URS

2001 Annual Groundwater Monitoring Report

Cook Composites and Polymers
340 Railroad Street
Saukville, Wisconsin

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Results of the sampling performed in 2001 indicated that total volatile organic compound (VOCs) levels of up to 190,486 ug/L are present in the groundwater in the glacial deposits and the shallow dolomite. This represents a slight increase over the maximum total VOC concentration observed during the sampling performed in 2000. However, VOC concentrations in the deep dolomite unit remain at non-detectable levels.

The groundwater extraction system currently operating at the site was designed to minimize the downward migration of impacts from the glacial drift and shallow dolomite units to the deep dolomite unit, and to control the off-site migration of impacts from within the glacial drift, shallow dolomite, and deep dolomite units. Based on the results of the sampling conducted in 2001, it appears that the extraction system is functioning as designed.

Concentrations of VOCs at the perimeter monitoring wells remain at either non-detectable or very low levels. Impacts from off-site sources are being detected in several perimeter monitoring wells. Groundwater surface contours and potentiometric surface plots indicate that there is a convergent groundwater flow on the site towards the active extraction system. A stable or decreasing plume size, as indicated by stable or decreasing concentrations observed in the perimeter monitoring wells indicates that the extraction system is effectively controlling the off-site migration of the impacts. An increase in concentrations observed in the active extraction wells indicates that the system is reducing the total constituent mass present within the aquifer.

No VOCs were detected in any of the municipal wells sampled during 2001.

A sample from Municipal Well MW-4 was not collected during the April 2001 sampling event due to maintenance activities. A sample was not collected from Ranney Collector RC-2 during the July 2001 sampling event due to a lack of water caused by an extended dry period. All other required samples were collected during 2001.

SECTIONONE Introduction

Cook Composites and Polymers Co. (CCP) operates a polyester, acrylic, and alkyd resin manufacturing plant in Saukville, Wisconsin (Figure 1). Prior to 1991, the plant was owned and operated by Freeman Chemical Corporation.

In compliance with the 1987 Corrective Action Order on Consent (Docket #V-W-88-R-002), October 19, 1987, 3008h order for RCRA, CCP is required to perform quarterly groundwater monitoring for specific wells. Additional wells or sampling points are sampled on a semi-annual or annual basis.

Samples were collected from the Saukville facility in January, April, July, and October 2001 by URS Corporation (URS) personnel. The samples collected were analyzed by EnChem Laboratory of Madison, Wisconsin.

The field data and results of the chemical analyses were compiled by URS, and were submitted on a quarterly basis by CCP to the United States Environmental Protection Agency (USEPA) Region V, and the Wisconsin Department of Natural Resources (WDNR). On October 30, 2001, Mr. Robert Egan (USEPA-Region V) notified Mr. Robert Cigale (URS) via e-mail that USEPA no longer needed to receive copies of the quarterly and annual reports from the Saukville facility. Quarterly and annual reports continue to be submitted to WDNR staff. Volatile organic compound (VOC) exceedances of the Wisconsin Administrative Code Chapter NR 140 Preventive Action Limits (PAL) and Enforcement Standard (ES) were reported quarterly by CCP in accordance with NR 508. This report was prepared to summarize the results of the groundwater monitoring during the 2001 calendar year.

This document presents a summary of the data collected during the quarterly, semi-annual and annual groundwater sampling events at the CCP Saukville facility in 2001, and provides an evaluation of the groundwater elevation and quality trends at the site. The water quality data has been submitted to the USEPA and the WDNR in the quarterly reports. Copies of the summary tables included in each of the quarterly reports are included in Appendix A.

The contents of this report include the following:

- A summary of the groundwater elevations that were measured in the monitoring wells located both on- and off-site during 2001. Groundwater measurements are depicted on groundwater table maps and potentiometric surface maps for the glacial drift and shallow dolomite units, respectively.
- An evaluation of the groundwater flow directions in the glacial drift and the shallow dolomite hydrogeologic units, and the effects of the groundwater extraction system on the patterns of groundwater flow.
- A summary of the site groundwater monitoring program, and the quarterly total VOC concentrations by wells.
- Isoconcentration maps for total VOCs in groundwater in the glacial drift and shallow dolomite units.
- Time vs. concentration plots of total VOCs in groundwater in selected wells.
- An evaluation of the trends in groundwater quality for each of the monitoring groups for 2001.
- An evaluation of the effectiveness of plume containment by the on-site groundwater extraction system, based on groundwater flow and quality data.
- An estimate of the cumulative mass of total VOCs removed from the extraction wells since initiation of the extraction system.

3.1 DESCRIPTION OF HYDROGEOLOGIC UNITS

The geology at the site has been divided into three fairly distinct hydrogeologic units. These units include the unconsolidated glacial drift deposits, the shallow dolomite unit consisting of the Silurian dolomite to approximately 100 ft below the ground surface, and the deep dolomite unit consisting of Silurian dolomite between approximately 100 ft and 700 ft below the ground surface. A detailed description of the three units are provided below.

3.1.1 Glacial Drift

The glacial drift unit consists of a complex succession of fill and glaciolacustrine deposits that is underlain by a glacial till. The lake deposits and other materials have been extensively used as fill on-site. Both the till and the glaciolacustrine deposits are considered to be part of a partially confining hydrostratigraphic unit.

The total thickness of the glacial drift typically varies between 10 and 30 ft in the vicinity of the site, but the glacial drift is generally on the order of 10 ft thick beneath the CCP facility. Glaciolacustrine deposits are up to 20 ft thick on the western side of the site, and consist of interbedded sands, silts and clays. The clay is soft to medium hard, gray, and plastic to slightly plastic. Between 5 and 25 ft of glacial till is present beneath the eastern side of the site. The till is composed of interbedded silty sands and sandy gravel. The sandy gravel varies from loose to very dense, is brown to gray, and is typically well-graded.

The stratigraphic order of the deposits from the ground surface is generally sand and silt overlying a laterally continuous layer of laminated silt and clay (glaciolacustrine deposits) above dense clay (glacial till). A thin layer of sand and gravel (glacial outwash) lies between this till unit and bedrock.

3.1.2 Shallow Dolomite

The glacial deposits are unconformably underlain by fractured, thin- to massive-bedded Silurian dolomite, with a total thickness of approximately 600 ft in the area, which includes the deep dolomite aquifer.

The uppermost 100 ft of the Silurian dolomite in the Saukville area tends to have a lower permeability than the underlying deep dolomite aquifer. Occasionally, transmissive zones are encountered in the shallow dolomite, such as at monitoring well W-24A, which extracts groundwater at 40 gpm, and yet shows little drawdown.

3.1.3 Deep Dolomite

The deep dolomite aquifer is defined as the Silurian dolomite from approximately 100 to 700 ft below the ground surface. The dominant lithology in the deep dolomite aquifer in the Saukville area is the Racine Formation. Municipal wells within the study area are typically cased to approximately 100 ft below the ground surface, and are completed in the Silurian dolomite to depths in the range of 450 to 550 ft below the ground surface. Groundwater flow within the Silurian dolomite appears to be fracture controlled beneath the study area.

Several solution features have been identified in the dolomite on-site. An apparent sinkhole, filled with glacial deposits, which extends to a depth of approximately 200 ft below the ground surface was encountered on the eastern edge of the CCP site during the installation of wells W-3A, W-3B, and W-20. The areal extent of the sinkhole was further defined based on the seismic refraction survey performed by Minnesota Geophysical Associates. Further evidence of the karstic features includes solution enlarged joints in the dolomite observed during the borehole video logging of W-30. These observations, coupled with the hydraulic response of the aquifer during pumping tests in Saukville, suggest that groundwater flow in the Silurian dolomite is fracture controlled in the study area.

3.2 GROUNDWATER LEVELS AND FLOW PATTERNS IN 2001

Groundwater levels in the monitoring wells were measured prior to purging and sampling during each of the quarterly sampling events. Table 1 presents a summary of the water level measurements for each quarter, and Figure 2 shows the locations of the monitoring wells. The water level data collected in 2001 was used to develop quarterly water table maps for the glacial drift unit, and quarterly potentiometric surface maps for the shallow dolomite unit. These maps are attached as Figures 3 through 10.

Groundwater elevations on-site are influenced by the groundwater extraction system active on the site. A total of 9 glacial drift wells, 4 shallow dolomite wells, and one deep dolomite well are actively pumped in an effort to contain the plume of impacts. Table 2 provides a summary of the monthly pump running times. A review of the pump running times indicate that Ranney Collector RC-2 and shallow dolomite extraction well W-21A pumped the most during 2001 with RC-2 pumped for a total of 8,459.3 hours or 96.6 percent of the available time and W-21A pumped for 6,971.2 hours or 79.6 percent of the available time. Glacial drift extraction well W-35 did not pump at all during 2001. Glacial drift extraction wells W-31, W-32 and W-33 and shallow dolomite extraction wells W-24A, W-28 and W-29 pumped for less than 200 hours, or approximately two percent of the available time during 2001.

3.2.1 Glacial Drift Hydrogeologic Unit

The water table occurs in the glacial drift unit, as shown on Figures 3 through 6. The depth to the water table at the site is approximately 10 ft below the ground surface. Well W-20 is constructed as a piezometer within the glacial drift present in the sinkhole identified in the northeast corner of the site, and the hydraulic head within this well is representative of groundwater flow in the shallow dolomite unit. Therefore, water levels from well W-20 were not used to construct the water table maps included as Figures 3 to 6, but have been used to construct the potentiometric surface maps for the shallow dolomite unit as shown on Figures 7 to 10. The water table beneath the CCP facility generally slopes from the southwest to the northeast, towards the Milwaukee River, with a hydraulic gradient of approximately 0.024 ft/ft, based on the Summer 2001 water level data attached in Appendix A. However, on-site shallow groundwater flow is diverted towards the Ranney Collectors and the active on-site remediation network.

A vertically downward hydraulic gradient continues to be present between the glacial drift and the shallow dolomite aquifers. The magnitude of the downward gradient was determined using the July 2001 water level data for wells W-18A/W-22, and W-43/W-38. Downward gradients ranged between 0.27 and 0.9 ft/ft. Hydrogeological calculations are included in Appendix C.

3.2.2 Shallow Dolomite Unit

The potentiometric surface in the shallow dolomite unit for the 2001 sampling events is shown on Figures 7 to 10. The piezometers constructed at the site have been completed at varying depths in the dolomite. Therefore, only those piezometers with bottom elevations between 680 and 710 ft above mean sea level (MSL) were used in preparation of Figures 7 to 10. Well W-30 has a bottom elevation of approximately 215 MSL, and is utilized to provide non-contact cooling water extracted from both the shallow and deep dolomite units. W-30 typically pumps at approximately 340 gpm, and has induced a large cone of depression in the shallow dolomite unit. Therefore, W-30 has been included on the potentiometric maps for the shallow dolomite unit.

Groundwater elevation trends from 1995 to 2001, for the water table monitoring wells and the shallow dolomite monitoring wells, are included in Appendix B. The water levels tend to follow a general trend where increases are observed during the Spring and Summer quarters and decreases are observed during the Fall and Winter quarters. The water levels measurements continue to indicate that dewatering of the on-site glacial deposits is occurring, there is convergent flow within the shallow dolomite unit towards the extraction wells, and that the on-site extraction system is controlling off-site migration of groundwater in the glacial drift.

3.2.3 Deep Dolomite Unit

Based on the results of the groundwater modeling conducted during the RCRA Facility Investigation (RFI), groundwater flow in the deep dolomite unit in the Saukville area is towards well W-30, and the active Saukville municipal wells. Only one on-site data point (W-30) is available to document flow directions in the deep dolomite unit. Therefore, there is insufficient data to prepare potentiometric surface maps for the deep dolomite unit. However, groundwater on the site exhibits a strong downward flow from the glacial deposits and the shallow dolomite unit to the deep dolomite unit caused by the continuous pumping of well W-30 for use as non-contact cooling water. The Village of Saukville no longer actively pumps Municipal Well MW-2 adjacent to the site. Therefore, the downward migration of groundwater must be related to the cone of depression formed by the pumping of well W-30.

4.1 PROGRAM DESCRIPTION

The groundwater monitoring program at the CCP Saukville facility includes 42 monitoring points consisting of 19 glacial drift wells, 11 shallow dolomite wells, 6 deep dolomite wells, 3 Ranney Collectors, and 3 sample points at the Saukville publicly owned treatment works (POTW). The monitoring points are further grouped according to 4 sampling objectives: receptor points, perimeter monitoring points, remediation progress points, and groundwater elevation monitoring points. The organization of the monitoring wells by monitoring objective is summarized in Table 3.

Receptor monitoring points include 4 municipal water supply wells (MW-1, MW-2, MW-3, and MW-4), POTW influent, effluent, and sludge samples, and the Ranney Collectors. The Ranney Collectors are essentially french drains which intercept shallow groundwater, and discharge to the sanitary sewer system. The results of the analyses performed on the samples collected from the Ranney Collectors provide a portion of the data necessary to calculate VOC extraction rates. The receptor monitoring points are sampled four (4) times per year during each quarterly sampling event.

Perimeter monitoring points include monitoring wells which are located both on-site and off-site at or beyond the edge of the VOC plume. These monitoring points provide necessary information to define the extent of the plume. The perimeter monitoring points are sampled twice per year during the Spring (April) and Fall (October) sampling events.

Remediation progress points are monitoring wells which are located within the VOC plume. These wells provide an indication regarding the effectiveness of the on-site pumping wells. The remediation progress points are sampled once per year during the July (Summer) sampling event.

Each of these sets of monitoring points is further subdivided into glacial drift, shallow dolomite, and deep dolomite hydrogeologic units. This subdivision allows for more effective evaluation of the on-site groundwater flow and quality trends.

4.2 CHANGES IN MONITORING NETWORK

No changes to the monitoring network were made in 2001.

4.3 SAMPLING SCHEDULE

Table 3 presents the sampling schedule that was developed for the 2001 groundwater monitoring, along with the analytical methods used each quarter. The methods and associated parameters are

listed in Table 4. The Ranney Collectors and the remediation progress wells are analyzed for the volatile organic compounds listed under EPA Method SW846-8021. Samples collected from the monitoring wells, municipal wells, and the POTW sampling points are analyzed for volatile organic compounds under EPA Method SW846-8260A. In addition, selected wells were analyzed during the summer sampling event (annual sampling event) for parameters detected during the Appendix IX monitoring, conducted during the RFI. These additional parameters include semi-volatile organic compounds (EPA Method SW846-8270B), polychlorinated biphenyls (EPA Method SW846-8080), arsenic (EPA Method SW846-7060), and barium (EPA Method SW846-6010).

5.1 TOTAL VOC DATA

The tabulated results of the VOC concentrations in each well and the supporting laboratory data were presented in each of the four quarterly reports (URS, 2001b to 2001e). Copies of the result summary tables included in each of the quarterly reports have been attached in Appendix A. Tables 5, 6, and 7 present a summary of total VOC concentrations in each of the wells for the four quarters. The wells are organized by monitoring objective and hydrogeologic unit as previously described in Section 4 and Table 3. Figure 2 shows the locations of the monitoring wells on and off-site.

The lateral distribution of VOCs in the glacial drift, and the shallow dolomite unit for 2001 is depicted on the isoconcentration maps (Figures 11 and 12). The isoconcentration maps were constructed using VOC concentration data from the annual and semi-annual sampling events in 2001. Results from the semi-annual sampling events were within the same order of magnitude; therefore, an average concentration was utilized to construct the isoconcentration maps.

5.1.1 VOC Patterns in the Glacial Drift Unit

The distribution of VOCs in the glacial drift unit for 2001 is depicted on the isoconcentration map included as Figure 11. As discussed in Section 3, Monitoring Well W-20 is completed in the glacial drift deposit within the sinkhole in the shallow dolomite unit, and therefore, the results obtained from W-20 are more representative of the water quality in the shallow dolomite aquifer. Isoconcentration contours in the glacial drift unit do not include total VOC concentrations in the Ranney Collectors. The Ranney Collector samples are composite groundwater samples that are collected from broad areas of the site through radial collection lines.

The distribution of VOCs in the groundwater in the glacial drift in 2001 is generally similar to the distribution observed in the past. The horizontal extent of the plume remains generally the same as that observed in previous years. In general, the total VOC concentrations observed in 2001 are similar to the total VOC concentrations observed in 1995.

Perimeter Monitoring Group

In general, total VOC concentrations in the glacial drift perimeter monitoring wells have not changed significantly since 1995. Total VOC concentrations in monitoring wells W-01A, W-03B, W-04A, W-08R and W-20 remain at less than 5 ug/L with no detectable concentrations of VOCs at W-01A, W-03B and W-08R. The total VOC concentration at monitoring well W-27 remains at approximately 150 ug/L with seasonal variations that increase or decrease the

concentrations by approximately 100 ug/L. However, it should be noted that monitoring well W-27 is located upgradient of the site, and the impacts observed are not believed to be associated with the plume of contaminants on the CCP site.

Remediation Progress Group

Total VOC concentrations in the glacial drift remediation progress wells show a stable or increasing trend since 1995 with some seasonal variability. Total VOC concentrations in monitoring wells W-19A, W-06A and W-42 appear stable since 1995 with the concentration at W-19A remaining below detection limits, the concentration at W-06A remaining near 180,000 ug/L and the concentration at W-42 remaining near 12,000 ug/L.

The total VOC concentrations at monitoring wells W-41, W-43 and W-47 have shown a slight increase since 1995. Specifically, the total VOC concentration at monitoring well W-41 has steadily increased from 531.8 ug/L in 1995 to 953.9 ug/L in 2001. This increase is most likely due to the plume of contaminants in the southwest corner of the site being drawn back due to the nearly continuous pumping of Ranney Collector RC-2.

Monitoring wells W-43 and W-47 also exhibited increased concentrations in 2001 as compared to the concentrations detected in 1995. The total VOC concentrations detected in 2001 are nearly double the total VOC concentrations detected in 1995. It should be noted that total VOC concentrations in these two wells have shown a considerable amount of variation between 1995 and 2001, however, total VOC concentrations have generally remained within the same order of magnitude throughout the 7 years of sampling.

5.1.2 VOC Patterns in the Shallow Dolomite Unit

Total VOC concentrations in the groundwater in the shallow dolomite unit for 2001 are shown on Figure 12. The overall horizontal extent of the total VOC concentrations observed in the shallow dolomite wells is generally the same as observed in previous years. More details regarding the results of the sampling and trends observed are presented in the following sections.

Perimeter Monitoring Group

Total VOC concentrations detected in the shallow dolomite perimeter monitoring wells remains at levels comparable to previous years. Non-detectable concentrations of VOCs were observed in monitoring wells W-03A, W-07 and PW-08. The total VOC concentration at W-22 was less than 1 ug/L. The total VOC concentration at monitoring well W-23 was 21.95 ug/L in 2001 which is nearly identical to the 21.8 ug/L detected in 1995.

Remediation Progress Group

In general, the total VOC concentration detected in the shallow dolomite remediation progress wells indicate a stable or increasing trend since 1995. Specifically, the total VOC concentrations at Monitoring Wells W-21A and W-38 remain stable with concentrations of 21,819 ug/L at W-21A and 3,432 ug/L at W-38. The total VOC concentrations at monitoring wells W-29, W-24A, W-28 and W-30 show increasing trends since 1995. The most significant increase is observed in Monitoring Well W-24A where the total VOC concentrations have increased from 6.3 ug/L in 1995 to 12,261.9 ug/L in 2001. Each of the wells that show increasing total VOC concentration trends are actively pumped extraction wells operated as part of the remediation network.

5.2 NR 140 PAL AND ES EXCEEDANCES

Wisconsin Administrative Code (WAC) Chapter NR 140 Preventive Action Limits (PALs) and Enforcement Standards (ESs) were exceeded in a total of 15 monitoring wells during 2001. A summary of the PAL and ES exceedances is presented on Table 8. Monitoring Wells W-20, W-23 and W-27 had PAL and ES exceedances during the spring sampling event and wells W-22, W-23 and W-27 had PAL and ES exceedances during the fall sampling event. The exceedances observed in W-20 and W-27 were attributed to chlorinated solvents, which are not attributed to processes at the CCP facility currently or historically.

Monitoring Wells W-06A, W-21A, W-24A, W-28, W-29, W-30, W-38, W-41, W-42, W-43, and W-47 had PAL and ES exceedances in samples collected during the annual sampling event in July 2001. It should be noted that all of the wells exhibiting exceedances during the annual sampling event are located within the plume of impacts. The concentrations observed in 2001 are similar to those observed in 2000.

5.3 VOC TRENDS BY MONITORING OBJECTIVE

This section describes the trends in total VOC concentrations for each of the monitoring objectives. Total VOC concentrations in groundwater versus time plots for selected wells are included in Appendix D. The discussion that follows is organized by monitoring objective (receptor, perimeter, remediation progress), and for each monitoring objective, by the hydrogeologic unit (glacial drift, shallow dolomite, deep dolomite).

5.3.1 Receptor Monitoring

Receptor monitoring points are sampled on a quarterly basis.

5.3.1.1 Ranney Collectors and POTW

Total VOCs were monitored in 2001 in the shallow groundwater that was discharged from the Ranney Collectors (RC-1, RC-2, and RC-3), and in the influent, sludge, and effluent samples collected from the Village of Saukville POTW. These analyses were performed to monitor the concentrations and character of the flows discharged via the sanitary sewer system from the CCP facility, associated dilution of these flows prior to treatment at the POTW, and concentration and character of POTW effluents.

The total VOCs detected in 2001 are summarized in Table 5. The total VOC concentrations detected in the samples collected from the Ranney Collectors are somewhat variable. The variation in total VOC concentrations observed is most likely due to seasonal precipitation and infiltration rates. Total VOC concentrations in the Ranney Collectors in 2001 ranged between1.5 ug/L (RC-3, Spring) to 20,135.3 ug/L (RC-3, Summer).

The discharges from the Ranney Collectors are mixed with wastewater from several off-site sources prior to arrival at the POTW. Total VOC concentrations detected in the POTW influent, sludge, and effluent are also summarized in Table 5. Total VOC concentrations in the POTW influent ranged between 64 ug/L (Spring) and 141 ug/L (Winter). Based on a review of the 2001 Ranney Collector and POTW data, it is obvious that dilution of the VOCs in the Ranney Collector discharges is occurring prior to reaching the POTW.

Total VOC concentrations observed in the POTW sludge ranged between 7 ug/L (Fall) and 881 ug/L (Spring). The total VOC concentrations observed in the POTW sludge were typically attributed to toluene and acetone.

The total VOC concentrations observed in the POTW effluent ranged between 0 ug/L (Spring) and 680 ug/L (Winter). Total VOC concentrations in the Winter POTW effluent sample consisted exclusively of acetone.

5.3.1.2 Municipal Wells (Deep Dolomite Wells)

All of the municipal wells were sampled according to the schedule discussed earlier with the exception of MW-04 not being sampled during the spring sampling event due to well maintenance. No VOCs were detected in any of the municipal well samples collected during the 2001 sampling events.

5.3.2 Perimeter Monitoring

Perimeter monitoring points are sampled on a semi-annual basis in April and October to determine whether the plume of impacts has migrated off the site.

5.3.2.1 Glacial Drift Wells

VOC concentrations in the perimeter monitoring wells screened in the glacial drift in 2001 ranged between non-detectable levels and 166 ug/L (W-27, Fall). As in previous years, W-27 concentrations of trichloroethene and cis-1,2-dichloroethene exceed the NR 140 ES and PAL, respectively. Monitoring well W-20 exceeded the ES for vinyl chloride during the Spring sampling. However, vinyl chloride was not detected in W-20 during the Fall 2001 sampling event. As mentioned earlier in this report, chlorinated solvents are not attributed to processes at the CCP facility currently or histroically. Well W-27 is located upgradient of the facility, and detections of chlorinated solvents are likely due to past trichloroethene (TCE) handling and spills at the former Northern Signal, formerly located immediately west of the CCP property.

5.3.2.2 Dolomite Wells

VOC concentrations in the perimeter monitoring wells screened in the shallow dolomite in 2001 ranged between non-detectable levels and 21.95 ug/L (W-23, Fall). Exceedances of the ESs for vinyl chloride and benzene were detected in W-23 in the Spring and Fall 2001 sampling events. Well W-23 has a history of low-level VOC concentrations. Total VOC concentrations in the Perimeter Monitoring Wells are summarized in Table 6.

5.3.3 Remediation Progress Wells

5.3.3.1 Glacial Drift Wells

The remediation progress wells screened in the glacial drift unit are sampled on an annual basis to determine the status of the plume of impacts. In general, the total VOC concentrations observed in 2001 were consistent with the historical ranges. Total VOC concentrations ranged between non-detectable levels (W-19A) and 190,486 ug/L (W-47) in 2001. A summary of the total VOCs detected in 2001 is presented in Table 7.

Several of the remediation progress wells screened in the glacial drift exhibited concentrations of several parameters in exceedance of the PALs and ESs. Specifically, well W-06A exhibited PAL exceedances for arsenic, naphthalene and acetone and ES exceedances for ethylbenzene, toluene, vinyl chloride and xylene; well W-41 had an ES exceedance for benzene; well W-42 had a PAL

exceedance for xylene, and ES exceedances for benzene and ethylbenzene, well W-43 had ES exceedances for arsenic, naphthalene, xylene, benzene, ethylbenzene, and bis(2-ethylhexyl)phthalate; and well W-47 had a PAL exceedance for naphthalene and ES exceedances for aroclor 1242, benzene, ethylbenzene, toluene, trichloroethene, and xylene. Table 8 summarizes the NR 140 PAL and ES exceedances noted during the 2001 sampling events.

5.3.3.2 Dolomite Wells

Total VOC concentrations in the remediation progress wells screened in the dolomite were within ranges established in the past. A summary of the total VOCs is presented in Table 7.

All of the remediation progress wells screened in the shallow dolomite had concentrations of various VOCs in exceedance of the PAL or ES. Well W-21A exhibited exceedances of the PAL for arsenic and naphthalene and ES exceedances for bis(2-ethyl)pthalate, benzene, ethylbenzene, and xylene; well W-24A exhibited a PAL exceedance for 1,2-dichloroethene, ethylbenzene and naphthalene and ES exceedances for benzene, and xylene; well W-28 exhibited a PAL exceedance for benzene and ES exceedances for bis(2-ethylhexyl)phthalate and vinyl chloride; well W-29 exhibited a PAL exceedance for naphthalene and ES exceedances for 1,2-dichloroethene, benzene, ethylbenzene and xylene, and well W-30 exhibited an ES exceedance for benzene; and well W-38 exhibited ES exceedances for benzene and xylene.

5.4 APPENDIX IX RESULTS

In accordance with the approved sampling plan, seven remedial progress wells are sampled during the annual sampling event in July 2001 for the non-VOC Appendix IX parameters detected during the October 1994 sampling event and during the January 1995 confirmatory sampling. A listing of the parameters is included on Table 9. Each of the wells sampled for Appendix IX parameters is located near the center of the groundwater plume.

Non-VOC Appendix IX parameters detected during the 2001 annual sampling event included: 2,4-dimethylphenol, 2-methylphenol, 4-methylphenol, acetophenone, naphthalene, phenol, 1,2-dichlorobenzene, 2-methylnaphthalene, phenanthrene, bis(2-ethylhexyl)phthalate, arochlor 1242, arsenic, and barium. The metals detected may be related to naturally occurring elements. Naphthalene, bis(2-ethylhexyl)phthalate, arochlor 1242, arsenic, and barium were detected at concentrations in exceedance of their respective PAL or ES.

As discussed in earlier sections of this report, well W-06A exhibited PAL exceedances for naphthalene and arsenic, well W-21A exhibited ES exceedances for naphthalene and bis(2-ethylhexyl)phthalate and a PAL exceedance for arsenic, well W-24A exhibited an ES exceedance

for naphthalene. W-43 exhibited ES exceedances for naphthalene, bis(2-ethylhexyl)phthalate, and arsenic, W-28 ehibited an ES exceedance for bis(2-ethylhexyl)phthalate, W-29 exhibited a PAL exceedance for naphthalene, W-43 exhibited ES exceedances for naphthalene, bis(2-ethylhexyl)phthalate and arsenic and a PAL exceedance for barium, and W-47 exhibited PAL exceedances for arsenic and naphthalene and an ES exceedance for Arochlor 1242. The presence of the arsenic in the groundwater samples is believed to be due to natural concentrations of arsenic in the soils, and not due to operations at the site.

The discussions in this section combine groundwater flow and quality trends from the receptor, perimeter, and remediation progress wells in the glacial drift and dolomite, to present an evaluation of the effectiveness of the plume containment in the remedial system at the Saukville site.

6.1 GLACIAL DRIFT UNIT

Portions of the glacial unit in the area of the Ranney Collectors appear to be dewatered. This fact, along with the nearly non-detectable concentrations of VOCs in the perimeter wells (Figure 11), indicate that the off-site migration of contaminated groundwater within the glacial drift unit is being effectively controlled.

6.2 SHALLOW DOLOMITE UNIT

For the past several years, VOC concentrations in the shallow dolomite unit have remained relatively stable, or decreased in the remediation progress wells. In 2001, total VOC concentrations in the shallow dolomite remediation progress wells ranged between 41.3 and 190,486 ug/L. Total VOC concentrations in the shallow dolomite perimeter monitoring wells ranged between 0 and 21.95 ug/L (W-23, Fall). The remediation system has dewatered an elliptically shaped area in the vicinity of wells W-30 and W-21A, as shown on Figures 7 through 10. The high capacity (300 gpm) pumping from W-30 has resulted in the dewatering of a large area of the glacial till unit and the shallow dolomite unit, thereby reducing the hydraulic connection between these two units in the affected area. The dewatering of the glacial till and shallow dolomite has reduced the quantity of contaminants that can migrate downward from the glacial till to the shallow dolomite. Based on the steep gradients associated with the cone of depression around W-30, the reduction in total VOC concentration observed in the shallow dolomite remediation progress wells, and the continued nearly non-detectable concentrations of VOCs in the shallow dolomite perimeter monitoring wells, indicate that migration of the contaminant plume in the shallow dolomite is being effectively contained and controlled.

6.3 DEEP DOLOMITE UNIT

VOC concentrations in the deep dolomite receptor (municipal) wells have remained below detectable levels in 2001. VOC concentrations observed in W-30 in 2001 increased slightly over the concentrations observed in 2000, showing that the continuous pumping is drawing in the contaminants and controlling off-site migration.

The convergent flow observed around W-30, along with the relatively stable total VOC concentrations in the extracted groundwater, and the continued low to non-detectable concentrations of VOCs in the municipal wells indicate that the migration of the impacted groundwater in the deep dolomite aquifer is being effectively controlled by on-site pumping.

6.4 HYDRAULIC COMMUNICATION BETWEEN AQUIFERS

Groundwater elevation data indicates that downward seepage is occurring between the glacial drift and shallow dolomite units through fractures in the upper portions of the bedrock. However, high capacity pumping has created dewatered zones within the glacial drift and shallow dolomite units, reducing the potential for vertical migration of the contaminants from the glacial drift to the shallow dolomite.

6.5 CONTAMINANT REMOVAL RATES

In accordance with John Feeney's (WDNR-SED) letter to Michael Gromacki (CCP) dated January 17, 2002, graphs of cumulative contaminant removal for each recovery well were developed. These calculations had not been included in any of the previous Annual Monitoring Reports issued for 1992 through 2000.

Utilizing VOC concentration data, pump running times and the manufacturer's specified pump discharge rates, total VOC removal rates were calculated for Ranney Collectors RC-1, RC-2 and RC-3, monitoring wells W-21A, W-24A, W-28 and W-29 and the deep dolomite extraction well W-30. Actual total VOC concentration data collected as part of the ongoing monitoring was utilized to calculate the total VOC mass removed in these wells.

Estimated total VOC masses removed were also calculated for extraction wells W-31, W-32, W-33, W-34 and W-35. However, since these wells are not part of the monitoring network, estimated total VOC concentrations were assumed from the Shallow Dolomite Isoconcentration Maps included in each Annual Monitoring Report.

An estimated total VOC mass removed was also developed for extraction well W-37. Extraction well W-37 was located in the schoolyard east of the CCP facility and was abandoned in 1997 during reconstruction of the schoolyard. It was determined that Ranney Collectors RC-1 and RC-3 were sufficiently dewatering the area and the replacement of extraction well W-37 was not necessary.

The most significant total VOC mass removal is occurring at extraction well W-21A and Ranney Collector RC-2. Total VOC mass removed from W-21A and RC-1 total approximately 50-

percent of the total VOC mass removed by the entire extraction system operating at the site. Since 1992, a total of 289 pounds of total VOC contaminants have been removed from the subsurface of the site by the groundwater extraction system. Graphs depicting the cumulative total mass removed by each of the extraction wells are attached in Appendix E.

The purpose of the quarterly groundwater sampling program is to document the effectiveness of the remediation system to: 1) control the off-site migration of impacts; and, 2) to reduce the volume of contaminants in the groundwater. The results of the quarterly groundwater sampling performed in 2001, as summarized in this annual report, indicate that the existing remediation system operating at the CCP Saukville facility continues to effectively control off-site migration of the contaminant plume while effectively reducing the volume of contaminants present in the groundwater. Discharges from the site are low in concentration upon arriving at the Saukville POTW and remaining impacts are effectively removed in the treatment process prior to discharge from the POTW.

Based on the data collected in 2001, it is our opinion that no changes to the remediation system operating at the CCP Saukville facility are required to continue to contain the plume. However, improvements to the system may be evaluated to determine whether the effectiveness and efficiency of the system can be improved.

URS Corporation. 2001a. 2000 Annual Groundwater Monitoring Report. March 2001.

URS Corporation. 2001b. Groundwater Monitoring Results - 2001 Winter Quarter. March 2001

URS Corporation. 2001c. Groundwater Monitoring Results - 2001 Spring Quarter. June 2001.

URS Corporation. 2001d. Groundwater Monitoring Results - 2001 Summer Quarter. October 2001.

URS Corporation. 2001e. Groundwater Monitoring Results – 2001 Fall Quarter. December 2001.

TABLE 1
SUMMARY OF WATER LEVELS, 2001 (FEET, MSL)
COOK COMPOSITES AND POLYMERS

GEOLOGIC UNIT	WELL ID	Jan-01	Apr-01	Jul-01	Oct-01
Glacial	W-1A	NM	759.90	760.46	760.25
Glacial	W-3B	NM	738.15	738.77	734.77
Glacial	W-4A	NM	758.03	754.82	754.64
Glacial	W-6A	NM	766.66	765.53	765.59
Glacial	W-8R	Dry	749.20	746.68	745.53
Glacial	W-14B	764.85	766.34	765.02	764.99
Glacial	W-16A	753.23	757.84	759.47	757.38
Glacial	W-18A	NM	771.14	767.07	766.89
Glacial	W-19A	NM	768.57	766.92	766.31
Glacial	W-20	732.27	733.37	734.89	729.96
Glacial	W-27	767.28	768.83	767.38	767.81
Glacial	W-37	Well Abandoned August 2, 1996			
Glacial	W-41	760.24	761.89	761.75	759.70
Glacial	W-42	756.76	759.09	759.49	758.50
Glacial	W-43	NM	759.60	759.83	758.83
Glacial	W-44	NM	NM	NM	757.17
Glacial	W-45	Dry	Dry	Dry	Dry
Glacial	W-46	NM	761.90	760.15	761.02
Glacial	W-47	NM	762.62	757.40	759.46
Glacial	W-48	765.05	762.35	762.32	761.56
Shallow Dolomite	W-3A	735.67	737.27	737.97	733.77
Shallow Dolomite	W-7	743.78	747.01	745.51	744.03
Shallow Dolomite	W-21A*	NM	702.24	691.89	697.04
Shallow Dolomite	W-22	NM	731.72	730.56	730.12
Shallow Dolomite	W-23	NM	739.85	741.63	737.16
Shallow Dolomite	W-24A*	NM	759.47	749.89	NM
Shallow Dolomite	W-25	Well Abandoned July 29, 1997			
Shallow Dolomite	W-28*	NM	726.51	707.71	706.86
Shallow Dolomite	W-29*	NM	NM	NM	NM
Shallow Dolomite	W-38	NM	750.49	751.80	749.50
Shallow Dolomite	W-39	757.93	759.82	759.18	758.01
Shallow Dolomite	W-40	740.66	739.74	744.56	739.66
Deep Dolomite	MW-1	679.00	681.00	687.00	686.00
Deep Dolomite	MW-2	NM	NM	594.00	NM
Deep Dolomite	MW-3	586.00	571.00	549.00	650.00
Deep Dolomite	MW-4	670.00	NM	666.00	691.00
Deep Dolomite	PW-08	738.99	740.67	739.57	736.07
Deep Dolomite	W-30*	697.69	674.59	635.32	653.80

* = Extraction Well
NM = not measured

TABLE 2
SUMMARY OF WELL RUNNING TIMES
COOK COMPOSITES AND POLYMERS CO.

