MALCOLM PIRNIE

ANNUAL REPORT TREATMENT SYSTEM OPERATION, MAINTENANCE AND MONITORING

N.Y.S. Superfund Standby Contract
Work Assignment #D002852-26
Roxy Cleaners, Site #4-42-024

New York State Department of
Environmental Conservation
Division of Environmental Remediation

Prepared by:

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November 3, 1998
0266330

RECYCLED PAPER

ANNUAL REPORT ON TREATMENT SYSTEM OPERATION, MAINTENANCE AND MONITORING

September 30, 1997 - September 29, 1998
Roxy Cleaners Site # 4-42-024
New York State Superfund Standby Contract
Work Assignment #D002852-26

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GENERAL

The New York State Department of Environmental Conservation authorized Malcolm Pirnie, Inc. to perform Operation, Maintenance and Monitoring Services at the Roxy Cleaners Site by letter dated September 12, 1997. This annual report has been prepared in accordance with the approved Work Plan for this site. It discusses the performance and effectiveness of the remediation, describes the O&M tasks which are being performed and evaluates the O&M program. A summary of the last three quarterly status reports have been included as well as information on the operation of the last quarter (June 12, 1998 - September 30, 1998).

TREATMENT SYSTEM O&M ACTIVITIES

Weekly site inspections have been conducted by Star Environmental, subcontractor to Malcolm Pirnie, Inc. since the last week of September 1997. A site inspection form is filled in as part of each inspection. Operating conditions at the site and any routine maintenance conducted are recorded on this form. A summary of all the weekly inspections, maintenance and monitoring activities is presented in the Site Inspection Summary Table in Appendix A. A summary of all consumable supplies used during the year is also included in Appendix A.

SITE OPERATIONS DURING YEAR

A summary of the site operating parameters during the year is provided below.

1. The combined average pumping rate of the three recovery wells, RW-1, RW-2 and RW-3, is approximately 21 gpm. RW-1 was designed to pump at a rate of 0.5 gpm, but the yield of this well is not sufficient to maintain this pumping rate. The pump cycles off as the well is drawn down and comes on when the water level has recovered. When pumping, the flow rate from this well is approximately 0.4 gpm. The average pumping rate for the last quarter, as well as the year, was approximately 0.2 gpm.

The original design pumping rate at RW-2 was 5.0 gpm. The actual pumping rate for the last quarter was approximately 5.8 gpm and averaged 6.3 gpm for the year. RW-2 is developed in the surficial aquifer and is located immediate adjacent to RW-1, a bedrock well. The slightly higher pumping rate has been maintained at RW-2 in an attempt to reduce the downward hydraulic gradient which may drive contamination into the bedrock at this location. When the pumping rate was increased from approximately 5 gpm to 6 gpm, an immediate increase was noted in the concentration of contaminants in the discharge, but the level has returned to its original amount. We will continue to pump this well at approximately 6 gpm as we are capturing slightly more contaminants at the slightly higher pumping rate.

The pumping rate at RW-3 averaged 15 gpm for the last quarter and 15.3 gpm for the year, while the design called for a rate of 16 gpm. Some variations in pumping rates occur each week at RW-2 and RW-3 as a result of changes in the head losses across the filters on the pump discharge lines. As these water filters become clogged, the head loss across them increases and the pump discharge rates decrease. Therefore, it is usually necessary to open a throttling valve on the discharge line a slight amount each week to restore the pumping rate to something slightly greater than the design value. This compensates for the drop-off in flow rate that will occur over the following week. When the pressure drop across the filters approaches the point that a pump will not deliver its design flow, the filter is changed and the throttling valve is adjusted to create an artificial head loss sufficient to bring the pump discharge rate close to the design flow. The influent filters have been changed twice for RW-1 and RW-2 and 3 times on RW-3 in the last quarter of this reporting period. There have been more filters changed on RW-3 because it filters much more water each day than the others. A total of 26 influent water filters have been replaced in the first year of plant operations.

2. On August 17, 1998, RW-1 pump speed increased, for some unknown reason, and increased the flow rate from this well. This resulted in a very short run time for the pump as the yield of this well is very low. Attempts to reduce the pump speed using the speed controller were unsuccessful. However, the problem was resolved by temporarily interrupting all power to the motor and control circuits for the pump and resetting the controls. The pump has operated properly since this event and the problem has not recurred.

3. Three, 55-gallon size granular activated carbon filled drums are placed in series to clean the air exiting the air stripper. The carbon filters for the air system have been monitored, and the first one was replaced on March 17, 1998. The second carbon filter was changed July 15, 1998 due to a dramatic increase in the pressure drop across the filter. This may have been caused by water saturated air condensating on the carbon.

4. The air filter on the blower intake has been replaced 3 times this quarter and 8 times for the year.

5. A slight organic odor had been noticed periodically near the duct heater in the system. A slight leak exists in the air duct where the electrical power cables connect to the inline heater. Attempts have been made to completely seal this leak a number of times, but it appears to recur regularly. VOC levels in the treatment building remain at background when monitored with a photoionization detector, even when a slight organic odor is noticeable, so the leak is not a cause for concern. However, the leak area will continue to be monitored to detect any signs that the volume of air escaping might be increasing.

6. A 55-gallon drum located on the facility is filled with used water filters that have been tested and found to contain TCE levels high enough to be considered hazardous waste. A second 55-gallon drum located in the facility is filled with water drained from the filter housings during filter changes, water used to clean the stripper, and water bailed out of the concrete sump. This water is reddish brown in color and contains some solids from the stripper cleaning. There is also approximately 8 oz. of residual material from the stripper cleaning. Arrangements are being made to dispose of these wastes.

7. The air stripper was taken apart and cleaned on January 20, 1998. A complete set of new gaskets was purchased for the stripper trays prior to dismantling the system. The old gaskets were inspected and, inasmuch as they had not been damaged during dismantling of the trays, they were re-used. The new gaskets have been kept in inventory for future use.

MONITORING ACTIVITIES

1. **Discharge (SPDES) Sampling and Analysis:** Starting October 7, 1997 samples of the treatment system effluent have been taken on a monthly basis from the discharge of the stripper and analyzed at the New York State Department of Health laboratory. Ten consecutive weekly sampling events were conducted during plant startup and prior to the approval of Malcolm Pirnie's Work Assignment. The contaminant values for the effluent have not exceeded that of the stated discharge limitations, so the monitoring continues to be a monthly event. The results of all effluent sample analyses are included in Appendix B.

   The NYSDOH analyses the water samples using the TOC-VOC-W method instead of the EPA methods described in the Work Plan. Some contaminants required by the SPDES permit are being left out of the analyses. The NYSDEC Project Manager has been notified of this situation and has been trying to resolve it.

2. **Treatment System Influent Sampling and Analysis:** Samples were collected from the influent pipelines from each of the three wells and the combined influent header pipe for 10 consecutive weeks during plant startup in the Spring of 1997 and monthly for the first 6 months following authorization of this Operations, Maintenance and Monitoring Work Assignment. At the end of the first 6 months, the monthly sampling was decreased to once every three months in accordance with the DEC approved Work Plan. These samples provide a basis for determining the mass of contaminants recovered from the groundwater at the three wells and are also used in determining the removal efficiency of the shallow tray treatment system. The results of these analyses are included in Appendix B.

3. **Recovery Well System Evaluation**: The results of the sampling and analyses were evaluated to determine the amount of contaminates removed from the groundwater by the three recovery wells and to graph the trends in recovery well contaminate concentrations. Over the first full year of operation, 1,2 Dichloroethene (DCE) has been removed at an average rate of 14.3 grams/week, Trichloroethene (TCE) at 2.5 grams/week and Tetrachloroethene (PCE) at 334 grams/week. This contaminant recovery is similar to the fourth quarters results of 15.5 grams/week, 3.4 grams/week, and 308 grams/week respectively. Contaminate concentrations in RW-1 have been approximately twice as high as RW-2 and RW-3, however, the flow in RW-1 is 25 times lower than that of RW-2 and 75 times lower than RW-3. The amount of contaminates removed and concentration trends for the various contaminants are included in Appendix C.

   Total Contaminant Recovery: The overall mass of contaminants (1,2 DCE, TCE, PCE) recovered from the groundwater between September 30, 1997 and September 30, 1998 has been approximately 18.22 kg, 95 percent of which is PCE. This information is summarized in the Contaminant Recovery Summary in Appendix C.

   RW-1: Although analytical analysis for RW-1 has demonstrated that it has the greatest average concentration of contamination (856 MCG/L), this well has a very low recovery rate, and therefore, a very low yield. This well has recovered approximately 0.34 kg, or 2 percent, of the total contaminants removed over the last year. Contaminant concentration and removal for this well has remained constant throughout the past year.

   RW-2: The contaminant concentration in this well has shown a consistent decrease from the start of operations in September of 1997. The concentration of the three target contaminants has decreased from 1340 MCG/L in October of 1997 to 376 MCG/L in September of 1998. Likewise, the contaminant removal has decreased from 305 grams/week to 90 grams/week. Through September, 1998 this well has removed 26 percent of the total contaminants removed.

RW-3: The pump at RW-3 was inoperable until November of 1997. The contaminant concentration in the beginning of operations was 523 MCG/L. This concentration has decreased slightly to approximately 408 MCG/L. The pumping rate at RW-3 is much higher than the other wells and, therefore, the greatest recovery of contaminants has occurred at this well. Through September 1998, RW-3 has removed approximately 70 percent of the total contaminants removed.

4. **Monitoring Well Sampling and Analyses**: The NYSDEC has organized a team to sample and arrange for analyses of monitoring wells at the Roxy Site. Samples of water from the monitoring wells 103A, 107, 107A, 111, 2, 2B, 108 and 108A are collected and analyzed every 6 months. Samples were collected in July and November of 1997 and then again in July of 1998. Monitoring wells 3, 3B, 106, 106A, 109, 105, 105A, 104, and 104A are collected once a year and have been collected July of 1997 and July of 1998.

   A monitoring well contamination summary has been included in Appendix D. The monitoring well that showed the greatest contamination level was MW-103A. This well is located adjacent to the RW-1. The amount of PCE in this recovery well has decreased from 3200 ppm to 1200 ppm since July of 1997. The amount of 1,2Dichloroethene and trichloroethene has stayed about the same. Monitoring wells 111, 107, 107A, and 2 have all maintained approximately the same contamination level for all three contaminants. The rest of the monitoring wells have not displayed any contamination. Figure 1 in Appendix D displays the location and contamination range of each of the monitoring wells tested.

5. **Monitoring Recovery Well Capture Zones:** Beginning on November 5, 1997, groundwater elevations have been measured to insure that the cones of influence created by the recovery wells are maintained. The overburden wells were used to create water elevation contour maps. Group A Wells were measured at one month intervals for the first six months and then quarterly thereafter; group B Wells have been measured quarterly. Maps for the last year of measurements are included in Appendix E.

   The monitoring well PZ-2 was covered by gravel and was not located until April, 1998. Once it was found, water levels were taken and included in the preparation of the potentiometric contour maps.

   Monitoring well PZ-4 has not been included in the determination of the groundwater contours because its water surface elevation is 15 ft. higher than the other wells in the same vicinity. A possible cause for this anomaly could be the presence of a new water main trench which passes within a few feet of this well. The stone bedding around the water pipe may be conveying water and increasing groundwater recharge at the well location.

The groundwater contour maps indicate that the recovery wells are, indeed, capturing the majority of the contaminated plume at the site.

APPENDIX A

Site Inspection Summaries

Roxy Cleaners Site No. 442024
Malcolm Pirnie Project No. 0266330

CONSUMABLE SUPPLIES USED

September 30, 1997 - September 29, 1998

ITEM	Quantity Used	DESCRIPTION
Water Filters TOTAL	26	50 Micron, Polypropylene Filter
Water Filters RW1	*7*	
Water Filters RW2	*8*	
Water Filters RW3	*11*	
Air Filters	8	10 Micron, Polyester Filter
Carbon Drums	2	200 Lb., GAC Canisters
Control Panel Light Bulbs	6	Control Panel Bulbs, 24 V

Miscellaneous Supplies Include, but are not limited to: Bailer cord and tubing, buckets, paper towels, polyethylene sheets, logbooks, clear tape, zip lock bags, disposable cameras, film developing, cleaning supplies for the air stripper, Hnu calibration gas.

Roxy Cleaners Site No.442024
Malcolm Pirnie Project No. 0266330
Site Inspection Summary

WATER SYSTEM DATA	INSPECTION DATE													
Description	9/30/97	10/7/97	10/14/97	10/21/97	10/28/97	11/4/97	11/11/97	11/18/97	11/25/97	12/2/97	12/9/97	12/16/97	12/23/97	12/30/97
RW-1 Operating? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
RW-1 Flow Totalizer Reading (gal)	4.4	68601.1	71285.4	74091.1	76650.1	79222.2	81862.3	84082.3	86565.7	88250.6	89317.6	90996.2	92133.7	94149.1
2nd Totalizer Reading (gal)	4.7	68606.8	71289.2	74097.8	76656	79226.1	81866	84088.3	86570.6	88255.2	89322.5	90999.1	92139.8	94154.5
Gallons Pumped	0.3	5.7	3.8	6.7	5.9	3.9	3.7	6	4.9	4.6	4.9	2.9	6.1	5.4
Time Elapsed (min)	1	20	12	13	12	9	10	15.83	14	14	16.5	10	21	18
Flow Rate (gpm)	0.30	0.28	0.32	0.52	0.49	0.43	0.37	0.38	0.35	0.32	0.30	0.29	0.29	0.30
RW-1 Pressure Before Filter (psi)	30	29	27	24	27	24	22	24	24	23	23	24	21	24
RW-1 Pressure After Filter (psi)	29	28	26	22	26	23	22	23	23	22	22	24	20	24
RW-1 Filter Changed? Y/N	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
RW-1 Pump Speed Setting	69.5		69.5	69.5	69.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5
RW-1 Well Level Reading	19.5	10	9.5	8.5	9.5	8	8.5	10	9	9	9	9.5	8.5	9.5
RW-1 Flow Valves Adjusted? Y/N	YES	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO
RW-1 Pump Speed Adjusted? Y/N	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
RW-2 Operating? Y/N	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
RW-2 Flow Totalizer Reading (gal)		53678.5	567530.5	634126	693052.1	747134.5	813650.5	868400	927600	986221.5	1045948.1	1104308	1157800	1214111
2nd Totalizer Reading (gal)		53686.5	567556.8	634160	693117.7	747234	813754	868517.4	927748.8	986355.5	1046058.8	1104392	1157948	1214247
Gallons Pumped		8	26.3	34	65.6	99.5	103.5	117.4	148.8	134	110.7	84	148.1	136
Time Elapsed (min)		22	6	7	13	17	16	20	24	23	19	17	27	24
Flow Rate (gpm)		0.36	4.38	4.86	5.05	5.85	6.47	5.87	6.20	5.83	5.83	4.94	5.49	5.67
RW-2 Pressure Before Filter (psi)		45	25	41	18	20	36	43	43	43	43	35	42	44
RW-2 Pressure After Filter (psi)		8	28	44	20	22	38	44	45	45	45	38	44	46
RW-2 Filter Changed? Y/N		NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO
RW-1 Pump Speed Setting			95	89	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5
RW-2 Well Level Reading	10	9.5	9.5	9.5	9	9.5	10	10	10	10.5	10.5	10.5	10	10
RW-2 Flow Adjustment? Y/N	YES	NO	YES	YES	YES	YES	YES	NO	NO	YES	YES	YES	NO	YES
RW-2 Speed Adjusted? Y/N	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
RW-3 Operating? Y/N	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES
RW-3 Flow Totalizer Reading (gal)						3080439	3242930	3396590	3559989	3721538	3885360	4046078	4208620	4369259
2nd Totalizer Reading (gal)						3080530	3243213	3396917	3560420	3721924	3885677.7	4046324	4209054	4369631
Gallons Pumped						91.1	282.9	327.4	431	386.3	317.7	246	434.1	372.1
Time Elapsed (min)						6	18	20	27	24	19	17	27	24
Flow Rate (gpm)						15.18	15.72	16.37	15.96	16.10	16.72	14.47	16.08	15.50
RW-3 Pressure Before Filter (psi)						20	20	17	18	18	18	18	18	18
RW-3 Pressure After Filter (psi)						8	8	10	10	10	11	10	10	10
RW-3 Filter Changed? Y/N						YES	NO	NO	NO	NO	NO	YES	NO	NO
RW-3 Pump Speed Setting						110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5
RW-3 Well Level Reading						14.9	14.7	14	14.3	14.7	14.7	14.1	13.9	14
RW-3 Flow Adjustment? Y/N						YES	NO	NO	NO	NO	YES	YES	NO	NO
RW-3 Speed Adjusted? Y/N						NO	NO	NO	NO	NO	NO		NO	NO

Roxy Cleaners Site No.442024
Malcolm Pirnie Project No. 0266330
Site Inspection Summary

