

STANDARD CHLORINE OF DELAWARE, INC.

100423

July 20, 1993

GOVERNOR LEA ROAD • P.O BOX 319 • DELAWARE CITY, DELAWARE 19706

RECEIVED

Ms. Anne Hiller
Environmental Scientist
DNREC
Division of Air & Waste
715 Grantham Lane
New Castle, DE 19720

JUL 21 1993

STATE OF DELAWARE
DNREC SUPER FUND BRANCH

RE: Groundwater Recovery Report

Dear Ms. Hiller:

In accordance with Paragraph 6 of the Consent Order between Standard Chlorine of Delaware, Inc. and the Delaware Department of Natural Resources and Environmental Control and our recent discussion, please find enclosed a revised Quarterly Groundwater Recovery Report for the period April 1 through June 30, 1993. As agreed, the revised format includes a summary of water withdrawal rates for recovery wells RW-1 through RW-5, water table elevations and results of sample analysis for all previously monitored wells, and a summary of recovery well operations. It is our understanding that the Department will continue to consider the request to reduce the frequency of collection and number of wells designated for sample analysis.

Feel free to call should you have any further questions regarding this matter.

Sincerely,



Paul Johnston
Manager, Environmental

PJ/dm
Enclosure

cc: R. J. Touhey

AR308067

DOWN-TIME LOG
June 1993
RECOVERY WELLS #1 THROUGH #5

<u>DATE</u>	<u>WELL</u>	<u>DOWN-TIME</u>	<u>REMARKS</u>
6/1 - 6/30	2	1 month	Pump failure
6/3/93	1,3,4	6 hours	Boiler #3 outage
6/15/93 - 7/2/93	5	18 days	Pump failure
7/2/93	1,3,4	2.5 hours	Boiler #3 outage

REPAIRS AND MODIFICATIONS
June 1993

Totalizer at GWR #5 malfunctioned. Flows estimated to be less than 5 gpm.

AR308068

STANDARD CHLORINE OF DE INC
DELAWARE CITY PLANT

FILE NAME: REC WEL
06/04/93
GROUND WATER RECOVERY WELLS

WELL # 1
STATIC =

DATE 47.25
28-May-93 7:47
31-May-93 7:47
01-Jun-93 7:50
02-Jun-93 7:48
03-Jun-93 7:45
04-Jun-93 7:47

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
	53.70	13259300.00					
		13449500.00	44.03		6.45	6.83	26.00
	53.70	13513240.00	44.17		6.45	6.85	26.00
	53.80	13575810.00	43.51		6.55	6.64	26.00
360	53.70	13638810.00	43.84		6.45	6.80	26.00
	54.20	13689240.00	34.97	42.11	6.95	5.03	26.00

WELL # 2
STATIC =

DATE 48.33
28-May-93 7:47
31-May-93 7:47
01-Jun-93 7:50
02-Jun-93 7:48
03-Jun-93 7:45
04-Jun-93 7:47

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
	46.36	26303550.00	0.00		0.03	0.00	0.00
1440	46.40	26303550.00	0.00		0.07	0.00	0.00
1440	46.20	26303550.00	0.00		-0.13	0.00	0.00
1440	46.20	26303550.00	0.00		-0.13	0.00	0.00
1440	46.30	26303550.00	0.00	0.00	-0.03	0.00	0.00

WELL # 3
STATIC =

DATE 38.33
28-May-93 7:47
31-May-93 7:47
01-Jun-93 7:50
02-Jun-93 7:48
03-Jun-93 7:45
04-Jun-93 7:47

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
	50.00	11691120.00	16.38		11.67	1.40	0.00
	49.90	11761900.00	16.78		11.57	1.45	0.00
	49.60	11809650.00	16.36		11.27	1.45	0.00
	49.80	11833340.00	16.49		11.47	1.44	0.00
360	49.60	11851800.00	12.80	15.76	11.27	1.14	0.00

WELL # 4
STATIC =

DATE 39.00
28-May-93 7:47
31-May-93 7:47
01-Jun-93 7:50
02-Jun-93 7:48
03-Jun-93 7:45
04-Jun-93 7:47

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
	50.00	58900000.00					
	49.94	59106500.00	47.77		11.00	4.34	0.00
	49.70	59174340.00	47.11		10.94	4.31	0.00
	49.70	59241940.00	47.01		10.70	4.39	0.00
	49.70	59310350.00	47.61		10.70	4.45	0.00
360	49.60	59363390.00	36.78	45.26	10.60	3.47	0.00

WELL # 5
STATIC =

DATE 35.16
28-May-93 7:47
31-May-93 7:47
01-Jun-93 7:50
02-Jun-93 7:48
03-Jun-93 7:45
04-Jun-93 7:47

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
	50.40	9111180.00	0.00		15.24	0.00	0.00
	50.50	9111180.00	0.00		15.34	0.00	0.00
	50.20	9111180.00	0.00		15.04	0.00	0.00
	50.40	9111180.00	0.00		15.24	0.00	0.00
	50.40	9111180.00	0.00	0.00	15.24	0.00	0.00

AR308069

STANDARD CHLORINE OF DE INC
DELAWARE CITY PLANT

FILE NAME: RECHWEL

06/11/93

GROUND WATER RECOVERY WELLS

WELL # 1
STATIC =
OLD DATA:

DATE	TIME	DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
47.25									
04-Jun-93	7:47			13889240.00					
07-Jun-93	7:50		53.80	13883000.00	44.82		6.55	6.84	26.00
08-Jun-93	7:50		53.90	13948820.00	44.32		6.65	6.66	26.00
09-Jun-93	7:48		53.86	14006900.00	43.87		6.61	6.64	26.00
10-Jun-93	7:45		53.70	14072280.00	43.41		6.45	6.73	26.00
11-Jun-93	7:47		53.78	14136010.00	44.20	44.12	6.53	6.77	26.00

WELL # 2
STATIC =
OLD DATA:

DATE	TIME	DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
46.33									
04-Jun-93	7:47			26303550.00					
07-Jun-93	7:50	1440	46.40	26303550.00	0.00		0.07	0.00	0.00
08-Jun-93	7:50	1440	46.30	26303550.00	0.00		-0.03	0.00	0.00
09-Jun-93	7:48	1440	46.30	26303550.00	0.00		-0.03	0.00	0.00
10-Jun-93	7:45	1440	46.40	26303550.00	0.00		0.07	0.00	0.00
11-Jun-93	7:47	1440	46.40	26303550.00	0.00	0.00	0.07	0.00	0.00

WELL # 3
STATIC =
OLD DATA:

DATE	TIME	DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
38.33									
04-Jun-93	7:47			11851800.00					
07-Jun-93	7:50		49.20	11925170.00	16.97		10.87	1.56	0.00
08-Jun-93	7:50		48.96	11950900.00	17.87		10.63	1.68	0.00
09-Jun-93	7:48		49.00	11876200.00	17.59		10.67	1.65	0.00
10-Jun-93	7:45		48.86	12000890.00	17.18		10.53	1.63	0.00
11-Jun-93	7:47		48.70	12025300.00	16.93	17.31	10.37	1.63	0.00

WELL # 4
STATIC =
OLD DATA:

DATE	TIME	DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
39.00									
04-Jun-93	7:47			59363390.00					
07-Jun-93	7:50		49.30	59566450.00	47.00		10.30	4.56	0.00
08-Jun-93	7:50		49.26	59633320.00	46.44		10.26	4.53	0.00
09-Jun-93	7:48		49.28	59699120.00	45.76		10.28	4.45	0.00
10-Jun-93	7:45		49.30	59784000.00	45.15		10.30	4.38	0.00
11-Jun-93	7:47		49.30	59829770.00	45.61	45.99	10.30	4.43	0.00

