NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

STATEMENT OF BASIS
FOR
KODAK PARK INVESTIGATION AREA MIA-WRL
(WEILAND ROAD LANDFILL)

FINAL
September 2003

FACILITY: **Eastman Kodak Company**
Kodak Park
ROCHESTER, NEW YORK
MONROE COUNTY

USEPA ID No.: NYD980592497
Inactive Hazardous Waste Site Code: 828002

Introduction

The purpose of this Statement of Basis is to provide an opportunity for the public to be informed of and to participate in the selection of a final remedy for soils and groundwater at Investigation Area Weiland Road Landfill (MIA-WRL), located in the southwestern portion of Kodak Park Section KPM, in Rochester, New York (see Figure 1). The investigation area is comprised of a grouping of solid waste management units that were identified during the RCRA Facility Assessment. The grouping has been designated MIA-WRL.

This document:

- Provides a brief overview of the site history and site investigations which were conducted at MIA-WRL;
- Identifies the proposed remedy and presents the basis for its selection;
- Describes the remedial goals that were considered;
- Solicits public review and comment on the proposed remedy and other plausible remedies; and
- Provides information on how the public can be involved in the remedy selection process.

The New York State Department of Environmental Conservation (NYSDEC or Department) has selected a proposed remedy. Changes to the proposed remedy, or the selection of an alternative remedy may be made if public comments or additional data indicate that such changes are warranted. The Department will select a final remedy for the facility after the public comment period has ended and the comments have been reviewed and considered.

This document summarizes information that can be found in greater detail at the document repositories identified below. The Department encourages the public to review the documents at the repositories to gain a more comprehensive understanding of the environmental investigations and interim corrective measures that have been undertaken for MIA-WRL, and the possible remedies to address that contamination.

Proposed Remedy

The Department has tentatively selected the remedy for MIA-WRL described below.

The proposed remedy includes:

- continued operation of the existing KPM MIA-WRL groundwater Migration Control System (MCS). This system includes two “trenches.” One is a linear zone in the

bedrock, where the rock has been purposefully fractured to enhance the collection of groundwater. This approximately 250-foot long trench segment extends approximately 20 feet into the upper bedrock and is equipped with a single pumping well. It is located near the northwest corner of the Weiland Road Landfill. The other trench segment is approximately 850 feet long and is oriented east-west, along the northern edge of Parking Lot 73. This segment collects overburden groundwater migrating north from an old section of the closed landfill. Groundwater from these collection systems is discharged to the industrial sewer for treatment at Kodak's King's Landing Wastewater Purification Plant (KLWPP), located next to the Genesee River in Kodak Park Section KPE.

- continued operation and maintenance of the landfill subsurface drainage system. This includes drain lines that were constructed 1950s and 1960s as well as more recent lines constructed during the 1970s and in 1990. The most recent work has been near the northwest corner of MIA-WRL. Water/leachate collected by the subsurface drainage system is directed to the M-7 pump station located at the northwest corner of the landfill.

- a groundwater monitoring program to assess the effectiveness of the remedy.

- an operation and maintenance plan for the groundwater recovery systems. This plan specifies routine monitoring, maintenance, and reporting requirements to ensure that the systems continue to operate as designed.

- administrative controls to address potential exposure to contaminated soils, both currently and in the future. This includes an operation and maintenance plan specifying routine monitoring, maintenance, and reporting requirements to ensure that soil cover systems continue to operate as designed. In addition, property use deed restrictions will be placed in areas where soils exceeds comparison values, limiting use to industrial/commercial activities.

Facility Background

Since the late 1800's Kodak Park has been Eastman Kodak Company's primary photographic manufacturing facility. Primary current or historic operations at the site include the manufacture of film and paper base; preparation and coating of photographic emulsions; production of vitamins and food additives; manufacture of electrophotographic toner; cutting, packaging and distribution of finished products; and the production of synthetic organic chemicals, dyes, and couplers.

The MIA-WRL investigation area covers approximately 55 acres and is located in the southwest portion of Kodak Park Section M (KPM). KPM is bounded by Mount Read Boulevard to the east, Latona Road and Interstate 390 to the west, the Koda Vista neighborhood to the north, and approximately Ridgeway Avenue to the south (Figure 1). Development in KPM began in the 1940's, following development of KPE, KPW and KPX, which are all located to the east. KPM

has historically been used primarily for photographic paper/film base, toner/copier, and chemical manufacturing. KPM is on the New York State Department of Environmental Conservation Registry of Inactive Hazardous Waste Disposal Sites.

MIA-WRL had been used historically for the disposal of solid waste. Most recently, 26 acres in the northwestern portion of this area was operated as a permitted landfill for the disposal of non-hazardous, non-putrescible solid waste. Of the recently active area, 9 acres were closed in 1990 with a clay cap and 17 acres were closed in 1998 under a NYSDEC-approved closure plan. Historic waste disposal in Weiland Road Landfill area appears to date from the 1940's. Based on information about the historic operation of the landfill, the area was listed on the NYSDEC Registry of Inactive Hazardous Waste Disposal sites. The MIA-WRL complex includes a landfill subsurface drainage collection system and pumping station. Subsurface drainage is discharged to Kodak's industrial sewer for treatment at King's Landing. Kodak has also implemented several interim corrective measures to control and recover contaminated groundwater in this area.

In 1998, Kodak completed a RCRA Facility Assessment for Kodak Park. The assessment identified solid waste management units (SWMUs) subject to corrective action requirements. To administer corrective action, SWMUs were grouped into investigation areas, based on geographic and operational concerns. This Statement of Basis is for the SWMU grouping MIA-WRL. This grouping includes the SWMUs listed in Table 1. The location MIA-WRL and the position of the SWMUs is shown on Figure 2.

The RCRA Facility Investigation for MIA-WRL was completed in 1999. Kodak completed a presumptive remedy evaluation in 2000. A presumptive remedy evaluation was used in lieu of a corrective measures study. This approach is consistent with USEPA guidance related to the proposed rule for corrective action for releases from SWMUs at hazardous waste management facilities (61 FR 19432 and 19447, May 1, 1996). Through this initiative, USEPA proposed improvements to the corrective action program to improve its speed and efficiency, including the use of presumptive remedy evaluations. Kodak had already implemented interim corrective measures for the groundwater, so it was assumed that those measures would be a component of the final corrective measures. In the presumptive remedy report Kodak evaluated the effectiveness of those measures and made recommendations for long-term post-closure care of the landfill.

Facility Investigation Results

The RCRA Facility Investigation (RFI) for MIA-WRL was completed in 1999. Subsurface investigations in MIA-WRL have been conducted in a number of phases, beginning in the early 1980's and continuing up to 1999. Investigations have focused on groundwater and have been conducted adjacent to the edge of the landfill units, as well as further downgradient, at off-site locations.

The investigations identified a number subsurface zones that have differing hydrogeologic

properties. In order of increasing depth, these include:

- Overburden - Unconsolidated materials, primarily glacially derived sands, silts, and clays and fill material including construction/demolition debris and boiler ash. The water table generally occurs in this interval.

- Top-of-Rock - The uppermost bedrock, typically moderately to highly fractured sandstone/siltstone of variable thickness but generally on the order of 15-20 feet. The top-of-rock and overburden are collectively referred to as the upper flow zones.

- Intermediate Grimsby - Sandstone/siltstone with relatively few fractures, exhibiting generally low hydraulic conductivity. This unit functions as an aquitard and is not considered a flow zone for groundwater.

- Grimsby/Queenston (GQ) - Interval of moderately fractured (conductive) bedrock occurring within approximately 15 feet above or below the contact between the Grimsby Sandstone and the Queenston Shale. The GQ and the underlying Queenston are collectively referred to as the lower bedrock flow zones.

- Queenston Shale - Interbedded siltstones and shales with no discernible horizontal interval of elevated hydraulic conductivity. This zone was not investigated within MIA-WRL, but was for the Kodak Park section KPW, located to the east.

The southern part of MIA-WRL is a topographic and bedrock high spot, with a number of bedrock units present in the area. Figure 3 shows the vertical relationship between these zones in the MIA-WRL area. Figures 4, 5, and 6 show the groundwater potentiometric surfaces for overburden, top-of-rock and Grimsby/Queenston, respectively. These figures are based on water level measurements taken when the bedrock trench MCS and the PL73 Overburden Groundwater Interceptor were operating and influencing groundwater flow directions.