Hydrogeologic Unit	Well ID	Monthly Running Times (hours)												Annual Total (hours)	Percent of Total Available	Comments
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.			
Glacial Drift	W-31	0	0.3	0.4	1.8	1.4	0.8	0	0	0	0	0.1	0	4.8	0.1%	Dewatering of glacial drift due to pumping at RC-2 has affected shallow groundwater elevations.
	W-32	0	0	0	0	0	0	0	0	0	0	20.8	0	20.8	0.2%	Dewatering of glacial drift due to pumping at RC-2 has affected shallow groundwater elevations.
	W-33	78.3	21.4	8.2	7	9.5	22.6	20.7	7.6	0	0.6	0	0	175.9	2.0%	Dewatering of glacial drift due to pumping at RC-2 has affected shallow groundwater elevations.
	W-34	837.8	678.1	668.4	589.7	804.9	681.8	564.5	0	0.1	0.6	0	12.7	4838.6	55.2%	Continued pumping assists in controlling off-site migration of contaminants within the glacial drift.
	W-35	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	Dewatering of glacial drift due to pumping at RC-2 has affected shallow groundwater elevations.
	RC-1	62	50.3	32.5	67.2	66.3	364.6	184.6	28.8	524.7	814.3	669.4	666.6	3531.3	40.3%	Pumping has created some dewatering of the glacial drift.
	RC-2	838.7	677.7	668.3	583.2	804.9	681.7	619.8	763.4	640.1	836.4	670.1	675	8459.3	96.6%	Pumping has created some dewatering of the glacial drift.
	RC-3	355.4	177.3	190.7	479.8	369.6	392.4	91.7	108.1	277.9	247.1	63.1	86	2839.1	32.4%	Pumping has created some dewatering of the glacial drift.
Shallow Dolomite	W-21A	832.7	678.4	667.8	663.8	838.1	682.7	663.9	838	680.6	425.2	0	0	6971.2	79.6%	Pumping is contributing to the creation of a large dewatered zone within the shallow dolomite.
	W-24A	7.4	5.8	5.7	5.7	6.5	5.3	5.2	7.4	5.2	7.9	5.7	5.2	73	0.8%	Continued pumping assists in controlling off-site migration of contaminants within the shallow dolomite.
	W-28	0	0	0	0	5	27.7	12.3	0	6	13.6	33.5	34.4	132.5	1.5%	Continued pumping assists in controlling off-site migration of contaminants within the shallow dolomite.
	W-29	42.2	30.2	0	1	0.2	0	0	0	0	3.5	0	0	77.1	0.9%	Continued pumping assists in controlling off-site migration of contaminants within the shallow dolomite.
Deep Dolomite	W-30	Pump runs continuously to provide approximately 300 gpm of non-contact cooling water.														

TABLE 3 (CONTINUED)

SUMMARY OF 2001 GROUNDWATER SAMPLING PROGRAM
COOK COMPOSITES AND POLYMERS CO.

Monitoring Objective/ Well Group	Unit Monitored	Sampling Point	Sampling Frequency and EPA Method Number		
			Quarterly	Semiannually[1]	Annually[2]
		W-42			8021
		W-43			APP IX 8260, 8270, 7060, 6010
		W-47			APP IX 8260, 8270, 7060, 6010, 8081
	Shallow Dolomite	W-21A			APP IX 8260, 8270, 7060, 6010
		W-24A			APP IX 8260, 8270, 7060, 6010
		W-28			APP IX 8260, 8270, 7060, 6010
		W-29			APP IX 8260, 8270, 7060, 6010
		W-38			8021
	Deep Dolomite	W-30			APP IX 8260, 8270, 7060, 6010
Groundwater elevation monitoring	Glacial Drift	W-14B	Quarterly water level measurements only		
		W-16A	Quarterly water level measurements only		
		W-18A	Quarterly water level measurements only		
		W-44	Quarterly water level measurements only		
		W-45	Quarterly water level measurements only		
		W-46	Quarterly water level measurements only		
		W-48	Quarterly water level measurements only		
	Shallow Dolomite	W-39	Quarterly water level measurements only		
		W-40	Quarterly water level measurements only		

NOTES

1. Semiannual samples are collected in April and October.
2. Annual samples are collected in July.
3. Sampls are analyzed using Method 8260.
4. MW-2 is only monitored on an annual basis.
5. W-25 was abandoned in July 1997.
6. W-37 was abandoned in August 1996.

TABLE 3

SUMMARY OF 2001 GROUNDWATER SAMPLING PROGRAM
COOK COMPOSITES AND POLYMERS CO.

Monitoring Objective/ Well Group	Unit Monitored	Sampling Point	Sampling Frequency and EPA Method Number		
			Quarterly	Semiannually[1]	Annually[2]
Receptor	Glacial Drift	RC-1	8021/8260[3]		
		RC-2	8021/8260[3]		
		RC-3	8021/8260[3]		
	Deep Dolomite	MW-1	8260		
		MW-2			8260
		MW-3	8260		
		MW-4	8260		
	POTW	POTW-I	8260		
		POTW-E	8260		
		POTW-S	8260		
Perimeter	Glacial Drift	W-01A		8260	
		W-03B		8260	
		W-04A		8260	
		W-08R		8260	
		W-20		8260	
		W-27		8260	
	Shallow Dolomite	W-03A		8260	
		W-07		8260	
		W-22		8260	
		W-23		8260	
		W-25[5]			
	Deep Dolomite	PW-08		8260	
Remediation Progress	Glacial Drift	W-06A			APP IX 8260, 8270, 7060, 6010
		W-19A			8021
		W-37[6]			
		W-41			8021

TABLE 4

SUMMARY OF ANALYTES AND METHODS
COOK COMPOSITES AND POLYMERS CO.

Volatile Organic Compounds by Method 8260		
Chloroethane	1,1,1-Trichloroethane	2-Hexanone
Chloromethane	Carbon Tetrachloride	4-Methyl-2-Pentanone
Bromomethane	Vinyl Acetate	Tetrachloroethene
Vinyl Chloride	Bromodichloromethane	Toluene[1]
Methylene Chloride	1,1,2,2-Tetrachloroethane	Chlrorbenzene[1]
Acetone	1,2-Dichloropropane	Ethylbenzene[1]
Carbon Disulfide	trans-1,2-Dichloropropene	Styrene
1,1-Dichloroethene	Trichloroethene	Xylenes (total)[1]
1,1-Dichloroethane	Dibromochloromethane	1,4-Dichlorobenzene[1]
1,2-Dichloroethene (total)	1,1,2-Trichloroethane	1,3-Dichlorobenzene[1]
Chloroform	Benzene	1,2-Dichlorobenzene[1]
1,2-Dichlroethane	cis-1,3-Dichloropropene	
2-Butanone	Bromoform	

Aromatic Volatile Organics by Method 8021[1]
Benzene
Toluene
Ethylbenzene
Chlorobenzene
Xylenes (total)
1,4-Dichlorobenzene
1,3-Dichlorobenzene
1,2-Dichlorobenzene

Semivolatile Organic Compounds by Method 8270[2]
1,4-Dioxane
2,4-Dimethylphenol
2-Methylnaphthalene
2-Methylphenol
4-Methylphenol
Acetophenone
bis(2-ethylhexyl)phthalate
Naphthalene
Phenanthrene
Phenol

Polychlorinated Biphenyls (PCBs) by Method 8080[3]
Arochlor 1016
Arochlor 1221
Arochlor 1232
Arochlor 1242
Arochlor 1248
Arochlor 1254
Arochlor 1260

Metals by Methods 7060, 6010[2]
Barium
Arsenic

NOTES

1 Volatile aromatic compounds.

2 Analyzed annually at wells W-06A, W-43, W-47, W-21A, W-24A, W-28, W-29, and W-30.

3 Only well W-47 is analyzed for PCBs.

Table 5
Total VOCs Detected 2001
Receptor Monitoring Group
Cook Composites and Polymers, Co.

Glacial Unit

Sample ID	Units	Jan-01	Apr-01	Jul-01	Oct-01	Annual Average
RC-1	ug/L	8524	659	15265.3	1671	6530
RC-2	ug/L	9025	548	NS	1553	3709
RC-3	ug/L	9435	1.5	20135.3	14703	11069

Deep Dolomite

Sample ID	Units	Jan-01	Apr-01	Jul-01	Oct-01	Annual Average
MW-01	ug/L	0	0	0	0	0.00
MW-02	ug/L	NS	NS	0	NS	0
MW-03	ug/L	0	0	0	0	0.00
MW-04	ug/L	0	NS	0	0	0

POTW

Sample ID	Units	Jan-01	Apr-01	Jul-01	Oct-01	Annual Average
POTW-I	ug/L	140.80	63.67	71.62	81.5	89
POTW-E	ug/L	680	0.00	5.74	4	172.44
POTW-S	ug/L	13.6	880.9	34.8	7.0	234

ND = Not Detected
NS = Not Sampled

Table 6
Total VOCs Detected 2001
Perimeter Monitoring Group
Cook Composites and Polymers, Co.

Glacial Unit

Sample ID	Units	Apr-01	Oct-01	Annual Average
W-01A	ug/L	0	0	0
W-03B	ug/L	0	0	0
W-04A	ug/L	0	4.1	2.05
W-08R	ug/L	0	0	0
W-20	ug/L	1.64	4.68	3.16
W-27	ug/L	115.71	166.08	141

Shallow Dolomite

Sample ID	Units	Apr-01	Oct-01	Annual Average
PW-08	ug/L	0	0	0
W-03A	ug/L	0	0	0
W-07	ug/L	0	0	0
W-22	ug/L	10	0.59	5.30
W-23	ug/L	8.81	21.95	15
W-25	ug/L	NS	NS	

NS = Not Sampled
ND = Not Detected

Notes:
1. PW-08 is a deep dolomite well.
2. W-25 was abandoned in 1997.

Table 7
Total VOCs Detected 2001
Remediation Progress Monitoring Group
Cook Composites and Polymers, Co.

Glacial Unit

Sample ID	Units	Jul-01
W-06A	ug/L	177,008.7
W-19A	ug/L	ND
W-37	ug/L	NS
W-41	ug/L	953.9
W-42	ug/L	11,338
W-43	ug/L	31,985
W-47	ug/L	190,486

Shallow Dolomite

Sample ID	Units	Jul-01
W-21A	ug/L	21,819.4
W-24A	ug/L	12,261.9
W-28	ug/L	277.7
W-29	ug/L	18,089.2
W-30	ug/L	41.3
W-38	ug/L	3,432.6

ND = Not Detected
NS = Not Sampled
Notes:
1. W-30 is a deep dolomite well.
2. W-37 was abandoned in 1997.

Table 8

NR 140 PAL and ES Exceedances
Cook Composites and Polymers Co.

	1,2-Dichloroethane	1,2-Dichloropropane	Acetone	Arochlor 1242	Arsenic	Benzene	bis(2-ethylhexyl)phthalate	cis-1,2-Dichloroethene	Ethylbenzene	Naphthalene	Toluene	Total Xylenes	Trichloroethene	Vinyl Chloride
NR 140 PAL	0.5	0.5	200	0.03	5	0.5	0.6	7	140	8	200	1,000	0.5	0.02
NR 140 ES	5	5	1,000	0.3	50	5	6	70	700	40	1,000	10,000	5	0.2
Spring 2001														
W-20														1.0
W-23						6.3								0.51
W-27								15					100	
Summer 2001														
W-06A			310		34				23,000	13	50,000	103,000		4.7
W-21A	5.7				31	1,600	10		3,000	33		16,550		
W-24A	3.8					980			460	19		10,220		
W-28						2.0	14							0.48
W-29	5.2					1,500			1,800	9.6		14,330		
W-30						6.0								
W-38						1,500						1,902		
W-41						3.3								
W-42						520			2,700			8,040		
W-43					63	7,600	57		10,000	61		13,700		
W-47				10		330			20,000	32	17,000	152,000	20	
Fall 2001														
W-22						0.59								
W-23						17								0.58
W-27								24					140	

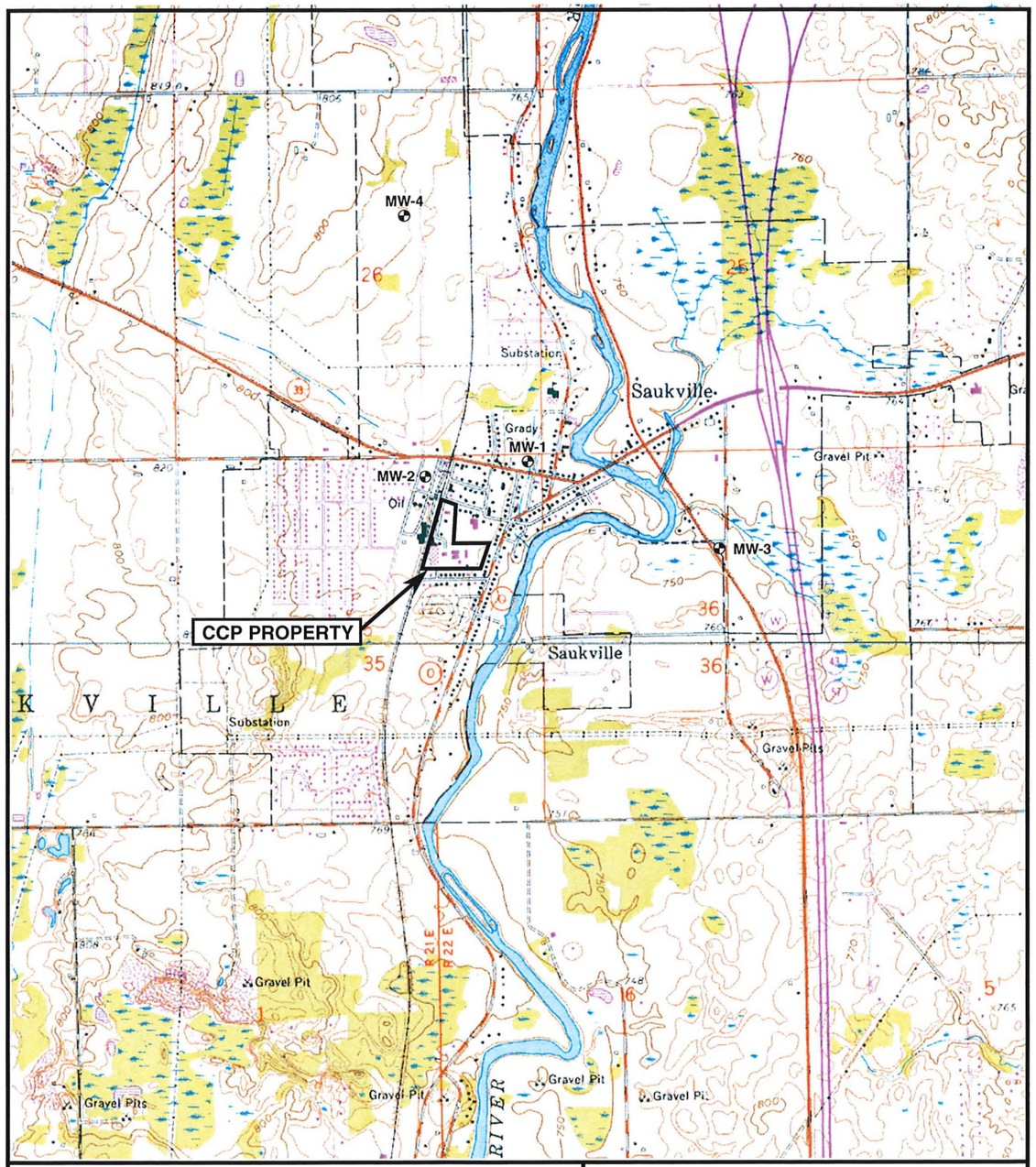
NOTES

1. All concentrations in micrograms per liter (ug/L).
2. PAL exceedance
3. ES exceedance

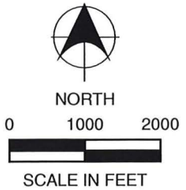
TABLE 9
SUMMARY OF APPENDIX IX PARAMETERS
COOK COMPOSITES AND POLYMERS CO.

PARAMETERS (ug/L)	DATE	NR 140		WELL							
		PAL	ES	W-06A	W-21A	W-24A	W-28	W-29	W-30	W-43	W-47
SVOCs											
1,4-Dioxane	Oct-94	--	--	710E	1200D	210	530D	ND	20	ND	380D
	Jan-95	--	--	620	960	460	610	ND	24	ND	2000E
	Jul-95	--	--	350	1000	260	660	120	19Q	ND	710
	Jul-96	--	--	870Q	1100Q	250D	900D	170	444	ND	4700
	Jul-97	--	--	ND	ND	560	1500	ND	ND	ND	ND
	Jul-98	--	--	230D	830D	670D	NS	20D	35	<3600	290
	Jul-99	--	--	210D	420	230D	480D	NS	29	<35	230
	Jul-00	--	--	470	950	640	560	NS	<36	<720	<36
	Jul-01	--	--	<900	<180	<180	<36	<180	<36	<360	<900
2,4-Dimethylphenol	Oct-94	--	--	120	10	ND	ND	ND	ND	ND	71
	Jan-95	--	--	210	36Q	ND	ND	ND	ND	ND	210
	Jul-95	--	--	100Q	18Q	ND	ND	5Q	ND	ND	340
	Jul-96	--	--	170Q	90Q	ND	1Q	26	ND	62	230Q
	Jul-97	--	--	210	55	ND	ND	54	ND	93Q	790
	Jul-98	--	--	180D	69	69	NS	4.8	<1.0	<1000	830
	Jul-99	--	--	170D	78	<0.67	<0.67	NS	<0.67	120	1000
	Jul-00	--	--	240D	69	<1.2	<1.2	NS	<1.2	190	970
	Jul-01	--	--	240D	74	150	<1.2	39	<1.2	150	500
2-Methylphenol	Oct-94	--	--	32	5Q	ND	ND	ND	ND	ND	14
	Jan-95	--	--	51Q	ND	ND	ND	ND	ND	ND	27Q
	Jul-95	--	--	22Q	ND	ND	ND	ND	ND	ND	45Q
	Jul-97	--	--	29J	ND	ND	ND	ND	ND	ND	190#
	Jul-98	--	--	42	16	14	NS	<1.1	<0.97	<980	120
	Jul-99	--	--	26	<6.9	<1.4	<1.4	NS	<1.4	<14	140
	Jul-00	--	--	45	<8.5	<0.85	<0.85	NS	<0.85	<8.5	190
	Jul-01	--	--	33	1.1Q	1.3Q	<0.83	<0.84	<0.81	<15	63
3-Methylphenol	Oct-94	--	--	170	ND	ND	ND	ND	ND	ND	ND
4-Methylphenol	Oct-94	--	--	112	10	ND	ND	ND	ND	ND	51
	Jan-95	--	--	180	ND	ND	ND	ND	ND	ND	130
	Jul-95	--	--	89Q	ND	ND	ND	ND	ND	ND	120
	Jul-97	--	--	91#	1.3J#	ND	ND	3.8J#	ND	ND	200
	Jul-98	--	--	120	12	9.9	NS	<1.0	<0.91	<920	190
	Jul-99	--	--	87	6.8	<1.1	<1.1	NS	<1.1	<11	260
	Jul-00	--	--	120	<9.1	<0.91	<0.91	NS	<0.91	<9.1	340
	Jul-01	--	--	120	2.0Q	1.0Q	<0.89	<0.90	<0.87	<16	160
Acetophenone	Oct-94	--	--	56	ND	ND	ND	ND	ND	ND	ND
	Jan-95	--	--	78Q	ND	ND	ND	ND	ND	9600	ND
	Apr-95	--	--	ND	ND	ND	ND	ND	ND	23	ND
	Jul-95	--	--	49Q	ND	ND	ND	2Q	ND	280	120Q
	Jul-96	--	--	130QB	ND	ND	ND	ND	ND	ND	250QB
	Jul-97	--	--	ND	ND	ND	ND	ND	ND	ND	180
	Jul-98	--	--	48	10	11	NS	<0.93	<0.85	<850	240
	Jul-99	--	--	30	<4.1	<0.82	<0.82	NS	<0.82	680	200
	Jul-00	--	--	52	<3.5	<0.35	<0.35	NS	<0.35	<3.5	180
	Jul-01	--	--	48	7.8	5.8	<0.34	3.8	<0.33	240	87
Naphthalene	Oct-94	8	40	10	ND	ND	ND	ND	ND	ND	34
	Jan-95	8	40	15Q	ND	ND	ND	ND	ND	1200Q	17Q
	Jul-95	8	40	ND	27Q	ND	ND	2Q	ND	43Q	30Q
	Jul-96	8	40	31	28Q	ND	ND	0.4Q	ND	75Q	90Q
	Jul-97	8	40	17J	4.1J	ND	ND	ND	ND	200	18J
	Jul-98	8	40	15	25	24	NS	<2.3	<2.1	<2100	110
	Jul-99	8	40	13	64	<0.41	<0.41	NS	<0.41	130	27
	Jul-00	8	40	14	28	<0.47	<0.47	NS	<0.47	85	34
	Jul-01	8	40	13&	33&	19&	<0.46&	9.6&	<0.45&	61&	32&
Phenol	Oct-94	1200	6000	70	ND	ND	ND	ND	ND	ND	70
	Jan-95	1200	6000	110	ND	ND	ND	ND	ND	ND	190
	Jul-95	1200	6000	61Q	ND	ND	ND	ND	ND	30Q	110
	Jul-96	1200	6000	ND	ND	ND	ND	31	ND	ND	180Q
	Jul-97	1200	6000	57	44	ND	ND	52	ND	ND	130
	Jul-98	1200	6000	61	5.1	6.6	NS	7.2	<0.49	<500	48
	Jul-99	1200	6000	54	<4.0	<0.81	<0.81	NS	<0.81	<8.1	68
	Jul-00	1200	6000	66	<3.7	<0.37	<0.37	NS	<0.37	<3.7	66
	Jul-01	1200	6000	59	5.8	11	<0.36	<0.36	<0.35	<6.4	48
1,2-Dichlorobenzene	Oct-94	60	600	ND	8Q	ND	ND	ND	ND	ND	ND
	Jul-97	60	600	ND	1.2J	ND	ND	ND	ND	ND	ND
	Jul-98	60	600	<72	<18	<18	NS	<0.36	<0.36	<36	<36
	Jul-99	60	600	NA	NA	NA	NA	NS	NA	NA	NA
	Jul-00	60	600	1.1Q	12Q	<0.53	<0.53	NS	<0.53	<5.3	<5.3
	Jul-01	60	600	1.0Q	10.0	7.0	<0.51	8.6	<0.50	<9.1	<5.1
Butylbenzene	Oct-94	--	--	ND	ND	ND	ND	2Q	ND	ND	ND
2-Methylnaphthalene	Oct-94	--	--	ND	ND	ND	ND	ND	ND	ND	12
	Jan-95	--	--	ND	ND	ND	ND	ND	ND	4500	ND
	Apr-95	--	--	NA	NA	NA	NA	NA	NA	6Q	NA
	Jul-95	--	--	ND	ND	ND	ND	ND	ND	120	ND
	Jul-96	--	--	ND	ND	ND	ND	ND	ND	200Q	ND
	Jul-97	--	--	ND	ND	ND	ND	ND	ND	750	ND
	Jul-98	--	--	<1.8	<1.9	<2.0	NS	<2.0	<1.9	4200	35Q
	Jul-99	--	--	<0.50	<2.5	<0.50	<0.50	NS	<0.50	310	<5.0
	Jul-00	--	--	0.70	<3.2	<0.32	<0.32	NS	<0.32	190	7.6Q
	Jul-01	--	--	<0.32	<0.31	<0.31	<0.31	<0.31	<0.30	110	5.7Q
Acenaphthene	Jan-95	--	--	ND	ND	ND	ND	ND	ND	280Q	ND
Dibenzofuran	Jan-95	--	--	ND	ND	ND	ND	ND	ND	370Q	ND
Fluorene	Jan-95	80	400	ND	ND	ND	ND	ND	ND	590Q	ND
N-Nitrosodiphenylamine	Jan-95	--	--	ND	ND	ND	ND	ND	ND	1100Q	ND
Phenanthrene	Oct-94	--	--	ND	ND	ND	ND	ND	ND	ND	ND
	Jan-95	--	--	ND	ND	ND	ND	ND	ND	1200Q	ND
	Apr-95	--	--	NA	NA	NA	NA	NA	NA	4Q	NA
	Jul-95	--	--	ND	ND	ND	ND	ND	ND	33Q	ND
	Jul-96	--	--	ND	ND	ND	ND	ND	ND	48Q	ND
	Jul-97	--	--	ND	ND	ND	ND	ND	ND	210	ND
	Jul-98	--	--	1.6Q	<0.71	<0.77	NS	<0.78	<0.71	1300	8.9Q
	Jul-99	--	--	<0.39	<1.9	<0.39	<0.39	NS	<0.39	89	<3.9
	Jul-00	--	--	0.64Q	<3.0	<0.30	<0.30	NS	<0.30	65	<3.0
	Jul-01	--	--	<0.30&	<0.29&	<0.29&	<0.29&	<0.29&	<0.29&	32&	<0.29&
Bis(2-ethylhexyl)phthalate	Oct-94	0.6	6	ND	ND	ND	ND	ND	ND	ND	25
	Jan-95	0.6	6	ND	ND	ND	ND	ND	ND	ND	54
	Jul-96	0.6	6	ND	ND	ND	ND	3Q	ND	ND	ND
	Jul-97	0.6	6	ND	ND	1.3J	ND	ND	ND	44J	ND
	Jul-98	0.6	6	2.8Q	<1.2	5.1	NS	<1.4	7.0	74000	84
	Jul-99	0.6	6	<2.1	<10	26	<2.1	NS	<2.1	490	<21
	Jul-00	0.6	6	<1.9	37Q	2.9Q	3.3Q	NS	<1.9	16	910
	Jul-01	0.6	6	<1.9	10	<1.8	14	<1.8	<1.8	57Q	<18
PCBs											
Arochlor-1242	Oct-94	0.003	0.03	ND	ND	ND	ND	ND	ND	ND	25
	Jul-96	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	38
	Jul-97	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	ND
	Jul-98	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	ND
	Jul-99	0.003	0.03	NA	NA	NA	NA	NS	NA	NA	<0.33
	Jul-00	0.003	0.03	NA	NA	NA	NA	NS	NA	NA	<0.26
	Jul-01	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	10
Arochlor-1248	Jan-95	0.003	0.03	ND	ND	ND	ND	ND	ND	ND	27
	Jul-95	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	7
	Jul-97	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	ND
	Jul-98	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	ND
	Jul-99	0.003	0.03	NA	NA	NA	NA	NS	NA	NA	<0.33
	Jul-00	0.003	0.03	NA	NA	NA	NA	NS	NA	NA	<0.26
	Jul-01	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	<0.52
Metals											
Arsenic	Oct-94	5	50	47	28	3	5.4	5.4	ND	ND	7.6
	Jan-95	5	50	28	30	ND	ND	16	ND	ND	ND
	Jul-95	5	50	45	29	ND	ND	ND	ND	25	4.8
	Jul-96	5	50	29	20	ND	ND	4.4	ND	30	8
	Jul-97	5	50	38	16	ND	2.5	2.7	3.2	11	6.2
	Jul-98	5	50	43	26	7.6	NS	4.5	2.3	27	6.7
	Jul-99	5	50	46	150	86	140	NS	84	1100	110
	Jul-00	5	50	25	20	2.5Q	<1.1	NS	2.4Q	78	15
	Jul-01	5	50	34	31	3.9Q	<1.4	1.7Q	<1.4	63	9.2
Barium	Oct-94	400	2000	66	130	85	130	170	76	ND	150
	Jan-95	400	2000	68	130	74	ND	140	70	490	260
	Jul-95	400	2000	ND	140	83	160	160	73	120	130
	Jul-96	400	2000	ND	170	88	160	200	91	150	110
	Jul-97	400	2000	55	230	73	150	230	87	200	61
	Jul-98	400	2000	53	180	160	NS	320	82	450	79
	Jul-99	400	2000	38	23	2.9	<2.4	NS	<2.4	140	6
	Jul-00	400	2000	50	180	86	130	NS	82	870	96
	Jul-01	400	2000	53	200	180	150	210	86	1800	130
Zinc	Oct-94	2500	5000	ND	ND	ND	270	ND	ND	ND	ND

NS = Not Sampled
NA = Not Analyzed
ND = Not Detected
PAL Exceedance
ES Exceedance



SOURCE: USGS 7.5 Minute Topographic Map, PORT WASHINGTON WEST & CEDARBURG, WISCONSIN, MAPTECH



COOK COMPOSITES AND POLYMERS
GROUNDWATER MONITORING PROGRAM
SAUKVILLE, WISCONSIN

FIGURE 1
SITE LOCATION MAP

DRN. BY:	LMS
PROJ. NO.:	48362.001
DATE:	08MAR02

URS

P:\URS\48362.001-CCP2001\2001\ANNUALREPORT\SITELOC.AI

LEGEND

- BUILDING
- ROAD
- FENCE
- RAILROAD
- WATERLINE
- W-18A — MONITORING WELL LOCATION AND NUMBER

NOTES

1. BASE MAP WAS DEVELOPED FROM DRAWINGS PROVIDED BY RMT, INC..
2. W-37 WAS ABANDONED AUGUST 2, 1996.
3. W-25 WAS ABANDONED JULY 29, 1997.

N

SCALE : 1 INCH = 200 FEET

0 200' 400'

FILE NAME: FIG-2.DWG	OPER. MAS
SCALE: 1" = 200'	DATE 10-15-97
	PROJ. # 11035-387
	TASK #
	LOC.
	PROJ.
	SEND TO
	PHONE

REV	DESCRIPTION OF REVISION	BY	DATE

URS Corporation
10200 Innovation Drive, Suite 500
Milwaukee, Wisconsin 53226

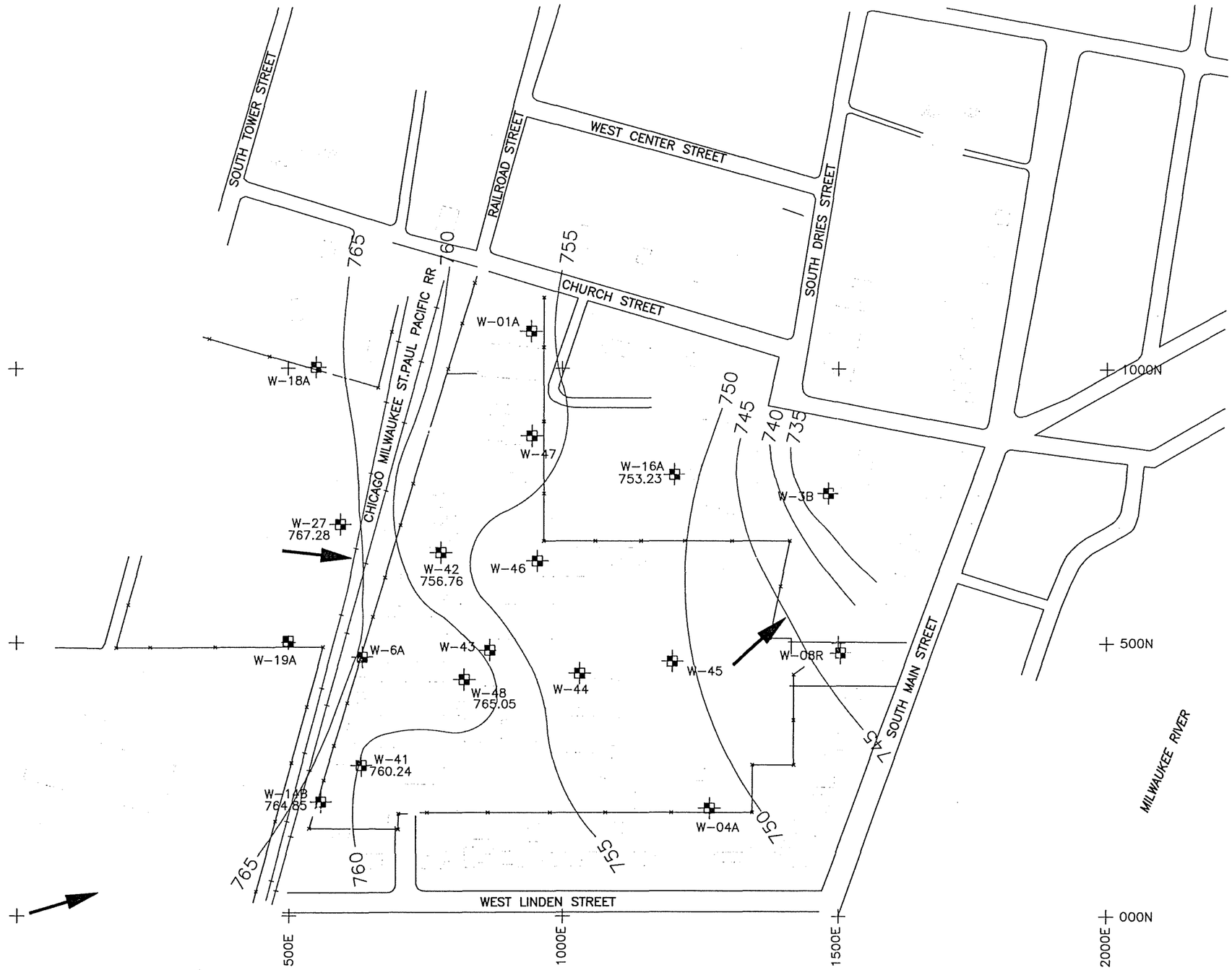
WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DESIGNED	RAC
DRAWN	MAS
CHECKED	
PEER REVIEWED	
PROJECT MANAGER	RAC
DATE	10-15-97

MONITORING WELL LOCATION MAP

COOK COMPOSITES AND POLYMERS
GROUNDWATER MONITORING PROGRAM
SAUKVILLE, WISCONSIN

REVISION	
PROJECT	48362.001
FIGURE	2
SHEET	2 OF 12



LEGEND

- BUILDING
- ROAD
- FENCE
- RAILROAD
- WATERLINE
- W-18A — MONITORING WELL LOCATION AND NUMBER
- 740 — WATER TABLE CONTOUR
- GROUNDWATER DIRECTIONAL FLOW ARROW

NOTES

1. BASE MAP WAS DEVELOPED FROM DRAWINGS PROVIDED BY RMT, INC..
2. W-37 WAS ABANDONED AUGUST 2, 1996.
3. W-25 WAS ABANDONED JULY 29, 1997.

N

SCALE : 1 INCH = 200 FEET

0 200' 400'

FILE NAME: FIG-1.DWG	OPER. MAS	PROJ. / 11035-387	LOC.	SEND TO
SCALE: 1" = 200'	DATE 02-24-99	TASK	PROJ.	PHONE

REV	DESCRIPTION OF REVISION	BY	DATE

URS Corporation
10200 Innovation Drive, Suite 500
Milwaukee, Wisconsin 53226

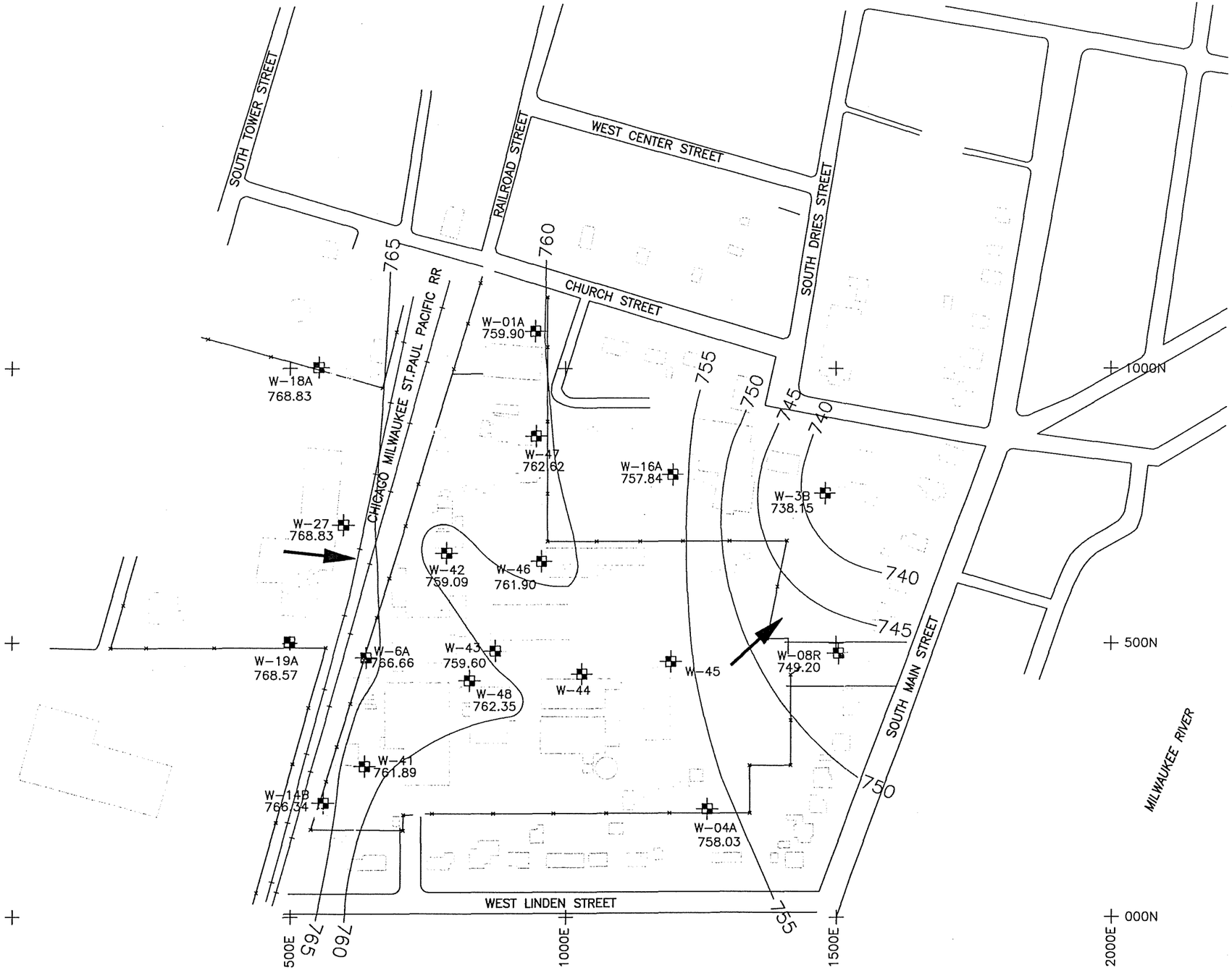
WARNING
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DESIGNED	RAC
DRAWN	TJF
CHECKED	
PEER REVIEWED	
PROJECT MANAGER	RAC
DATE	01-19-01

WATER TABLE MAP
GLACIAL DRIFT – WINTER 2001

COOK COMPOSITES AND POLYMERS
GROUNDWATER MONITORING PROGRAM
SAUKVILLE, WISCONSIN

REVISION	
PROJECT	48362.001
FIGURE	3
SHEET	3 OF 12



LEGEND

- BUILDING
- ROAD
- FENCE
- RAILROAD
- WATERLINE
- W-18A — MONITORING WELL LOCATION AND NUMBER
- 740 — WATER TABLE CONTOUR
- GROUNDWATER DIRECTIONAL FLOW ARROW

NOTES

1. BASE MAP WAS DEVELOPED FROM DRAWINGS PROVIDED BY RMT, INC..
2. W-37 WAS ABANDONED AUGUST 2, 1996.
3. W-25 WAS ABANDONED JULY 29, 1997.