WELL # 5
STATIC =
OLD DATA:

DATE	TIME	DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
35.16									
04-Jun-93	7:47			91111800.00					
07-Jun-93	7:50		50.46	91111800.00	0.00		15.30	0.00	0.00
08-Jun-93	7:50		50.80	91111800.00	0.00		15.44	0.00	0.00
09-Jun-93	7:48		50.50	91111800.00	0.00		15.34	0.00	0.00
10-Jun-93	7:45		50.50	91111800.00	0.00		15.34	0.00	0.00
11-Jun-93	7:47		50.50	91111800.00	0.00	0.00	15.34	0.00	0.00

AR308070

STANDARD CHLORINE OF DE INC
DELAWARE CITY PLANT

FILE NAME: RECWEL
06/18/93
GROUND WATER RECOVERY WELLS

WELL# 1
STATIC =

DATE 47.25
11-Jun-93 7:47
14-Jun-93 7:50
15-Jun-93 7:50
18-Jun-93 7:50
17-Jun-93 7:50
18-Jun-93 7:50

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK.	DRAWDOWN	S.C.	PSI
		14136010.00					
	53.80	14323500.00	43.37		6.55	6.62	26.00
	53.80	14385380.00	42.97		6.55	6.56	26.00
	53.70	14446750.00	42.62		6.45	6.61	26.00
	53.70	14508410.00	42.82		6.45	6.64	26.00
	53.70	14570460.00	43.09	42.97	6.45	6.68	26.00

WELL# 2
STATIC =

DATE 48.33
11-Jun-93 7:47
14-Jun-93 7:50
15-Jun-93 7:50
18-Jun-93 7:50
17-Jun-93 7:50
18-Jun-93 7:50

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK.	DRAWDOWN	S.C.	PSI
		26303550.00					
1440	46.40	26303550.00	0.00		0.07	0.00	0.00
1440	46.38	26303550.00	0.00		0.05	0.00	0.00
1440	46.36	26303550.00	0.00		0.03	0.00	0.00
1440	46.32	26303550.00	0.00		-0.01	0.00	0.00
1440	46.36	26303550.00	0.00	0.00	0.03	0.00	0.00

WELL# 3
STATIC =

DATE 38.33
11-Jun-93 7:47
14-Jun-93 7:50
15-Jun-93 7:50
18-Jun-93 7:50
17-Jun-93 7:50
18-Jun-93 7:50

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK.	DRAWDOWN	S.C.	PSI
		12025300.00					
	48.50	12098000.00	16.82		10.17	1.65	0.00
	48.10	12120620.00	15.71		9.77	1.61	0.00
	48.30	12143610.00	16.10		9.97	1.62	0.00
	48.24	12167340.00	16.34		9.91	1.65	0.00
	48.66	12191010.00	16.44	16.28	10.33	1.59	0.00

WELL# 4
STATIC =

DATE 39.00
11-Jun-93 7:47
14-Jun-93 7:50
15-Jun-93 7:50
18-Jun-93 7:50
17-Jun-93 7:50
18-Jun-93 7:50

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK.	DRAWDOWN	S.C.	PSI
		59829770.00					
	49.26	60022000.00	44.50		10.26	4.34	0.00
	49.20	60085590.00	44.16		10.20	4.33	0.00
	48.80	60148540.00	43.72		9.80	4.46	0.00
	48.90	60211880.00	43.89		9.90	4.44	0.00
	49.10	60275900.00	44.46	44.16	10.10	4.40	0.00

WELL# 5
STATIC =

DATE 35.16
11-Jun-93 7:47
14-Jun-93 7:50
15-Jun-93 7:50
18-Jun-93 7:50
17-Jun-93 7:50
18-Jun-93 7:50

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK.	DRAWDOWN	S.C.	PSI
		9111180.00					
720	50.46	9111180.00	0.00		15.30	0.00	0.00
1440	36.20	9111180.00	0.00		1.04	0.00	0.00
1440	35.90	9111180.00	0.00		0.74	0.00	0.00
1440	36.10	9111180.00	0.00		0.94	0.00	0.00
1440	36.30	9111180.00	0.00	0.00	1.14	0.00	0.00

AR308071

STANDARD CHLORINE OF DE INC
DELAWARE CITY PLANT

FILE NAME: REC WEL
08/25/83
GROUND WATER RECOVERY WELLS

WELL # 1
STATIC =

47.25
DATE TIME
18-Jun-83 7:47
21-Jun-83 7:50
22-Jun-83 7:50
23-Jun-83 7:50
24-Jun-83 7:50
25-Jun-83 7:50

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
		14570460.00					
	53.88	14755730.00	42.86		8.63	6.46	28.00
	53.80	14817080.00	42.61		6.35	6.71	28.00
	53.70	14877360.00	41.85		6.45	6.49	28.00
	53.30	14938620.00	41.29		6.05	6.83	26.00
	53.74	14986390.00	41.37	42.00	6.49	6.37	26.00

WELL #2
STATIC =

46.33
DATE TIME
18-Jun-83 7:47
21-Jun-83 7:50
22-Jun-83 7:50
23-Jun-83 7:50
24-Jun-83 7:50
25-Jun-83 7:50

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
		26303550.00					
1440	46.32	26303550.00	0.00		-0.01	0.00	0.00
1440	46.30	26303550.00	0.00		-0.03	0.00	0.00
1440	46.34	26303550.00	0.00		0.01	0.00	0.00
1440	46.30	26303550.00	0.00		-0.03	0.00	0.00
1440	46.30	26303550.00	0.00	0.00	-0.03	0.00	0.00

WELL #3
STATIC =

38.33
DATE TIME
18-Jun-83 7:47
21-Jun-83 7:50
22-Jun-83 7:50
23-Jun-83 7:50
24-Jun-83 7:50
25-Jun-83 7:50

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
		12191010.00					
	46.20	12281410.00	16.28		9.87	1.65	0.00
	46.28	12284390.00	15.86		9.95	1.60	0.00
	47.30	12306230.00	15.17		8.97	1.69	0.00
	47.58	12327180.00	14.55		9.25	1.57	0.00
	47.60	12349080.00	15.21	15.43	9.27	1.64	0.00

WELL #4
STATIC =

39.00
DATE TIME
18-Jun-83 7:47
21-Jun-83 7:50
22-Jun-83 7:50
23-Jun-83 7:50
24-Jun-83 7:50
25-Jun-83 7:50

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
		60275900.00					
	46.86	60467930.00	44.45		9.86	4.51	0.00
	46.80	60531010.00	43.81		9.90	4.42	0.00
	46.30	60592390.00	42.63		9.30	4.58	0.00
	46.60	60652380.00	41.66		9.50	4.39	0.00
	46.60	60713560.00	42.49	43.01	9.50	4.47	0.00

WELL #5
STATIC =

35.16
DATE TIME
18-Jun-83 7:47
21-Jun-83 7:50
22-Jun-83 7:50
23-Jun-83 7:50
24-Jun-83 7:50
25-Jun-83 7:50

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
		91111800.00					
1440	35.90	91115900.00	0.09		0.74	0.13	0.00
1440	36.10	91120600.00	0.33		0.94	0.35	0.00
1440	35.90	91120700.00	0.01		0.74	0.01	0.00
1440	36.10	91120700.00	0.00		0.94	0.00	0.00
1440	36.00	91120700.00	0.00	0.09	2.74	0.00	0.00

AR308072

STANDARD CHLORINE OF DE INC
DELAWARE CITY PLANT

FILE NAME: RECWEL

07/02/93

GROUND WATER RECOVERY WELLS

WELL# 1

STATIC =

OLD DATA:

DATE	TIME	DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
47.25									
25-Jun-93	7:47			14996390.00					
28-Jun-93	7:50		53.70	15176750.00	41.72		6.45	6.47	26.00
29-Jun-93	7:50		53.82	15235610.00	40.88		6.57	6.22	26.00
30-Jun-93	7:50		53.72	15296610.00	42.36		6.47	6.55	26.00
01-Jul-93	7:50		53.70	15355860.00	41.15		6.45	6.38	26.00
02-Jul-93	7:50		48.50	15413040.00	39.71	41.16	1.25	31.77	26.00

WELL# 2

STATIC =

OLD DATA:

DATE	TIME	DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
46.33									
25-Jun-93	7:47			26303550.00					
28-Jun-93	7:50	1440	48.32	26303550.00	0.00		-0.01	0.00	0.00
29-Jun-93	7:50	1440	46.40	26303550.00	0.00		0.07	0.00	0.00
30-Jun-93	7:50	1440	46.36	26303550.00	0.00		0.03	0.00	0.00
01-Jul-93	7:50	1440	46.32	26303550.00	0.00		-0.01	0.00	0.00
02-Jul-93	7:50	1440	46.40	26303550.00	0.00	0.00	0.07	0.00	0.00

WELL# 3

STATIC =

OLD DATA:

DATE	TIME	DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
38.33									
25-Jun-93	7:47			12349090.00					
28-Jun-93	7:50		47.90	12415470.00	15.36		9.57	1.60	0.00
29-Jun-93	7:50		48.72	12437710.00	15.44		10.39	1.49	0.00
30-Jun-93	7:50		48.18	12460650.00	15.93		9.85	1.62	0.00
01-Jul-93	7:50		47.80	12482400.00	15.10		9.47	1.59	0.00
02-Jul-93	7:50		38.90	12503250.00	14.48	15.26	0.57	25.40	0.00

WELL# 4

STATIC =

OLD DATA:

DATE	TIME	DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
39.00									
25-Jun-93	7:47			60713560.00					
28-Jun-93	7:50		48.60	60899800.00	43.11		9.60	4.49	0.00
29-Jun-93	7:50		48.88	60961140.00	42.60		9.98	4.27	0.00
30-Jun-93	7:50		48.76	61025270.00	44.53		9.76	4.56	0.00
01-Jul-93	7:50		48.48	61087090.00	42.93		9.48	4.53	0.00
02-Jul-93	7:50		47.10	61146490.00	41.25	42.88	8.10	5.09	0.00

WELL# 5

STATIC =

OLD DATA:

DATE	TIME	DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
35.16									
25-Jun-93	7:47			9112070.00					
28-Jun-93	7:50	1440	36.70	9112070.00	0.00		1.54	0.00	0.00
29-Jun-93	7:50	1440	35.80	9112070.00	0.00		0.64	0.00	0.00
30-Jun-93	7:50	1440	35.80	9112070.00	0.00		0.64	0.00	0.00
01-Jul-93	7:50	1440	35.70	9112070.00	0.00		0.54	0.00	0.00
02-Jul-93	7:50	1440	35.70	9112070.00	0.00	0.00	0.54	0.00	0.00

AR308073

STANDARD CHLORINE OF DELAWARE
MONITORING WELLS WATER-LEVEL MEASUREMENTS

DATE : June 17, 1993

SCD WELL NUMBER	WESTON WELL NUMBER	WELL LOCATION	REFERENCE ELEVATION	DATE	TIME	WATER LEVEL	WATER ELEVATION
TW-1	TW-1	R/R TRACK AREA	44.80	6/16/93	14:10	31.00	13.80
TW-2	TW-2	R/R TRACK AREA	53.74	6/16/93	14:15	40.70	13.04
TW-3	TW-3	R/R TRACK AREA	53.46	6/16/93	14:12	41.38	12.08
TW-4	TW-4	R/R TRACK AREA	52.61	6/16/93	14:16	41.20	11.41
TW-5	TW-5	R/R TRACK AREA	47.91	6/16/93	14:17	34.80	13.11
TW-6	TW-6	R/R TRACK AREA	48.08	6/16/93	14:05	35.30	12.78
TW-6A	TW-6A	R/R TRACK AREA	48.08	6/16/93	14:08	36.40	11.68
TW-7	TW-7	R/R TRACK AREA	47.27	6/16/93	14:09	36.10	11.17
TW-8	TW-8	S. OF STORAGE II	51.14	6/16/93	14:20	38.50	12.64
TW-10	TW-10	MOLD. MACH. AREA	49.60	6/16/93	14:22	38.70	10.90
TW-22	TW-22	E. SIDE BY FENCE	51.23	6/16/93	14:35	40.80	10.43
TW-24	TW-24	E. OF 407R	48.07	6/16/93	14:40	39.66	8.41
TW-25	TW-25	CACL2 PIT AREA	48.12	6/16/93	14:45	36.70	11.42
TW-28	TW-28	N. OF WELD SHOP	51.39	6/16/93	15:00	43.20	8.19
TW-30	TW-30	S. OF MAINT. SHOP	50.94	6/16/93	15:05	40.90	10.04
TW-31	TW-31	W. OF INST. SHOP	49.28	6/16/93	15:08	37.60	11.68
TW-49	TW-49	N. OF RW-2	54.45	6/16/93	11:35	49.60	4.85
TW-50	TW-50	N. OF TW-73	52.87	6/16/93	11:33	47.90	4.97
TW-60	TW-60	E. OF RW-4	45.17	6/16/93	10:50	39.28	5.89
TW-61	TW-61	N. OF TW-71	44.23	6/16/93	11:11	39.00	5.23
TW-62	TW-62	N. OF RW-3	47.64	6/16/93	11:28	42.70	4.94
TW-63	TW-63	N. OF RW-1	52.55	6/16/93	11:50	47.70	4.85
TW-64	TW-64	S. OF RW-3	52.21	6/16/93	10:45	45.08	7.13
TW-70	TW-70	E. OF 706 TANK	49.46	6/16/93	15:30	36.80	12.66
TW-71	TW-71	W. OF RW-4	48.35	6/16/93	10:58	42.88	5.47
TW-72	TW-72	W. OF RW-3	50.23	6/16/93	11:15	44.90	5.33
TW-73	TW-73	W. OF RW-2	55.22	6/16/93	11:39	49.88	5.34
TW-74	TW-74	N. OF RW-4	25.36	6/16/93	11:06	20.40	4.96
TW-75	TW-75	N. OF TW-62	51.43	6/16/93	11:21	47.50	3.93
TW-76	TW-76	N. OF TW-63	48.92	6/16/93	11:47	45.00	3.92
TW-77	TW-77	N W. OF RW-1	43.22	6/16/93	11:42	38.20	5.02
TW-78	TW-78	S W. OF RW-1	47.45	6/16/93	11:55	40.16	7.29