The nature and extent of groundwater contamination at the site were evaluated using NYSDEC TAGM 3028 and NYSDEC TOGS 1.1.1 comparison values. Findings are summarized below:

- Groundwater contaminants detected include volatile and semi-volatile organic compounds (VOCs and SVOCs), with 1,4-dioxane being one of the principal constituents. Volatile organics, other organics, and metals have been detected in the overburden, top-of-rock and deep bedrock groundwater (Grimsby/Queenston) flow zones. Exceedances of groundwater quality standards/guidance values for organics in these zones have generally been limited. At many locations, detections of VOCs have been sporadic and generally at low concentrations. Many of the exceedances were observed at one time in samples obtained in an historic monitoring event, and have subsequently not been observed in more recent sampling events. Figures 7, 8, and 9 show total volatile organic contaminant and 1,4-dioxane concentrations for the overburden, top-of-rock and Grimsby/Queenston flow zones, respectively, for samples collected during 1999.

- The area near Parking Lot 73 has shown higher contaminant concentrations in the groundwater than other parts of MIA-WRL, and more chlorinated compounds than at other parts of MIA-WRL.

- Kodak has reviewed groundwater data against criteria commonly used to screen for the likely presence of dense non-aqueous phase liquid (DNAPL). Based on that evaluation, Kodak has concluded that DNAPL does not appear to have been present in this area.

Reference values used for screening groundwater quality data for MIA-WRL included NYSDEC TAGM 3028 "groundwater action levels" and NYSDEC TOGS 1.1.1 criteria for groundwater, values that are typically based on protection of drinking water quality. However, groundwater at and in the vicinity of MIA-WRL is not used as a drinking water source, due to availability of publicly supplied water, and the generally low yield and hardness of the groundwater in this area. Therefore, there is no complete direct ingestion exposure pathway associated with the groundwater exceedances.

The nature and extent of soils contamination determined through these investigations are summarized below:

- Volatile and Semi-Volatile Organic Constituents - Organic contaminants and metals were detected at various locations in MIA-WRL. For VOCs, ethylbenzene and xylene were detected at levels above NYSDEC TAGM 4046 comparison values, but less than NYSDEC TAGM 3028 comparison values. For semi-volatile organics, a number of polyaromatic hydrocarbons, phthalates, and phenolics were detected at levels greater than NYSDEC TAGM 4046 and/or TAGM 3028 comparison values.

- Inorganic Constituents - Most soil samples had exceedances of TAGM values for one or more metal, with the most common exceedances being for arsenic, beryllium, iron, and zinc. These exceedances are fairly uniformly distributed across MIA-WRL. This is consistent with observations at other areas of Kodak Park and suggest that the exceedances are not related to any particular SWMU of operation in MIA-WRL. Other metals exceedances were noted near the M-7 Leachate Pumping Station and near SWMU M-117, where cadmium, chromium, copper, mercury and lead were among the inorganics found. Kodak has attributed the latter exceedances to fly ash management at the landfill.

- Pesticides and PCBs - No exceedances were observed for these compounds.

A tiered screening process used NYSDEC Technical Administrative Guidance Memorandums (TAGM) 4046 and 3028 comparison values and USEPA guidance documents to identify soil contaminants that may pose human health or ecological risks. TAGM 3028 was used to identify contaminants posing potential direct ingestion hazards under a residential use scenario. The next step in the screening was used to identify contaminants posing potential direct ingestion hazards under a industrial/commercial use scenario. These results are summarized below.

- Arsenic, benzo(a)pyrene and lead were the only constituents present at concentrations above their respective Industrial Commercial Risk Based Levels (I/C RBL) comparison values.

- Arsenic and benzo(a)pyrene were found in some soils at concentrations exceeding the I/C RBLs at locations in MIA-WRL that are not currently covered by existing pavement, buildings, landfill cover or gravel or erosion control stone. However, the arsenic concentrations within potentially accessible soils in MIA-WRL are within the typical background concentration range for this area of New York State, and are not believed to be attributable to MIA-WRL SWMUs or manufacturing/material storage operations. The concentration of benzo(a)pyrene within potentially accessible soils in MIA-WRL are within the concentration range typical for urban settings . Additionally, although potentially accessible, these soil samples were obtained from areas currently covered by well established vegetative cover; and,

- Lead was detected in one soil sample at a concentration exceeding the I/C RBL (actually the same value used for a conservative residential exposure scenario) at a location in MIA-WRL that is currently covered by well established vegetative cover.

The soil risk evaluation, included as part of the presumptive remedy report, indicates that there are no unacceptable risks to human health or the environment posed by the surficial and subsurface soils, so the remedial approach for the soils will be to maintain current conditions through existing institutional controls and site operation and maintenance procedures. The reasonably anticipated future use of MIA-WRL is also industrial. This facility is listed in the registry of *Inactive Hazardous Waste Disposal Sites in New York State* that is published by the NYSDEC as Site Code 828002. The facility is also under federal hazardous waste management facility permit, and has applied for a NYSDEC 6NYCRR Part 373 hazardous waste management facility permit. Due to these circumstances, use of MIA-WRL for purposes other than industrial are not expected or likely. Property use restrictions will be implemented by Kodak to restrict future use of the MIA-WRL area to industrial/commercial uses only.

Even though the soils do not appear to pose an unacceptable risk via the direct contact/ingestion pathway, to reduce potential exposures to site soils, Kodak has recommended continued use of institutional controls. To limit potential exposure associated with subsurface excavations, Kodak has developed and implemented a soils excavation master plan. This plan imposes conditions, including health and safety provisions, that must be followed during the excavation and management of subsurface materials (soil) at the site.

Evaluation of Existing Corrective Measures

Kodak installed and has been operating a bedrock groundwater migration control system (MCS) for MIA-WRL since 1994. This system consists of a linear zone in the bedrock, where the rock has been purposefully fractured to enhance the collection of groundwater. The approximately

250-foot long trench extends approximately 20 feet into the upper bedrock and is equipped with a single pumping well. The fracture zone is located near the northwest corner of the Weiland Road Landfill and has been recovering over 2 million gallons of groundwater per year. Kodak also installed and in 1995 began operating a overburden groundwater interceptor system located located along the north side of MIA-WRL, towards the eastern end. This system is approximately 850 feet long and is oriented east-west, along the northern edge of Parking Lot 73. This system collects overburden groundwater migrating north from an older section of the closed landfill and has been recovering approximately 7 million gallons per year.

Another major feature in MIA-WRL is the landfill subsurface drainage system. This includes drain lines that were constructed 1950s and 1960s and later covered by fill. It also include more recent lines constructed during the 1970s as well as in 1990. The most recent work has been near the northwest corner of MIA-WRL. Water collected by the subsurface drainage system is directed to the M-7 pump station located at the northwest corner of the landfill. Annual discharge from the M-7 pump station is approximately 30 million gallons.

Groundwater from these systems is discharged to the industrial sewer for treatment at Kodak's Kings Landing Wastewater Purification Plant (KLWPP), located next to the Genesee River in KPE.

To help evaluate current conditions in the groundwater flow system, Kodak used a computer flow model to better understand flowpaths and fate of groundwater in the vicinity of MIA-WRL. This evaluation showed that the MCS should be effective in controlling the groundwater near the northwest corner of MIA-WRL. The computer simulations show that there is some north westward migration of groundwater from a portion of MIA-WRL that is not collected. However, this groundwater originates and travels through an area where groundwater concentrations have generally been below the groundwater comparison values.

Kodak's evaluation of current soil conditions in the presumptive remedy report indicated that no unacceptable risks were identified and that no additional risk management measures are needed for mitigative purposes at this time. However, property use restrictions will be implemented for MIA-WRL to limit future use of the site to industrial/commercial purposes. Also, to ensure the management of potential risk at MIA-WRL, the following actions need to be performed:

- Maintenance of the paved/covered surfaces in areas of I/C soil screening level exceedances to ensure that surface soils remain covered and not easily accessible;
- Continued use and enforcement of institutional controls (soils management plan); and,
- Continued operation and maintenance of the two groundwater collection systems and the subsurface drainage system, including associated MIA-WRL groundwater monitoring systems.

Remedial Goals

With the nature and extent of site contamination characterized and the potential risks identified,

remedial goals were established. The following goals have been identified:

1. Soils - Reduce exposure potential by utilizing the soils management plan (Excavation Master Plan II) for subsurface activities conducted in MIA-WRL and by imposing property use restrictions that notify future owners of past uses of this area and restrict future use of this area as long as soils concentrations exceed residential use comparison values. Inspect and maintain paved/covered surfaces in areas of I/C screening level exceedances to ensure that surface soils remain covered and not easily accessible.