N

SCALE : 1 INCH = 200 FEET

0 200' 400'

REV	DESCRIPTION OF REVISION	BY	DATE

URS Corporation
10200 Innovation Drive, Suite 500
Milwaukee, Wisconsin 53226

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DESIGNED	RAC
DRAWN	TJF
CHECKED	
PEER REVIEWED	
PROJECT MANAGER	RAC
DATE	04-11-01

WATER TABLE MAP
GLACIAL DRIFT – SPRING 2001

COOK COMPOSITES AND POLYMERS
GROUNDWATER MONITORING PROGRAM
SAUKVILLE, WISCONSIN

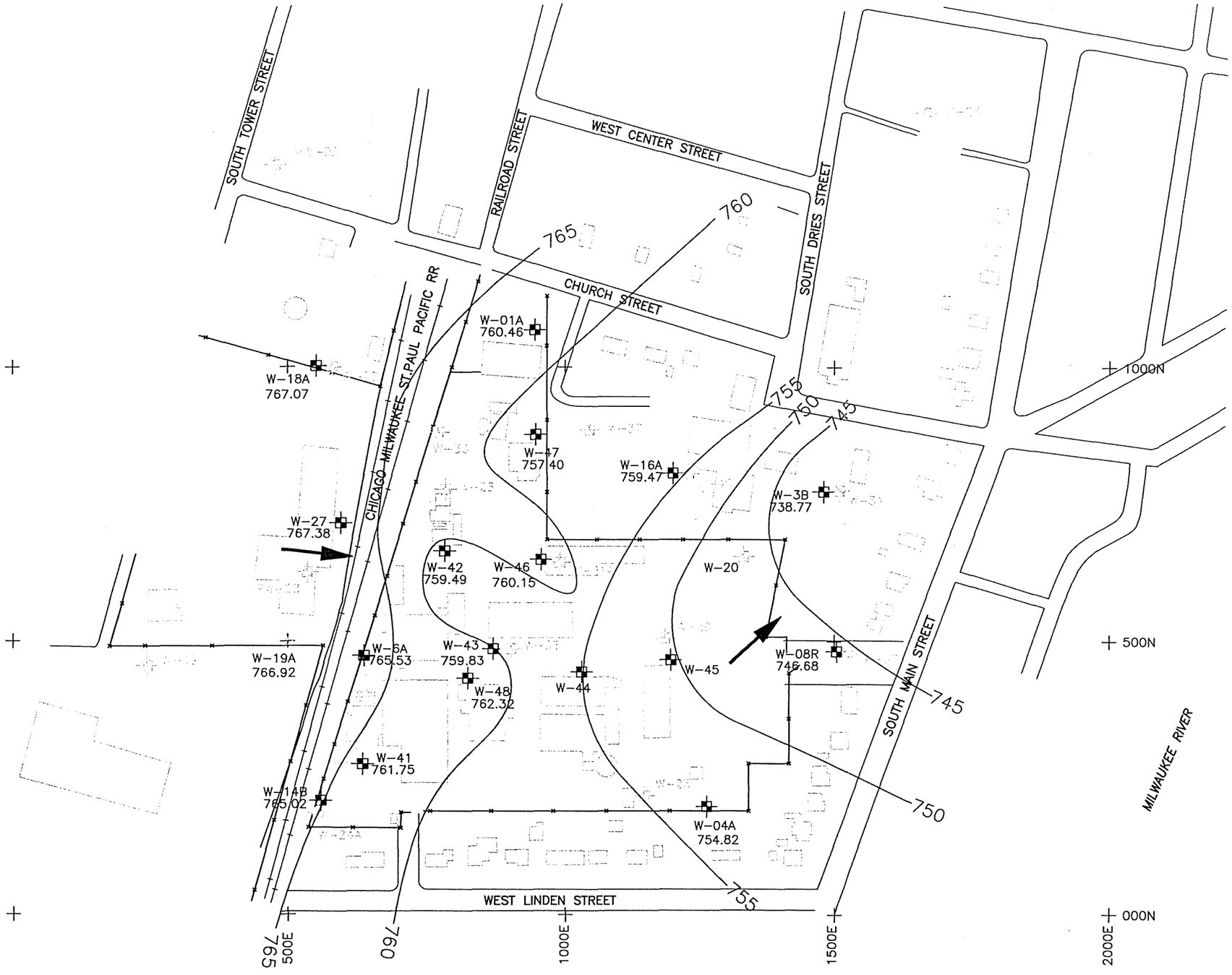
REVISION

PROJECT 48362-001

FIGURE 4

SHEET 4 OF 12

FILE NAME: FIG-1.DWG
SCALE: 1" = 200'
OPER. TJF
DATE 04-11-01
PROJ. TASK
PROJ. 48362-001
LOC. PROJ.
SEND TO
PHONE



LEGEND

- BUILDING
- ROAD
- FENCE
- RAILROAD
- WATERLINE
- W-18A — MONITORING WELL LOCATION AND NUMBER
- 740 — WATER TABLE CONTOUR
- GROUNDWATER DIRECTIONAL FLOW ARROW

NOTES

1. BASE MAP WAS DEVELOPED FROM DRAWINGS PROVIDED BY RMT, INC..
2. W-37 WAS ABANDONED AUGUST 2, 1996.
3. W-25 WAS ABANDONED JULY 29, 1997.

N

SCALE : 1 INCH = 200 FEET

0 200' 400'

REV	DESCRIPTION OF REVISION	BY	DATE

URS Corporation
10200 Innovation Drive, Suite 500
Milwaukee, Wisconsin 53226

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DESIGNED	RAC
DRAWN	MAS/LMS
CHECKED	
PEER REVIEWED	
PROJECT MANAGER	RAC
DATE	07SEP01

WATER TABLE MAP
GLACIAL DRIFT – SUMMER 2001

COOK COMPOSITES AND POLYMERS
GROUNDWATER MONITORING PROGRAM
SAUKVILLE, WISCONSIN

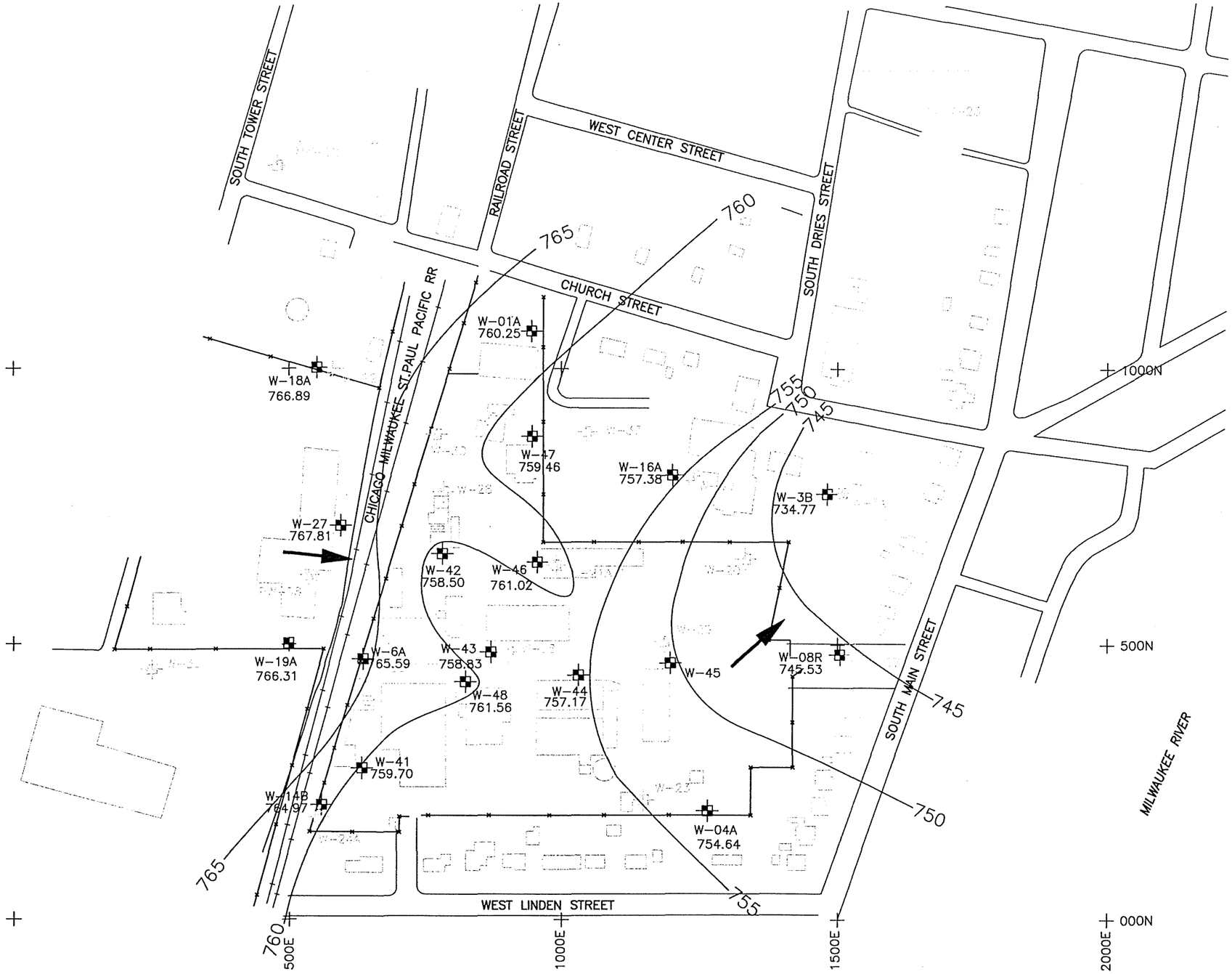
REVISION

PROJECT 48362-001

FIGURE 5

SHEET 5 OF 12

FILE NAME: FIG-1--2.DWG	SEND TO
SCALE: 1" = 200'	PHONE
OPER. MAS/LMS	LOC.
DATE 09SEP01	PROJ.
	PROJ. # 48362
	TASK # 001



LEGEND

- BUILDING
- ROAD
- FENCE
- RAILROAD
- WATERLINE
- W-18A — MONITORING WELL LOCATION AND NUMBER
- 740 — WATER TABLE CONTOUR
- GROUNDWATER DIRECTIONAL FLOW ARROW

NOTES

1. BASE MAP WAS DEVELOPED FROM DRAWINGS PROVIDED BY RMT, INC..
2. W-37 WAS ABANDONED AUGUST 2, 1996.
3. W-25 WAS ABANDONED JULY 29, 1997.

N

SCALE : 1 INCH = 200 FEET

0 200' 400'

REV	DESCRIPTION OF REVISION	BY	DATE

FILE NAME: 48362001 SCALE: 1" = 200' | OPER. MAS/LMS | DATE 12DEC01 | PROJ. 48362 | TASK 001 | LOC. | PROJ. | SEND TO | PHONE

URS Corporation
10200 Innovation Drive, Suite 500
Milwaukee, Wisconsin 53226

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DESIGNED	RAC
DRAWN	MAS/LMS
CHECKED	
PEER REVIEWED	
PROJECT MANAGER	RAC
DATE	12DEC01

WATER TABLE MAP
GLACIAL DRIFT – FALL 2001

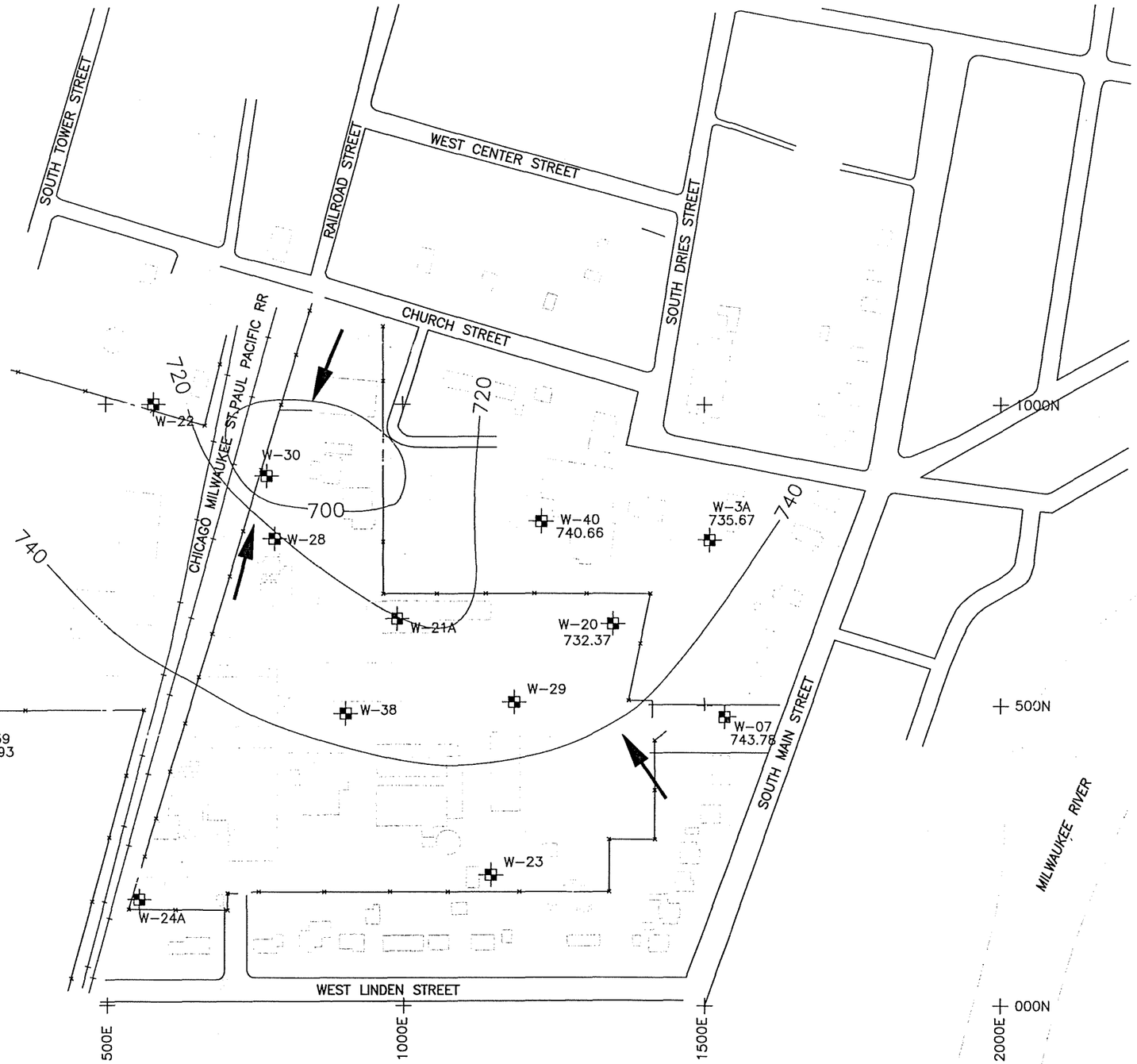
COOK COMPOSITES AND POLYMERS
GROUNDWATER MONITORING PROGRAM
SAUKVILLE, WISCONSIN

REVISION

PROJECT 48362-001

FIGURE 6

SHEET 6 OF 12



LEGEND

- BUILDING
- ROAD
- FENCE
- RAILROAD
- WATERLINE
- W-18A — MONITORING WELL LOCATION AND NUMBER
- 740 — WATER TABLE CONTOUR
- GROUNDWATER DIRECTIONAL FLOW ARROW

NOTES

1. BASE MAP WAS DEVELOPED FROM DRAWINGS PROVIDED BY RMT, INC..
2. W-37 WAS ABANDONED AUGUST 2, 1996.
3. W-25 WAS ABANDONED JULY 29, 1997.

N

SCALE : 1 INCH = 200 FEET

0 200' 400'

REV	DESCRIPTION OF REVISION	BY	DATE

URS Corporation
10200 Innovation Drive, Suite 500
Milwaukee, Wisconsin 53226

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

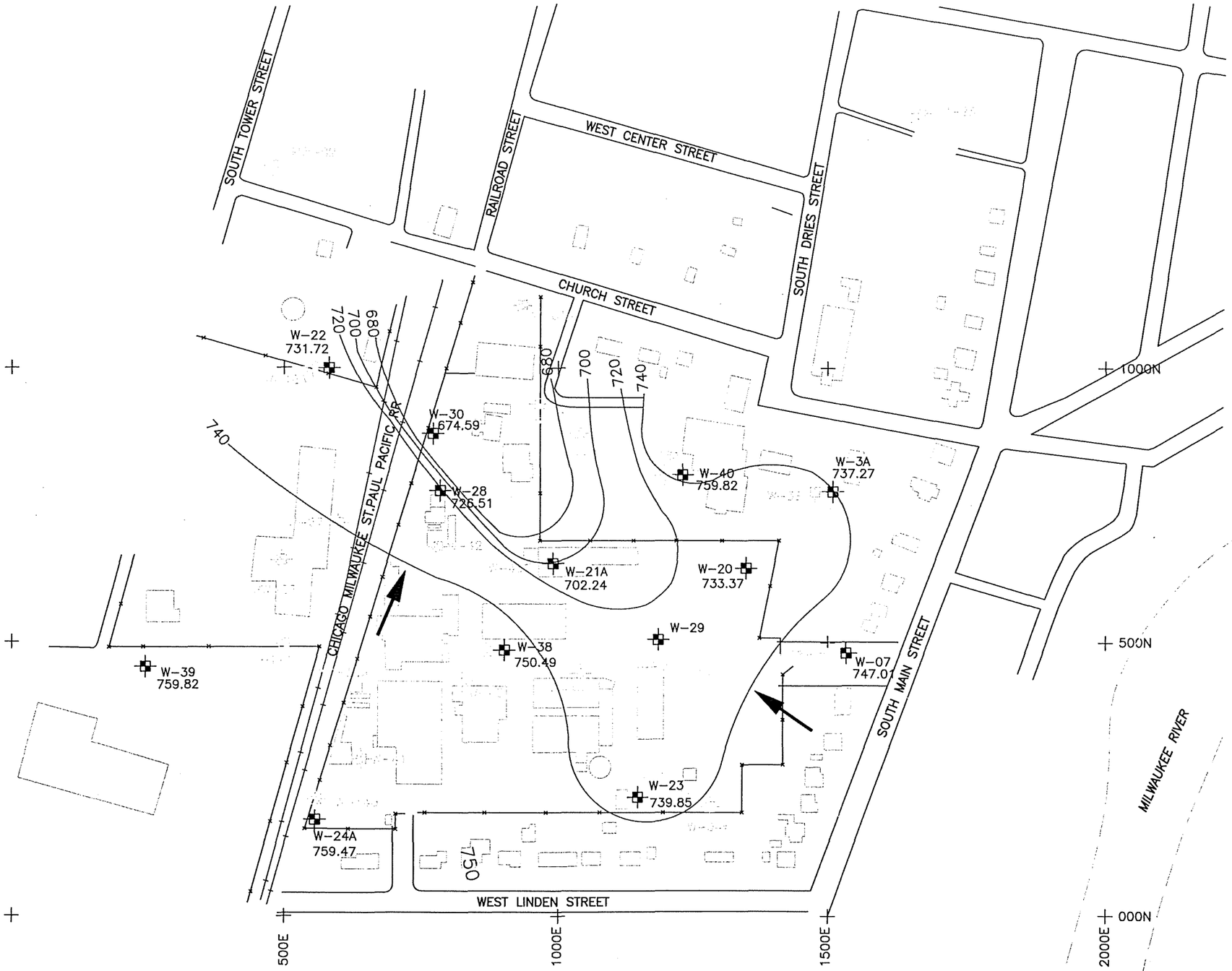
DESIGNED	RAC
DRAWN	TJF
CHECKED	
PEER REVIEWED	
PROJECT MANAGER	RAC
DATE	01-19-01

POTENTIOMETRIC SURFACE MAP
SHALLOW DOLOMITE – WINTER 2001

COOK COMPOSITES AND POLYMERS
GROUNDWATER MONITORING PROGRAM
SAUKVILLE, WISCONSIN

REVISION	
PROJECT	48362.001
FIGURE	7
SHEET	7 OF 12

FILE: none | PIC-2.DWG | SCALE: 1" = 200'
OPER. MKS | DATE: 02-24-98 | PROJ. # 11035-367 | TASK # | LOC. | PROJ. | SEND TO | PHONE



LEGEND

- BUILDING
- ROAD
- FENCE
- RAILROAD
- WATERLINE
- W–18A — MONITORING WELL LOCATION AND NUMBER
- —740— WATER TABLE CONTOUR
- GROUNDWATER DIRECTIONAL FLOW ARROW

NOTES

1. BASE MAP WAS DEVELOPED FROM DRAWINGS PROVIDED BY RMT, INC..
2. W–37 WAS ABANDONED AUGUST 2, 1996.
3. W–25 WAS ABANDONED JULY 29, 1997.

N

SCALE : 1 INCH = 200 FEET

0 200' 400'

FILE NAME: FIG-2.DWG | OPER. TJF | PROJ. # 48362-001 | LOC. | SEND TO
SCALE: 1" = 200' | DATE 4-11-01 | TASK # | PROJ. | PHONE

REV	DESCRIPTION OF REVISION	BY	DATE

URS Corporation
10200 Innovation Drive, Suite 500
Milwaukee, Wisconsin 53226

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

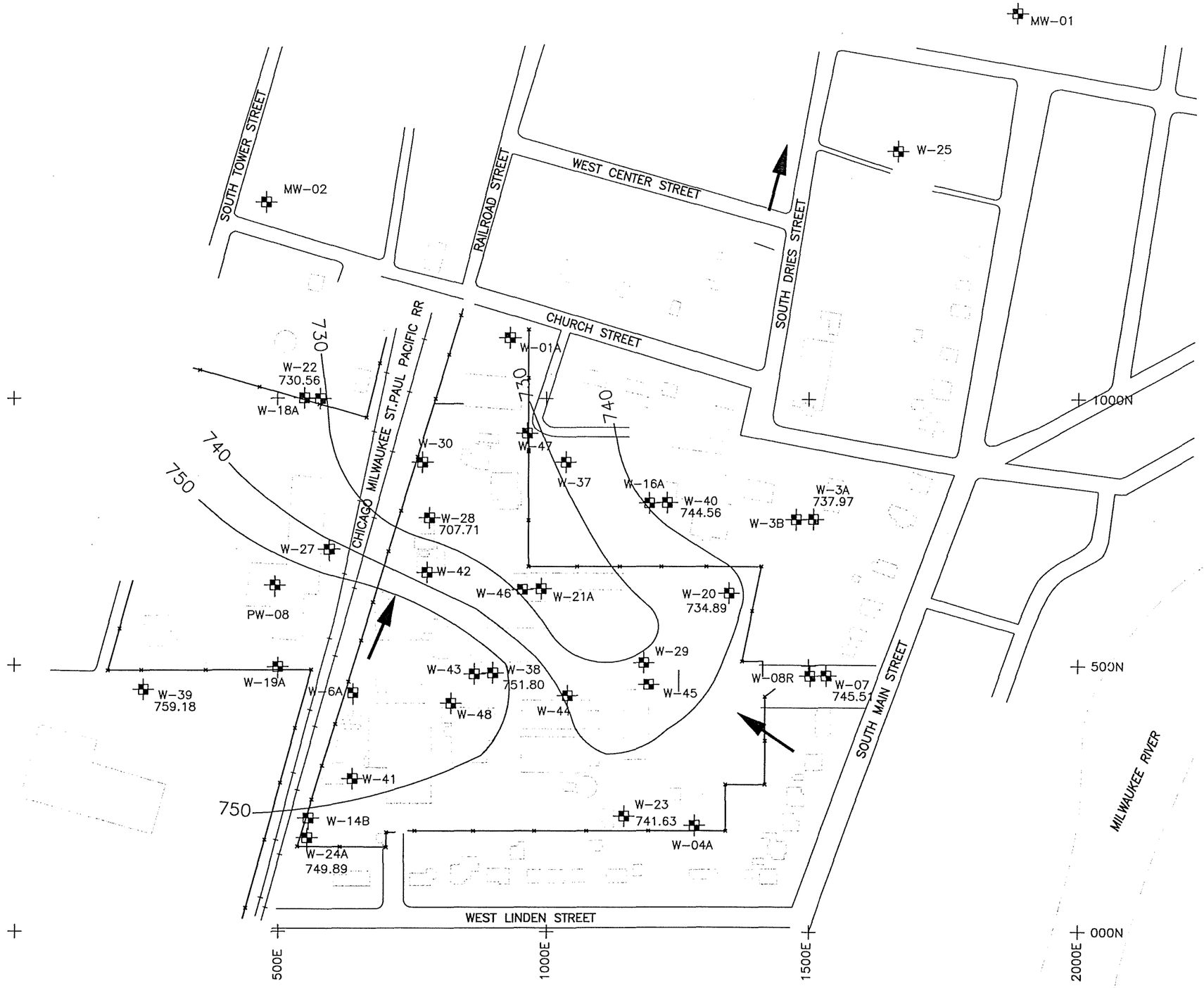
DESIGNED	RAC
DRAWN	TJF
CHECKED	
PEER REVIEWED	
PROJECT MANAGER	RAC
DATE	02JAN02

POTENTIOMETRIC SURFACE MAP
SHALLOW DOLOMITE – SPRING 2001

COOK COMPOSITES AND POLYMERS
GROUNDWATER MONITORING PROGRAM
SAUKVILLE, WISCONSIN

REVISION

PROJECT 48362-001
FIGURE 8
SHEET 8 OF 12



LEGEND

- BUILDING
- ROAD
- FENCE
- RAILROAD
- WATERLINE
- W-18A — MONITORING WELL LOCATION AND NUMBER
- 740 — WATER TABLE CONTOUR
- GROUNDWATER DIRECTIONAL FLOW ARROW

NOTES

1. BASE MAP WAS DEVELOPED FROM DRAWINGS PROVIDED BY RMT, INC..
2. W-37 WAS ABANDONED AUGUST 2, 1996.
3. W-25 WAS ABANDONED JULY 29, 1997.

N

SCALE : 1 INCH = 200 FEET

0 200' 400'

REV	DESCRIPTION OF REVISION	BY	DATE

URS Corporation
10200 Innovation Drive, Suite 500
Milwaukee, Wisconsin 53226

WARNING
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

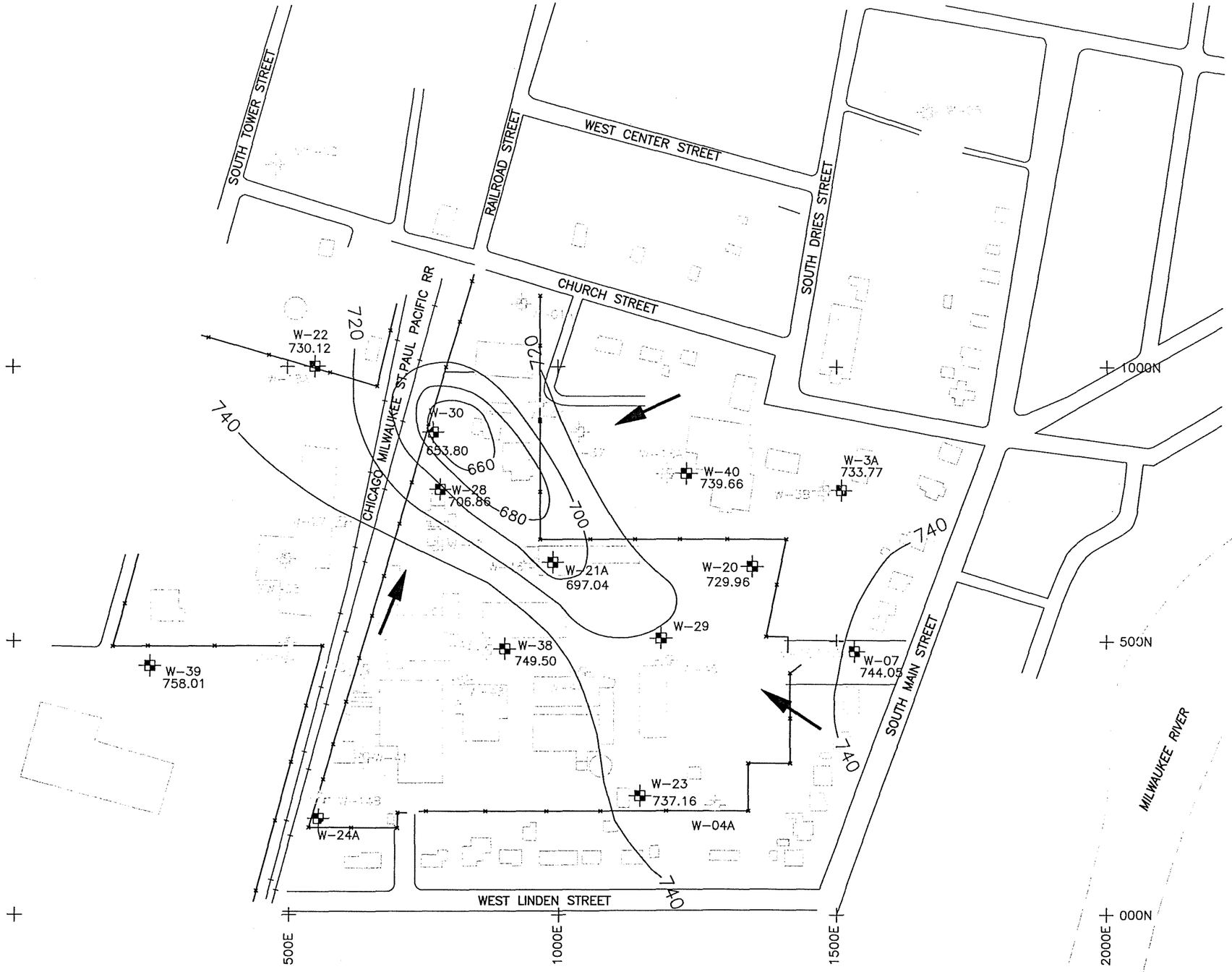
DESIGNED	RAC
DRAWN	MAS
CHECKED	
PEER REVIEWED	
PROJECT MANAGER	RAC
DATE	02JAN02

WATER TABLE MAP
SHALLOW DOLOMITE – SUMMER 2001

COOK COMPOSITES AND POLYMERS
GROUNDWATER MONITORING PROGRAM
SAUKVILLE, WISCONSIN

REVISION
PROJECT 48362-001
FIGURE 9
SHEET 9 OF 12

FILE NAME: FIG-2-2.DWG
SCALE: 1" = 200'
OPER. MAS
DATE 02-24-99
PROJ. # 8E13603
TASK 00911
LOC.
PROJ.
SEND TO
PHONE



LEGEND

- BUILDING
- ROAD
- FENCE
- RAILROAD
- WATERLINE
- W-18A — MONITORING WELL LOCATION AND NUMBER
- 740 — WATER TABLE CONTOUR
- GROUNDWATER DIRECTIONAL FLOW ARROW

NOTES

1. BASE MAP WAS DEVELOPED FROM DRAWINGS PROVIDED BY RMT, INC..
2. W-37 WAS ABANDONED AUGUST 2, 1996.
3. W-25 WAS ABANDONED JULY 29, 1997.

N

SCALE : 1 INCH = 200 FEET

0 200' 400'

REV	DESCRIPTION OF REVISION	BY	DATE

URS Corporation
10200 Innovation Drive, Suite 500
Milwaukee, Wisconsin 53226

WARNING
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

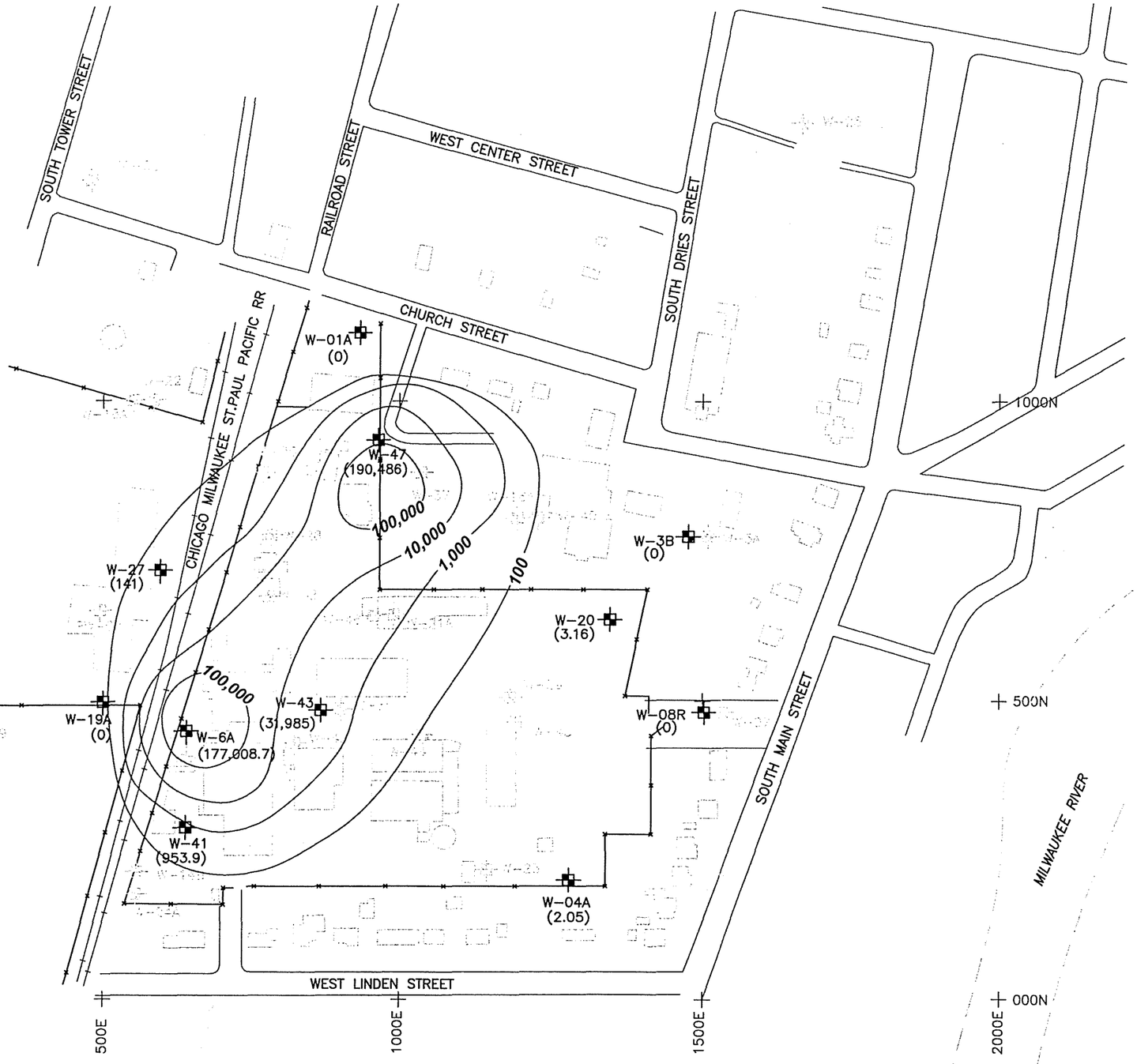
DESIGNED	RAC
DRAWN	MAS
CHECKED	
PEER REVIEWED	
PROJECT MANAGER	RAC
DATE	02JAN02

WATER TABLE MAP
SHALLOW DOLOMITE – FALL 2001

COOK COMPOSITES AND POLYMERS
GROUNDWATER MONITORING PROGRAM
SAUKVILLE, WISCONSIN

REVISION
PROJECT 48362-001
FIGURE 10
SHEET 10 OF 12

FILE NAME: FIG-2-2.DWG	OPER. MAS	PROJ. BE13503	LOC.
SCALE: 1" = 200'	DATE 12DEC01	TASK 00991	PROJ.
P:\URS\48362.001 cc\2001\2001\FALL\FIG2.DWG			SEND TO / PHONE



LEGEND

- BUILDING
- ROAD
- FENCE
- RAILROAD
- WATERLINE
- W-18A — MONITORING WELL LOCATION AND NUMBER
- *100* — TOTAL VOC ISOCONCENTRATION (ug/L)
- (3.16) — AVERAGE ANNUAL TOTAL VOC CONCENTRATION (ug/L)

NOTES

1. BASE MAP WAS DEVELOPED FROM DRAWINGS PROVIDED BY RMT, INC..
2. W-37 WAS ABANDONED AUGUST 2, 1996.
3. W-25 WAS ABANDONED JULY 29, 1997.

