) #1																																						
PCE (ppm)	Well																									(9-6 to 9-8): Elapsed Time = 2850 min Volume = 384700 gal Flow Rate = 135.0 gpm Perc Removal = (no recent results)												
Stripper	Inlet																																					
	Outlet																																					
	Rem.																																					
PCE Emitted (lb/hr)																																						

- #1 : Estimated pumping rate = 27 gpm/pump
- #2 : Limited by max. pumping capacity of 150 gpm
- #3 : Using initial concentration
- #4 : Using final concentration

# WAUSAU CHEMICAL EXTRACTION PROGRAM WATER LEVEL SUMMARY

Date: 6-4-86  
Technician: Art Flashinski

	Time:				Time:				Time:				Time:				Comments
	W.L.	T. F.C.	B. F.C.	ON/OFF	W.L.	T. F.C.	B. F.C.	ON/OFF	W.L.	T. F.C.	B. F.C.	ON/OFF	W.L.	T. F.C.	B. F.C.	ON/OFF	
Pumping Wells	1	15' 11"			OFF												
	2	16' 2"															
	3	16' 2"															
	4	15' 9"															
	5	20' 0"															
	6	16' 4"															
Other Wells	7	18' 11"	17' 22' 8"														
	8	18' 8"	17' 20' 4"														
	9	15' 9"	14' 18' 4"														
	10	14' 10"	17' 22' 9"														
	11	20' 2"	17' 26' 1"		1	13' 5"											
	12	16' 2"	14' 20' 9"		2	14' 7"											
	13	15' 10"			3	14' 10"											
	14	15' 8"			5	12' 10"											
	15	15' 6"			6	15' 8"											

Test wells

T.F.C.: Top float control set at  
B.F.C.: Bottom float control set at  
W.L.: Water level

# WAUSAU CHEMICAL EXTRACTION PROGRAM WATER LEVEL SUMMARY

Pumps all lowered to bottom of wells  
on 6-13-86 - about one (1) foot in every case

Date: 6-24-86  
Technician: AFR

		Time: 11:00 a.m.				Time:				Time: 11:00 a.m.				Time: 6-25-86				Comments	
		W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF		
Pumping Wells	7	17' 8"	21'	24' 8"	OFF					21' 7"			ON						
	8	17' 5"	21'	23' 0"						20' 9"									
	9	14' 11"	19'	21' 4"						17' 5"									
	10	18' 7"	21'	24' 9"						23' 0"									
	11	19' 0"	21'	22' 6"						20' 4"									
	12	15' 2"	19'	21' 9"	↓					18' 4"			↓						
Other Wells	1	15' 0"								15' 3"									T.F.C. Top float control set at  B.F.C. Bottom float control set at  W.L. Water level
	2	15' 2"								15' 7"									
	3	15' 7"								16' 0"									
	4	17' 6"								18' 5"									
	5	18' 9"				1	12' 6"			19' 8"			1	12' 6"					
	6	15' 7"				2	13' 9"			16' 1"			2	14' 0"					
	13	14' 6"				3	14' 0"			15' 7"			3	13' 8"					
	14	14' 9"				5	12' 0"			15' 2"			5	11' 9"					
	15	14' 8"				6	15' 0"			15' 1"			6	14' 10"					

# WAUSAU CHEMICAL EXTRACTION PROGRAM WATER LEVEL SUMMARY

Date: 6-27-86  
Technician: RZ

		Time: 8:30 am				Time:				Time:				Time:				Comments
		W.L.	T. F.C.	B. F.C.	ON/OFF	W.L.	T. F.C.	B. F.C.	ON/OFF	W.L.	T. F.C.	B. F.C.	ON/OFF	W.L.	T. F.C.	B. F.C.	ON/OFF	
Pumping Wells	7	22' 0"	Same		ON													
	8	21' 6"	as															
	9	17' 10"	last															
	10	23' 5"																
	11	22' 9"																
	12	18' 3"	↓		↓													
Other Wells	1	15' 6"																
	2	16' 0"																
	3	16' 2"																
	4	18' 6"																
	5	20' 0"																
	6	16' 3"																
	13	15' 3"																
	14	15' 6"																
	15	15' 3"																

T.F.C.: Top float control set at

B.F.C.: Bottom float control set at

W.L.: Water level

# WAUSAU CHEMICAL EXTRACTION PROGRAM WATER LEVEL SUMMARY

Date: 6-30-86  
Technician: R.E.