WATER SYSTEM DATA	INSPECTION DATE														
Description	1/6/98	1/13/98	1/20/98	1/27/98	2/5/98	2/10/98	2/17/98	2/24/97	3/3/98	3/10/98	3/17/98	3/24/98	3/30/98	4/6/98	4/14/98
RW-1 Operating? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
RW-1 Flow Totalizer Reading (gal)	94743.6	97055.7	99751.3	102266	104483.6	106748.3	109007.3	111171.3	113019.5	115502.1	117654.7	119012	120877.8	122870.7	125044.2
2nd Totalizer Reading (gal)	94747.4	97062	99760.8	102271.2	104490.1	106752.7	109014.4	111177.1	113023.8	115508.8	117658.4	119016.1	120883.8	122876.4	125049.4
Gallons Pumped	3.8	6.3	9.5	5.2	6.5	4.4	7.1	5.8	4.3	6.7	3.7	4.1	6	5.7	5.2
Time Elapsed (min)	10	23	27	10	17	12	18	12	11	17	10	10	22	16	16
Flow Rate (gpm)	0.38	0.27	0.35	0.52	0.38	0.37	0.39	0.48	0.39	0.39	0.37	0.41	0.27	0.36	0.32
RW-1 Pressure Before Filter (psi)	27	17	22	18	19	20	20	14	20	18	18	22	19	19	20
RW-1 Pressure After Filter (psi)	26	16	22	18	19	20	20	14	20	18	18	22	18	18	18
RW-1 Filter Changed? Y/N	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO
RW-1 Pump Speed Setting	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5
RW-1 Well Level Reading	32.5	9.5	8.5	9.5	9.5	9.5	8.5	9.5	9	9.5	10	8.5	9.5	8.5	8.5
RW-1 Flow Valves Adjusted? Y/N	NO	NO	YES	YES	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	NO
RW-1 Pump Speed Adjusted? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO
RW-2 Operating? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
RW-2 Flow Totalizer Reading (gal)	1227001	1278366	1331324	1371890	1413990	1456914	1499782	1540971	1575856	1623065	1664548	1690282	1758379	1851634	1920054
2nd Totalizer Reading (gal)	1227050	1278492	1331477	1371953	1414117	1457045	1499912	1541041	1575942	1623323	1664634	1690363	1758495	1851746	1920223
Gallons Pumped	48.8	125.6	153.5	63	127.2	130.8	129.9	70.3	85.7	257.6	86.3	81.2	116.8	112.2	169
Time Elapsed (min)	11	24	28	15	30	31	31	20	21	61	21	12	14	18	27
Flow Rate (gpm)	4.44	5.23	5.48	4.20	4.24	4.24	4.19	3.50	4.08	4.22	4.11	6.77	8.30	6.23	6.26
RW-2 Pressure Before Filter (psi)	44	50	43	45	45	45	45	36	41	41	41	11	15	23	43
RW-2 Pressure After Filter (psi)	46	54	46	48	48	49	49	39	44	44	42	14	15	23	44
RW-2 Filter Changed? Y/N	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO
RW-1 Pump Speed Setting	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5
RW-2 Well Level Reading	11	11	10.5	10.5	10.5	10	10	10.5	10.5	11	10.5	11	10	9.5	10
RW-2 Flow Adjustment? Y/N	YES	NO	YES	YES	NO	NO	NO	YES	NO	NO	NO	YES	NO	YES	NO
RW-2 Speed Adjusted? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO
RW-3 Operating? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
RW-3 Flow Totalizer Reading (gal)	4411807	4574728	4737373	4897969	5062461	5229190	5395290	5556115	5696836	5881601	6042869	6145828	6291090	6452878	6633517
2nd Totalizer Reading (gal)	4411969	4575107	4737827	4898200	5062964	5229685	5395795	5556450	5697175	5882597	6043227	6146413	6291315	6453250	6633937
Gallons Pumped	162	378.7	454.6	231	502.6	495.3	504.8	335.3	339	995.6	358	584.3	225	371.7	420.3
Time Elapsed (min)	10	24	28	14	31	31	31	20	21	60	23	36	14	23	26
Flow Rate (gpm)	16.20	15.78	16.24	16.50	16.21	15.98	16.28	16.76	16.14	16.59	15.57	16.23	16.07	16.16	16.17
RW-3 Pressure Before Filter (psi)	18	19	18	18	19	19	19	19	19	19	19	19	18	19	19
RW-3 Pressure After Filter (psi)	10	10	10	10	10	10	10	10	11	11	11	11	10	12	11
RW-3 Filter Changed? Y/N	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	YES	NO	YES	NO
RW-3 Pump Speed Setting	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5
RW-3 Well Level Reading	29.3	14.9	14.3	13.9	13.8	13.9	13.9	14	14.5	14.8	14.2	14.3	14.1	13.6	13.4
RW-3 Flow Adjustment? Y/N	NO	YES	YES	YES	YES	NO	YES	YES	YES	YES	NO	YES	YES	YES	NO
RW-3 Speed Adjusted? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Roxy Cleaners Site No.442024
Malcolm Pirnie Project No. 0266330
Site Inspection Summary

WATER SYSTEM DATA	INSPECTION DATE														
Description	4/21/98	4/29/98	5/5/98	5/13/98	5/18/98	5/26/98	6/2/98	6/9/98	6/16/98	6/22/98	6/30/98	7/7/98	7/15/98	7/20/98	7/29/98
RW-1 Operating? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
RW-1 Flow Totalizer Reading (gal)	126980.7	129540.1	131171.1	133466	133473	134615.8	136765.4	138922.5	140949.9	142852.3	145350.1	147422	148235	149854.9	152442
2nd Totalizer Reading (gal)	126985.9	129544.7	131176.5	133471.4	133482.3	134637.3	136769.8	138926.8	140954.2	142856.7	145354.4	147426.4	148267	149859.2	152446.2
Gallons Pumped	5.2	4.6	5.4	5.4	9.3	21.5	4.4	4.3	4.3	4.4	4.3	4.4	32.4	4.3	4.2
Time Elapsed (min)	15	5	12	11	15	32	6	4	5	5	6	5	26	4	4
Flow Rate (gpm)	0.35	0.92	0.45	0.49	0.62	0.67	0.73	1.07	0.86	0.88	0.72	0.88	1.25	1.08	1.05
RW-1 Pressure Before Filter (psi)	12	14	16	18	12	15	10	7	6	6	6	6	8	7	6
RW-1 Pressure After Filter (psi)	11	12	14	16	10	15	10	6	6	5	5	5	8	6	5
RW-1 Filter Changed? Y/N	YES	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	YES	NO	NO
RW-1 Pump Speed Setting	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5
RW-1 Well Level Reading	9	8.5	10	9.5	14	9	9	9.5	9	10	10	10	10	9.5	10
RW-1 Flow Valves Adjusted? Y/N	NO	YES	NO	YES	NO	YES	NO	NO	NO	NO	NO	NO	YES		NO
RW-1 Pump Speed Adjusted? Y/N	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO
RW-2 Operating? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
RW-2 Flow Totalizer Reading (gal)	1983489	2054751	2105730	2175954	2215378	2280800	2332735	2395742	2453322	2504357	2570802	2628042	2650637	2701557	2788764
2nd Totalizer Reading (gal)	1983810	2054900	2105917	2176086	2215531	2280883	2332826	2395912	2453466	2504537	2570916	2628163	2650688	2701671	2789074
Gallons Pumped	321.5	148.8	187	131.8	152.9	83.4	91	170	144.5	180.4	113.9	120.7	50.5	114	309.7
Time Elapsed (min)	52	23	31	22	26	16	14	28	25	32	20	21	8	18	47
Flow Rate (gpm)	6.18	6.47	6.03	5.99	5.88	5.21	6.50	6.07	5.78	5.64	5.70	5.75	6.31	6.33	6.59
RW-2 Pressure Before Filter (psi)	37	39	39	38	37	33	23	23	19	19	19	19	16	15	15
RW-2 Pressure After Filter (psi)	39	42	41	40	38	35	24	24	22	22	22	22	18	16	16
RW-2 Filter Changed? Y/N	YES	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	YES	NO	NO
RW-1 Pump Speed Setting	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5
RW-2 Well Level Reading	10	10	10	10.5	10	10	10	9.5	10	10.5	10.5	10.5	10.5	9.5	9.5
RW-2 Flow Adjustment? Y/N	NO	NO	NO	NO	YES	YES	YES	NO	YES	YES	YES	YES	YES		NO
RW-2 Speed Adjusted? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
RW-3 Operating? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
RW-3 Flow Totalizer Reading (gal)	6796421	6984415	7116800	7302033	7407533	7586678	7749922	7916239	8070014	8210368	8397012	8553828	8615334	8738441	8938600
2nd Totalizer Reading (gal)	6797258	6984761	7117286	7302363	7407936	7586925	7750232	7916676	8070414	8210876	8397330	8554160	8616130	8738717	8939347
Gallons Pumped	836.8	346.5	485.6	329.2	403	247.6	310	436.7	400	508	318	332.6	796	276	747
Time Elapsed (min)	52	22	31	21	26	16	19	28	25	32	20	21	50	17	48
Flow Rate (gpm)	16.09	15.75	15.66	15.68	15.50	15.47	16.32	15.60	16.00	15.88	15.90	15.84	15.92	16.24	15.56
RW-3 Pressure Before Filter (psi)	22	22	22	23	23	19	19	19	19	19	19	19	19	19	20
RW-3 Pressure After Filter (psi)	12	10	10	12	12	12	12	12	12	12	12	12	12	12	12
RW-3 Filter Changed? Y/N	YES	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	YES	NO	NO
RW-3 Pump Speed Setting	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5
RW-3 Well Level Reading	13.7	13.7	13.7	14.1	13.8	13.4	12.6	12.3	13.1	13.1	12.9	12.9	12.9	12.8	12
RW-3 Flow Adjustment? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES		YES
RW-3 Speed Adjusted? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Roxy Cleaners Site No.442024
Malcolm Pirnie Project No. 0266330
Site Inspection Summary

WATER SYSTEM DATA	INSPECTION DATE								
Description	8/3/98	8/10/98	8/17/98	8/25/98	8/31/98	9/8/98	9/15/98	9/22/98	9/29/98
RW-1 Operating? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES
RW-1 Flow Totalizer Reading (gal)	153902.1	155956.3	158029.7	160001	161988	164336	166343	168292	170181
2nd Totalizer Reading (gal)	153903.8	155960	158034.2	160005	161993	164340	166348	168296	170184
Gallons Pumped	1.7	3.7	4.5	4.4	4.4	4.5	4.5	4.3	3.4
Time Elapsed (min)	9	1	5	5	5	6	6	6	5
Flow Rate (gpm)	0.19	3.70	0.90	0.88	0.88	0.75	0.75	0.72	0.68
RW-1 Pressure Before Filter (psi)	8	48	6	6	6	6	6	6	5
RW-1 Pressure After Filter (psi)	7	44	5	5	5	5	5	5	4
RW-1 Filter Changed? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	YES
RW-1 Pump Speed Setting	113	113	68.5	68.5	68.5	68.5	68.5	68.5	68.5
RW-1 Well Level Reading	10	10	10	10	10	10.5	10	10.5	10.5
RW-1 Flow Valves Adjusted? Y/N	YES	NO	NO	NO	NO	NO	NO	NO	NO
RW-1 Pump Speed Adjusted? Y/N	NO	NO	YES	NO	NO	NO	NO	NO	NO
RW-2 Operating? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES
RW-2 Flow Totalizer Reading (gal)	2836932	2904850	2969548	3032514	3093923	3167152	3228566	3285852	3337628
2nd Totalizer Reading (gal)	2837105	2904961	2969674	3032645	3094108	3167004	3228779	3286074	3337761
Gallons Pumped	173.1	110.5	126.1	131.5	185.6	147.8	213.3	221.8	133
Time Elapsed (min)	26	17	20	22	31	24	36	40	27
Flow Rate (gpm)	6.66	6.50	6.31	5.98	5.99	6.16	5.92	5.55	4.93
RW-2 Pressure Before Filter (psi)	15	15	14	13	13	14	13	15	14
RW-2 Pressure After Filter (psi)	16	16	16	15	15	15	14	14	11
RW-2 Filter Changed? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	YES
RW-1 Pump Speed Setting	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5
RW-2 Well Level Reading	9.5	9.5	9.5	9	9.5	9	9	9	9.5
RW-2 Flow Adjustment? Y/N	YES	NO	NO	NO	YES	YES	YES	YES	YES
RW-2 Speed Adjusted? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO
RW-3 Operating? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES
RW-3 Flow Totalizer Reading (gal)	9050690	9214820	9373947	9530173	9687596	9876464	38026	212942	350787
2nd Totalizer Reading (gal)	9051103	9215088	9374260	9530530	9687833	9876847	38590.5	213148	351234
Gallons Pumped	413	268.2	313	357	237.2	382.9	564.5	206	446.5
Time Elapsed (min)	26	17	20	23	15	24	36	13	28
Flow Rate (gpm)	15.88	15.78	15.65	15.52	15.81	15.95	15.68	15.85	15.95
RW-3 Pressure Before Filter (psi)	20	20	19	20	20	19	18	19	19
RW-3 Pressure After Filter (psi)	12	11	11	11	11	11	11	12	11
RW-3 Filter Changed? Y/N	NO	NO	NO	NO	YES	NO	NO	NO	YES
RW-3 Pump Speed Setting	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5
RW-3 Well Level Reading	12	11.9	12	12.1	11.7	11.5	11.8	11.4	11.4
RW-3 Flow Adjustment? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO
RW-3 Speed Adjusted? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO

Roxy Cleaners Site No. 442024
Malcolm Pirnie Project No. 0266330
Site Inspection Summary

WATER SYSTEM DATA	INSPECTION DATE													
Description	9/30/97	10/7/97	10/14/97	10/21/97	10/28/97	11/4/97	11/11/97	11/18/97	11/25/97	12/2/97	12/9/97	12/16/97	12/23/97	12/30/97
Water Sample Taken? Y/N	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	YES	NO	NO	NO
SPDES? Y/N	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	YES	NO	NO	NO
Effluent pH					8.11						7.89			
Influent Water Sample Taken? Y/N	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO
Leaks? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Water in Concrete Sump? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Depth (in)	1		2	2	2	2	2	2	2	2	2	2	2	2
Stripper Cleaned? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

BLOWER/AIR SYSTEM														
Description	9/30/97	10/7/97	10/14/97	10/21/97	10/28/97	11/4/97	11/11/97	11/18/97	11/26/97	12/2/97	12/9/97	12/16/97	12/23/97	12/30/97
PRESSURE (in wc)														
Blower Intake	-0.9	-0.9	-0.9	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Air Stripper	32	33	33	36	36	36	39	40	41	40	40	39	40	38.5
Magnehelic	0.162	0.16	0.16	0.165	0.16	0.155	0.159	0.16	16	0.16	0.16	0.16	0.16	0.155
Manifold	34	34	34	34	34	32	33	34	34	33	33	33	34	32
Carbon Canister #1 Out	22	22	22	22	22	21	22	2	22	22	22	22	22	20
Carbon Canister #2 Out	12	0	5	12	12	11	11	11	11	11	11	11	11	10
Carbon Canister #3 Out	3	2	2	2	2	2	2	2	2	2	2	2	2	2
Hnu (ppm)														
Background reading	64	64	64	64	64	64	64	64	64	64	64	64	64	64
Carbon Canister #1 Out	0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Carbon Canister #2 Out	0	0.6	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.6	0.5
Carbon Canister #3 Out	0	0.2	0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4
Vapor phase booster fan on? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Intake air filter replaced? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO
Vapor phase duct heaters on? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
Leaks in air ducts? Y/N	NO	NO	NO	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO
Carbon canisters changed? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Spent drums shipped off site? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Drum #														
New drums Delivered to site? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Drum #														

BUILDING CONDITION/UTILITIES DATA	INSPECTION DATE													
Description	9/30/97	10/7/97	10/14/97	10/21/97	10/28/97	11/4/97	11/11/97	11/18/97	11/25/97	12/2/97	12/9/97	12/16/97	12/23/97	12/30/97
Inside Temperature (°F)	75	74	69	65	64	66	65	64	60	59	59	60	62	60
Building Heat On? Y/N	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES
Vent Fan On? Y/N	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Light Bulbs okay? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
High Humidity/Condensation noted? Y/N	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO
Trash Removed? Y/N	NO	YES	NO	NO	NO	NO	YES	NO	YES	NO	NO	NO	NO	NO
Floor Swept? Y/N	NO	NO	NO	NO	NO	NO	YES	NO	YES	NO	NO	YES	NO	NO
Structural Problems with Building?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Roxy Cleaners Site No. 442024
Malcolm Pirnie Project No. 0266330
Site Inspection Summary

WATER SYSTEM DATA	INSPECTION DATE												
Description	1/6/98	1/13/98	1/20/98	1/27/98	2/5/98	2/10/98	2/17/98	2/24/98	3/3/98	3/10/98	3/17/98	3/24/98	3/30/98
Water Sample Taken? Y/N	NO	YES	NO	NO	NO	YES	NO	NO	NO	YES	NO	NO	NO
SPDES? Y/N	NO	YES	NO	NO	NO	YES	NO	NO	NO	YES	NO	NO	NO
Effluent pH		8.34				8.73				8.54			
Influent Water Sample Taken? Y/N	NO	YES	NO	NO	NO	YES	NO	NO	NO	YES	NO	NO	NO
Leaks? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO
Water in Concrete Sump? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Depth (in)	2	2	2	2	2	2	2	2	2	2	2	2	2
Stripper Cleaned? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

BLOWER/AIR SYSTEM													
Description	1/6/98	1/13/98	1/20/98	1/27/98	2/5/98	2/10/98	2/17/98	2/24/98	3/3/98	3/10/98	3/17/98	3/24/98	3/30/98
PRESSURE (in wc)													
Blower Intake	-1	-1.2	-1	-0.08	-1	-1	-1	-1.2	-1	-1	0.6	0.1	0.08
Air Stripper	35	37	38	40	36	36	36	36	34	35	37	36	32
Magnehelic	0.15	0.155	0.16	0.17	0.165	0.165	0.165	0.16	0.16	0.16	0.165	0.16	0.115
Manifold	32	32	32	35	34	34	34	34	33	33	35	36	34
Carbon Canister #1 Out	20	20	20	22	22	22	22	22	22	22	22	24	22
Carbon Canister #2 Out	10	10	10	11	11	11	11	11	11	11	11	11	11
Carbon Canister #3 Out	2	2	2	2	2	2	2	2	2	2	2	2	2
Hnu (ppm)													
Background reading	64	64	64	64	64	64	64	64	64	64	64	64	64
Carbon Canister #1 Out	0.4	0.4	0.4	0.4	0.6	0.4	0.4	0.6	0.6	0.6	0.6	0.4	0.4
Carbon Canister #2 Out	0.4	0.4	0.4	0.4	0.6	0.6	0.8	0.6	0.6	0.6	0.6	0.4	0.4
Carbon Canister #3 Out	0.2	0.4	0.4	0.4	0.4	0.6	0.6	0.4	0.4	0.6	0.2	0.4	0.4
Vapor phase booster fan on? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Intake air filter replaced? Y/N	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO
Vapor phase duct heaters on? Y/N	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES
Leaks in air ducts? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Carbon canisters changed? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO
Spent drums shipped off site? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Drum #													
New drums Delivered to site? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Drum #													

BUILDING CONDITION/UTILITIES DATA													
Description	1/6/97	1/13/97	1/20/98	1/27/98	2/4/98	2/10/98	2/17/96	2/24/98	3/3/98	3/10/98	3/17/98	3/24/98	3/30/98
Inside Temperature (°F)	64	64	64	66	65	65	65	65	65	65	65	65	80
Building Heat On? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Vent Fan On? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Light Bulbs okay? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
High Humidity/Condensation noted? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Trash Removed? Y/N	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Floor Swept? Y/N	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO
Structural Problems with Building?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Roxy Cleaners Site No. 442024
Malcolm Pirnie Project No. 0266330
Site Inspection Summary

WATER SYSTEM DATA	INSPECTION DATE													
Description	4/6/98	4/14/98	4/21/98	4/29/98	5/5/98	5/13/98	5/18/98	5/26/98	6/2/98	6/9/98	6/16/98	6/22/98	6/30/98	7/7/98
Water Sample Taken? Y/N	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	YES	NO	NO
SPDES? Y/N	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	YES	NO	NO
Effluent pH			8.32					8.38				7.95		
Influent Water Sample Taken? Y/N	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Leaks? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Water in Concrete Sump? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Depth (in)	2	2	3	3	3	3	3	3	2	2	2	2	2	2
Stripper Cleaned? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

BLOWER/AIR SYSTEM														
Description	4/6/98	4/14/98	4/21/98	4/29/98	5/5/98	5/13/98	5/18/98	5/26/98	6/2/98	6/9/98	6/16/98	6/22/98	6/30/98	7/7/98
PRESSURE (in wc)														
Blower Intake	-0.1	-0.1	-1	•	-1	-1.1	-1	-1	-1	-1	-1	-1	-1	-1
Air Stripper	35	35	35	•	33	33	34	34	34	35	35	35	35	35
Magnehelic	0.155	0.155	0.155	•	0.155	0.155	0.155	0.15	0.15	0.15	0.145	0.145	0.145	0.145
Manifold	35	36	36	•	36	36	36	37	38	40	40	42	44	50
Carbon Canister #1 Out	22	23	24	•	24	24	24	26	27	38	38	32	34	40
Carbon Canister #2 Out	11	11	11	•	11	14	14	15	15	18	20	21	25	30
Carbon Canister #3 Out	2	2	2	•	2	2	2	2	2	2	2	2	2	2
Hnu (ppm)														
Background reading	64	64	64	•	60	60	60	64	64	64	64	64	64	64
Carbon Canister #1 Out	0.8	0.8	0.8	•	0.8	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Carbon Canister #2 Out	0.8	0.8	0.8	•	0.6	0.4	0.8	0.8	0.8	0.9	0.9	0.8	0.8	0.8
Carbon Canister #3 Out	0.6	not rec	0.6	•	0.4	0.4	0.8	0.4	0.4	2	0.4	0.6	0.4	0.8
Vapor phase booster fan on? Y/N	YES	YES	YES	•	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Intake air filter replaced? Y/N	NO	NO	YES	•	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO
Vapor phase duct heaters on? Y/N	YES	YES	YES	•	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Leaks in air ducts? Y/N	NO	NO	NO	•	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Carbon canisters changed? Y/N	NO	NO	NO	•	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Spent drums shipped off site? Y/N	NO	NO	NO	•	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Drum #				•										
New drums Delivered to site? Y/N	NO	NO	NO	•	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Drum #				•										