AR308074

WELL RESULTS

SAMPLING DATE 6/23/93

WELL #	pH	BENZENE	MONO	p-DCB	m-DCB	o-DCB	135	124	123	NB	1245	1234	MCNB 2,4-DCNB	PENTA	HEXA	TOTAL	% TBT RECOV.	% FB RECOV.
TW-1	3.69	<0.005	1.41	0.22	<0.010	0.29	<0.010	0.16	<0.010	<0.015	<0.010	<0.010	<0.015	<0.010	<0.010	2.08	85.60	80.20
TW-2	6.53	0.05	3.74	0.17	<0.050	0.22	<0.010	0.12	0.03	<0.015	0.02	0.01	<0.020	<0.010	<0.010	4.36	79.90	112.20
TW-3	6.42	<0.005	0.01	<0.010	<0.010	<0.010	<0.010	0.01	<0.010	<0.015	<0.010	<0.010	<0.020	<0.010	<0.010	0.02	89.60	120.50
TW-4	6.81	<0.005	<0.005	<0.010	<0.010	<0.010	<0.010	0.04	0.01	<0.015	<0.010	<0.010	<0.020	<0.010	<0.010	0.05	89.60	92.20
TW-5	3.86	20.96	274.89	43.59	<5.00	198.01	<0.010	6.79	0.44	<0.015	0.06	0.16	<0.020	<0.015	<0.010	544.91	89.60	78.90
TW-6	NOT COLLECTED																	
TW-6A	6.32	<0.50	28.53	4.51	<1.00	19.31	<0.010	3.65	0.72	<0.015	0.15	0.10	<0.020	<0.015	<0.010	56.97	183.30	143.40
TW-7	6.05	<0.25	0.75	11.72	<0.50	3.84	0.03	2.80	0.85	<0.015	0.05	0.18	<0.020	<0.015	<0.010	20.22	85.70	73.40
TW-8	5.63	33.07	83.72	4.88	<2.00	68.76	<0.010	6.01	1.35	<0.015	0.36	0.20	<0.020	<0.015	<0.010	186.45	84.90	74.70
TW-10	7.33	<0.010	0.01	1.44	0.26	0.03	<0.010	1.29	0.58	<0.015	0.07	0.46	<0.020	<0.015	<0.010	4.18	67.20	89.30
TW-22	7.63	<0.005	<0.005	0.02	<0.010	<0.010	<0.010	0.02	<0.010	<0.015	<0.010	<0.010	<0.020	<0.015	<0.010	0.04	91.30	84.70
TW-24	5.70	<0.25	0.60	1.99	<0.50	17.58	<0.010	0.28	0.08	<0.015	0.02	0.08	<0.020	<0.015	<0.010	20.61	88.60	101.30
TW-25	6.86	<0.50	<0.50	11.71	<1.00	33.69	<0.010	2.09	0.09	<0.015	0.05	0.19	<0.020	<0.015	<0.010	47.88	89.20	79.90
TW-26	4.02	65.46	95.57	20.86	<2.50	30.29	<0.010	9.03	2.72	<0.015	0.03	0.04	<0.020	<0.015	<0.010	223.99	97.10	104.50
TW-30	6.00	8.83	21.60	28.13	2.03	26.25	0.03	9.47	0.78	0.78	1.18	0.72	0.02	0.11	0.04	100 % FREE ORG. AREA %	100.30	76.90
TW-31	6.09	78.80	92.47	32.83	<2.50	21.89	<0.010	4.85	0.22	<0.015	0.07	0.09	<0.020	<0.015	<0.010	231.12	90.80	83.60
TW-49	5.29	63.07	161.30	126.03	<2.50	117.72	<0.010	9.72	1.80	<0.015	1.03	0.64	<0.020	<0.015	<0.010	481.31	99.10	89.10
TW-50	4.12	90.00	112.96	38.89	<2.50	31.49	<0.010	4.13	0.97	0.57	0.22	0.07	<0.020	<0.015	<0.010	279.39	98.50	89.20
RW-1	6.77	5.55	10.56	15.47	1.77	6.88	0.02	8.61	2.44	<0.015	0.11	0.31	<0.020	<0.015	<0.010	51.81		
RW-2	<									NOT COLLECTED								
RW-3	6.67	16.04	23.69	25.92	6.17	35.84	<0.010	4.89	2.34	5.55	0.04	<0.010	1.96	0.09	<0.010	122.62	97.40	288.30
RW-4	6.12	1.68	1.74	3.53	<2.50	10.89	<0.010	0.60	0.20	0.07	<0.010	0.02	<0.020	<0.015	<0.010	18.73	93.40	82.60
GRW-5	<									NOT COLLECTED								
FIELD BLK		<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.010	<0.010	<0.015	<0.010	<0.010	<0.020	<0.015	<0.010	0.00	87.30	69.30
TRIP BLK		<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.010	<0.010	NOT ANALYZED FOR SEMIVOLATILES						0.00	77.80	
TW-2 LDU	6.53	0.47	3.48	0.15	<0.050	0.19	<0.010	0.12	<0.010	<0.015	<0.010	<0.010	<0.020	<0.015	<0.010	4.38	87.90	102.60
TW-2 FDU	6.53	0.51	3.71	0.15	<0.050	0.19	<0.010	0.27	<0.010	<0.015	<0.010	<0.010	<0.020	<0.015	<0.010	4.83	74.50	109.00
TW-3 LDU	6.42	<0.005	0.01	<0.010	<0.010	<0.010	<0.010	0.02	<0.010	<0.015	<0.010	<0.010	<0.020	<0.015	<0.010	0.03	92.60	96.40
TW-3 FDU	6.42	<0.005	0.01	<0.010	<0.010	<0.010	<0.010	0.02	0.01	<0.015	<0.010	<0.010	<0.020	<0.015	<0.010	0.03	92.70	196.60