	Time:				Time:				Time:				Time:				Comments
	W.L.	T. F.C.	B. F.C.	ON/OFF	W.L.	T. F.C.	B. F.C.	ON/OFF	W.L.	T. F.C.	B. F.C.	ON/OFF	W.L.	T. F.C.	B. F.C.	ON/OFF	
Pumping Wells	7	21' 10"	Same	ON													
	8	21' 0"	as														
	9	17' 5"															
	10	23' 2"	Lost														
	11	22' 3"															
	12	18' 3"	↓	↓													
Other Wells	1	15' 5"															
	2	15' 7"															
	3	16' 1"															
	4	18' 8"															
	5	19' 9"															
	6	16' 4"															
	13	15' 4"				1	12' 11"										
	14	15' 5"				2	14' 0"										
	15	15' 1"				3	14' 6"										
					5	13' 10"											
					6	14' 11"											

T.F.C.: Top float control set at

B.F.C.: Bottom float control set at

W.L.: Water level



# WAUSAU CHEMICAL EXTRACTION PROGRAM WATER LEVEL SUMMARY

Date: 7-3-86  
Technician: [Signature]

		Time: 12:30pm				Time:				Time:				Time:				Comments
		W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF	
Pumping Wells	7	21' 4"																
	8	19' 11"																
	9	18' 0"																
	10	22' 0"																
	11	22' 6"																
	12	17' 3"																
Other Wells	1	15' 0"																
	2	15' 3"																
	3	15' 7"																
	4	17' 11"																
	5	19' 8"																
	6	15' 11"																
	13	15' 0"																
	14	15' 1"																
	15	14' 11"																
						Test Wells												
						1	12' 7"											
						2	13' 7"											
						3	13' 7"											
						5	11' 10"											
						6	15' 0"											

T.F.C.: Top float control set at  
B.F.C.: Bottom float control set at  
W.L.: Water level

# WAUSAU CHEMICAL EXTRACTION PROGRAM WATER LEVEL SUMMARY

Date: 7-7-86  
Technician: R.F.

		Time: 3:00 pm				Time:				Time:				Time:				Comments
		W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF	
Pumping Wells	7	21' 5"																
	8	19' 11"																
	9	18' 2"																
	10	21' 11"																
	11	22' 5"																
	12	17' 7"																
Other Wells	1	15' 4"																
	2	15' 6"																
	3	15' 7"																
	4	18' 1"																
	5	19' 6"																
	6	16' 1"																
	13	25' 3"																
	14	15' 0"																
	15	15' 0"																

T.F.C. Top float control set at

B.F.C. Bottom float control set at

W.L. Water level

# WAUSAU CHEMICAL EXTRACTION PROGRAM WATER LEVEL SUMMARY

Date: 7-9-86  
Technician: RF

		Time: 1:30 am				Time:				Time:				Time: 7-9-86				Comments
		W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF	
Pumping Wells	7	21' 8"			OPEN													
	8	20' 0"																
	9	18' 0"																
	10	22' 1"																
	11	22' 0"																
	12	17' 9"																
Other Wells	1	15' 4"																
	2	15' 5"																
	3	15' 9"																
	4	18' 2"																
	5	19' 7"																
	6	16' 2"																
	13	15' 3"																
	14	15' 4"																
	15	15' 2"																

T.F.C. Top float control set at  
B.F.C. Bottom float control set at  
W.L. Water level

# WAUSAU CHEMICAL EXTRACTION PROGRAM WATER LEVEL SUMMARY

Date: 7-10-86 11:30am  
Technician: R.F.