BUILDING CONDITION/UTILITIES DATA														
Description	4/6/98	4/14/98	4/21/98	4/29/98	5/5/98	5/13/98	5/18/98	5/26/98	6/2/98	6/9/98	6/16/98	6/22/98	6/30/98	7/7/98
Inside Temperature (°F)	70	68	65	•	75	80	72	73	72	80	75	80	76	76
Building Heat On? Y/N	YES	NO	NO	•	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Vent Fan On? Y/N	NO	NO	NO	•	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Light Bulbs okay? Y/N	YES	YES	YES	•	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
High Humidity/Condensation noted? Y/N	NO	NO	NO	•	YES	NO	NO	YES	NO	NO	YES	YES	YES	YES
Trash Removed? Y/N	NO	NO	NO	•	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Floor Swept? Y/N	NO	NO	NO	•	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO
Structural Problems with Building?	NO	NO	NO	•	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Roxy Cleaners Site No. 442024
Malcolm Pirnie Project No. 0266330
Site Inspection Summary

WATER SYSTEM DATA												
Description	7/15/98	7/20/98	7/29/98	8/3/98	8/10/98	8/17/98	8/24/98	8/31/98	9/9/98	9/15/98	9/22/98	9/28/98
Water Sample Taken? Y/N	NO	NO	YES	NO	NO	NO	YES	NO	NO	NO	NO	YES
SPDES? Y/N	NO	NO	YES	NO	NO	NO	YES	NO	NO	NO	NO	YES
Effluent pH			8.76				8.29					8.32
Influent Water Sample Taken? Y/N	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO
Leaks? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Water in Concrete Sump? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Depth (in)	2	2	2	2	2	2	3	4	4	5	5	5
Stripper Cleaned? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

BLOWER/AIR SYSTEM												
Description	7/15/98	7/20/98	7/29/98	8/3/98	8/10/98	8/17/98	8/24/98	8/31/98	9/8/98	9/15/98	9/22/98	9/28/98
PRESSURE (in wc)												
Blower Intake	-1	-1	-1.2	-1.2	-1.2	-1	-1	-1	-1	-1	-1	-1
Air Stripper	33	32	33	33	33	33	32	34	35	33	35	36
Magnehelic	0.15	0.15	0.15	0.155	0.155	0.155	0.15	0.155	0.15	0.15	0.15	0.155
Manifold	36	36	37	37	37	37	37	38	39	39	40	42
Carbon Canister #1 Out	24	24	25	26	26	26	26	26	26	27	28	28
Carbon Canister #2 Out	14	15	15	15	15	15	15	15	15	16	16	16
Carbon Canister #3 Out	3	2	2	2	2	2	2	2	2	2	3	2
Hnu (ppm)												
Background reading	64	64	64	64	64	64	64	64	64	64	64	64
Carbon Canister #1 Out	0.8	0.6	0.6	0.6	0.6	0.6	0.6	0.6	*	0.8	0.8	0.8
Carbon Canister #2 Out	0.4	0.6	0.6	0.6	0.6	0.6	0.6	0.6	*	0.8	0.8	0.8
Carbon Canister #3 Out	0.4	0.4	0.6	0.4	0.6	0.6	0.6	0.6	*	0.8	0.8	0.8
Vapor phase booster fan on? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Intake air filter replaced? Y/N	YES	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	YES
Vapor phase duct heaters on? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Leaks in air ducts? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Carbon canisters changed? Y/N	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Spent drums shipped off site? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Drum #												
New drums Delivered to site? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Drum #												

BUILDING CONDITION/UTILITIES DATA												
Description	7/15/98	7/20/98	7/29/98	8/3/98	8/10/98	8/17/98	8/24/98	8/31/98	9/8/98	9/15/98	9/22/98	9/29/98
Inside Temperature (°F)	75	80	80	75	80	80	80	75	75	80	65	70
Building Heat On? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Vent Fan On? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
Light Bulbs okay? Y/N	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
High Humidity/Condensation noted? Y/N	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
Trash Removed? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Floor Swept? Y/N	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Structural Problems with Building?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

APPENDIX B

Treatment System Influent and Effluent Water Quality Analyses

New York State Department of Health
Wadworth Center
Results of Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330

Description: Roxy Air Stripper, 195 Main St., Wynantskill, *RW-1 INFLUENT*

Target Compund List	*Detection Limit*	*Concentration (MCG/L)*							
		10/7/97	*11/12/97*	*12/9/97*	*1/13/98*	*2/10/98*	*3/10/98*	*4/21/98*	*7/29/98*
Chloromethane	< 50. MCG/L								
Bromomethane	< 50. MCG/L								
Vinyl Chloride	< 50. MCG/L								
Chloroethane	< 50. MCG/L								
Methylene Chloride (Dichloromethane)	< 50. MCG/L	8		8	4	3	9	4	5
Acetone	< 50. MCG/L								86
Carbon Disulfide	< 50. MCG/L								
1,1-Dichloroethene	< 50. MCG/L								
1,1-Dichloroethane	< 50. MCG/L								
Cis/Trans-1,2-Dichloroethene (Total)	< 50. MCG/L	56	83	60	64	80	60	56	86
Chloroform	< 50. MCG/L								2
1,2-Dichloroethane	< 50. MCG/L								
2-Butanone (Methyl Ethyl Keytone)	< 50. MCG/L								
1,1,1-Trichloroethane	< 50. MCG/L								
Carbon Tetrachloride	< 50. MCG/L								
Bromodichloromethane	< 50. MCG/L								
1,2-Dichloropropane	< 50. MCG/L								
Cis-1,3 Dichloropropene	< 50. MCG/L								
Trichloroethene	< 50. MCG/L	30	26	23	30	32	27	28	36
Dibromochloromethane	< 50. MCG/L								
1,1,2-Trichloroethane	< 50. MCG/L								
Benzene	< 50. MCG/L								
Trans-1,3-Dichloropropene	< 50. MCG/L								
Bromoform	< 50. MCG/L								
4-Methyl-2-Pentatone (MIBK)	< 50. MCG/L								
2-Hexanone (Methyl Butyl Ketone)	< 50. MCG/L								
Tetrachloroethene	< 50. MCG/L	910	840	600	740	910	720	720	790
1,1,2,2-Tetrachloroethane	< 50. MCG/L								
Toluene	< 50. MCG/L								
Chlorobenzene	< 50. MCG/L								
Ethylbenzene	< 50. MCG/L								
Styrene	< 50. MCG/L								
Total Xylenes	< 50. MCG/L								
Data Qualifications		BJ,_,J	_,J	BJ,J,J	J,J,J	J,_,J	BJ,J,J	J,J,J	BJ,BJ,J,J,J,_

Note: Data qualifications are in the order that they appear on the data sheets.

J = Estimated Value B = Blank

New York State Department of Health
Wadworth Center
Results of Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330
Description: Roxy Air Stripper, 195 Main St., Wynantskill, *RW-2 INFLUENT*

Target Compund List	*Detection Limit*	*Concentration (MCG/L)*							
		10/7/97	*11/12/97*	*12/9/97*	*1/13/98*	*2/10/98*	*3/10/98*	*4/21/98*	*7/29/98*
Chloromethane	< 100. MCG/L								
Bromomethane	<100. MCG/L								
Vinyl Chloride	< 100. MCG/L								
Chloroethane	<100. MCG/L								
Methylene Chloride (Dichloromethane)	< 100. MCG/L			8	6	9	9	3	4
Acetone	<100. MCG/L								30
Carbon Disulfide	< 100. MCG/L								
1,1-Dichloroethene	<100. MCG/L								
1,1-Dichloroethane	< 100. MCG/L								
Cis/Trans-1,2-Dichloroethene (Total)	<100. MCG/L	21		10	8	7	5	4	10
Chloroform	< 100. MCG/L								
1,2-Dichloroethane	<100. MCG/L								
2-Butanone (Methyl Ethyl Keytone)	< 100. MCG/L								
1,1,1-Trichloroetbane	<100. MCG/L								
Carbon Tetrachloride	< 100. MCG/L								
Bromodichloromethane	<100. MCG/L								
1,2-Dichloropropane	< 100. MCG/L								
Cis-1,3 Dichloropropene	<100. MCG/L								
Trichloroethene	< 100. MCG/L	19		7	7	6	5	5	6
Dibromochloromethane	<100. MCG/L								
1,1,2-Trichloroethane	< 100. MCG/L								
Benzene	<100. MCG/L								
Trans-1,3-Dichloropropene	< 100. MCG/L								
Bromoform	<100. MCG/L								
4-Methyl-2-Pentatone (MIBK)	< 100. MCG/L								
2-Hexanone (Methyl Butyl Ketone)	<100. MCG/L								
Tetrachloroethene	< 100. MCG/L	1300	700	530	420	450	400	350	360
1,1,2,2-Tetrachloroethane	<100. MCG/L								
Toluene	< 100. MCG/L								
Chlorobenzene	<100. MCG/L								
Ethylbenzene	< 100. MCG/L								
Styrene	<100. MCG/L								
Total Xylenes	< 100. MCG/L								
Data Qualifications		J,J	B	BJ,J,J	J,J,J	J,J,J	BJ,J,J	J,J,J	BJ,BJ,BJ,J,B

Note: Data qualifications are in the order that they appear on the data sheets.

J = Estimated Value B = Blank

= Information Unavailable

New York State Department of Health
Wadworth Center
Results of Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330
Description: Roxy Air Stripper, 195 Main St., Wynantskill, *RW-3 INFLUENT*

Target Compund List	*Detection Limit*	*Concentration (MCG/L)*							
		# 10/7/1997	*11/12/97*	*12/9/97*	*1/13/98*	*2/10/98*	*3/10/98*	*4/21/98*	*7/29/98*
Chloromethane	< 50. MCG/L								
Bromomethane	< 50. MCG/L								
Vinyl Chloride	< 50. MCG/L								
Chloroethane	< 50. MCG/L								
Methylene Chloride (Dichloromethane)	< 50. MCG/L			9		3	9		4
Acetone	< 50. MCG/L								28
Carbon Disulfide	< 50. MCG/L								
1,1-Dichloroethene	< 50. MCG/L								
1,1-Dichloroethane	< 50. MCG/L								
Cis/Trans-1,2-Dichloroethene (Total)	< 50. MCG/L		33	28		27	25	21	24
Chloroform	< 50. MCG/L								
1,2-Dichloroethane	< 50. MCG/L								
2-Butanone (Methyl Ethyl Keytone)	< 50. MCG/L								
1,1,1-Trichloroethane	< 50. MCG/L								
Carbon Tetrachloride	< 50. MCG/L								
Bromodichloromethane	< 50. MCG/L								
1,2-Dichloropropane	< 50. MCG/L								
Cis-1,3 Dichloropropene	< 50. MCG/L								
Trichloroethene	< 50. MCG/L					2	1	2	4
Dibromochloromethane	< 50. MCG/L								
1,1,2-Trichloroethane	< 50. MCG/L								
Benzene	< 50. MCG/L								
Trans-1,3-Dichloropropene	< 50. MCG/L								
Bromoform	< 50. MCG/L								
4-Methyl-2-Pentatone (MIBK)	< 50. MCG/L								
2-Hexanone (Methyl Butyl Ketone)	< 50. MCG/L								
Tetrachloroethene	< 50. MCG/L		490	520	470	470	400	390	380
1,1,2,2-Tetrachloroethane	< 50. MCG/L								
Toluene	< 50. MCG/L								
Chlorobenzene	< 50. MCG/L								
Ethylbenzene	< 50. MCG/L								
Styrene	< 50. MCG/L								
Total Xylenes	< 50. MCG/L								
Data Qualifications			J,B	BJ,J		J,J,J	BJ,J,J	J,J	BJ,BJ,BJ,J,B

Note: Data qualifications are in the order that they appear on the data sheets.

J = Estimated Value B = Blank

= Information Unavailable

New York State Department of Health
Wadworth Center
Results of Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330
Description: Roxy Air Stripper, 195 Main St., Wynantskill, *COMBINED*

Target Compund List	*Detection Limit*	*Concentration (MCG/L)*							
		10/7/97	*11/13/97*	*12/9/97*	*1/28/98*	*2/10/98*	*3/10/98*	*4/21/98*	*7/29/98*
Chloromethane	< 50. MCG/L								
Bromomethane	< 50. MCG/L								
Vinyl Chloride	< 50. MCG/L								
Chloroethane	< 50. MCG/L								
Methylene Chloride (Dichloromethane)	< 50. MCG/L			10			9		3
Acetone	< 50. MCG/L				29		38		28
Carbon Disulfide	< 50. MCG/L								
1,1-Dichloroethene	< 50. MCG/L								
1,1-Dichloroethane	< 50. MCG/L								
Cis/Trans-1,2-Dichloroethene (Total)	< 50. MCG/L			24	20	26	21	18	22
Chloroform	< 50. MCG/L								
1,2-Dichloroethane	< 50. MCG/L								
2-Butanone (Methyl Ethyl Keytone)	< 50. MCG/L								
1,1,1-Trichloroethane	< 50. MCG/L								
Carbon Tetrachloride	< 50. MCG/L								
Bromodichloromethane	< 50. MCG/L								
1,2-Dichloropropane	< 50. MCG/L								
Cis-1,3 Dichloropropene	< 50. MCG/L								
Trichloroethene	< 50. MCG/L	17				4	3	3	7
Dibromochloromethane	< 50. MCG/L								
1,1,2-Trichloroethane	< 50. MCG/L								
Benzene	< 50. MCG/L								
Trans-1,3-Dichloropropene	< 50. MCG/L								
Bromoform	< 50. MCG/L								
4-Methyl-2-Pentatone (MIBK)	< 50. MCG/L								
2-Hexanone (Methyl Butyl Ketone)	< 50. MCG/L								
Tetrachloroethene	< 50. MCG/L	1200	720	540	400	540	400	370	460
1,1,2,2-Tetrachloroethane	< 50. MCG/L								
Toluene	< 50. MCG/L								
Chlorobenzene	< 50. MCG/L								
Ethylbenzene	< 50. MCG/L								
Styrene	< 50. MCG/L								
Total Xylenes	< 50. MCG/L								
Data Qualifications		J	B	BJ,J	J,J	J,J	BJ,J,J	J,J	BJ,BJ,BJ,J,B

Note: Data qualifications are in the order that they appear on the data sheets.
J = Estimated Value B = Blank

New York State Department of Health
Wadworth Center
Results of Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330

Description: Roxy Air Stripper, 195 Main St., Wynantskill, *EFFLUENT*

Target Compund List	*Detection Limit*	*Concentration (MCG/L)*											
		10/7/97	*11/12/97*	*12/9/97*	*1/13/98*	*2/10/98*	*3/10/98*	*4/21/98*	*5/26/98*	*6/22/98*	*7/29/98*	*8/24/98*	*9/29/98*
Chloromethane	<10. MCG/L												
Bromomethane	< 10. MCG/L												
Vinyl Chloride	<10. MCG/L												
Chloroethane	< 10. MCG/L												
Methylene Chloride (Dichloromethane)	<10. MCG/L										0.3	0.3	
Acetone	< 10. MCG/L												
Carbon Disulfide	<10. MCG/L												
1,1-Dichloroethene	< 10. MCG/L												
1,1-Dichloroethane	<10. MCG/L												
Cis/Trans-1,2-Dichloroethene (Total)	< 10. MCG/L								0.3	0.4	0.6	0.6	
Chloroform	<10. MCG/L												
1,2-Dichloroethane	< 10. MCG/L												
2-Butanone (Methyl Ethyl Keytone)	<10. MCG/L												
1,1,1-Trichloroethane	< 10. MCG/L												
Carbon Tetrachloride	<10. MCG/L												
Bromodichloromethane	< 10. MCG/L												
1,2-Dichloropropane	<10. MCG/L												
Cis-1,3 Dichloropropene	< 10. MCG/L												
Trichloroethene	<10. MCG/L												
Dibromochloromethane	< 10. MCG/L												
1,1,2-Trichloroethane	<10. MCG/L												
Benzene	< 10. MCG/L												
Trans-1,3-Dichloropropene	<10. MCG/L												
Bromoform	< 10. MCG/L												
4-Methyl-2-Pentatone (MIBK)	<10. MCG/L												
2-Hexanone (Methyl Butyl Ketone)	< 10. MCG/L												
Tetrachloroethene	<10. MCG/L		0.5	0.3	0.4	0.4	0.2	0.5	2	0.5	0.5	0.4	
1,1,2,2-Tetrachloroethane	< 10. MCG/L												
Toluene	<10. MCG/L												
Chlorobenzene	< 10. MCG/L												
Ethylbenzene	<10. MCG/L												
Styrene	< 10. MCG/L												
Total Xylenes	<10. MCG/L												
Total Suspended Solids (MG/L)	MG/L	**	1	1	2	2	1	4	1	1	1	2	**
Total Dissolved Solids (MG/L)	MG/L	**	330	322	319	350	335	351	371	334	357	340	**
Total Iron (MCG/L)	MCG/L	**	206	10	10	10	10	10	119	10	10	11	**
Total Lead (MCG/L)	MCG/L	**	20	20	20	20	20	20	20	20	20	20	**
Data Qualifications			J	BJ	J	BJ	J	J	J,J	BJ,BJ	BJ,J,BJ	BJ,J,J	**

J = Estimated Value B = Blank

** =Not included in report

Note: Data qualifications are in the order that they appear on the data sheets.
Lead, (Total) < 20 on 11/12, 12/9, 1/13, 2/10, 3/10, 4/21,5/26,6/22,7/29
Iron, (Total) < 10 on 12/9, 2/10, 3/10, 4/21,6/22,7/29

APPENDIX C

Groundwater Contaminant Recovery Evaluation

Roxy Cleaners Site No. 442024
Malcolm Pirnie Project No. 0266330

CONTAMINANT RECOVERY SUMMARY

9/30/97 - 9/29/98

	CONTAMINANT RECOVERY (KG)	% OF TOTAL RECOVERY
APPROX. RW1 RECOVERY	0.34	1.89
APPROX. RW2 RECOVERY	5.49	30.12
APPROX. RW3 RECOVERY	12.40	67.99
TOTAL DCE RECOVERY	0.75	4.09
TOTAL TCE RECOVERY	0.13	0.71
TOTAL PCE RECOVERY	17.34	95.20
TOTAL RECOVERY	**18.22**	

Notes:

1) Contaminate recovery is based on weekly pump flow measurements and monthly influent water analysis.
2) Total recovery is calculated as the sum of DCE, TCE, and PCE.
3) Approximate RW value because the mixed effluent may contain trace amounts of contaminants