N

SCALE : 1 INCH = 200 FEET

0 200' 400'

REV	DESCRIPTION OF REVISION	BY	DATE

URS Corporation
10200 Innovation Drive, Suite 500
Milwaukee, Wisconsin 53226

WARNING
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DESIGNED	RAC
DRAWN	MAS
CHECKED	
PEER REVIEWED	
PROJECT MANAGER	RAC
DATE	18JAN02

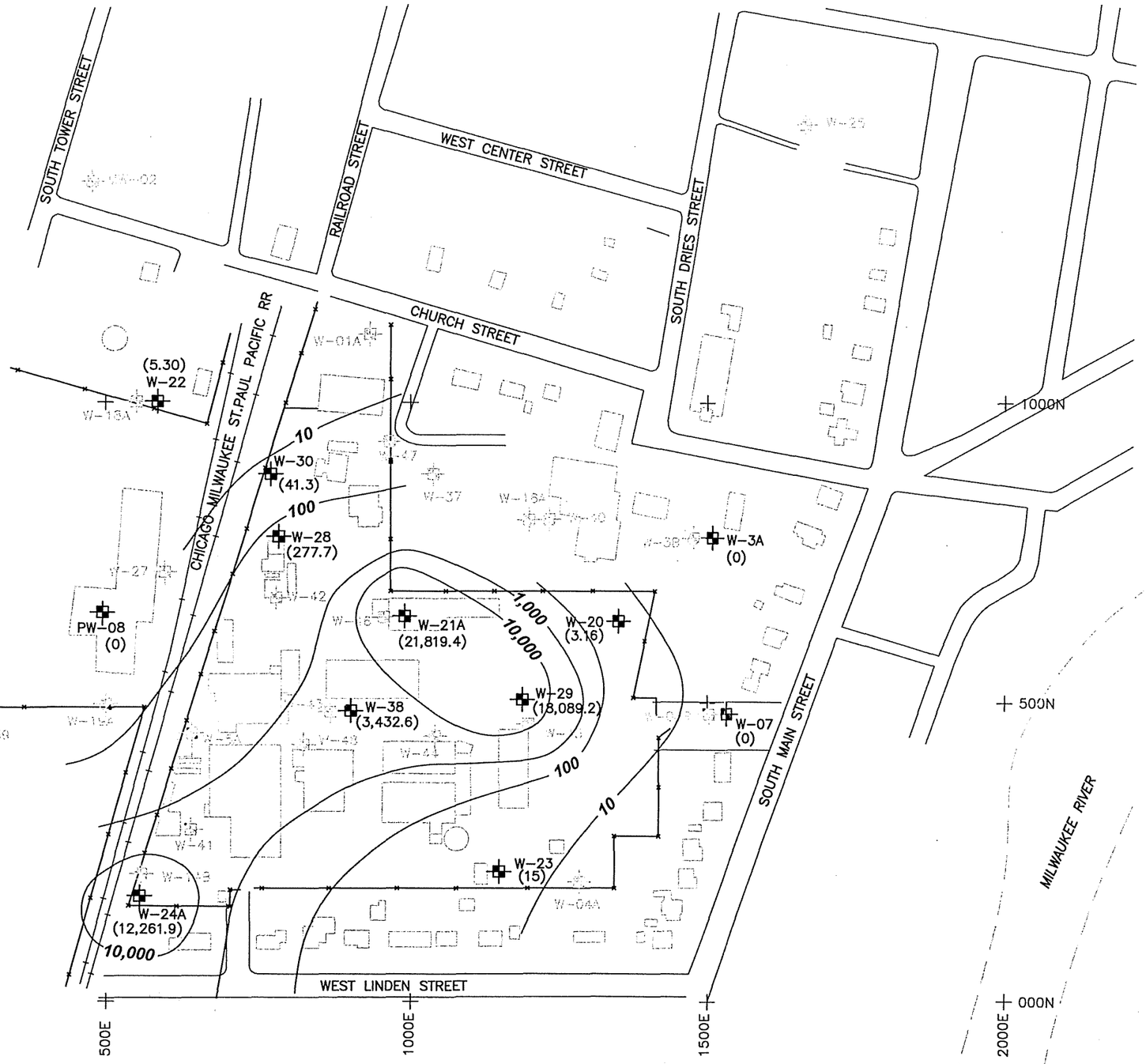
COMPOSITE 2001 – TOTAL VOC CONCENTRATIONS
GLACIAL DRIFT WELLS

COOK COMPOSITES AND POLYMERS
GROUNDWATER MONITORING PROGRAM
SAUKVILLE, WISCONSIN

REVISION

PROJECT 48362-001
FIGURE 11
SHEET 11 OF 12

FILE NAME: f10-2-2.DWG SCALE: 1" = 200' OPER. MAS DATE 12DEC01 PROJ. # BE13903 TASK 00991 LOC. PROJ. SEND TO PHONE



LEGEND

- BUILDING
- ROAD
- FENCE
- RAILROAD
- WATERLINE
- W-18A — MONITORING WELL LOCATION AND NUMBER
- 100 — TOTAL VOC ISOCONCENTRATION (ug/L)
- (41.3) — AVERAGE ANNUAL TOTAL VOC CONCENTRATION (ug/L)

NOTES

1. BASE MAP WAS DEVELOPED FROM DRAWINGS PROVIDED BY RMT, INC..
2. W-37 WAS ABANDONED AUGUST 2, 1996.
3. W-25 WAS ABANDONED JULY 29, 1997.

N

SCALE : 1 INCH = 200 FEET

0 200' 400'

REV	DESCRIPTION OF REVISION	BY	DATE

URS Corporation
10200 Innovation Drive, Suite 500
Milwaukee, Wisconsin 53226

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DESIGNED	RAC
DRAWN	MAS
CHECKED	
PEER REVIEWED	
PROJECT MANAGER	RAC
DATE	16JAN02

COMPOSITE 2001 – TOTAL VOC CONCENTRATIONS SHALLOW DOLIMITE WELLS

COOK COMPOSITES AND POLYMERS GROUNDWATER MONITORING PROGRAM SAUKVILLE, WISCONSIN

REVISION	
PROJECT	48362-001
FIGURE	12
SHEET	12 OF 12

FILE NAME: FIG-2-2.DWG	OPER. MAS
SCALE: 1" = 200'	DATE 12DEC01
PROJ. # 861.3503	LOC.
TASK # 00991	PROJ.
SEND TO	
PHONE	

Appendix A
Quarterly Result Summary Tables

TABLE 1
MUNICIPAL WELL RESULTS

PROJECT NUMBER: 11035-387
BEGINNING DATE: 9-Jan-01
ENDING DATE: 9-Jan-01

(1) PAL = NR140 Preventative Action Limit
(2) ES = NR140 Enforcement Standard

Parameter	PAL (1)	ES (2)	Units	MW-1-01-1 1/9/01	MW-2-01-1 not sampled	MW-3-01-1 1/9/01	MW-4-01-1 1/9/01	DUP-1-01-1 1/9/01 (MW-4-00-1)	TB-1-01-1 1/9/01
1,1,1-Trichloroethane	40	200	ug/L	<0.53	-	<0.53	<0.53	<0.53	<0.53
1,1,2,2-Tretrachloroethane	0.02	0.2	ug/L	<0.68	-	<0.68	<0.68	<0.68	<0.68
1,1,2-Trichloroethane	0.5	5	ug/L	<0.47	-	<0.47	<0.47	<0.47	<0.47
1,1-Dichloroethane	85	850	ug/L	<0.61	-	<0.61	<0.61	<0.61	<0.61
1,1-Dichloroethene	0.7	7	ug/L	<0.47	-	<0.47	<0.47	<0.47	<0.47
1,2-Dichloroethane	0.5	5	ug/L	<0.54	-	<0.54	<0.54	<0.54	<0.54
1,2-Dichloropropane	0.5	5	ug/L	<0.34	-	<0.34	<0.34	<0.34	<0.34
2-Butanone	90	460	ug/L	<1.2	-	<1.2	<1.2	<1.2	<1.2
2-Hexanone			ug/L	<0.61	-	<0.61	<0.61	<0.61	<0.61
4-Methyl-2-pentanone	50	500	ug/L	<0.61	-	<0.61	<0.61	<0.61	<0.61
Acetone	200	1000	ug/L	<3.1	-	<3.1	<3.1	<3.1	<3.1
Benzene	0.5	5	ug/L	<0.44	-	<0.44	<0.44	<0.44	<0.44
Bromodichloromethane	0.06	0.6	ug/L	<0.41	-	<0.41	<0.41	<0.41	<0.41
Bromoform	0.44	4	ug/L	<0.58	-	<0.58	<0.58	<0.58	<0.58
Bromomethane	1	10	ug/L	<0.94	-	<0.94	<0.94	<0.94	<0.94
Carbon disulfide	200	1000	ug/L	<0.40	-	<0.40	<0.40	<0.40	<0.40
Carbon tetrachloride	0.5	5	ug/L	<0.90	-	<0.90	<0.90	<0.90	<0.90
Chlorobenzene	20	100	ug/L	<0.43	-	<0.43	<0.43	<0.43	<0.43
Chlorodibromomethane	6	60	ug/L	<0.43	-	<0.43	<0.43	<0.43	<0.43
Chloroethane	80	400	ug/L	<0.63	-	<0.63	<0.63	<0.63	<0.63
Chloroform	0.6	6	ug/L	<0.41	-	<0.41	<0.41	<0.41	<0.41
Chloromethane	0.3	3	ug/L	<0.44	-	<0.44	<0.44	<0.44	<0.44
cis-1,2-Dichloroethene	7	70	ug/L	<0.46	-	<0.46	<0.46	<0.46	<0.46
cis-1,3-Dichloropropene	0.02	0.2	ug/L	<0.54	-	<0.54	<0.54	<0.54	<0.54
Ethylbenzene	140	700	ug/L	<0.50	-	<0.50	<0.50	<0.50	<0.50
Methylene chloride	0.5	5	ug/L	<0.38	-	<0.38	<0.38	<0.38	<0.38
Styrene	10	100	ug/L	<0.37	-	<0.37	<0.37	<0.37	<0.37
Tetrachloroethene	0.5	5	ug/L	<0.41	-	<0.41	<0.41	<0.41	<0.41
Toluene	68.6	343	ug/L	<0.40	-	<0.40	<0.40	<0.40	<0.40
trans-1,2-Dichloroethene	20	100	ug/L	<0.64	-	<0.64	<0.64	<0.64	<0.64
trans-1,3-Dichloropropene	0.02	0.2	ug/L	<0.26	-	<0.26	<0.26	<0.26	<0.26
Trichloroethene	0.5	5	ug/L	<0.49	-	<0.49	<0.49	<0.49	<0.49
Vinyl acetate			ug/L	<0.70	-	<0.70	<0.70	<0.70	<0.70
Vinyl Chloride	0.02	0.2	ug/L	<0.17	-	<0.17	<0.17	<0.17	<0.17
Xylene, o	124	620	ug/L	<0.54	-	<0.54	<0.54	<0.54	<0.54
Xylene, m, p	124	620	ug/L	<0.77		<0.77	<0.77	<0.77	<0.77
Total VOCs			ug/L	0.0	NS	0.0	0.0	0.0	0.0
October 2000 Total VOCs			ug/L	0.0	NS	0.0	0.0	0.0	0.0

Q - The analyte has been detected between the Limit of Detection (LOD) and the Limit of Quantitation (LOQ). The results are qualified due to the uncertainty of the analyte concentrations within this range.

NS - Not Sampled

12/17/01

TABLE 2
POTW AND RANNEY COLLECTOR RESULTS

PROJECT NUMBER: 11035-387
BEGINNING DATE: 01/09/01
ENDING DATE: 01/09/01

Parameter	Units	POTW-I-01-1 1/9/01	POTW-E-01-1 1/9/01	POTW-S-01-1 1/9/01	RC-1-01-1 1/9/01	RC-2-01-1 1/9/01	RC-3-01-1 1/9/01
1,1,1-Trichloroethane	ug/L	<0.53	<0.53	<0.53			
1,1,2,2-Tretrachloroethane	ug/L	<0.68	<0.68	<0.68			
1,1,2-Trichloroethane	ug/L	<0.47	<0.47	<0.47			
1,1-Dichloroethane	ug/L	<0.61	<0.61	<0.61			
1,1-Dichloroethene	ug/L	<0.47	<0.47	<0.47			
1,2-Dichloroethane	ug/L	<0.54	<0.54	<0.54			
1,2-Dichloropropane	ug/L	<0.34	<0.34	<0.34			
2-Butanone	ug/L	<1.2	<1.2	1.4 Q			
2-Hexanone	ug/L	<0.61	<0.61	<0.61			
4-Methyl-2-pentanone	ug/L	<0.61	<0.61	<0.61			
Acetone	ug/L	140	680 D	7.8 Q			
Benzene	ug/L	<0.44	<0.44	<0.44	670 D	670 D	710 D
Bromodichloromethane	ug/L	<0.41	<0.41	<0.41			
Bromoform	ug/L	<0.58	<0.58	<0.58			
Bromomethane	ug/L	<0.94	<0.94	<0.94			
Carbon disulfide	ug/L	<0.40	<0.40	<0.40			
Carbon tetrachloride	ug/L	<0.90	<0.90	<0.90			
Chlorobenzene	ug/L	<0.43	<0.43	<0.43	<0.86	<0.86	<0.86
Chlorodibromomethane	ug/L	<0.43	<0.43	<0.43			
Chloroethane	ug/L	<0.63	<0.63	<0.63			
Chloroform	ug/L	<0.41	<0.41	<0.41			
Chloromethane	ug/L	<0.44	<0.44	<0.44			
cis-1,2-Dichloroethene	ug/L	<0.46	<0.46	<0.46			
cis-1,3-Dichloropropene	ug/L	<0.54	<0.54	<0.54			
Ethylbenzene	ug/L	<0.50	<0.50	<0.50	1200 D	1300 D	1300 D
Methylene chloride	ug/L	<0.38	<0.38	<0.38			
Styrene	ug/L	<0.37	<0.37	<0.37			
Tetrachloroethene	ug/L	<0.41	<0.41	<0.41			
Toluene	ug/L	0.80 Q	<0.40	3.0	490 D	550 D	590 D
trans-1,2-Dichloroethene	ug/L	<0.64	<0.64	<0.64			
trans-1,3-Dichloropropene	ug/L	<0.26	<0.26	<0.26			
Trichloroethene	ug/L	<0.49	<0.49	<0.49			
Vinyl acetate	ug/L	<0.70	<0.70	<0.70			
Vinyl Chloride	ug/L	<0.17	<0.17	<0.17			
Xylene, o	ug/L	<0.54	<0.54	<0.54	460 D	500 D	530 D
Xylene, m, p	ug/L	<0.77	<0.77	1.4 Q	5700 D	6000 D	6300 D
1,3-Dichlorobenzene	ug/L	~	~	~	<1.3	<1.3	<1.3
1,2-Dichlorobenzene	ug/L	~	~	~	3.8	4.5	4.8
1,4-Dichlorobenzene	ug/L	~	~	~	<0.86	<0.86	<0.86
Total VOCs	ug/L	140.80	680	13.6	8523.8	9024.5	9434.8
October 2000 Total VOCs	ug/L	88.19	0.42	17	1984	2278.1	2054.3

Q - The analyte has been detected between the Limit of Detection (LOD) and the Limit of Quantitation (LOQ). The results are qualified due to the uncertainty of the analyte concentrations within this range.

D - Analyte value from diluted analysis.

NS - Not Sampled

TABLE 1
MUNICIPAL WELL RESULTS

PROJECT NUMBER: 48362-001-133
BEGINNING DATE: 3-Apr-01
ENDING DATE: 5-Apr-01

(1) PAL = NR140 Preventative Action Limit
(2) ES = NR140 Enforcement Standard

Parameter	PAL (1)	ES (2)	Units	MW-1-01-2 4/3/01	MW-2-01-2 not sampled	MW-3-01-2 4/3/01	DUP-1-01-2 4/3/01 (MW-3-01-2)	MW-4-01-2 not sampled	Trip Blank 4/5/01
1,1,1-Trichloroethane	40	200	ug/L	<0.53	-	<0.53	<0.53	-	<0.53
1,1,2,2-Tretrachloroethane	0.02	0.2	ug/L	<0.68	-	<0.68	<0.68	-	<0.68
1,1,2-Trichloroethane	0.5	5	ug/L	<0.47	-	<0.47	<0.47	-	<0.47
1,1-Dichloroethane	85	850	ug/L	<0.61	-	<0.61	<0.61	-	<0.61
1,1-Dichloroethene	0.7	7	ug/L	<0.47	-	<0.47	<0.47	-	<0.47
1,2-Dichloroethane	0.5	5	ug/L	<0.54	-	<0.54	<0.54	-	<0.54
1,2-Dichloropropane	0.5	5	ug/L	<0.34	-	<0.34	<0.34	-	<0.34
2-Butanone	90	460	ug/L	<1.2	-	<1.2	<1.2	-	<1.2
2-Hexanone			ug/L	<0.61	-	<0.61	<0.61	-	<0.61
4-Methyl-2-pentanone	50	500	ug/L	<0.61	-	<0.61	<0.61	-	<0.61
Acetone	200	1000	ug/L	<3.1	-	<3.1	<3.1	-	<3.1
Benzene	0.5	5	ug/L	<0.44	-	<0.44	<0.44	-	<0.44
Bromodichloromethane	0.06	0.6	ug/L	<0.41	-	<0.41	<0.41	-	<0.41
Bromoform	0.44	4.4	ug/L	<0.58	-	<0.58	<0.58	-	<0.58
Bromomethane	1	10	ug/L	<0.94	-	<0.94	<0.94	-	<0.94
Carbon disulfide	200	1000	ug/L	<0.40	-	<0.40	<0.40	-	<0.40
Carbon tetrachloride	0.5	5	ug/L	<0.90	-	<0.90	<0.90	-	<0.90
Chlorobenzene	20	100	ug/L	<0.43	-	<0.43	<0.43	-	<0.43
Chlorodibromomethane	6	60	ug/L	<0.43	-	<0.43	<0.43	-	<0.43
Chloroethane	80	400	ug/L	<0.63	-	<0.63	<0.63	-	<0.63
Chloroform	0.6	6	ug/L	<0.41	-	<0.41	<0.41	-	<0.41
Chloromethane	0.3	3	ug/L	<0.44	-	<0.44	<0.44	-	<0.44
cis-1,2-Dichloroethene	7	70	ug/L	<0.46	-	<0.46	<0.46	-	<0.46
cis-1,3-Dichloropropene	0.02	0.2	ug/L	<0.54	-	<0.54	<0.54	-	<0.54
Ethylbenzene	140	700	ug/L	<0.50	-	<0.50	<0.50	-	<0.50
Methylene chloride	0.5	5	ug/L	<0.38	-	<0.38	<0.38	-	<0.38
Styrene	10	100	ug/L	<0.37	-	<0.37	<0.37	-	<0.37
Tetrachloroethene	0.5	5	ug/L	<0.41	-	<0.41	<0.41	-	<0.41
Toluene	200	1000	ug/L	<0.40	-	<0.40	<0.40	-	<0.40
trans-1,2-Dichloroethene	20	100	ug/L	<0.64	-	<0.64	<0.64	-	<0.64
trans-1,3-Dichloropropene	0.02	0.2	ug/L	<0.26	-	<0.26	<0.26	-	<0.26
Trichloroethene	0.5	5	ug/L	<0.49	-	<0.49	<0.49	-	<0.49
Vinyl acetate			ug/L	<0.70	-	<0.70	<0.70	-	<0.70
Vinyl Chloride	0.02	0.2	ug/L	<0.17	-	<0.17	<0.17	-	<0.17
Xylene, o	1000	10000	ug/L	<0.54	-	<0.54	<0.54	-	<0.54
Xylene, m, p			ug/L	<0.77		<0.77	<0.77	-	<0.77
Total VOCs			ug/L	0.0	NS	0.0	0.0	NS	0.0
January 2001 Total VOCs			ug/L	0.0	NS	0.0	0.0	0.0	0.0

Q - The analyte has been detected between the Limit of Detection (LOD) and the Limit of Quantitation (LOQ). The results are qualified due to the uncertainty of the analyte concentrations within this range.

NS - Not Sampled

12/17/01

TABLE 2
POTW AND RANNEY COLLECTOR RESULTS

PROJECT NUMBER: 48362-001-133
BEGINNING DATE: 4/3/01
ENDING DATE: 4/5/01

Parameter	Units	POTW-I-01-2 4/3/01	POTW-E-01-2 4/3/01	POTW-S-01-2 4/3/01	RC-1-01-2 4/5/01	RC-2-01-2 4/5/01	RC-3-01-2 4/5/01	FB-1-01-2 4/5/01
1,1,1-Trichloroethane	ug/L	<0.53	<0.53	<0.53				
1,1,2,2-Tretrachloroethane	ug/L	<0.68	<0.68	<0.68				
1,1,2-Trichloroethane	ug/L	<0.47	<0.47	<0.47				
1,1-Dichloroethane	ug/L	<0.61	<0.61	<0.61				
1,1-Dichloroethene	ug/L	<0.47	<0.47	<0.47				
1,2-Dichloroethane	ug/L	<0.54	<0.54	<0.54				
1,2-Dichloropropane	ug/L	<0.34	<0.34	<0.34				
2-Butanone	ug/L	1.9 Q	<1.2	90				
2-Hexanone	ug/L	<0.61	<0.61	<0.61				
4-Methyl-2-pentanone	ug/L	<0.61	<0.61	<0.61				
Acetone	ug/L	43	<3.1	180 D				
Benzene	ug/L	<0.44	<0.44	<0.44	140	17	19	<0.44
Bromodichloromethane	ug/L	<0.41	<0.41	<0.41				
Bromoform	ug/L	<0.58	<0.58	<0.58				
Bromomethane	ug/L	<0.94	<0.94	<0.94				
Carbon disulfide	ug/L	0.84 Q	<0.40	0.88 Q				
Carbon tetrachloride	ug/L	<0.90	<0.90	<0.90				
Chlorobenzene	ug/L	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43
Chlorodibromomethane	ug/L	<0.43	<0.43	<0.43				
Chloroethane	ug/L	<0.63	<0.63	<0.63				
Chloroform	ug/L	0.73 Q	<0.41	<0.41				
Chloromethane	ug/L	<0.44	<0.44	<0.44				
cis-1,2-Dichloroethene	ug/L	<0.46	<0.46	<0.46				
cis-1,3-Dichloropropene	ug/L	<0.54	<0.54	<0.54				
Ethylbenzene	ug/L	1.6	<0.50	<0.50	630 D	97	93	<0.50
Methylene chloride	ug/L	<0.38	<0.38	<0.38				
Styrene	ug/L	<0.37	<0.37	<0.37				
Tetrachloroethene	ug/L	<0.41	<0.41	<0.41				
Toluene	ug/L	4.6	<0.40	610 D	1100 D	65	50	1.5
trans-1,2-Dichloroethene	ug/L	<0.64	<0.64	<0.64				
trans-1,3-Dichloropropene	ug/L	<0.26	<0.26	<0.26				
Trichloroethene	ug/L	<0.49	<0.49	<0.49				
Vinyl acetate	ug/L	<0.70	<0.70	<0.70				
Vinyl Chloride	ug/L	<0.17	<0.17	<0.17				
Xylene, o	ug/L	3.7	<0.54	<0.54	1800 D	110	86	<0.54
Xylene, m, p	ug/L	7.3	<0.77	<0.77	5400 D	370	300	<0.77
1,3-Dichlorobenzene	ug/L	-	-	-	<0.64	<0.64	<0.64	<0.64
1,2-Dichlorobenzene	ug/L	-	-	-	<0.36	<0.36	<0.36	<0.36
1,4-Dichlorobenzene	ug/L	-	-	-	<0.43	<0.43	<0.43	<0.43
Total VOCs	ug/L	63.67	0	880.9	9070	659	548	1.5
January 2001 Total VOCs	ug/L	140.80	680.0	13.6	8523.8	9024.5	9434.8	-

Q - The analyte has been detected between the Limit of Detection (LOD) and the Limit of Quantitation (LOQ). The results are qualified due to the uncertainty of the analyte concentrations within this range.

D - Analyte value from diluted analysis.

NS - Not Sampled

TABLE 3

SUMMARY OF MONITORING WELL RESULTS

PROJECT NUMBER: 48362-001-133
BEGINNING DATE: 4/3/01
4/5/0110/12/00

(1) PAL = NR 140 Preventative Action Limit
(2) ES = NR 140 Enforcement Standard

Parameter	PAL (1)	ES (2)	Units	W-01A-01-2 4/4/01	W-03A-01-2 4/4/01	DUP3-01-2 4/4/01 (W-03A-01-2)	W-03B-01-2 4/4/01	W-04A-01-2 4/5/01	W-07-01-2 4/3/01	PW-08-01-2 4/3/01
1,1,1-Trichloroethane	40	200	ug/L	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53
1,1,2,2-Tretrachloroethane	0.02	0.2	ug/L	<0.68	<0.68	<0.68	<0.68	<0.68	<0.68	<0.68
1,1,2-Trichloroethane	0.5	5	ug/L	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47
1,1-Dichloroethane	85	850	ug/L	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61
1,1-Dichloroethene	0.7	7	ug/L	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47
1,2-Dichloroethane	0.5	5	ug/L	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54
1,2-Dichloropropane	0.5	5	ug/L	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34
2-Butanone	90	460	ug/L	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
2-Hexanone			ug/L	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61
4-Methyl-2-pentanone	50	500	ug/L	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61
Acetone	200	1000	ug/L	<3.1	<3.1	<3.1	<3.1	<3.1	<3.1	<3.1
Benzene	0.5	5	ug/L	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44
Bromodichloromethane	0.06	0.6	ug/L	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
Bromoform	0.44	4.4	ug/L	<0.58	<0.58	<0.58	<0.58	<0.58	<0.58	<0.58
Bromomethane	1	10	ug/L	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94
Carbon disulfide	200	1000	ug/L	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Carbon tetrachloride	0.5	5	ug/L	<0.90	<0.90	<0.90	<0.90	<0.90	<0.90	<0.90
Chlorobenzene	20	100	ug/L	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43
Chlorodibromomethane	6	60	ug/L	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43
Chloroethane	80	400	ug/L	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63
Chloroform	0.6	6	ug/L	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
Chloromethane	0.3	3	ug/L	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44
cis-1,2-Dichloroethene	7	70	ug/L	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46
cis-1,3-Dichloropropene	0.02	0.2	ug/L	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54
Ethylbenzene	140	700	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Methylene chloride	0.5	5	ug/L	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38
Styrene	10	100	ug/L	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37
Tetrachloroethene	0.5	5	ug/L	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
Toluene	200	1000	ug/L	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
trans-1,2-Dichloroethene	20	100	ug/L	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64
trans-1,3-Dichloropropene	0.02	0.2	ug/L	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26
Trichloroethene	0.5	5	ug/L	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49
Vinyl acetate			ug/L	<0.70	<0.70	<0.70	<0.70	<0.70	<0.70	<0.70
Vinyl Chloride	0.02	0.2	ug/L	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Xylene, o	1000	10000	ug/L	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54
Xylene, m, p			ug/L	<0.77	<0.77	<0.77	<0.77	<0.77	<0.77	<0.77
Total VOCs			ug/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0
October 2000 Total VOCs			ug/L	0.0	0.8	0.8	0.5	0.9	0.0	NS

Q - The analyte has been detected between the Limit of Detection (LOD) and the Limit of Quantitation (LOQ). The results are qualified due to the uncertainty of the analyte concentrations within this range.

TABLE 3 CONTINUED
SUMMARY OF MONITORING WELL RESULTS

PROJECT NUMBER: 48362-001-133
BEGINNING DATE: 4/3/01
ENDING DATE: 4/5/01

(1) PAL = NR 140 Preventative Action Limit
(2) ES = NR 140 Enforcement Standard

Parameter	PAL (1)	ES (2)	Units	W-20-01-2 4/5/01	W-22-01-2 4/5/01	W-23-01-2 4/5/01	DUP-2-01-2 4/5/01 (W-23-01-2)	W-27-01-2 4/4/01	PW-08-01-2 4/5/01
1,1,1-Trichloroethane	40	200	ug/L	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53
1,1,2,2-Tretrachloroethane	0.02	0.2	ug/L	<0.68	<0.68	<0.68	<0.68	<0.68	<0.68
1,1,2-Trichloroethane	0.5	5	ug/L	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47
1,1-Dichloroethane	85	850	ug/L	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61
1,1-Dichloroethene	0.7	7	ug/L	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47
1,2-Dichloroethane	0.5	5	ug/L	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54
1,2-Dichloropropane	0.5	5	ug/L	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34
2-Butanone	90	460	ug/L	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
2-Hexanone			ug/L	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61
4-Methyl-2-pentanone	50	500	ug/L	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61
Acetone	200	1000	ug/L	<3.1	10	<3.1	<3.1	<3.1	<3.1
Benzene	0.5	5	ug/L	<0.44	<0.44	6.3	5.4	<0.44	<0.44
Bromodichloromethane	0.06	0.6	ug/L	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
Bromoform	0.44	4.4	ug/L	<0.58	<0.58	<0.58	<0.58	<0.58	<0.58
Bromomethane	1	10	ug/L	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94
Carbon disulfide	200	1000	ug/L	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Carbon tetrachloride	0.5	5	ug/L	<0.90	<0.90	<0.90	<0.90	<0.90	<0.90
Chlorobenzene	20	100	ug/L	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43
Chlorodibromomethane	6	60	ug/L	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43
Chloroethane	80	400	ug/L	0.64 Q	<0.63	<0.63	<0.63	<0.63	<0.63
Chloroform	0.6	6	ug/L	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
Chloromethane	0.3	3	ug/L	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44
cis-1,2-Dichloroethene	7	70	ug/L	<0.46	<0.46	2.0	1.9	15	<0.46
cis-1,3-Dichloropropene	0.02	0.2	ug/L	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54
Ethylbenzene	140	700	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Methylene chloride	0.5	5	ug/L	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38
Styrene	10	100	ug/L	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37
Tetrachloroethene	0.5	5	ug/L	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
Toluene	200	1000	ug/L	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
trans-1,2-Dichloroethene	20	100	ug/L	<0.64	<0.64	<0.64	<0.64	0.71 Q	<0.64
trans-1,3-Dichloropropene	0.02	0.2	ug/L	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26
Trichloroethene	0.5	5	ug/L	<0.49	<0.49	<0.49	<0.49	100	<0.49
Vinyl acetate			ug/L	<0.70	<0.70	<0.70	<0.70	<0.70	<0.70
Vinyl Chloride	0.02	0.2	ug/L	1.0	<0.17	0.51 Q	0.50 Q	<0.17	<0.17
Xylene, o	1000	10000	ug/L	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54
Xylene, m, p			ug/L	<0.77	<0.77	<0.77	<0.77	<0.77	<0.77
Total VOCs			ug/L	1.64	10	8.81	7.80	115.71	0.00
October 2000 Total VOCs			ug/L	1.0	0.6	8.27	8.50	119	0.5

Indicates concentration in exceedance of Preventative Action Limit
Indicates concentration in exceedance of Enforcement Standard

Q - The analyte has been detected between the Limit of Detection (LOD) and the Limit of Quantitation (LOQ). The results are qualified due to the uncertainty of the analyte concentrations within this range.

TABLE 1
MUNICIPAL WELL RESULTS

PROJECT NUMBER: 48362.001
BEGINNING DATE: 7/10/01
ENDING DATE: 7/12/01

(1) PAL = NR140 Preventative Action Limit
(2) ES = NR140 Enforcement Standard

Parameter	PAL (1)	ES (2)	Units	MW-1-01-3 7/11/01	MW-2-01-3 7/11/01	MW-3-01-2 7/11/01	MW-4-01-3 7/11/01	DUP-1-01-3 7/11/01 (MW-4-01-3)	TB-01-3 7/11/01
1,1,1-Trichloroethane	40	200	ug/L	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53
1,1,2,2-Tetrachloroethane	0.02	0.2	ug/L	<0.68	<0.68	<0.68	<0.68	<0.68	<0.68
1,1,2-Trichloroethane	0.5	5	ug/L	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47
1,1-Dichloroethane	85	850	ug/L	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61
1,1-Dichloroethene	0.7	7	ug/L	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47
1,2-Dichloroethane	0.5	5	ug/L	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54
1,2-Dichloropropane	0.5	5	ug/L	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34
2-Butanone	90	460	ug/L	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
2-Hexanone			ug/L	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61
4-Methyl-2-pentanone	50	500	ug/L	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61
Acetone	200	1000	ug/L	<3.1	<3.1	<3.1	<3.1	<3.1	4.7 Q
Benzene	0.5	5	ug/L	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44
Bromodichloromethane	0.06	0.6	ug/L	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
Bromoform	0.44	4	ug/L	<0.58 &	<0.58 &	<0.58 &	<0.58 &	<0.58 &	<0.58
Bromomethane	1	10	ug/L	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94
Carbon disulfide	200	1000	ug/L	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Carbon tetrachloride	0.5	5	ug/L	<0.90	<0.90	<0.90	<0.90	<0.90	<0.90
Chlorobenzene	20	100	ug/L	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43
Chlorodibromomethane	6	60	ug/L	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43
Chloroethane	80	400	ug/L	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63
Chloroform	0.6	6	ug/L	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
Chloromethane	0.3	3	ug/L	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44
cis-1,2-Dichloroethene	7	70	ug/L	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46
cis-1,3-Dichloropropene	0.02	0.2	ug/L	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54
Ethylbenzene	140	700	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Methylene chloride	0.5	5	ug/L	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38
Styrene	10	100	ug/L	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37
Tetrachloroethene	0.5	5	ug/L	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
Toluene	200	1000	ug/L	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
trans-1,2-Dichloroethene	20	100	ug/L	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64
trans-1,3-Dichloropropene	0.02	0.2	ug/L	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26
Trichloroethene	0.5	5	ug/L	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49
Vinyl acetate			ug/L	<0.70	<0.70	<0.70	<0.70	<0.70	<0.70
Vinyl Chloride	0.02	0.2	ug/L	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Xylene, o	1000	10000	ug/L	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54
Xylene, m, p	1000	10000	ug/L	<0.77	<0.77	<0.77	<0.77	<0.77	<0.77
Total VOCs			ug/L	0.00	0.0	0.0	0.0	0.00	4.7
July 2000 Total VOCs			ug/L	0.49	0.0	0.0	0.0	0.0	0.4

& - Laboratory control spike recovery not within control limits.
Q - The analyte has been detected between the LOD and the LOQ. The results are qualified due to the uncertainty of analyte concentrations within this range.

12/17/01

TABLE 2
POTW AND RANNEY COLLECTOR RESULTS

PROJECT NUMBER: 48362.001
BEGINNING DATE: 7/10/01
ENDING DATE: 7/12/01

Parameter	Units	POTW-I-01-3 7/11/01	POTW-E-01-3 7/11/01	POTW-S-01-3 7/11/01	RC-1-01-3 7/11/01	RC-2-01-3 not sampled	RC-3-01-3 7/11/01
1,1,1-Trichloroethane	ug/L	<0.53	<0.53	<0.53			
1,1,2,2-Tretrachloroethane	ug/L	<0.68	<0.68	<0.68			
1,1,2-Trichloroethane	ug/L	<0.47	<0.47	<0.47			
1,1-Dichloroethane	ug/L	<0.61	<0.61	<0.61			
1,1-Dichloroethene	ug/L	<0.47	<0.47	<0.47			
1,2-Dichloroethane	ug/L	<0.54	<0.54	<0.54			
1,2-Dichloropropane	ug/L	<0.34	<0.34	<0.34			
2-Butanone	ug/L	2.1 Q	<1.2	2.5 Q			
2-Hexanone	ug/L	<0.61	<0.61	<0.61			
4-Methyl-2-pentanone	ug/L	<0.61	<0.61	0.67 Q			
Acetone	ug/L	62	<3.1	14			
Benzene	ug/L	<0.44	<0.44	<0.44	220		250
Bromodichloromethane	ug/L	<0.41	1.8	<0.41			
Bromoform	ug/L	<0.58 &	<0.58 &	<0.58			
Bromomethane	ug/L	<0.94	<0.94	<0.94			
Carbon disulfide	ug/L	<0.40	<0.40	0.63 Q			
Carbon tetrachloride	ug/L	<0.90	<0.90	<0.90			
Chlorobenzene	ug/L	1.7	<0.43	<0.43	<2.1		<2.1
Chlorodibromomethane	ug/L	<0.43	1.4	<0.43			
Chloroethane	ug/L	<0.63	<0.63	<0.63			
Chloroform	ug/L	0.59 Q	1.0 Q	<0.41			
Chloromethane	ug/L	<0.44	<0.44	<0.44			
cis-1,2-Dichloroethene	ug/L	0.83 Q	<0.46	<0.46			
cis-1,3-Dichloropropene	ug/L	<0.54	<0.54	<0.54			
Ethylbenzene	ug/L	<0.50	<0.50	<0.50	2900 D		3700 D
Methylene chloride	ug/L	<0.38	0.59 Q	<0.38			
Styrene	ug/L	<0.37	<0.37	<0.37			
Tetrachloroethene	ug/L	<0.41	<0.41	<0.41			
Toluene	ug/L	3.2	0.95 Q	17	210		190
trans-1,2-Dichloroethene	ug/L	<0.64	<0.64	<0.64			
trans-1,3-Dichloropropene	ug/L	<0.26	<0.26	<0.26			
Trichloroethene	ug/L	<0.49	<0.49	<0.49			
Vinyl acetate	ug/L	<0.70	<0.70	<0.70			
Vinyl Chloride	ug/L	<0.17	<0.17	<0.17			
Xylene, o	ug/L	<0.54	<0.54	<0.54	930 D		990 D
Xylene, m, p	ug/L	1.2 Q	<0.77	<0.77	11000 D		15000 D
1,3-Dichlorobenzene	ug/L	~	~	~	<3.2		<3.2
1,2-Dichlorobenzene	ug/L	~	~	~	5.3 Q		5.3 Q
1,4-Dichlorobenzene	ug/L	~	~	~	<2.1		<2.1
Total VOCs	ug/L	71.62	5.74	34.8	15265.3		20135.3
July 2000 Total VOCs	ug/L	163.16	1.29	11.5	~	~	6092.3

& - Laboratory control spike recovery not within control limits.