AR308075

WELL RESULTS
SAMPLING DATE 6/23/93

WELL #	pH	BENZENE	MONO	p-DCB	m-DCB	o-DCB	135	124	123	NB	1246	1234	MCNB 2,4-DCNB	PENTA	HEXA	TOTAL	% TFI RECOV.	% FB RECOV.
TW-1	3.89	<0.005	1.41	0.22	<0.010	0.29	<0.010	0.16	<0.010	<0.015	<0.010	<0.010	<0.015	<0.010	<0.010	2.08	85.80	80.20
TW-2	6.53	0.05	3.74	0.17	<0.050	0.22	<0.010	0.12	0.03	<0.015	0.02	0.01	<0.015	<0.010	<0.010	4.36	79.90	112.20
TW-3	6.42	<0.005	0.01	<0.010	<0.010	<0.010	<0.010	0.01	<0.010	<0.015	<0.010	<0.010	<0.015	<0.010	<0.010	0.02	88.60	120.50
TW-4	6.81	<0.005	<0.005	<0.010	<0.010	<0.010	<0.010	0.04	0.01	<0.015	<0.010	<0.010	<0.015	<0.010	<0.010	0.05	88.80	92.20
TW-5	3.86	20.96	274.89	43.50	<5.00	188.01	<0.010	6.79	0.44	<0.015	0.06	0.16	<0.015	0.01	<0.010	544.91	89.80	78.90
TW-6	NOT COLLECTED																	
TW-6A	6.32	<0.50	28.53	4.51	<1.00	19.31	<0.010	3.65	0.72	<0.015	0.15	0.10	<0.015	<0.010	<0.010	56.97	183.30	143.40
TW-7	6.05	<0.25	0.75	11.72	<0.50	3.84	0.03	2.80	0.85	<0.015	0.05	0.18	<0.015	<0.010	<0.010	20.22	85.70	73.40
TW-8	5.63	33.07	83.72	4.98	<2.00	56.76	<0.010	6.01	1.35	<0.015	0.36	0.20	<0.015	<0.010	<0.010	186.45	84.90	74.70
TW-10	7.33	<0.010	0.01	1.44	0.26	0.03	<0.010	1.29	0.56	<0.015	0.07	0.46	<0.015	0.06	<0.010	4.18	67.20	89.30
TW-22	7.63	<0.005	<0.005	0.02	<0.010	<0.010	<0.010	0.02	<0.010	<0.015	<0.010	<0.010	<0.015	<0.010	<0.010	0.04	91.30	84.70
TW-24	5.70	<0.25	0.60	1.99	<0.50	17.56	<0.010	0.28	0.08	<0.015	0.02	0.06	<0.015	0.02	<0.010	20.61	86.60	101.30
TW-25	6.86	<0.50	<0.50	11.71	<1.00	33.69	<0.010	2.09	0.09	<0.015	0.05	0.19	<0.015	0.06	<0.010	47.88	89.20	79.90
TW-28	4.02	65.46	95.57	20.86	<2.50	30.29	<0.010	9.03	2.72	<0.015	0.03	0.04	<0.015	<0.010	<0.010	223.99	97.10	104.50
TW-30	6.00	8.83	21.60	28.13	2.03	26.25	0.03	9.47	0.79	0.79	1.18	0.72	0.02	0.11	0.04	100	100.30	76.90
TW-31	6.09	78.80	92.47	32.83	<2.50	21.89	<0.010	4.95	0.22	<0.015	0.07	0.09	<0.015	<0.010	<0.010	231.12	90.80	83.60
TW-49	5.29	63.07	161.30	126.03	<2.50	117.72	<0.010	9.72	1.80	<0.015	1.03	0.64	<0.015	<0.010	<0.010	481.31	99.10	89.10
TW-50	4.12	90.00	112.96	38.99	<2.50	31.49	<0.010	4.13	0.97	0.57	0.22	0.07	<0.015	<0.010	<0.010	279.39	98.50	89.20
RW-1	6.77	5.55	10.56	15.47	1.77	6.98	0.02	8.61	2.44	<0.015	0.11	0.31	<0.015	<0.010	<0.010	51.81		
RW-2	<									NOT COLLECTED								
RW-3	6.67	16.04	23.69	25.92	6.17	35.84	<0.010	4.99	2.34	5.55	0.04	<0.010	0.09	<0.010	<0.010	122.62	97.40	288.30
RW-4	6.12	1.68	1.74	3.53	<2.50	10.89	<0.010	0.60	0.20	0.07	<0.010	0.02	<0.015	<0.010	<0.010	18.73	93.40	82.60
GRW-5	<									NOT COLLECTED								
FIELD BLK		<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.010	<0.010	<0.015	<0.010	<0.010	<0.015	<0.010	<0.010	0.00	87.30	69.30
TRIP BLK		<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.010	<0.010	NOT ANALYZED FOR SEMI-VOLATILES						0.00	77.80	
TW-2 LDU	6.53	0.47	3.46	0.15	<0.050	0.19	<0.010	0.12	<0.010	<0.015	<0.010	<0.010	<0.015	<0.010	<0.010	4.38	87.90	102.60
TW-2 FDU	6.53	0.51	3.71	0.15	<0.050	0.19	<0.010	0.27	<0.010	<0.015	<0.010	<0.010	<0.015	<0.010	<0.010	4.83	74.50	109.00
TW-3 LDU	6.42	<0.005	0.01	<0.010	<0.010	<0.010	<0.010	0.02	<0.010	<0.015	<0.010	<0.010	<0.015	<0.010	<0.010	0.03	92.60	96.40
TW-3 FDU	6.42	<0.005	0.01	<0.010	<0.010	<0.010	<0.010	0.02	0.01	<0.015	<0.010	<0.010	<0.015	<0.010	<0.010	0.03	92.70	196.60

AR 308076

DOWN-TIME LOG
May 1993
RECOVERY WELLS #1 THROUGH #5

<u>DATE</u>	<u>WELL</u>	<u>DOWN-TIME</u>	<u>REMARKS</u>
5/1 - 5/30	2	1 month	Pump failure

REPAIRS AND MODIFICATIONS
May 1993

Totalizer at GWR #5 malfunctioned. Flow estimated to be less than 5 gpm. Totalizer at GWR #3 malfunctioned from May 1, through May 11, 1993. Flow was estimated to be approximately 15 gpm.

AR308077

STANDARD CHLORINE OF DE INC
DELAWARE CITY PLANT

FILE NAME: REC WEL
507/93
GROUND WATER RECOVERY WELLS

WELL# 1

STATIC =

OLD DATA:

DATE	TIME	DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
47.26									
30-Apr-93	7:48			11425015.00					
03-May-93	7:49		53.68	11627470.00	46.85		6.43	7.29	25.00
04-May-93	7:50		53.60	11893780.00	46.02		6.35	7.25	25.00
05-May-93	7:48		53.60	11759730.00	45.86		6.35	7.22	25.00
06-May-93	7:50		53.78	11824910.00	45.20		6.53	6.92	25.00
07-May-93	7:50		53.60	11890940.00	45.85	45.96	6.35	7.22	25.00

WELL#2

STATIC =

OLD DATA:

DATE	TIME	DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
46.33									
30-Apr-93	7:48			26303550.00					
03-May-93	7:49	1440	46.30	26303550.00	0.00		-0.03	0.00	0.00
04-May-93	7:50	1440	46.30	26303550.00	0.00		-0.03	0.00	0.00
05-May-93	7:48	1440	46.36	26303550.00	0.00		0.03	0.00	0.00
06-May-93	7:50	1440	46.30	26303550.00	0.00		-0.03	0.00	0.00
07-May-93	7:50	1440	46.30	26303550.00	0.00	0.00	-0.03	0.00	0.00

WELL# 3

STATIC =

OLD DATA:

DATE	TIME	DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
38.33									
30-Apr-93	7:48			11288480.00					
03-May-93	7:49		50.50	11288480.00	0.00		12.17	0.00	0.00
04-May-93	7:50		50.80	11288480.00	0.00		12.57	0.00	0.00
05-May-93	7:48		50.90	11288480.00	0.00		12.57	0.00	0.00
06-May-93	7:50		51.00	11288480.00	0.00		12.67	0.00	0.00
07-May-93	7:50		50.70	11288480.00	0.00	0.00	12.37	0.00	0.00

WELL# 4

STATIC =

OLD DATA:

DATE	TIME	DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
39.00									
30-Apr-93	7:48			56608725.00					
03-May-93	7:49		49.70	56894820.00	63.90		10.70	5.97	0.00
04-May-93	7:50		49.80	56975250.00	62.80		10.80	5.81	0.00
05-May-93	7:48		49.86	57066190.00	63.24		10.86	5.82	0.00
06-May-93	7:50		49.88	57155730.00	62.09		10.98	5.66	0.00
07-May-93	7:50		50.20	57247260.00	63.56	63.12	11.20	5.68	0.00

WELL# 5

STATIC =

OLD DATA:

DATE	TIME	DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
35.16									
30-Apr-93	7:48			9111050.00					
03-May-93	7:49		50.40	9111050.00	0.00		15.24	0.00	0.00
04-May-93	7:50		50.60	9111050.00	0.00		15.44	0.00	0.00
05-May-93	7:48		49.50	9111050.00	0.00		14.34	0.00	0.00
06-May-93	7:50		50.30	9111050.00	0.00		15.14	0.00	0.00
07-May-93	7:50		50.30	9111050.00	0.00	0.00	15.14	0.00	0.00

AR308078

STANDARD CHLORINE OF DE INC
DELAWARE CITY PLANT

FILE NAME: REC WEL
5/14/93
GROUND WATER RECOVERY WELLS

WELL# 1

STATIC =

OLD DATA:

DATE	TIME
07-May-93	7:50
10-May-93	7:47
11-May-93	7:46
12-May-93	7:45
13-May-93	7:49
14-May-93	7:47

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPMWK.	DRAWDOWN	S.C.	PSI
		11890940.00					
	52.66	12083870.00	44.69		5.41	8.26	26.00
	53.30	12148780.00	45.11		6.05	7.46	26.00
	53.60	12214510.00	45.68		6.35	7.19	26.00
	53.60	12278680.00	44.44		6.35	7.00	26.00
	52.80	12343090.00	44.79	44.94	5.55	8.07	26.00