AVERAGE CONTAMINANT CONCENTRATION

RECOVERY WELLS	MCG/L
RW1 CONTAMINANT CONCENTRATION	856
RW2 CONTAMINANT CONCENTRATION	532
RW3 CONTAMINANT CONCENTRATION	454

Roxy Cleaners Site No. 442024
Malcolm Pirnie Project No. 0266330
Treatment System Evaluation

	WEEKS																		
		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14	Week 15	Week 16	Week 17	Week 18	Week 19
	9/30/97	10/7/97	10/14/97	10/21/97	10/28/97	11/4/97	11/11/97	11/18/97	11/25/97	12/2/97	12/9/97	12/16/97	12/23/97	12/23/97	12/30/97	1/6/98	1/13/98	1/20/98	1/27/98	2/10/98
RW 1 Gal. of Water (Totalizer 2- Totalizer 1) [1]	-	*2,600*	2,684	2,806	2,559	2,572	2,640	2,220	2,483	1,685	1,067	1,679	1,138	2,015	2,015	595	2,312	2,696	2,515	2,265
RW 2 Gal. of Water (Totalizer 2- Totalizer 1) [1]	-	-	*60,000*	66,596	58,926	54,082	66,516	54,750	59,200	58,622	59,727	58,360	53,492	56,311	56,311	12,890	51,365	52,957	40,567	42,924
RW 3 Gal. of Water (Totalizer 2- Totalizer 1) [1]	-	-	-	-	-	-	162,491	153,660	163,399	161,549	163,822	160,718	162,542	160,639	160,639	42,547	162,922	162,644	160,596	166,728
RW1 DCE Concentrations (MCG/L)		56	56	56	56	56	83	83	83	83	60	60	60	60	60	60	64	64	64	80
RW2 DCE Concentrations (MCG/L)	-	21	21	21	21	21	-	-	-	-	10	10	10	10	10	10	8	8	8	7
RW3 DCE Concentrations (MCG/L)	-	-	-	-	-	-	33	33	33	33	28	28	28	28	28	28	-	-	-	27
RW1 TCE Concentrations (MCG/L)	-	30	30	30	30	30	26	26	26	26	23	23	23	23	23	23	30	30	30	32
RW2 TCE Concentrations (MCG/L)	-	19	19	19	19	19	-	-	-	-	7	7	7	7	7	7	7	7	7	6
RW3 TCE Concentrations (MCG/L)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
RW1 PCE Concentrations (MCG/L)	-	910	910	910	910	910	840	840	840	840	600	600	600	600	600	600	740	740	740	910
RW2 PCE Concentrations (MCG/L)	-	1,300	1,300	1,300	1,300	1,300	700	700	700	700	530	530	530	530	530	530	420	420	420	450
RW3 PCE Concentrations (MCG/L)	-	-	-	-	-	-	490	490	490	490	520	520	520	520	520	520	470	470	470	470
Effluent DCE Concentrations (MCG/L)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Effluent TCE Concentrations (MCG/L)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Effluent PCE Concentrations (MCG/L)	-	-	-	-	-	-	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4
Effluent DCE (GRAMS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Effluent TCE (GRAMS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Effluent PCE (GRAMS)	-	-	-	-	-	-	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.3	0.3	0.3	0.3
TOTAL RW1 CONCENTRATION (MCG/L)		996	996	996	996	996	949	949	949	949	683	683	683	683	683	683	834	834	834	1,022
TOTAL RW2 CONCENTRATION (MCG/L)		1,340	1,340	1,340	1,340	1,340	700	700	700	700	547	547	547	547	547	547	435	435	435	463
TOTAL RW3 CONCENTRATION (MCG/L)							523	523	523	523	548	548	548	548	548	548	470	470	470	499
RW1 DCE (GRAMS)	-	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1
RW2 DCE (GRAMS)	-	-	5	5	5	4	-	-	-	-	2	2	2	2	2	0	2	2	1	1
RW3 DCE (GRAMS)	-	-	-	-	-	-	20	19	20	20	17	17	17	17	17	5	-	-	-	17
RW1 TCE (GRAMS)	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RW2 TCE (GRAMS)	-	-	4	5	4	4	-	-	-	-	2	2	1	1	1	0	1	1	1	1
RW3 TCE (GRAMS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
RW1 PCE (GRAMS)	-	9	9	10	9	9	8	7	8	5	2	4	3	5	5	1	6	8	7	8
RW2 PCE (GRAMS)	-	-	295	328	290	266	176	145	157	155	120	117	107	113	113	26	82	84	65	73
RW3 PCE (GRAMS)	-	-	-	-	-	-	302	285	303	300	323	317	320	316	316	84	290	290	286	297
APPROX. RW1 RECOVERY (GRAMS) (2)		10	10	11	10	10	9	8	9	6	3	4	3	5	5	2	7	9	8	9
APPROX. RW2 RECOVERY (GRAMS) (2)			305	338	299	275	176	145	157	155	124	121	111	117	117	27	85	87	67	75
APPROX. RW3 RECOVERY (GRAMS) (2)							322	304	324	320	340	334	337	333	333	88	290	290	286	315
TOTAL DCE RECOVERY (GRAMS)		0.55	5.34	5.89	5.23	4.85	21.14	19.91	21.21	20.72	19.88	19.64	19.52	19.63	19.63	5.14	2.12	2.26	1.84	18.88
TOTAL TCE RECOVERY (GRAMS)		0.30	4.62	5.11	4.53	4.18	0.26	0.22	0.24	0.17	1.68	1.69	1.52	1.67	1.67	0.39	1.62	1.71	1.36	2.51
TOTAL PCE RECOVERY (GRAMS)		8.96	304.71	337.60	298.99	275.18	485.92	437.04	467.72	460.22	444.75	437.29	429.89	433.79	433.79	110.97	377.92	381.03	357.19	377.48

Notes:

Contaminate RECOVERY is based on weekly pump flow measurements and monthly influent water analysis.

4/21/98 was the last required monthly influent water analysis.

[1] Flows in italics were estimated

[2] Approximate value because the mixed effluent may contain trace amounts of contaminants

Sample Calculations:

RW1 DCE (Grams) = $\frac{\text{Total RW1 DCE Concentration MCG/L} \times \text{RW1 Gallons of Water}}{0.264}$

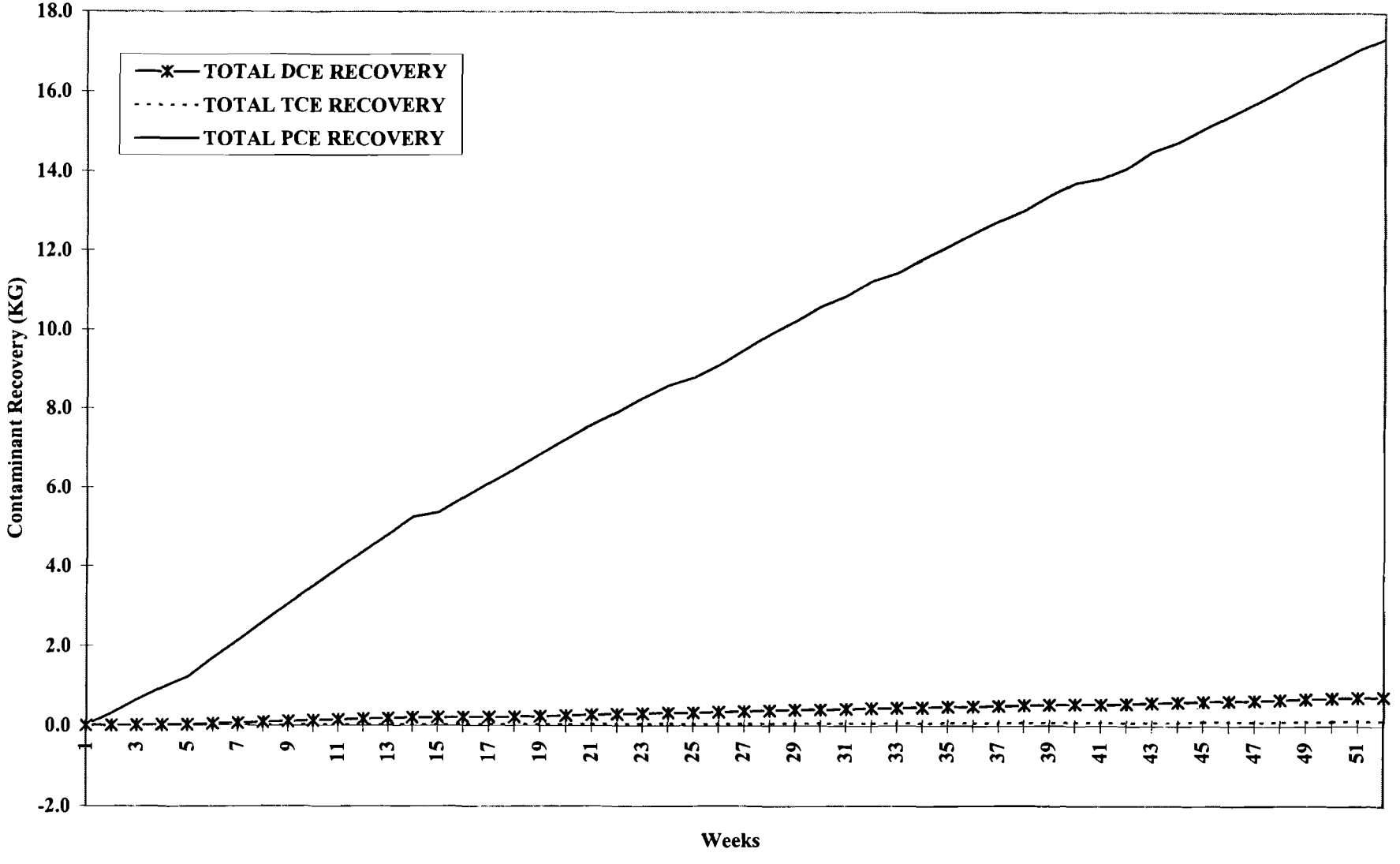
Roxy Cleaners Site No. 442024
Malcolm Pirnie Project No. 0266330
Treatment System Evaluation

	WEEKS																		
	Week 20	Week 21	Week 22	Week 23	Week 24	Week 25	Week 26	Week 27	Week 28	Week 29	Week 30	Week 31	Week 32	Week 33	Week 34	Week 35	Week 36	Week 37	Week 38
	2/17/98	2/24/97	3/3/98	3/10/98	3/17/98	3/24/98	3/30/98	4/6/98	4/14/98	4/21/98	4/29/98	5/5/98	5/13/98	5/18/98	5/26/98	6/2/98	6/9/98	6/16/98	6/22/98
RW 1 Gal of Water (Totalizer 2- Totalizer 1) [1]	2,259	2,164	1,848	2,483	2,153	1,357	1,866	1,993	2,174	1,937	2,559	1,631	2,295	7	1,143	2,150	2,157	2,027	1,902
RW 2 Gal of Water (Totalizer 2- Totalizer 1) [1]	42,868	41,189	34,885	47,209	41,483	25,734	68,097	93,255	68,420	63,435	71,263	50,979	70,224	39,424	65,422	51,935	63,007	57,580	51,035
RW 3 Gal of Water (Totalizer 2- Totalizer 1) [1]	166,100	160,825	140,721	184,765	161,268	102,960	145,262	161,788	180,638	162,904	187,994	132,385	185,233	105,500	179,144	163,245	166,317	153,775	140,355
RW1 DCE Concentrations (MCG/L)	80	80	80	60	60	60	60	60	60	56	56	56	56	56	56	56	56	56	56
RW2 DCE Concentrations (MCG/L)	7	7	7	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4
RW3 DCE Concentrations (MCG/L)	27	27	27	25	25	25	25	25	25	21	21	21	21	21	21	21	21	21	21
RW1 TCE Concentrations (MCG/L)	32	32	32	27	27	27	27	27	27	28	28	28	28	28	28	28	28	28	28
RW2 TCE Concentrations (MCG/L)	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
RW3 TCE Concentrations (MCG/L)	2	2	2	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2
RW1 PCE Concentrations (MCG/L)	910	910	910	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720
RW2 PCE Concentrations (MCG/L)	450	450	450	400	400	400	400	400	400	350	350	350	350	350	350	350	350	350	350
RW3 PCE Concentrations (MCG/L)	470	470	470	400	400	400	400	400	400	390	390	390	390	390	390	390	390	390	390
Effluent DCE Concentrations (MCG/L)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	0.3	0.3	0.3	0.4
Effluent TCE Concentrations (MCG/L)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Effluent PCE Concentrations (MCG/L)	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.5	0.5	2.0	2.0	2.0	2.0	0.5
Effluent DCE (GRAMS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	0.2	0.3	0.2	0.3
Effluent TCE (GRAMS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Effluent PCE (GRAMS)	0.3	0.3	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.5	0.4	0.5	0.3	1.9	1.6	1.8	1.6	0.4
TOTAL RW1 CONCENTRATION (MCG/L)	1,022	1,022	1,022	807	807	807	807	807	807	804	804	804	804	804	804	804	804	804	804
TOTAL RW2 CONCENTRATION (MCG/L)	463	463	463	410	410	410	410	410	410	359	359	359	359	359	359	359	359	359	359
TOTAL RW3 CONCENTRATION (MCG/L)	499	499	499	426	426	426	426	426	426	413	413	413	413	413	413	413	413	413	413
RW1 DCE (GRAMS)	1	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
RW2 DCE (GRAMS)	1	1	1	1	1	0	1	2	1	1	1	1	1	1	1	1	1	1	1
RW3 DCE (GRAMS)	17	16	14	17	15	10	14	15	17	13	15	11	15	8	14	13	13	12	11
RW1 TCE (GRAMS)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RW2 TCE (GRAMS)	1	1	1	1	1	0	1	2	1	1	1	1	1	1	1	1	1	1	1
RW3 TCE (GRAMS)	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
RW1 PCE (GRAMS)	8	7	6	7	6	4	5	5	6	5	7	4	6	0	3	6	6	6	5
RW2 PCE (GRAMS)	73	70	59	72	63	39	103	141	104	84	94	68	93	52	87	69	84	76	68
RW3 PCE (GRAMS)	296	286	251	280	244	156	220	245	274	241	278	196	274	156	265	241	246	227	207
APPROX. RW1 RECOVERY (GRAMS) (2)	9	8	7	8	7	4	6	6	7	6	8	5	7	0	3	7	7	6	6
APPROX. RW2 RECOVERY (GRAMS) (2)	75	72	61	73	64	40	106	145	106	86	97	69	95	54	89	71	86	78	69
APPROX. RW3 RECOVERY (GRAMS) (2)	314	304	266	298	260	166	234	261	291	255	294	207	290	165	280	255	260	241	220
TOTAL DCE RECOVERY (GRAMS)	18.81	18.20	15.88	18.96	16.55	10.55	15.47	17.54	18.90	14.33	16.58	11.65	16.29	8.99	15.20	13.98	14.38	13.53	12.34
TOTAL TCE RECOVERY (GRAMS)	2.51	2.42	2.08	1.85	1.62	1.02	2.03	2.58	2.20	2.64	3.05	2.14	2.98	1.55	2.72	2.45	2.68	2.47	2.23
TOTAL PCE RECOVERY (GRAMS)	376.25	363.67	316.09	358.07	312.91	198.59	328.20	391.67	383.10	329.86	378.68	267.25	372.51	207.86	352.63	314.23	333.36	309.03	280.19

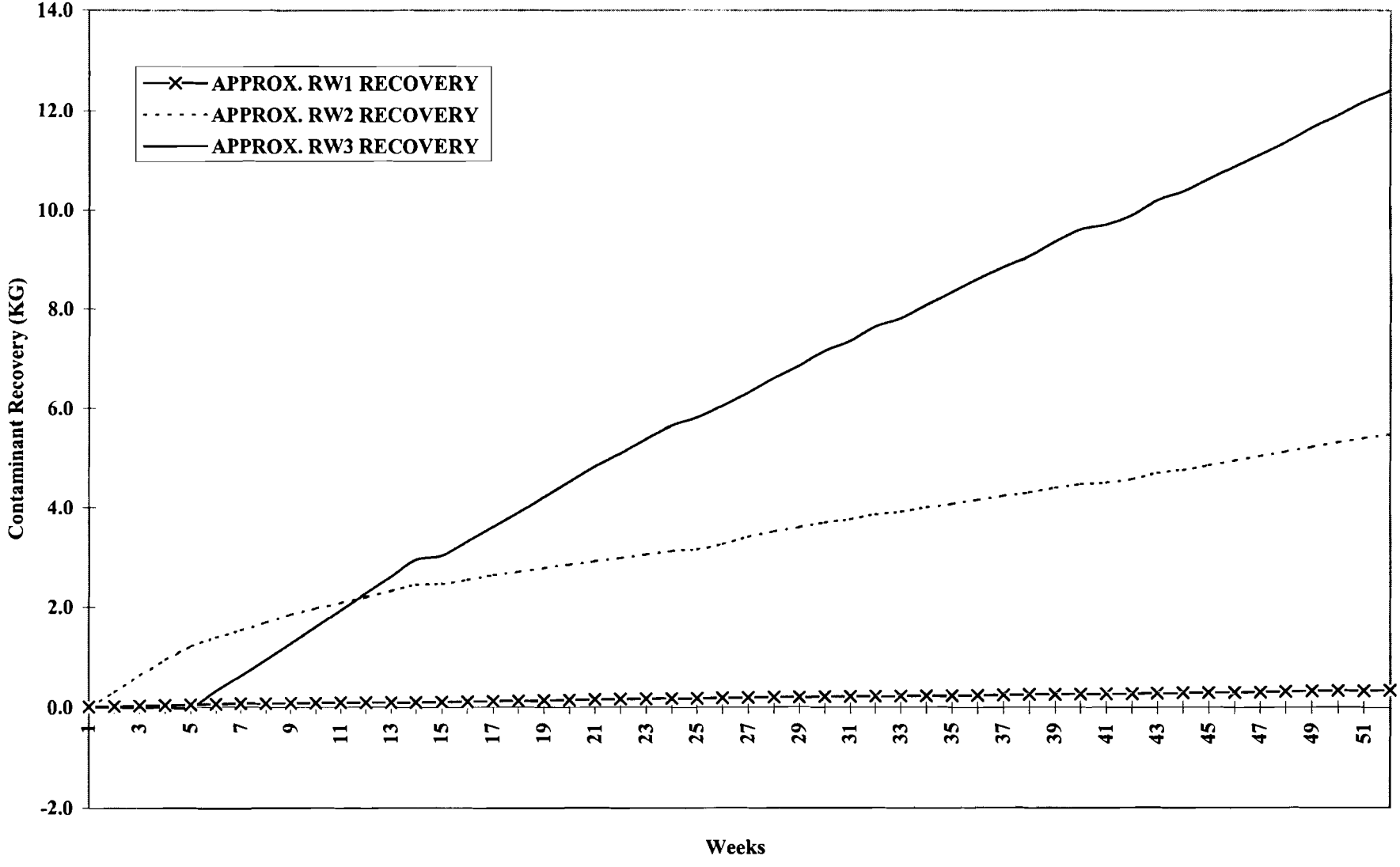
Roxy Cleaners Site No. 442024
Malcolm Pirnie Project No. 0266330
Treatment System Evaluation

