D O M A N I

2003 ANNUAL OPERATION, MAINTENANCE AND MONITORING REPORT

2200 BLEECKER STREET
UTICA, NEW YORK 13501
NYSDEC SITE NO. 622003

Prepared for:

Utica Holding Company c/o
Danaher Corporation
7200 West Fullerton Avenue
Franklin Park, Illinois

Prepared by:

DOMANI
120 East Washington Street, Suite 400
Syracuse, NY 13202
(315) 475-3700

March 2004

CERTIFICATION

I, Paul M. Fisher, P.E., as a licensed Professional Engineer in the State of New York, certify that the 2003 Annual Operation, Maintenance and Monitoring Report, Sections 1 through 5, for the property located at 2200 Bleecker Street, Utica, New York, pursuant to the Draft DER-10, December 2002, Section 1.5(a)8, has been prepared in accordance with good engineering practices. I further certify that the inspections and evaluations, for said sections, were implemented and that all activities were completed in accordance with the Department-approved Operation, Maintenance and Monitoring Manual and/or Department-approved changes, and were personally witnessed by me or by a person under my direct supervision.

PAUL M. FISHER, P.E.

CERTIFICATION

I, James R. Heckathorne, P.E., as a licensed Professional Engineer in the State of New York, certify that Section 6 of the 2003 Annual Operation, Maintenance and Monitoring Report, for the property located at 2200 Bleecker Street, Utica, New York, is prepared pursuant to the Draft DER-10, December 2002, Section 1.5(a)8 and has been prepared in accordance with good engineering practices.

O'BRIEN & GERE

JAMES R. HECKATHORNE, P.E.

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LIST OF APPENDICES

ACRONYMS AND ABBREVIATIONS

ABBREVIATION	NAME
BBL	Blasland, Bouck & Lee
bgs	below ground surface
cfm	cubic feet per minute
cis-1,2-DCE	cis-1,2-dichloroethene
CMP	corrugated metal pipe
Coolidge	Coolidge Utica Properties, LLC
CPTC	Chicago Pneumatic Tool Company
Danaher	Danaher Corporation
DER-10	NYSDEC's Draft DER-10, *Technical Guidance for Site Investigation and Remediation* dated December 25, 2002
DMRs	Discharge Monitoring Reports
Fathead Minnow	Pimephales promelas (vertebrate)
FER	Final Engineering Report
gpd	gallons per day
gpm	gallons per minute
GTS	groundwater treatment system
HDPE	high-density polyethylene
IRM	Surface Water Interim Remedial Measures
ISACC	Intelligent System for Automatic Control & Communication (Auto Dialer System)
Main Building	former main manufacturing building
MH	Manhole
NCT	northern collection trench
ng/l	nanograms/liter
NYSDEC	New York State Department of Environmental Conservation
OBG	O'Brien and Gere Engineers, Inc.
OCDWC	Oneida County Department of Water Quality and Water Pollution Control
OM&M	Operation, Maintenance and Monitoring
PCB	polychlorinated biphenyl
ppb	parts per billion
ppm	parts per million
ppt	parts per trillion
PVC	polyvinyl chloride
QA/QC	Quality assurance/quality control
RA	Remedial Action
RAF	Remedial Action Facility
RD	Remedial Design
RI	Remedial Investigation
ROD	Record of Decision
SCT	southern collection trench
SECOR	SECOR International Incorporated
SPDES	State Pollutant Discharge Elimination System
TCE	Trichloroethylene
the Property	2200 Bleecker Street in Utica, New York
TOGS 1.1.1	NYSDEC Division of Water *Technical and Operation Guidance Series (1.1.1) Ambient Water Quality and Guidance Values and Groundwater Effluent Limitations* dated June 1998
trans-1,2-DCE	trans-1,2-dichloroethene
TSS	total suspended solids
UHC	Utica Holding Company
VC	vinyl chloride
VOC	volatile organic compound
Water Flea	Ceriodaphnia dubia (invertebrate)

ASSOCIATED DOCUMENTS

ABBREVIATION	TITLE	AUTHOR	DATE
Phase 1	Phase I Investigation	BBL	8/85
SIR	Site Investigation Report	BBL	7/90
PSA	Preliminary Site Assessment	NYSDEC	11/90
Order	Order on Consent for RI/FS Index No. A6-0279-920-04	NYSDEC	10/26/93
RI	Remedial Investigation Report	BBL	10/94
IRM	Surface Water Interim Remedial Measures (Design)	BBL	10/94
IRM-DWG	IRM Contract Drawing	BBL	04/95
IRM OM&M	IRM Operation & Maintenance Manual	BBL	04/95
RI/FS	Health and Safety Plan - Addendum #1 Remedial Investigation/Feasibility Study	BBL	10/95
SRI/FS	Supplemental Remedial Investigation Report/Feasibility Study	BBL	12/95
ROD	Record of Decision - Site No. 622003	NYSDEC	3/29/96
ORDER	Administrative Order on Consent Index No. B6-0491-96-04	NYSDEC	10/02/97
RD	Remedial Design Work Plan	BBL	11/97
RDS	Remedial Design Specifications	BBL	4/98
SPDES-SAP	SPDES Stormwater Action Plan	SECOR	6/00
FER	Final Engineering Report (Final)	SECOR	8/01
OMM	Operation, Maintenance & Monitoring Manual (Final)	SECOR	4/01
2000-RPT	2000 Annual Operation, Maintenance & Monitoring Report	SECOR	4/01
2001-RPT	2001 Annual Operation Maintenance & Monitoring Report	SECOR	8/02
UHC SPDES	Utica Holding Company SPDES Permit No. NY-0257087	NYSDEC	9/1/02
CPTC SPDES	Chicago Pneumatic SPDES Permit No. NY-0108537	NYSDEC	9/1/02
2002-RPT	2002 Annual Operation, Maintenance and Monitoring Report	SECOR	3/03

1.0 INTRODUCTION

This 2003 Operation, Maintenance and Monitoring Report (OM&M Report) provides an annual account of activities relative to the property located at 2200 Bleecker Street in Utica, New York (the Property). The Chicago Pneumatic Tool Company (CPTC) occupied the Property from 1948 through 1997 for manufacturing. The Property is currently owned by Utica Holding Company (UHC), a subsidiary of Danaher Corporation (Danaher), with the exception of the former main manufacturing building (Main Building) structure and the land beneath that structure, which is presently owned by Coolidge Utica Properties, LLC (Coolidge).

Environmental assessments and investigations conducted between 1985 and 1990 identified impacted soil, surface water, and groundwater at the Property, and prompted the New York State Department of Environmental Conservation (NYSDEC) to issue an Administrative Order on Consent in 1993, directing the investigation and remediation of impacted areas at the Property. In 1996, NYSDEC issued a Record of Decision (ROD) for the Property, and listed it in the Registry of Inactive Hazardous Waste Disposal Sites, followed by a second administrative Order on Consent. This set forth a Remedial Design (RD) and subsequent Remedial Action (RA) required for the Property. Following completion of the RA construction and reporting activities, NYSDEC issued a letter indicating that the RA had been approved. A chronological list entitled Associated Documents, Page vi, summarizes key documents.

This OM&M Report has been prepared in conformance with the requirements set forth in NYSDEC's Draft DER-10, dated December 25, 2002, *Technical Guidance for Site Investigation and Remediation* (DER-10), and has been prepared in reference to the Final Engineering Report (FER), previously submitted and accepted by NYSDEC for the Property. This OM&M Report is directed by the OM&M Manual has the following objectives:

- To provide an evaluation of the compliance of the RA with the requirements of the ROD and subsequent Order on Consent;
- To provide an evaluation of the operation and the effectiveness of the ongoing remedial operations and treatment systems in use at the Property, and identification of any needed repairs or modifications;
- To provide an evaluation of the performance and effectiveness of the remedy;
- To document any necessary changes to the remedy and/or monitoring systems;
- To provide recommendations for changes and/or new conclusions regarding environmental impact at the Property based on this evaluation; and
- To provide information to the public.

This report has been organized into six sections, each addressing a specific physical area/feature and/or regulatory program/requirement pertaining to ongoing operations at the Property as follows:

Section 1.0 - Introduction

Section 2.0 - Property Inspection and Maintenance - Discusses the current ownership and uses of the Property, and the ongoing inspection and maintenance requirements associated with the Property's general ongoing use;

Section 3.0 - Remedial Action Facility - Discusses the Remedial Action Facility (RAF) at the Property, primarily consisting of a containment cell and a leachate collection and storage system, and the inspection and maintenance requirements associated with the RAF's ongoing operation;

Section 4.0 - Groundwater Monitoring - Discusses the groundwater monitoring well network at the Property, and the groundwater sampling and analytical requirements and results;

Section 5.0 - Property SPDES - Discusses the State Pollutant Discharge Elimination System (SPDES) permitted surface water discharges through three outfalls at the Property, and the routine and additional effluent sampling and analytical programs required by the permit; and

Section 6.0 - Groundwater Treatment System - Discusses the operation and maintenance of the groundwater treatment system (GTS) installed and currently operating at the Property.

On behalf of UHC, DOMANI, of Syracuse, New York, has been managing the administrative and technical requirements pursuant to the RA since May 1, 2003, with the exception of the GTS, which has been operated by O'Brien and Gere Engineers, Inc. (OBG), of East Syracuse, New York. As indicated in a May 2003 letter transmitted to NYSDEC, personnel historically responsible for managing the administrative and technical requirements pursuant to the RA, with the exception of the GTS, transitioned from SECOR International Incorporated to DOMANI. This change occurred without lapse to the OM&M at the Property.

This OM&M Report also discusses, and presents as appendices, applicable data and information collected in compliance with satisfying the DER-10 requirements, such as monthly discharge monitoring reports (DMRs), site inspection forms, field monitoring logs, and laboratory analytical data.

2.0 PROPERTY INSPECTION AND MAINTENANCE

The overall Property consists of a 77-acre parcel (see Figure 2-1, Aerial Property Map) located in an industrial setting with approximately 35 acres of undeveloped woodland at the southern portion of the Property. UHC retains ownership of the Property, which includes the ancillary buildings and the land, excluding the 458,000 square foot Main Building (see Figure 2-2, Facility Plan). The Main Building is presently owned by Coolidge Utica Properties, LLC, whom leases the remaining Property, and subsequently rents/leases portions/sections of the building/Property to various tenants. The peripheral Property receives monthly inspection and maintenance in conjunction with the required inspections of the RAF and associated components. This section includes inspection and maintenance of the peripheral Property only. The RAF, groundwater monitoring, Property SPDES, and GTS are discussed in Section 3, Section 4, Section 5, and Section 6, respectively.

2.1 Property History

CPTC occupied the Property from 1948 until 1997 for the manufacture of pneumatic tools. Danaher owned CPTC, but transferred ownership to Atlas Copco. The Property, with the exception of the Main Building, is currently owned by UHC, a subsidiary of Danaher. The Main Building has been owned by Coolidge Utica Properties, LLC and the remaining land leased by Utica Land Equities, LLC, both of Houlihan-Parnes Realtors, since 1997.

The environmental condition of the Property was first addressed in a 1985 Phase I Site Assessment (see Associated Documents). A subsequent site investigation was conducted in July 1990, and NYSDEC conducted a Preliminary Site Assessment later that year. Based on the findings presented in these investigation reports, NYSDEC issued an Administrative Order on Consent in 1993 which mandated the further investigation and remediation of impacted areas at the Property. Pursuant to this Order on Consent, Blasland Bouck & Lee, Inc. (BBL) submitted a Remedial Investigation (RI) report and a Surface Water Interim Remedial Measures (IRM) design in 1994, and a Supplemental Remedial Investigation/Feasibility Study in 1995. In 1996, NYSDEC issued a Record of Decision for the Property, and listed the Property in the Registry of Inactive Hazardous Waste Sites (No. 622003 - Class 2), specifying the RA required for the Property. A second administrative Order on Consent was issued in 1997 followed by the RD.

The IRM, which included an air stripper, has been in operation since 1995. The air stripper and pumping appurtenance were incorporated into the RA. The RA was implemented from May 1998 through December 1999. A June 2000 SPDES Stormwater Action Plan was prepared and transmitted to NYSDEC to document SPDES corrective actions performed at the Property and to set forth contingency measures. NYSDEC issued a letter dated December 11, 2001 indicating that the FER and accompanying drawing and OM&M Manual for the Property had been approved. Furthermore, the NYSDEC issued an earlier letter dated March 7, 2000 reclassifying the Property as a Class 4 Inactive Hazardous Waste Disposal Site. CPTC and Danaher retain responsibility for implementing long term OM&M of the GTS and RAF, respectively, at the Property.

The RA included the following major components:

- Remediation involving soil and sediment removal at 14 identified source areas (see Figure 2-3, Historical Remedial Action Area);

- Construction of a containment cell to store impacted soil and sediment from the 14 identified source areas. The containment cell and associated leachate collection system and building are surrounded by a perimeter fence and access is limited to authorized individuals associated with UHC. This fenced area is referred to as the RAF; and

- Construction and connection of two trenches, Northern collection trench (NCT) and southern collection trench (SCT), to the existing air stripper creating the GTS.

UHC currently maintains responsibility for the SPDES permit associated with three outfalls located on the Property, which is discussed in Section 5. CPTC maintains responsibility for the GTS and Associated SPDES permit which is discussed in Section 6.

2.2 Property Geology and Hydrogeology

The Property is located on the southern side of the Mohawk Valley, which is a broad, east-west trending lowland, the floor of which consists of a uniform sequence of laminated, calcareous black shale known as the Utica Shale. South of the Property, the land surface rises abruptly off the valley floor, forming a bluff capped by limestone. The Mohawk River is located approximately 3,000 feet north of the Property. In general, regional dip of the bedrock units is to the southwest. Regional estimates of depth to bedrock range from 21 to 75 feet.

Subsurface materials at the Property were described during installation of monitoring wells, soil borings, test pits, and excavations performed during investigative and remedial actions conducted primarily between 1988 and 1999. The unconsolidated subsurface materials are composed of varying consistencies of sand, silt, and clay. Some of the materials have been reworked to varying depths across the site by former facility activity and are classified as fill. The depth of the unconsolidated material across the Property ranges from three 3 feet to 12 feet below grade. A till layer was encountered below the unconsolidated material and ranged in thickness from 12 to 24 feet. The till deposits are described as over-consolidated, dark gray silt and clay, that dips gradually toward the north-northwest.

The regional groundwater flow is northeast, toward the Mohawk River. Two distinct hydrogeologic units, separated by a semi-confining till unit, are present at the Property. The first water-bearing unit is the unconsolidated overburden material (sand, silt, clay). Depth to first groundwater encountered in the overburden at the Property is generally within 5 feet of the ground surface. Weathered shale bedrock is the second water-bearing unit, and was reportedly encountered between 23 and 30 feet below ground surface.

2.3 Property Activities

The majority of the Property buildings are currently occupied by tenants that generally include trucking, fabric manufacturing, storage, food (dough) manufacturing, and printing businesses. The Main Building, 458,000 square feet, is surrounded by approximately 57,000 square feet of ancillary buildings. Paved access roads and parking areas cover approximately 12 acres. An approximate 35-acre wooded tract, at the southern portion, remains inactive. No specific changes in the Property's makeup or unusual activities related to the operation and maintenance requirements were noted during the calendar year 2003.

2.4 Inspection

Scheduled Property visits and subsequent Site Inspection Reports – Form A, (Appendix A) are performed and prepared to track Property activities and monitor Property drainage. These reports indicate required maintenance and provide a follow-up to ensure the subsequent maintenance effectiveness. Scheduled and unscheduled Property visits are documented on additional forms, and are discussed in appropriate sections throughout this report. During 2003, the Property ditches were inspected and observed to be well vegetated, and overall, not generally prone to sedimentation. Additionally, the ditches are inspected for unusual staining and deposits, of which none were identified. The Property culverts are inspected as well, to insure they are clear and functional.

2.5 Property Drainage and Outfalls

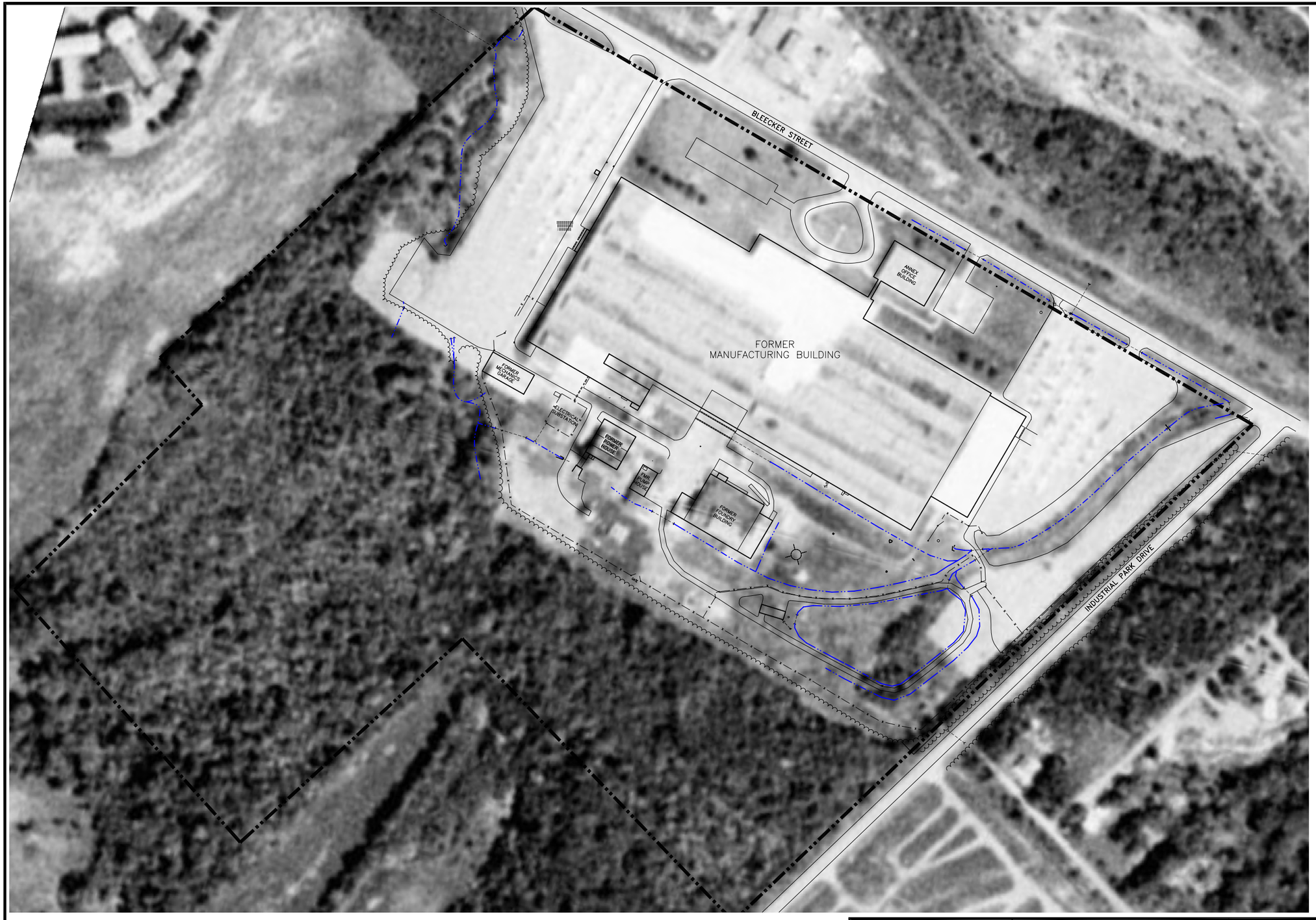
The Property is generally drained via existing drainage ditches located at the east and west portions of the Property. The west unnamed creek, Area 1 (See Figure 2-3), flows from the south through a wooded area and runs along the western perimeter of the Property, exiting at the northwest corner of the Property. The unnamed creek drainage contribution primarily consists of roof leaders conveyed via the northern and southwestern stormwater systems emanating from of the Main Building. Surface water runoff from the western parking lot and surface water runoff from a southern agriculture area also contribute to the unnamed creek. The southwestern and northern stormwater systems are monitored from manholes identified as SPDES Outfall 001 and Outfall 002, respectively. SPDES outfall monitoring for the Property is discussed in Section 5. The unnamed creek floods occasionally in the spring and fall, primarily due to restrictions in an off-site stormwater piping system. A new culvert was installed by the county across Bleecker Street, approximately 300 feet off-site to the west. This culvert was installed to limit flooding of Bleecker Street by water backing up the unnamed creek, Area 1.