WELL# 2

STATIC =

OLD DATA:

DATE	TIME
07-May-93	7:50
10-May-93	7:47
11-May-93	7:46
12-May-93	7:45
13-May-93	7:49
14-May-93	7:47

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPMWK.	DRAWDOWN	S.C.	PSI
		26303550.00					
1440	46.10	26303550.00	0.00		-0.23	0.00	0.00
1440	46.10	26303550.00	0.00		-0.23	0.00	0.00
1440	46.20	26303550.00	0.00		-0.13	0.00	0.00
1440	46.26	26303550.00	0.00		-0.07	0.00	0.00
1440	46.10	26303550.00	0.00	0.00	-0.23	0.00	0.00

WELL# 3

STATIC =

OLD DATA:

DATE	TIME
07-May-93	7:50
10-May-93	7:47
11-May-93	7:46
12-May-93	7:45
13-May-93	7:49
14-May-93	7:47

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPMWK.	DRAWDOWN	S.C.	PSI
		11288480.00					
	50.40	11288480.00	0.00		12.07	0.00	0.00
	50.50	11288480.00	0.00		12.17	0.00	0.00
	49.80	11304540.00	11.16		11.57	0.86	0.00
	49.80	11330460.00	17.95		11.47	1.56	0.00
	49.60	11354680.00	16.84	9.19	11.27	1.49	0.00

WELL# 4

STATIC =

OLD DATA:

DATE	TIME
07-May-93	7:50
10-May-93	7:47
11-May-93	7:46
12-May-93	7:45
13-May-93	7:49
14-May-93	7:47

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPMWK.	DRAWDOWN	S.C.	PSI
		57247260.00					
	50.20	57513160.00	61.57		11.20	5.50	0.00
	50.20	57602220.00	61.85		11.20	5.52	0.00
	50.20	57691500.00	62.04		11.20	5.54	0.00
	50.28	57777300.00	59.42		11.28	5.27	0.00
	49.80	57863590.00	60.01	60.98	10.80	5.56	0.00

WELL# 5

STATIC =

OLD DATA:

DATE	TIME
07-May-93	7:50
10-May-93	7:47
11-May-93	7:46
12-May-93	7:45
13-May-93	7:49
14-May-93	7:47

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPMWK.	DRAWDOWN	S.C.	PSI
		9111050.00					
	50.30	9111180.00	0.03		15.14	0.00	0.00
	50.28	9111180.00	0.00		15.12	0.00	0.00
	50.30	9111180.00	0.00		15.14	0.00	0.00
	50.28	9111180.00	0.00		15.12	0.00	0.00
	50.30	9111180.00	0.00	0.01	15.14	0.00	0.00

AR308079

STANDARD CHLORINE OF DE INC
DELAWARE CITY PLANT

FILE NAME: REC WEL
5/21/93
GROUND WATER RECOVERY WELLS

WELL# 1
STATIC =

47.25
DATE
14-May-93 7:47
17-May-93 7:48
18-May-93 7:50
19-May-93 7:48
20-May-93 7:49
21-May-93 7:47

DOWN
TIME
(MIN)

LEVEL

TOTALIZER

G.P.M. GPMWK

AVG.

DRAWDOWN

S.C.

PSI

WELL# 2
STATIC =

48.33
DATE
14-May-93 7:47
17-May-93 7:48
18-May-93 7:50
19-May-93 7:48
20-May-93 7:49
21-May-93 7:47

DOWN
TIME
(MIN)

LEVEL

TOTALIZER

G.P.M. GPMWK

AVG.

DRAWDOWN

S.C.

PSI

WELL# 3
STATIC =

38.33
DATE
14-May-93 7:47
17-May-93 7:48
18-May-93 7:50
19-May-93 7:48
20-May-93 7:49
21-May-93 7:47

DOWN
TIME
(MIN)

LEVEL

TOTALIZER

G.P.M. GPMWK

AVG.

DRAWDOWN

S.C.

PSI

WELL# 4
STATIC =

38.00
DATE
14-May-93 7:47
17-May-93 7:48
18-May-93 7:50
19-May-93 7:48
20-May-93 7:49
21-May-93 7:47

DOWN
TIME
(MIN)

LEVEL

TOTALIZER

G.P.M. GPMWK

AVG.

DRAWDOWN

S.C.

PSI

WELL# 5
STATIC =

35.16
DATE
14-May-93 7:47
17-May-93 7:48
18-May-93 7:50
19-May-93 7:48
20-May-93 7:49
21-May-93 7:47

DOWN
TIME
(MIN)

LEVEL

TOTALIZER

G.P.M. GPMWK

AVG.

DRAWDOWN

S.C.

PSI

AR308080

STANDARD CHLORINE OF DE INC
DELAWARE CITY PLANT

FILE NAME: REC WEL
5/28/93

GROUND WATER RECOVERY WELLS

WELL # 1
STATIC =

OLD DATA:
DATE 47.25 TIME
21-May-93 7:47
24-May-93 7:47
25-May-93 7:50
26-May-93 7:48
27-May-93 7:45
28-May-93 7:47

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
		12798710.00					
	53.50	12998820.00	45.86		6.25	7.34	26.00
	53.50	13063030.00	45.88		6.25	7.34	26.00
	53.60	13129110.00	45.95		6.35	7.24	26.00
	53.60	13193410.00	44.75		6.35	7.05	26.00
	53.60	13259300.00	45.69	45.63	6.35	7.20	26.00

WELL # 2
STATIC =

OLD DATA:
DATE 46.33 TIME
21-May-93 7:47
24-May-93 7:47
25-May-93 7:50
26-May-93 7:48
27-May-93 7:45
28-May-93 7:47

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
		26303550.00					
1440	46.16	26303550.00	0.00		-0.17	0.00	0.00
1440	46.30	26303550.00	0.00		-0.03	0.00	0.00
1440	46.30	26303550.00	0.00		-0.03	0.00	0.00
1440	46.30	26303550.00	0.00		-0.03	0.00	0.00
1440	46.30	26303550.00	0.00	0.00	-0.03	0.00	0.00

WELL # 3
STATIC =

OLD DATA:
DATE 38.33 TIME
21-May-93 7:47
24-May-93 7:47
25-May-93 7:50
26-May-93 7:48
27-May-93 7:45
28-May-93 7:47

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
		11519650.00					
	49.60	11592720.00	16.91		11.27	1.50	0.00
	50.20	11617210.00	16.97		11.87	1.43	0.00
	50.30	11641860.00	17.14		11.97	1.43	0.00
	50.40	11666120.00	16.88		12.07	1.40	0.00
	50.38	11691120.00	17.34	17.05	12.05	1.44	0.00

WELL # 4
STATIC =

OLD DATA:
DATE 39.00 TIME
21-May-93 7:47
24-May-93 7:47
25-May-93 7:50
26-May-93 7:48
27-May-93 7:45
28-May-93 7:47

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
		58409040.00					
	50.30	58621030.00	49.04		11.30	4.34	0.00
	50.20	58691830.00	49.17		11.20	4.39	0.00
	50.00	58762350.00	49.04		11.00	4.46	0.00
	50.20	58831230.00	47.93		11.20	4.28	0.00
	50.00	58900000.00	47.69	48.57	11.00	4.34	0.00

WELL # 5
STATIC =

OLD DATA:
DATE 35.16 TIME
21-May-93 7:47
24-May-93 7:47
25-May-93 7:50
26-May-93 7:48
27-May-93 7:45
28-May-93 7:47

DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
		9111180.00					
	50.40	9111180.00	0.00		15.24	0.00	0.00
	50.40	9111180.00	0.00		15.24	0.00	0.00
	50.40	9111180.00	0.00		15.24	0.00	0.00
	50.40	9111180.00	0.00		15.24	0.00	0.00
	50.40	9111180.00	0.00	0.00	15.24	0.00	0.00

AR308081

DOWN-TIME LOG
April 1993
RECOVERY WELLS #1 THROUGH #5

<u>DATE</u>	<u>WELL</u>	<u>DOWN-TIME</u>	<u>REMARKS</u>
4/1 - 4/30	2	1 month	Pump failure
4/1 - 4/13	3	13 days	Leaking discharge line
4/14	1,3,4	10 hours	Boiler #3 down for steam leak repairs
4/27	1,3,4	3.5 hours	Repairs to pH control system at M-1 column

REPAIRS AND MODIFICATIONS
April 1993

Totalizer at GWR #3 and GWR #5 malfunctioned. Flows estimated to be less than 5 gpm.