	Time:				Time:				Time:				Time:				Comments
	V.L.	T. F.C.	B. F.C.	ON/OFF	V.L.	T. F.C.	B. F.C.	ON/OFF	V.L.	T. F.C.	B. F.C.	ON/OFF	V.L.	T. F.C.	B. F.C.	ON/OFF	
Pumping Wells	7	16' 1"			OFF												
	8	17' 10"															
	9	15' 0"															
	10	18' 11"															
	11	19' 2"															
	12	15' 5"															
Other Wells	1	15' 3"															
	2	15' 6"															
	3	15' 7"															
	4	17' 11"															
	5	19' 0"															
	6	15' 9"															
	13	15' 2"															
	14	15' 0"															
	15	14' 10"															

T.F.C.: Top float control set at  
B.F.C.: Bottom float control set at  
V.L.: Water level

# WAUSAU CHEMICAL EXTRACTION PROGRAM WATER LEVEL SUMMARY

Date: 7-14-86 9:30 am.  
Technician: B.F.

		Time:				Time:				Time:				Time:				Comments	
		W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF		
Pumping Wells	7	21' 10"																	
	8	19' 10"																	
	9	18' 0"																	
	10	22' 0"																	
	11	22' 2"																	
	12	17' 10"																	
Other Wells	1	15' 4"																	
	2	15' 5"																	
	3	15' 8"																	
	4	18' 0"																	
	5	14' 8"																	
	6	16' 1"																	
	13	15' 2"																	
	14	15' 2"																	
15	15' 1"																		

T.F.C. Top float control set at

B.F.C. Bottom float control set at

W.L. Water level

# WAUSAU CHEMICAL EXTRACTION PROGRAM WATER LEVEL SUMMARY

Date: 7-19-86  
Technician: RZ

		Time: 8:30 am				Time:				Time:				Time:				Comments
		W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF	
Pumping Wells	7	21' 6"																
	8	19' 11"																
	9	17' 10"																
	10	21' 9"																
	11	22' 0"																
	12	17' 5"																
Other Wells	1	15' 2"																
	2	15' 3"																
	3	15' 11"																
	4	18' 0"																
	5	19' 9"																
	6	16' 0"																
	13	13' 0"																
	14	15' 0"																
	15	15' 0"																

T.F.C.: Top float control set at  
B.F.C.: Bottom float control set at  
W.L.: Water level

# WAUSAU CHEMICAL EXTRACTION PROGRAM WATER LEVEL SUMMARY

Date: 7-24-86  
Technician: RZ.

		Time:				Time:				Time:				Time:				Comments
		V.L.	T. F.C.	B. F.C.	DN/OFF	V.L.	T. F.C.	B. F.C.	DN/OFF	V.L.	T. F.C.	B. F.C.	DN/OFF	V.L.	T. F.C.	B. F.C.	DN/OFF	
Pumping Wells	7	21' 9"																
	8	20' 0"																
	9	17' 2"																
	10	21' 9"																
	11	22' 0"																
	12	17' 8"																
Other Wells	1	15' 3"																
	2	15' 5"																
	3	15' 11"																
	4	18' 2"																
	5	19' 9"																
	6	16' 2"																
	13	15' 2"																
	14	15' 2"																
	15	15' 3"																

T.F.C. Top float control set at

B.F.C. Bottom float control set at

V.L. Water level

# WAUSAU CHEMICAL EXTRACTION PROGRAM WATER LEVEL SUMMARY

Date: 7-28-86  
Technician: R.F.

	Time:	Time:				Time:				Time:				Comments				
		V.L.	T. F.C.	B. F.C.	DN/OFF	V.L.	T. F.C.	B. F.C.	DN/OFF	V.L.	T. F.C.	B. F.C.	DN/OFF		V.L.	T. F.C.	B. F.C.	DN/OFF
Pumping Wells	7	20' 2"																
	8	20' 5"																
	9	18' 8"																
	10	22' 2"																
	11	22' 9"																
	12	18' 3"																
Other Wells	1	16' 0"																
	2	16' 1"																
	3	16' 6"																
	4	18' 9"																
	5	20' 0"																
	6	16' 2"																
	13	15' 6"																
	14	15' 2"																
15	15' 4"																	

T.F.C. Top float control set at

B.F.C. Bottom float control set at

V.L. Water level



# WAUSAU CHEMICAL EXTRACTION PROGRAM WATER LEVEL SUMMARY

Date: 8-4-86  
Technician:

	Time: 3:00 pm	Time:				Time:				Time:				Comments				
		V.L.	T. F.C.	B. F.C.	DN/OFF	V.L.	T. F.C.	B. F.C.	DN/OFF	V.L.	T. F.C.	B. F.C.	DN/OFF		V.L.	T. F.C.	B. F.C.	DN/OFF
Pumping Wells	7	21' 8"																
	8	20' 0"																
	9	17' 4"																
	10	22' 0"																
	11	22' 1"																
	12	17' 7"																
Other Wells	1	15' 4"																
	2	15' 5"																
	3	16' 0"																
	4	18' 5"																
	5	19' 2"																
	6	26' 0"																
	13	15' 4"																
	14	18' 3"																
15	18' 1"																	

T.F.C. Top float control set at

B.F.C. Bottom float control set at

V.L. Water level.

# WAUSAU CHEMICAL EXTRACTION PROGRAM WATER LEVEL SUMMARY

Date: 8-12-86  
Technician: A.Z.

	Time: 7:30am				Time:				Time:				Time:				Comments
	W.L.	T. F.C.	B. F.C.	ON/OFF	W.L.	T. F.C.	B. F.C.	ON/OFF	W.L.	T. F.C.	B. F.C.	ON/OFF	W.L.	T. F.C.	B. F.C.	ON/OFF	
Pumping Wells	7	21' 15"															
	8	25' 3"															
	9	27' 6"															
	10	22' 0"															
	11	22' 0"															
	12	17' 5"															
Other Wells	1	15' 2"															
	2	15' 4"															
	3	15' 9"															
	4	18' 4"															
	5	17' 6"															
	6	15' 10"															
	13	15' 3"															
	14	15' 3"															
	15	15' 0"															

T.F.C.: Top float control set at

B.F.C.: Bottom float control set at

W.L.: Water level

# WAUSAU CHEMICAL EXTRACTION PROGRAM WATER LEVEL SUMMARY

Date: 8-15-86  
Technician: DJ

	Time: 12:30 pm				Time:				Time:				Time:				Comments
	W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF	
Pumping Wells	7																
	8																
	9																
	10																
	11																
	12																
Other Wells	1																
	2																
	3																
	4																
	5																
	6																
	13																
	14																
	15																

Monitoring Wells

1 12'9"  
2 13'7"  
3 14'2"  
5 12'0"  
6 15'0"

T.F.C.: Top float control set at  
B.F.C.: Bottom float control set at  
W.L.: Water level

# WAUSAU CHEMICAL EXTRACTION PROGRAM WATER LEVEL SUMMARY

Date: 8-19-86  
Technician: f.w

		Time: 10:30am				Time:				Time:				Time:				Comments
		W.L.	T. F.C.	B. F.C.	ON/OFF	W.L.	T. F.C.	B. F.C.	ON/OFF	W.L.	T. F.C.	B. F.C.	ON/OFF	W.L.	T. F.C.	B. F.C.	ON/OFF	
Pumping Wells	7	18'0"			O													Wells shut down 7:30am Revised 10:30am Restarted 11:00am Flow rate reduced to create cycling 7:30 Back to full flow after phone discussion w/ mosh mds
	8	17'7"			F													
	9	14'11"				F												
	10	19'1"				I												
	11	19'8"																
	12	15'4"				V												
Other Wells	1	15'11"																Monitor Wells 1 12'8" 2 13'10" 3 13'11" 5 12'1" 6 14'11"
	2	15'3"																
	3	15'7"																
	4	17'9"																
	5	19'1"																
	6	15'9"																
	13		14'8"															
	14		14'7"															
15		14'5"																

T.F.C. Top float control set at  
B.F.C. Bottom float control set at  
W.L. Water level

# WAUSAU CHEMICAL EXTRACTION PROGRAM WATER LEVEL SUMMARY

Date: 8-27-86  
Technician: R.F.