Two east-west oriented surface water drainage ditches, Area 4 and Area 6, originate from the mid portion of the Property, behind the former Main Building, and converge to form one north-south ditch, Area 14, along the eastern portion of the Property. This east drainage ditch joins a road ditch located parallel to Bleecker Street. Treated effluent from the GTS, which is covered in Section 6, is discharged to the east drainage ditch via SPDES Outfall 03A. The east drainage ditch also receives stormwater from roof leaders connected to the southeastern stormwater system and the RAF surface drainage, as well as surface water from the eastern parking lots. The SPDES Outfall 003 is located near the northern end of the eastern drainage ditch; prior to joining a drainage ditch parallel to Bleecker Street.

2.6 Summary

The northern portion of the Property continued to be active throughout 2003, however, the southern portion remains wooded and inactive. Tenants occupy approximately 80% of the Main Building and continue to use the surrounding access roads and parking lots. The Property is accessed a minimum of once per month allotting reviews of ongoing activities and inspection of the drainage system. No issues of concern were noted, therefore, no unscheduled maintenance activities were required or conducted at the Property in 2003. As such, continuation of the scheduled inspection is recommended for this aspect of the Property.

2.7 Figures



LEGEND

- APPROXIMATE PROPERTY LINE
- CHAIN LINK FENCE
- SURFACE DRAINAGE CULVERT
- DRAINAGE DITCH
- DRAINAGE PIPE
- TREE LINE

NOTES:

1. BASE MAP INFORMATION SHOWN ON THIS DRAWING IS BASED ON A LIMITED FIELD SURVEY PERFORMED BY BLASLAND, BOUCK & LEE, INC. (BBL), DATED 10/97, AS-BUILT SURVEY INFORMATION PERFORMED BY LAFAVE, WHITE & MCGIVERN, L.S., P.C., DATED 5/99, AND ON INFORMATION OBTAINED FROM PREVIOUS SITE PLANS WHICH MAY BE CONCEPTUAL OR ASSUMED.
2. PROPERTY LINE INFORMATION TAKEN FROM HERKIMER COUNTY TAX MAPS AND IS APPROXIMATE.
3. AIR PHOTO DATED 5/31/90.

120' 0 120' 240'

GRAPHIC SCALE: 1" = 240'

X: CP-BASE
P: DL2BC
1/16/04
DOMANI/WIP/DANA 001-03-03/2003OP&M/DANAB03.DWG

DOMANI

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2003 ANNUAL
OPERATION, MAINTENANCE, AND
MONITORING REPORT

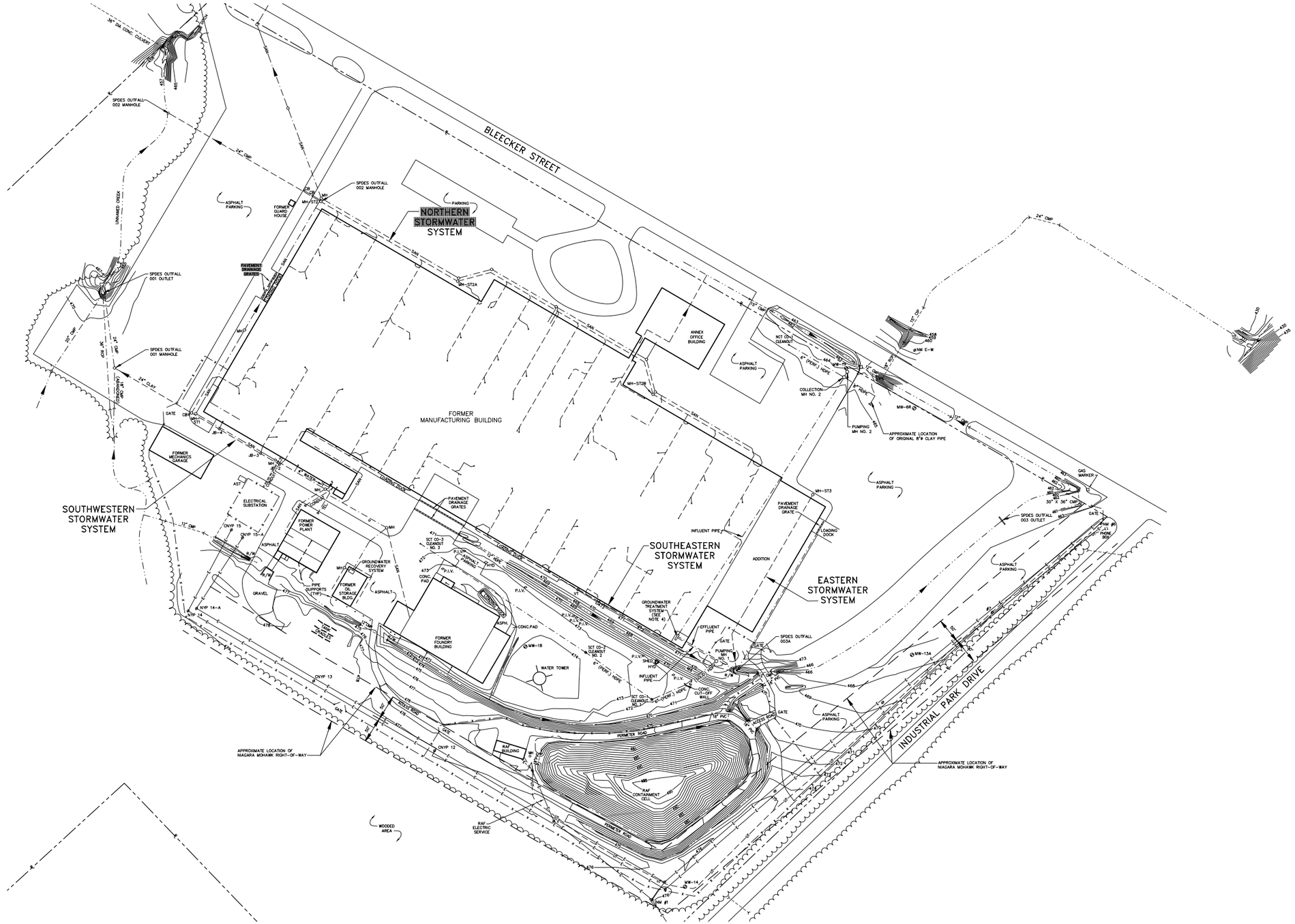
2200 BLEECKER STREET
UTICA, NEW YORK

AERIAL PROPERTY MAP

PROJECT NO.: DANA 001-03

DATE: MAR. 2004

FIGURE NO.: 2-1



LEGEND

- 470 — INDEX ELEVATION CONTOUR
- 469 — INTERMEDIATE ELEVATION CONTOUR
- MH — MANHOLE
- x — x — x — CHAIN LINK FENCE
- CNYP 12 — UTILITY POLE
- R/W — RETAINING WALL
- SURFACE DRAINAGE CULVERT
- DRAINAGE DITCH
- DRAINAGE PIPE
- SAN — SANITARY SEWER PIPE
- STORMWATER DRAIN PIPE
- TREE LINE
- UT — TELEPHONE (UNDERGROUND)
- MW-14 — MONITORING WELL
- HYD — FIRE HYDRANT
- P.I.V. — VALVE
- DRAIN
- E — POWER LINE (ABOVE GROUND)
- E — POWER LINE (UNDERGROUND)
- RAF — REMEDIAL ACTION FACILITY

NOTES:

1. BASE MAP INFORMATION SHOWN ON THIS DRAWING IS BASED ON A LIMITED FIELD SURVEY PERFORMED BY BLASLAND, BOUCK & LEE, INC. (BBL), DATED 10/97, AS-BUILT SURVEY INFORMATION PERFORMED BY LAFAVE, WHITE & MCGIVERN, L.S., P.C., DATED 5/99, AND ON INFORMATION OBTAINED FROM PREVIOUS SITE PLANS WHICH MAY BE CONCEPTUAL OR ASSUMED.
2. ELEVATIONS SHOWN ARE IN FEET ABOVE SEA LEVEL (DATUM IS NGVD OF 1988).
3. CONTOUR INTERVAL EQUALS 1 FOOT.
4. THE GROUNDWATER TREATMENT SYSTEM CONSISTS OF AN AIR STRIPPER AND TWO PUMPING MANHOLES IMPLEMENTED AS AN INTERIM REMEDIAL MEASURE SYSTEM DESIGNED AND INSTALLED IN 1995.

X: CP-BASE
P: BL
1/16/04
DOMANI/WIP/DANA 001-03-03/2003OP&M/DANAB04.DWG

DOMANI
120 EAST WASHINGTON STREET
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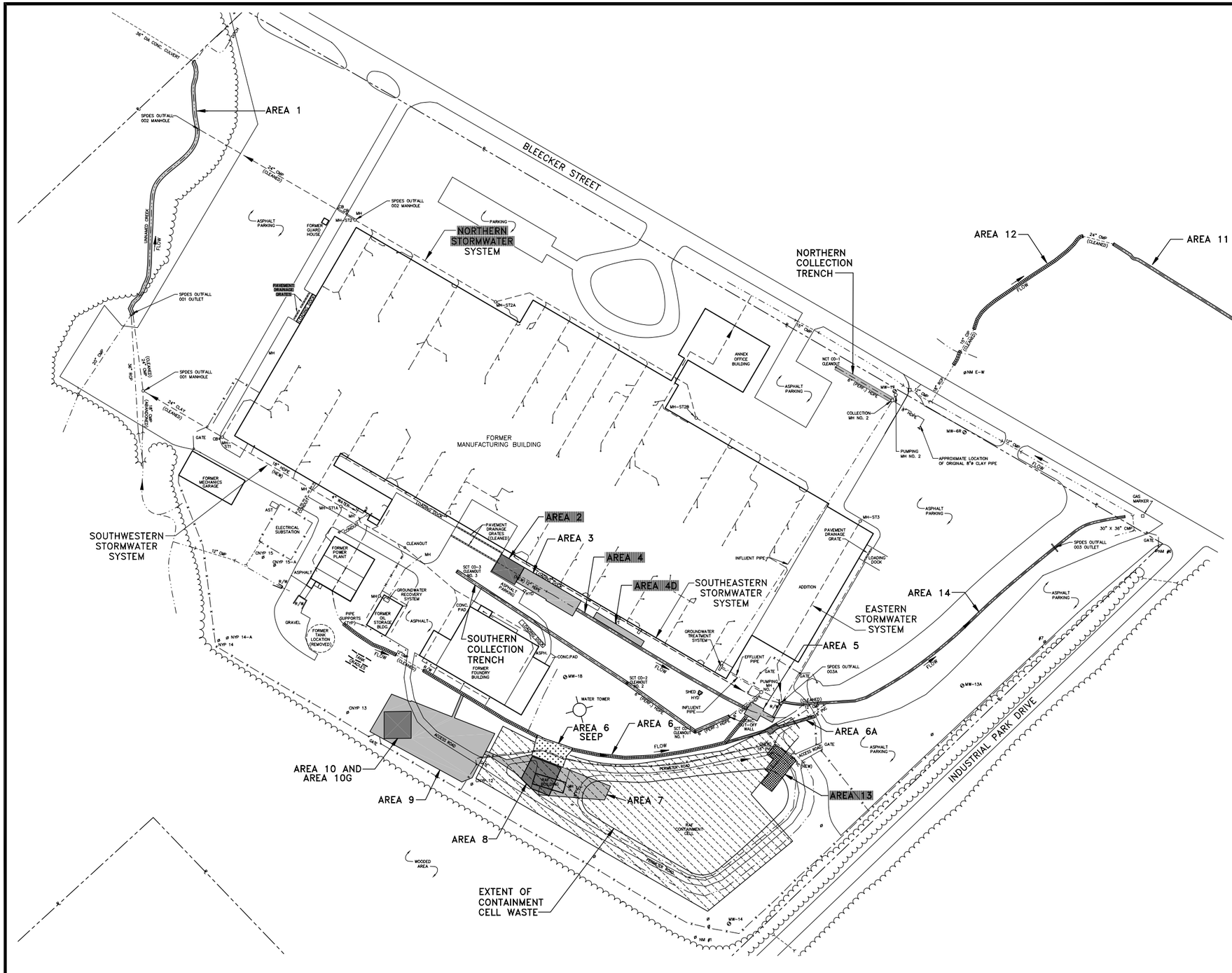
2003 ANNUAL
OPERATION, MAINTENANCE, AND
MONITORING REPORT
2200 BLEECKER STREET
UTICA, NEW YORK

FACILITY PLAN

PROJECT NO.: DANA 001-03
DATE: MAR. 2003
FIGURE NO.: 2-2



LEGEND

- MANHOLE
- CHAIN LINK FENCE
- UTILITY POLE
- RETAINING WALL
- DRAINAGE CULVERT
- DRAINAGE DITCH
- DRAINAGE PIPE
- STORMWATER DRAIN
- NEW STORMWATER DRAIN
- ABANDONED UNDERGROUND PIPE
- TREE LINE
- MONITORING WELL
- FIRE HYDRANT
- VALVE
- EXCAVATION AREA REQUIRING OFF-SITE DISPOSAL AS A TSCA-REGULATED MATERIAL PCB CONCENTRATION >50 ppm)
- EXCAVATION AREA REQUIRING PLACEMENT INTO THE SVE PORTION OF THE ON-SITE CONTAINMENT CELL (VOC CONCENTRATION >10 ppm, PCBs <50ppm)
- EXCAVATION AREA REQUIRING PLACEMENT INTO THE ON-SITE CONTAINMENT CELL (VOC CONCENTRATION <10 ppm, PCBs <50ppm)
- SELECT WASTE (TOPSOIL)
- EXCAVATION AREA REQUIRING OFF-SITE DISPOSAL (VOC CONCENTRATION >10 ppm)
- CULVERT THAT WAS CLEANED
- NEW CULVERT
- DRAIN
- REMEDIAL ACTION FACILITY

NOTES:

1. BASE MAP INFORMATION SHOWN ON THIS DRAWING IS BASED ON A LIMITED FIELD SURVEY PERFORMED BY BLASLAND, BOUCK & LEE, INC. (BBL), DATED 10/97, AS-BUILT SURVEY INFORMATION PERFORMED BY LAFAVE, WHITE & MCGIVERN, L.S., P.C., DATED 5/99, AND ON INFORMATION OBTAINED FROM PREVIOUS SITE PLANS WHICH MAY BE CONCEPTUAL OR ASSUMED.
2. ELEVATIONS SHOWN ARE IN FEET ABOVE SEA LEVEL (DATUM IS NGVD OF 1988).
3. CONTOUR INTERVAL EQUALS 1 FOOT.
4. ALL ORIGINAL DRAINS AND DRAIN PIPE LOCATIONS INSIDE AND OUTSIDE OF THE BUILDINGS WERE DIGITIZED FROM COPIES OF THE 1948 CONSTRUCTION DRAWINGS AND ARE APPROXIMATE.

X: CP-BASE
P: BL
1/16/04
DOMANI/WP/DANA 001-03-03/2003OP&M/DANAB05.DWG

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2003 ANNUAL
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2200 BLEECKER STREET
UTICA, NEW YORK

HISTORICAL REMEDIAL ACTION AREAS

PROJECT NO.: DANA 001-03
DATE: MAR. 2004
FIGURE NO.: 2-3

3.0 REMEDIAL ACTION FACILITY

The RAF is situated in the mid-eastern portion of the Property, as presented on Figure 3-1, Remedial Action Facility Plan, and contained within a fenced area encompassing approximately 3.8 acres; providing security for the, generally unmanned, facility. The OM&M of the RAF was conducted by DOMANI, in accordance with the guidelines set forth in the NYSDEC-approved OM&M Manual dated April 2001. Field reports provide documentation of the site inspection events and any adjustments made. The results of these inspections generally set forth maintenance, if required.

Key components of the RAF are the roads, drainages, containment cell, leachate collection, and building systems, which constitute the engineering controls. The primary function of the RAF is to collect and subsequently dispose of leachate generated from the containment cell.

The groundwater monitoring wells, with the exception of MW-14, and the GTS are located outside of the perimeter fence of the RAF and are reviewed in Section 4 and Section 6, respectively.

3.1 Construction

The RAF is surrounded by an 8-foot high barbed wire over chain link fence, with access gates to the north and west, with the primary access via the western gate. The RAF is generally comprised of the following components:

- *Containment Cell* - In 1999, construction of a 1.4-acre containment cell was completed to store 16,117 cubic yards of impacted soil and sediment generated during the RA. The containment cell was lined with a single composite liner system and completed with and a composite cap placed over the impacted soil and sediment. Two gas vents and a leachate collection pipe were also installed within the containment cell. A series of ditches were installed around the containment cell to collect surface water runoff and direct stormwater offsite. A gravel service/perimeter road surrounds the containment cell providing for vehicle access and subsequent inspection and maintenance.

- *Leachate Collection System* - A leachate collection system, comprised of a collection pipe running the length of the containment cell, and connected to the collection manhole, which is installed adjacent to the western side of the containment cell. The collection manhole is equipped with two pumps to transfer leachate to a storage tank prior to disposal.

- *Leachate Storage System* - Leachate pumped from the collection manhole is stored in an aboveground 5,000-gallon steel storage tank within a steel secondary containment structure as shown on Figure 3-2, Building, Tank, and Piping Plan. A flow totalizer is used to track the quantity of leachate pumped to the tank from the collection manhole, and level sensor installed in the tank is used to determine the quantity of leachate in the tank. The level sensor is also electronically connected to an auto dialer system (ISACC) to notify DOMANI's personnel of alarm conditions via telephone and facsimile. The tank is also equipped with a sampling port, and drain fitting. In addition, a concrete truck pad with grated sump is located adjacent to the tank to facilitate pumping of leachate from the tank to a tanker truck prior to disposal.

- *RAF Building* - A 1,278-square foot building constructed of a steel frame and siding on a concrete slab foundation is used to house the leachate collection tank (tank area), and truck pad (truck loading area), noted above. Additionally, the building enclosure has an office area for maintaining OM&M records, the communication components of the ISACC system and a storage area for tools, supplies, and equipment, known as the office/storage area. The building is located west of the containment cell and collection manhole.

3.2 Operations and Inspections

The leachate collection system operated continuously during 2003. The RAF and associated components are scheduled for monthly visual inspection and documentation as set forth in the OM&M Manual. Operation is also monitored via telecommunication with the RAF auto dialer system (ISACC). Scheduled site visits and subsequent Site Inspection Reports – Form A (Appendix A) consists of the following inspection components associated with the RAF:

- General Property Access and Drainage;
- Cell Perimeter Components;
- Containment Cell;
- Leachate Collection Manhole;
- Building Structure, Electrical, Telephone, and Auto Dialer Controls; and
- Leachate Storage System.

The cell perimeter road and facility access road were reviewed during the monthly inspections to ensure access during facility maintenance. The immediate surface drain ways were inspected to insure that ponding or erosion does not occur from runoff. All Property ditches and culverts were accessed and viewed during the inspection, for the same. The RAF perimeter fence was also inspected to insure facility security, and the facility overhead utilities were viewed and tested, in the building, as well.

Inspection of the containment cell involved viewing the cell from the perimeter road and traversing its surface. Components viewed were the four perimeter drains, the two passive gas vents, and the cell cleanout pipe. These were checks for functionality, which also included periodic screening of the passive gas vent for volatile organic compounds (VOCs). The surface of the cell was inspected for stressed vegetation, burrows, erosion, and movement.