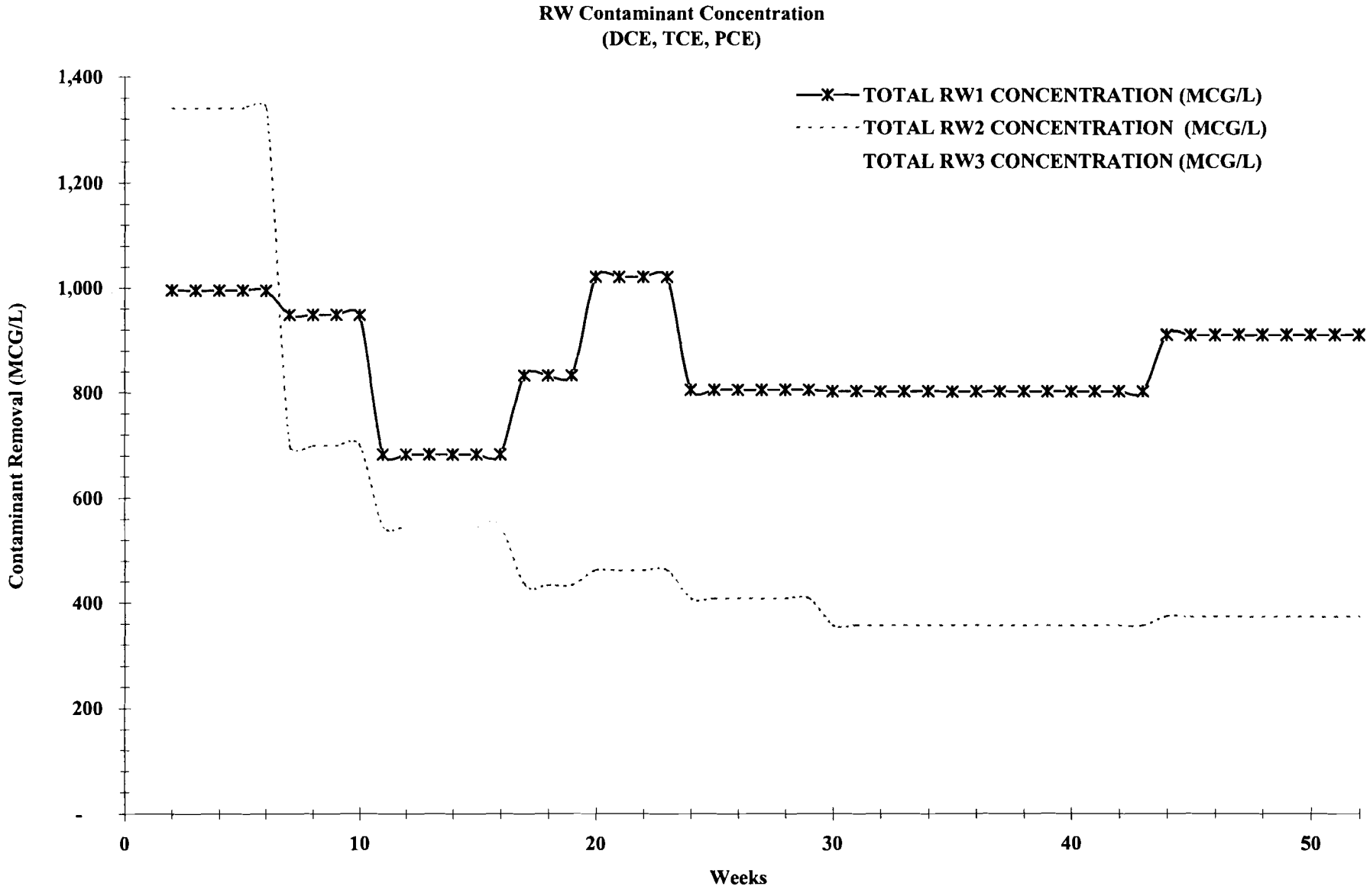
	WEEKS													
	Week 39	Week 40	Week 41	Week 42	Week 43	Week 44	Week 45	Week 46	Week 47	Week 48	Week 49	Week 50	Week 51	Week 52
	6/30/98	7/7/98	7/15/98	7/20/98	7/29/98	8/3/98	8/10/98	8/17/98	8/25/98	8/31/98	9/6/98	9/15/98	9/22/98	9/29/98
RW 1 Gal. of Water (Totalizer 2- Totalizer 1) [1]	2,498	2,072	813	1,620	2,587	1,460	2,054	2,073	1,971	1,987	2,348	2,007	1,949	1,889
RW 2 Gal. of Water (Totalizer 2- Totalizer 1) [1]	66,445	57,240	22,595	50,920	87,207	48,168	67,919	64,697	62,966	61,409	73,230	61,413	57,287	51,776
RW 3 Gal. of Water (Totalizer 2- Totalizer 1) [1]	186,644	156,816	61,507	123,107	200,159	112,090	164,130	159,127	156,226	157,423	188,868	161,179	174,916	137,845
RW1 DCE Concentrations (MCG/L)	56	56	56	56	86	86	86	86	86	86	86	86	86	86
RW2 DCE Concentrations (MCG/L)	4	4	4	4	10	10	10	10	10	10	10	10	10	10
RW3 DCE Concentrations (MCG/L)	21	21	21	21	24	24	24	24	24	24	24	24	24	24
RW1 TCE Concentrations (MCG/L)	28	28	28	28	36	36	36	36	36	36	36	36	36	36
RW2 TCE Concentrations (MCG/L)	5	5	5	5	6	6	6	6	6	6	6	6	6	6
RW3 TCE Concentrations (MCG/L)	2	2	2	2	4	4	4	4	4	4	4	4	4	4
RW1 PCE Concentrations (MCG/L)	720	720	720	720	790	790	790	790	790	790	790	790	790	790
RW2 PCE Concentrations (MCG/L)	350	350	350	350	360	360	360	360	360	360	360	360	360	360
RW3 PCE Concentrations (MCG/L)	390	390	390	390	380	380	380	380	380	380	380	380	380	380
Effluent DCE Concentrations (MCG/L)	0.4	0.4	0.4	0.4	0.6	0.6	0.6	0.6	-	0.6	0.6	0.6	0.6	0.6
Effluent TCE Concentrations (MCG/L)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Effluent PCE Concentrations (MCG/L)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	-	0.4	0.4	0.4	0.4	0.4
Effluent DCE (GRAMS)	0.4	0.3	0.1	0.3	0.7	0.4	0.5	0.5	-	0.5	0.6	0.5	0.5	0.4
Effluent TCE (GRAMS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Effluent PCE (GRAMS)	0.5	0.4	0.2	0.3	0.5	0.3	0.4	0.4	-	0.3	0.4	0.3	0.4	0.3
TOTAL RW1 CONCENTRATION (MCG/L)	804	804	804	804	912	912	912	912	912	912	912	912	912	912
TOTAL RW2 CONCENTRATION (MCG/L)	359	359	359	359	376	376	376	376	376	376	376	376	376	376
TOTAL RW3 CONCENTRATION (MCG/L)	413	413	413	413	408	408	408	408	408	408	408	408	408	408
RW1 DCE (GRAMS)	1	0	0	0	1	0	1	1	1	1	1	1	1	1
RW2 DCE (GRAMS)	1	1	0	1	3	2	3	2	2	2	3	2	2	2
RW3 DCE (GRAMS)	15	12	5	10	18	10	15	14	14	14	17	15	16	13
RW1 TCE (GRAMS)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RW2 TCE (GRAMS)	1	1	0	1	2	1	2	1	1	1	2	1	1	1
RW3 TCE (GRAMS)	1	1	0	1	3	2	2	2	2	2	3	2	3	2
RW1 PCE (GRAMS)	7	6	2	4	8	4	6	6	6	6	7	6	6	6
RW2 PCE (GRAMS)	88	76	30	68	119	66	93	88	86	84	100	84	78	71
RW3 PCE (GRAMS)	276	232	91	182	288	161	236	229	225	227	272	232	252	198
APPROX. RW1 RECOVERY (GRAMS) (2)	8	6	2	5	9	5	7	7	7	7	8	7	7	7
APPROX. RW2 RECOVERY (GRAMS) (2)	90	78	31	69	124	69	97	92	90	87	104	87	82	74
APPROX. RW3 RECOVERY (GRAMS) (2)	292	245	96	193	309	173	254	246	241	243	292	249	270	213
TOTAL DCE RECOVERY (GRAMS)	16.38	13.78	5.41	10.91	22.34	12.49	18.16	17.59	17.23	17.28	20.71	17.63	18.71	15.11
TOTAL TCE RECOVERY (GRAMS)	2.94	2.49	0.98	2.07	5.37	2.99	4.31	4.16	4.07	4.05	4.85	4.11	4.22	3.52
TOTAL PCE RECOVERY (GRAMS)	370.63	313.20	123.03	253.79	414.77	231.39	335.01	323.47	316.63	316.28	378.74	321.75	335.72	274.67

Cumulative Contaminant Recovery by Contaminant
(Combined Influent Samples)



Cumulative Contaminant Recovery by Recovery Wells
(DCE, TCE, PCE)




RW Contaminant Concentration
(DCE, TCE, PCE)
TOTAL RW1 CONCENTRATION (MCG/L)
TOTAL RW2 CONCENTRATION (MCG/L)
TOTAL RW3 CONCENTRATION (MCG/L)
Contaminant Removal (MCG/L)
1,400
1,200
1,000
800
600
400
200
-
0
10
20
30
40
50
Weeks

APPENDIX D

Monitoring Well Contamination Summary

Roxy Cleaners Site No. 442024
Malcolm Pirnie Project No. 0266330

Monitoring Well Contamination Summary

MONITORING WELLS	7/17/98			11/4/98			7/14/98		
	I,2 DCE	TCE	PCE	I,2 DCE	TCE	PCE	I,2 DCE	TCE	PCE
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
MW-103A	18	24	3200	0	7	560	12	8	1200
MW-107A	19.5	11	360	30	12	440	24	11	500
MW-2	5.6	0.5	160	9	0	140	9	0	170
MW-107	20.9	20	150	30	12	440	15	20	88
MW-111	0.5	0.7	8.9	8	4	58	1	2	19
MW-2B	0	0	0	0	0	1	0.3	0	0
MW-108	0	0	0	0	0	3	0	0	5
MW-108A	0	0	0	0	0	0	0	0	0
MW-106	0	0	0	*	*	*	0	0	0
MW-106A	0	0	0	*	*	*	0	0	0
MW-109	0	0	0	*	*	*	0	0	0
MW-105	0	0	0	*	*	*	0	0	0
MW-105A	0	0	0	*	*	*	0	0	0
MW-104	0	0	0	*	*	*	0	0	0
MW-3	0	0	0	*	*	*	0	0	0
MW-3B	0	0	0	*	*	*	0	0	0.6

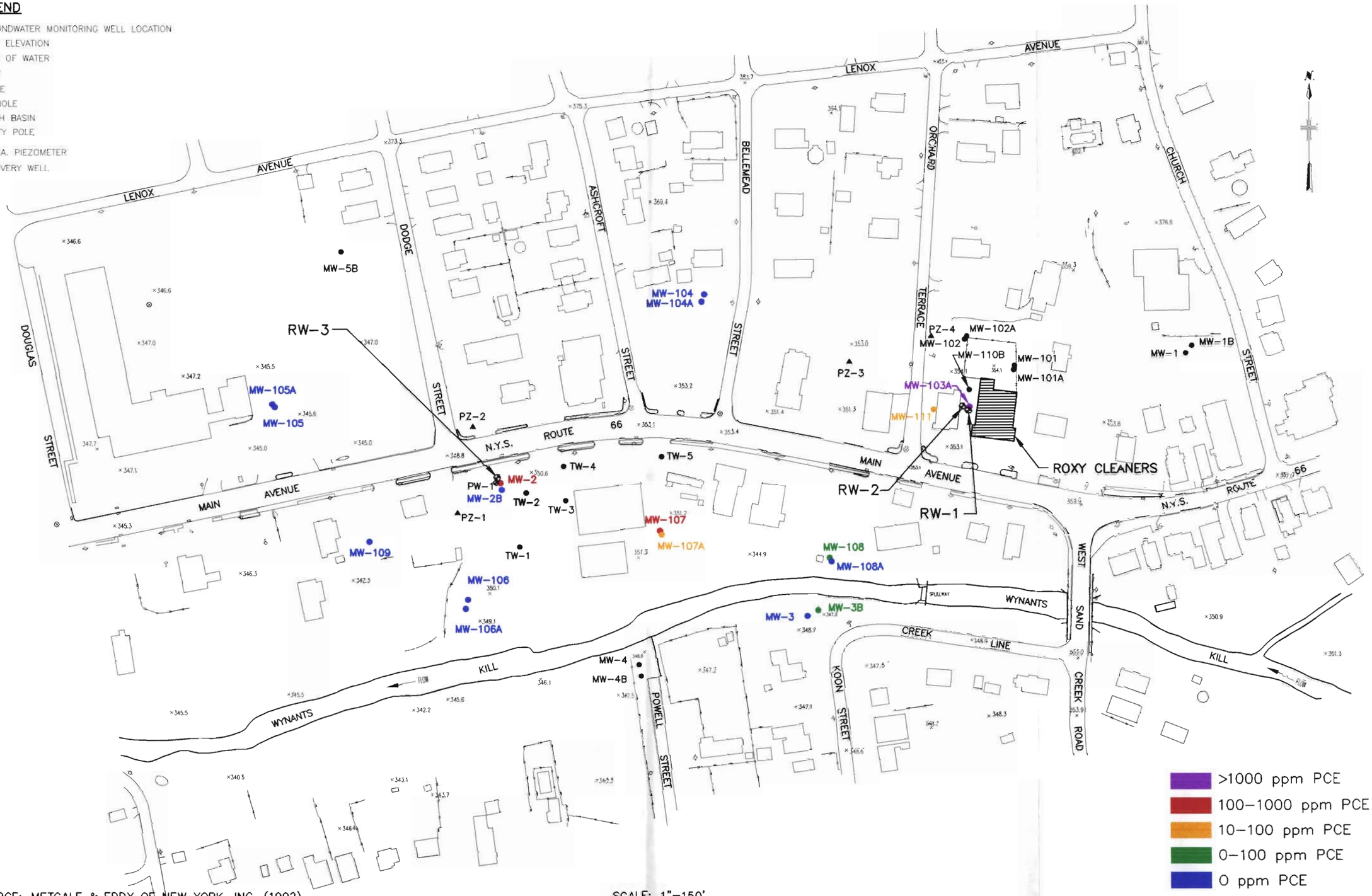
Notes:

1) 1,2 DCE = Cis/Trans 1,2 Dichloroethene
   TCE = Trichloroethene
   PCE = Tetrachloroethene

2) Complete results have been included in the pages that follow.

LEGEND

- MW ● — GROUNDWATER MONITORING WELL LOCATION
- ×347.5 — SPOT ELEVATION
- EDGE OF WATER
- LIGHT
- FENCE
- MANHOLE
- CATCH BASIN
- UTILITY POLE
- ▲ 1" DIA. PIEZOMETER
- RECOVERY WELL



BASE MAP SOURCE: METCALF & EDDY OF NEW YORK, INC. (1992)

SCALE: 1"=150'

MALCOLM PIRNIE

ROXY CLEANERS SITE (NYSDEC #442024)
RENSSELAER COUNTY, NEW YORK

MONITORING WELL CONTAMINATION RESULTS AND LOCATIONS (JULY 14, 1998)

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MALCOLM PIRNIE, INC.

FIGURE 1

4871 0266330900 I:\ACAD\PROJ\0266\3309\330-09 Scale: 1:1800' Date: 11/03/1998 Time: 15:09

New York State Department of Health
Wadworth Center
Results of Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330

Description: Test Well, MW-103A

Target Compound List	Detection Limit	Concentration (MCG/L)			
		[illegible]	[illegible]	[illegible]	[illegible]
Chloromethane	< 50. MCG/L				
Bromomethane	< 50. MCG/L				
Vinyl Chloride	< 50. MCG/L				
Chloroethane	< 50. MCG/L				
Methylene Chloride (Dichloromethane)	< 50. MCG/L		11	6	
Acetone	< 50. MCG/L			96	
Carbon Disulfide	< 50. MCG/L				
1,1-Dichloroethene	< 50. MCG/L				
1,1-Dichloroethane	< 50. MCG/L				
2,2 - Dichloropropane	< 50. MCG/L				
Cis/Trans 1,2-Dichloroethene (Total)	< 50. MCG/L	18		12	
	< 50. MCG/L				
Chloroform	< 50. MCG/L				
1,2-Dichloroethane	< 50. MCG/L				
2-Butanone (Methyl Ethyl Ketone)	< 50. MCG/L				
1,1,1-Trichloroethane	< 50. MCG/L				
Carbon Tetrachloride	< 50. MCG/L				
Bromodichloromethane	< 50. MCG/L				
1,2-Dichloropropane	< 50. MCG/L				
Cis-1,3 Dichloropropene	< 50. MCG/L				
Trichloroethene	< 50. MCG/L	24	7	8	
Dibromochloromethane	< 50. MCG/L				
1,1,2-Trichloroethane	< 50. MCG/L				
Benzene	< 50. MCG/L				
Trans-1,3-Dichloropropene	< 50. MCG/L				
Bromoform	< 50. MCG/L				
4-Methyl-2-Pentanone (MIBK)	< 50. MCG/L				
2-Hexanone (Methyl Butyl Ketone)	< 50. MCG/L				
Tetrachloroethene	< 50. MCG/L	1200	560	1200	
1,1,2,2-Tetrachloroethane	< 50. MCG/L				
Toluene	< 50. MCG/L				
Chlorobenzene	< 50. MCG/L				
Ethylbenzene	< 50. MCG/L				
Styrene	< 50. MCG/L				
Total Xylenes	< 50. MCG/L				
PH of Volatile Aliquot		5			
PH was not as low as required by method	< 50. MCG/L	YES			
Data Qualifications			BD,DJ,BD	BD,BD,DJ,DJ,D	

Note: Data qualifications are in the order that they appear on the data sheets.

B = This flag is used when the analyte is found in the associated blank as well as the sample.

J = This flag indicates an estimated value.

D = This flag indicates all compounds identified in an analysis at a secondary dilution factor.