		Time: 12:30 pm				Time:				Time:				Time:				Comments
		W.L.	T. F.C.	B. F.C.	ON/OFF	W.L.	T. F.C.	B. F.C.	ON/OFF	W.L.	T. F.C.	B. F.C.	ON/OFF	W.L.	T. F.C.	B. F.C.	ON/OFF	
Pumping Wells	7	21'5"			ON													
	8	20'7"																
	9	17'7"																
	10	22'2"																
	11	18'7"																
	12	17'6"				✓												
Other Wells	1	15'2"																
	2	15'2"																
	3	15'11"																
	4	18'0"																
	5	19'1"				1	12'5"											
	6	16'0"				2	13'9"											
	13	15'0"				3	13'11"											
	14	15'0"				5	12'0"											
	15	14'10"				6	14'7"											
			Monitoring Wells															

T.F.C.: Top float control set at

B.F.C.: Bottom float control set at

W.L.: Water level

# WAUSAU CHEMICAL EXTRACTION PROGRAM WATER LEVEL SUMMARY

Date: 8-29-86  
Technician: R.F.

		Time: 2:30 pm				Time:				Time:				Time:				Comments
		W.L.	T. F.C.	B. F.C.	ON/OFF	W.L.	T. F.C.	B. F.C.	ON/OFF	W.L.	T. F.C.	B. F.C.	ON/OFF	W.L.	T. F.C.	B. F.C.	ON/OFF	
Pumping Wells	7	21'7"																
	8	25'6"																
	9	17'5"																
	10	21'9"																
	11	22'0"																
	14	17'8"																
Other Wells	1	15'4"																
	2	15'4"																
	3	15'9"																
	4	18'4"				1	12'10"											
	5	19'2"				2	13'9"											
	6	16'0"				3	14'0"											
	13	15'3"				5	12'2"											
	14	15'1"				6	14'9"											
	15	15'1"																

T.F.C.: Top float control set at

B.F.C.: Bottom float control set at

W.L.: Water level

# WAUSAU CHEMICAL EXTRACTION PROGRAM WATER LEVEL SUMMARY

Date: 9-6-76  
Technician: RZ

		Time: 9 am				Time:				Time:				Time:				Comments
		W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF	W.L.	T. F.C.	B. F.C.	DN/OFF	
Pumping Wells	7	21' 6"																
	8	23' 8"																
	9	17' 8"																
	10	21' 6"																
	11	22' 1"																
	12	17' 7"																
Other Wells	1	15' 4"																
	2	15' 7"																
	3	15' 11"																
	4	18' 1"					1	13' 2"										
	5	19' 6"					2	14' 0"										
	6	16' 0"					3	14' 1"										
	13	15' 2"					5	12' 1"										
	14	15' 2"					6	14' 9"										
	15	15' 0"																

T.F.C.: Top float control set at

B.F.C.: Bottom float control set at

W.L.: Water level

RECEIVED JUN 27 1986



June 26, 1986

Wausau Chemical  
2001 N. River Drive  
Wausau, WI 54401

Attn: Art Flashinski

Re: VOC Analysis

Attached are the results for samples taken June 24, 1986. EPA Method 601 was used to complete the analysis.

If you have any questions, please call.

Sincerely,

ZIMPRO INC.

*Mary C. Christie Heuser*  
Mary C. Christie Heuser  
Instrumentation Chemist

MCCH/lis

cc: J.W. Barr  
J.R. Salkowski



Wausau Chemical  
VOC Analysis (ug/l)

	<u>Influent</u> <u>6-24-86</u>	<u>Effluent</u> <u>6-24-86</u>
Perc	9,360.	1,475.
Toluene	3,400.	550.
TCE	1,680.	360.
m-Xylene	450.	77.
o & p-Xylene (as o-Xylene)	560.	136.
Analytical No.	19605	19606

Wausau Chemical  
VOC Analysis (ug/l)

	<u>Effluent</u> <u>6-24-86</u>
Chloroform	<5.
1,1-Dichlorethane	<5.
1,1-Dichloroethylene	<25.
1,2-Dichloroethylene	230.
Ethylbenzene	16.
1,1,1-Trichloroethane	10.
Vinyl Chloride	<100.
Analytical No.	19606