Operation of the leachate collection manhole involves structural, electrical, pumping, and alarm components. Each inspection required checking the manhole control panel and recording running hours of the two pumps. Additionally, this included testing the operation of each pump, as well as opening the manhole and conducting visual inspection of its components. As this is a lead/lag pumping system, lead duties are periodically changed between Pump #1 and Pump #2 during inspections.

The RAF building was viewed during the inspection for inconsistencies in the structural, security, electrical, and telephone systems, as well as assuring the heat and vent systems were functional. The ISACC, located in the RAF building, provides continuous monitoring information of the leachate collection manhole and leachate storage tank. The ISACC system is generally accessed remotely semi-monthly for data collection and management. ISACC was accessed from the DOMANI office by modem to download specific information. In the event of an alarm condition, the ISACC system alerts designated DOMANI personnel based on the guidelines set forth in the OM&M Manual and the ISACC program logic. The Auto Dialer Alarm Incident and Testing Report, Form F, included in Appendix B, provides documentation of alarm conditions and testing during the 2003 calendar year. An annual total system check was performed, as required, and reportedly, no alarm was received during 2003.

The leachate storage system, which is housed in the center portion of the RAF Building, was inspected and total flow readings were recorded. The 5,000-gallon storage tank, containment system, and plumbing were viewed for leaks and any abnormalities. The tank was internally inspected, generally after leachate was removed, to assure the control of corrosion. The influent pipe is equipped with a flow totalizer, which was manually recorded during monthly inspections. The flow totalizer indicated that approximately 5,900 gallons were pumped during 2003, totaling 52,600 gallons pumped since monitoring commenced in May 1999. The collected leachate sampling and disposal are reviewed in later subsections.

3.3 Maintenance

General maintenance requirements of the RAF are set forth in the OM&M Manual, which provides inspection criteria, forms, guidance, and procedures to perform scheduled maintenance requirements, as well as contingency plans for unscheduled matters. The OM&M procedures and protocols are generally cross-referenced with and supported by the August 2001 FER.

Scheduled Maintenance

The scheduled maintenance activities associated with the RAF and site components that occurred during the 2003 calendar year consisted of the following:

- RAF site access (snow removal, road maintenance, and fence maintenance);
- RAF building (ISACC program diagnostic/communication response);
- Containment cell (vegetation management, mowing, seeding, and erosion control);
- Drainage ditches (vegetation, riprap and culvert management); and
- Truck pad sump (pumping during leachate removal, Section 3.5).

Unscheduled Maintenance

Unscheduled maintenance activities associated with the RAF and site components that occurred during the 2003 calendar year consist of the following:

- Adjustment of the tank liquid level sensor;
- Elimination of persistent and damaging vermin from the containment cell;
- Placement and grading of top soil;
- Spot restoration of vegetative cover on the containment cell;
- Installation of additional sheet metal barrier panels and bird netting to continue to prevent pigeon roosting in the open portion of the RAF building; and
- Pressure washing the tank and truck loading area of the building.

3.4 Leachate Collection

The leachate generated from the containment cell is collected, conveyed, and stored on-site. The leachate generated from the containment cell is drained, via gravity flow, to a perforated 6-inch, high-density polyethylene (HDPE) pipe located along the bottom of the containment cell, just above the liner. The leachate collection pipe passes through the western perimeter berm, and discharges into the leachate collection manhole. The portion of the leachate collection pipe between the containment cell and collection manhole is equipped with secondary containment, double-walled piping. The leachate collected in the manhole is then transferred, via permanent, automatically controlled pumps, to the on-site leachate storage tank.

Leachate collection/generation is monitored by two means; measuring the fill height in the tank and through a flow totalizer. The on-site ISACC system provides real time data and remote location communication with the RAF. The operation of this unit, associated with the leachate collection system,

is discussed in the OM&M Manual. One of the eight programmed ISACC channels provides tracking of tank filling events (i.e., water level in the tank). The tank filling was monitored and has a shut down system so as not to overfill.

The inline flow totalizer was read and recorded during the monthly inspections and accounts for the leachate generation. Table 3-1, Cumulative Leachate Generation provides a summary of the recorded flow from May 1999, inception, through December 2003. Chart 3-1, Cumulative Leachate Generation graphically represents the data in Table 3-1. A total of 5,900 gallons was metered during 2003, indicative of an average flow of approximately 16 gallons per day (gpd). The overall trend of yearly leachate production has decreased as evaluated in Table 3-2, Leachate Generation Per Year, and Chart 3-2, Leachate Generation Per Year

3.5 Leachate Disposal

The leachate is temporarily stored in the on-site 5,000-gallon storage tank within a steel secondary containment. The leachate requires analytical analysis prior to bulk batch disposal. The scheduling of the sampling events and subsequent disposal is based on tank level data monitored by the ISACC system. The sampling and disposal of the leachate were performed during 2003 in accordance with the guidance set forth in the OM&M Manual. One sample of the leachate from storage tank filling number 11 (LT-11), was collected and analyzed as set forth in Permit No. GW-050, issued by the Oneida County Department of Water Quality and Water Pollution Control (OCDWC). The filling for LT-11 began on December 30, 2002.

The analytical results of the leachate sample collected for LT-11, indicated compliance with the permit limits set forth by the OCDWC. On December 5, 2003, Leachate for LT-11 was disposed of to the OCDWC sanitary sewer system and leachate storage tank number 12 (LT-12) began. The leachate disposal authorization for LT-11 from OCDWC and analytical data packages are presented in Appendix C. The total leachate disposal for 2003 was approximately 4,300 gallons, LT-11.

3.6 Summary

The RAF facility and associated components generally operated as planned through 2003. The monitoring and inspection continues, as necessary, to evaluate trends and the ongoing condition of the facility. The operation and maintenance performed during the 2003 calendar year were performed within the guidelines set forth in the OM&M Manual.

In addition to scheduled maintenance, unscheduled maintenance conditions were recognized and corrected as follows:

- Persistent and damaging vermin were eliminated from the containment cell;
- The vegetative cover on the containment cell was restored; and
- Sheet metal barrier panels and bird netting were installed in the tank and truck loading areas of the RAF building to prevent pigeon roosting.

The evaluation of the data relating to the leachate generated and collected during 2003 (5,900 gallons), indicates an overall downward tend in leachate generated to date. The average production rate for 2003 was approximately 16 gpd. The leachate generated and batch discharged from the containment cell continues to meet the requirements set forth in the OCDWC permit. Only one bulk disposal event was required in 2003 totaling approximately 4,300 gallons indicated as LT-11.

DOMANI concludes that the RAF performed as designed during 2003, and recommends continuing OM&M as prescribed and scheduled.

3.7 Tables

TABLE 3-1
CUMULATIVE LEACHATE GENERATION

2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

Reading Date	Monitoring Period	Totalizer Reading	Gallons Per Period	Flow (gpd)
5/19/1999	0	0	0	0
6/1/1999	13	4200	4200	323
6/22/1999	21	8200	4000	190
7/23/1999	31	12200	4000	129
9/27/1999	66	16200	4000	61
12/21/1999	85	20200	4000	47
1/21/2000	31	21400	1200	39
2/4/2000	14	22400	1000	71
3/14/2000	39	23800	1400	36
4/21/2000	38	24800	1000	26
5/11/2000	20	25700	900	45
6/6/2000	26	26700	1000	38
7/11/2000	35	27700	1000	29
8/18/2000	38	28800	1100	29
9/1/2000	14	29500	700	50
10/27/2000	56	31000	1500	27
11/14/2000	18	31600	600	33
12/15/2000	31	32700	1100	35
1/31/2001	47	33800	1100	23
2/28/2001	28	34400	600	21
3/29/2001	29	34800	400	14
4/26/2001	28	35400	600	21
5/23/2001	27	35900	500	19
6/21/2001	29	36500	600	21
7/17/2001	26	37100	600	23
8/15/2001	29	37600	500	17
9/14/2001	30	38400	800	27
10/23/2001	39	39200	800	21
12/3/2001	41	40000	800	20
12/18/2001	15	40400	400	27
1/11/2002	24	40800	400	17
2/6/2002	26	41400	600	23
3/5/2002	27	41800	400	15
4/16/2002	42	42300	500	12
5/9/2002	23	42700	400	17
6/5/2002	27	43100	400	15
7/23/2002	48	43900	800	17
8/9/2002	17	44100	200	12
9/19/2002	41	44900	800	20
10/16/2002	27	45400	500	19
11/27/2002	42	46200	800	19
12/13/2002	16	46400	200	13
1/31/2003	49	47200	800	16
2/18/2003	18	47400	200	11
3/19/2003	29	47800	400	14
4/16/2003	28	48200	400	14
5/15/2003	29	48400	200	7
6/5/2003	21	48600	200	10
7/9/2003	34	49200	600	18
8/1/2003	23	49600	400	17
9/23/2003	53	50400	800	15
10/2/2003	9	50400	0	0
11/21/2003	50	51500	1100	22
12/31/2003	40	52600	1100	28

NOTES:

1. Monitoring Period = Days between totalizer readings.
2. Totalizer reading in gallons.
3. gpd = Gallons per day.

TABLE 3-2
LEACHATE GENERATION PER YEAR

2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

Year	Reading Date	Monotoring Period	Totalizer Reading	Gallons Per Year	Flow (gpd)	Flow (gpm)
	5/19/1999		0			
1999	12/21/1999	216	20200	20200	93.5	0.0649
2000	12/15/2000	360	32700	12500	34.7	0.0241
2001	12/18/2001	368	40400	7700	20.9	0.0145
2002	12/13/2002	360	46400	6000	16.7	0.0116
2003	12/31/2003	383	52600	6200	16.2	0.0112

NOTES:

1. Monitoring Period = Days between totalizer readings.
2. Totalizer reading in gallons.
3. gpd = Gallons per day.
4. gpm = Gallons per minute.

3.8 Charts

3-1 Total Leachate Generation Over Time

3-2 Leachate Generation Per Year

CHART 3-1
CUMULATIVE LEACHATE GENERATION

2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

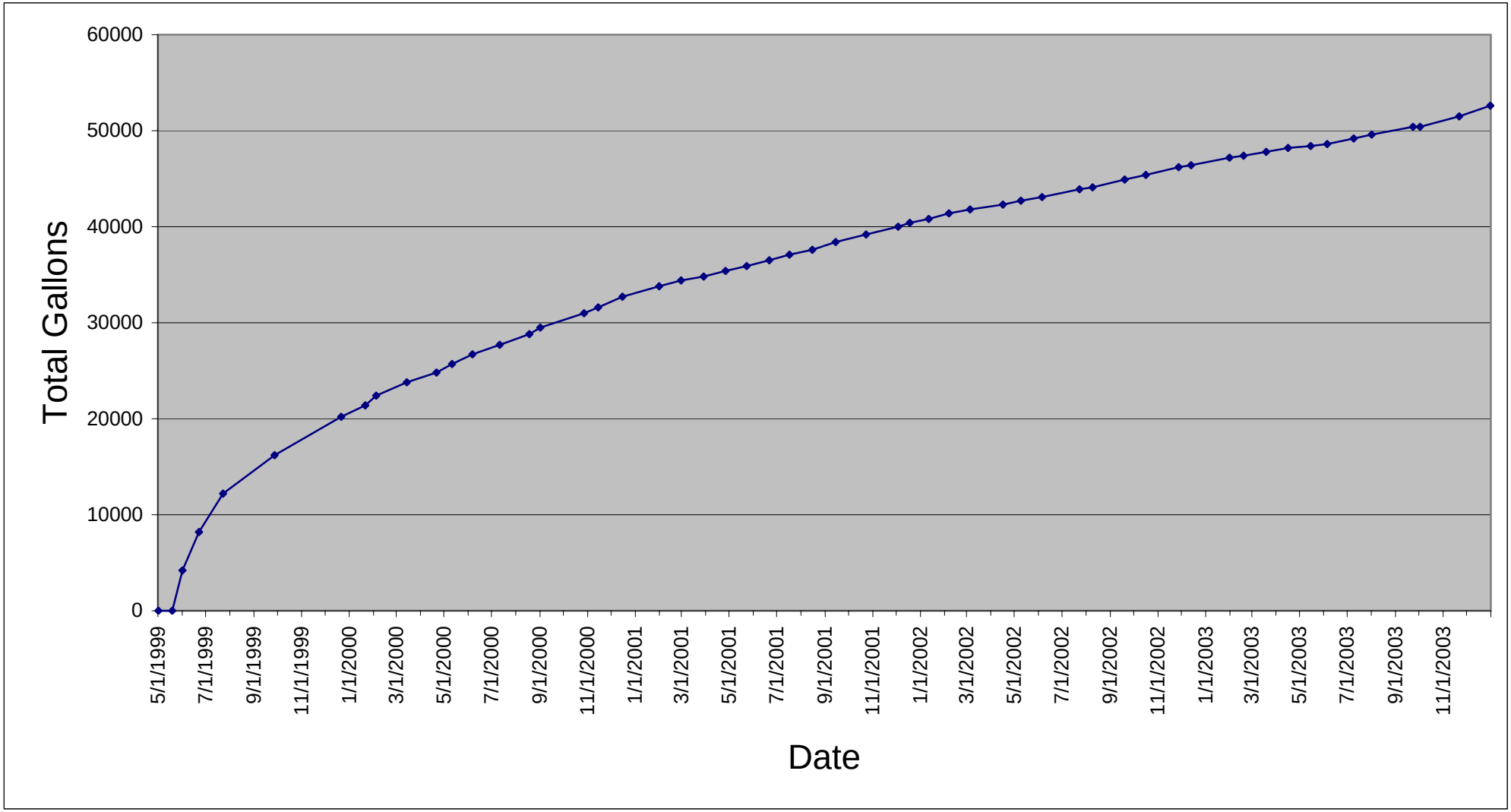
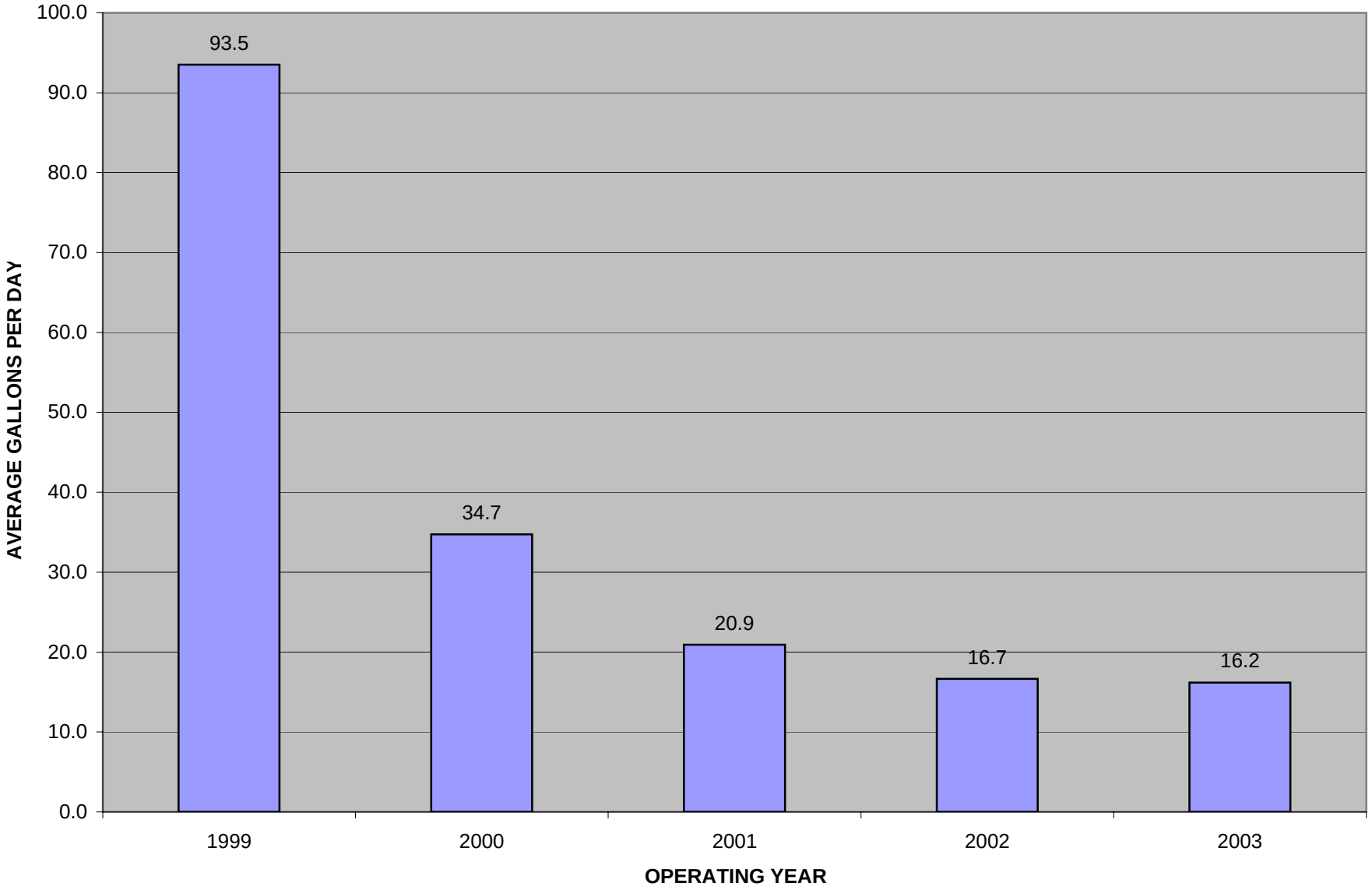
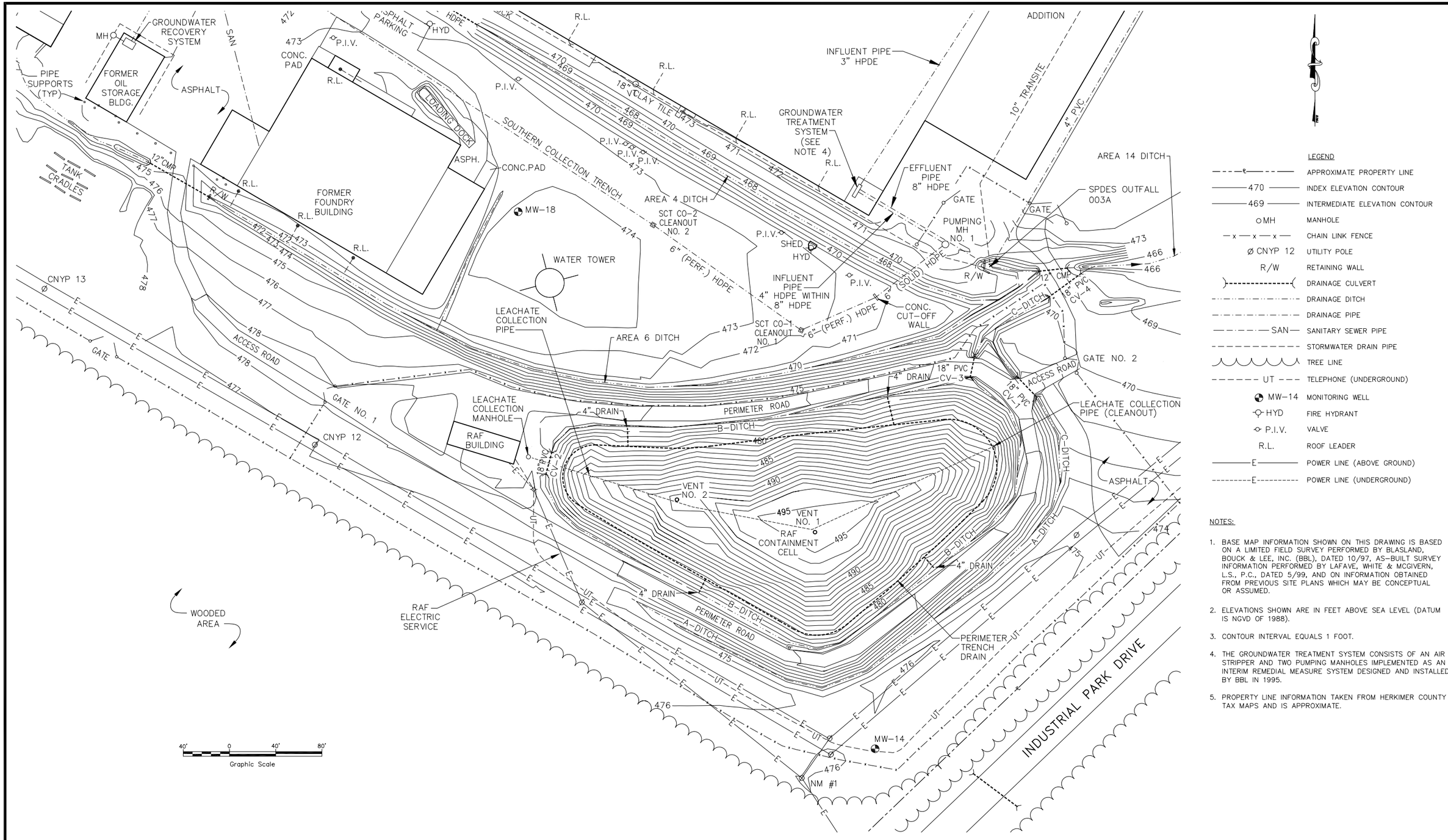