Q - The analyte has been detected between the LOD and the LOQ. The results are qualified due to the uncertainty of analyte concentrations within this range.

D - Analyte value from diluted analysis.

PROJECT NUMBER: 48362.001
BEGINNING DATE: 7/10/01
ENDING DATE: 7/12/01

TABLE 3
SUMMARY OF MONITORING WELL RESULTS

(1) PAL = NR 140 Preventative Action Limit
(2) ES = NR 140 Enforcement Standard

Parameter	PAL (1)	ES (2)	Units	W-6A-01-3 7/12/2001	W-19A-01-3 7/12/2001	DUP2-01-3 7/12/2001 (W-19A-01-3)	W-21A-01-3 7/11/2001	W-24A-01-3 7/11/2001	W-28-01-3 7/11/2001	W-29-01-3 7/11/2001	W-30-01-3 7/11/2001	DUP-3-01-3 7/11/2001 (W-30-01-3)	W-38-01-3 7/12/2001	W-41-01-3 7/12/2001	W-42-01-3 7/12/2001	W-43-01-3 7/12/2001	W-47-01-3 7/11/2001	DUP4-01-3 7/11/2001 (W-47-01-3)
Barium	400	2000	ug/L	53			200	180	150	210	86	86				1800	130	
Arsenic	5	50	ug/L	34			31	3.9 Q	<1.4	1.7 Q	<1.4	2.7 Q				63	9.2	
Aroclor 1016	0.03	0.3	ug/L														<0.52	<0.26
Aroclor1221	0.03	0.3	ug/L														<0.52	<0.26
Aroclor 1232	0.03	0.3	ug/L														<0.52	<0.26
Aroclor 1242	0.03	0.3	ug/L														10	1.7
Aroclor 1248	0.03	0.3	ug/L														<0.52	<0.26
Aroclor 1254	0.03	0.3	ug/L														<0.52	<0.26
Aroclor 1260	0.03	0.3	ug/L														<0.52	<0.26
1,4-Dioxane	-	-	ug/L	180 D			400 D	330 D	260 D	370 D	27	30				<7.8	150	
2,4-Dimethylphenol	-	-	ug/L	240 D			74	150	<1.2	39	<1.2	<1.2				150	500	
2-Methylnaphthalene	-	-	ug/L	<0.32			<0.31	<0.31	<0.31	<0.31	<0.30	<0.30				110	5.7 Q	
2-Methylphenol	-	-	ug/L	33			1.1 Q	1.3 Q	<0.83	<0.84	<0.81	<0.81				<15	63	
4-Methylphenol	-	-	ug/L	120			2.0 Q	1.0 Q	<0.89	<0.90	<0.87	<0.87				<16	160	
Acetophenone	-	-	ug/L	48			7.8	5.8	<0.34	3.8	<0.33	<0.33				240	87	
bis(2-ethylhexyl)phthalate	0.6	6	ug/L	<1.9			10	<1.8	14	<1.8	<1.8	<1.8				57 Q	<18	
Naphthalene	8	40	ug/L	13 &			33 &	19 &	<0.46 &	9.6 &	<0.45 &	<0.45 &				61 &	32 &	
Phenanthrene	-	-	ug/L	<0.30 &			<0.29 &	<0.29 &	<0.29 &	<0.29 &	<0.29 &	<0.29 &				32 &	<2.9 &	
Phenol	1200	6000	ug/L	59			5.8	11	<0.36	<0.36	<0.35	<0.35				<6.4	48	
1,2-Dichlorobenzene	60	600	ug/L	1.0 Q	<0.36	<0.36	10.0	7.0	<0.51	8.6	<0.50	<0.50	2.3	<0.36	<0.72	<9.1	<5.1	
1,3-Dichlorobenzene	125	1250	ug/L	<0.77	<0.64	<0.64	<0.74	<0.75	<0.74	<0.75	<0.73	<0.73	<0.64	<0.64	<1.3	<13	<7.4	
1,4-Dichlorobenzene	15	75	ug/L	<0.66	<0.43	<.043	<0.64	<0.65	<0.64	<0.65	<0.63	<0.63	<0.43	<0.43	<0.85	<11	<6.4	
1,1,1,2-Tetrachloroethane	7	70	ug/L	<12			<2.4	<2.4	<0.49	<2.4	<0.49					<4.9	<12	
1,1,1-Trichloroethane	40	200	ug/L	<13			<2.6	<2.6	<0.53	<2.6	<0.53					<5.3	<13	
1,1,2,2-Tretrachloroethane	0.02	0.2	ug/L	<17			<3.4	<3.4 &	<0.68	<3.4	<0.68					<6.8	<17	
1,1,2-Trichloroethane	0.5	5	ug/L	<12			<2.3	<2.3	<0.47	<2.3	<0.47					<4.7	<12	
1,1-Dichloroethane	85	850	ug/L	<15			<3.0	<3.0	<0.61	<3.0	<0.61					<6.1	<15	
1,1-Dichloroethene	0.7	7	ug/L	<12			<2.3	<2.3	<0.47	<2.3	<0.47					<4.7	<12	
1,2,3-Trichloropropane	12	60	ug/L	<18			<3.5	<3.5	<0.71	<3.5	<0.71					<7.1	<18	
1,2-Dibromo-3-chloropropane	0.02	0.2	ug/L	<31			<6.2	<6.2	<1.2	<6.2	<1.2					<12	<31	
1,2-Dibromoethane	0.005	0.05	ug/L	<12			<2.4	<2.4	<0.49	<2.4	<0.49					<4.9	<12	
1,2-Dichloroethane	0.5	5	ug/L	<14			5.7 Q	3.8 Q	<0.54	5.2 Q	<0.54					<5.4	<14	
1,2-Dichloropropane	0.5	5	ug/L	<8.5			<1.7	<1.7	<0.34	<1.7	<0.34					3.6 Q	<8.5	
1,4-Dioxane	-	-	ug/L	<900			<180	<180	<36	<180	<36					<360	<900	
2-Butanone	90	460	ug/L	<31			<6.2	<6.2	<1.2	<6.2	<1.2					<12	50 Q	
2-Hexanone	-	-	ug/L	<15			<3.0	<3.0	<0.61	<3.0	<0.61					<6.1	<15	
4-Methyl-2-pentanone	50	500	ug/L	<15			<3.0	<3.0	<0.61	<3.0	<0.61					<6.1	40 Q	
Acetone	200	1000	ug/L	310			<15	<15	<3.1	<15	<3.1					<31	<77	
Acetonitrile	-	-	ug/L	<13			<2.5	<2.5	<0.51	<2.5	<0.51					<5.1	<13	
Acrolein	-	-	ug/L	<140			<28	<28 *	<5.7	<28	<5.7					<57	<140	
Acrylonitrile	-	-	ug/L	<16			<3.2	<3.2	<0.65	<3.2	<0.65					<6.5	<16	
Allyl Chloride	-	-	ug/L	<12			<2.4	<2.4	<0.48	<2.4	<0.48					<4.8	<12	
Benzene	0.5	5	ug/L	<11	<0.44	<0.44	1600 D	980	2.0	1500 D	6.0		1500 D	3.3	520 D	7600 D	330	
Bromodichloromethane	0.06	0.6	ug/L	<10			<2.0	<2.0	<0.41	<2.0	<0.41					<4.1	<10	
Bromoform	0.44	4	ug/L	<14 &			<2.9	<2.9	<0.58 &	<2.9	<0.58 &					<5.8 &	<14	
Bromomethane	1	10	ug/L	<23			<4.7	<4.7 *	<0.94	<4.7	<0.94					<9.4	<23	
Carbon disulfide	200	1000	ug/L	<10			<2.0	<2.0	<0.40	<2.0	<0.40					<4.0	<10	
Carbon tetrachloride	0.5	5	ug/L	<22			<4.5	<4.5	<0.90	<4.5	<0.90					<9.0	<22	
Chlorobenzene	20	100	ug/L	<11	<0.43	<0.43	<2.1	<2.1	<0.43	<2.1	<0.43		<0.43	<0.43	<0.86	<4.3	<11	
Chlorodibromomethane	6	60	ug/L	<11			<2.1	<2.1	<0.43	<2.1	<0.43					<4.3	<11	
Chloroethane	80	400	ug/L	<16			<3.1	<3.1	<0.63	<3.1	<0.63					8.5 Q	<16	
Chloroform	0.6	6	ug/L	<10			<2.0	<2.0	<0.41	<2.0	<0.41					<4.1	<10	
Chloromethane	0.3	3	ug/L	<11			<2.2	<2.2	<0.44	<2.2	<0.44					<4.4	<11	
cis-1,3-Dichloropropene	0.02	0.2	ug/L	<14			<2.7	<2.7	<0.54	<2.7	<0.54					<5.4	<14	
Dibromomethane	-	-	ug/L	<15			<3.0	<3.0	<0.60	<3.0	<0.60					<6.0	<15	
Dichlorodifluoromethane	200	1000	ug/L	<15			<3.0	<3.0	<0.61	<3.0	<0.61					<6.1	<15	
Ethyl methacrylate	-	-	ug/L	<10			<2.1	<2.1	<0.42	<2.1	<0.42					<4.2	<10	
Ethylbenzene	140	700	ug/L	23000 D	<0.50	<0.50	3000 D	460	<0.50	1800 D	<0.50		28	<0.50	2700 D	10000 D	20000 D	
Fluorotrichloromethane	698	3490	ug/L	<12			<2.3	<2.3	<0.47	<2.3	0.53 Q					<4.7	<12	
Iodomethane	-	-	ug/L	<13			<2.6	<2.6 *	<0.53	<2.6	<0.53					<5.3	<13	
Isobutanol	-	-	ug/L	<360			<72	<72	<14	<72	<14					<140	<360	
Methacrylonitrile	-	-	ug/L	<13			<2.5	<2.5	<0.51	<2.5	<0.51					<5.1	<13	
Methyl methacrylate	-	-	ug/L	<11			<2.2	<2.2	<0.44	<2.2	<0.44					<4.4	<11	
Methylene chloride	0.5	5	ug/L	<9.5			<1.9	<1.9	<0.38	<1.9	<0.38					<3.8	<9.5	
Propionitrile	-	-	ug/L	<31			<6.2	<6.2	<1.2	<6.2	<1.2					<12	<31	
Styrene	10	100	ug/L	<9.2			<1.8	<1.8	<0.37	<1.8	<0.37					<3.7	<9.2	
Tetrachloroethene	0.5	5	ug/L	<10			<2.0	<2.0	<0.41	<2.0	<0.41					<4.1	<10	
Toluene	200	1000	ug/L	50000 D	<0.40	<0.40	120	73	<0.40	23	<0.40		0.47 Q	0.61 Q	78	23	17000 D	
trans-1,2-Dichloroethene	20	100	ug/L	<16			<3.2	<3.2	<0.64	<3.2	<0.64					<6.4	<16	
trans-1,3-Dichloropropene	0.02	0.2	ug/L	<6.5			<1.3	<1.3	<0.26	<1.3	<0.26					<2.6	<6.5	
trans-1,4-Dichloro-2-butene	-	-	ug/L	<6.0			<1.2	<1.2	<0.24	<1.2	<0.24					<2.4	<6.0	
Trichloroethene	0.5	5	ug/L	<12			<2.4	<2.4	<0.49	<2.4	<0.49					<4.9	20 Q	
Vinyl acetate	-	-	ug/L	<18			<3.5	<3.5	<0.70	<3.5	<0.70					<7.0	<18	
Vinyl Chloride	0.02	0.2	ug/L	4.7 Q			<0.85	<0.85	0.48 Q	<0.85	<0.17					<1.7	<4.2	
Xylene, o	1000	10000	ug/L	25000 D	<0.54	<0.54	550	420	<0.54	330	<0.54		1.8	<0.54	540 D	1700	42000 D	
Xylene, m, p	1000	10000	ug/L	78000 D	<0.77	<0.77	16000 D	9800 ND	1.2 Q	14000 D	7.8		1900 D	950 D	7500 D	12000 D	110000 D	
Total VOCs			ug/L	177008.7	0.0		21819.4	12261.9	277.7	18089.2	41.3		3432.6	953.9	11338	31985	190486	
July 2000 Total VOCs			ug/L	151199.3	0.5		17876.0	1115.7	962.7	-	82.9		4155.4	739.7	17180	24219	59882	

& - Laboratory control spike recovery not within control limits.
Q - The analyte has been detected between the LOD and the LOQ. The results are qualified due to the uncertainty of analyte concentrations within this range.
D - Analyte value from diluted analysis.
* - Duplicate analyses not within control limits.
N - Spiked sample recovery not within control limits.

TABLE 1
MUNICIPAL WELL RESULTS

PROJECT NUMBER: 48362-001-133
BEGINNING DATE: 9-Oct-01
ENDING DATE: 10-Oct-01

(1) PAL = NR140 Preventative Action Limit
(2) ES = NR140 Enforcement Standard

Parameter	PAL (1)	ES (2)	Units	MW-1-01-4 10/10/01	MW-2-01-4 not sampled	MW-3-01-4 10/10/01	DUP-1-01-4 10/10/01 (MW-3-01-4)	MW-4-01-4 10/10/01	TB2-01-4	TB-499-01-4
1,1,1-Trichloroethane	40	200	ug/L	<0.53	-	<0.53	<0.53	<0.53	<0.53	<0.53
1,1,2,2-Tretrachloroethane	0.02	0.2	ug/L	<0.68	-	<0.68	<0.68	<0.68	<0.68	<0.68
1,1,2-Trichloroethane	0.5	5	ug/L	<0.47	-	<0.47	<0.47	<0.47	<0.47	<0.47
1,1-Dichloroethane	85	850	ug/L	<0.61	-	<0.61	<0.61	<0.61	<0.61	<0.61
1,1-Dichloroethene	0.7	7	ug/L	<0.47	-	<0.47	<0.47	<0.47	<0.47	<0.47
1,2-Dichloroethane	0.5	5	ug/L	<0.54	-	<0.54	<0.54	<0.54	<0.54	<0.54
1,2-Dichloropropane	0.5	5	ug/L	<0.34	-	<0.34	<0.34	<0.34	<0.34	<0.34
2-Butanone	90	460	ug/L	<1.2	-	<1.2	<1.2	<1.2	<1.2	<1.2
2-Hexanone			ug/L	<0.61	-	<0.61	<0.61	<0.61	<0.61	<0.61
4-Methyl-2-pentanone	50	500	ug/L	<0.61	-	<0.61	<0.61	<0.61	<0.61	<0.61
Acetone	200	1000	ug/L	<3.1	-	<3.1	<3.1	<3.1	4.2 Q	5.0 Q
Benzene	0.5	5	ug/L	<0.44	-	<0.44	<0.44	<0.44	<0.44	<0.44
Bromodichloromethane	0.06	0.6	ug/L	<0.41	-	<0.41	<0.41	<0.41	<0.41	<0.41
Bromoform	0.44	4.4	ug/L	<0.58	-	<0.58	<0.58	<0.58	<0.58	<0.58
Bromomethane	1	10	ug/L	<0.94	-	<0.94	<0.94	<0.94	<0.94	<0.94
Carbon disulfide	200	1000	ug/L	<0.40	-	<0.40	<0.40	<0.40	<0.40	<0.40
Carbon tetrachloride	0.5	5	ug/L	<0.90	-	<0.90	<0.90	<0.90	<0.90	<0.90
Chlorobenzene	20	100	ug/L	<0.43	-	<0.43	<0.43	<0.43	<0.43	<0.43
Chlorodibromomethane	6	60	ug/L	<0.43	-	<0.43	<0.43	<0.43	<0.43	<0.43
Chloroethane	80	400	ug/L	<0.63	-	<0.63	<0.63	<0.63	<0.63	<0.63
Chloroform	0.6	6	ug/L	<0.41	-	<0.41	<0.41	<0.41	<0.41	<0.41
Chloromethane	0.3	3	ug/L	<0.44	-	<0.44	<0.44	<0.44	<0.44	<0.44
cis-1,2-Dichloroethene	7	70	ug/L	<0.46	-	<0.46	<0.46	<0.46	<0.46	<0.46
cis-1,3-Dichloropropene	0.02	0.2	ug/L	<0.54	-	<0.54	<0.54	<0.54	<0.54	<0.54
Ethylbenzene	140	700	ug/L	<0.50	-	<0.50	<0.50	<0.50	<0.50	<0.50
Methylene chloride	0.5	5	ug/L	<0.38	-	<0.38	<0.38	<0.38	<0.38	0.47 Q
Styrene	10	100	ug/L	<0.37	-	<0.37	<0.37	<0.37	<0.37	<0.37
Tetrachloroethene	0.5	5	ug/L	<0.41	-	<0.41	<0.41	<0.41	<0.41	<0.41
Toluene	200	1000	ug/L	<0.40	-	<0.40	<0.40	<0.40	<0.40	<0.40
trans-1,2-Dichloroethene	20	100	ug/L	<0.64	-	<0.64	<0.64	<0.64	<0.64	<0.64
trans-1,3-Dichloropropene	0.02	0.2	ug/L	<0.26	-	<0.26	<0.26	<0.26	<0.26	<0.26
Trichloroethene	0.5	5	ug/L	<0.49	-	<0.49	<0.49	<0.49	<0.49	<0.49
Vinyl acetate			ug/L	<0.70	-	<0.70	<0.70	<0.70	<0.70	<0.70
Vinyl Chloride	0.02	0.2	ug/L	<0.17	-	<0.17	<0.17	<0.17	<0.17	<0.17
Xylene, o	1000	10000	ug/L	<0.54	-	<0.54	<0.54	<0.54	<0.54	<0.54
Xylene, m, p			ug/L	<0.77		<0.77	<0.77	<0.77	<0.77	<0.77
Total VOCs			ug/L	0.0	NS	0.0	0.0	0.0	4.2	5.5
July 2001 Total VOCs			ug/L	0.0	NS	0.0	0.0	0.0		

Q - The analyte has been detected between the Limit of Detection (LOD) and the Limit of Quantitation (LOQ). The results are qualified due to the uncertainty of the analyte concentrations within this range.

NS - Not Sampled

12/17/01

TABLE 2
POTW AND RANNEY COLLECTOR RESULTS

PROJECT NUMBER: 48362-001-133
BEGINNING DATE: 10/9/01
ENDING DATE: 10/10/01

Parameter	Units	POTW-I-01-4 10/9/01	POTW-E-01-4 10/9/01	POTW-S-01-4 10/9/01	RC-1-01-4 10/10/01	RC-2-01-4 10/10/01	RC-3-01-4 10/10/01
1,1,1-Trichloroethane	ug/L	<0.53	<0.53	<0.53			
1,1,2,2-Tretrachloroethane	ug/L	<0.68	<0.68	<0.68			
1,1,2-Trichloroethane	ug/L	<0.47	<0.47	<0.47			
1,1-Dichloroethane	ug/L	<0.61	<0.61	<0.61			
1,1-Dichloroethene	ug/L	<0.47	<0.47	<0.47			
1,2-Dichloroethane	ug/L	<0.54	<0.54	<0.54			
1,2-Dichloropropane	ug/L	<0.34	<0.34	<0.34			
2-Butanone	ug/L	4.1	<1.2	<1.2			
2-Hexanone	ug/L	<0.61	<0.61	<0.61			
4-Methyl-2-pentanone	ug/L	<0.61	<0.61	<0.61			
Acetone	ug/L	70	4.0 Q	6.4 Q			
Benzene	ug/L	<0.44	<0.44	<0.44	150	140	1400 D
Bromodichloromethane	ug/L	<0.41	<0.41	<0.41			
Bromoform	ug/L	<0.58	<0.58	<0.58			
Bromomethane	ug/L	<0.94	<0.94	<0.94			
Carbon disulfide	ug/L	5.7	<0.40	<0.40			
Carbon tetrachloride	ug/L	<0.90	<0.90	<0.90			
Chlorobenzene	ug/L	<0.43	<0.43	<0.43	<0.43	<0.43	0.82 Q
Chlorodibromomethane	ug/L	<0.43	<0.43	<0.43			
Chloroethane	ug/L	<0.63	<0.63	<0.63			
Chloroform	ug/L	<0.41	<0.41	<0.41			
Chloromethane	ug/L	<0.44	<0.44	<0.44			
cis-1,2-Dichloroethene	ug/L	<0.46	<0.46	<0.46			
cis-1,3-Dichloropropene	ug/L	<0.54	<0.54	<0.54			
Ethylbenzene	ug/L	<0.50	<0.50	<0.50	66	64	3300 D
Methylene chloride	ug/L	<0.38	<0.38	<0.38			
Styrene	ug/L	<0.37	<0.37	<0.37			
Tetrachloroethene	ug/L	<0.41	<0.41	<0.41			
Toluene	ug/L	1.7	<0.40	0.62 Q	3.2	2.5	3800 D
trans-1,2-Dichloroethene	ug/L	<0.64	<0.64	<0.64			
trans-1,3-Dichloropropene	ug/L	<0.26	<0.26	<0.26			
Trichloroethene	ug/L	<0.49	<0.49	<0.49			
Vinyl acetate	ug/L	<0.70	<0.70	<0.70			
Vinyl Chloride	ug/L	<0.17	<0.17	<0.17			
Xylene, o	ug/L	<0.54	<0.54	<0.54	50	45	2100 D
Xylene, m, p	ug/L	<0.77	<0.77	<0.77	1400 D	1300 D	4100 D
1,3-Dichlorobenzene	ug/L	~	~	~	<0.64	<0.64	<0.64
1,2-Dichlorobenzene	ug/L	~	~	~	1.7	1.5	2.4
1,4-Dichlorobenzene	ug/L	~	~	~	<0.43	<0.43	<0.43
Total VOCs	ug/L	81.5	4	7.0	1671	1553	14703
July 2001 Total VOCs	ug/L	71.62	5.74	34.8	15265.3	NS	20135.3

Q - The analyte has been detected between the Limit of Detection (LOD) and the Limit of Quantitation (LOQ). The results are qualified due to the uncertainty of the analyte concentrations within this range.

D - Analyte value from diluted analysis.

NS - Not Sampled

TABLE 3

SUMMARY OF MONITORING WELL RESULTS

PROJECT NUMBER: 48362-001-133
BEGINNING DATE: 10/9/01
ENDING DATE: 10/10/01

(1) PAL = NR 140 Preventative Action Limit
(2) ES = NR 140 Enforcement Standard

Parameter	PAL (1)	ES (2)	Units	W-01A-01-4 10/9/01	W-03A-01-4 10/10/01	DUP3-01-4 10/10/01 (W-03A-01-4)	W-03B-01-4 10/10/01	W-04A-01-4 10/10/01	W-07-01-4 10/9/01	W-08R-01-4 10/9/01
1,1,1-Trichloroethane	40	200	ug/L	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53
1,1,2,2-Tretrachloroethane	0.02	0.2	ug/L	<0.68	<0.68	<0.68	<0.68	<0.68	<0.68	<0.68
1,1,2-Trichloroethane	0.5	5	ug/L	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47
1,1-Dichloroethane	85	850	ug/L	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61
1,1-Dichloroethene	0.7	7	ug/L	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47
1,2-Dichloroethane	0.5	5	ug/L	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54
1,2-Dichloropropane	0.5	5	ug/L	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34
2-Butanone	90	460	ug/L	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
2-Hexanone			ug/L	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61
4-Methyl-2-pentanone	50	500	ug/L	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61
Acetone	200	1000	ug/L	<3.1	<3.1	<3.1	<3.1	4.1 Q	<3.1	<3.1
Benzene	0.5	5	ug/L	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44
Bromodichloromethane	0.06	0.6	ug/L	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
Bromoform	0.44	4.4	ug/L	<0.58	<0.58	<0.58	<0.58	<0.58	<0.58	<0.58
Bromomethane	1	10	ug/L	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94
Carbon disulfide	200	1000	ug/L	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Carbon tetrachloride	0.5	5	ug/L	<0.90	<0.90	<0.90	<0.90	<0.90	<0.90	<0.90
Chlorobenzene	20	100	ug/L	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43
Chlorodibromomethane	6	60	ug/L	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43
Chloroethane	80	400	ug/L	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63
Chloroform	0.6	6	ug/L	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
Chloromethane	0.3	3	ug/L	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44
cis-1,2-Dichloroethene	7	70	ug/L	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46
cis-1,3-Dichloropropene	0.02	0.2	ug/L	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54
Ethylbenzene	140	700	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Methylene chloride	0.5	5	ug/L	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38
Styrene	10	100	ug/L	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37
Tetrachloroethene	0.5	5	ug/L	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
Toluene	200	1000	ug/L	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
trans-1,2-Dichloroethene	20	100	ug/L	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64
trans-1,3-Dichloropropene	0.02	0.2	ug/L	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26
Trichloroethene	0.5	5	ug/L	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49
Vinyl acetate			ug/L	<0.70	<0.70	<0.70	<0.70	<0.70	<0.70	<0.70
Vinyl Chloride	0.02	0.2	ug/L	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Xylene, o	1000 —	10000	ug/L	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54
Xylene, m, p			ug/L	<0.77	<0.77	<0.77	<0.77	<0.77	<0.77	<0.77
Total VOCs			ug/L	0.0	0.0	0.0	0.0	4.1	0.0	0.0
April 2001 Total VOCs			ug/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Q - The analyte has been detected between the Limit of Detection (LOD) and the Limit of Quantitation (LOQ). The results are qualified due to the uncertainty of the analyte concentrations within this range.

TABLE 3 CONTINUED
SUMMARY OF MONITORING WELL RESULTS

PROJECT NUMBER: 48362-001-133
BEGINNING DATE: 10/9/01
ENDING DATE: 10/10/01

(1) PAL = NR 140 Preventative Action Limit
(2) ES = NR 140 Enforcement Standard

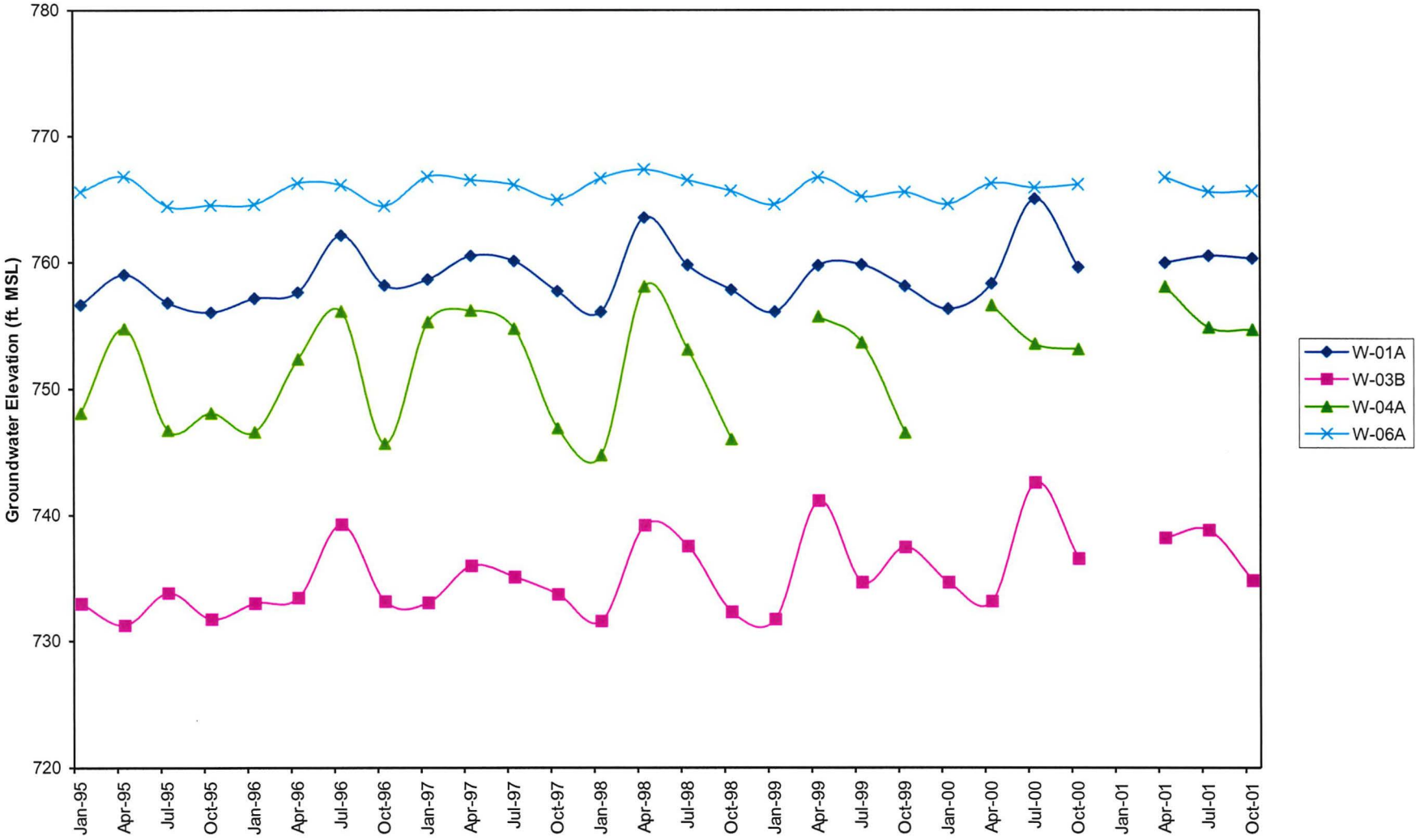
Parameter	PAL (1)	ES (2)	Units	W-20-01-4 10/10/01	W-22-01-4 10/10/01	DUP-2-01-4 10/10/01 (W-22-01-4)	W-23-01-4 10/10/01	W-27-01-4 10/10/01	PW-08-01-4 10/10/01
1,1,1-Trichloroethane	40	200	ug/L	<0.53	<0.53	<0.53	<0.53	1.1 Q	<0.53
1,1,2,2-Tretrachloroethane	0.02	0.2	ug/L	<0.68	<0.68	<0.68	<0.68	<0.68	<0.68
1,1,2-Trichloroethane	0.5	5	ug/L	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47
1,1-Dichloroethane	85	850	ug/L	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61
1,1-Dichloroethene	0.7	7	ug/L	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47
1,2-Dichloroethane	0.5	5	ug/L	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54
1,2-Dichloropropane	0.5	5	ug/L	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34
2-Butanone	90	460	ug/L	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
2-Hexanone			ug/L	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61
4-Methyl-2-pentanone	50	500	ug/L	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61
Acetone	200	1000	ug/L	4.0 Q	<3.1	<3.1	<3.1	<3.1	<3.1
Benzene	0.5	5	ug/L	<0.44	0.59 Q	0.56 Q	17	<0.44	<0.44
Bromodichloromethane	0.06	0.6	ug/L	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
Bromoform	0.44	4.4	ug/L	<0.58	<0.58	<0.58	<0.58	<0.58	<0.58
Bromomethane	1	10	ug/L	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94
Carbon disulfide	200	1000	ug/L	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Carbon tetrachloride	0.5	5	ug/L	<0.90	<0.90	<0.90	<0.90	<0.90	<0.90
Chlorobenzene	20	100	ug/L	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43
Chlorodibromomethane	6	60	ug/L	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43
Chloroethane	80	400	ug/L	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63
Chloroform	0.6	6	ug/L	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
Chloromethane	0.3	3	ug/L	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44
cis-1,2-Dichloroethene	7	70	ug/L	<0.46	<0.46	<0.46	2.2	24	<0.46
cis-1,3-Dichloropropene	0.02	0.2	ug/L	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54
Ethylbenzene	140	700	ug/L	<0.50	<0.50	<0.50	0.69 Q	<0.50	<0.50
Methylene chloride	0.5	5	ug/L	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38
Styrene	10	100	ug/L	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37
Tetrachloroethene	0.5	5	ug/L	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
Toluene	200	1000	ug/L	0.68 Q	<0.40	<0.40	0.50 Q	<0.40	<0.40
trans-1,2-Dichloroethene	20	100	ug/L	<0.64	<0.64	<0.64	<0.64	0.98 Q	<0.64
trans-1,3-Dichloropropene	0.02	0.2	ug/L	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26
Trichloroethene	0.5	5	ug/L	<0.49	<0.49	<0.49	<0.49	140	<0.49
Vinyl acetate			ug/L	<0.70	<0.70	<0.70	<0.70	<0.70	<0.70
Vinyl Chloride	0.02	0.2	ug/L	<0.17	<0.17	<0.17	0.58	<0.17	<0.17
Xylene, o	1000 —	10000	ug/L	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54
Xylene, m, p			ug/L	<0.77	<0.77	<0.77	0.98 Q	<0.77	<0.77
Total VOCs			ug/L	4.68	0.59	0.56	21.95	166.08	0.0
April 2001 Total VOCs			ug/L	1.64	10	8.81	7.80	115.71	0.0

Indicates concentration in exceedance of Preventative Action Limit
Indicates concentration in exceedance of Enforcement Standard

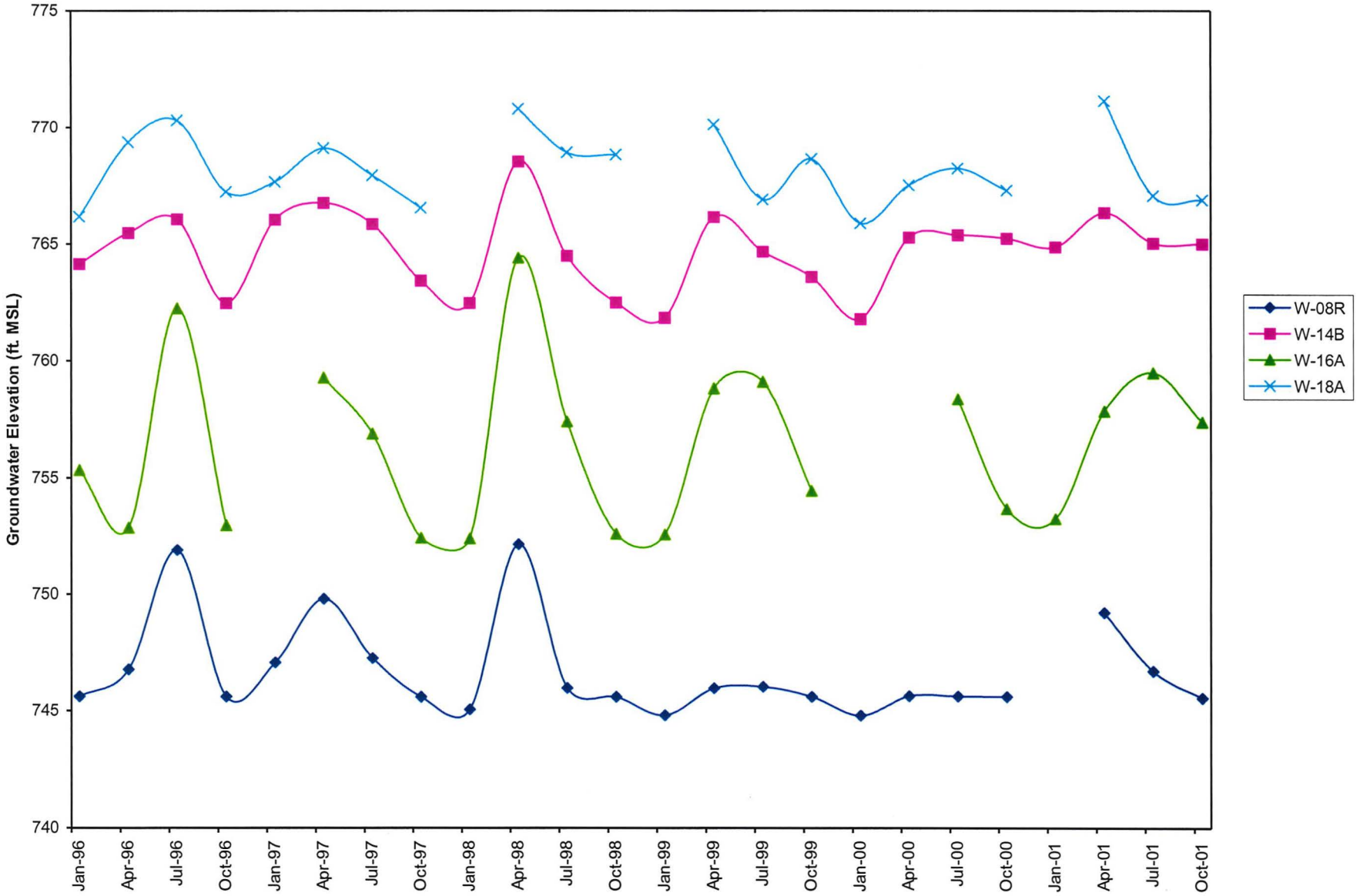
Q - The analyte has been detected between the Limit of Detection (LOD) and the Limit of Quantitation (LOQ). The results are qualified due to the uncertainty of the analyte concentrations within this range.