AR308082

STANDARD CHLORINE OF DE INC
DELAWARE CITY PLANT

FILE NAME: RECOWEL
4/09/93

GROUND WATER RECOVERY WELLS

WELL# 1
STATIC =

DATE 47.25
02-Apr-93 7:49
05-Apr-93 7:43
06-Apr-93 7:49
07-Apr-93 7:48
08-Apr-93 7:48
09-Apr-93 7:45

DOWN TIME (MIN) LEVEL TOTALIZER G.P.M. GPM/WK. AVG. S.C. PSI
54.00 9602720.00 44.02 6.75 25.00
53.90 9792610.00 45.84 6.65 25.00
53.88 9858890.00 46.02 6.63 25.00
53.88 9925110.00 45.63 6.61 25.00
53.88 9990820.00 46.59 6.63 25.00
53.88 10057770.00 45.62 7.03 25.00

WELL# 2
STATIC =

DATE 46.33
02-Apr-93 7:49
05-Apr-93 7:43
06-Apr-93 7:49
07-Apr-93 7:48
08-Apr-93 7:48
09-Apr-93 7:45

DOWN TIME (MIN) LEVEL TOTALIZER G.P.M. GPM/WK. AVG. S.C. PSI
1440 26277420.00 0.00 0.27 0.00
1440 26277420.00 0.00 0.27 0.00
1440 26277420.00 0.00 0.27 0.00
1440 26277420.00 0.00 0.15 0.00
1440 26277420.00 0.00 0.15 0.00

WELL# 3
STATIC =

DATE 38.33
02-Apr-93 7:49
05-Apr-93 7:43
06-Apr-93 7:49
07-Apr-93 7:48
08-Apr-93 7:48
09-Apr-93 7:45

DOWN TIME (MIN) LEVEL TOTALIZER G.P.M. GPM/WK. AVG. S.C. PSI
1440 11288450.00 0.00 0.63 0.00
1440 11288450.00 0.00 0.57 0.00
1440 11288450.00 0.00 0.55 0.00
1440 11288460.00 0.01 0.47 0.00
1440 11288460.00 0.00 0.49 0.00

WELL# 4
STATIC =

DATE 39.00
02-Apr-93 7:49
05-Apr-93 7:43
06-Apr-93 7:49
07-Apr-93 7:48
08-Apr-93 7:48
09-Apr-93 7:45

DOWN TIME (MIN) LEVEL TOTALIZER G.P.M. GPM/WK. AVG. S.C. PSI
48.80 54332240.00 57.33 9.80 0.00
48.70 54580250.00 59.14 9.70 0.00
48.60 54665410.00 58.42 9.60 0.00
48.64 54749470.00 58.02 9.64 0.00
48.68 54833020.00 58.22 9.68 0.00
48.68 54916650.00 58.20 6.01 0.00

WELL# 5
STATIC =

DATE 35.16
02-Apr-93 7:49
05-Apr-93 7:43
06-Apr-93 7:49
07-Apr-93 7:48
08-Apr-93 7:48
09-Apr-93 7:45

DOWN TIME (MIN) LEVEL TOTALIZER G.P.M. GPM/WK. AVG. S.C. PSI
50.50 91002220.00 0.83 15.34 0.00
50.50 9103790.00 1.17 15.34 0.00
50.46 9105480.00 0.88 15.30 0.00
50.50 9106890.00 0.78 15.34 0.00
50.50 9108020.00 0.77 15.34 0.00
50.50 9109120.00 0.91 0.05 0.00

AR308083

STANDARD CHLORINE OF DE INC
DELAWARE CITY PLANT

FILE NAME: REC WEL
4/16/93
GROUND WATER RECOVERY WELLS

WELL # 1
STATIC =

DATE 47.25
09-Apr-93 7:45
12-Apr-93 7:45
13-Apr-93 7:50
14-Apr-93 8:00
15-Apr-93 7:48
16-Apr-93 7:45

DOWN TIME (MIN) LEVEL TOTALIZER G.P.M. GPMWK. AVG. GPMWK. DRAWDOWN S.C. PSI
53.88 10057770.00 46.30 6.63 6.88 25.00
53.88 10257770.00 47.45 6.63 7.16 25.00
600 10328330.00 46.08 1.65 27.92 0.00
54.34 10430430.00 26.11 7.08 3.68 26.00
53.88 10497620.00 46.76 6.63 7.05 25.00

WELL # 2
STATIC =

DATE 48.33
09-Apr-93 7:45
12-Apr-93 7:45
13-Apr-93 7:50
14-Apr-93 8:00
15-Apr-93 7:48
16-Apr-93 7:45

DOWN TIME (MIN) LEVEL TOTALIZER G.P.M. GPMWK. AVG. GPMWK. DRAWDOWN S.C. PSI
1440 26277420.00 0.00 0.15 0.00 0.00
1440 26277420.00 0.00 0.13 0.00 0.00
1440 26277420.00 0.00 0.13 0.00 0.00
1440 26277420.00 0.00 0.17 0.00 0.00
1440 26277420.00 0.00 0.13 0.00 0.00

WELL # 3
STATIC =

DATE 38.33
09-Apr-93 7:45
12-Apr-93 7:45
13-Apr-93 7:50
14-Apr-93 8:00
15-Apr-93 7:48
16-Apr-93 7:45

DOWN TIME (MIN) LEVEL TOTALIZER G.P.M. GPMWK. AVG. GPMWK. DRAWDOWN S.C. PSI
1440 11288460.00 0.00 0.49 0.00 0.00
1140 11288460.00 0.00 0.47 0.00 0.00
600 11288460.00 0.00 0.07 0.00 0.00
51.50 11288470.00 0.01 13.17 0.00 0.00
51.48 11288470.00 0.00 13.15 0.00 0.00

WELL # 4
STATIC =

DATE 39.00
09-Apr-93 7:45
12-Apr-93 7:45
13-Apr-93 7:50
14-Apr-93 8:00
15-Apr-93 7:48
16-Apr-93 7:45

DOWN TIME (MIN) LEVEL TOTALIZER G.P.M. GPMWK. AVG. GPMWK. DRAWDOWN S.C. PSI
48.68 54916650.00 57.80 9.68 5.97 0.00
48.78 55166650.00 58.60 9.78 5.99 0.00
600 55251040.00 54.52 2.80 20.97 0.00
48.40 55330100.00 37.24 9.40 3.96 0.00
48.90 55383280.00 56.63 9.90 5.72 0.00

WELL # 5
STATIC =

DATE 35.16
09-Apr-93 7:45
12-Apr-93 7:45
13-Apr-93 7:50
14-Apr-93 8:00
15-Apr-93 7:48
16-Apr-93 7:45