CHART 3-2
LEACHATE GENERATION PER YEAR

2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003



3.9 Figures



LEGEND

- APPROXIMATE PROPERTY LINE
- 470 — INDEX ELEVATION CONTOUR
- 469 — INTERMEDIATE ELEVATION CONTOUR
- MH — MANHOLE
- CHAIN LINK FENCE
- CNYP 12 — UTILITY POLE
- R/W — RETAINING WALL
- DRAINAGE CULVERT
- DRAINAGE DITCH
- DRAINAGE PIPE
- SAN — SANITARY SEWER PIPE
- STORMWATER DRAIN PIPE
- TREE LINE
- UT — TELEPHONE (UNDERGROUND)
- MW-14 — MONITORING WELL
- HYD — FIRE HYDRANT
- P.I.V. — VALVE
- R.L. — ROOF LEADER
- E — POWER LINE (ABOVE GROUND)
- E — POWER LINE (UNDERGROUND)

NOTES:

1. BASE MAP INFORMATION SHOWN ON THIS DRAWING IS BASED ON A LIMITED FIELD SURVEY PERFORMED BY BLASLAND, BOUCK & LEE, INC. (BBL), DATED 10/97, AS-BUILT SURVEY INFORMATION PERFORMED BY LAFAVE, WHITE & MCGIVERN, L.S., P.C., DATED 5/99, AND ON INFORMATION OBTAINED FROM PREVIOUS SITE PLANS WHICH MAY BE CONCEPTUAL OR ASSUMED.
2. ELEVATIONS SHOWN ARE IN FEET ABOVE SEA LEVEL (DATUM IS NGVD OF 1988).
3. CONTOUR INTERVAL EQUALS 1 FOOT.
4. THE GROUNDWATER TREATMENT SYSTEM CONSISTS OF AN AIR STRIPPER AND TWO PUMPING MANHOLES IMPLEMENTED AS AN INTERIM REMEDIAL MEASURE SYSTEM DESIGNED AND INSTALLED BY BBL IN 1995.
5. PROPERTY LINE INFORMATION TAKEN FROM HERKIMER COUNTY TAX MAPS AND IS APPROXIMATE.

X: CP-BASE.DWG
D2BBW
1/18/04
DOMANI/WIP/DANA 001-03-03/2003OP&M/DANAB11.DWG

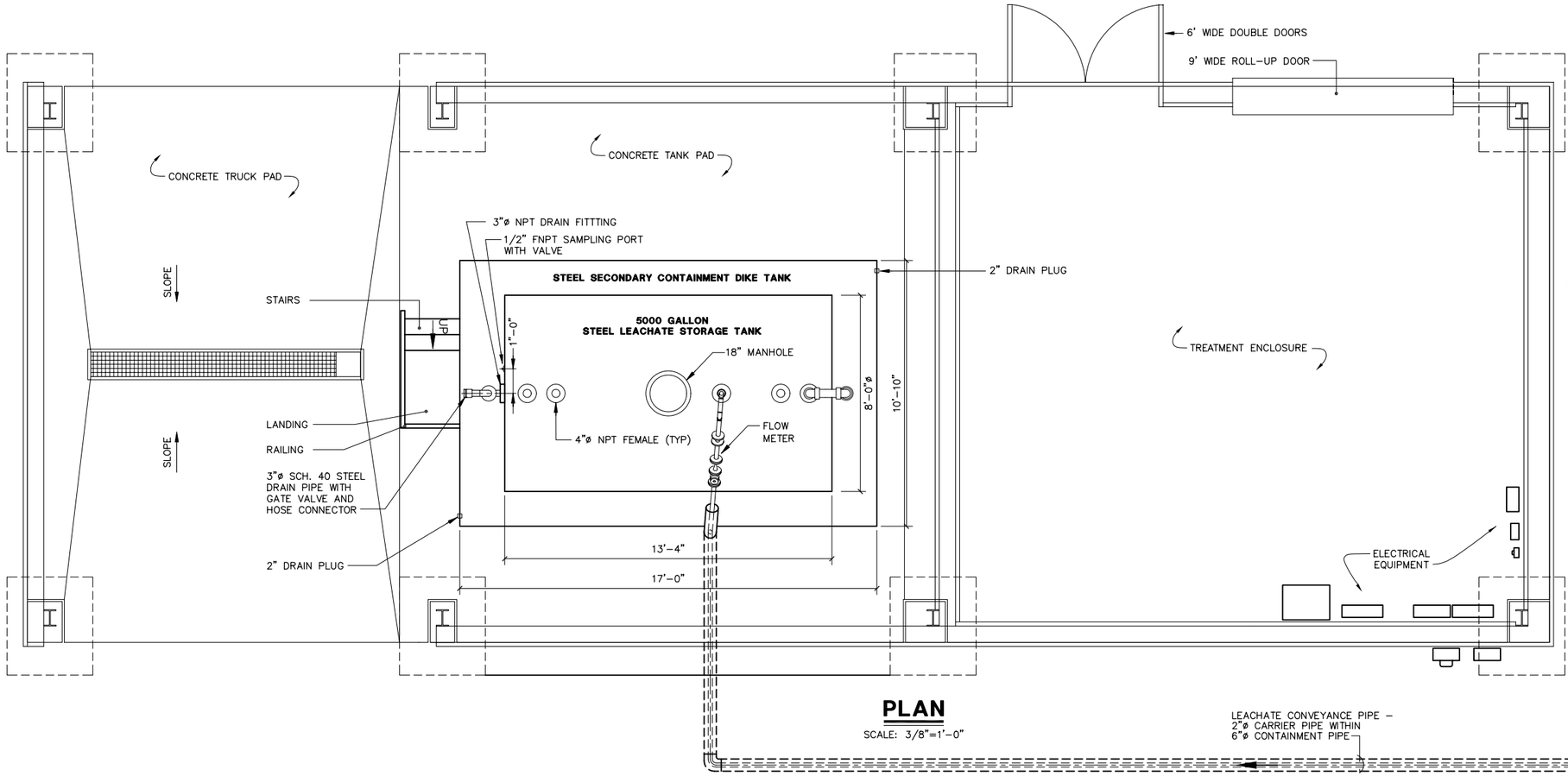
DOMANI
120 EAST WASHINGTON STREET
SYRACUSE, NEW YORK 13202
315-475-3700

2003 ANNUAL
OPERATION, MAINTENANCE, AND
MONITORING REPORT

2200 BLEECKER STREET
UTICA, NEW YORK

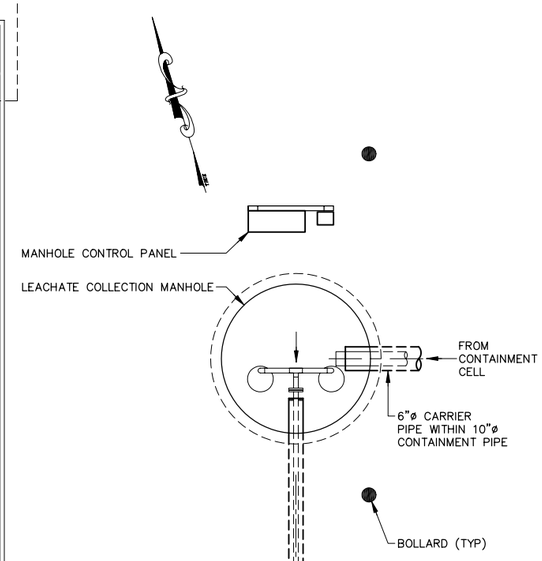
REMEDIAL ACTION FACILITY PLAN

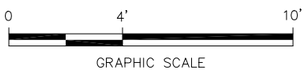
PROJECT NO.: DANA 001-03
DATE: MAR. 2004
FIGURE NO.: 3-1



PLAN

SCALE: 3/8"=1'-0"





X: FOUNDAT.DWG
D2BBW
1/18/04
DOMANI/WIP/DANA 001-03-03/2003OP&M/DANAB10.DWG

DOMANI

120 EAST WASHINGTON STREET
SYRACUSE, NEW YORK 13202
315-475-3700

2003 ANNUAL
OPERATION, MAINTENANCE, AND
MONITORING REPORT

2200 BLEECKER STREET
UTICA, NEW YORK

BUILDING, TANK, AND PIPING PLAN

PROJECT NO.: DANA 001-03

DATE: MAR. 2004

FIGURE NO.: **3-2**

4.0 GROUNDWATER MONITORING

This section presents the results of the semi-annual groundwater monitoring events conducted at the Property in 2003. The Property OM&M Manual details the procedures that were followed during groundwater monitoring. The FER details the procedures, followed during the implementation of the RA that adjusted the groundwater monitoring program which included well decommissioning and new well installation. The sections that follow review the construction, monitoring, sampling, and data evaluation of the groundwater monitoring program and include specific tables and figures. The summary section provides comments, conclusions, and recommendations.

4.1 Monitoring Well Construction

The monitoring well network currently consists of five monitoring wells designated as: MW-6R, MW-13A, MW-14, MW-17, and MW-18. A sixth monitoring well, MW-3 was properly abandoned on September 14, 2001. The monitoring wells are located to provide groundwater quality data for site-specific RA areas and verify the influence of the GTS.

The monitoring wells consist of 2-inch diameter polyvinyl chloride (PVC) risers and 10-foot lengths of 0.010-inch slotted PVC screen. The well screens were installed to straddle the water table and intersect the overburden soils above the glacial till. Shallow groundwater flow is generally from the south to the north across the Property. The locations of the monitoring wells are shown on Figure 2-2. The detailed descriptions of the monitoring well locations, as well as hydraulic consideration, are as follows:

- MW-6R, located hydraulically downgradient at the eastern portion of the Property;
- MW-13A, located hydraulically crossgradient (east) of RA Areas 5, 7, 8, 13, and 14 as well as the RAF;
- MW-14, located at the southeastern corner of the Property hydraulically upgradient of all RA areas and the RAF;
- MW-17, located hydraulically downgradient of the NCT; and
- MW-18, located hydraulically downgradient of RA Areas 6, 7, 8, 9, and 10, as well as hydraulically upgradient of the SCT.

4.2 Groundwater Elevation Measurement

As part of the groundwater monitoring program, water levels were measured from the aforementioned monitoring wells on April 24, 2003 and October 22, 2003. Water levels in the cleanouts for the NCT and SCT were measured during the 2003 events, as well. The water levels were measured from a designated reference point at the top of the PVC well riser using the procedures outlined in the OM&M Manual. The water levels were measured consecutively, on the same day, prior to sampling or other activities. Water level measurements were recorded on a dedicated field sheet, Water Level Field Logs – Form D and are provided in Appendix D. The water level measurements were converted to elevations based on as-built survey information. The water levels for the two groundwater sampling events conducted in 2003 are shown in Table 4-1, Groundwater Elevation Summary. Note that MW-17 was found to have insufficient water to sample, during both sampling events. This maybe attributed to the installation of Pumping Manhole No. 2, as part of the GTS, which effectively lowered the water table to an elevation at or less than the total depth of MW-17. Refer to Figure 4-1, Overburden Groundwater Elevation Contour Map for April 24, 2003, and Figure 4-2, Overburden Groundwater Elevation Contour Map for October 22, 2003. A summary of water levels from 1999 to 2003 is provided in Table 4-2, Cumulative Groundwater Elevations.

4.3 Groundwater Sampling

Groundwater samples were obtained during two groundwater sampling events conducted on April 24 and 25, 2003 and October 22 and 23, 2003, as part of the OM&M. Groundwater samples were collected from monitoring wells MW-6R, MW-13A, MW-14, and MW-18. As discussed in Section 4.1, MW-17 had insufficient water during both sampling events, and as such, a sample could not be collected.

Based on the guidance set forth in the OM&M Manual, the groundwater sampling events completed in 2003 were scheduled as semi-annual. The groundwater samples were submitted for laboratory analysis for VOCs of concern, polychlorinated biphenyls (PCBs), and select metals. Analytical results for VOCs, PCBs, and metals were compared to standards presented in the NYSDEC Division of Water *Technical and Operation Guidance Series* (1.1.1) (TOGS 1.1.1), June 1998.

To assure that the groundwater samples were representative of the shallow groundwater aquifer, a minimum of three static well volumes were purged from each well. Groundwater field parameters were obtained from each well prior to sampling, and included water levels, pH, conductivity, dissolved oxygen, turbidity, and temperature. The wells were observed to have moderate recharge capacity. Well purging was performed using a disposable Teflon® bailer. The purged groundwater was containerized and transferred to the on-site leachate collection manhole, part of the RAF.

Groundwater samples were collected using a new disposable Teflon® bailer for each well. During the April and October 2003 groundwater sampling events, samples to be analyzed for VOCs and PCBs were collected on the first day of each sampling event. Samples to be analyzed for metals were collected on the second day, 24 hours after purging the well to limit turbidity in the samples collected. Each grab sample was placed directly into laboratory-provided containers, labeled, logged in to a chain of custody document, and stored on ice in an insulated cooler pending delivery to the laboratory for analysis. Quality assurance/quality control (QA/QC) groundwater samples were collected at a frequency described below.

Trip Blanks

On events/days when aqueous samples were shipped/delivered to the laboratory for VOC analysis, a trip blank was included. A trip blank is an aliquot of analyte-free water, sealed in a 40 milliliter glass vial with a Teflon-lined septum cap prepared prior to initiation of fieldwork. The sealed vials were prepared by the laboratory and included with each shipment of sample bottles for aqueous media sampling at the Property. The trip blank may determine if any contamination of the samples has occurred during shipment/delivery.

Duplicate Samples

Duplicate samples were collected and analyzed to evaluate the reproducibility of the analytical technique used. One duplicate sample (DUP-1) was collected for all parameters during each sampling event. Groundwater from a selected monitoring well was divided between the primary sample and the duplicate sample laboratory containers, logged on the chain of custody and submitted to the laboratory.

Matrix Spikes / Matrix Spike Duplicates

Matrix spike and matrix spike duplicate samples were collected to measure the accuracy of organic analyte recovery from the sample matrices. For organic constituents and metals, one matrix spike and one matrix spike duplicate sample was analyzed for each sampling event.

The April and October 2003 samples were submitted to Life Science Laboratories of East Syracuse, New York. Table 4-3, Groundwater Constituents, Methods, and Practical Quantification Limits, details the groundwater sample analytical requirements. The Groundwater Sampling Logs - Form E, used during well sampling to record the groundwater field parameters, are provided in Appendix E.

4.4 Groundwater Analytical Results

The analytical results from the semi-annual groundwater sampling events, as compared to the TOGS 1.1.1 are presented in the subsequent summary tables. Table 4-4, 2003 Groundwater Analytical Results, summarizes the groundwater analytical data from the two semi-annual sampling events. Table 4-5, Cumulative Groundwater Analytical Results, provides a historic summary of the groundwater analytical results from 1999 through 2003. The original laboratory analytical data for 2003 were provided under separate cover to NYSDEC upon receipt from the laboratory, and are provided in Appendix F, Groundwater Analytical Data. The following summarizes specific VOCs, PCBs, and metals. The following summarizes analytical data from each well.

MW-6R

- Analytical results for VOCs indicated no detectable concentrations for both 2003 sampling events;
- Analytical results for PCBs indicated no detectable concentrations for both 2003 sampling events;
- The metal concentrations from both 2003 groundwater sampling events were below TOGS 1.1.1 guidance values and are comparable with historically identified concentrations; and
- Historically, VOCs and PCBs have never been detected.

MW-13A

- Analytical results for VOCs indicated no detectable concentrations for both 2003 sampling events;
- Analytical results for PCBs indicated no detectable concentrations for both 2003 sampling events;
- The metal concentrations from both 2003 groundwater sampling events were below TOGS 1.1.1 guidance values and are comparable with historically identified concentrations; and
- Historically, VOCs and PCBs have never been detected.

MW-14

- Analytical results for VOCs indicated no detectable concentrations for both 2003 sampling events;
- Analytical results for PCBs indicated no detectable concentrations for both 2003 sampling events;
- The metal concentrations from both 2003 groundwater sampling events were below TOGS 1.1.1 standards and guidance values, and are comparable with historically identified concentrations; and
- Historically, VOCs and PCBs have never been detected.

MW-17

- Monitoring well had insufficient water to allow sample collection during both 2003 events.

MW-18

- Vinyl chloride (VC) was detected at a concentration of 3.9 parts per billion (ppb), which exceeded the TOGS 1.1.1 value of 2 ppb, during the April 2003 sampling event. All other VOCs were not detected at concentrations above method detection limits;

- Vinyl chloride (VC) was detected at a concentration of 6.1 ppb, which exceeded the TOGS 1.1.1 value of 2 ppb, during the October 2003 sampling event. All other VOCs were not detected at concentrations above method detection limits;

- Concentrations of metals were detected below TOGS 1.1.1 standards and guidance values during both 2003 groundwater sampling events and were are comparable with historically identified concentrations;

- Analytical results for PCBs indicated no detectable concentrations for both 2003 sampling events; and

- Historically, PCBs have never been detected.

4.5 Summary

An interpretation of the groundwater elevation measurements obtained during the April and October 2003 sampling events indicated that the overburden groundwater flow was generally to the north. The groundwater flow direction was influenced in the vicinity of the NCT and the SCT, where depressed groundwater levels were observed. Monitoring well MW-17 continues to have insufficient water to measure or sample, as a result of the depressed groundwater.

The groundwater quality from both the April and October 2003 groundwater sampling events are generally consistent with historical data, with the exception of concentrations of VC detected in monitoring well MW-18, VC was identified above its analytical method detection limit for three consecutive sampling events. Concentration of select metals did not exceed TOGS 1.1.1 guidance values and have not demonstrated exceedances since the RA. Detectable concentrations of PCBs were not and have never been identified in groundwater from any of the monitoring locations.

The elevated concentrations of VCs in MW-18 are most likely due to the effectiveness of the SCT. As MW-18 is upgradient of the groundwater depression created by the SCT, (see Figure 4-1 and 4-2), the groundwater monitored at MW-18 is directed, collected, and treated via the GTS, discussed in Section 6

Given five years of certain consistent analytical data, DOMANI recommends the following modification to the groundwater monitoring program:

- Groundwater sampling and analysis for PCBs should be discontinued from the groundwater monitoring program given that it has never been detected in the any of the OM&M monitoring wells;

- MW-13A located cross-gradient, should be decommissioned as groundwater analysis has always been below analytical method detection limits for VOCs and PCBs.

- MW-14, located upgradient of the RAF, should be reduced to annual sampling; and

- The remainder of the monitoring wells should be sampled as presently scheduled in the OM&M Manual.