2. Groundwater -

    A. Control migration of contaminated groundwater to protect human health and the environment. This includes preventing the expansion of the contaminant plume in the upper flow zones, precluding off-site migration and exposure due to the groundwater plume.

    B. Continued groundwater quality testing to monitor conditions in and near MIA-WRL to identify potential future changes.

    C. The MCS shall remain in operation until such time as Kodak can demonstrate to the Department's satisfaction that any residual contamination will not result in an exceedance of the groundwater quality criteria at the point of exposure.

Summary of Proposed Corrective Action

The proposed final remedy is to continue operation of the groundwater recovery systems described above (Evaluation of Existing Corrective Measures). The remedy will include a groundwater monitoring program to ensure that the implemented measures continue to meet their design objectives. This program will provide a means of identifying and correcting problems that may develop in the future. The program will also provide data that can be used to aid in the design of enhancements to the remedy that may be needed in the future. Based on the investigations, the primary need is to control the migration of contaminated groundwater. Monitoring results indicate that the interim corrective measures have been providing effective control for the groundwater.

The actions for the groundwater will also address any potential contaminants leaching from soils, so the only exposure associated with soils that needs to be considered is direct contact/ingestion. These exposures will be controlled through periodic inspection and maintenance of soil cover in areas where industrial/commercial screening criteria were exceeded, and through use of an approved soils management plan (Excavation Master Plan II) that specifies the procedures and controls, including health and safety requirements, that must be followed when conducting excavation activities within Kodak Park. The excavation plan specifies routine procedures designed to minimize potential exposures associated with soil excavation activities. The

proposed remedy was selected with the understanding that the area is in industrial use, and that the reasonably anticipated future use of this area is also industrial. To ensure this, property use restrictions will be placed on areas where soil concentrations exceed residential use comparison values.

The remedy that the Department is proposing for implementation at MIA-WRL is also the alternative that was recommended in the Presumptive Remedy Report that Kodak submitted. This report and related environmental investigation reports are available for review at the NYSDEC Region 8 office located in Avon and at the Kodak Park Neighborhood Information Center located in Rochester.

Evaluation of the Proposed Remedy

The proposed remedy was evaluated by the NYSDEC for technical feasibility, implementability, and short-term and long-term effectiveness with respect to the remedial goals identified above. The proposed remedy is technically feasible, relies on routinely available equipment and engineering practices and has to a substantial degree already been implemented and shown to be effective in the MIA-WRL area, through implementation of interim corrective measures. Key elements of the MCS have been in operation since 1994. Performance monitoring has demonstrated the MCS's ability to contain and control groundwater in the MIA-WRL area. The operational history for the MCS has shown it to be reliable, with very few incidents requiring extended shutdowns.

The total 30-year costs for the proposed remedy are estimated to be $1.55 million (net present value cost @ 5% is approximately $828,000). The Presumptive Remedy Report provides a breakdown of these costs. Since the groundwater collection systems have already been constructed, capital costs associated with initial construction were not included in the estimate.

The NYSDEC has determined that the proposed remedy satisfies the selection criteria and recommends that this remedy be implemented as the final corrective measure for MIA-WRL. The proposed remedy adequately addresses potential threats to the environment and human health, associated with MIA-WRL. It has also been demonstrated to be an effective, reliable remedy based on operating records for the interim corrective measures.

Public Participation

NYSDEC solicits public comment before making final determinations about selection of remedies. The NYSDEC issues responsiveness summaries if comments are received during the comment period.

Documents about the proposed remedy selection have also been placed in local document repositories. Copies of this Statement of Basis, the Fact Sheet, the RFI Report, the Presumptive Remedy Report were made available for public review.

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TABLE 1
SWMU DESCRIPTION SUMMARY
MIA-WRL PRESUMPTIVE REMEDY REPORT
KODAK PARK, ROCHESTER, NEW YORK

Unit ID	Unit Type	Status
M-117	Landfill	■
M-118	Sump	□
M-174	Release Site	□

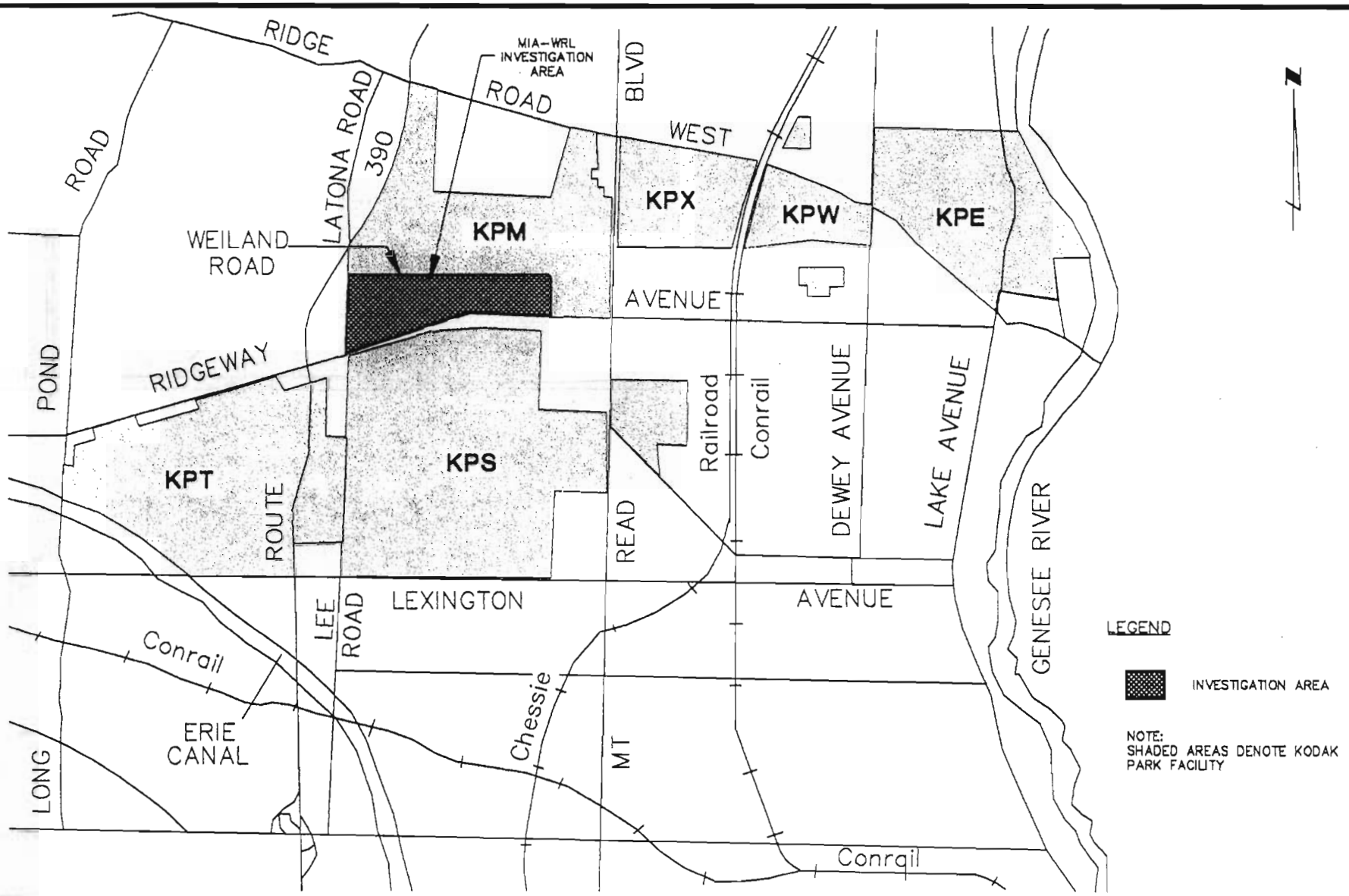
Key:

■ Further Action
□ No Further Action

TABLE 2
EXCEEDENCES OF SOIL
INDUSTRIAL/COMMERCIAL
RISK-BASED LEVELS
MIA-WRL PRESUMPTIVE REMEDY (I/C RBLs)
KODAK PARK, ROCHESTER, NEW YORK