New York State Department of Health
Wadworth Center
Results of Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330

Description: Test Well, MW-111

Target Compound List	Detection Limits	Concentration (MCG/L)			
		[illegible]	[illegible]	[illegible]	
Chloromethane	< .5 MCG/L				
Bromomethane	< .5 MCG/L				
Vinyl Chloride	< .5 MCG/L				
Chloroethane	< .5 MCG/L				
Methylene Chloride (Dichloromethane)	< .5 MCG/L				
Acetone	< .5 MCG/L				
Carbon Disulfide	< .5 MCG/L				
1,1-Dichloroethene	< .5 MCG/L				
1,1-Dichloroethane	< .5 MCG/L				
2,2 - Dichloropropane	< .5 MCG/L				
Cis/Trans 1,2-Dichloroethene (Total)	< .5 MCG/L				
	< .5 MCG/L				
Chloroform	< .5 MCG/L				
1,2-Dichloroethane	< .5 MCG/L				
2-Butanone (Methyl Ethyl Keytone)	< .5 MCG/L				
1,1,1-Trichloroethane	< .5 MCG/L				
Carbon Tetrachloride	< .5 MCG/L				
Bromodichloromethane	< .5 MCG/L				
1,2-Dichloropropane	< .5 MCG/L				
Cis-1,3 Dichloropropene	< .5 MCG/L				
Trichloroethene	< .5 MCG/L	0.7		2	
Dibromochloromethane	< .5 MCG/L				
1,1,2-Trichloroethane	< .5 MCG/L				
Benzene	< .5 MCG/L				
Trans-1,3-Dichloropropene	< .5 MCG/L				
Bromoform	< .5 MCG/L				
4-Methyl-2-Pentanone (MIBK)	< .5 MCG/L				
2-Hexanone (Methyl Butyl Ketone)	< .5 MCG/L				
Tetrachloroethene	< .5 MCG/L	3.9	58	19	
1,1,2,2-Tetrachloroethane	< .5 MCG/L				
Toluene	< .5 MCG/L			0.05	
Chlorobenzene	< .5 MCG/L				
Ethylbenzene	< .5 MCG/L				
Styrene	< .5 MCG/L				
Total Xylenes	< .5 MCG/L				
PH of Volatile Aliquot		5			
PH was not as low as required by method		YES			
Data Qualifications		PL	J,J,_	J,J,_,J	

Note: Data qualifications are in the order that they appear on the data sheets.

B = This flag is used when the analyte is found in the associated blank as well as the sample.

J = This flag indicates an estimated value.

D = This flag indicates all compounds identified in an analysis at a secondary dilution factor.

New York State Department of Health
Wadworth Center
Results of Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330

Description: Test Well, MW-107

Target Compound List	Detection Limit	Concentration (MCG/L)			
		[illegible]	[illegible]	[illegible]	
Chloromethane	< .5 MCG/L				
Bromomethane	< .5 MCG/L				
Vinyl Chloride	< .5 MCG/L				
Chloroethane	< .5 MCG/L				
Methylene Chloride (Dichloromethane)	< .5 MCG/L				
Acetone	< .5 MCG/L				
Carbon Disulfide	< .5 MCG/L				
1,1-Dichloroethene	< .5 MCG/L				
1,1-Dichloroethane	< .5 MCG/L				
2,2 - Dichloropropane	< .5 MCG/L				
Cis/Trans 1,2-Dichloroethene (Total)	< .5 MCG/L	20.9	30	15	
	< .5 MCG/L				
Chloroform	< .5 MCG/L				
1,2-Dichloroethane	< .5 MCG/L				
2-Butanone (Methyl Butyl Ketone)	< .5 MCG/L				
1,1,1-Trichloroethane	< .5 MCG/L				
Carbon Tetrachloride	< .5 MCG/L				
Bromodichloromethane	< .5 MCG/L				
1,2-Dichloropropane	< .5 MCG/L				
Cis-1,3 Dichloropropene	< .5 MCG/L				
Trichloroethene	< .5 MCG/L	20	12	20	
Dibromochloromethane	< .5 MCG/L				
1,1,2-Trichloroethane	< .5 MCG/L				
Benzene	< .5 MCG/L				
Trans-1,3-Dichloropropene	< .5 MCG/L				
Bromoform	< .5 MCG/L				
4-Methyl-2-Pentanone (MIBK)	< .5 MCG/L				
2-Hexanone (Methyl Butyl Ketone)	< .5 MCG/L				
Tetrachloroethene	< .5 MCG/L	150	440	88	
1,1,2,2-Tetrachloroethane	< .5 MCG/L				
Toluene	< .5 MCG/L				
Chlorobenzene	< .5 MCG/L				
Ethylbenzene	< .5 MCG/L				
Styrene	< .5 MCG/L				
Total Xylenes	< .5 MCG/L			0.4	
PH of Volatile Aliquot		11			
PH was not as low as required by method	< 50 MCG/L	YES			
Data Qualifications			DJ,DJ,BD	J,B,_,_,BJ,BJ	

Note: Data qualifications are in the order that they appear on the data sheets.

B = This flag is used when the analyte is found in the associated blank as well as the sample.

J = This flag indicates an estimated value.

D = This flag indicates all compounds identified in an analysis at a secondary dilution factor.

New York State Department of Health
Wadworth Center
Results of Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330
Description: Test Well, MW-107A

Target Compound List	Detection Limit	Concentration (MCG/L)			
		[illegible]	[illegible]	[illegible]	
Chloromethane	< .5 MCG/L				
Bromomethane	< .5 MCG/L				
Vinyl Chloride	< .5 MCG/L				
Chloroethane	< .5 MCG/L				
Methylene Chloride (Dichloromethane)	< .5 MCG/L				
Acetone	< .5 MCG/L			18	
Carbon Disulfide	< .5 MCG/L				
1,1-Dichloroethene	< .5 MCG/L				
1,1-Dichloroethane	< .5 MCG/L				
2,2 - Dichloropropane	< .5 MCG/L				
Cis/Trans 1,2-Dichloroethene (Total)	< .5 MCG/L	93	90	24	
	< .5 MCG/L				
Chloroform	< .5 MCG/L				
1,2-Dichloroethane	< .5 MCG/L				
2-Butanone (Methyl Ethyl Ketone)	< .5 MCG/L				
1,1,1-Trichloroethane	< .5 MCG/L				
Carbon Tetrachloride	< .5 MCG/L				
Bromodichloromethane	< .5 MCG/L				
1,2-Dichloropropane	< .5 MCG/L				
Cis-1,3 Dichloropropene	< .5 MCG/L				
Trichloroethene (TCE)	< .5 MCG/L	11	12	11	
Dibromochloromethane	< .5 MCG/L				
1,1,2-Trichloroethane	< .5 MCG/L				
Benzene	< .5 MCG/L				
Trans-1,3-Dichloropropene	< .5 MCG/L				
Bromoform	< .5 MCG/L				
4-Methyl-2-Pentanone (MIBK)	< .5 MCG/L				
2-Hexanone (Methyl Butyl Ketone)	< .5 MCG/L				
Tetrachloroethene (PCE)	< .5 MCG/L	360	440	300	
1,1,2,2-Tetrachloroethane	< .5 MCG/L				
Toluene	< .5 MCG/L				
Chlorobenzene	< .5 MCG/L				
Ethylbenzene	< .5 MCG/L				
Styrene	< .5 MCG/L				
Total Xylenes	< .5 MCG/L				
PH of Volatile Aliquot		5			
PH Was not as low as required by method	< 30. MCG/L	YES			
Data Qualifications		PL	DJ,DJ,BD	BD,BD,DJ,DJ,D	

Note: Data qualifications are in the order that they appear on the data sheets.

B = This flag is used when the analyte is found in the associated blank as well as the sample.

J = This flag indicates an estimated value:

D = This flag indicates all compounds identified in an analysis at a secondary dilution factor.

New York State Department of Health
Wadworth Center
Results of Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330
Description: Test Well, MW-2

Target Compound List	Detection Limit	Concentration (MCG/L)			
		[illegible]	[illegible]	[illegible]	
Chloromethane	<.5 MCG/L				
Bromomethane	< .5 MCG/L				
Vinyl Chloride	<.5 MCG/L				
Chloroethane	< .5 MCG/L				
Methylene Chloride (Dichloromethane)	<.5 MCG/L				
Acetone	< .5 MCG/L				
Carbon Disulfide	<.5 MCG/L				
1,1-Dichloroethene	< .5 MCG/L				
1,1-Dichloroethane	<.5 MCG/L				
2,2 - Dichloropropane	< .5 MCG/L				
Cis/Trans 1,2-Dichloroethene (Total)	<.5 MCG/L	5.6	9	9	
	< .5 MCG/L				
Chloroform	<.5 MCG/L				
1,2-Dichloroethane	< .5 MCG/L				
2-Butanone (Methyl Ethyl Keytone)	<.5 MCG/L				
1,1,1-Trichloroethane	< .5 MCG/L				
Carbon Tetrachloride	<.5 MCG/L				
Bromodichloromethane	< .5 MCG/L				
1,2-Dichloropropane	<.5 MCG/L				
Cis-1,3 Dichloropropene	< .5 MCG/L				
Trichloroethene	<.5 MCG/L	0.5		[illegible]	
Dibromochloromethane	< .5 MCG/L				
1,1,2-Trichloroethane	<.5 MCG/L				
Benzene	< .5 MCG/L				
Trans-1,3-Dichloropropene	<.5 MCG/L				
Bromoform	< .5 MCG/L				
4-Methyl-2-Pentanone (MIBK)	<.5 MCG/L				
2-Hexanone (Methyl Butyl Ketone)	< .5 MCG/L				
Tetrachloroethene	<.5 MCG/L	160	140	170	
1,1,2,2-Tetrachloroethane	< .5 MCG/L				
Toluene	<.5 MCG/L				
Chlorobenzene	< .5 MCG/L				
Ethylbenzene	<.5 MCG/L				
Styrene	< .5 MCG/L				
Total Xylenes	<.5 MCG/L				
PH of Volatile Aliquot		6			
PH was not as low as required by method	<50 MCG/L	YES			
Data Qualifications		_,PL,E	J,B	J,_	

Note: Data qualifications are in the order that they appear on the data sheets.

B = This flag is used when the analyte is found in the associated blank as well as the sample.

J = This flag indicates an estimated value.

D = This flag indicates all compounds identified in an analysis at a secondary dilution factor.

New York State Department of Health
Wadworth Center
Results of Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330
Description: Test Well, MW-2B

Target Compound List	Detection Limit	Concentration (MCG/L)			
Chloromethane	< 5 MCG/L				
Bromomethane	< 5 MCG/L				
Vinyl Chloride	< 5 MCG/L				
Chloroethane	< 5 MCG/L				
Methylene Chloride (Dichloromethane)	< 5 MCG/L				
Acetone	< 5 MCG/L				
Carbon Disulfide	< 5 MCG/L				
1,1-Dichloroethene	< 5 MCG/L				
1,1-Dichloroethane	< 5 MCG/L				
2,2 - Dichloropropane	< 5 MCG/L				
Cis/Trans 1,2-Dichloroethene (Total)	< 5 MCG/L				
	< 5 MCG/L				
Chloroform	< 5 MCG/L				
1,2-Dichloroethane	< 5 MCG/L				
2-Butanone (Methyl Ethyl Ketone)	< 5 MCG/L				
1,1,1-Trichloroethane	< 5 MCG/L				
Carbon Tetrachloride	< 5 MCG/L				
Bromodichloromethane	< 5 MCG/L				
1,2-Dichloropropane	< 5 MCG/L				
Cis-1,3 Dichloropropene	< 5 MCG/L				
Trichloroethene	< 5 MCG/L				
Dibromochloromethane	< 5 MCG/L				
1,1,2-Trichloroethane	< 5 MCG/L				
Benzene	< 5 MCG/L				
Trans-1,3-Dichloropropene	< 5 MCG/L				
Bromoform	< 5 MCG/L				
4-Methyl-2-Pentanone (MIBK)	< 5 MCG/L				
2-Hexanone (Methyl Butyl Ketone)	< 5 MCG/L				
Tetrachloroethene	< 5 MCG/L				
1,1,2,2-Tetrachloroethane	< 5 MCG/L				
Toluene	< 5 MCG/L				
Chlorobenzene	< 5 MCG/L				
Ethylbenzene	< 5 MCG/L				
Styrene	< 5 MCG/L				
Total Xylenes	< 5 MCG/L				
PH of Volatile Aliquot		6			
PH was not as low as required by method		YES			
Data Qualifications			BJ	BJ	

Note: Data qualifications are in the order that they appear on the data sheets.

B = This flag is used when the analyte is found in the associated blank as well as the sample.

J = This flag indicates an estimated value.

D = This flag indicates all compounds identified in an analysis at a secondary dilution factor.

New York State Department of Health
Wadworth Center
Results of Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330
Description: Test Well, MW-108

Target Compound List	Detection Limit	Concentration (MCG/L)			
		7/17/97	10/20/	1/27/98	
Chloromethane	< .5 MCG/L				
Bromomethane	< .5 MCG/L				
Vinyl Chloride	< .5 MCG/L				
Chloroethane	< .5 MCG/L				
Methylene Chloride (Dichloromethane)	< .5 MCG/L				
Acetone	< .5 MCG/L			6	
Carbon Disulfide	< .5 MCG/L				
1,1-Dichloroethene	< .5 MCG/L				
1,1-Dichloroethane	< .5 MCG/L				
2,2 - Dichloropropane	< .5 MCG/L				
Cis/Trans 1,2-Dichloroethene (Total)	< .5 MCG/L				
	< .5 MCG/L				
Chloroform	< .5 MCG/L				
1,2-Dichloroethane	< .5 MCG/L				
2-Butanone (Methyl Ethyl Ketone)	< .5 MCG/L				
1,1,1-Trichloroethane	< .5 MCG/L				
Carbon Tetrachloride	< .5 MCG/L				
Bromodichloromethane	< .5 MCG/L				
1,2-Dichloropropane	< .5 MCG/L				
Cis-1,3 Dichloropropene	< .5 MCG/L				
Trichloroethene	< .5 MCG/L				
Dibromochloromethane	< .5 MCG/L				
1,1,2-Trichloroethane	< .5 MCG/L				
Benzene	< .5 MCG/L				
Trans-1,3-Dichloropropene	< .5 MCG/L				
Bromoform	< .5 MCG/L				
4-Methyl-2-Pentanone (MIBK)	< .5 MCG/L				
2-Hexanone (Methyl Butyl Ketone)	< .5 MCG/L				
Tetrachloroethene	< .5 MCG/L			.5	
1,1,2,2-Tetrachloroethane	< .5 MCG/L				
Toluene	< .5 MCG/L			0.07	
Chlorobenzene	< .5 MCG/L				
Ethylbenzene	< .5 MCG/L				
Styrene	< .5 MCG/L				
Total Xylenes	< .5 MCG/L				
PH of Volatile Aliquot		5			
PH was not as low as required by method		YES			
Data Qualifications			BJ	BJ,J,BJ	

Note: Data qualifications are in the order that they appear on the data sheets.

B = This flag is used when the analyte is found in the associated blank as well as the sample.

J = This flag indicates an estimated value.

D = This flag indicates all compounds identified in an analysis at a secondary dilution factor.

New York State Department of Health
Wadworth Center
Results of Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330
Description: Test Well, MW-108A

Target Compound List	Detection Limit	Concentration (MCG/L)			
		[illegible]/97	11/[illegible]	[illegible]/98	
Chloromethane	<.5 MCG/L				
Bromomethane	< .5 MCG/L				
Vinyl Chloride	<.5 MCG/L				
Chloroethane	< .5 MCG/L				
Methylene Chloride (Dichloromethane)	<.5 MCG/L				
Acetone	< .5 MCG/L				
Carbon Disulfide	[illegible]				
1,1-Dichloroethene	< .5 MCG/L				
1,1-Dichloroethane	<.5 MCG/L				
2,2 - Dichloropropane	< .5 MCG/L				
Cis/Trans 1,2-Dichloroethene (Total)	[illegible]				
	< .5 MCG/L				
Chloroform	<.5 MCG/L				
1,2-Dichloroethane	< .5 MCG/L				
2-Butanone (Methyl Ethyl Ketone)	<.5 MCG/L				
1,1,1-Trichloroethane	< .5 MCG/L				
Carbon Tetrachloride	<.5 MCG/L				
Bromodichloromethane	< .5 MCG/L				
1,2-Dichloropropane	<.5 MCG/L				
Cis-1,3 Dichloropropene	< .5 MCG/L				
Trichloroethene	<.5 MCG/L				
Dibromochloromethane	< .5 MCG/L				
1,1,2-Trichloroethane	<.5 MCG/L				
Benzene	< .5 MCG/L				
Trans-1,3-Dichloropropene	<.5 MCG/L				
Bromoform	< .5 MCG/L				
4-Methyl-2-Pentanone (MIBK)	<.5 MCG/L				
2-Hexanone (Methyl Butyl Ketone)	< .5 MCG/L				
Tetrachloroethene	<.5 MCG/L				
1,1,2,2-Tetrachloroethane	< .5 MCG/L				
Toluene	<.5 MCG/L				
Chlorobenzene	< .5 MCG/L				
Ethylbenzene	<.5 MCG/L				
Styrene	< .5 MCG/L				
Total Xylenes	<.5 MCG/L				
PH of Volatile Aliquot		5			
PH was not as low as required by method		YES			
Data Qualifications					

Note: Data qualifications are in the order that they appear on the data sheets.

B = This flag is used when the analyte is found in the associated blank as well as the sample.

J = This flag indicates an estimated value.

D = This flag indicates all compounds identified in an analysis at a secondary dilution factor.

New York State Department of Health
Wadworth Center
Results of Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330

Description: Test Well, MW-106

Target Compound List	Detection Limit	Concentration (MCG/L)			
		7/17/97	[illegible]	[illegible]	
Chloromethane	<.5 MCG/L				
Bromomethane	< .5 MCG/L				
Vinyl Chloride	<.5 MCG/L				
Chloroethane	< .5 MCG/L				
Methylene Chloride (Dichloromethane)	<.5 MCG/L			0.2	
Acetone	< .5 MCG/L				
Carbon Disulfide	<.5 MCG/L				
1,1-Dichloroethene	< .5 MCG/L				
1,1-Dichloroethane	<.5 MCG/L				
2,2 - Dichloropropane	< .5 MCG/L				
Cis/Trans 1,2-Dichloroethene (Total)	<.5 MCG/L				
	< .5 MCG/L				
Chloroform	<.5 MCG/L				
1,2-Dichloroethane	< .5 MCG/L				
2-Butanone (Methyl Ethyl Ketone)	<.5 MCG/L				
1,1,1-Trichloroethane	< .5 MCG/L				
Carbon Tetrachloride	<.5 MCG/L				
Bromodichloromethane	< .5 MCG/L				
1,2-Dichloropropane	<.5 MCG/L				
Cis-1,3 Dichloropropene	< .5 MCG/L				
Trichloroethene	<.5 MCG/L			[illegible]	
Dibromochloromethane	< .5 MCG/L				
1,1,2-Trichloroethane	<.5 MCG/L				
Benzene	< .5 MCG/L				
Trans-1,3-Dichloropropene	<.5 MCG/L				
Bromoform	< .5 MCG/L				
4-Methyl-2-Pentanone (MIBK)	<.5 MCG/L				
2-Hexanone (Methyl Butyl Ketone)	< .5 MCG/L				
Tetrachloroethene	<.5 MCG/L				
1,1,2,2-Tetrachloroethane	< .5 MCG/L				
Toluene	<.5 MCG/L			0.06	
Chlorobenzene	< .5 MCG/L				
Ethylbenzene	<.5 MCG/L				
Styrene	< .5 MCG/L				
Total Xylenes	<.5 MCG/L				
PH of Volatile Aliquot		6			
PH was not as low as required by method	<50. MCG/L	YES			
Data Qualifications				BJJ	

Note: Data qualifications are in the order that they appear on the data sheets.

B = This flag is used when the analyte is found in the associated blank as well as the sample.

J = This flag indicates an estimated value.

D = This flag indicates all compounds identified in an analysis at a secondary dilution factor.