Appendix B
Groundwater Elevation Trends 1995 To 2001

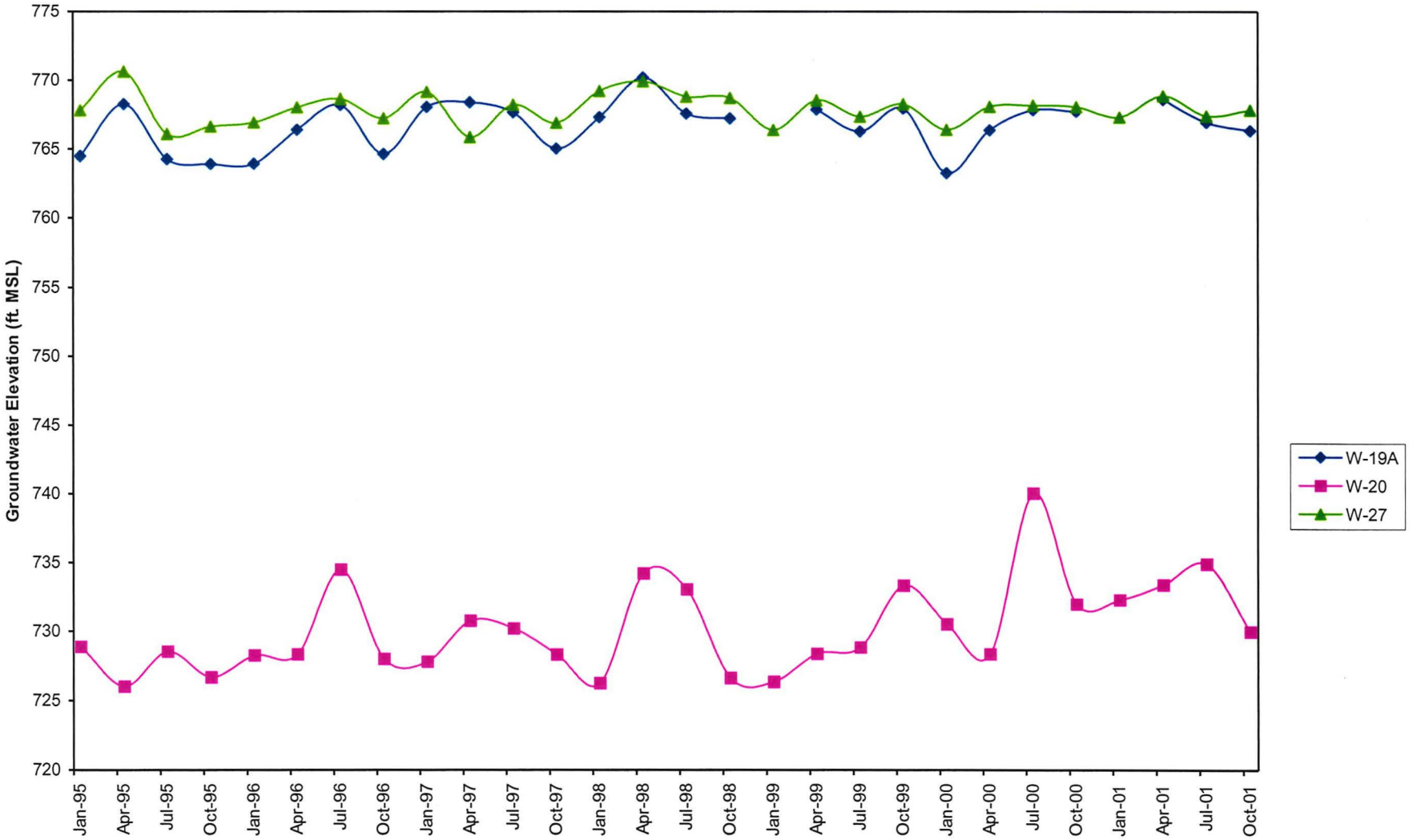
Groundwater Elevation Trends
Glacial Wells, 1995 to 2001
Cook Composites and Polymers Co.



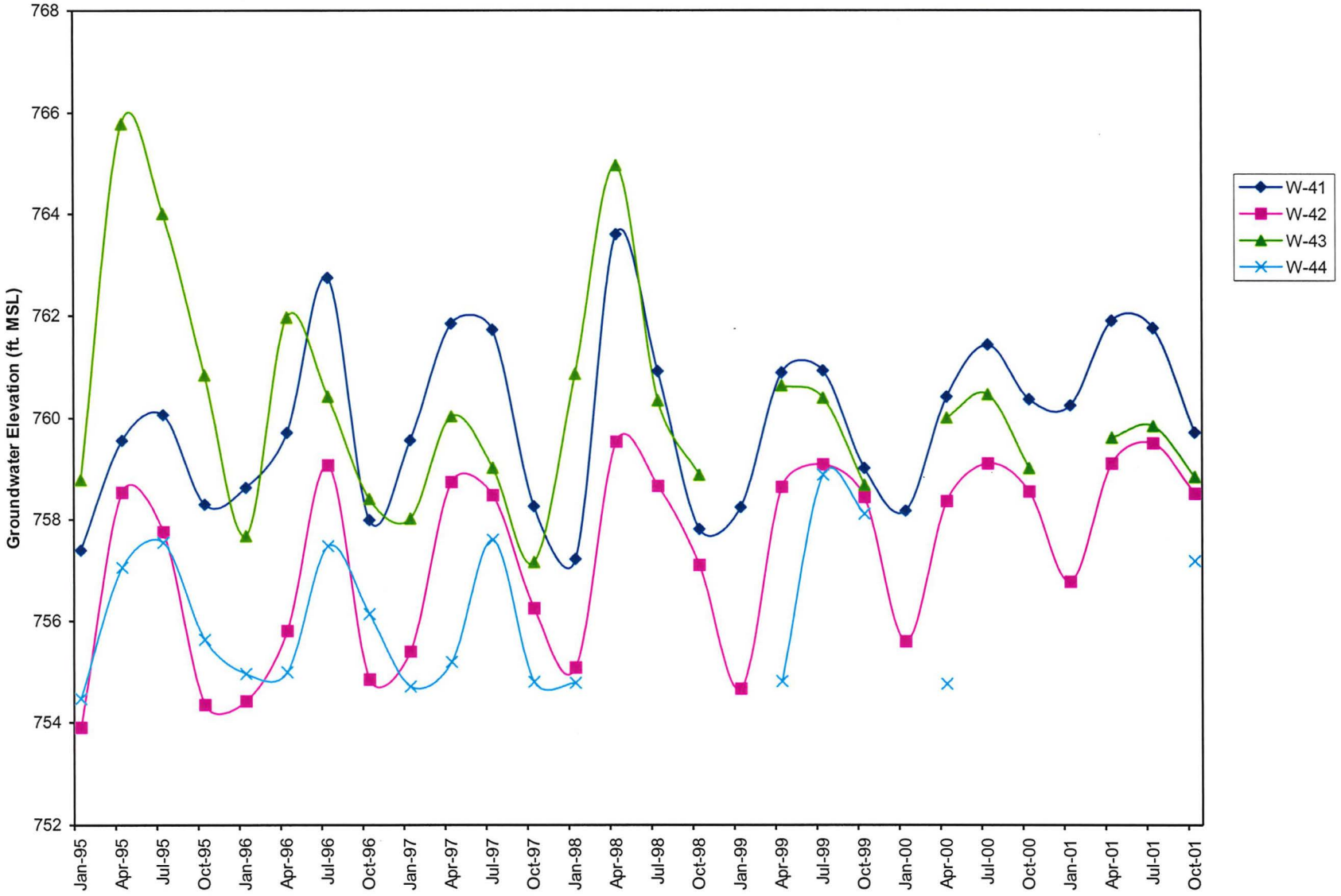
Groundwater Elevation Trends
Glacial Wells, 1995 to 2001
Cook Composites and Polymers Co.



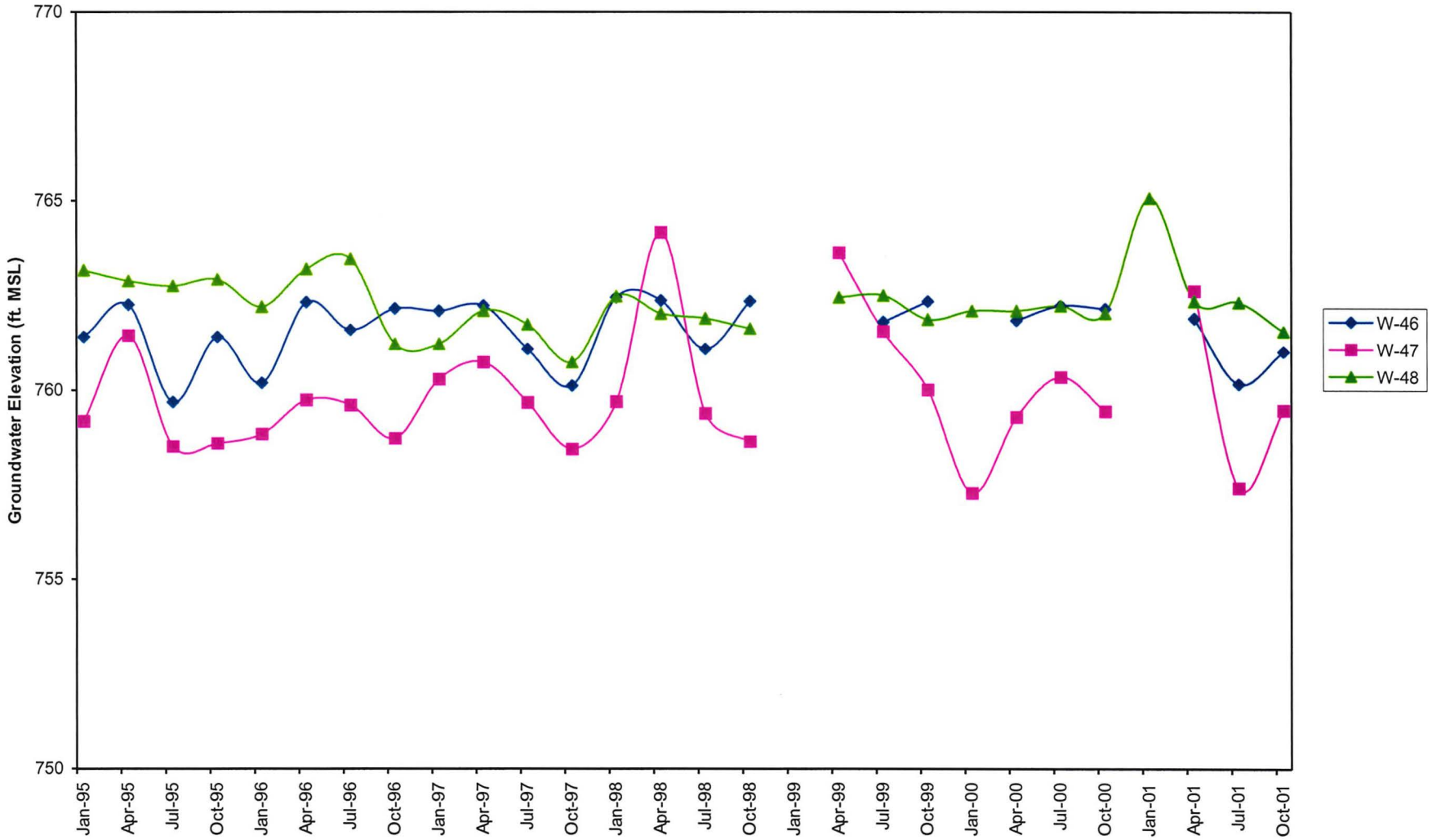
Groundwater Elevation Trends
Glacial Wells, 1995 to 2001
Cook Composites and Polymers Co.



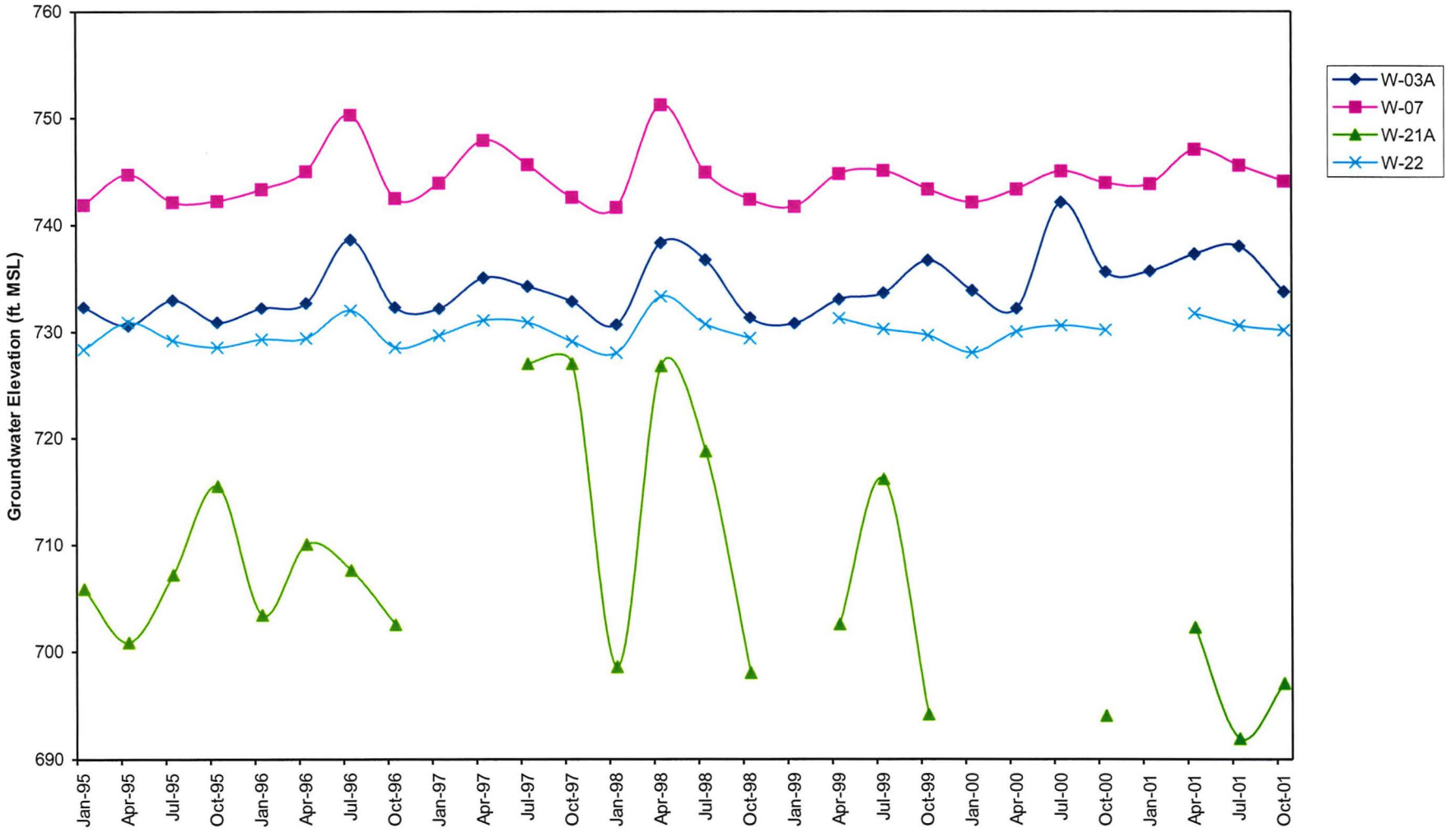
Groundwater Elevation Trends
Glacial Wells, 1995 to 2001
Cook Composites and Polymers Co.



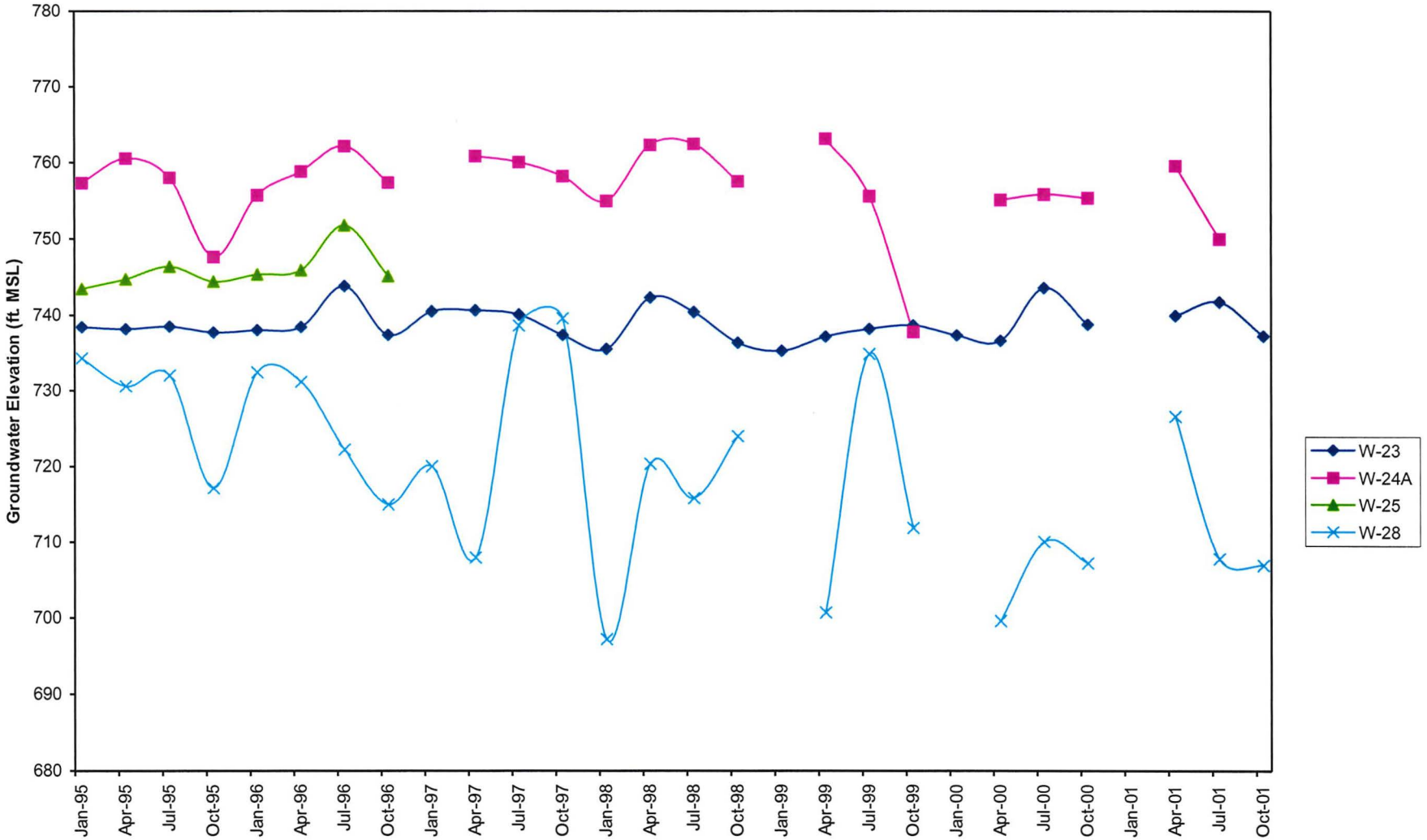
Groundwater Elevation Trends
Glacial Wells, 1995 to 2001
Cook Composites and Polymers Co.



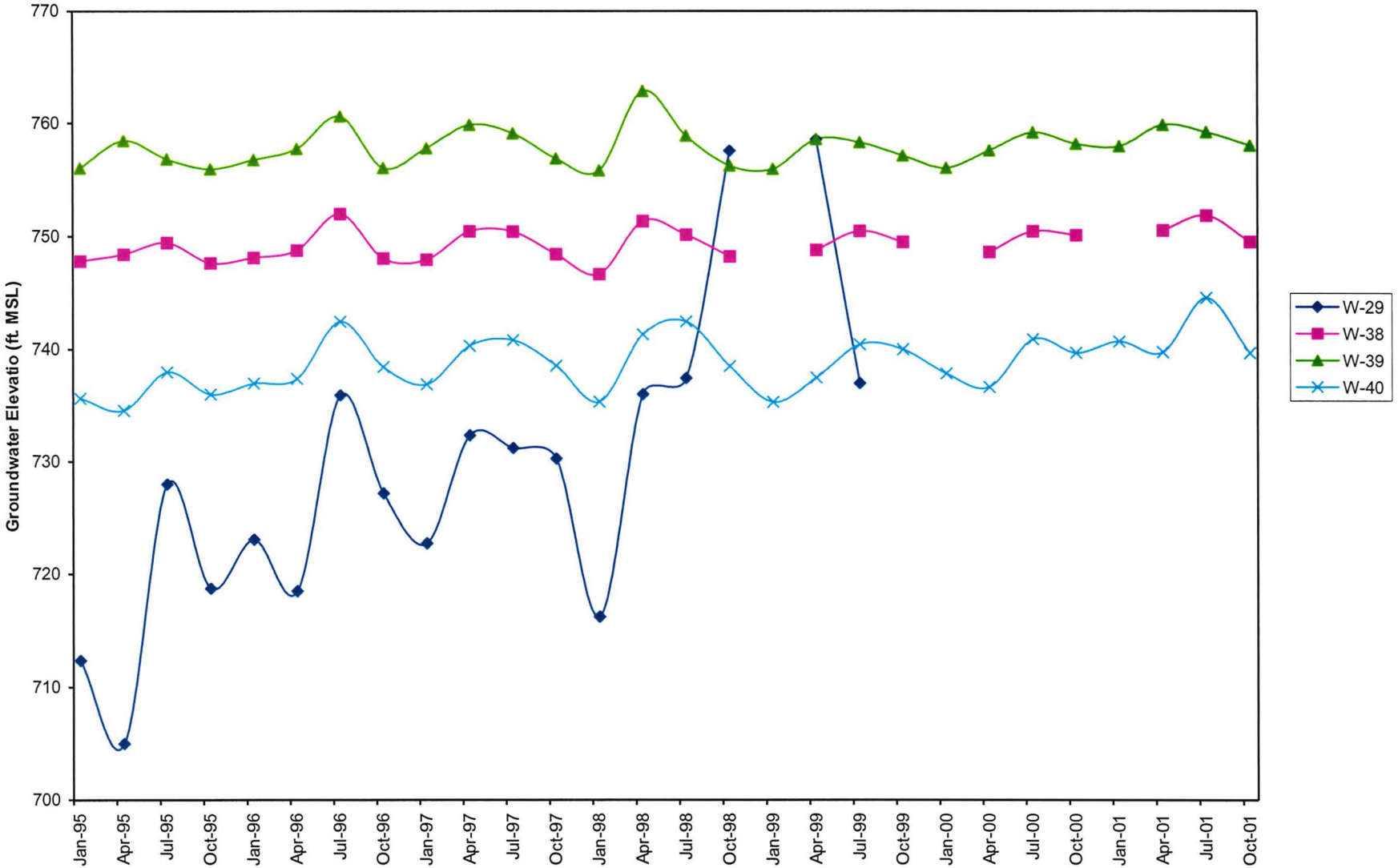
Groundwater Elevation Trends
Shallow Dolomite Wells, 1995 to 2001
Cook Composites and Polymers Co.



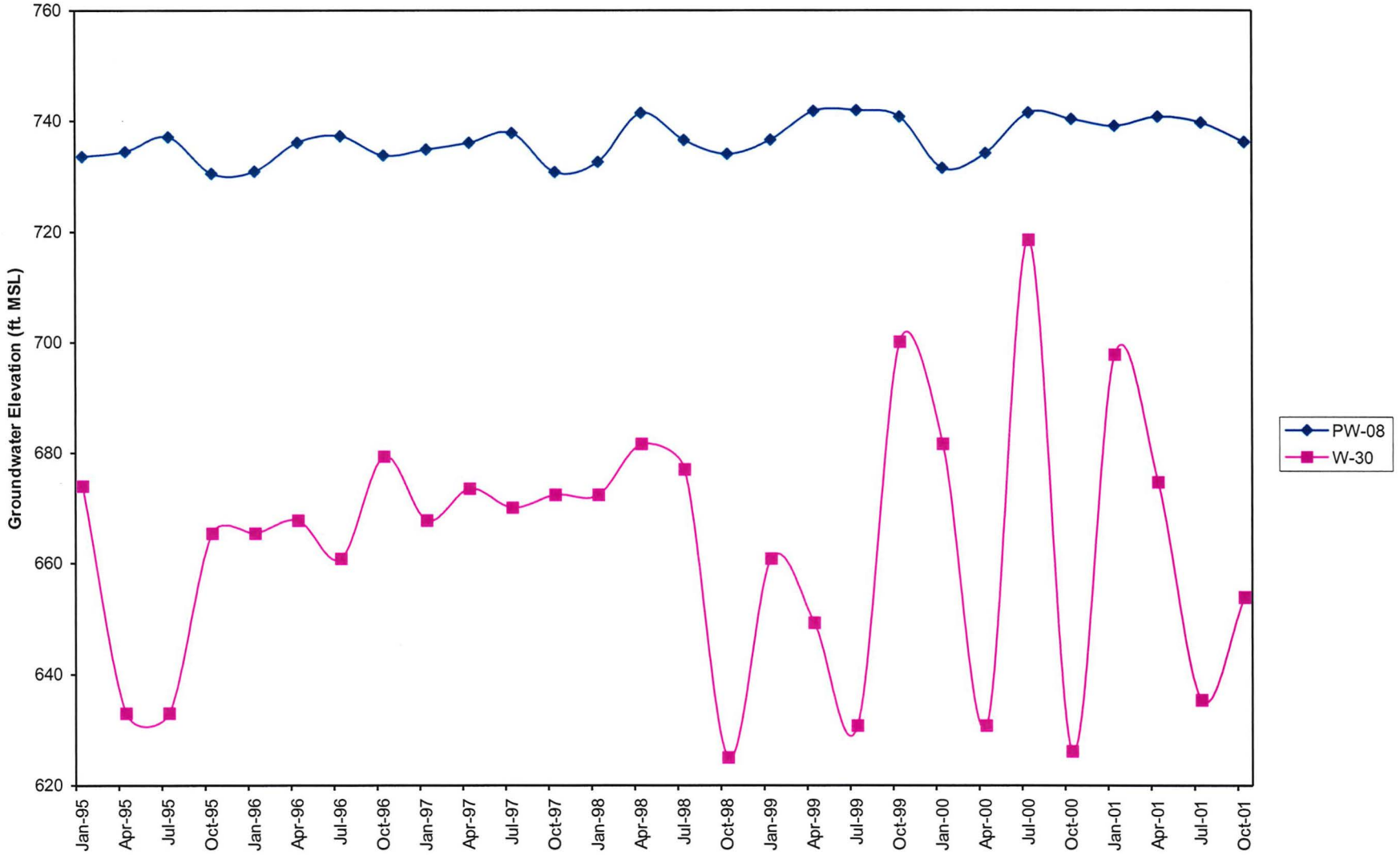
Groundwater Elevation Trends
Shallow Dolomite Wells, 1995 to 2001
Cook composites and Polymers Co.



Groundwater Elevation Trends
Shallow Dolomite Wells, 1995 to 2001
Cook Composites and Polymers Co.



Groundwater Elevation Trends
Deep Dolomite Wells, 1995 to 2001
Cook Composites and Polymers Co.



Appendix C
Hydrogeological Calculations

Hydrogeological Calculations
Summer 2001

Horizontal Gradient

Glacial Drift Unit

$$i = \frac{dH}{dL} = \frac{760\text{-}745}{630} = 0.024 \text{ (eastward)}$$

Vertical Gradient

Between glacial drift unit and shallow dolomite unit

W-18A/W-22

Center D = (772.53-66) + 0.5(40) = 726.53

$$Iv = \frac{WLS - WLD}{WLS - Center\ D}$$

WLS = 767.07
WLD = 730.56

0.90 (downward)

W-43/W-38

Center D = (770.98-49.00) + 0.5(16.8) = 730.38

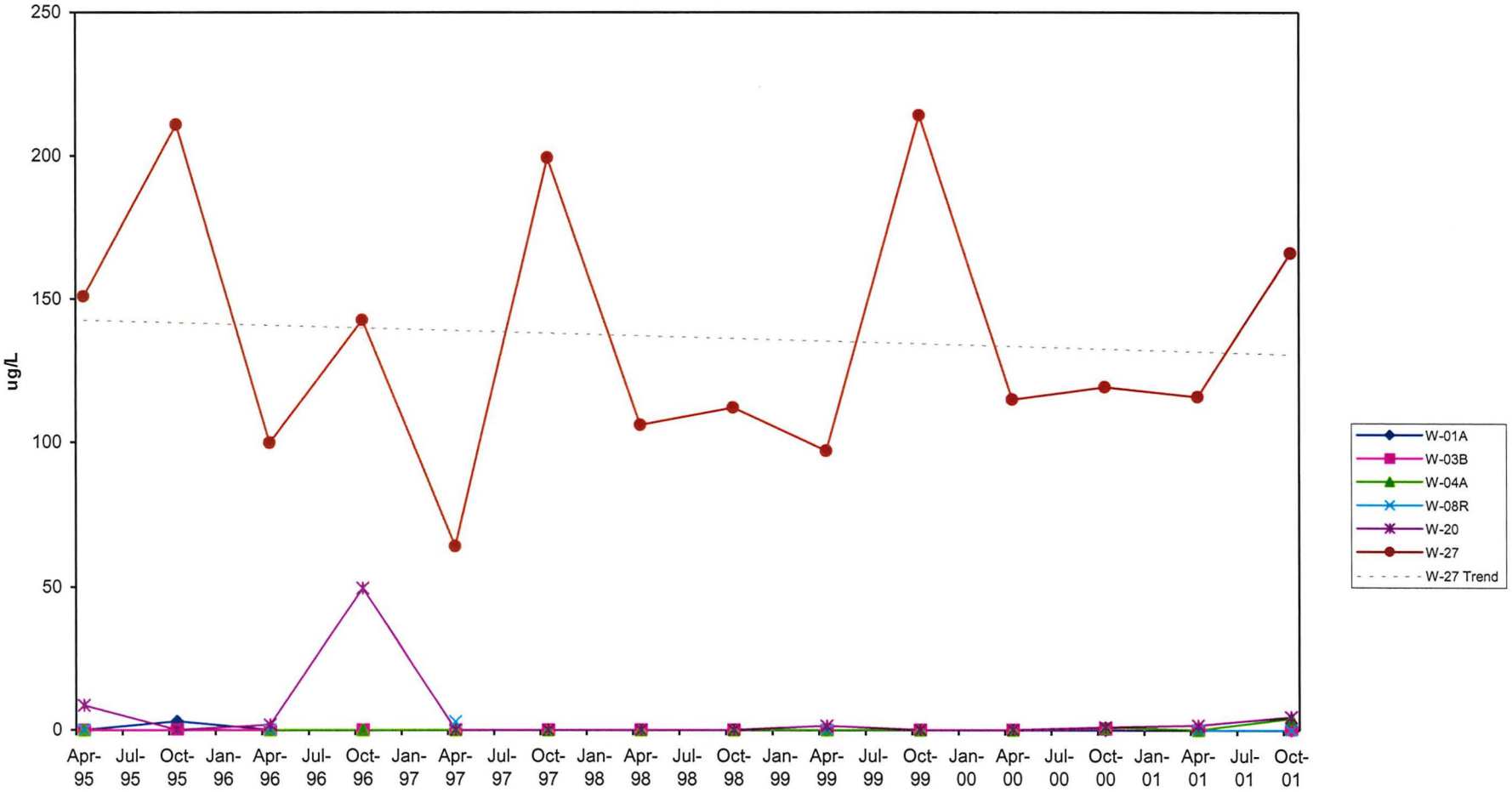
$$Iv = \frac{WLS - WLD}{WLS - Center\ D}$$

WLS = 759.83
WLD = 751.80

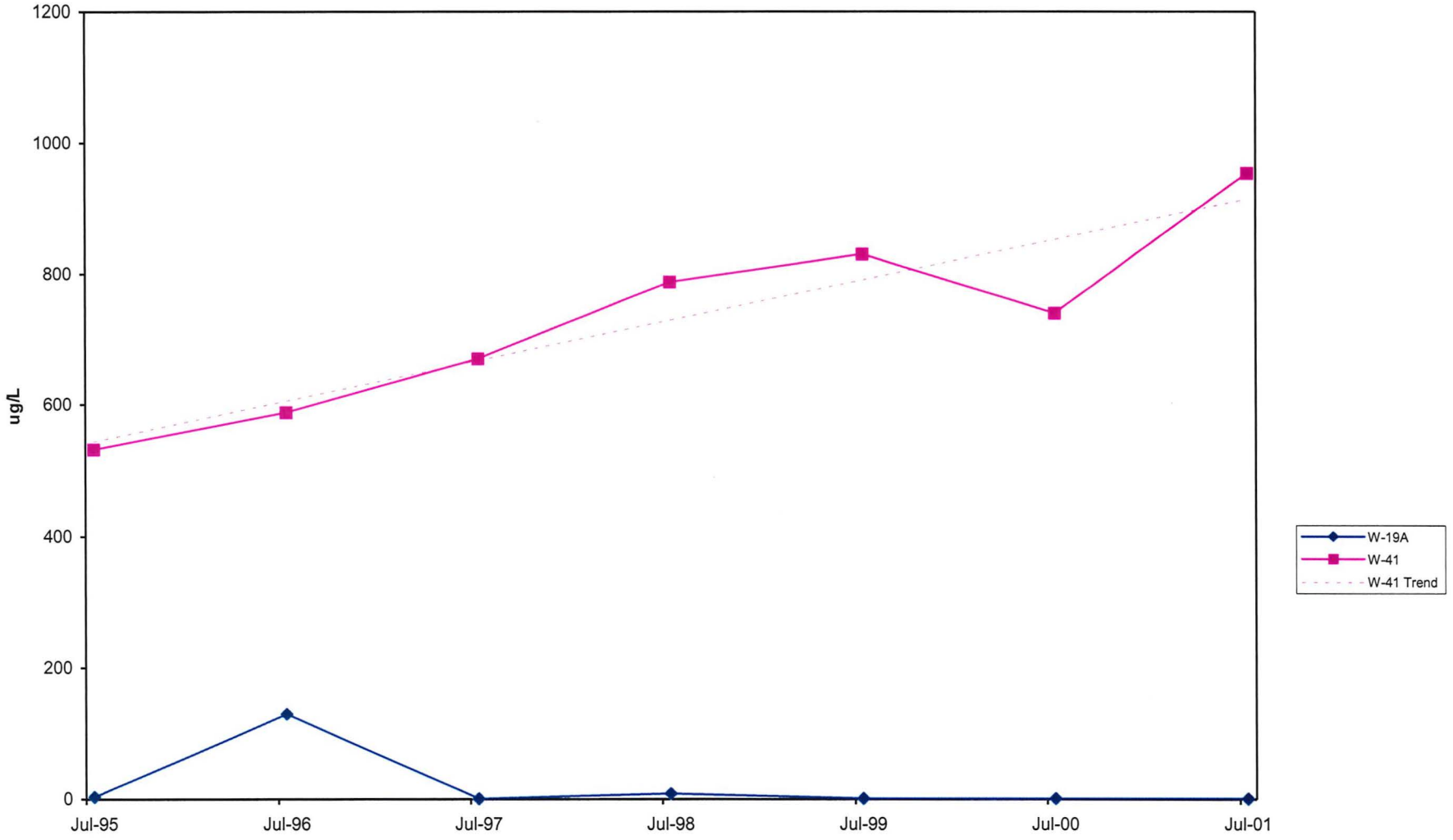
0.27 (downward)

Appendix D
Total VOC Trends 1995 To 2001

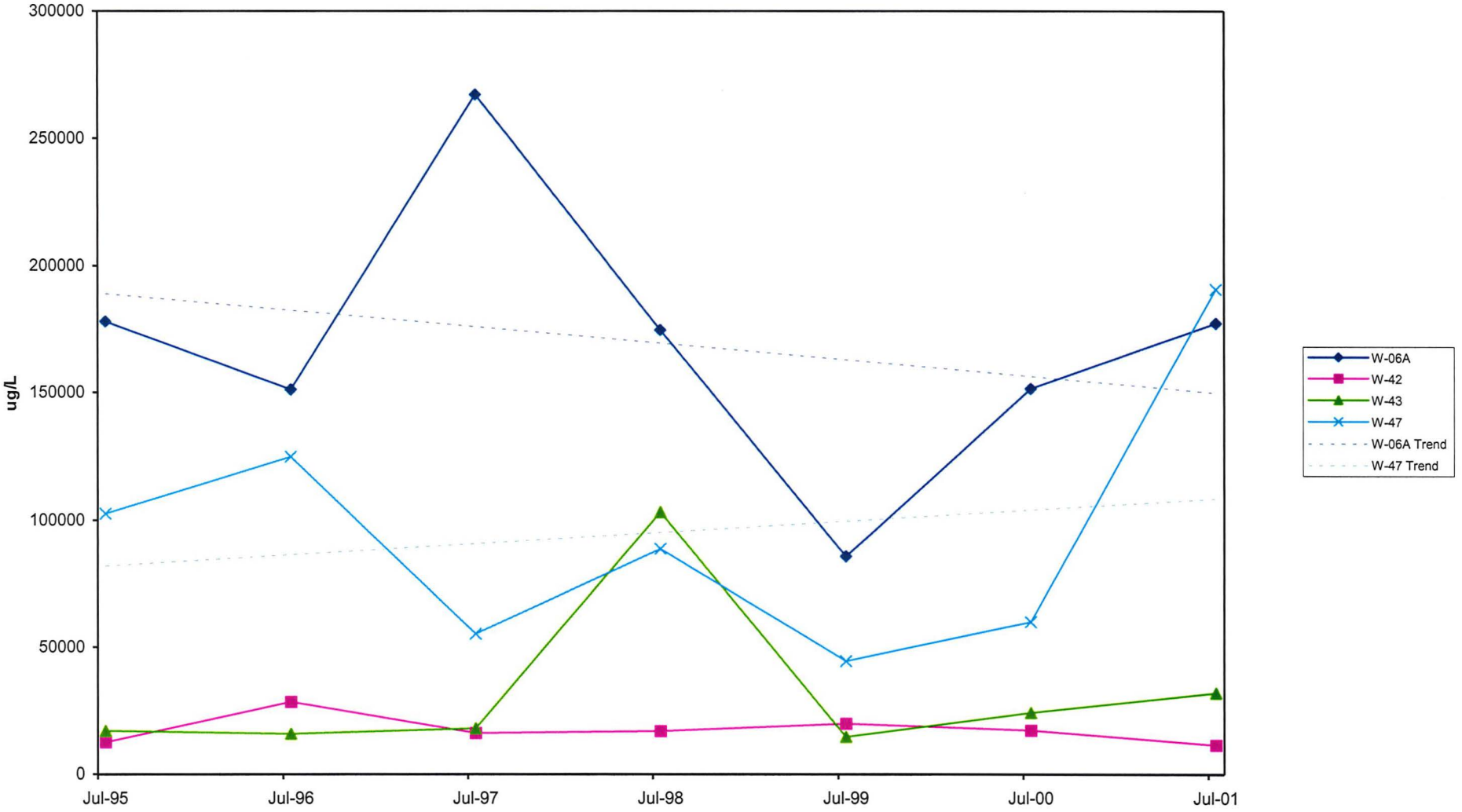
Total VOC Trends
Perimeter Glacial Wells, 1995 to 2001
Cook Composites and Polymers Co.