Sample I.D.	Sample Depth	LIMS/AQMS Number	Sample Date	Benzo(a)pyrene (mg/kg)	Arsenic (mg/kg)	Lead (mg/kg)
I/C RBL				**0.8**	**3.8**	**400**
BORWRLF071890	N/A	0107423	18-Jul-90	2.50	8.50	-
L01BM85S051392	-	0145967	13-May-92	0.98	8.66	-
B01L73NW072794	0.0' - 1.0'	0187570	27-Jul-94	1.60	5.70	860
B03L73N072794	0.0' - 1.0'	0187582	27-Jul-94	0.80	4.20	-
SBM7-1 (0-2)	0.0' - 2.0'	L10357-1	6-Apr-99	1.40	16.5	-
SBM7-1 (1-3)	1.0' - 3.0'	L10357-2	6-Apr-99	0.91	18.8	-
SBM7-2 (1-3)	1.0' - 3.0'	L10357-3	6-Apr-99	-	8.23	-
L01WRLF070990	-	0106784	9-Jul-90	-	16.00	-
D02WRLF092490	-	0111212	24-Sep-90	-	14.00	-
P01KPM101891	-	0133799	18-Oct-91	-	5.90	-
L01KPM111991	-	0135757	19-Nov-91	-	6.50	-
B01B328SW012992	0.5' - 2.0'	0139467	29-Jan-92	-	11.1	-
B04L73NE072794	1.0' - 2.5'	0187589	27-Jul-94	-	4.8	-
L01BM7N072894	-	0187622	28-Jul-94	-	42	-
B01B33401112197	-	L4962-3	21-Jan-97	-	6.37	-
B01B33401112197	-	L4962-5	21-Jan-97	-	4.6	-

Notes:
Shaded entries identifies soil sample locations in areas of potentially exposed soil.
Depth not applicable to lugger or soil pile samples (designated by L or P prefix).



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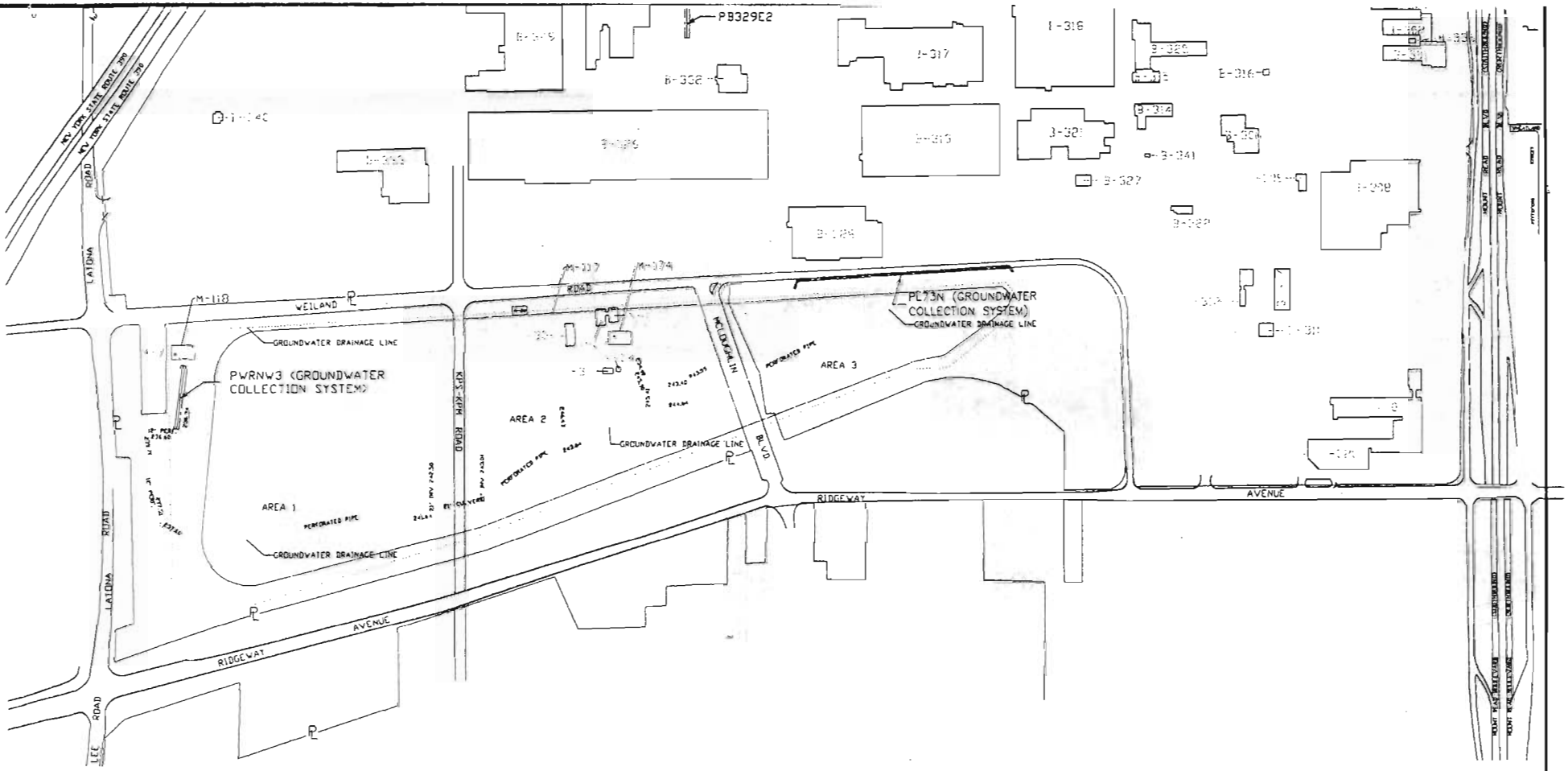
DRAWN: BEC	CHECKED: DJM	REVIEWED: DJM	DATE: 7/5/00	SCALE: NA	FILE NO.: 003-9245	JOB NO.: 003-9245	DWG NO.: KOD154	FIGURE: 1



LEGEND

- M-118 — SOLID WASTE MANAGEMENT UNIT (FURTHER ACTION OR SAMPLING VISIT)
- — INVESTIGATION AREA BOUNDARY
- — PROPERTY LINE
- — GROUNDWATER DRAINAGE LINE

400 0 400 800
scale feet

Golder Associates Buffalo, New York

CLIENT/PROJECT: MIA-WRL PRESUMPTIVE REMEDY
KODAK PARK CORRECTIVE ACTION PROGRAM
EASTMAN KODAK COMPANY
ROCHESTER, NEW YORK

TITLE: INVESTIGATION AREA LOCATION MAP

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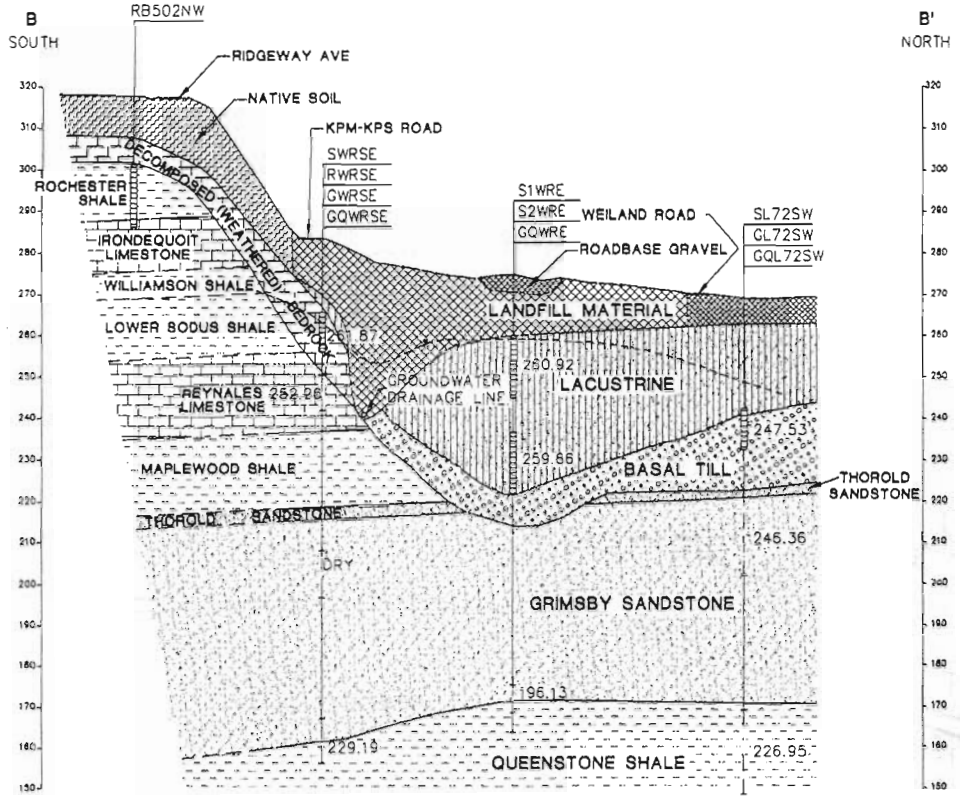
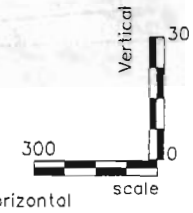
REVIEWED	DJM	FILE NO.	003-9245	FIGURE NO.	2