New York State Department of Health
Wadworth Center
Results of Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330

Description: Test Well, MW-106A

Target Compound List	Detection Limit	Concentration (MCG/L)			
		[illegible]/17/97	11/4/97	[illegible]/98	[illegible]
Chloromethane	<.5 MCG/L				
Bromomethane	< .5 MCG/L				
Vinyl Chloride	<.5 MCG/L				
Chloroethane	< .5 MCG/L				
Methylene Chloride (Dichloromethane)	<.5 MCG/L				
Acetone	< .5 MCG/L				
Carbon Disulfide	<.5 MCG/L				
1,1-Dichloroethene	< .5 MCG/L				
1,1-Dichloroethane	<.5 MCG/L				
2,2 - Dichloropropane	< .5 MCG/L				
Cis/Trans 1,2-Dichloroethene (Total)	<.5 MCG/L				
	< .5 MCG/L				
Chloroform	<.5 MCG/L				
1,2-Dichloroethane	< .5 MCG/L				
2-Butanone (Methyl Ethyl Ketone)	<.5 MCG/L				
1,1,1-Trichloroethane	< .5 MCG/L				
Carbon Tetrachloride	<.5 MCG/L				
Bromodichloromethane	< .5 MCG/L				
1,2-Dichloropropane	<.5 MCG/L				
Cis-1,3 Dichloropropene	< .5 MCG/L				
Trichloroethene	<.5 MCG/L				
Dibromochloromethane	< .5 MCG/L				
1,1,2-Trichloroethane	<.5 MCG/L				
Benzene	< .5 MCG/L				
Trans-1,3-Dichloropropene	<.5 MCG/L				
Bromoform	< .5 MCG/L				
4-Methyl-2-Pentanone (MIBK)	<.5 MCG/L				
2-Hexanone (Methyl Butyl Ketone)	< .5 MCG/L				
Tetrachloroethene	<.5 MCG/L				
1,1,2,2-Tetrachloroethane	< .5 MCG/L				
Toluene	<.5 MCG/L				
Chlorobenzene	< .5 MCG/L				
Ethylbenzene	<.5 MCG/L				
Styrene	< .5 MCG/L	0.5			
Total Xylenes	<.5 MCG/L				
PH of Volatile Aliquot		6			
PH was not as low as required by method	<50 MCG/L	YES			
Data Qualifications		PL			

Note: Data qualifications are in the order that they appear on the data sheets.

B = This flag is used when the analyte is found in the associated blank as well as the sample.

J = This flag indicates an estimated value.

D = This flag indicates all compounds identified in an analysis at a secondary dilution factor.

New York State Department of Health
Wadworth Center
Results of Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330
Description: Test Well, MW-109

Target Compound List	Detection limit	Concentration (MCG/L)			
		11/07/			
Chloromethane	< 5 MCG/L				
Bromomethane	< 5 MCG/L				
Vinyl Chloride	< 5 MCG/L				
Chloroethane	< 5 MCG/L				
Methylene Chloride (Dichloromethane)	< 5 MCG/L				
Acetone	< 5 MCG/L				
Carbon Disulfide	< 5 MCG/L				
1,1-Dichloroethene	< 5 MCG/L				
1,1-Dichloroethane	< 5 MCG/L				
2,2 - Dichloropropane	< 5 MCG/L				
Cis/Trans 1,2-Dichloroethene (Total)	< 5 MCG/L				
	< 5 MCG/L				
Chloroform	< 5 MCG/L				
1,2-Dichloroethane	< 5 MCG/L				
2-Butanone (Methyl Ethyl Ketone)	< 5 MCG/L				
1,1,1-Trichloroethane	< 5 MCG/L				
Carbon Tetrachloride	< 5 MCG/L				
Bromodichloromethane	< 5 MCG/L				
1,2-Dichloropropane	< 5 MCG/L				
Cis-1,3 Dichloropropene	< 5 MCG/L				
Trichloroethene	< 5 MCG/L				
Dibromochloromethane	< 5 MCG/L				
1,1,2-Trichloroethane	< 5 MCG/L				
Benzene	< 5 MCG/L				
Trans-1,3-Dichloropropene	< 5 MCG/L				
Bromoform	< 5 MCG/L				
4-Methyl-2-Pentanone (MIBK)	< 5 MCG/L				
2-Hexanone (Methyl Butyl Ketone)	< 5 MCG/L				
Tetrachloroethene	< 5 MCG/L				
1,1,2,2-Tetrachloroethane	< 5 MCG/L				
Toluene	< 5 MCG/L				
Chlorobenzene	< 5 MCG/L				
Ethylbenzene	< 5 MCG/L				
Styrene	< 5 MCG/L				
Total Xylenes	< 5 MCG/L				
PH of Volatile Aliquot		6			
PH was not as low as required by method		YES			
Data Qualifications					

Note: Data qualifications are in the order that they appear on the data sheets.

B = This flag is used when the analyte is found in the associated blank as well as the sample.

J = This flag indicates an estimated value.

D = This flag indicates all compounds identified in an analysis at a secondary dilution factor.

New York State Department of Health
Wadworth Center
Results of Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330
Description: Test Well, MW-105

Target Compound List	EPA Detection Limits	Concentration (MCG/L)			
Chloromethane	< 5 MCG/L				
Bromomethane	< 5 MCG/L				
Vinyl Chloride	< 5 MCG/L				
Chloroethane	< 5 MCG/L				
Methylene Chloride (Dichloromethane)	< 5 MCG/L				
Acetone	< 5 MCG/L				
Carbon Disulfide	< 5 MCG/L				
1,1-Dichloroethene	< 5 MCG/L				
1,1-Dichloroethane	< 5 MCG/L				
2,2 - Dichloropropane	< 5 MCG/L				
Cis/Trans 1,2-Dichloroethene (Total)	< 5 MCG/L				
	< 5 MCG/L				
Chloroform	< 5 MCG/L				
1,2-Dichloroethane	< 5 MCG/L				
2-Butanone (Methyl Ethyl Ketone)	< 5 MCG/L				
1,1,1-Trichloroethane	< 5 MCG/L				
Carbon Tetrachloride	< 5 MCG/L				
Bromodichloromethane	< 5 MCG/L				
1,2-Dichloropropane	< 5 MCG/L				
Cis-1,3 Dichloropropene	< 5 MCG/L				
Trichloroethene	< 5 MCG/L				
Dibromochloromethane	< 5 MCG/L				
1,1,2- Trichloroethane	< 5 MCG/L				
Benzene	< 5 MCG/L				
Trans-1,3-Dichloropropene	< 5 MCG/L				
Bromoform	< 5 MCG/L				
4-Methyl-2-Pentanone (MIBK)	< 5 MCG/L				
2-Hexanone (Methyl Butyl Ketone)	< 5 MCG/L				
Tetrachloroethene	< 5 MCG/L				
1,1,2,2-Tetrachloroethane	< 5 MCG/L				
Toluene	< 5 MCG/L			0.06	
Chlorobenzene	< 5 MCG/L				
Ethylbenzene	< 5 MCG/L				
Styrene	< 5 MCG/L				
Total Xylenes	< 5 MCG/L				
PH of Volatile Aliquot		6			
PH Was not as low as required by method		YES			
Data Qualifications				J	

Note: Data qualifications are in the order that they appear on the data sheets.

B = This flag is used when the analyte is found in the associated blank as well as the sample.

J = This flag indicates an estimated value.

D = This flag indicates all compounds identified in an analysis at a secondary dilution factor.

New York State Department of Health
Wadworth Center
Results of Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330
Description: Test Well, MW-105A

Target Compound List	Detection Limit	Concentration (MCG/L)			
		7/7/97	10/6/97	12/29/97	
Chloromethane	< 5 MCG/L				
Bromomethane	< 5 MCG/L				
Vinyl Chloride	< 5 MCG/L				
Chloroethane	< 5 MCG/L				
Methylene Chloride (Dichloromethane)	< 5 MCG/L				
Acetone	< 5 MCG/L				
Carbon Disulfide	< 5 MCG/L				
1,1-Dichloroethene	< 5 MCG/L				
1,1-Dichloroethane	< 5 MCG/L				
2,2 - Dichloropropane	< 5 MCG/L				
Cis/Trans 1,2-Dichloroethene (Total)	< 5 MCG/L				
	< 5 MCG/L				
Chloroform	< 5 MCG/L				
1,2-Dichloroethane	< 5 MCG/L				
2-Butanone (Methyl Ethyl Keytone)	< 5 MCG/L				
1,1,1-Trichloroethane	< 5 MCG/L				
Carbon Tetrachloride	< 5 MCG/L				
Bromodichloromethane	< 5 MCG/L				
1,2-Dichloropropane	< 5 MCG/L				
Cis-1,3 Dichloropropene	< 5 MCG/L				
Trichloroethene	< 5 MCG/L				
Dibromochloromethane	< 5 MCG/L				
1,1,2-Trichloroethane	< 5 MCG/L				
Benzene	< 5 MCG/L				
Trans-1,3-Dichloropropene	< 5 MCG/L				
Bromoform	< 5 MCG/L				
4-Methyl-2-Pentanone (MIBK)	< 5 MCG/L				
2-Hexanone (Methyl Butyl Ketone)	< 5 MCG/L				
Tetrachloroethene	< 5 MCG/L				
1,1,2,2-Tetrachloroethane	< 5 MCG/L				
Toluene	< 5 MCG/L				
Chlorobenzene	< 5 MCG/L				
Ethylbenzene	< 5 MCG/L				
Styrene	< 5 MCG/L				
Total Xylenes	< 5 MCG/L				
PH of Volatile Aliquot		6			
PH was not as low as required by method		YES			
Data Qualifications					

Note: Data qualifications are in the order that they appear on the data sheets.

B = This flag is used when the analyte is found in the associated blank as well as the sample.

J = This flag indicates an estimated value.

D = This flag indicates all compounds identified in an analysis at a secondary dilution factor.

New York State Department of Health
Wadworth Center
Results of Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330
Description: Test Well, MW-104

Target Compound List	Detection Limit	Concentration (MCG/L)			
Chloromethane	< 5 MCG/L				
Bromomethane	< 5 MCG/L				
Vinyl Chloride	< 5 MCG/L				
Chloroethane	< 5 MCG/L				
Methylene Chloride (Dichloromethane)	< 5 MCG/L				
Acetone	< 5 MCG/L				
Carbon Disulfide	< 5 MCG/L				
1,1-Dichloroethene	< 5 MCG/L				
1,1-Dichloroethane	< 5 MCG/L				
2,2 - Dichloropropane	< 5 MCG/L				
Cis/Trans 1,2-Dichloroethene (Total)	< 5 MCG/L				
	< 5 MCG/L				
Chloroform	< 5 MCG/L				
1,2-Dichloroethane	< 5 MCG/L				
2-Butanone (Methyl Ethyl Ketone)	< 5 MCG/L				
1,1,1-Trichloroethane	< 5 MCG/L				
Carbon Tetrachloride	< 5 MCG/L				
Bromodichloromethane	< 5 MCG/L				
1,2-Dichloropropane	< 5 MCG/L				
Cis-1,3 Dichloropropene	< 5 MCG/L				
Trichloroethene	< 5 MCG/L				
Dibromochloromethane	< 5 MCG/L				
1,1,2-Trichloroethane	< 5 MCG/L				
Benzene	< 5 MCG/L				
Trans-1,3-Dichloropropene	< 5 MCG/L				
Bromoform	< 5 MCG/L				
4-Methyl-2-Pentanone (MIBK)	< 5 MCG/L				
2-Hexanone (Methyl Butyl Ketone)	< 5 MCG/L				
Tetrachloroethene	< 5 MCG/L				
1,1,2,2-Tetrachloroethane	< 5 MCG/L				
Toluene	< 5 MCG/L			0.5	
Chlorobenzene	< 5 MCG/L				
Ethylbenzene	< 5 MCG/L				
Styrene	< 5 MCG/L				
Total Xylenes	< 5 MCG/L			0.5	
PH of Volatile Aliquot		5			
PH was not as low as required by method		YES			
Data Qualifications				J,BJ	

Note: Data qualifications are in the order that they appear on the data sheets.

B = This flag is used when the analyte is found in the associated blank as well as the sample.

J = This flag indicates an estimated value.

D = This flag indicates all compounds identified in an analysis at a secondary dilution factor.

New York State Department of Health
Wadworth Center
Results of Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330
Description: Test Well, MW-3

Target Compound List	Detection Limit	Concentration (UG/L)			
Chloromethane	< 5 MCG/L				
Bromomethane	< 5 MCG/L				
Vinyl Chloride	< 5 MCG/L				
Chloroethane	< 5 MCG/L				
Methylene Chloride (Dichloromethane)	< 5 MCG/L				
Acetone	< 5 MCG/L				
Carbon Disulfide	< 5 MCG/L				
1,1-Dichloroethene	< 5 MCG/L				
1,1-Dichloroethane	< 5 MCG/L				
2,2 - Dichloropropane	< 5 MCG/L				
Cis/Trans 1,2-Dichloroethene (Total)	< 5 MCG/L				
	< 5 MCG/L				
Chloroform	< 5 MCG/L				
1,2-Dichloroethane	< 5 MCG/L				
2-Butanone (Methyl Ethyl Ketone)	< 5 MCG/L				
1,1,1-Trichloroethane	< 5 MCG/L				
Carbon Tetrachloride	< 5 MCG/L				
Bromodichloromethane	< 5 MCG/L				
1,2-Dichloropropane	< 5 MCG/L				
Cis-1,3 Dichloropropene	< 5 MCG/L				
Trichloroethene	< 5 MCG/L				
Dibromochloromethane	< 5 MCG/L				
1,1,2-Trichloroethane	< 5 MCG/L				
Benzene	< 5 MCG/L				
Trans-1,3-Dichloropropene	< 5 MCG/L				
Bromoform	< 5 MCG/L				
4-Methyl-2-Pentanone (MIBK)	< 5 MCG/L				
2-Hexanone (Methyl Butyl Ketone)	< 5 MCG/L				
Tetrachloroethene	< 5 MCG/L				
1,1,2,2-Tetrachloroethane	< 5 MCG/L				
Toluene	< 5 MCG/L				
Chlorobenzene	< 5 MCG/L				
Ethylbenzene	< 5 MCG/L				
Styrene	< 5 MCG/L				
Total Xylenes	< 5 MCG/L				
PH of Volatile Aliquot		6			
PH was not as low as required by method		YES			
Data Qualifications					

Note: Data qualifications are in the order that they appear on the data sheets.

B = This flag is used when the analyte is found in the associated blank as well as the sample.

J = This flag indicates an estimated value.

D = This flag indicates all compounds identified in an analysis at a secondary dilution factor.

New York State Department of Health
Wadworth Center
Results of Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330
Description: Test Well, MW-3B

Target Compound	Detection Limit	Concentration (MCG/L)			
Chloromethane	< 5 MCG/L				
Bromomethane	< 5 MCG/L				
Vinyl Chloride	< 5 MCG/L				
Chloroethane	< 5 MCG/L				
Methylene Chloride (Dichloromethane)	< 5 MCG/L				
Acetone	< 5 MCG/L				
Carbon Disulfide	< 5 MCG/L				
1,1-Dichloroethene	< 5 MCG/L				
1,1-Dichloroethane	< 5 MCG/L				
2,2 - Dichloropropane	< 5 MCG/L				
Cis/Trans 1,2-Dichloroethene (Total)	< 5 MCG/L				
	< 5 MCG/L				
Chloroform	< 5 MCG/L				
1,2-Dichloroethane	< 5 MCG/L				
2-Butanone (Methyl Ethyl Ketone)	< 5 MCG/L				
1,1,1-Trichloroethane	< 5 MCG/L				
Carbon Tetrachloride	< 5 MCG/L				
Bromodichloromethane	< 5 MCG/L				
1,2-Dichloropropane	< 5 MCG/L				
Cis-1,3 Dichloropropene	< 5 MCG/L				
Trichloroethene	< 5 MCG/L				
Dibromochloromethane	< 5 MCG/L				
1,1,2-Trichloroethane	< 5 MCG/L				
Benzene	< 5 MCG/L				
Trans-1,3-Dichloropropene	< 5 MCG/L				
Bromoform	< 5 MCG/L				
4-Methyl-2-Pentanone (MIBK)	< 5 MCG/L				
2-Hexanone (Methyl Butyl Ketone)	< 5 MCG/L				
Tetrachloroethene	< 5 MCG/L				0.6
1,1,2,2-Tetrachloroethane	< 5 MCG/L				
Toluene	< 5 MCG/L				
Chlorobenzene	< 5 MCG/L				
Ethylbenzene	< 5 MCG/L				
Styrene	< 5 MCG/L				
Total Xylenes	< 5 MCG/L				
PH of Volatile Aliquot		5			
PH was not as low as required by method		YES			
Data Qualifications				J	

Note: Data qualifications are in the order that they appear on the data sheets.

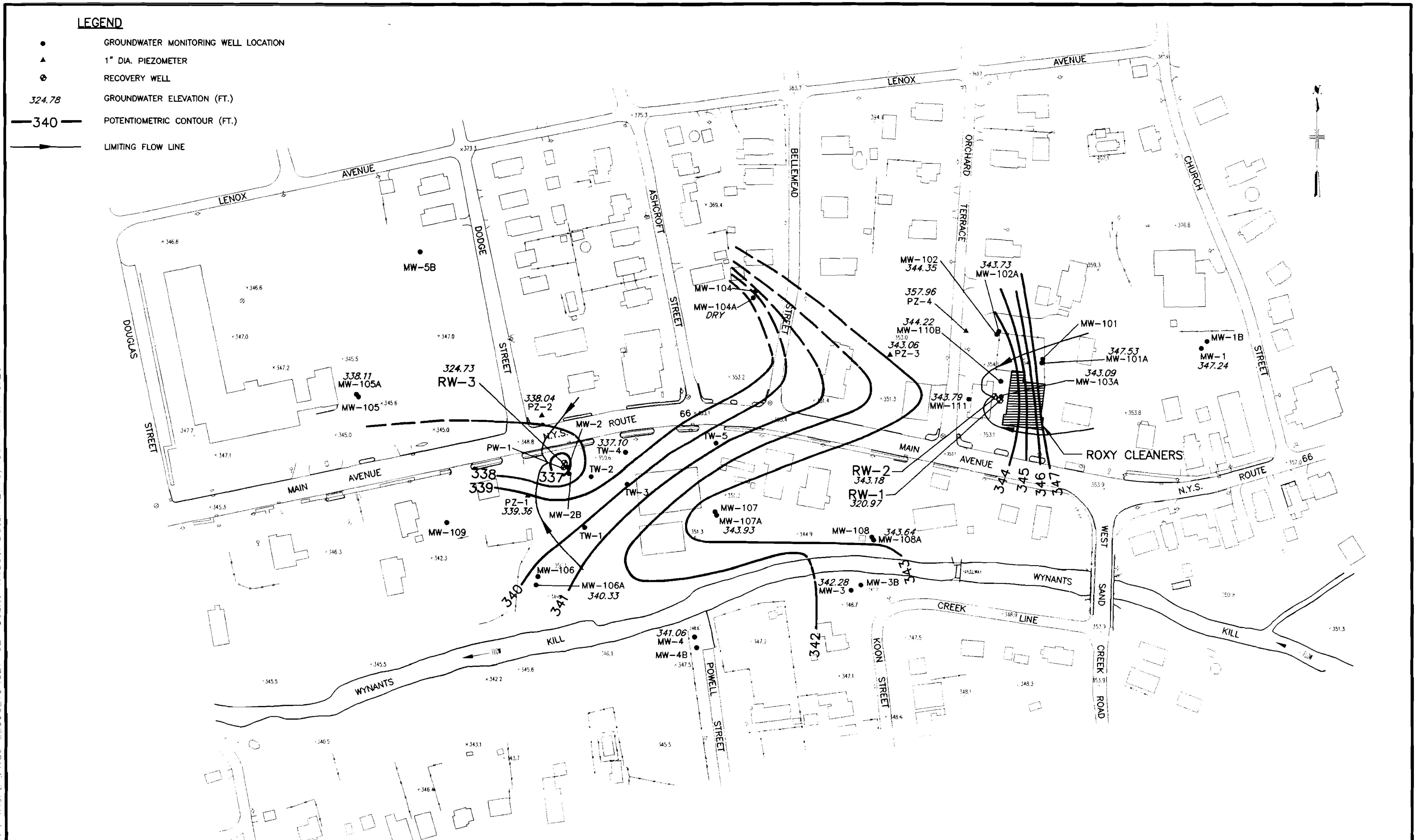
B = This flag is used when the analyte is found in the associated blank as well as the sample.