	<u>Influent</u> <u>6-24-86</u>
Chloroform	<10.
1,1-Dichlorethane	<10.
1,1-Dichloroethylene	<50.
1,2-Dichloroethylene	1,100.
Ethylbenzene	330.
1,1,1-Trichloroethane	90.
Vinyl Chloride	<200.
Analytical No.	19605

<u>Sample</u>	<u>Date</u>	<u>Perc</u>	<u>Analytical No.</u>
Influent	6-27-86	7,700.	19715
Effluent	6-27-86	1,350.	19716
Influent	6-30-86	6,300.	19731
Effluent	6-30-86	1,050.	19732

Wausau Chemical  
VOC Analysis (ug/l)

	<u>Influent</u> <u>6-24-86</u>	<u>Effluent</u> <u>6-24-86</u>
Perc	9,360.	1,475.
Toluene	3,400.	550.
TCE	1,680.	360.
m-Xylene	450.	77.
o & p-Xylene (as o-Xylene)	560.	136.
Analytical No.	19605	19606

Wausau Chemical  
VOC Analysis (ug/l)

	<u>Detection Limit</u>	<u>Influent 7-21-86</u>
Chloroform	10	30
1,1-Dichlorethane	10	X
1,1-Dichloroethylene	50	X
1,2-Dichloroethylene	30	130
Ethylbenzene	20	X
Tetrachloroethylene	10	3,870
Toluene	10	20
1,1,1-Trichloroethane	10	10
Trichloroethylene	10	490
Vinyl Chloride	200	X
Analytical No.		20159

X = Analyzed but not detected

Wausau Chemical  
VOC Analysis (ug/l)

	<u>Detection Limit</u>	<u>Effluent 7-21-86</u>
Chloroform	5	15
1,1-Dichlorethane	5	X
1,1-Dichloroethylene	25	X
1,2-Dichloroethylene	15	35
Ethylbenzene	10	X
Tetrachloroethylene	5	605
Toluene	5	X
1,1,1-Trichloroethane	5	X
Trichloroethylene	5	80
Vinyl Chloride	100	X
Analytical No.		20160

X = Analyzed but not detected



RECEIVED SEP 8 1986

September 5, 1986

Wausau Chemical Corp.  
2001 N. River Drive  
Wausau, WI 54401

Attn: Art Flashinski

Re: VOC Analysis

Attached are the results for August 27, 1986 water samples. The analysis was done according to EPA Method 601.

If you have any questions, please call.

Sincerely,

ZIMPRO INC.

A handwritten signature in cursive script that reads 'Mary C. Christie Heuser'.

Mary C. Christie Heuser  
Instrumentation Chemist

MCCH/lis

cc: J.W. Barr  
J.R. Salkowski

A handwritten signature or set of initials in cursive script, possibly reading 'Over' or similar, enclosed in a large, sweeping loop.

Wausau Chemical  
VOC Analysis (ug/l)

	<u>Well #10</u> <u>8-27-86</u>	<u>Well #11</u> <u>8-27-86</u>	<u>Well #12</u> <u>8-27-86</u>
Tetrachloroethylene	1,620	5,740	600
Analytical No.	21368	21369	21370

Wausau Chemical  
VOC Analysis (ug/l)

	<u>Detection</u> <u>Limit</u>	<u>Influent</u> <u>8-27-86</u>	<u>Effluent</u> <u>8-27-86</u>
Chloroform	10	30	10
1,1-Dichlorethane	10	X	X
1,1-Dichloroethylene	50	X	X
1,2-Dichloroethylene	30	150	27
Ethylbenzene	20	X	X
Tetrachloroethylene	10	2,630	425
Toluene	10	200	X
1,1,1-Trichloroethane	10	20	X
Trichloroethylene	10	380	68
Vinyl Chloride	200	X	X
Analytical No.		21371	21372

X = Analyzed but not detected

RECEIVED AUG 18 1986



**ZIMPRO** INC.  
ENVIRONMENTAL & ENERGY SYSTEMS

August 15, 1986

Wausau Chemical Corp.  
2001 N. River Drive  
Wausau, WI 54401

Attn: Jim Cherwinka

Re: VOC Analysis

Attached are the results for the July 28 - August 12, 1986 water samples. EPA Method 601 was used for the analysis.