DOWN TIME (MIN) LEVEL TOTALIZER G.P.M. GPMWK. AVG. GPMWK. DRAWDOWN S.C. PSI
50.50 9109120.00 0.32 15.34 0.02 0.00
50.48 9110520.00 0.28 15.32 0.02 0.00
50.44 9111050.00 0.09 15.28 0.01 0.00
50.40 9111050.00 0.00 15.24 0.00 0.00
50.38 9111050.00 0.00 15.32 0.00 0.00

AR308084

STANDARD CHLORINE OF DE INC
DELAWARE CITY PLANTFILE NAME: REC WEL
4/23/93
GROUND WATER RECOVERY WELLSWELL# 1
STATIC =

DATE	TIME	DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
16-Apr-93	7:45	47.25	53.70	10497620.00					
19-Apr-93	8:00		53.38	10702110.00	47.17		6.45	7.31	25.00
20-Apr-93	7:50		53.70	10768840.00	46.52		6.13	7.59	25.00
21-Apr-93	7:53		53.70	10833800.00	45.16		6.45	7.00	25.00
22-Apr-93	7:52		53.60	10900520.00	46.37		6.35	7.30	25.00
23-Apr-93	7:48		53.78	10967390.00	46.57	46.36	6.53	7.13	25.00

WELL# 2
STATIC =

DATE	TIME	DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
16-Apr-93	7:45	46.33	46.40	26277420.00					
19-Apr-93	8:00		46.40	26277420.00	0.00		0.07	0.00	0.00
20-Apr-93	7:50		46.40	26277420.00	0.00		0.07	0.00	0.00
21-Apr-93	7:53		46.40	26277420.00	0.00		0.07	0.00	0.00
22-Apr-93	7:52		46.40	26277420.00	0.00		0.07	0.00	0.00
23-Apr-93	7:48		46.40	26277420.00	0.00	0.00	0.07	0.00	0.00

WELL# 3
STATIC =

DATE	TIME	DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
16-Apr-93	7:45	38.33	51.30	11288470.00					
19-Apr-93	8:00		51.44	11288470.00	0.00		12.97	0.00	0.00
20-Apr-93	7:50		51.44	11288470.00	0.00		13.11	0.00	0.00
21-Apr-93	7:53		51.44	11288470.00	0.00		13.11	0.00	0.00
22-Apr-93	7:52		51.50	11288470.00	0.00		13.17	0.00	0.00
23-Apr-93	7:48		51.48	11288470.00	0.00	0.00	13.15	0.00	0.00

WELL# 4
STATIC =

DATE	TIME	DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
16-Apr-93	7:45	39.00	48.80	55464660.00					
19-Apr-93	8:00		48.80	55713530.00	57.74		9.80	5.89	0.00
20-Apr-93	7:50		48.80	55796070.00	57.32		9.80	5.85	0.00
21-Apr-93	7:53		48.86	55875900.00	55.32		9.86	5.61	0.00
22-Apr-93	7:52		48.88	55956680.00	56.14		9.88	5.68	0.00
23-Apr-93	7:48		48.84	56037470.00	56.26	56.56	9.84	5.72	0.00

WELL# 5
STATIC =

DATE	TIME	DOWN TIME (MIN)	LEVEL	TOTALIZER	G.P.M.	AVG. GPM/WK	DRAWDOWN	S.C.	PSI
16-Apr-93	7:45	35.16	50.48	9111050.00					
19-Apr-93	8:00		50.40	9111050.00	0.00		15.32	0.00	0.00
20-Apr-93	7:50		50.40	9111050.00	0.00		15.24	0.00	0.00
21-Apr-93	7:53		50.40	9111050.00	0.00		15.24	0.00	0.00
22-Apr-93	7:52		50.40	9111050.00	0.00		15.24	0.00	0.00
23-Apr-93	7:48		50.40	9111050.00	0.00	0.00	15.24	0.00	0.00

AR308085

STANDARD CHLORINE OF DE INC
DELAWARE CITY PLANT

FILE NAME: REC WEL

4/30/93

GROUND WATER RECOVERY WELLS

WELL# 1
STATIC =

47.25
DATE TIME
23-Apr-93 7:48
26-Apr-93 7:48
27-Apr-93 7:50
28-Apr-93 7:56
29-Apr-93 7:50
30-Apr-93 7:48

DOWN TIME (MIN) LEVEL TOTALIZER G.P.M. GPMWK. AVG. GPMWK. S.C. DRAWDOWN PSI
53.54 10667390.00 46.03 6.29 7.32 25.00
210 53.60 11232560.00 45.98 6.35 7.24 25.00
53.94 11289300.00 38.24 6.69 5.87 25.00
53.74 11357530.00 47.58 6.49 7.33 25.00
53.70 11425015.00 46.93 6.45 7.28 25.00

WELL# 2
STATIC =

48.33
DATE TIME
23-Apr-93 7:48
26-Apr-93 7:48
27-Apr-93 7:50
28-Apr-93 7:56
29-Apr-93 7:50
30-Apr-93 7:48

DOWN TIME (MIN) LEVEL TOTALIZER G.P.M. GPMWK. AVG. GPMWK. S.C. DRAWDOWN PSI
1320 48.60 26277420.00 0.84 2.27 0.37 0.00
1320 61.24 26281040.00 10.26 14.91 0.69 0.00
1440 46.30 26302260.00 4.45 -0.03 -148.22 0.00
1440 46.34 26303550.00 0.90 0.01 89.96 0.00
1440 46.32 26303550.00 0.00 -0.01 0.00 0.00

WELL# 3
STATIC =

38.33
DATE TIME
23-Apr-93 7:48
26-Apr-93 7:48
27-Apr-93 7:50
28-Apr-93 7:56
29-Apr-93 7:50
30-Apr-93 7:48

DOWN TIME (MIN) LEVEL TOTALIZER G.P.M. GPMWK. AVG. GPMWK. S.C. DRAWDOWN PSI
51.56 11288470.00 0.00 13.23 0.00 0.00
210 51.10 11288470.00 0.00 12.77 0.00 0.00
51.56 11288470.00 0.00 13.23 0.00 0.00
51.20 11288470.00 0.00 12.87 0.00 0.00
50.50 11288480.00 0.01 12.17 0.00 0.00

WELL# 4
STATIC =

39.00
DATE TIME
23-Apr-93 7:48
26-Apr-93 7:48
27-Apr-93 7:50
28-Apr-93 7:56
29-Apr-93 7:50
30-Apr-93 7:48

DOWN TIME (MIN) LEVEL TOTALIZER G.P.M. GPMWK. AVG. GPMWK. S.C. DRAWDOWN PSI
49.04 56037470.00 56.02 10.04 5.58 0.00
210 49.10 56276590.00 55.23 10.10 5.47 0.00
49.24 56427680.00 47.41 10.24 4.63 0.00
49.40 56516690.00 62.07 10.40 5.97 0.00
49.50 56608725.00 64.00 10.50 6.10 0.00

WELL# 5
STATIC =

35.16
DATE TIME
23-Apr-93 7:48
26-Apr-93 7:48
27-Apr-93 7:50
28-Apr-93 7:56
29-Apr-93 7:50
30-Apr-93 7:48

DOWN TIME (MIN) LEVEL TOTALIZER G.P.M. GPMWK. AVG. GPMWK. S.C. DRAWDOWN PSI
50.40 9111050.00 0.00 15.24 0.00 0.00
50.40 9111050.00 0.00 15.24 0.00 0.00
50.40 9111050.00 0.00 15.24 0.00 0.00
9111050.00 0.00 15.24 0.00 0.00

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