4.6 Tables

TABLE 4-1
2003 GROUNDWATER ELEVATION SUMMARY

2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

Monitoring Well ID	Ground Surface Elevation	Installed Depth from TOR	Measured Depth from TOR	TOR Elevation	Water Depth from TOR	Water Elevation
Date Gauged: 4/24/03						
MW-6R	462.69	7.51	7.44	462.46	0.91	461.55
MW-13A	467.30	11.07	11.02	469.23	2.42	466.81
MW-14	475.71	12.94	12.92	478.45	3.21	475.24
MW-17	463.89	11.25	11.24	466.02	Dry	NA
MW-18	474.10	11.78	11.76	475.96	3.83	472.13
SCT CO-1	NA	NA	NA	472.30	7.05	465.25
SCT CO-2	NA	NA	NA	473.42	7.91	465.51
SCT CO-3	NA	NA	NA	471.21	5.60	465.61
NCT CO-1	NA	NA	NA	464.70	11.30	453.40
MH-2	NA	NA	NA	465.31	13.40	451.91

Monitoring Well ID	Ground Surface Elevation	Installed Depth from TOR	Measured Depth from TOR	TOR Elevation	Water Depth from TOR	Water Elevation
Date Gauged: 10/22/03						
MW-6R	462.69	10.52	10.51	465.47	4.50	460.97
MW-13A	467.30	11.07	11.08	469.23	4.00	465.23
MW-14	475.71	12.86	12.86	478.37	3.71	474.66
MW-17	463.89	11.25	11.24	466.02	Dry	NA
MW-18	474.10	11.78	11.78	475.96	6.35	469.61
SCT CO-1	NA	NA	NA	472.30	7.10	465.20
SCT CO-2	NA	NA	NA	473.42	7.91	465.51
SCT CO-3	NA	NA	NA	471.21	5.60	465.61
NCT CO-1	NA	NA	NA	464.70	11.28	453.42
MH-2	NA	NA	NA	465.31	13.45	451.86

Notes:

1. All values reported in feet.
2. TOR = Top of Riser.
3. Depth measurements are taken in hundreths of a foot from the TOR, which is a reference point at the highest part on the 2-inch riser pipe.
4. Elevations are referenced to sea level, as set by the National Geodetic Vertical Datum (NGVD) of 1988.
5. MW-17 was found dry during both monitoring events, bottom elevation = 454.70 feet.
6. The top of riser elevation was adjusted during maintenance on May 15, 2003 for monitoring wells MW-6R and MW-14.
7. MW = Monitoring Well.
8. SCT = Southern Collection Trench.
9. NCT = Northern Collection Trench.
10. CO = Clean Out (Depths and Elevations are Approximate).
11. MH = Manhole.
12. NA = Not Applicable.

TABLE 4-2
CUMULATIVE GROUNDWATER ELEVATIONS

2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

Sample Date	Well ID					
	MW-3	MW-6R	MW-13A	MW-14	MW-17	MW-18
3/26/1999	467.93	461.78	465.83	474.82	462.14	469.97
9/20/1999	467.60	461.14	464.36	470.78	460.70	467.83
3/14/2000	467.72	461.63	466.38	475.05	459.45	470.03
9/14/2000	467.42	461.15	464.98	473.72	457.37	468.83
3/29/2001	470.86	456.35	460.93	467.74	457.24	469.52
9/13/2001	NA	460.85	464.18	470.9	457.11	469.56
3/27/2002	NA	460.96	466.89	475.19	DRY	470.82
9/19/2002	NA	461.21	465.41	470.92	DRY	468.10
4/24/2003	NA	461.55	466.81	475.24	DRY	472.13
10/22/2003	NA	460.97	465.23	474.66	DRY	469.61

Notes:

1. All values reported in feet.
2. MW-3 was decommissioned in September 2001.
3. MW-17 has been dry since the installation of Pumping MH-2 in March 2002.

TABLE 4-3
GROUNDWATER CONSTITUENTS, METHODS AND PRACTICAL QUANTIFICATION LIMITS

2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

Constituent	Practical Quantification Limits (PQLs)
VOCs of Concern - USEPA Method 8260	
cis-1,2-Dichloroethene	1
trans-1,2-Dichloroethene	1
Trichloroethylene	1
Vinyl Chloride	1
Metals of Concern - USEPA Method 200.7	
Chromium	10
Copper	10
Lead	10
Zinc	10
PCBs - USEPA Method 608	
Aroclor 1016	0.05
Aroclor 1221	0.05
Aroclor 1232	0.05
Aroclor 1242	0.05
Aroclor 1248	0.05
Aroclor 1254	0.05
Aroclor 1260	0.05

Notes:

1. All values reported in micrograms per liter (ug/l), approximately equivalent to parts per billion (ppb).
2. VOCs = Volatile Organic Componds.
3. PCBs = Polychlorinated biphenyls.
4. VOCs of concern PQLs are based on USEPA SW-846 Method 8260 contract requirred quantification limits (CRQLs). Specific quantifications are highly matrix dependent. The quantification limits shown are provided for guidance and may not always be achievable.
5. USEPA Method 200.7 will be used for analysis of metals of concern. PQLs presented are based on RCRA TCL CRQLs. CQRLs shown for metals of concern are provided for guidance and may not always be achievable.

TABLE 4-4
2003 GROUNDWATER ANALYTICAL RESULTS

2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

April 2003 Sampling Event

Well ID	Detection Limit	Standards and Guidance Values	MW-6R	MW-13A	MW-14	MW-17	MW-18	042403
Date Sampled			4/24-25/2003	4/24-25/2003	4/24-25/2003	4/24-25/2003	4/24-25/2003	4/24-25/2003
Sample Type			Primary	Primary	Primary	Primary	Primary	Duplicate of MW-18
Volatile Organic Compounds								
cis-1,2-Dichloroethene	1	5	<1	<1	<1	NS	<1	<1
trans-1,2-Dichloroethene	1	5	<1	<1	<1	NS	<1	<1
Trichloroethylene	1	5	<1	<1	<1	NS	<1	<1
Vinyl Chloride	1	2	<1	<1	<1	NS	**3.9**	**3.8**
Metals								
Chromium	10	50	<10	<10	<10	NS	<10	<10
Copper	10	200	34	<10	<10	NS	<10	<10
Lead	10	25	14	<10	<10	NS	<10	<10
Zinc	10	2,000	100	<10	29	NS	11	14
Polychlorinted Biphenyls								
Aroclor 1016	0.05	0.09	<0.05	<0.05	<0.05	NS	<0.05	<0.05
Aroclor 1221	0.05	0.09	<0.05	<0.05	<0.05	NS	<0.05	<0.05
Aroclor 1232	0.05	0.09	<0.05	<0.05	<0.05	NS	<0.05	<0.05
Aroclor 1242	0.05	0.09	<0.05	<0.05	<0.05	NS	<0.05	<0.05
Aroclor 1248	0.05	0.09	<0.05	<0.05	<0.05	NS	<0.05	<0.05
Aroclor 1254	0.05	0.09	<0.05	<0.05	<0.05	NS	<0.05	<0.05
Aroclor 1260	0.05	0.09	<0.05	<0.05	<0.05	NS	<0.05	<0.05

October 2003 Sampling Event

Well ID	Detection Limit	Standards and Guidance Values	MW-6R	MW-13A	MW-14	MW-17	MW-18	D102303
Date Sampled			10/22-23/2003	10/22-23/2003	10/22-23/2003	10/22-23/2003	10/22-23/2003	10/22-23/2003
Sample Type			Primary	Primary	Primary	Primary	Primary	Duplicate of MW-18
Volatile Organic Compounds								
cis-1,2-Dichloroethene	1	5	<1	<1	<1	NS	<1	<1
trans-1,2-Dichloroethene	1	5	<1	<1	<1	NS	<1	<1
Trichloroethylene	1	5	<1	<1	<1	NS	<1	<1
Vinyl Chloride	1	2	<1	<1	<1	NS	**6.1**	**6.1**
Metals								
Chromium	10	50	<10	<10	<10	NS	<10	<10
Copper	10	200	17	14	27	NS	11	14
Lead	10	25	13	<10	10	NS	<10	10
Zinc	10	2,000	24	19	100	NS	17	31
Polychlorinted Biphenyls								
Aroclor 1016	0.05	0.09	<0.05	<0.05	<0.05	NS	<0.05	<0.05
Aroclor 1221	0.05	0.09	<0.05	<0.05	<0.05	NS	<0.05	<0.05
Aroclor 1232	0.05	0.09	<0.05	<0.05	<0.05	NS	<0.05	<0.05
Aroclor 1242	0.05	0.09	<0.05	<0.05	<0.05	NS	<0.05	<0.05
Aroclor 1248	0.05	0.09	<0.05	<0.05	<0.05	NS	<0.05	<0.05
Aroclor 1254	0.05	0.09	<0.05	<0.05	<0.05	NS	<0.05	<0.05
Aroclor 1260	0.05	0.09	<0.05	<0.05	<0.05	NS	<0.05	<0.05

Notes:

1. Sample results and NYSDEC Standards reported in ug/l; approximately equivalent to parts per billion (ppb).
2. Guidance Values are established by NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1).
3. NS = Not Sampled (Well Dry).
4. Bolded values exceed the constituent's established Standards and Guidance Values.

TABLE 4-5
CUMULATIVE GROUNDWATER ANALYTICAL RESULTS

2003 ANNUAL OM&M REPORT
2200 BLEEKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

Analytes	MW-3	MW-6R	MW-13A	MW-14	MW-17	MW-18	DUP-1	DUP Well
Volatile Organic Compounds								
cis-1,2-Dichloroethene								
Feb/March 1999	<5	<5	<5	<5	<5	<5	<5	MW-18
September 1999	<5	<5	<5	<5	**7**	<5	<5	MW-13A
March 2000	<5	<5	<5	<5	<5	<5	<5	MW-13A
September 2000	<5	<5	<5	<5	**5.2**	<5	5	MW-17
March 2001	NS-1	<5	<5	<5	**8.9**	<5	**9.2**	MW-17
September 2001	NS-1	<5	<5	<5	**7.4**	<5	**7.4**	MW-17
March 2002	NS-1	<1	<1	<1	NS-2	<1	<1	MW-13A
September 2002	NS-1	<1	<1	<1	NS-2	<1	<1	MW-6R
April 2003	NS-1	<1	<1	<1	NS-2	<1	<1	MW-18
October 2003	NS-1	<1	<1	<1	NS-2	<1	<1	MW-18
trans-1,2-Dichloroethene								
Feb/March 1999	<5	<5	<5	<5	<5	<5	<5	MW-18
September 1999	<5	<5	<5	<5	<5	<5	<5	MW-13A
March 2000	<5	<5	<5	<5	<5	<5	<5	MW-13A
September 2000	<5	<5	<5	<5	<5	<5	<5	MW-17
March 2001	NS-1	<5	<5	<5	<5	<5	<5	MW-17
September 2001	NS-1	<5	<5	<5	<5	<5	<5	MW-17
March 2002	NS-1	<1	<1	<1	NS-2	<1	<1	MW-13A
September 2002	NS-1	<1	<1	<1	NS-2	<1	<1	MW-6R
April 2003	NS-1	<1	<1	<1	NS-2	<1	<1	MW-18
October 2003	NS-1	<1	<1	<1	NS-2	<1	<1	MW-18
Trichloroethylene								
Feb/March 1999	<5	<5	<5	<5	<5	<5	<5	MW-18
September 1999	<5	<5	<5	<5	**25**	<5	<5	MW-13A
March 2000	<5	<5	<5	<5	**22**	<5	<5	MW-13A
September 2000	<5	<5	<5	<5	**22**	<5	**25**	MW-17
March 2001	NS-1	<5	<5	<5	**24**	<5	**25**	MW-17
September 2001	NS-1	<5	<5	<5	**16**	<5	**16**	MW-17
March 2002	NS-1	<1	<1	<1	NS-2	<1	<1	MW-13A
September 2002	NS-1	<1	<1	<1	NS-2	<1	<1	MW-6R
April 2003	NS-1	<1	<1	<1	NS-2	<1	<1	MW-18
October 2003	NS-1	<1	<1	<1	NS-2	<1	<1	MW-18
Vinyl Chloride								
Feb/March 1999	<2	<2	<2	<2	<2	<2	<2	MW-18
September 1999	<2	<2	<2	<2	<2	<2	<2	MW-13A
March 2000	<5	<5	<5	<5	<5	<5	<5	MW-13A
September 2000	<5	<5	<5	<5	<5	<5	<5	MW-17
March 2001	NS-1	<2	<2	<2	<2	<2	<2	MW-17
September 2001	NS-1	<5	<5	<5	<5	<5	<5	MW-17
March 2002	NS-1	<1	<1	<1	NS-2	<2	<1	MW-13A
September 2002	NS-1	<1	<1	<1	NS-2	**2.6**	<1	MW-6R
April 2003	NS-1	<1	<1	<1	NS-2	**3.9**	**3.8**	MW-18
October 2003	NS-1	<1	<1	<1	NS-2	**6.1**	**6.1**	MW-18

TABLE 4-5
CUMULATIVE GROUNDWATER ANALYTICAL RESULTS

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2200 BLEEKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

Analytes		MW-3	MW-6R	MW-13A	MW-14	MW-17	MW-18	DUP-1	DUP Well
Metals									
Chromium									
	Feb/March 1999	4.4	19.9	7.8 B	20.4	4	**60.1**	15	MW-18
	September 1999	4.6 B	2.2 B	4.8 E	<10	21 B	19.4	6 B	MW-13A
	March 2000	<10	<10	19	<10	<10	<10	<10	MW-13A
	September 2000	<10	<10	<10	<10	<10	<10	<10	MW-17
	March 2001	NS-1	<10	<10	<10	<10	<10	<10	MW-17
	September 2001	NS-1	23	<10	<10	<10	<10	NS	MW-17
	March 2002	NS-1	<10	<10	<10	NS-2	<10	<10	MW-13A
	September 2002	NS-1	<10	**200**	<10	NS-2	<10	<10	MW-6R
	April 2003	NS-1	<10	<10	<10	NS-2	<10	<10	MW-18
	October 2003	NS-1	<10	<10	<10	NS-2	<10	<10	MW-18
Copper									
	Feb/March 1999	16.8	45	47.8	47.9	16 B	109	41.6	MW-18
	September 1999	6.1 B	6.7 B	5.3 B	6 B	ND	29.1	7.6 B	MW-13A
	March 2000	<10	<10	<10	<10	<10	<10	<10	MW-13A
	September 2000	<10	<10	<10	<10	<10	<10	<10	MW-17
	March 2001	NS-1	<10	<10	<10	<10	<10	<10	MW-17
	September 2001	NS-1	58	<10	<10	<10	<10	NS	MW-17
	March 2002	NS-1	11	14	<10	NS-2	<10	<10	MW-13A
	September 2002	NS-1	<10	20	<10	NS-2	<10	<10	MW-6R
	April 2003	NS-1	34	<10	<10	NS-2	<10	<10	MW-18
	October 2003	NS-1	17	14	27	NS-2	11	14	MW-18
Lead									
	Feb/March 1999	5.5	7.4	9.2	7.9	2.4 B	**35.6**	5.4	MW-18
	September 1999	4	3.6	2.28	<5	<5	9.3	4.3	MW-13A
	March 2000	<5	<5	<5	<5	<5	<5	<5	MW-13A
	September 2000	<5	<5	<5	<5	<5	<5	<5	MW-17
	March 2001	NS-1	<5	<5	<5	<5	<5	<5	MW-17
	September 2001	NS-1	23	<10	<10	<10	<10	NS	MW-17
	March 2002	NS-1	<10	<10	<10	NS-2	<10	<10	MW-13A
	September 2002	NS-1	<10	<10	<10	NS-2	<10	<10	MW-6R
	April 2003	NS-1	14	<10	<10	NS-2	<10	<10	MW-18
	October 2003	NS-1	13	<10	10	NS-2	<10	10	MW-18
Zinc									
	Feb/March 1999	15.1	49.5	38.1	36	14.6 B	172	36.6	MW-18
	September 1999	16.1 B	26.5	10.7 B	6.5 B	7.1 B	51.2	13.8 B	MW-13A
	March 2000	13	26	29	28	13	16	24	MW-13A
	September 2000	38	47	47	42	57	58	58	MW-17
	March 2001	NS-1	19	10	15	32	21	18	MW-17
	September 2001	NS-1	140	<10	<10	<10	22	NS	MW-17
	March 2002	NS-1	64	18	<10	NS-2	<10	<10	MW-13A
	September 2002	NS-1	29	92	20	NS-2	<10	35	MW-6R
	April 2003	NS-1	100	<10	29	NS-2	11	14	MW-18
	October 2003	NS-1	24	19	100	NS-2	17	31	MW-18

TABLE 4-5
CUMULATIVE GROUNDWATER ANALYTICAL RESULTS

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2200 BLEEKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

Analytes		MW-3	MW-6R	MW-13A	MW-14	MW-17	MW-18	DUP-1	DUP Well
Polychlorinated Biphenyls									
Aroclor 1016									
	Feb/March 1999	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-18
	September 1999	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-13A
	March 2000	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-13A
	September 2000	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	MW-17
	March 2001	NS-1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	MW-17
	September 2001	NS-1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-17
	March 2002	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-13A
	September 2002	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-6R
	April 2003	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-18
	October 2003	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-18
Aroclor 1221									
	Feb/March 1999	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-18
	September 1999	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-13A
	March 2000	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-13A
	September 2000	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	MW-17
	March 2001	NS-1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	MW-17
	September 2001	NS-1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-17
	March 2002	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-13A
	September 2002	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-6R
	April 2003	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-18
	October 2003	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-18
Aroclor 1232									
	Feb/March 1999	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-18
	September 1999	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-13A
	March 2000	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-13A
	September 2000	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	MW-17
	March 2001	NS-1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	MW-17
	September 2001	NS-1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-17
	March 2002	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-13A
	September 2002	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-6R
	April 2003	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-18
	October 2003	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-18
Aroclor 1242									
	Feb/March 1999	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-18
	September 1999	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-13A
	March 2000	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-13A
	September 2000	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	MW-17
	March 2001	NS-1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	MW-17
	September 2001	NS-1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-17
	March 2002	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-13A
	September 2002	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-6R
	April 2003	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-18
	October 2003	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-18

TABLE 4-5
CUMULATIVE GROUNDWATER ANALYTICAL RESULTS

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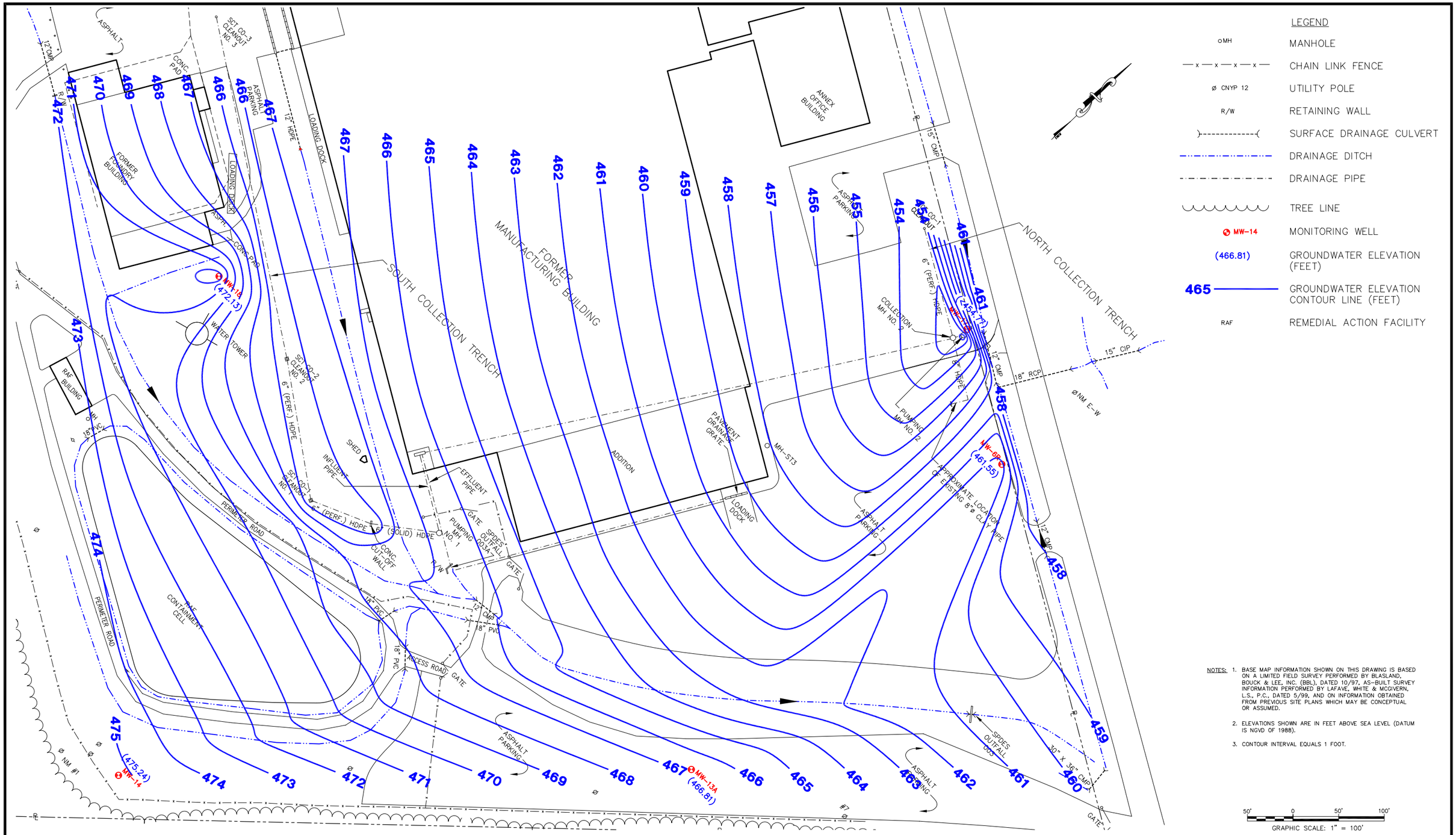
2200 BLEEKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