LEGEND

- SB9IS — BOREHOLE LABEL
- TOP OF BOREHOLE
- SCREENED INTERVAL
- BOTTOM OF SCREEN
- GROUNDWATER ELEVATION (229.85)
- OPEN COREHOLE INTERVAL
- BOTTOM OF BOREHOLE
- UPPERMOST GROUNDWATER POTENTIOMETRIC SURFACE
- LIMESTONE FORMATIONS
- DECOMPOSED (WEATHERED) BEDROCK
- LACUSTRINE
- SHALE FORMATIONS
- FILL MATERIAL
- NATIVE SOIL
- SANDSTONE FORMATIONS
- BASAL TILL
- LANDFILL MATERIAL

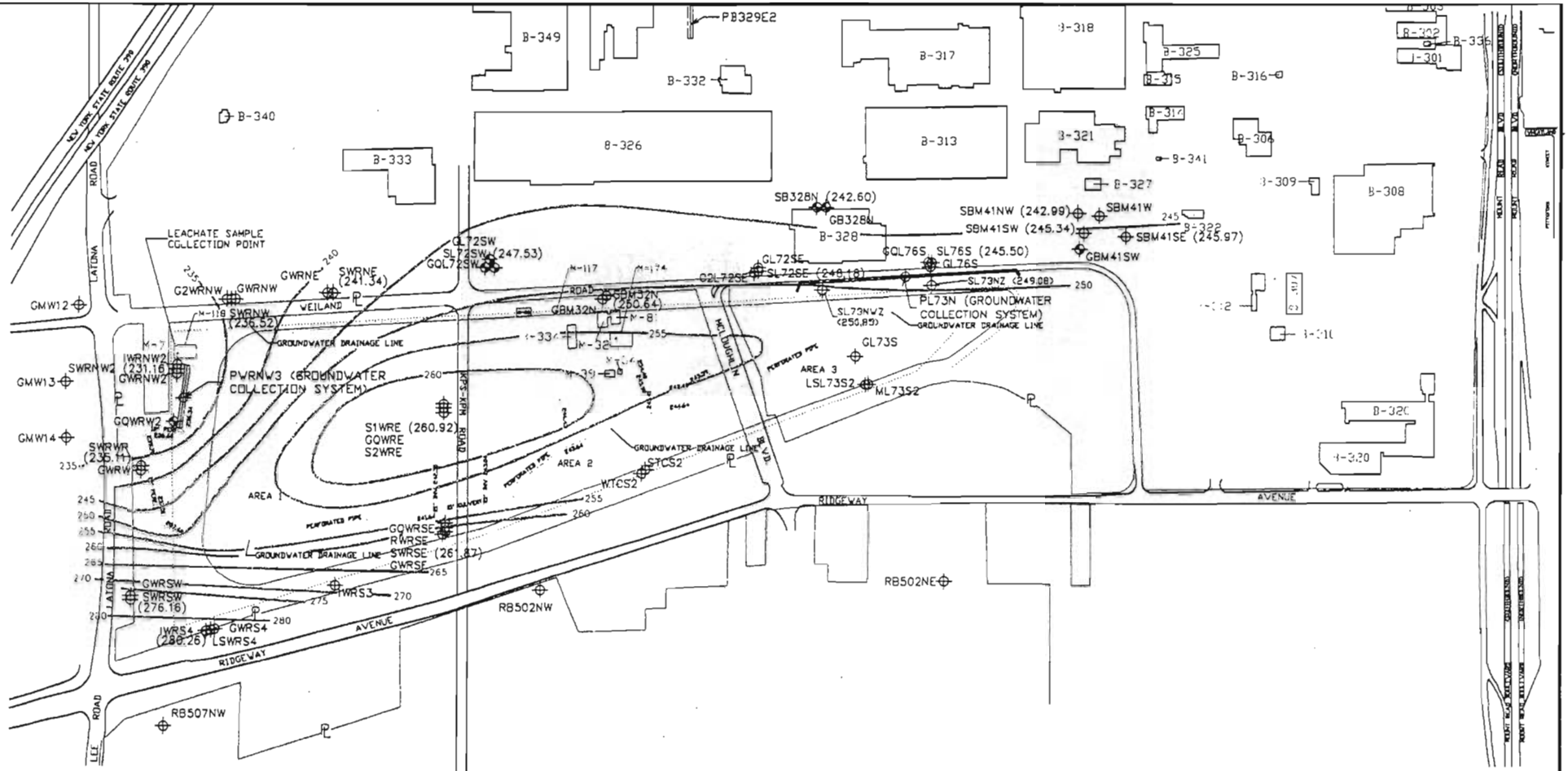
MODIFIED FROM: H&A OF NEW YORK, JANUARY 1994, "HYDROGEOLOGICAL INVESTIGATION AND MONITORING REPORT WIELAND ROAD LANDFILL, EASTMAN KODAK COMPANY, ROCHESTER, NEW YORK."
GROUNDWATER ELEVATIONS MEASURED SEPTEMBER 7-9, 1999

Golder Associates — Buffalo, New York

CLIENT/PROJECT: MIA-WRL PRESUMPTIVE REMEDY
KODAK PARK CORRECTIVE ACTION PROGRAM
EASTMAN KODAK COMPANY
ROCHESTER, NEW YORK

TITLE: GEOLOGICAL CROSS SECTION OF MIA-WRL

DRAWN	RAC	DATE 7/5/00	JOB NO. 003-9245
CHECKED	DCW	SCALE AS SHOWN	DWG. NO. KOD143
REVIEWED	DJM	FILE NO. 003-9245	FIGURE NO. 3



LEGEND

- NEW MONITORING WELL LOCATION (INSTALLED DURING RFI)
- EXISTING MONITORING WELL LOCATION
- GWRW — MONITORING WELL DESIGNATION
- (234.19) — GROUNDWATER ELEVATION
- 234 — GROUNDWATER POTENTIOMETRIC CONTOUR IN FEET (KODAK PARK DATUM).
- M-118 — SOLID WASTE MANAGEMENT UNIT (FURTHER ACTION OR SAMPLING VISIT)
- PROPERTY LINE
- GROUNDWATER DRAINAGE LINE