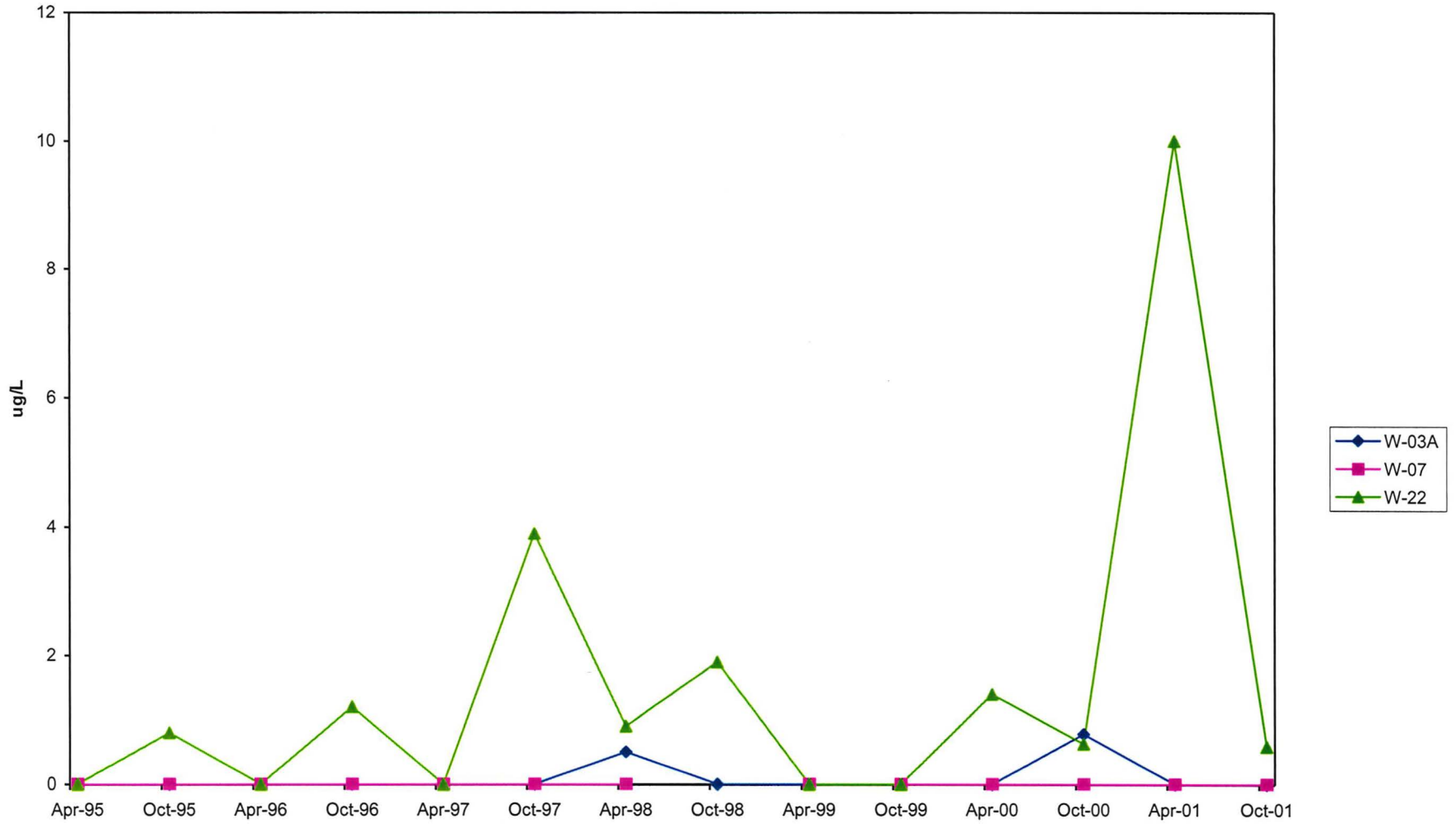
Total VOC Trends
Glacial Drift Progress Wells, 1995 to 2001
Cook Composites and Polymers Co.



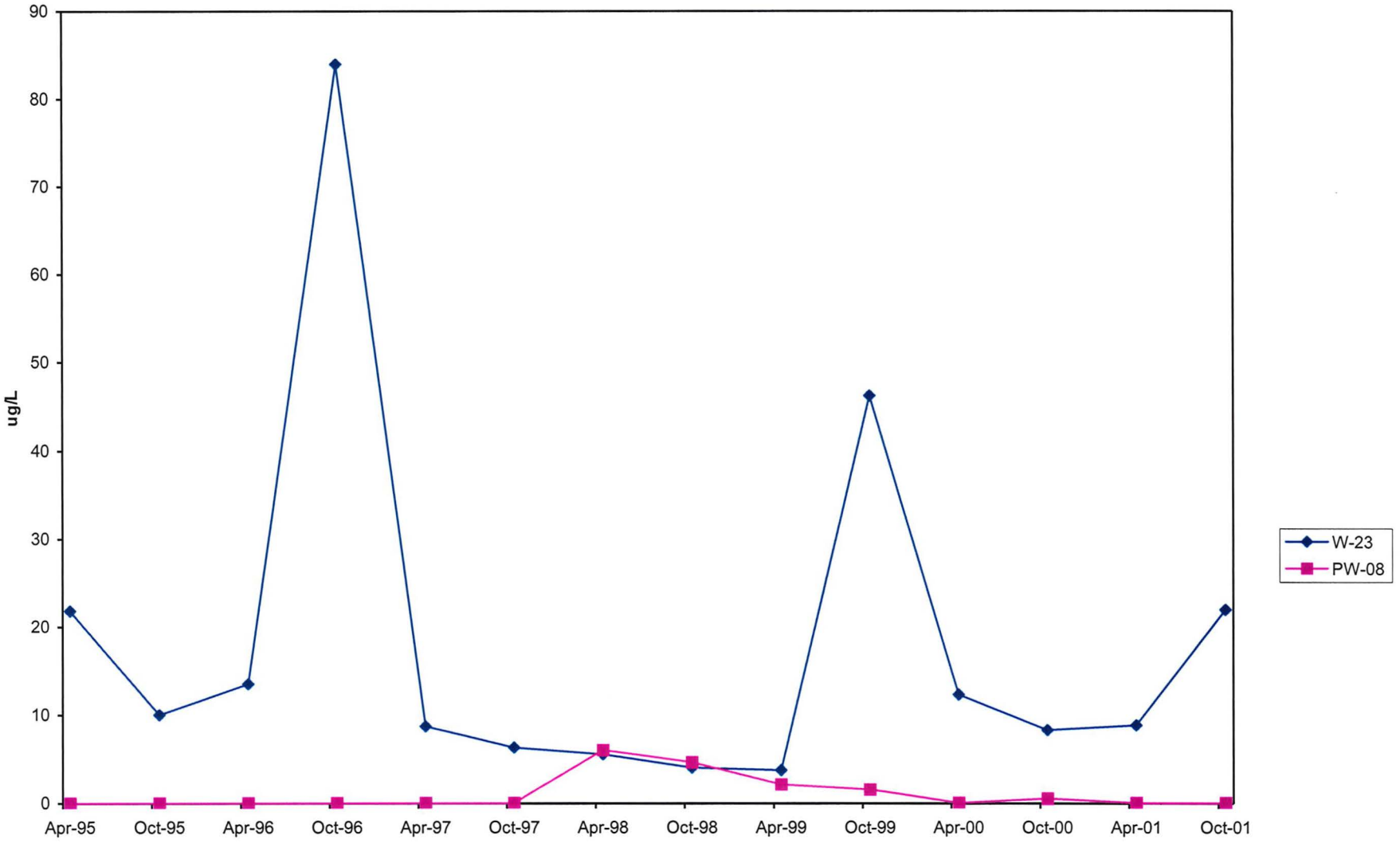
Total VOC Trends
Glacial Drift Progress Wells, 1995 to 2001
Cook Composites and Polymers Co.



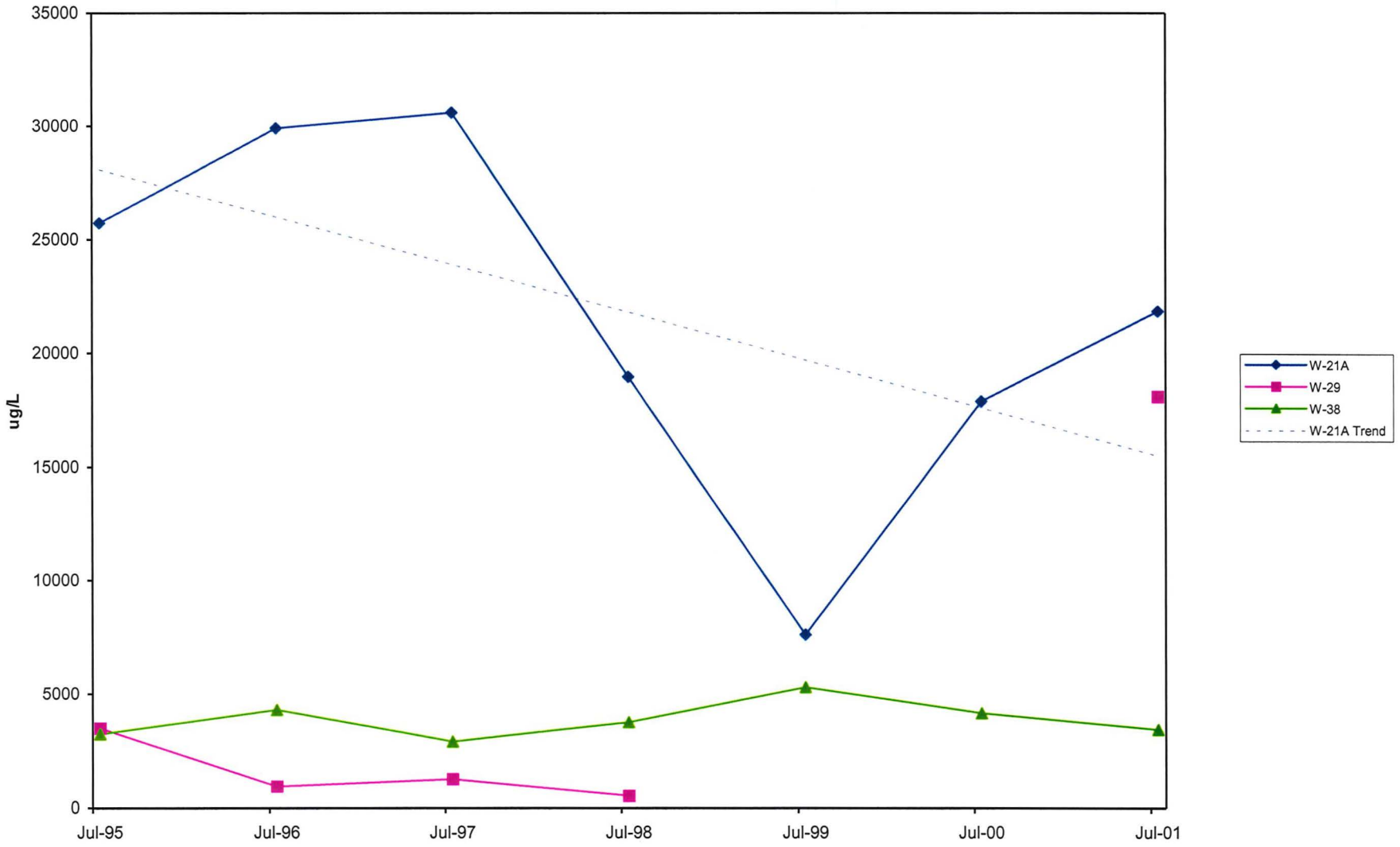
Total VOC Trends
Perimeter Dolomite Wells, 1995 to 2001
Cook Composites and Polymers Co.



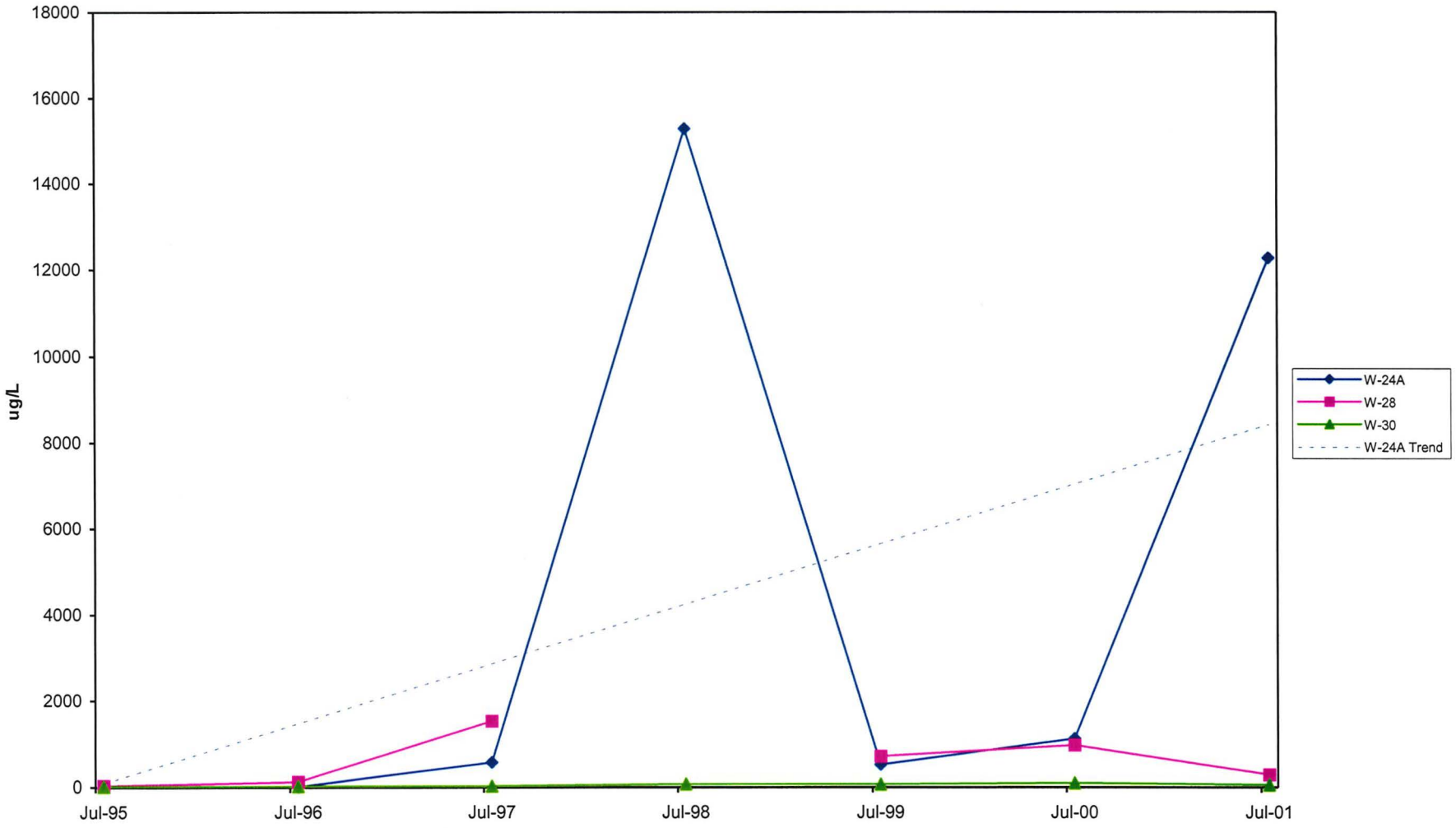
Total VOC Trends
Perimeter Dolomite Wells, 1995 to 2001
Cook Composites and Polymers Co.



Total VOC Trends
Dolomite Progress Wells, 1995 to 2001
Cook Composites and Polymers Co.

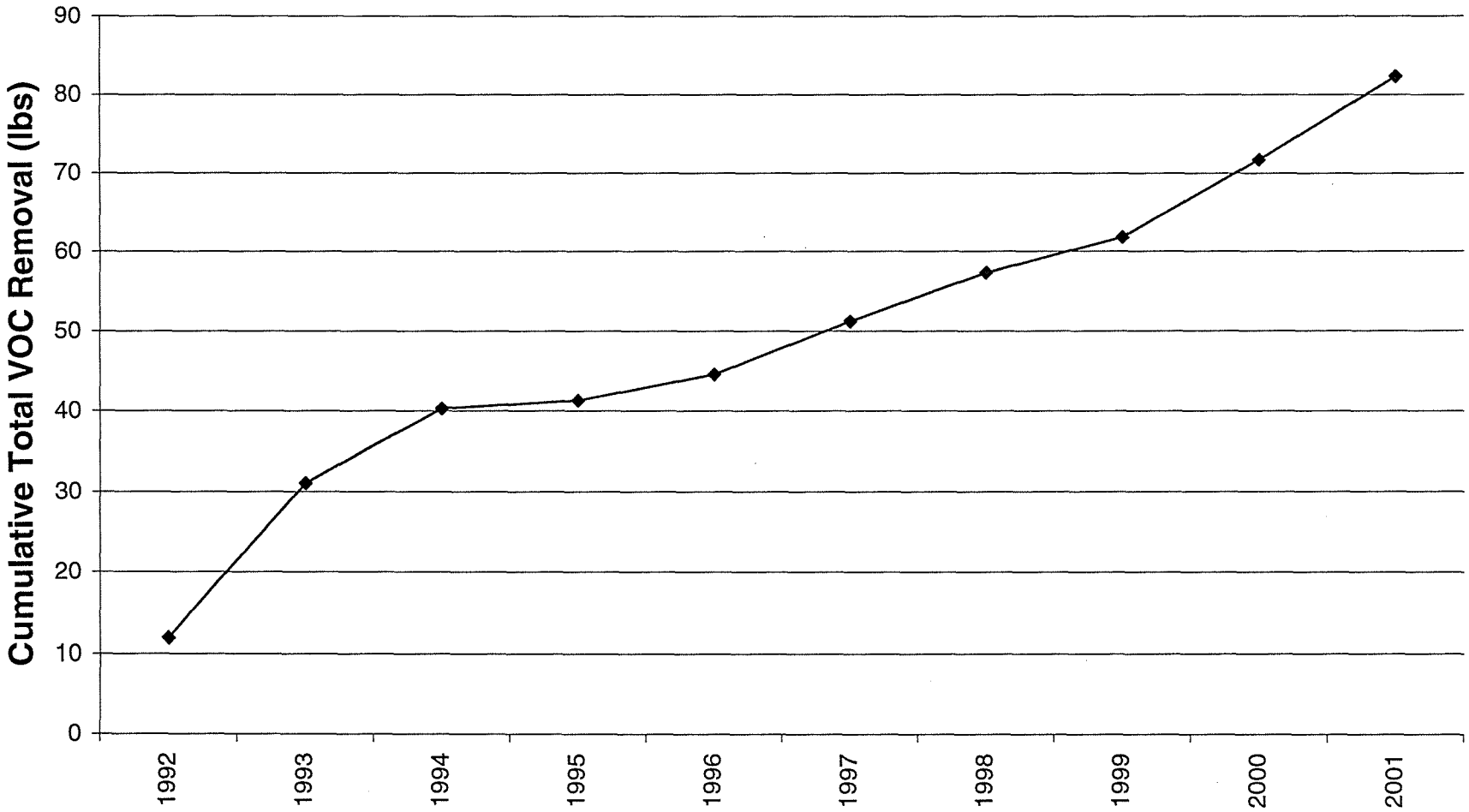


Total VOC Trends
Dolomite Progress Wells, 1995 to 2001
Cook Composites and Polymers Co.

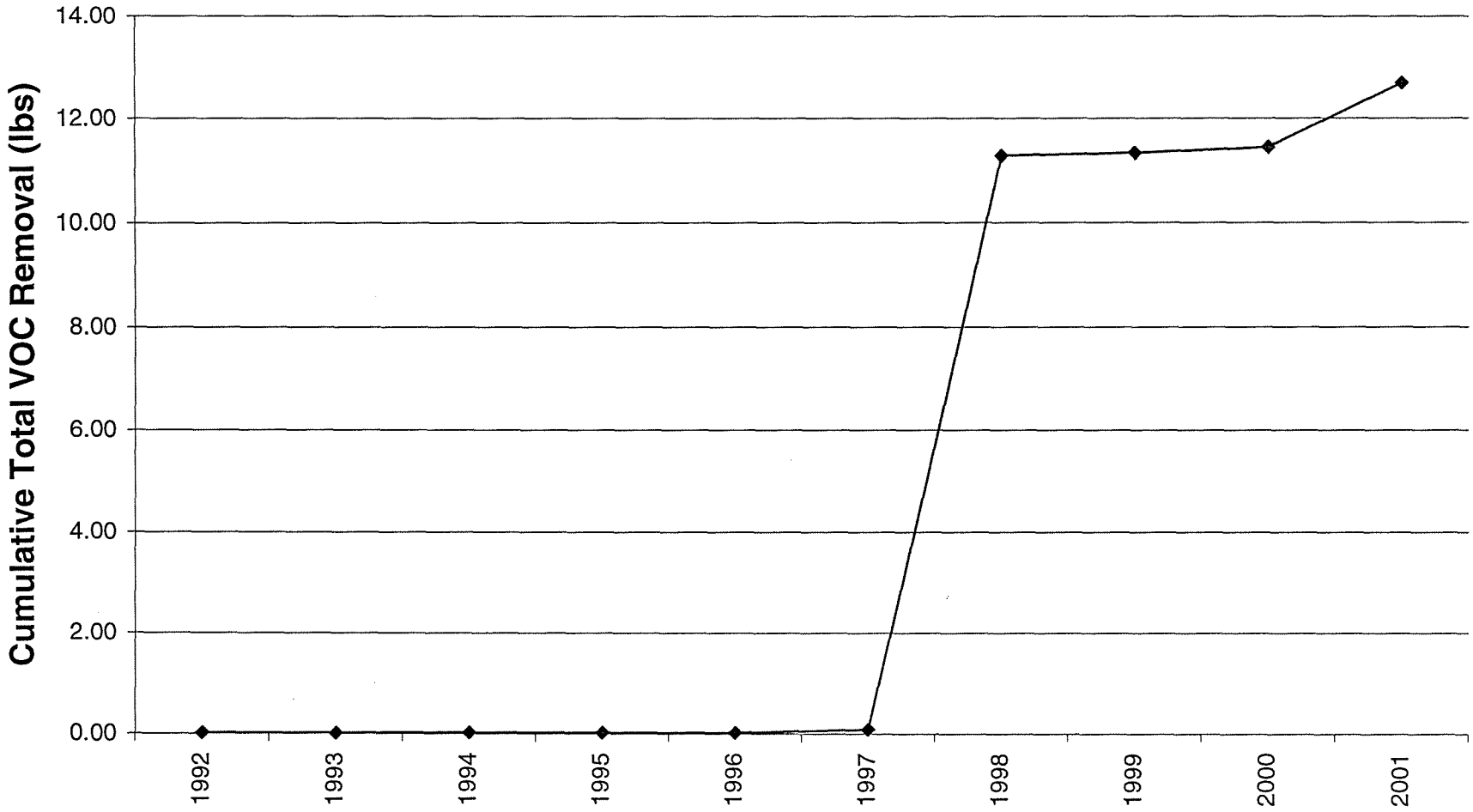


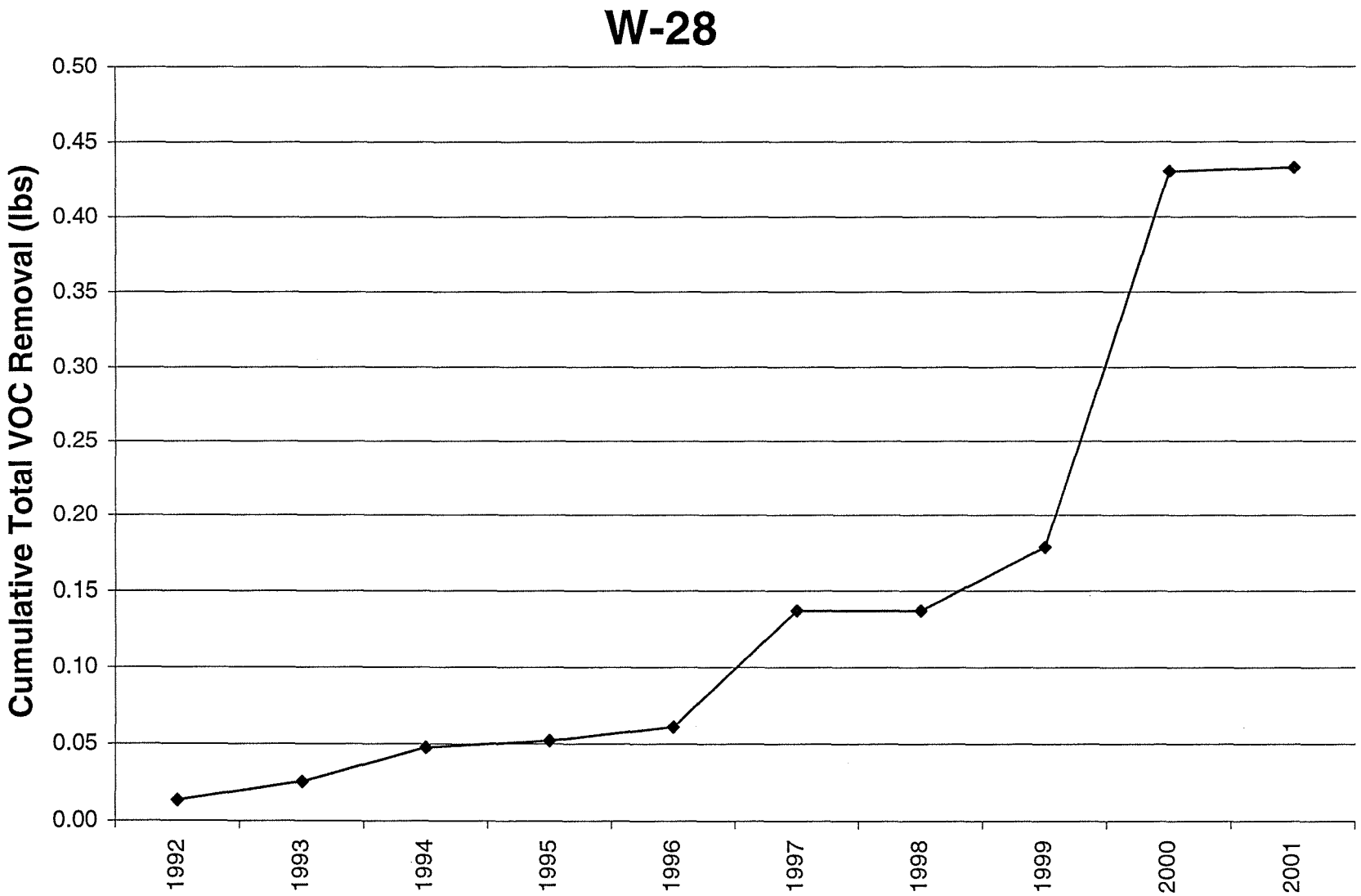
Appendix E
Cumulative Contaminant Removal Graphs

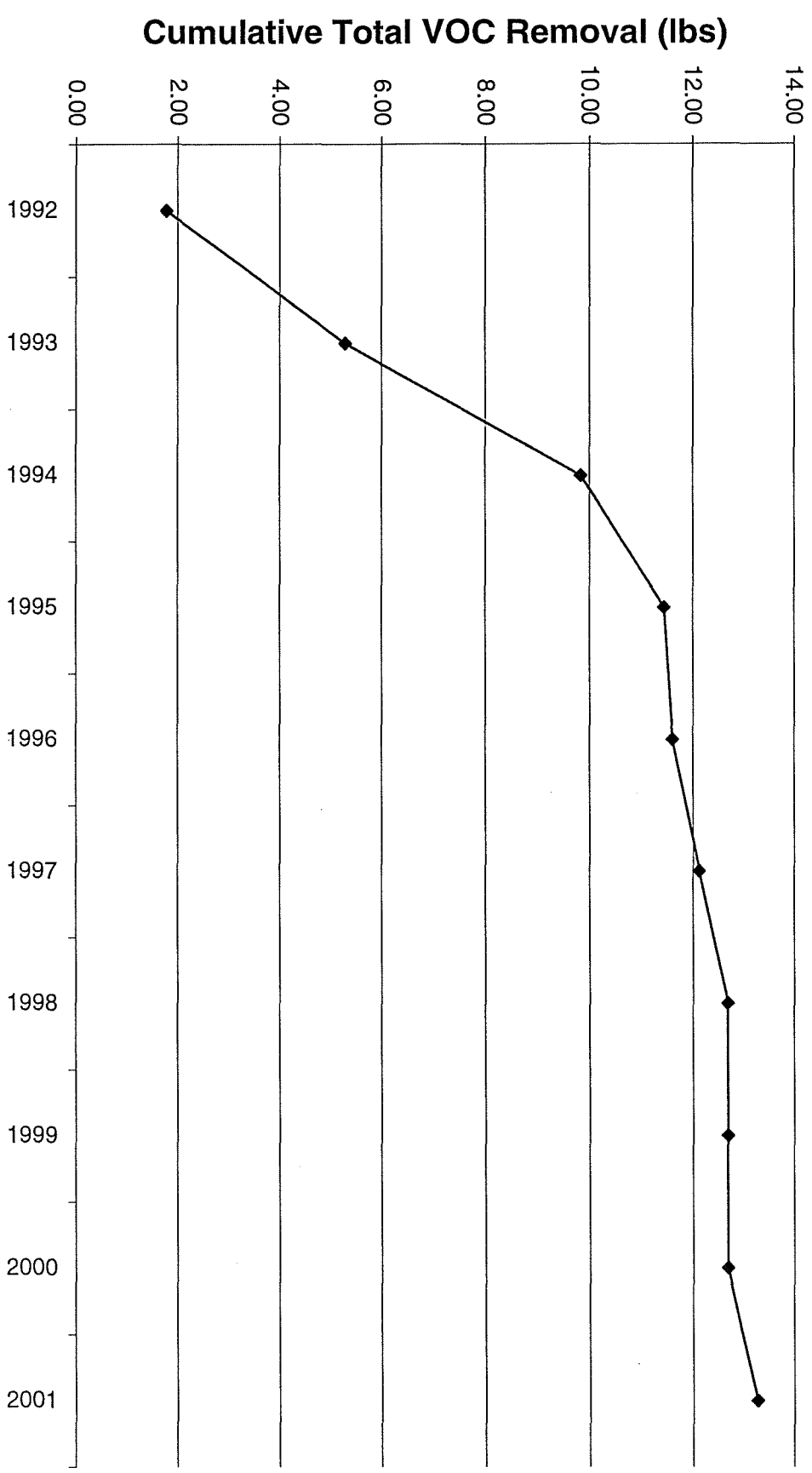
W-21A


Cumulative Total VOC Removal (lbs)
0
10
20
30
40
50
60
70
80
90
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001

W-24A

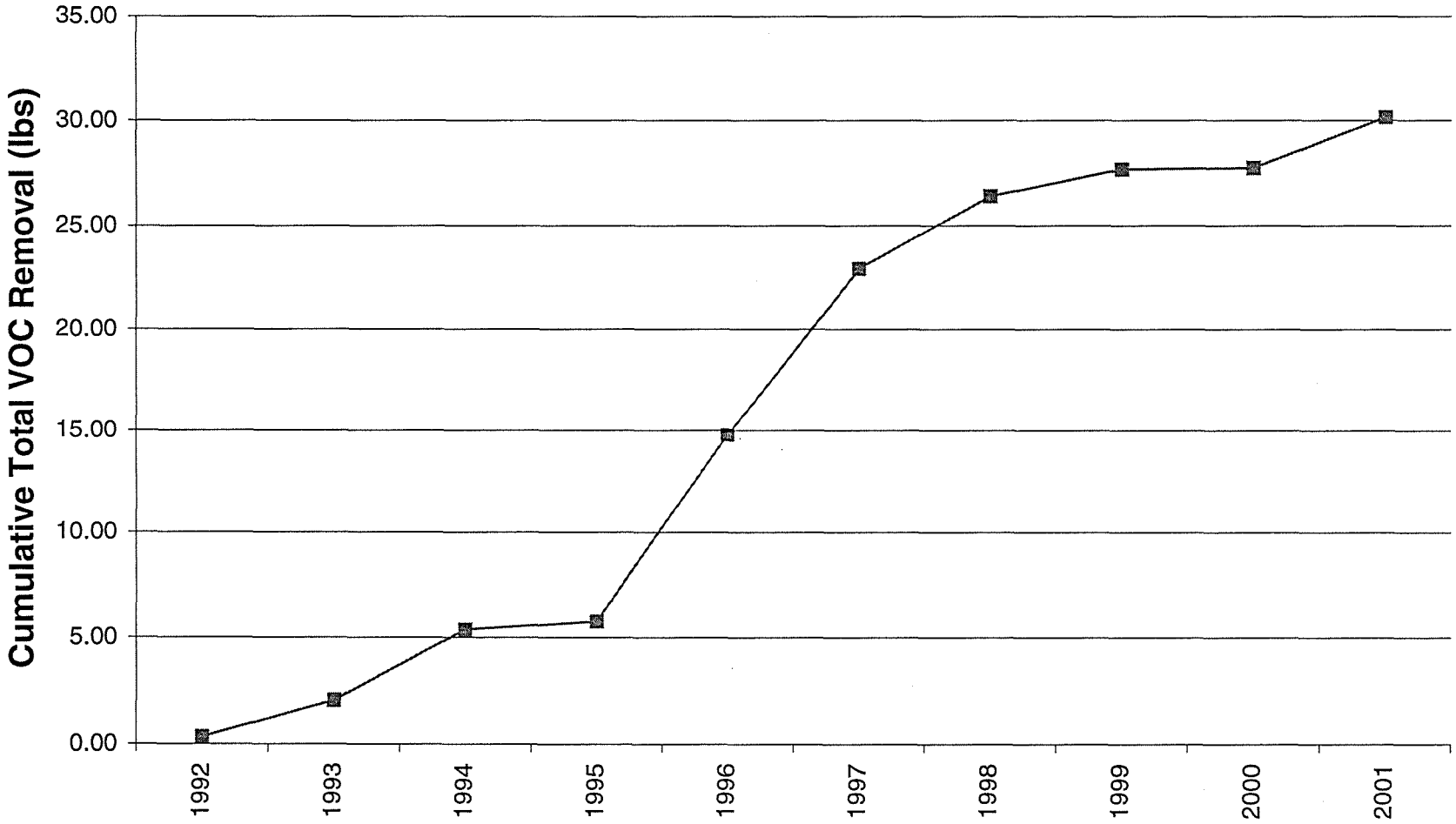

Cumulative Total VOC Removal (lbs)
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001


W-28
Cumulative Total VOC Removal (lbs)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001