Analytes		MW-3	MW-6R	MW-13A	MW-14	MW-17	MW-18	DUP-1	DUP Well
Aroclor 1248									
	Feb/March 1999	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-18
	September 1999	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-13A
	March 2000	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-13A
	September 2000	0.46 C	1.2 C	<0.05	0.62 C	<0.05	0.15 C	0.19 C	MW-17
	March 2001	NS-1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	MW-17
	September 2001	NS-1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-17
	March 2002	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-13A
	September 2002	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-6R
	April 2003	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-18
	October 2003	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-18
Aroclor 1254									
	Feb/March 1999	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-18
	September 1999	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-13A
	March 2000	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-13A
	September 2000	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	MW-17
	March 2001	NS-1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	MW-17
	September 2001	NS-1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-17
	March 2002	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-13A
	September 2002	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-6R
	April 2003	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-18
	October 2003	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-18
Aroclor 1260									
	Feb/March 1999	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-18
	September 1999	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-13A
	March 2000	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-13A
	September 2000	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	MW-17
	March 2001	NS-1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	MW-17
	September 2001	NS-1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	MW-17
	March 2002	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-13A
	September 2002	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-6R
	April 2003	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-18
	October 2003	NS-1	<0.05	<0.05	<0.05	NS-2	<0.05	<0.05	MW-18

Notes:

1. All results reported in micrograms per liter (ug/l) approximately equivalent to parts per billion (ppb).
2. B = The reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
3. C = Value was reported as a laboratory cross-contaminant.
4. E = The reported value is estimated due to the presence of interference(s).
5. ND = Not Detected.
6. NS-1 = No Sample - Well Decommissioned.
7. NS-2 = No Sample - Well Dry.
8. Bolded values exceed the constituent's established Standards and Guidance Values.

4.7 Figures



NOTES:
1. BASE MAP INFORMATION SHOWN ON THIS DRAWING IS BASED ON A LIMITED FIELD SURVEY PERFORMED BY BLASLAND, BOUCK & LEE, INC. (BBL), DATED 10/97, AS-BUILT SURVEY INFORMATION PERFORMED BY LAFAVE, WHITE & MCGIVERN, L.S., P.C., DATED 5/99, AND ON INFORMATION OBTAINED FROM PREVIOUS SITE PLANS WHICH MAY BE CONCEPTUAL OR ASSUMED.
2. ELEVATIONS SHOWN ARE IN FEET ABOVE SEA LEVEL (DATUM IS NGVD OF 1988).
3. CONTOUR INTERVAL EQUALS 1 FOOT.

50' 0 50' 100'
GRAPHIC SCALE: 1" = 100'

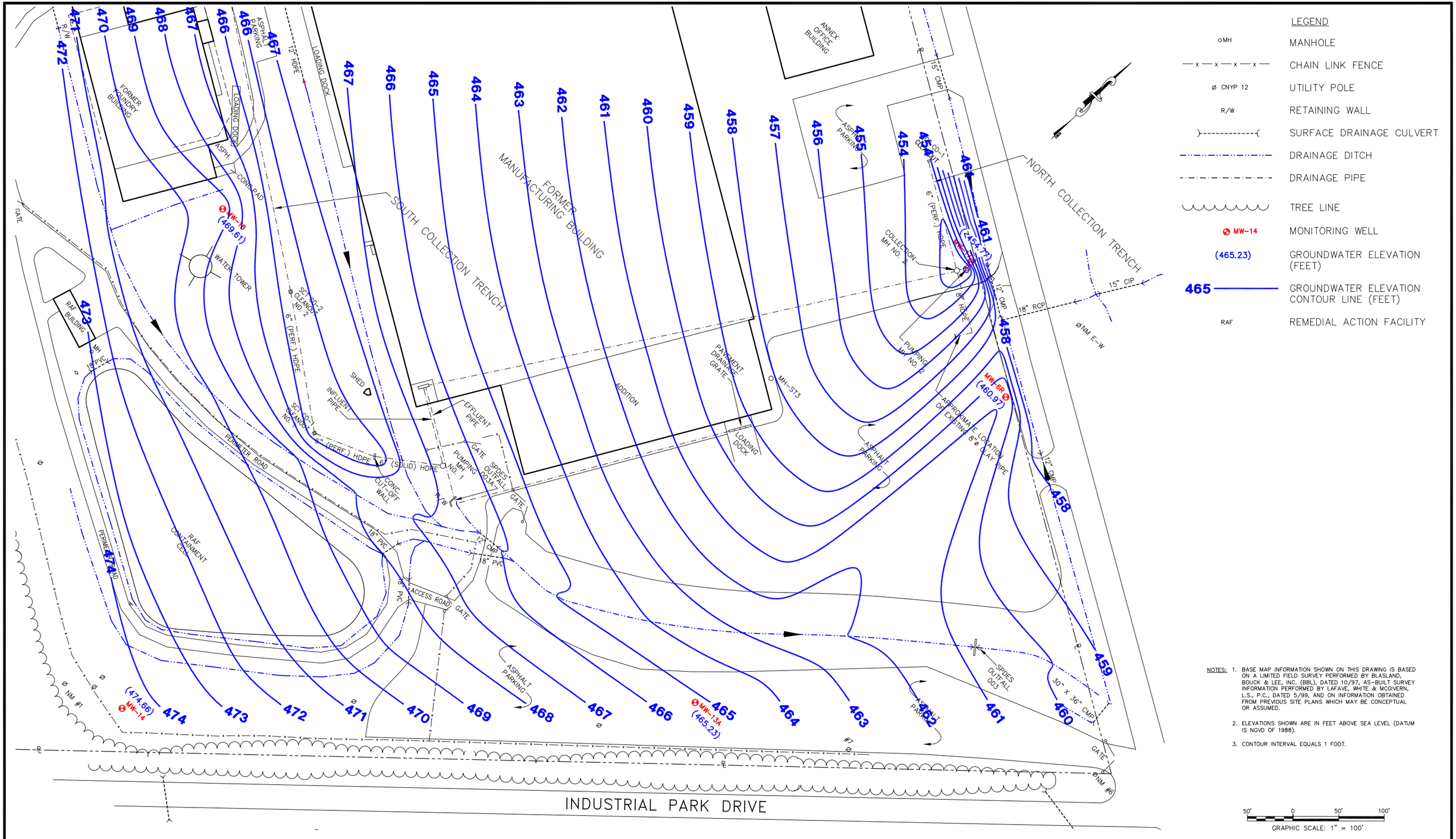
X: CP-BASE
P: BL
1/16/04
DOMANI/WP/DANA 001-03-03/2003OP&M/DANAB01.DWG

DOMANI
120 EAST WASHINGTON STREET
SYRACUSE, NEW YORK 13202
315-475-3700

2003 ANNUAL
OPERATION, MAINTENANCE, AND
MONITORING REPORT
2200 BLEECKER STREET
UTICA, NEW YORK

OVERBURDEN GROUNDWATER ELEVATION CONTOUR MAP APRIL 24, 2003

PROJECT NO.: DANA 001-03
DATE: MAR. 2004
FIGURE NO.: 4-1



NOTES:
1. BASE MAP INFORMATION SHOWN ON THIS DRAWING IS BASED ON A LIMITED FIELD SURVEY PERFORMED BY BLASLAND, BOUCK & LEE, INC. (BBL), DATED 10/97, AS-BUILT SURVEY INFORMATION PERFORMED BY LAFAVE, WHITE & MCGIVERN, L.S., P.C., DATED 5/99, AND ON INFORMATION OBTAINED FROM PREVIOUS SITE PLANS WHICH MAY BE CONCEPTUAL OR ASSUMED.
2. ELEVATIONS SHOWN ARE IN FEET ABOVE SEA LEVEL (DATUM IS NGVD OF 1988).
3. CONTOUR INTERVAL EQUALS 1 FOOT.

50' 0 50' 100'
GRAPHIC SCALE: 1" = 100'

X: CP-BASE
P: BL
1/16/04
DOMANI/WIP/DANA 001-03-03/2003OP&M/DANAB02.DWG

DOMANI
120 EAST WASHINGTON STREET
SYRACUSE, NEW YORK 13202
315-475-3700

2003 ANNUAL
OPERATION, MAINTENANCE, AND
MONITORING REPORT

2200 BLEECKER STREET
UTICA, NEW YORK

OVERBURDEN GROUNDWATER ELEVATION CONTOUR MAP OCTOBER 22, 2003

PROJECT NO.: DANA 001-03
DATE: MAR. 2004
FIGURE NO.: 4-2

5.0 PROPERTY STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM

UHC was issued a SPDES permit (No. NY0257087) for the Property on September 1, 2002. Two modifications have been issued by NYSDEC, to the SPDES Permit, dated August 1, 2003, and November 20, 2003. On behalf of UHC, DOMANI has been tasked to administer the technical and reporting requirements set forth in the SPDES Permit.

The SPDES Permit is specific to activities conducted at the Property, including the Main Building owned by Coolidge, and permits water discharge from three outfalls as depicted in Figure 5-1, SPDES Outfall 001 Manhole Plan and Section, Figure 5-2, SPDES Outfall 002 Manhole Plan and Section, and Figure 5-3, SPDES Outfall 003 Manhole Plan and Section. Approximately 92% of the water discharged at these outfalls is stormwater from overland flow and building roof leaders. A portion of the remaining contribution is from CPTC's Outfall 03A, permitted under SPDES Permit No. NY0108537 (see Section 6.4).

5.1 Outfall Contributions

Water contributions that discharge via the three SPDES outfalls are as follows:

Outfall 001

- Parking lot catch basin;
- Building roof leaders;
- Boiler blowdown (periodic);
- Sprinkler system drains (periodic); and
- Air conditioning condensate.

Outfall 002

- Parking lot catch basins,
- Building roof leaders;
- Boiler blowdown (periodic);
- Sprinkler system drains (periodic); and
- Air conditioning condensate.

Outfall 003

- Stormwater from overland flow, including that from the RAF;
- Parking lots;
- Building roof leaders;
- Boiler blowdown (periodic);
- Sprinkler system drains (periodic);
- Air conditioning condensate; and
- Post treated effluent from the GTS via Outfall 03A (SPDES Permit No. NY0108537).

Figure 5-4, Stormwater System Partial Plan, depicts the numerous source points and areas that contribute water to each outfall.

5.2 Outfall Construction

The three SPDES outfalls were located and created to facilitate collection of effluent samples and flow measurements representative of actual discharge conditions at the Property. The construction of the outfalls is provided below:

Outfall 001

Outfall 001 construction activities were conducted between April 16 and April 26, 2002, and incorporated the following:

- Pavement and soil was excavated to install Outfall 001 at an area in the western parking lot where an existing drainage pipes, a 24-inch corrugated metal pipe (CMP) and a 24-inch vitrified clay pipe (VCP) intersected, approximately 5 feet below ground surface (bgs);
- A prefabricated 5-foot diameter cast concrete manhole base, with influent and effluent pipe penetrations, was placed in line with the existing subsurface drainage pipes and grouted;
- An 8-inch thick concrete cover, with a cast iron cover was installed to complete the manhole structure, followed by engineered fill and paving;
- A stainless steel, sharp edged, 120-degree, V-notch weir was installed at the effluent side of the manhole. The weir was fastened to the floor and sidewalls of the manhole utilizing concrete fasteners and sealed with grout;
- A 2-inch diameter, schedule 80, PVC flow measurement port was affixed adjacent to the weir, and calibrated to allow measurements of effluent flow rates based on the water level flowing over the weir; and
- A NYSDEC-approved sign was posted at the outfall outlet.

A detailed drawing of SPDES Outfall 001 Manhole is presented on Figure 5-1. Ultimately, the water is discharged further west of the monitoring point, into the unnamed creek, Area 1.

Outfall 002

Outfall 002 was constructed from an existing 10.5-foot deep, 4- foot diameter red brick manhole near the northwestern corner of the Main Building. A 24-inch VCP, that is the part of the northern stormwater system, is sectioned by this manhole. As such, effluent flowing through the manhole was accessible and measurable upon application of the following upgrades:

- A stainless steel sharp edge, 120-degree, V-notch weir was installed adjacent to the effluent 24-inch VCP at the bottom of the manhole. The weir was fastened to the floor and sidewalls of the manhole utilizing concrete fasteners and sealed with grout;
- A 2-inch diameter, schedule 80, PVC flow measurement port was affixed adjacent to the weir, and effluent flow rates were calibrated based on the water level flowing over the weir; and
- A NYSDEC-approved sign was posted on the bank, adjacent to the outfall outlet.

A detailed drawing of SPDES Outfall 002 Manhole is presented on Figure 5-2. Ultimately, the water is discharged further west of the monitoring point, into the unnamed creek, Area 1.

Outfall 003

Outfall 003 was constructed in an existing unnamed tributary to the Mohawk River, Area 14, at the northeastern extent of the Property as follows:

- A 12-inch HDPE pipe was installed within a concrete headwall spanning the width of the tributary forcing 100% of the normal flow through the pipe. Samples are collected and parameters measured directly from the effluent end of the 12-inch HDPE pipe;

- A monitoring port was installed adjacent to the concrete headwall to facilitate flow measurement data collection representative of actual discharge conditions. The monitoring port was constructed by installing a horizontal 2-inch PVC pipe at a measured elevation adjacent to the influent side of the headwall. This horizontal pipe connects (via a 90 degree elbow) to a vertical riser extending several feet above grade adjacent to the tributary. The water level of the tributary, and thus the flow rate, can be measured from this monitoring port; and

- A NYSDEC-approved sign was posted on the bank adjacent to the outfall outlet.

A detailed drawing of SPDES Outfall 003 is presented on Figure 5-3.

5.3 Monitoring

A primary regulatory requirement of the Property SPDES permit is to monitor concentrations of select constituents and physical parameters in the outfall effluent. A schedule of routine monitoring of effluent from Outfalls 001, 002, and 003 has been prescribed by NYSDEC, as discussed in Section 5.3.1. In addition, two non-routine monitoring/sampling programs have been prescribed for by NYSDEC, to include, PCB Congeners and Acute Toxicity, as discussed in Sections 5.3.2 and 5.3.3, respectively.

5.3.1 Routine Monitoring

August and November 2003 modifications to the Permit have resulted in minor changes to the monitoring parameters and/or their scheduled monitoring frequencies. The current routine monitoring parameters and sampling frequencies, as prescribed for each outfall, are summarized in the following table:

Parameter	Units	Monitoring Frequency		
		Outfall 001	Outfall 002	Outfall 003
pH	S.U.	Once/2 weeks	Once/2 weeks	Once/2 weeks
Flow (in-situ measurement)	gpd	Once/2 weeks	Once/2 weeks	Once/2 weeks
Temperature	^{0}F	Once/2 weeks	Once/2 weeks	Once/2 weeks
Oil & Grease	mg/l	Monthly	Monthly	Monthly
Total Suspended Solids (TSS)	mg/l	Once/2 weeks	Once/2 weeks	Once/2 weeks
Total Residual Chloride	ug/l	NR	NR	Once/2 weeks
Phenolics	ug/l	Monthly	Monthly	Monthly
Antimony	ug/l	Quarterly	NR	NR
Chromium	ug/l	Semi-Annual	NR	NR
Copper	ug/l	Once/2 weeks	NR	NR
Fluoride	ug/l	Semi-Annual	Semi-Annual	NR
Lead	ug/l	Semi-Annual	NR	Semi-Annual
Zinc	ug/l	Semi-Annual	NR	Semi-Annual
Chloroform	ug/l	Once/2 weeks	NR	Once/2 weeks
cis 1,2-dichloroethylene	ug/l	Once/2 weeks	NR	Once/2 weeks
Trans 1,2- dichloroethylene	ug/l	Once/2 weeks	NR	Once/2 weeks
Trichloroethylene	ug/l	Once/2 weeks	NR	Once/2 weeks
Vinyl chloride	ug/l	NR	NR	Once/2 weeks
PCBs	ng/l	NR	NR	Quarterly

Notes:

S.U. = Standard Units
^{0}F = Degrees Fahrenheit
mg/l = milligrams per liter, approximately equal to parts per million (ppm)
ug/l = micrograms per liter, approximately equal to parts per billion (ppb)
ng/l = nanograms per liter, approximately equal to parts per trillion (ppt)
NR = Not Required

Analytical data and real-time measurements obtained from the 2003 routine monitoring events are summarized in Table 5-1, Summary of SPDES Monitoring Results. This data is also reduced and reported in monthly Discharge Monitoring Reports (DMRs) for submittal to NYSDEC. Copies of the 2003 monthly DMRs are included as Appendix G.

Results from routine monitoring events are compared to effluent compliance levels set in the Permit. There were no excursions of compliance levels for the above parameters in 2003, with the exception of detected TSS and oil and grease concentrations in certain samples. These excursions were reported to the NYSDEC Region 6, Division of water representative, Chad Kehoe, by telephone followed by written notification, with an accompanying evaluation and recommendations. Details of the excursions that were reported during the 2003 monitoring period are provided below:

- The TSS daily maximum allowable level of 50 mg/l at the Outfall 001 was exceeded during one bi-monthly monitoring event; a concentration of 51 mg/l was detected in the sample collected on January 24, 2003. Due to downstream ice buildup, high tail water was observed at Outfall 001 outlet. As such, the sample collected, and its reported TSS exceedance, is not considered representative of normal effluent flow conditions. NYSDEC Region 6 representatives were notified, and concurred that the reported TSS exceedance was likely the result of non-representative effluent flow conditions;

- An oil & grease concentration of 22 mg/l was detected in the monthly effluent sample collected from Outfall 001 on June 18, 2003. This value exceeded the Permit compliance level of 15 mg/l. Upon receipt of the laboratory analytical report, DOMANI verbally notified NYSDEC Region 6 of this concentration. This was the first Oil & Grease concentration exceeding the Permit compliance level since the effective date of the Permit. As such, the result appeared to be an anomaly, and was likely attributable to a parking lot catch basin connected to the outfall; and

- Oil & grease concentrations of 24 mg/l and 16 mg/l were detected in the monthly effluent samples collected from Outfalls 001 and 002, respectively, on December 17, 2003. These values exceeded the Permit compliance level of 15 mg/l. Upon receipt of the laboratory analytical report, DOMANI verbally notified NYSDEC Region 6, of these concentrations. Given the historic oil & grease analytical data since the effective date of the Permit, these results appeared to be an anomaly, likely attributable to parking lot catch basins connected to the outfalls.