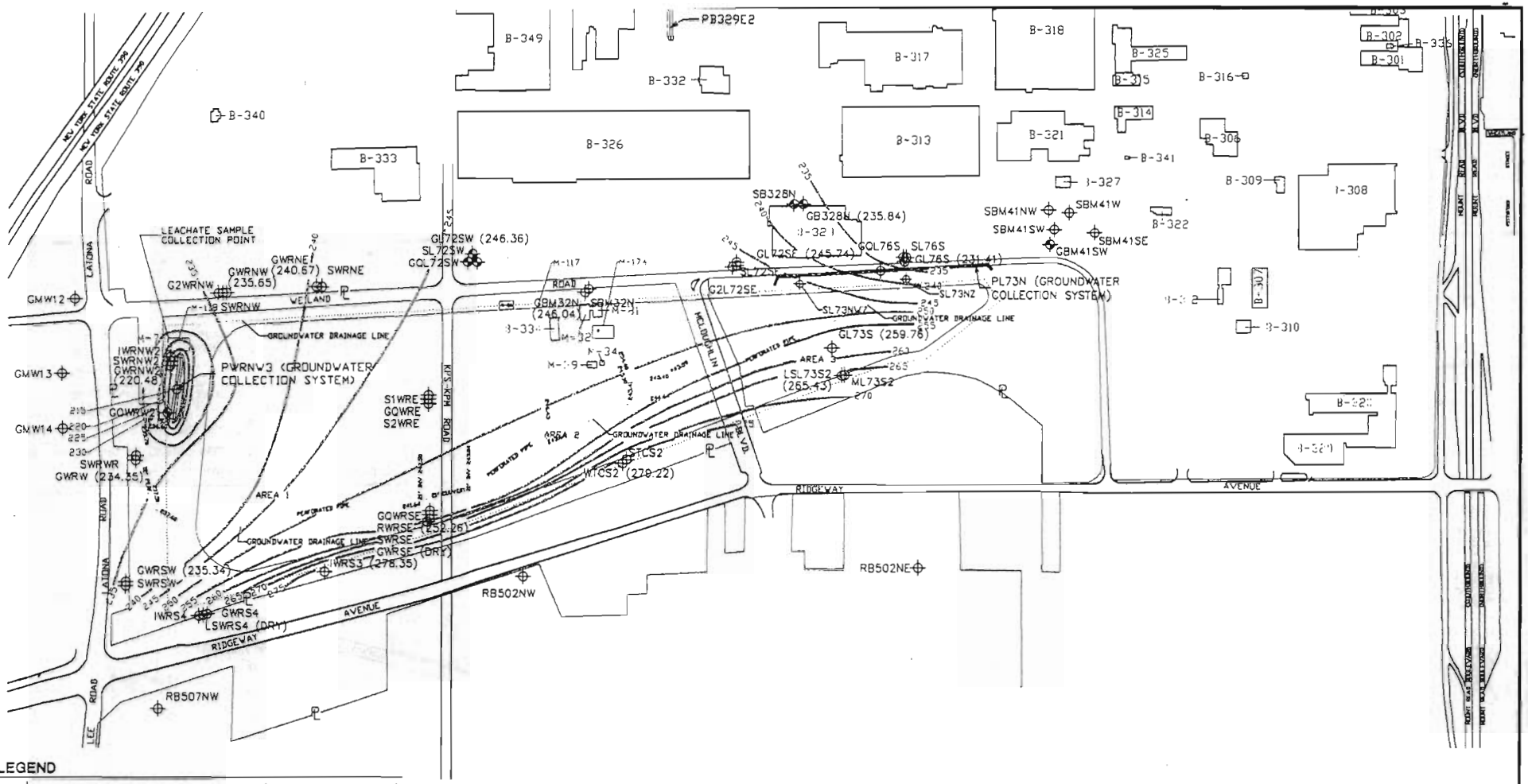
400 0 400 800
scale feet

Golder Associates — Buffalo, New York

CLIENT/PROJECT
MIA-WRL PRESUMPTIVE REMEDY
KODAK PARK CORRECTIVE ACTION PROGRAM
EASTMAN KODAK COMPANY
ROCHESTER, NEW YORK

TITLE
OVERBURDEN GROUNDWATER CONTOUR MAP SEPTEMBER 7-9, 1999

DRAWN RAC	DATE 7/20/00	JOB NO. 003-9245	
CHECKED DCW	SCALE AS SHOWN	DWG. NO. KOD145	
REVIEWED DJM	FILE NO. 003-9245	FIGURE NO. 4	



LEGEND

- ⊕ — NEW MONITORING WELL LOCATION (INSTALLED DURING RFI)
- ⊕ — EXISTING MONITORING WELL LOCATION
- GWRW — MONITORING WELL DESIGNATION
- (234.19) — GROUNDWATER ELEVATION
- 234 — GROUNDWATER POTENTIOMETRIC CONTOUR IN FEET (KODAK PARK DATUM).
- SOLID WASTE MANAGEMENT UNIT (FURTHER ACTION OR SAMPLING VISIT)
- — P — — PROPERTY LINE
- — GROUNDWATER DRAINAGE LINE

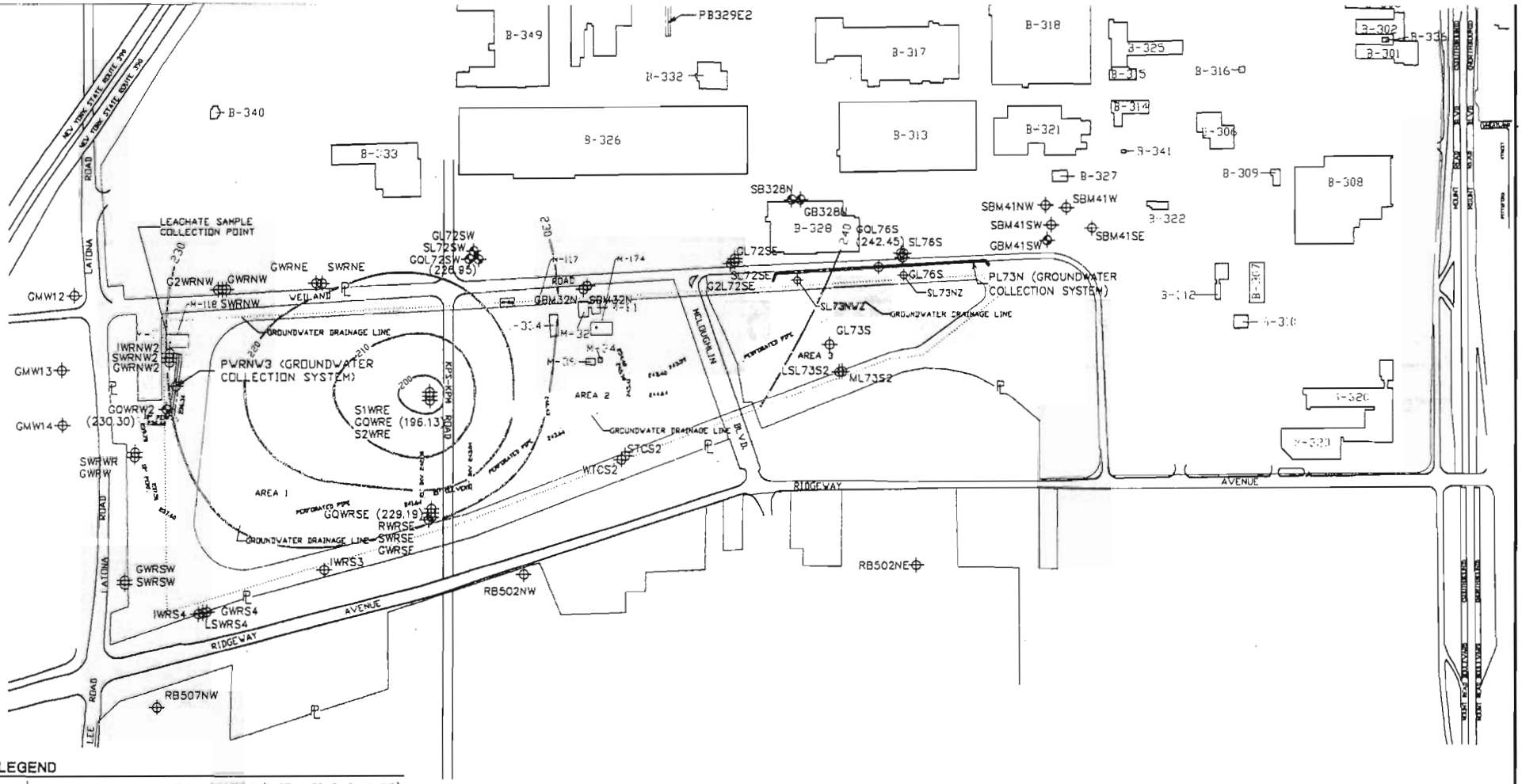
400 0 400 800
scale feet

Golder Associates Buffalo, New York

CLIENT/PROJECT
MIA-WRL PRESUMPTIVE REMEDY
KODAK PARK CORRECTIVE ACTION PROGRAM
EASTMAN KODAK COMPANY
ROCHESTER, NEW YORK

TITLE
TOP-OF-ROCK GROUNDWATER POTENTIOMETRIC CONTOUR MAP SEPTEMBER 7-9, 1999

DRAWN RAC	DATE 7/20/00	JOB NO. 003-9245
CHECKED DCW	SCALE AS SHOWN	DWG. NO. KOD146
REVIEWED DJM	FILE NO. 003-9245	FIGURE NO. 5



LEGEND

- —NEW MONITORING WELL LOCATION (INSTALLED DURING RFI)
- — EXISTING MONITORING WELL LOCATION
- GWRW — MONITORING WELL DESIGNATION
- (234.19) — GROUNDWATER ELEVATION
- 234 — GROUNDWATER POTENTIOMETRIC CONTOUR IN FEET (KODAK PARK DATUM).
- M-118 — SOLID WASTE MANAGEMENT UNIT (FURTHER ACTION OR SAMPLING VISIT)
- — PROPERTY LINE
- GROUNDWATER DRAINAGE LINE