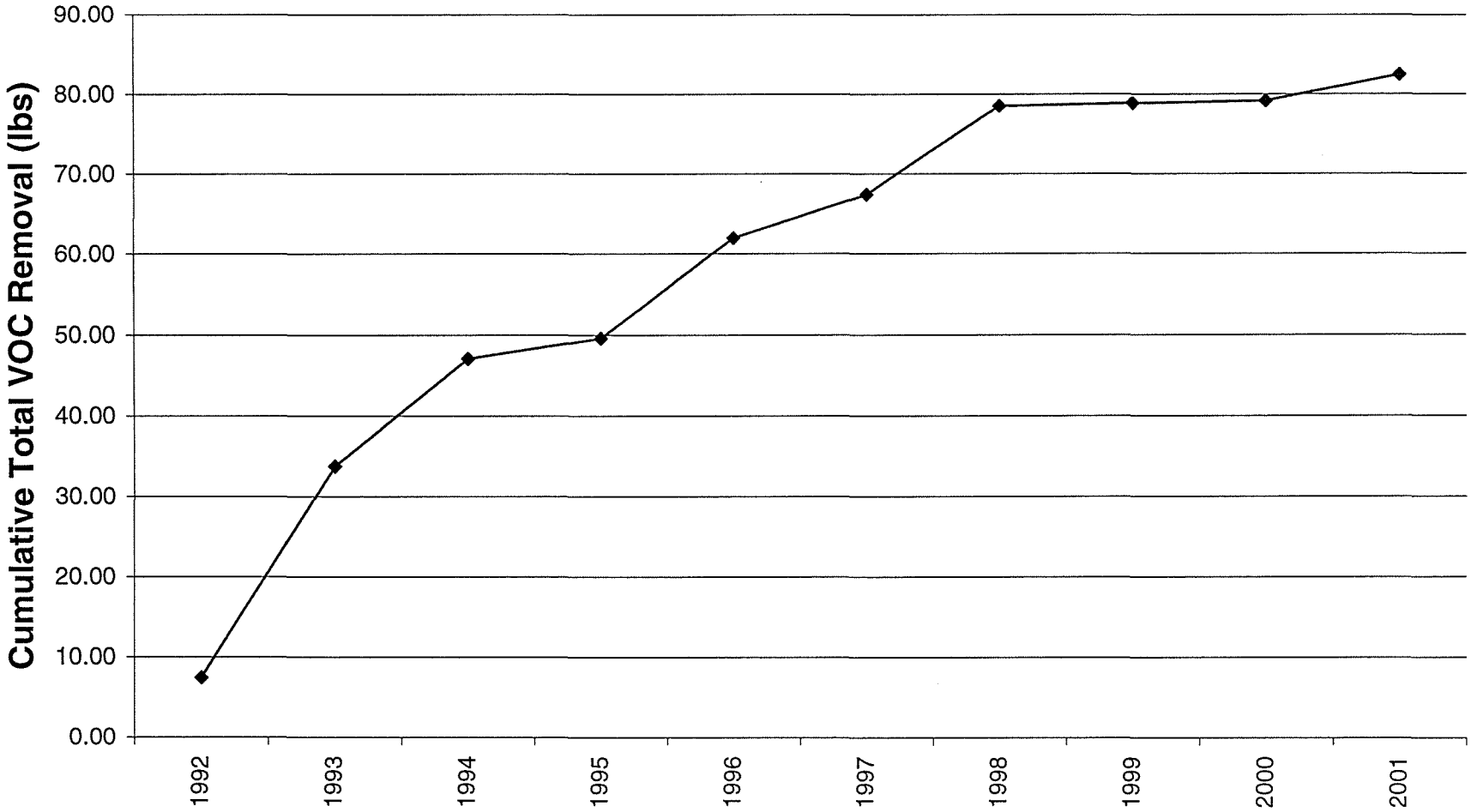

Cumulative Total VOC Removal (lbs)
0.00
2.00
4.00
6.00
8.00
10.00
12.00
14.00
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001

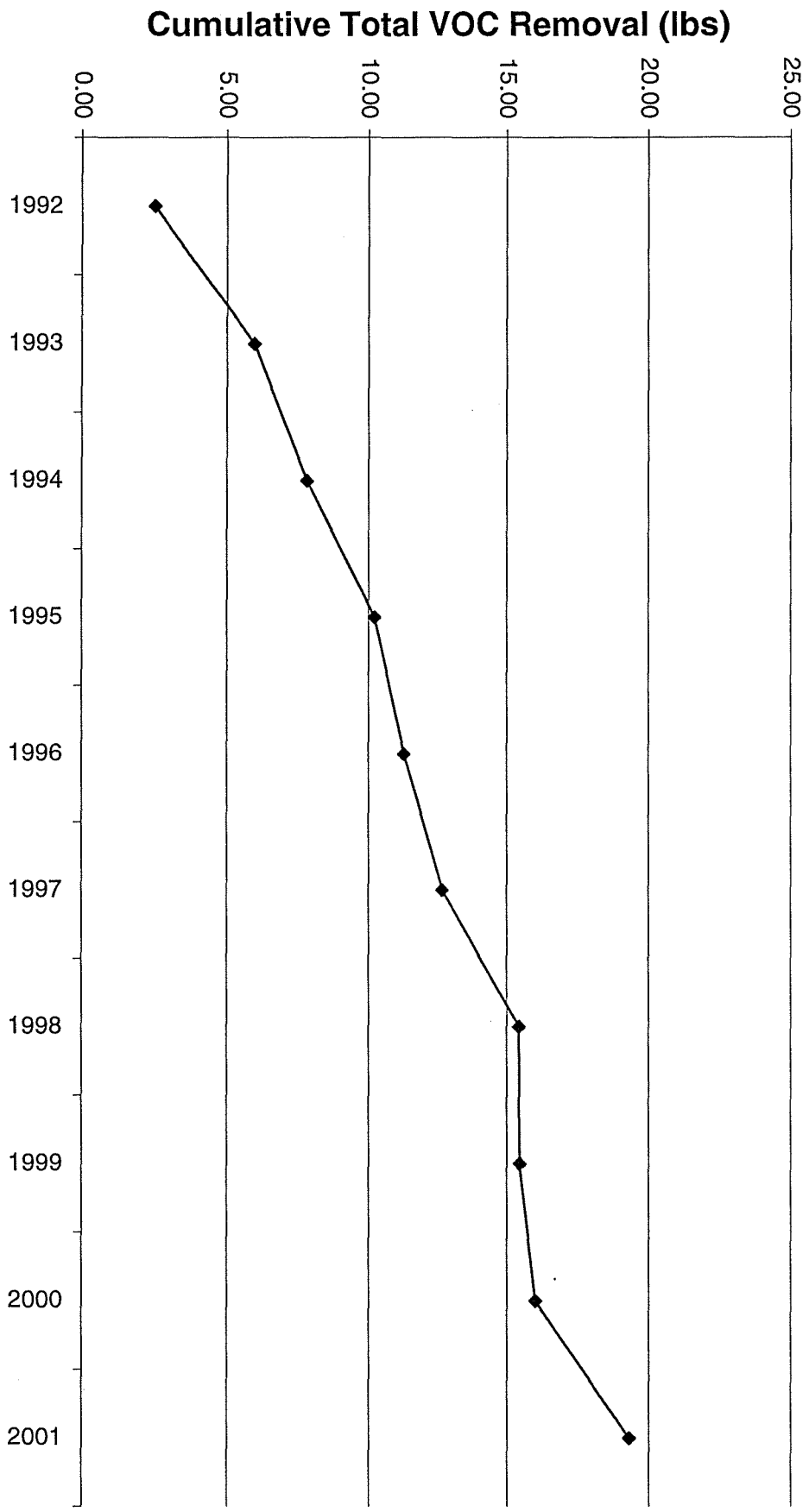
W-29

RC-1

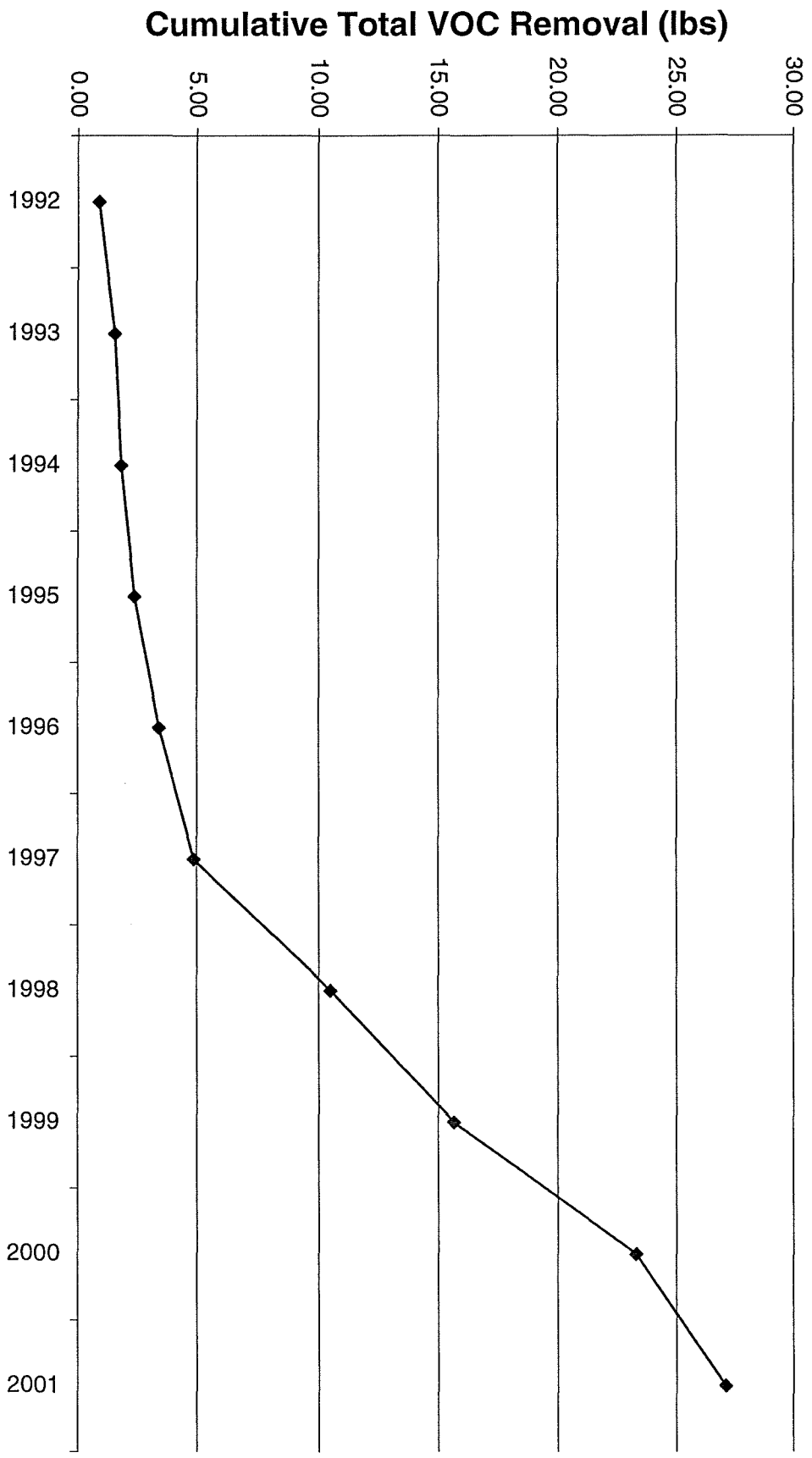

Cumulative Total VOC Removal (lbs)
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001

RC-2


Cumulative Total VOC Removal (lbs)
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001

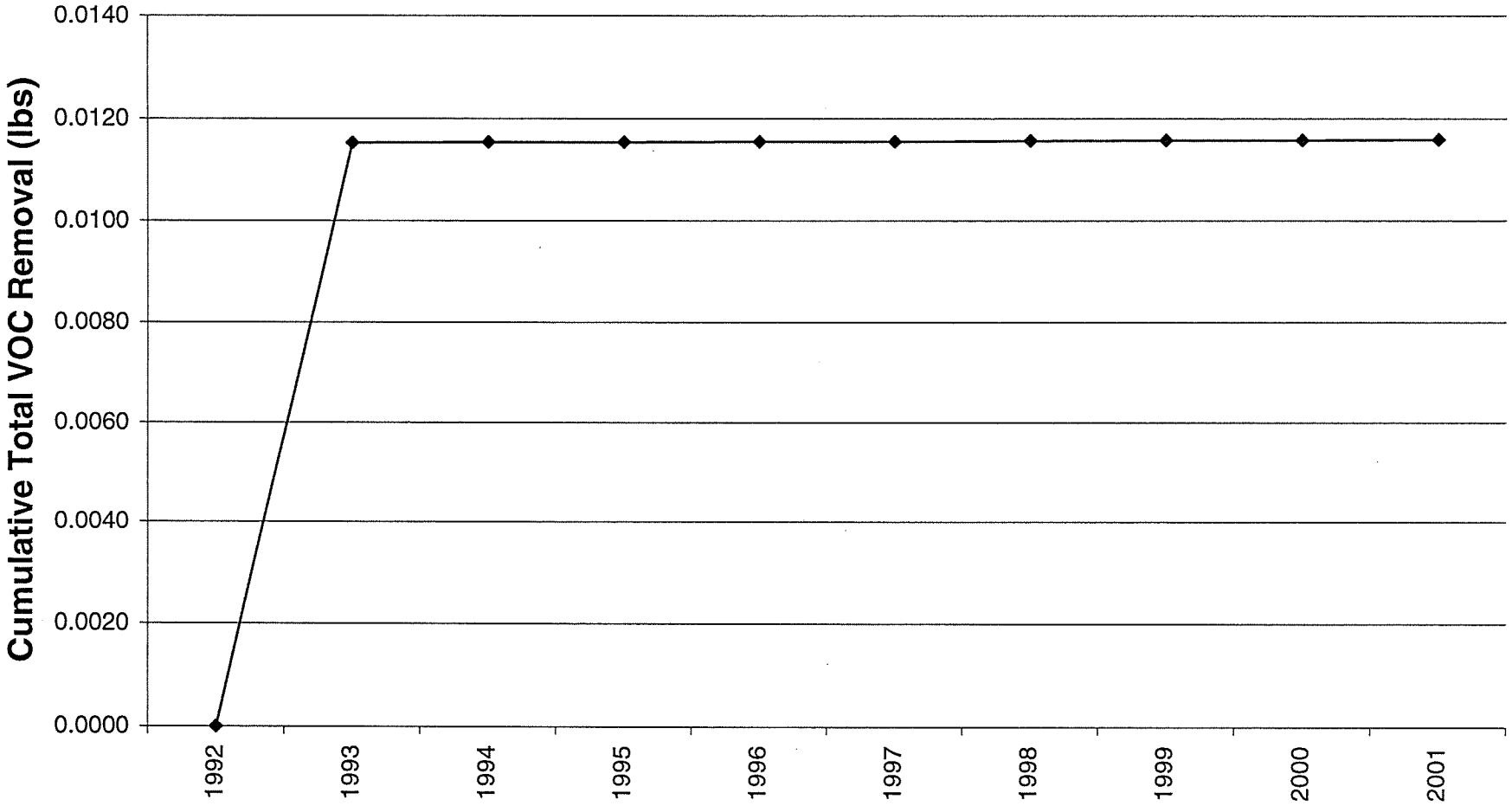

Cumulative Total VOC Removal (lbs)
0.00
5.00
10.00
15.00
20.00
25.00
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001

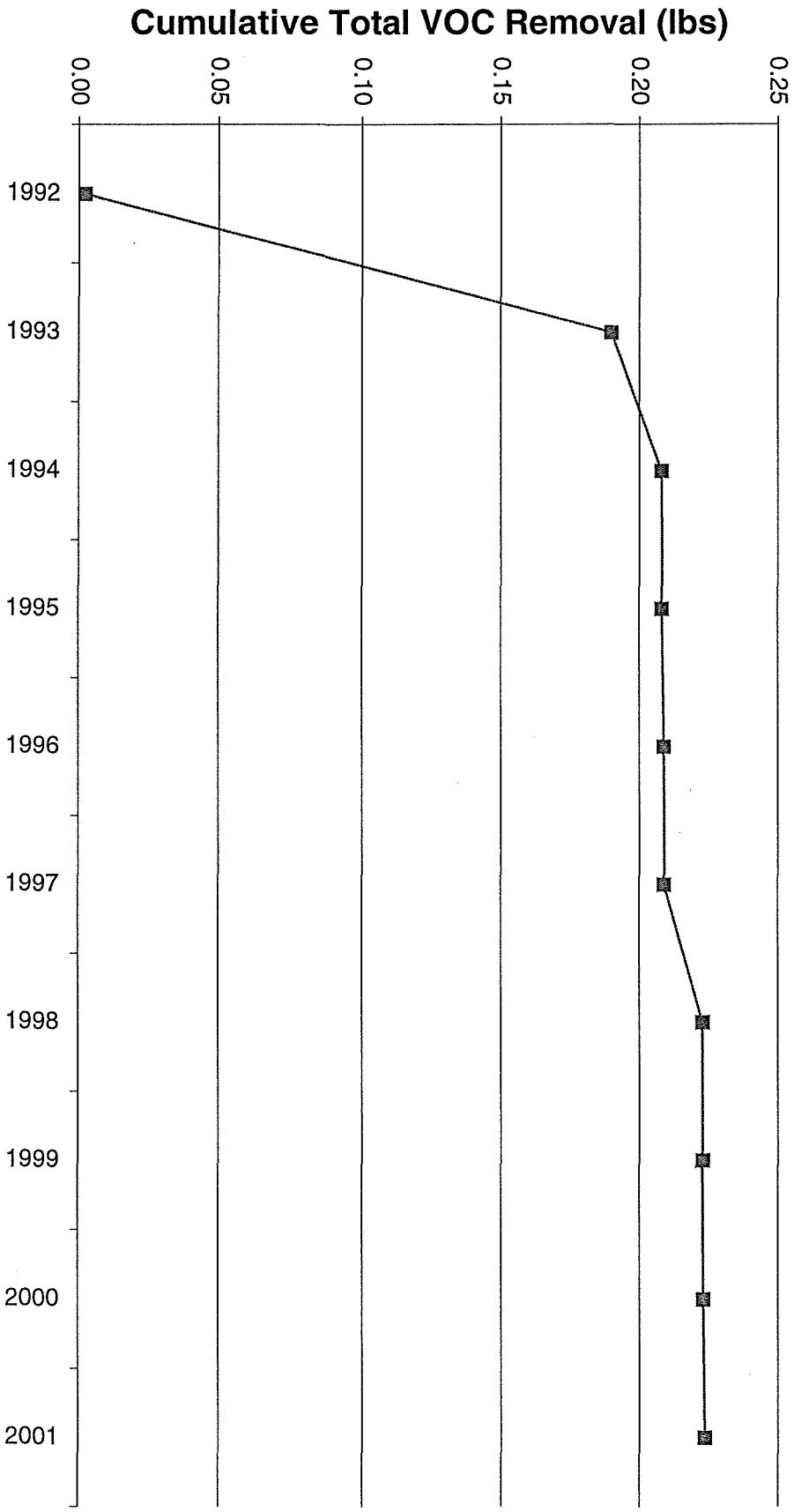
RC-3


Cumulative Total VOC Removal (lbs)
0.00
5.00
10.00
15.00
20.00
25.00
30.00
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001

W-30

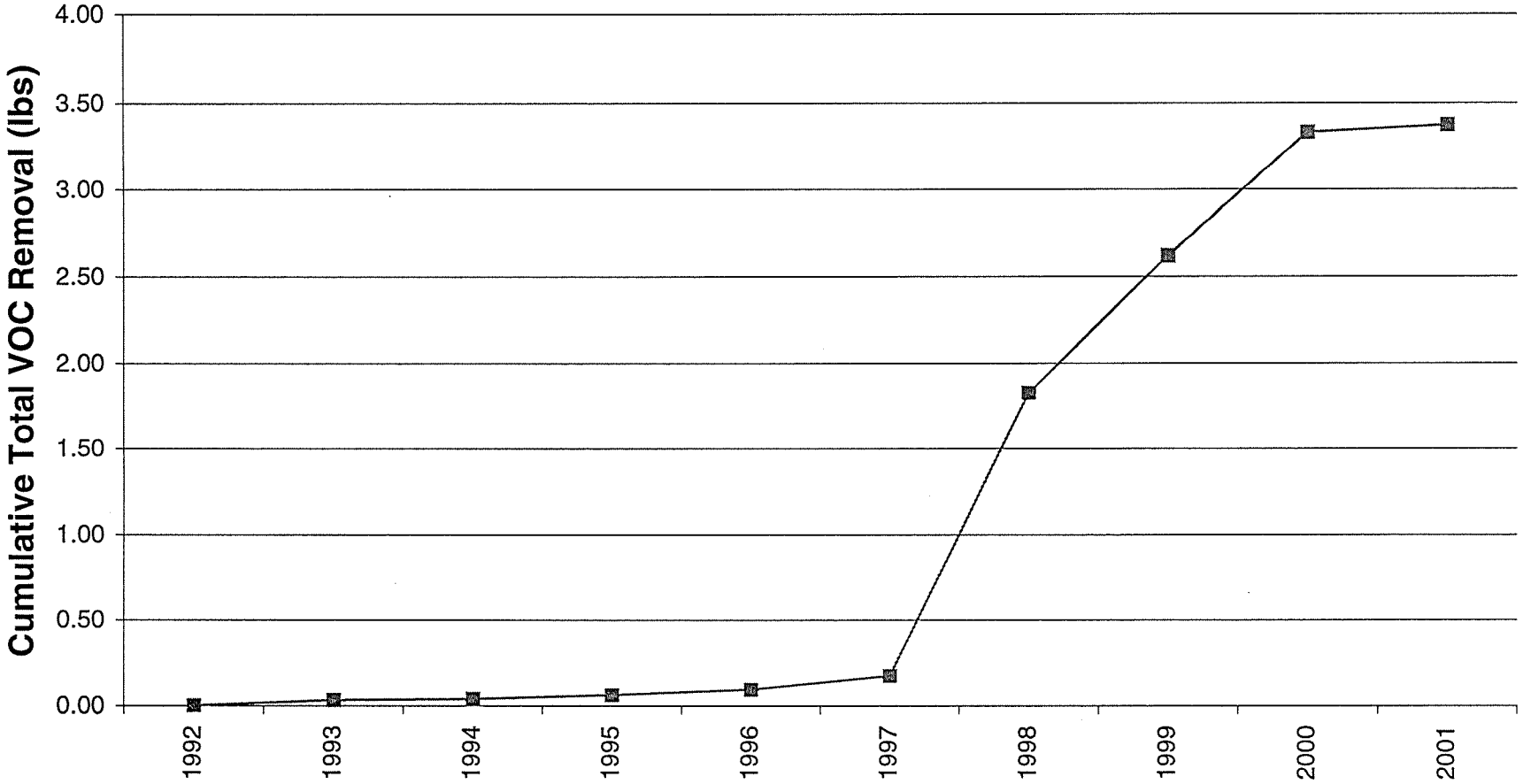
W-31


Cumulative Total VOC Removal (lbs)
0.0140
0.0120
0.0100
0.0080
0.0060
0.0040
0.0020
0.0000
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001

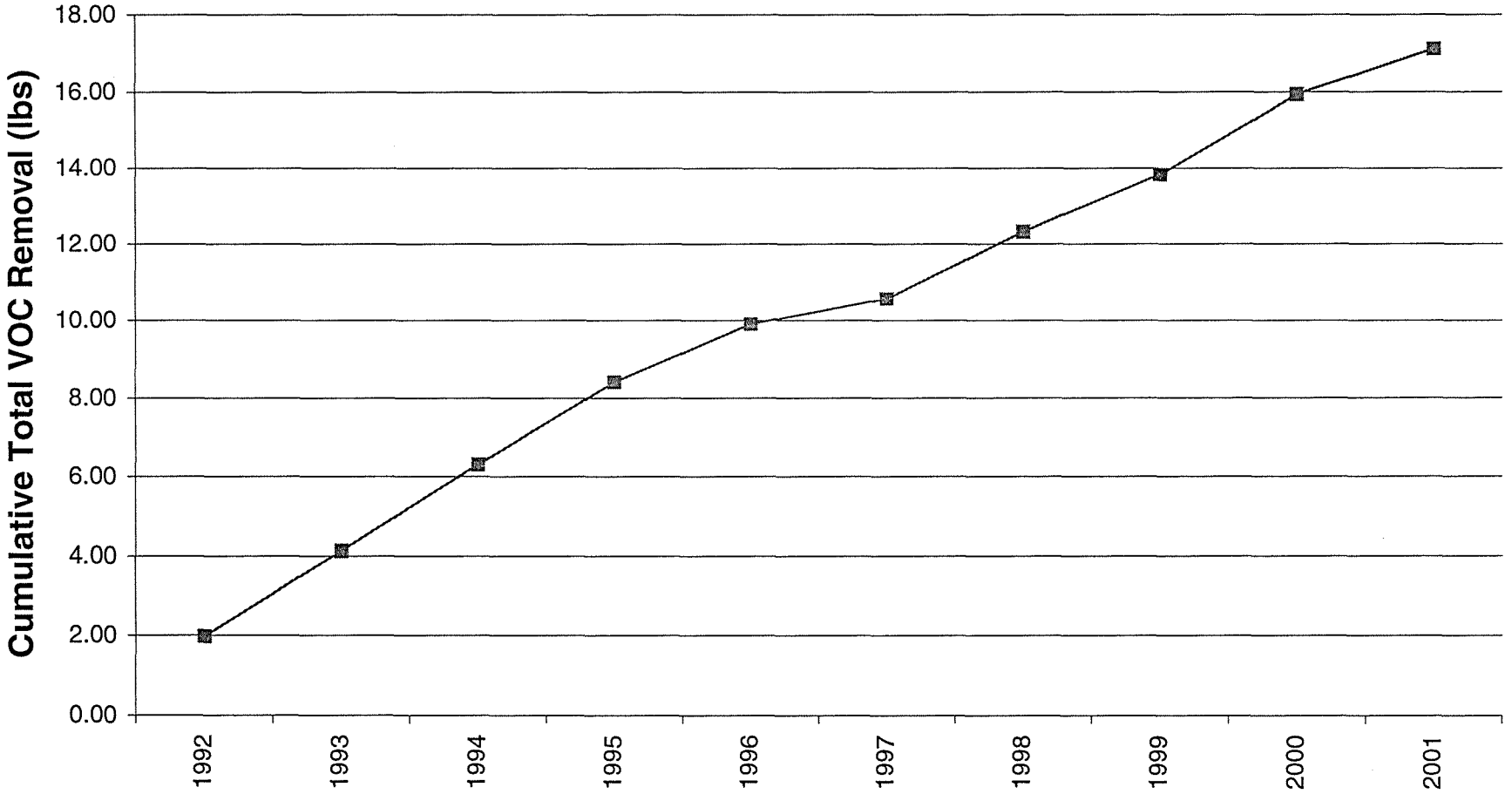

Cumulative Total VOC Removal (lbs)
0.00
0.05
0.10
0.15
0.20
0.25
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001

W-32

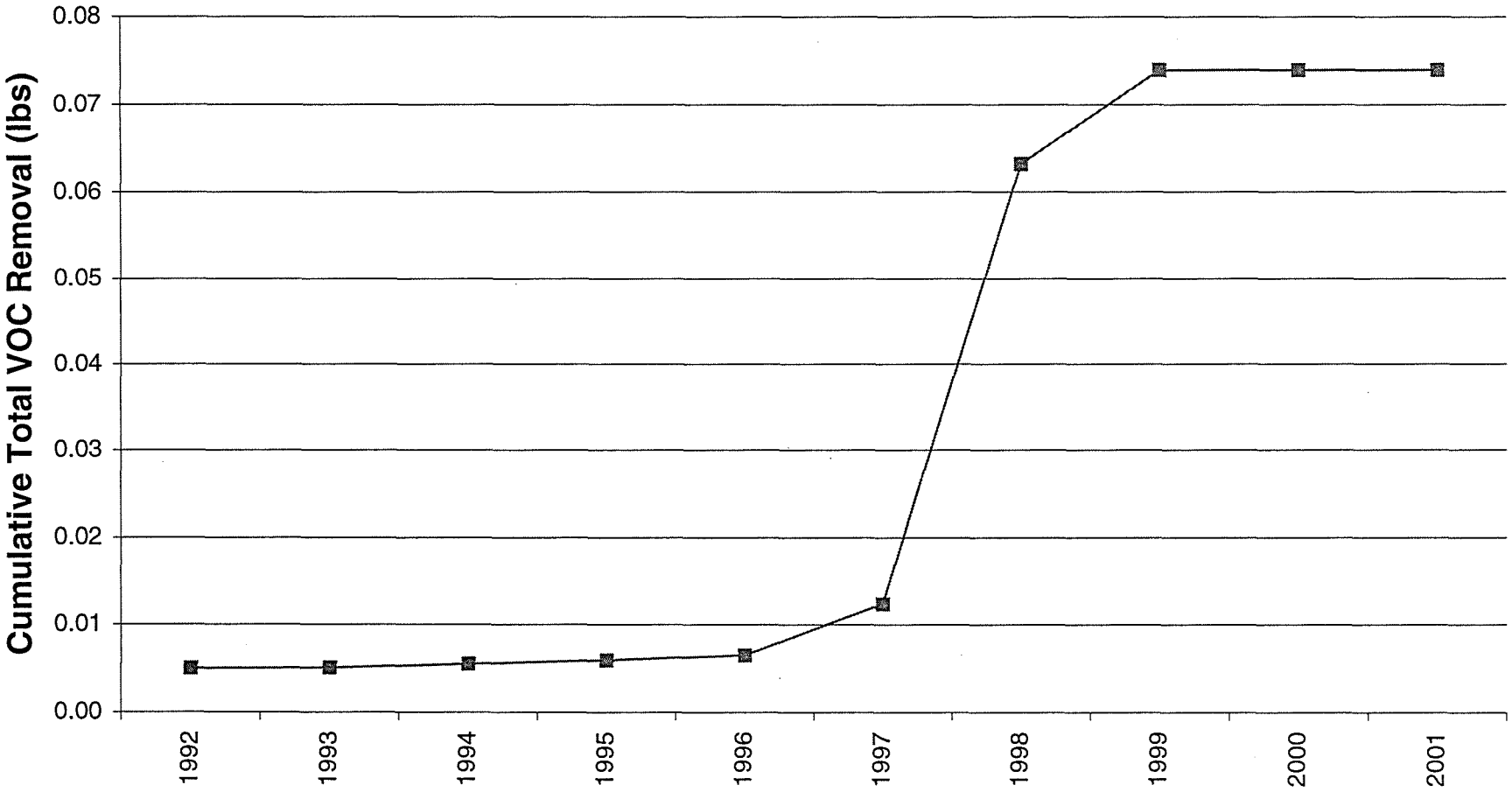
W-33


Cumulative Total VOC Removal (lbs)
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001

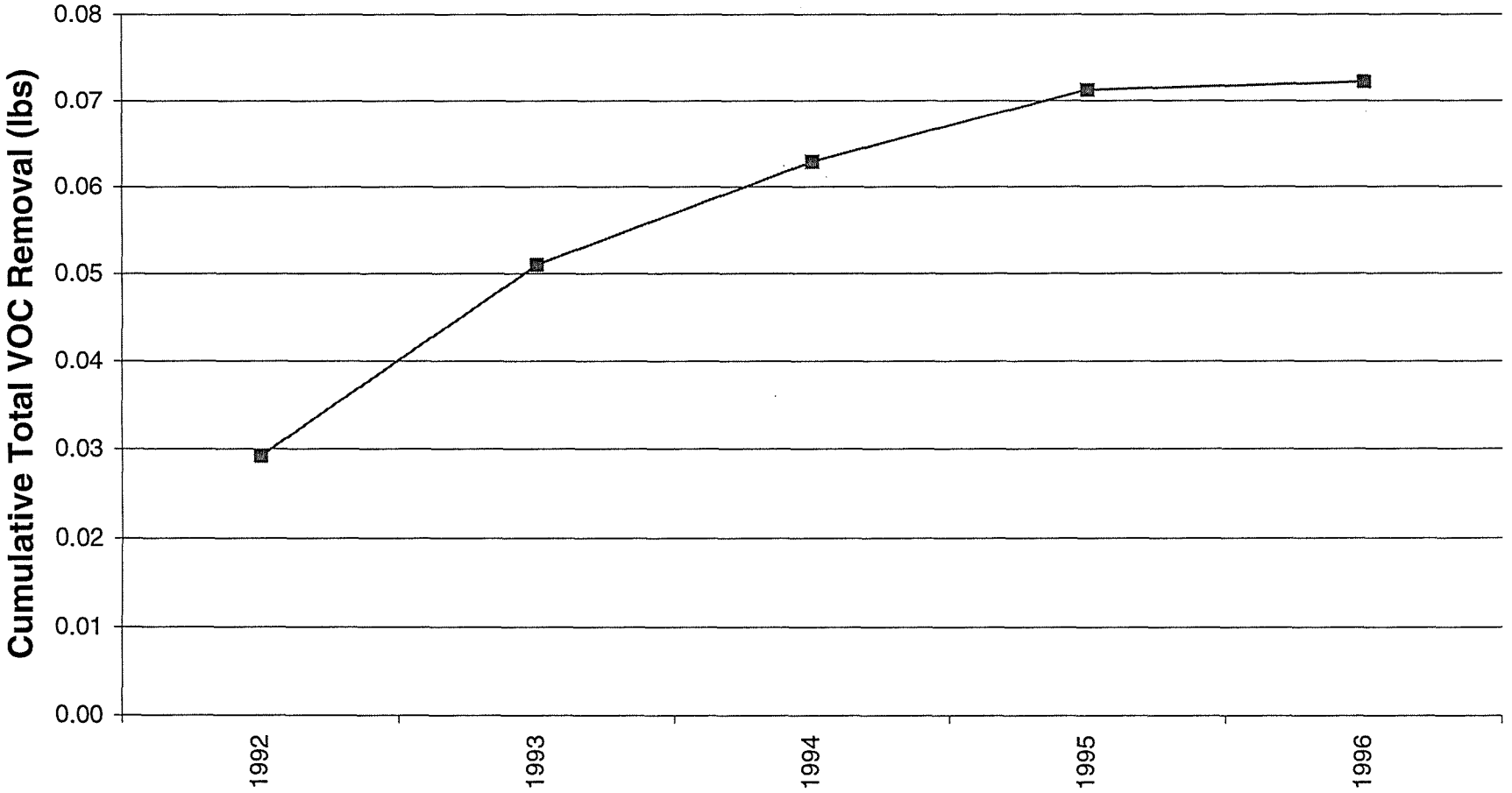
W-34


Cumulative Total VOC Removal (lbs)
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001

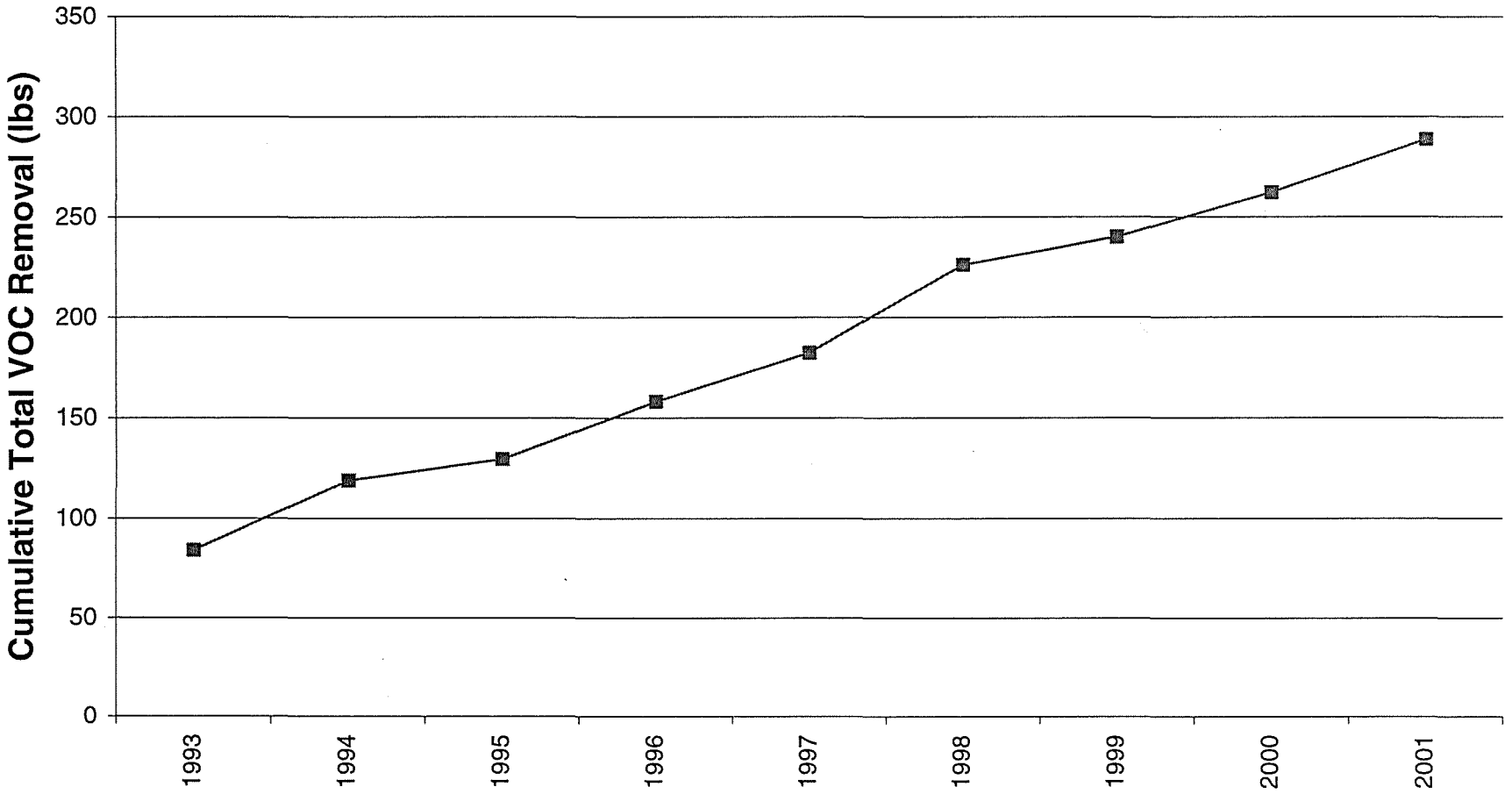
W-35


Cumulative Total VOC Removal (lbs)
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001

W-37


Cumulative Total VOC Removal (lbs)
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
1992
1993
1994
1995
1996

Total


Cumulative Total VOC Removal (lbs)
350
300
250
200
150
100
50
0
1993
1994
1995
1996
1997
1998
1999
2000
2001