5.3.2 EPA Method 1668A PCB Study

Pursuant to the August 2003 SPDES Permit Modification, a three-year study of PCB congeners is required at Outfall 003. Using USEPA Method 1668A, sampling and analysis of 209 PCB congeners is being conducted at Outfall 003 on a quarterly basis. Five quarterly sampling events were conducted in 2003. The original 1668A PCB Study monitoring schedule was not set up to coincide with the established schedule for routine monitoring, as discussed in the previous section. To correct this situation, an additional quarterly 1668A PCB Study sampling event was conducted in August 2003, and subsequent sampling and reporting was conducted in conjunction with the routine monitoring events. Sampling is expected to continue on a quarterly basis through the second quarter of 2005.

One grab sample was collected from Outfall 003 during the monitoring events listed below and was split for the purpose of collecting parallel PCB congener/aroclor data. The samples were submitted to Alta Analytical Perspectives in Wilmington, North Carolina for analysis of PCB Congeners in accordance with EPA Method 1668A and to LSL for analysis of PCB aroclors in accordance with USEPA Method 608. As indicated in the August 2003 Permit modification, PCB compliance is determined using the EPA Method 608 analytical results. The analytical results are transmitted to NYSDEC in both digital and printed formats.

Analytical results of the five samples collected and analyzed during 2003, are summarized in the following table:

Sample Date	Total PCB Congeners USEPA Method 1668A	Total PCB Aroclors USEPA Method 608
January 10, 2003	2.489 ng/l	<50 ng/l
April 16, 2003	4.268 ng/l	<50 ng/l
June 18, 2003	6.283 ng/l	<50 ng/l
August 13, 2003	4.546 ng/l	<50 ng/l
December 17, 2003	3.449 ng/l	<50 ng/l

Notes:

1) Concentrations reported in nanograms/liter (ng/l), approximately equivalent to parts per trillion.
2) Reported concentrations represent sample results minus concentration detected in the method blank.

Analytical laboratory data summary supporting the above reported results are included as Appendix H. At this point in the study, no conclusion or subsequent recommendations can been provided.

5.3.3 Acute Toxicity Testing

Pursuant to the original September 2002 SPDES Permit and the August 2003 SPDES Permit Modification, a Tier 1 acute toxicity testing program is required at Outfalls 001, 002, and 003. The Tier 1 toxicity testing program is intended to identify acute toxicity of the effluent from the outfalls.

Using analytical method EPA/600/4-90/027F, sampling and analysis of acute toxicity of effluent utilizing the vertebrate, Fathead Minnow (Pimephales promelas) and invertebrate, Water Flea (Ceriodaphnia dubia) test species, respectively, is required on a quarterly basis at Outfalls 001 and 002 during calendar years ending in 3 and 8, and at Outfall 003 on a quarterly basis during calendar years ending in 0 and 5.

The toxicity testing program for Outfalls 001 and 002 were initiated during the first quarter of 2003, and as such, four sampling events were conducted for the year. Each acute toxicity sampling event involved two days (48 hours) in which an automated sampling device was used to collect two composite samples, one for each day. The automatic sampling device is programmed to collect a specific volume of water hourly during each 24-hour sampling period. The samples were delivered to AquaTox Research, Inc., a NYSDEC-approved laboratory, located in Syracuse, New York, for acute toxicity analysis. Analytical results are provided to NYSDEC upon receipt. Analytical reports of each quarterly event are included as Appendix I.

NYSDEC's evaluation of 2003 Tier 1 Acute toxicity test data, documented in a letter dated January 27, 2004, concluded:

> For Outfall 001, all tests indicated that no toxicity was present with LC50 values > 100%**,** however, the September 2003 report did indicate 25% mortality in 100% effluent, although this was not considered to be statistically significant. For Outfall 002, half the tests indicated that unacceptable toxicity was present, with LC50 values ranging from 73.20% to >100%.

These mortality rates may be attributed to the documented high tail-water condition and roof-repair work at the upstream Main Building, reported during the two sampling events, respectively.

The Tier 1 acute toxicity testing program at Outfalls 001 and 002 was originally scheduled to be conducted during calendar years ending in 3 and 8. With a current mortality rate of 0%, additional Tier 1 acute toxicity testing at Outfall 001 is not required by NYSDEC until calendar year 2008. However, with a

current mortality rate of 50% for Outfall 002, NYSDEC has required that Tier 1 acute toxicity testing be conducted for an additional year, and reevaluated accordingly.

5.4 Summary

UHC was issued a SPDES permit for Outfalls 001, 002, and 003 on September 1, 2002. During 2003, NYSDEC issued two modifications to the SPDES Permit, as discussed earlier. On behalf of UHC, DOMANI has been conducting the technical and reporting requirements set forth in the SPDES Permit.

Data collected from the 2003 routine monitoring and sampling events indicate target constituents and field parameters have not been consistently identified at any of the outfalls above their respective enforceable compliance levels. Anomalous exceptions and or excursions from the enforceable compliance levels have been evaluated and not believed to be a consistent threat to the environment. As such, it is recommended that routine monitoring be continued as scheduled.

The EPA Method 1668A PCB Study is ongoing with no reportable exceedances, and will continue as scheduled. The acute toxicity testing of Outfalls 001 and 002 was performed quarterly in 2003. Greater than 50% invertebrate mortality was identified for the March and June 2003 sampling events for Outfall 002, believed to be attributed to flow conditions and/or roof repair activities at the time of sampling. Acute toxicity testing of Outfall 003 is scheduled to begin in the 2005 calendar year.

No physical or structural changes to the outfalls and/or changes in the monitoring procedures are recommended. However, due to the mortality rate detected at Outfall 002, the acute toxicity testing (specifically, the water flea test species) is being conducted for an additional year (calendar year 2004).

5.5 Tables

TABLE 5-1
SUMMARY OF SPDES MONITORING RESULTS

2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
SPDES NO. NY-0257087

SPDES Outfall 001

Monitoring Period	ECL		September 2002				October 2002				November 2002					December 2002			
Monitoring Date	Daily Max	Units	9/6/2002	9/11/2002	9/16/2002	9/23/2002	10/3/2002	10/10/2002	10/16/2002	10/25/2002	11/1/2002	11/6/2002	11/11/2002	11/22/2002	11/27/2002	12/5/2002	12/13/2003	12/20/2003	12/27/2003
Sampler ID			rsn	bhm	bhm	rrc	rsn	bhm	bhm	rsn	rrc	rsn	rrc/rsn	rsn	rsn	rrc	bhm	bhm	rrc
Flow Rate	Monitor	gpd	HTW	3505	15801	2314	7530	152	185634	<152	152	35901	HTW	HTW	13987	2314	30835	35901	21739
Temperature	90	ºF		67	71		66		57			47		53		49	46		
pH	6.0-9.0	SU		7.6	7.3		7.1		7.0			6.7		7.0		6.6	7.9		
Solids, Total Suspended	10 (dry)	mg/l		<4	<4		<4		15			<4		<4		14	15		
	50 (wet)																		
cis-1,2-Dichloroethylene	10	ug/l		7.9	1		1		2.7			<1		3.6		<1	<1		
trans-1,2-Dichloroethylene	10	ug/l		<1	<1		<1		<1			<1		<1		<1	<1		
Trichloroethylene	10	ug/l		1.1	<1		<1		<1			<1		<1		<1	<1		
Chloroform	46	ug/l		<1	<1		<1		<1			<1		<1		<1	<1		
Copper, Total	100	ug/l		73	34		55		50			20		25		11	24		
Oil & Grease	15	mg/l		<5			8.3					<5				<5			
Phenolics, Total	28	ug/l		<20			<20					<20				<20			
Antimony, Total	300	ug/l		<10												<10			
Chromium, Total	51	ug/l		22															
Fluoride, Total	2500	ug/l		340															
Lead, Total	13	ug/l		<10															
Zinc, Total	210	ug/l		72															

SPDES Outfall 002

Flow Rate	Monitor	gpd	43871	47168	50610	43871	47168	47168	528383	29476	27001	166744	34824	HTW	HTW	27001	88412	133097	27001
Temperature	90	ºF		70	72		70		52			45	47			49	46		
pH	6.0-9.0	SU		8.8	8.4		8.2		7.1			7.3	8.5			8.6	8.1		
Solids, Total Suspended	10 (dry)	mg/l		<4	<4		<4		<4			<4	<4			<4	<4		
	50 (wet)																		
Oil & Grease	15	mg/l		<5			11					<5				<5			
Phenolics, Total	24	ug/l		<20			<20					<20				<20			
Fluoride, Total	1500	ug/l		1000															

SPDES Outfall 003

Flow Rate	Monitor	gpd	6943	20829	83314	48600	36450	35345	198367	24300	18225	116640	36450	194400	48600	48600	42261	116640	29160
Temperature	90	ºF		64.2	70.3		65.5		51.3			44	58			35	44		
pH	6.0-9.0	SU		7.6	7.7		7.4		7.1			7.1	7.2			7.6	6.9		
Solids, Total Suspended	10 (dry)	mg/l		6	<4		<4		<4			<4	<4			<4	<4		
	50 (wet)																		
Chlorine, Total Residual	100	ug/l		80	70		70		85			20	80			50	50		
cis-1,2-Dichloroethylene	10	ug/l		<1	1.1		1.9		<1			4	<1			4.9	8.3		
trans-1,2-Dichloroethylene	10	ug/l		<1	<1		<1		<1			<1	<1			<1	<1		
Trichloroethylene	10	ug/l		<1	<1		<1		<1			<1	<1			<1	<1		
Vinyl Chloride	10	ug/l		<1	<1		<1		<1			<1	<1			<1	<1		
Chloroform	46	ug/l		<1	<1		<1		<1			<1	<1			<1	<1		
Oil & Grease	15	mg/l		<5			6.6					<5				<5			
Phenolics, Total	44	ug/l		<20			<20					<20				<20			
PCBs, Aroclors (Compliance)	300	ng/l							<50										
PCBs, Congeners (1668A Study)	NA	pg/l							7824										
Lead, Total	10	ug/l		<10															
Zinc, Total	120	ug/l		<10															

TABLE 5-1
SUMMARY OF SPDES MONITORING RESULTS

2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
SPDES NO. NY-0257087

SPDES Outfall 001

Monitoring Period	ECL		January 2003				February 2003				March 2003					April 2003				May 2003				
Monitoring Date	Daily Max	Units	12/30/2002	1/10/2003	1/17/2003	1/24/2003	1/29/2003	2/3/2003	2/10/2003	2/18/2003	2/25/2003	3/7/2003	3/12/2003	3/19/2003	3/25/2003	4/4/2003	4/11/2003	4/16/2003	4/25/2003	5/2/2003	5/9/2003	5/15/2003	5/23/2003	5/29/2003
Sampler ID			bhm	bhm	bhm	bhm	rsn	rsn/sjm	sjm	rrc/sjm	sjm	rsn	bhm	rrc/pmf	rrc/bhm	rrc	pmf	rsn	rrc	rrc	sjm	bhm	sjm	bhm
Flow Rate	Monitor	gpd	26116	HTW	152	No Flow	<152	6112	<152	<152	HTW	HTW	2160	HTW	HTW	2880 E	HTW	<1440 E	<1440 E	41320	<1440 E	928	<1440 E	743
Temperature	90	ºF			41	35		46		40			43		54			56	52				58	60
pH	6.0-9.0	SU			7.0	7.2		7.0		7.1			7.1		7.2			7.0	7.2				7.0	6.9
Solids, Total Suspended	10 (dry)	mg/l			10	**51**		<4		5			17		7			45	5				31	10
	50 (wet)																							
cis-1,2-Dichloroethylene	10	ug/l			1	<0.5		1		4			4		6			<1	<1				<1	<1
trans-1,2-Dichloroethylene	10	ug/l			<1	<0.5		<1		<1			<1		<1			<1	<1				<1	<1
Trichloroethylene	10	ug/l			<1	<0.5		<1		1			<1		2			<1	<1				<1	<1
Chloroform	46	ug/l			<1	<0.5		<1		<1			<1		<1			<1	<1				<1	<1
Copper, Total	100	ug/l			22	<10		53		21			16		<10			17	16				22	19
Oil & Grease	15	mg/l			<5			<5					<5					13						<5
Phenolics, Total	28	ug/l			<20			<20					<20					<20						<2
Antimony, Total	300	ug/l																<10						
Chromium, Total	51	ug/l																<10						
Fluoride, Total	2500	ug/l																540						
Lead, Total	13	ug/l																<10						
Zinc, Total	210	ug/l																99						

SPDES Outfall 002

Flow Rate	Monitor	gpd	22434	HTW	1582	No Flow	574	11643	HTW	10241	HTW	208	3966	HTW	HTW	2880 E	HTW	844	37	47168	101	364	1582	<250 E
Temperature	90	ºF			49	38		48		45			48		53			54	51				58	60
pH	6.0-9.0	SU			7.0	7.6		7.0		7.4			6.7		7.3			7.3	7.2				7.7	7.1
Solids, Total Suspended	10 (dry)	mg/l			<4	7		<4		<4			<4		11			7	11				5	10
	50 (wet)																							
Oil & Grease	15	mg/l			<5			<5					8					12						<5
Phenolics, Total	24	ug/l			<20			<20					<20					<20						<2
Fluoride, Total	1500	ug/l																460						

SPDES Outfall 003

Flow Rate	Monitor	gpd	53018	53018	25357	7200 E	7200 E	14400 E	48600	2880 E	13886	23328	18225	83314	97200	7200 E	144000 E	24300 E	291600 E	172800 E	20000 E	64800	15247	28800
Temperature	90	ºF		40		33		40		33			38		58			59	51				61	66
pH	6.0-9.0	SU		7.1		7.5		7.1		7.5			7.4		7.2			7.3	7.4				7.5	7.4
Solids, Total Suspended	10 (dry)	mg/l		<4		5		<4		<4			<4		<4			4	NA				<4	9
	50 (wet)																							
Chlorine, Total Residual	100	ug/l		70		60		70		47			50		60			10	60				30	40
cis-1,2-Dichloroethylene	10	ug/l		6		3		3		8			8		5			<1	2				<1	<1
trans-1,2-Dichloroethylene	10	ug/l		<1		<0.5		<1		<1			<1		<1			<1	<1				<1	<1
Trichloroethylene	10	ug/l		6		<0.5		<1		2			9		3			<1	<1				<1	<1
Vinyl Chloride	10	ug/l		<1		<0.5		<1		<1			<1		<1			<1	<1				<1	<1
Chloroform	46	ug/l		<1		<0.5		<1		<1			<1		<1			<1	<1				<1	<1
Oil & Grease	15	mg/l		<5				<5					<5					<5						<5
Phenolics, Total	44	ug/l		<20				<20					<2					<20						<2
PCBs, Aroclors (Compliance)	300	ng/l		<50														<50						
PCBs, Congeners (1668A Study)	NA	pg/l		2641														4268						
Lead, Total	10	ug/l																<10						
Zinc, Total	120	ug/l																<10						

TABLE 5-1
SUMMARY OF SPDES MONITORING RESULTS

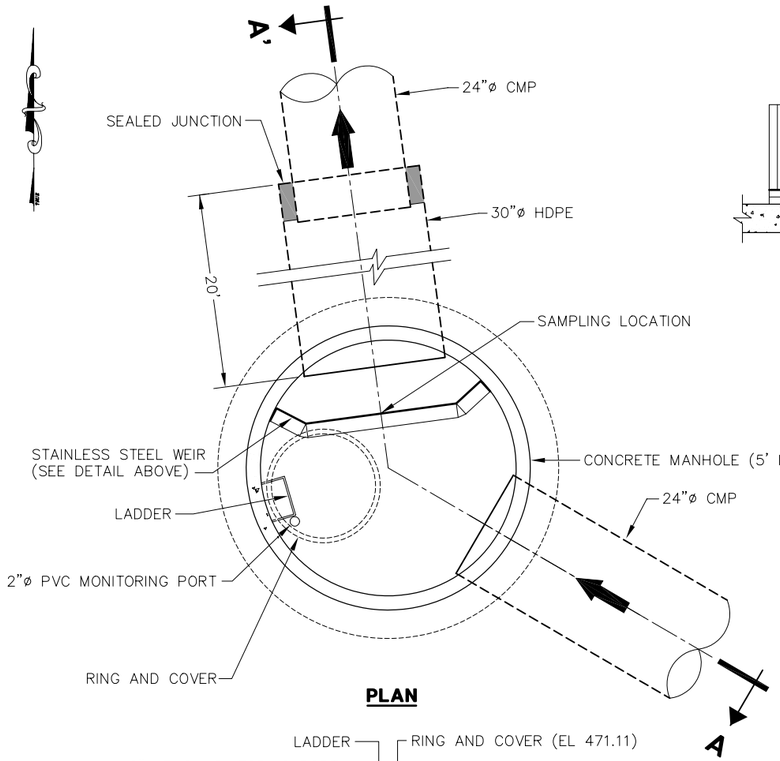
2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
SPDES NO. NY-0257087

Monitoring Period	ECL		June 2003				July 2003				August 2003				September 2003		October 2003		November 2003		December 2003	
Monitoring Date	Daily Max	Units	6/4/2003	6/11/2003	6/18/2003	6/25/2003	7/2/2003	7/9/2003	7/17/2003	7/23/2003	8/1/2003	8/6/2003	8/13/2003	8/29/2003	9/8/2003	9/23/2003	10/8/2003	10/23/2003	11/5/2003	11/21/2003	12/5/2003	12/17/2003
Sampler ID			sjm	sjm	sjm	pmf/bhm	sjm	pmf/bhm	sjm	rsn	sjm/bhm	bhm	rrc	sjm	bhm	bhm	bhm	sjm	sjm	bhm	rsn	rsn
SPDES Outfall 001																						
Flow Rate	Monitor	gpd	<1440 E	4770	<1440 E	<1440 E	<1440 E	11676	<1440 E	12253	64800	4713	<1440 E	<1440 E	<1440 E	32112	626	<4114E	<4114 E	HTW	<4114 E	<20736 E
Temperature	90	ºF	60		61			66		69	66		68	74	69	65	68	51	55	54	44	43
pH	6.0-9.0	SU	7.0		7.4			7.3		7.2	6.6		6.8	7.2	7.4	7.0	6.8	6.8	7.4	6.5	6.8	6.8
Solids, Total Suspended	10 (dry)	mg/l	39		30			46		<4	<4		<4	30	15	<4	<4	8	6	7	21	<4
	50 (wet)																					
cis-1,2-Dichloroethylene	10	ug/l	<1		1			1		<1	<1		4	<1	<1	<1	<1	<1	<1	2	<1	<1
trans-1,2-Dichloroethylene	10	ug/l	<1		<1			<1		<1	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethylene	10	ug/l	<1		<1			<1		<1	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	46	ug/l	<1		<1			<1		<1	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper, Total	100	ug/l	<10		13			27		62	41		29	26	14	15	26	17	14	<10	12	14
Oil & Grease	15	mg/l			**22**			<5			<5				<5		<5			<5		**24**
Phenolics, Total	28	ug/l			<20			<20			<20				<20		<20			<20		<20
Antimony, Total	300	ug/l			<10									<10								<10
Chromium, Total	51	ug/l			<10																	<10
Fluoride, Total	2500	ug/l			380																	240
Lead, Total	13	ug/l			<10																	<10
Zinc, Total	210	ug/l			44																	38
SPDES Outfall 002																						
Flow Rate	Monitor	gpd	101	3247	1582	208	101	56	<1440 E	18366	126908	Innundated	101	101	37	34824	208	208	11643	HTW	HTW	HTW
Temperature	90	ºF	61		66			68		70	66		68	74	69	66	68	53	56	60	48	47
pH	6.0-9.0	SU	7.3		7.2			6.5		7.0	6.6		6.8	7.8	7.2	6.9	7.0	7.2	7.4	6.6	6.9	6.7
Solids, Total Suspended	10 (dry)	mg/l	<4		<4			<4		<4	<4		9	15	<4	<4	<4	7	<4	4	<4	<4
	50 (wet)																					
Oil & Grease	15	mg/l			<5			<5			<5				<5		<5			9		**16**
Phenolics, Total	24	ug/l			<20			<20			<20				<20		<20			<20		<20
Fluoride, Total	1500	ug/l			150																	200
SPDES Outfall 003																						
Flow Rate	Monitor	gpd	21600	18514	17280	15549	6480	18783	11782	74057	94255	47127	14811	28800	9969	103680	13642	15247	25920	43200	25920	37029
Temperature	90	ºF	64		64			67		70	65		72	73	71	64	63	45	52	48	35	42
pH	6.0-9.0	SU	7.5		7.6			7.2		7.1	7.3		7.4	7.7	7.8	7.2	7.6	7.6	7.1	7.1	7.3	6.8
Solids, Total Suspended	10 (dry)	mg/l	<4		<4			<4		<4	<4		<4	<4	<4	<4	<4	<4	<4	4	4	<4
	50 (wet)																					
Chlorine, Total Residual	100	ug/l	50		50			50		60	70		50	50	50	80	50	30	50	90	30	50
cis-1,2-Dichloroethylene	10	ug/l	<1		<1			<1		2	<1		<1	<1	<1	1	<1	<1	2	3	10	6
trans-1,2-Dichloroethylene	10	ug/l	<1		<1			<1		<1	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethylene	10	ug/l	<1		<1			<1		<1	<1		<1	<1	<1	<1	<1	<1	1	2	8	1
Vinyl Chloride	10	ug/l	<1		<1			<1		<1	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	46	ug/l	<1		<1			<1		<1	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Oil & Grease	15	mg/l			6			<5			<5				<5		<5			8		<5
Phenolics, Total	44	ug/l			<20			<20			<20				<20		<20			<20		<20
PCBs, Aroclors (Compliance)	300	ng/l			<50								<50									<50
PCBs, Congeners (1668A Study)	NA	pg/l			6283								4546									3449
Lead, Total	10	ug/l			<10																	<10
Zinc, Total	120	ug/l			<10																	11