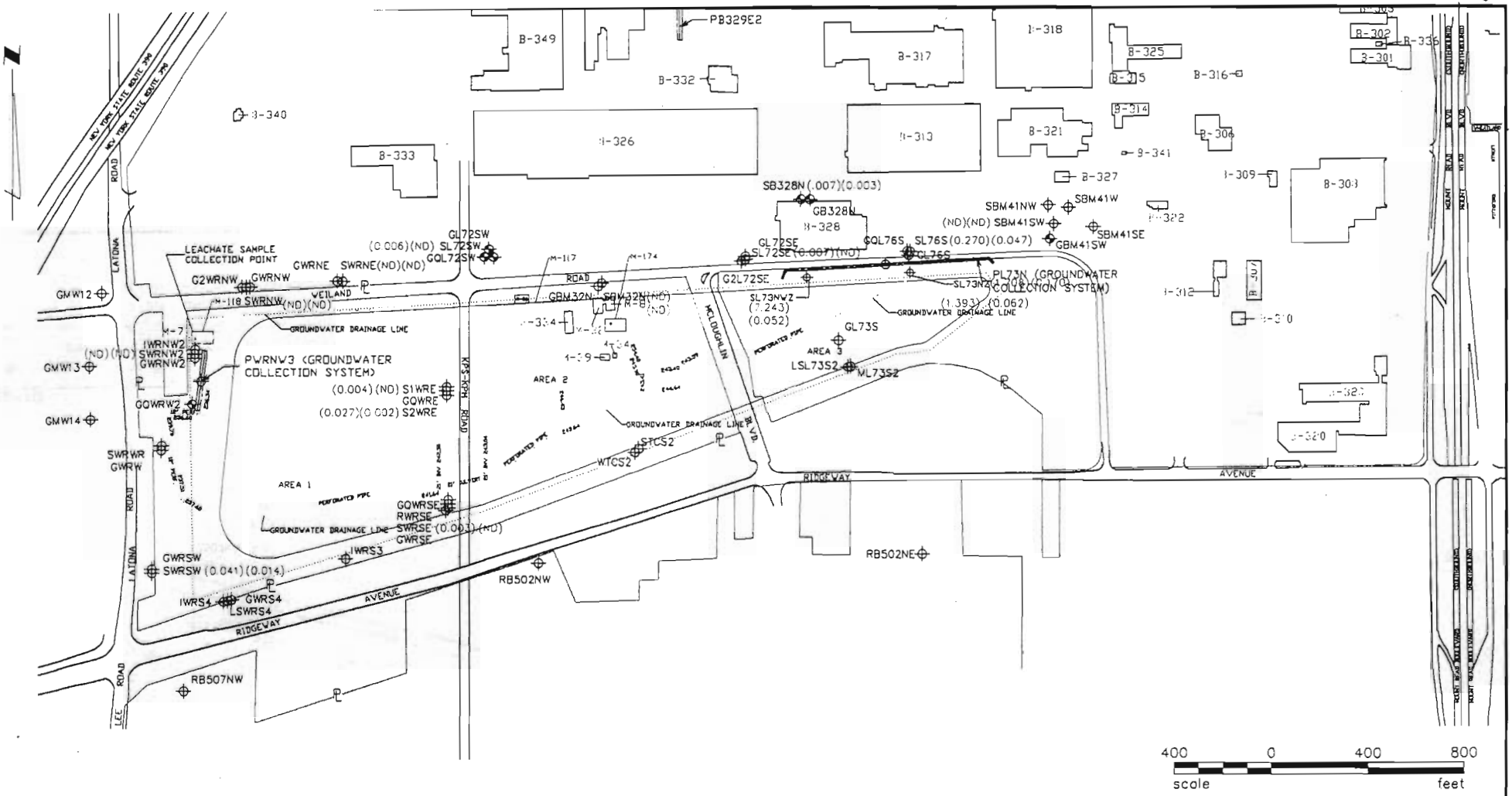
400 0 400 800
scale feet

Golder Associates Buffalo, New York

CLIENT/PROJECT: MIA-WRL PRESUMPTIVE REMEDY
KODAK PARK CORRECTIVE ACTION PROGRAM
EASTMAN KODAK COMPANY
ROCHESTER, NEW YORK

TITLE: GRIMSBY-QUEENSTON
GROUNDWATER POTENTIOMETRIC
CONTOUR MAP SEPTEMBER 7-9, 1999

DRAWN: RAC	DATE: 7/20/00	JOB NO.: 003-9245
CHECKED: DCW	SCALE: AS SHOWN	DWG. NO.: KOD147
REVIEWED: DJM	FILE NO.: 003-9245	FIGURE NO.: 6



LEGEND

- — NEW MONITORING WELL LOCATION (INSTALLED DURING RFI)
- — EXISTING MONITORING WELL LOCATION
- GWRW — MONITORING WELL DESIGNATION
- (0.270) — TOTAL VOCS 1999 GROUNDWATER SAMPLING (mg/L)
- (0.090) — TOTAL 1,4-DIOXANE 1999 GROUNDWATER SAMPLING (mg/L)
- SOLID WASTE MANAGEMENT UNIT (FURTHER ACTION OR SAMPLING VISIT)
- — INVESTIGATION AREA BOUNDARY
- — PROPERTY LINE
- — GROUNDWATER DRAINAGE LINE

NOTES: 1. ND–NON DETECT
2. TOTAL VOCS VALUES DO NOT INCLUDE KPM SITE–SPECIFIC ALCOHOL'S
3. TOTAL VOC AND 1,4–DIOXANE INCLUDE ESTIMATED (J) AND BLANK (B) QUALIFIERS.

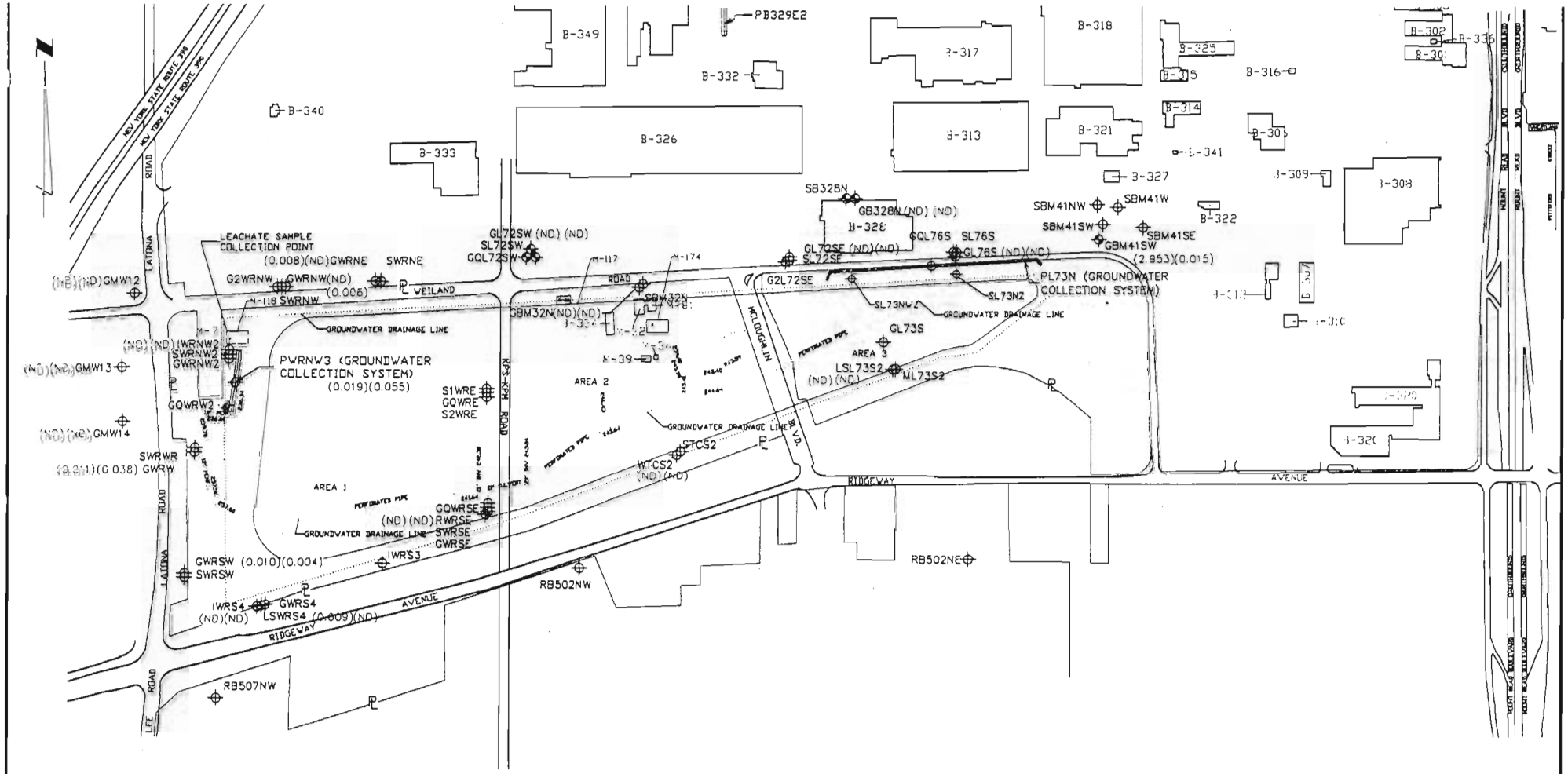
Golder Associates Buffalo, New York

CLIENT/PROJECT: MIA-WRL PRESUMPTIVE REMEDY
KODAK PARK CORRECTIVE ACTION PROGRAM
EASTMAN KODAK COMPANY
ROCHESTER, NEW YORK