If you have any questions, please call.

Sincerely,

ZIMPRO INC.

*Mary C. Christie Heuser*

Mary C. Christie Heuser  
Instrumentation Chemist

MCCH/lrs

cc: J.W. Barr  
J.R. Salkowski

*ANNIE*  
*Send to Mark*  
*MICUSOP*  
*to ART*  
*to CURB*



Wausau Chemical  
VOC Analysis (ug/l)

<u>Sample</u>	<u>Date</u>	<u>Perc</u>	<u>Analytical No.</u>
Influent	7-28-86	2,840	20366
Effluent	7-28-86	345	20367
Influent	8-4-86	3,240	20580
Effluent	8-4-86	410	20581
Influent	8-12-86	2,810	20758
Effluent	8-12-86	340	20759



RECEIVED SEP 4 1986

**ZIMPRO** INC  
ENVIRONMENTAL & ENERGY SYSTEMS

September 3, 1986

Wausau Chemical Corp.  
2001 N. River Drive  
Wausau, WI 54401

Attn: Art Flashinski

Re: VOC Analysis

Attached are the results for August 20, 1986 water samples. The analysis was done according to EPA Method 601.

If you have any questions, please call.

Sincerely,

ZIMPRO INC.

*Mary C. Christie Heuser*

Mary C. Christie Heuser  
Instrumentation Chemist

MCCH/lis

cc: J.W. Barr  
J.R. Salkowski

Wausau Chemical  
VOC Analysis (ug/l)

	<u>Detection Limit</u>	<u>Effluent 8-20-86</u>	<u>Influent 8-20-86</u>
Chloroform	5	5	10
1,1-Dichlorethane	5	X	X
1,1-Dichloroethylene	25	X	X
1,2-Dichloroethylene	15	20	120
Ethylbenzene	10	X	X
Tetrachloroethylene	5	370	3,140
Toluene	5	X	X
1,1,1-Trichloroethane	5	X	10
Trichloroethylene	5	45	390
Vinyl Chloride	100	X	X
Analytical No.		21050	21049

X = Analyzed but not detected



RECEIVED SEP 17 1986

September 16, 1986

Wausau Chemical Corp.  
2001 N. River Drive  
Wausau, WI 54401

Attn: Art Flashinski

Re: VOC Analysis

Attached are the results for August 29, 1986 water samples. The analysis was done according to EPA Method 601.

If you have any questions, please call.

Sincerely,

ZIMPRO INC.

*Mary C. Christie Heuser*  
Mary C. Christie Heuser  
Instrumentation Chemist

MCCH/lr

cc: J.W. Barr  
J.R. Salkowski

Wausau Chemical  
VOC Analysis (ug/l)

	<u>Well #10</u> <u>8-29-86</u>	<u>Well #11</u> <u>8-29-86</u>	<u>Well #12</u> <u>8-29-86</u>
Perc	2,210	5,820	797
Analytical No.	21437	21438	21439

Wausau Chemical  
 VOC Analysis (ug/l)

	<u>Detection Limit</u>	<u>Influent 8-29-86</u>
Chloroform	10	X
1,1-Dichlorethane	10	X
1,1-Dichloroethylene	50	X
1,2-Dichloroethylene	30	160
Ethylbenzene	20	X
Tetrachloroethylene	10	2,840
Toluene	10	X
1,1,1-Trichloroethane	10	10
Trichloroethylene	10	400
Vinyl Chloride	200	X
Analytical No.		21435

X = Analyzed but not detected

Wausau Chemical  
 VOC Analysis (ug/l)

	<u>Detection Limit</u>	<u>Effluent 8-29-86</u>
Chloroform	5	X
1,1-Dichlorethane	5	X
1,1-Dichloroethylene	25	X
1,2-Dichloroethylene	15	27
Ethylbenzene	10	X
Tetrachloroethylene	5	337
Toluene	5	X
1,1,1-Trichloroethane	5	X
Trichloroethylene	5	50
Vinyl Chloride	100	X
Analytical No.		21436

X = Analyzed but not detected