J = This flag indicates an estimated value.

D = This flag indicates all compounds identified in an analysis at a secondary dilution factor.

APPENDIX E

Monitoring Well Contour Maps



BASE MAP SOURCE: METCALF & EDDY OF NEW YORK, INC. (1992)

SCALE: 1"=150'

MALCOLM PIRNIE

ROXY CLEANERS SITE (NYSDEC #442024)
RENSSELAER COUNTY, NEW YORK

UNCONSOLIDATED AQUIFER POTENTIOMETRIC CONTOUR MAP (NOVEMBER 5, 1997)

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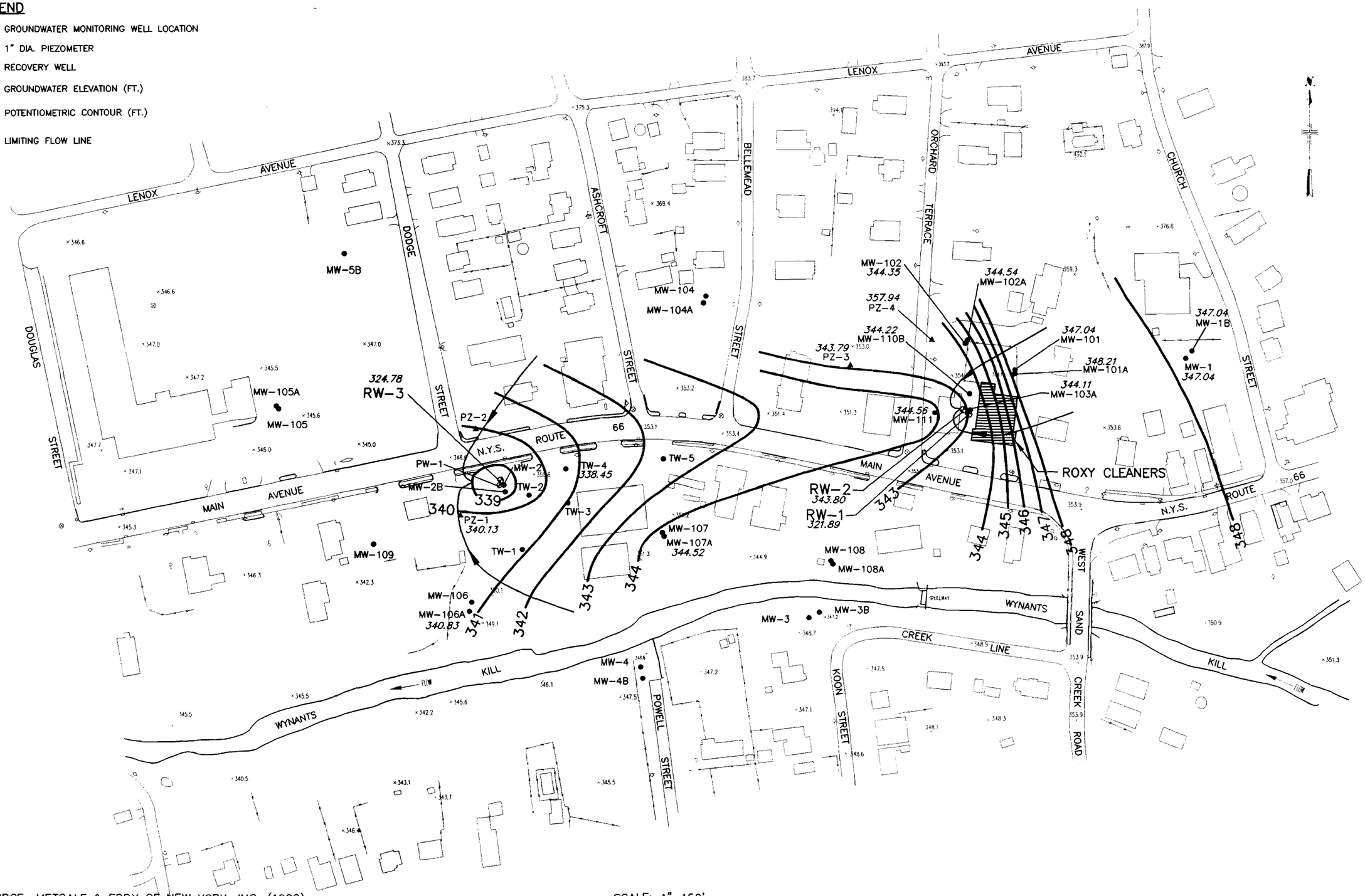
MALCOLM PIRNIE, INC.

LEGEND

- ● GROUNDWATER MONITORING WELL LOCATION
- ▲ 1" DIA. PIEZOMETER
- ⊗ RECOVERY WELL
- *324.78* GROUNDWATER ELEVATION (FT.)
- —340— POTENTIOMETRIC CONTOUR (FT.)
- → LIMITING FLOW LINE



BASE MAP SOURCE: METCALF & EDDY OF NEW YORK, INC. (1992)

SCALE: 1"=150'

MALCOLM PIRNIE

ROXY CLEANERS SITE (NYSDEC #442024)
RENSSELAER COUNTY, NEW YORK

UNCONSOLIDATED AQUIFER POTENTIOMETRIC CONTOUR MAP (DECEMBER 3, 1997)

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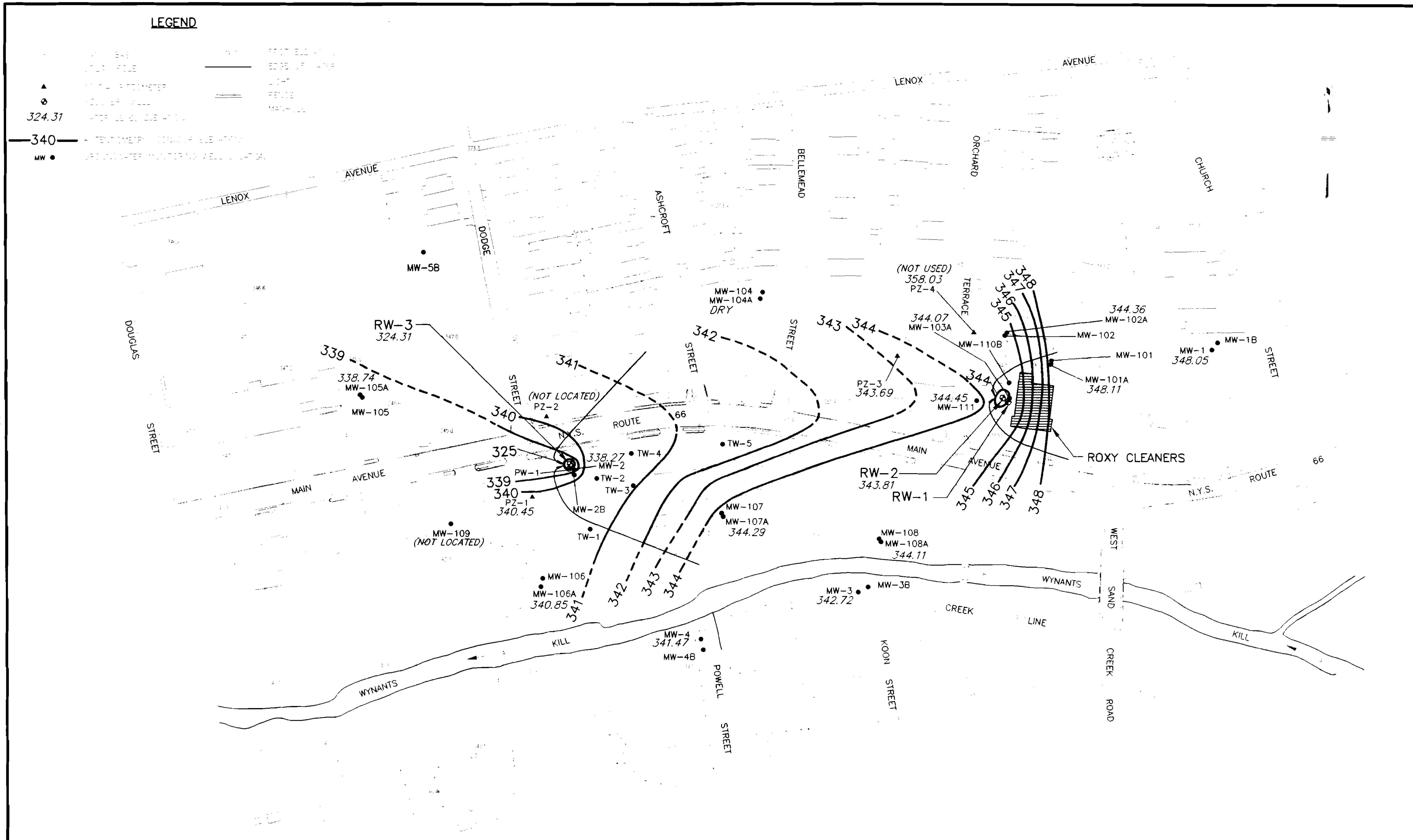
LEGEND
324.31
340
MW
LENOX AVENUE
AVENUE
LENOX
DODGE
ASHCROFT
BELLEMEAD
ORCHARD
CHURCH
TERRACE
DOUGLAS STREET
STREET
MW-5B
MW-104
MW-104A
DRY
(NOT USED)
358.03
PZ-4
344.07
MW-103A
MW-110B
344.36
MW-102A
MW-102
MW-101
MW-1B
MW-1
348.05
MW-101A
348.11
RW-3
324.31
339
338.74
MW-105A
MW-105
(NOT LOCATED)
PZ-2
340
325
338.27
MW-2
TW-4
PW-1
TW-2
TW-3
339
340
PZ-1
340.45
MW-2B
TW-1
341
342
343
344
345
346
347
348
PZ-3
343.69
344.45
MW-111
N.Y.S. ROUTE 66
TW-5
MAIN AVENUE
RW-2
343.81
RW-1
ROXY CLEANERS
MW-107
MW-107A
344.29
MW-108
MW-108A
344.11
MW-109
(NOT LOCATED)
MW-106
MW-106A
340.85
MW-3
342.72
MW-3B
WYNANTS KILL
CREEK
LINE
WEST SAND CREEK ROAD
MW-4
341.47
MW-4B
POWELL STREET
KOON STREET
WYNANTS KILL

BASE MAP SOURCE: METCALF & EDDY OF NEW YORK, INC. (1992)

SCALE: 1"=150'

MALCOLM PIRNIE

ROXY CLEANERS SITE (NYSDEC #442024)
RENSSELAER COUNTY, NEW YORK

UNCONSOLIDATED POTENTIOMETRIC CONTOUR MAP (FEBRUARY 28, 1998)

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LEGEND

324.31

340

MW

LENOX AVENUE

DODGE STREET

ASHCROFT

BELLEMEAD

ORCHARD TERRACE

CHURCH STREET

DOUGLAS STREET

MW-5B

MW-105A

MW-105

MW-104

MW-104A

RW-3
324.47

341

342

343

344

(NOT LOCATED)
PZ-2

340

339

325

PW-1

338.46

MW-2

TW-4

TW-2

TW-3

339

340

PZ-1
340.84

MW-2B

TW-1

TW-5

MW-107

MW-107A
344.38

MW-109
(NOT LOCATED)

MW-106

MW-106A
340.77

MAIN AVENUE

ROUTE 66

N.Y.S.

(NOT USED)
357.99
PZ-4

PZ-3
343.94

344.33
MW-103A

344.78
MW-102A

MW-102

MW-110B

MW-101

MW-1
348.60

MW-1B

344.5

344.71
MW-111

MW-101A
348.47

ROXY CLEANERS

RW-2
344.07

RW-1

345

346

347

348

MW-108

MW-108A

MW-3

MW-3B

WYNANTS KILL

CREEK LINE

WEST SAND CREEK ROAD

MW-4

MW-4B

POWELL STREET

KOON STREET

BASE MAP SOURCE: METCALF & EDDY OF NEW YORK, INC. (1992)

SCALE: 1"=150'

MALCOLM PIRNIE

ROXY CLEANERS SITE (NYSDEC #442024)
RENSSELAER COUNTY, NEW YORK

UNCONSOLIDATED POTENTIOMETRIC CONTOUR MAP (MARCH 17, 1998)

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MALCOLM PIRNIE, INC.

LEGEND

- 324.31 — WATER LEVEL ELEVATION
- 340 — POTENTIOMETRIC CONTOUR ELEVATIONS
- MW ● — GROUNDWATER MONITORING WELL LOCATION

LENOX AVENUE
DODGE STREET
ASHCROFT
BELLEMEAD
ORCHARD TERRACE
CHURCH STREET
DOUGLAS STREET
MAIN AVENUE
ROUTE 66
N.Y.S.
WYNANTS KILL
WEST SAND CREEK ROAD
WYNANTS CREEK LINE
POWELL STREET
KOON STREET

MW-5B
MW-105A
MW-105
MW-104
MW-104A
MW-107
MW-107A 344.16
MW-109 (NOT LOCATED)
MW-106 342.3
340.43 MW-106A
MW-108
MW-108A
MW-3
MW-3B
MW-4
MW-4B
MW-1 348.13
MW-1B
MW-101
MW-102
344.23 MW-102A
MW-103A 343.75
MW-110B 344.04
(NOT USED) 357.78 PZ-4
PZ-3 343.56
MW-111 344.21
MW-101A 348.09
ROXY CLEANERS
RW-3 323.84
RW-2 343.28
RW-1
PZ-2 338.59
PZ-1 337.57
MW-2 338.18
PW-1
MW-2B
TW-1
TW-2
TW-3
TW-4
TW-5

339 340 341 342 343 344 345 346 347 348

BASE MAP SOURCE: METCALF & EDDY OF NEW YORK, INC. (1992)

SCALE: 1"=150'

MALCOLM PIRNIE

ROXY CLEANERS SITE (NYSDEC #442024)
RENSSELAER COUNTY, NEW YORK

UNCONSOLIDATED POTENTIOMETRIC CONTOUR MAP (APRIL 29, 1998)

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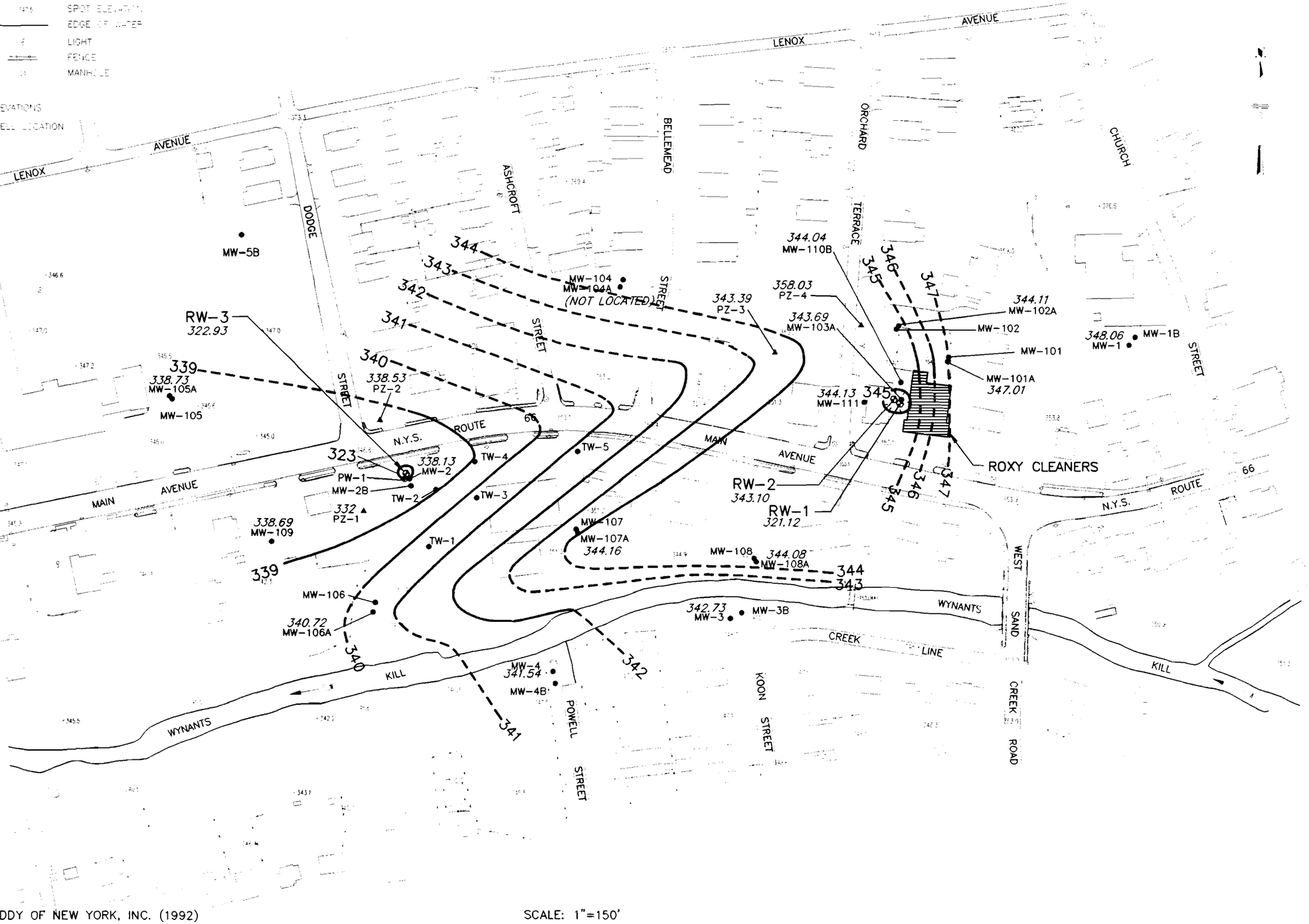
LEGEND

- CATCH BASIN
- UNIT PILE
- PIEZOMETER
- RECOVERY WELL
- 324.31 WATER LEVEL ELEVATION
- 340 POTENTIOMETRIC CONTOUR ELEVATIONS
- MW ● GROUNDWATER MONITORING WELL LOCATION
- 1476 SPOT ELEVATION
- EDGE OF WATER
- LIGHT
- FENCE
- MANHOLE



BASE MAP SOURCE: METCALF & EDDY OF NEW YORK, INC. (1992)

SCALE: 1"=150'

MALCOLM PIRNIE

ROXY CLEANERS SITE (NYSDEC #442024)
RENSSELAER COUNTY, NEW YORK

UNCONSOLIDATED POTENTIOMETRIC CONTOUR MAP (JULY 12, 1998)

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