TITLE: OVERBURDEN GROUNDWATER TOTAL VOC AND 1,4-DIOXANE CONCENTRATIONS 1999

DRAWN	LPG	DATE 7/20/00	JOB NO. 003-9245
CHECKED	DCW	SCALE AS SHOWN	DWG. NO. KOD150
REVIEWED	DJM	FILE NO. 003-9245	

Figure 7



400 0 400 800

scale feet

LEGEND

- — NEW MONITORING WELL LOCATION (INSTALLED DURING RFI)
- — EXISTING MONITORING WELL LOCATION
- GWRW — MONITORING WELL DESIGNATION
- (0.010) — TOTAL VOCS 1999 GROUNDWATER SAMPLING (mg/L)
- (0.354) — 1,4-DIOXANE 1999 GROUNDWATER SAMPLING (mg/L)
- M-118 — SOLID WASTE MANAGEMENT UNIT (FURTHER ACTION OR SAMPLING VISIT)
- — INVESTIGATION AREA BOUNDARY
- — PROPERTY LINE
- — GROUNDWATER DRAINAGE LINE

NOTES: 1. ND–NON DETECT
2. TOTAL VOCS VALUES DO NOT INCLUDE KPM SITE–SPECIFIC ALCOHOL'S
3. TOTAL VOC AND 1,4–DIOXANE INCLUDE ESTIMATED (J) AND BLANK (B) QUALIFIERS.

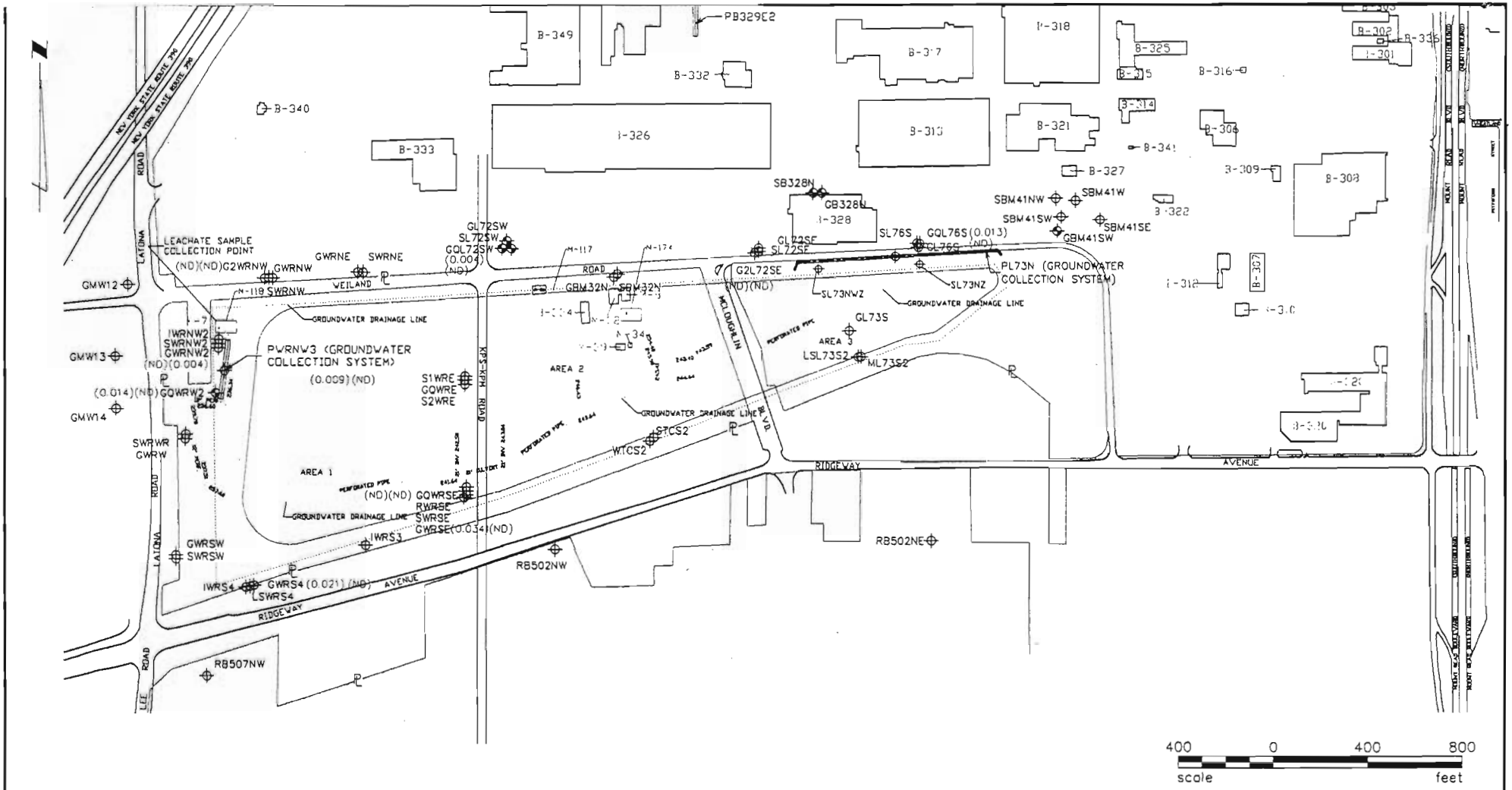
Golder Associates Buffalo, New York

CLIENT/PROJECT: MIA-WRL PRESUMPTIVE REMEDY
KODAK PARK CORRECTIVE ACTION PROGRAM
EASTMAN KODAK COMPANY
ROCHESTER, NEW YORK

TITLE: TOR GROUNDWATER TOTAL VOC AND 1,4-DIOXANE CONCENTRATIONS 1999

DRAWN	LPG	DATE 7/20/00	JOB NO. 003-9245
CHECKED	DCW	SCALE AS SHOWN	DWG. NO. KOD151
REVIEWED	DJM	FILE NO. 003-9245	

Figure 8



LEGEND

- ⊕ — NEW MONITORING WELL LOCATION (INSTALLED DURING RFI)
- ⊕ — EXISTING MONITORING WELL LOCATION
- GWRW — MONITORING WELL DESIGNATION
- (0.004) — TOTAL VOCS 1999 GROUNDWATER SAMPLING (mg/L)
- (0.023) — 1,4-DIOXANE 1999 GROUNDWATER SAMPLING (mg/L)
- N-118 — SOLID WASTE MANAGEMENT UNIT (FURTHER ACTION OR SAMPLING VISIT)
- — INVESTIGATION AREA BOUNDARY
- — P — PROPERTY LINE
- — GROUNDWATER DRAINAGE LINE

NOTES: 1. ND–NON DETECT
2. TOTAL VOCS VALUES DO NOT INCLUDE KPM SITE-SPECIFIC ALCOHOL'S
3. TOTAL VOC AND 1,4-DIOXANE INCLUDE ESTIMATED (J) AND BLANK (B) QUALIFIERS.

Golder Associates — Buffalo, New York

CLIENT/PROJECT: MIA-WRL PRESUMPTIVE REMEDY
KODAK PARK CORRECTIVE ACTION PROGRAM
EASTMAN KODAK COMPANY
ROCHESTER, NEW YORK

TITLE: LOWER BEDROCK GROUNDWATER TOTAL VOC AND 1,4 DIOXANE CONCENTRATIONS 1999

DRAWN	LPG	DATE 7/20/00	JOB NO. 003-9245
CHECKED	DCW	SCALE AS SHOWN	DWG. NO. KOD152
REVIEWED	DJM	FILE NO. 003-9245	

Figure 9