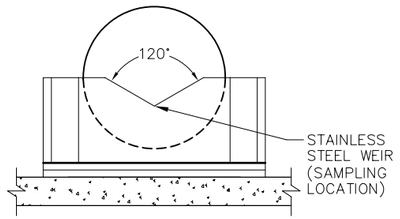
Notes:

1. ECL = Effluent Compliance Level.
2. gpd = gallons per day.
3. ºF = Degrees Farenheit.
4. SU = Standard Units.
5. mg/l = milligrams per liter, approximately equivalent to parts per million (ppm).
6. ug/l = micrograms per liter, approximately equivalent to parts per billion (ppb).
7. ng/l = nanograms per liter, approximately equivalent to parts per trillion (ppt).
8. pg/l = picograms per liter, approximately equivalent to parts per quadrillion (ppq).
9. HTW = High Tail Water.
10. No Flow = No visible discharge.
11. E = Estimated.
12. NA = Not analyzed.
13. Bolded values exceed permit effluent compliance levels.

5.6 Figures

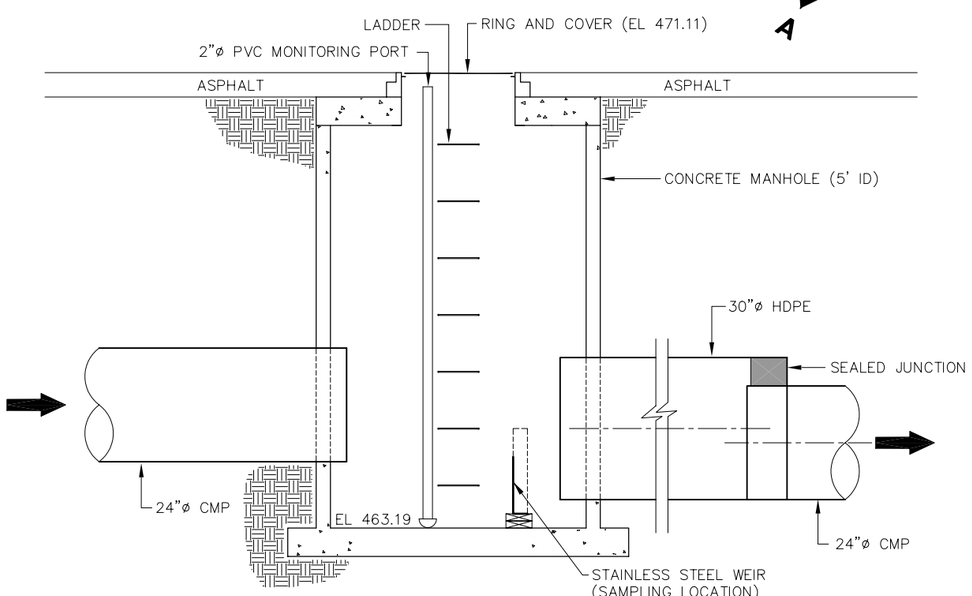


PLAN



WEIR DETAIL

SCALE: 3/8" = 1'-0"



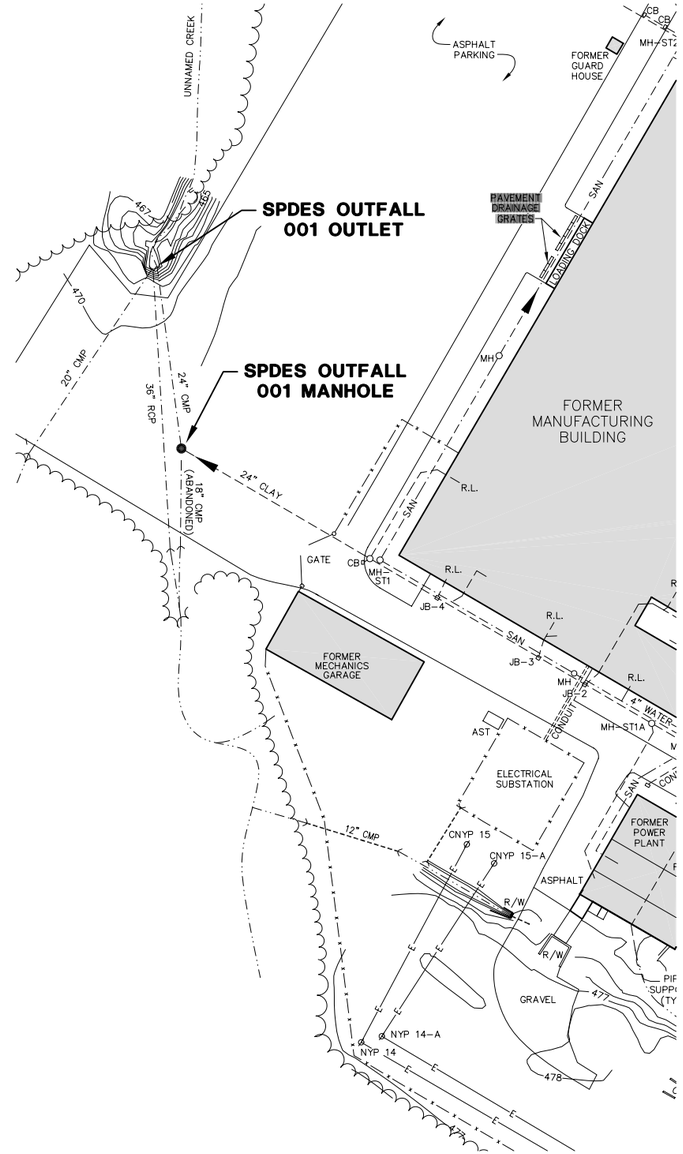
SECTION A-A'

SPDES OUTFALL 001 MANHOLE PLAN AND SECTION

SCALE: 3/8" = 1'-0"

0 2' 5'

GRAPHIC SCALE: 3/8" = 1'-0"



MANHOLE LOCATION PLAN

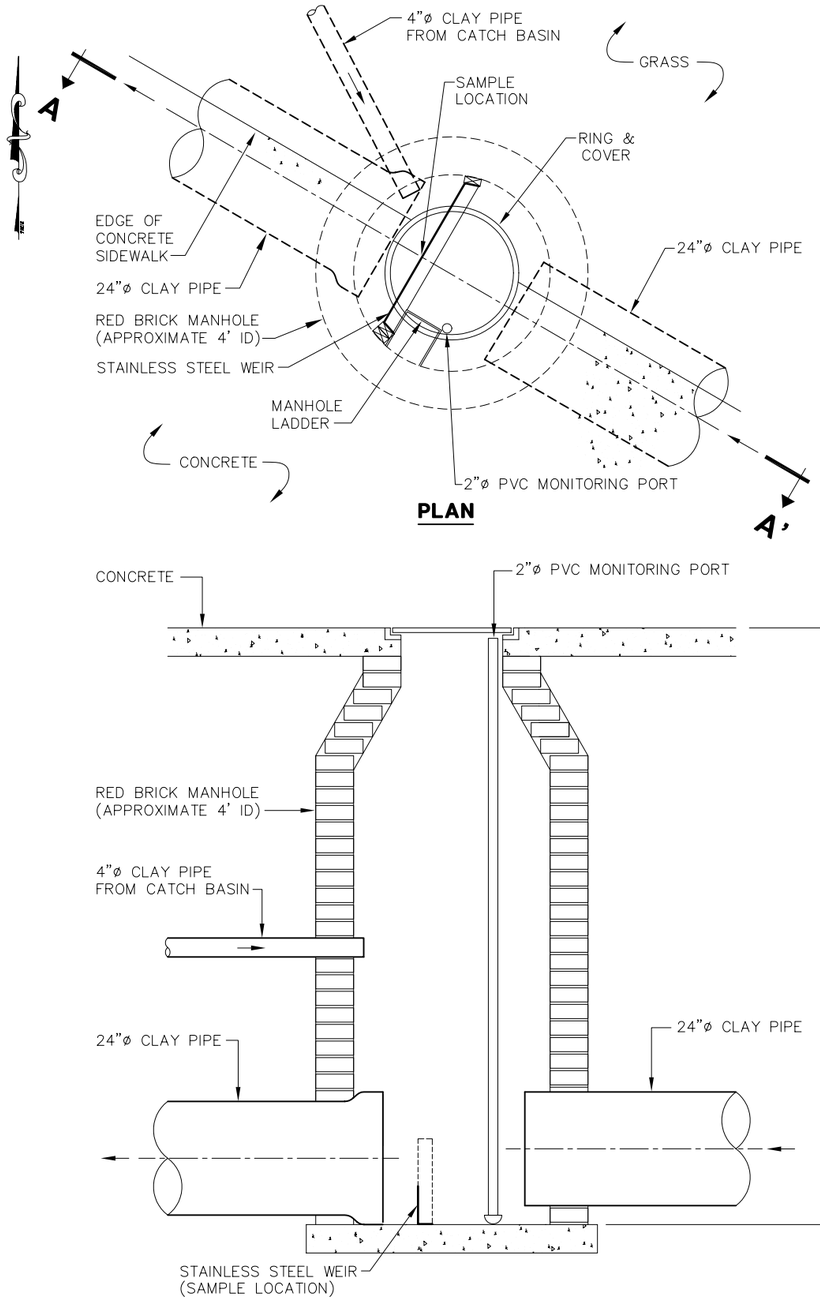
SCALE: 1" = 120'

0 120' 240'

GRAPHIC SCALE: 1" = 120'

X: CP-BASE
P: BL
1/16/04
DOMANI/WIP/DANA 001-03-03/2003OP&M/DANAB06.DWG

DOMANI 120 EAST WASHINGTON STREET SYRACUSE, NEW YORK 13202 315-475-3700	2003 ANNUAL OPERATION, MAINTENANCE, AND MONITORING REPORT 2200 BLEECKER STREET UTICA, NEW YORK	**SPDES OUTFALL 001 MANHOLE PLAN AND SECTION**	PROJECT NO.: DANA 001-03 DATE: MAR. 2004 FIGURE NO.: **5-1**



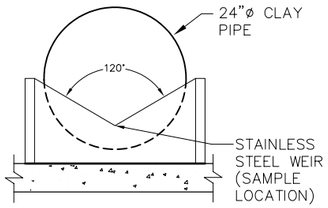
SECTION A-A'

SPDES OUTFALL 002 MANHOLE PLAN AND SECTION

SCALE: 3/8" = 1'-0"

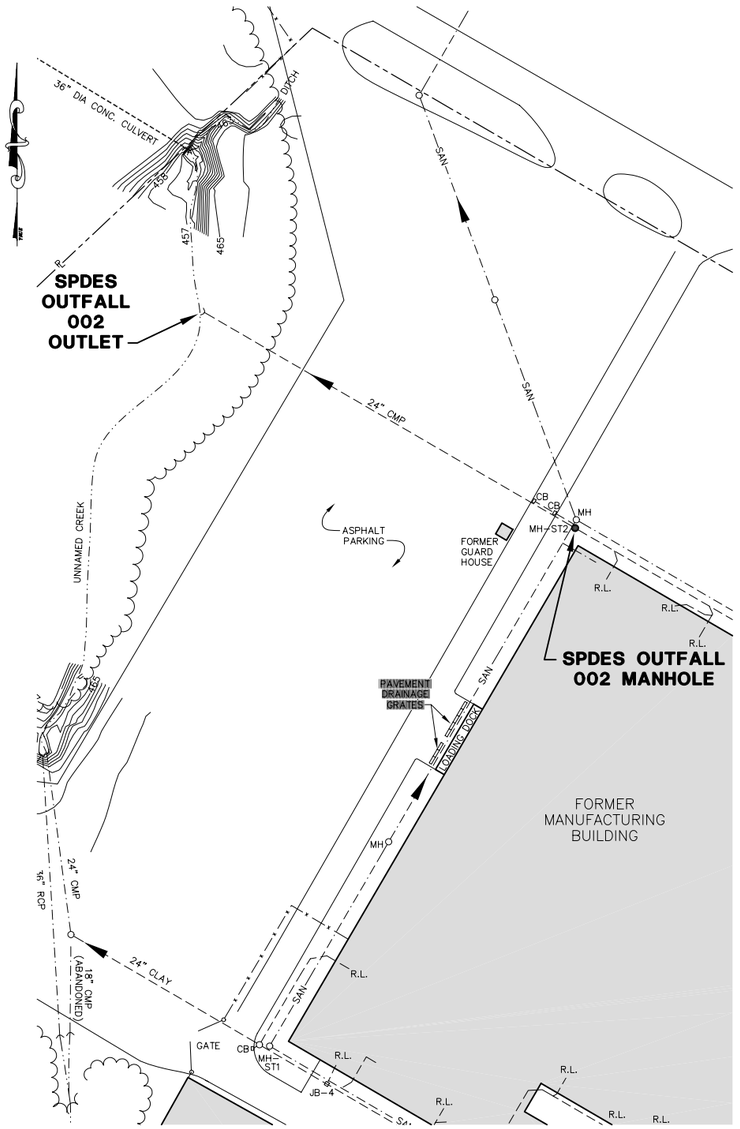
0 2' 5'

GRAPHIC SCALE: 3/8" = 1'-0"



WEIR DETAIL

SCALE: 3/8" = 1'-0"



MANHOLE LOCATION PLAN

SCALE: 1" = 120'

0 120' 240'

GRAPHIC SCALE: 1" = 120'

X: CP-BASE
P: D2BBW
1/16/04
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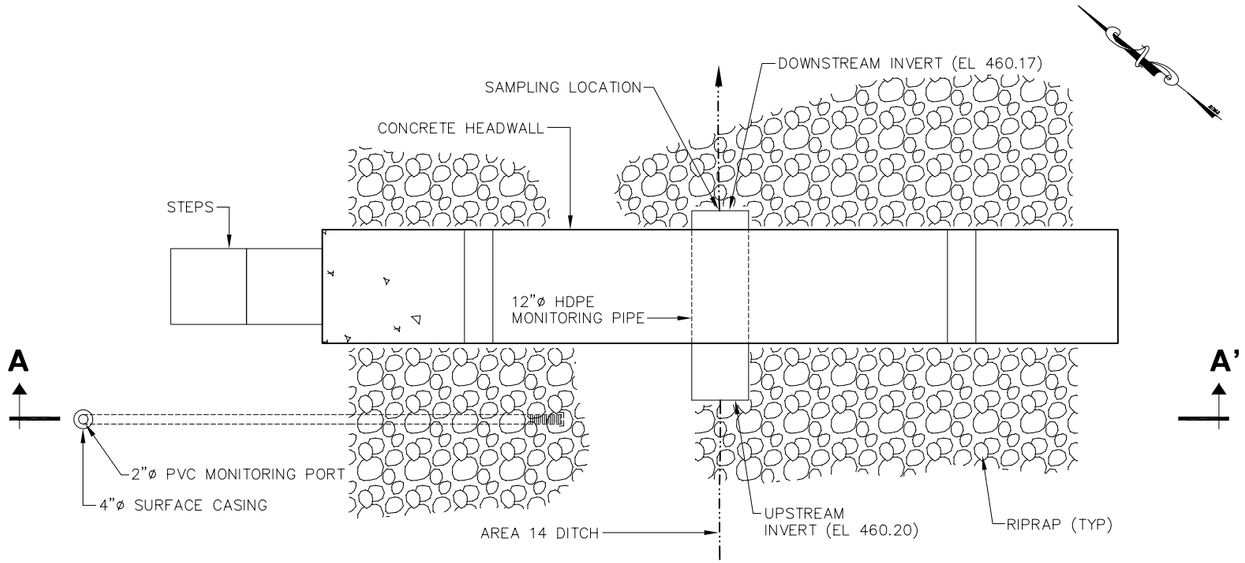
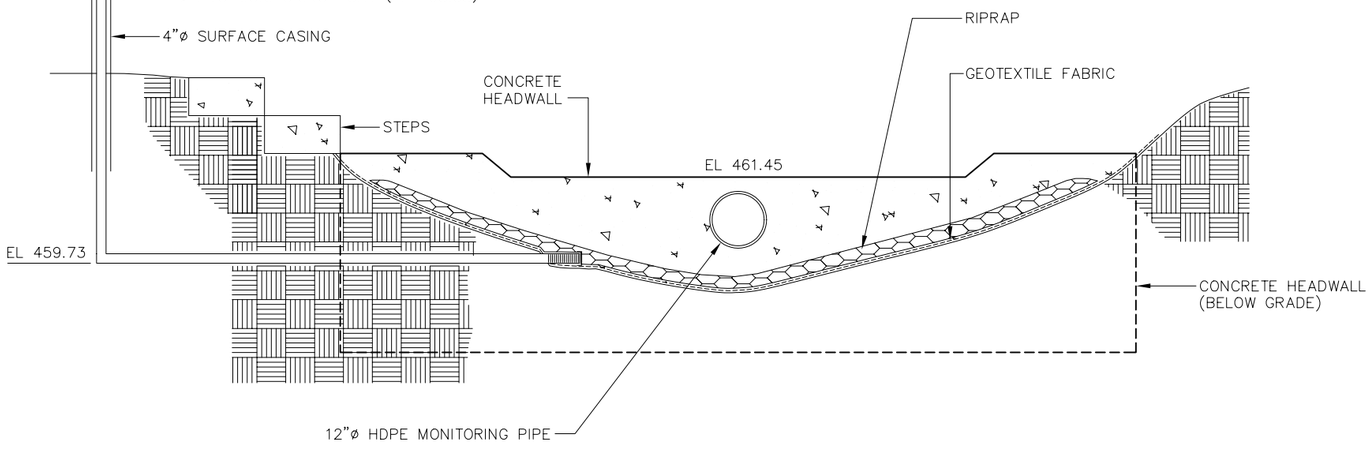
SPDES OUTFALL 002 MANHOLE PLAN AND SECTION

PROJECT NO.: DANA 001-03
DATE: MAR. 2004
FIGURE NO.: 5-2



PLAN



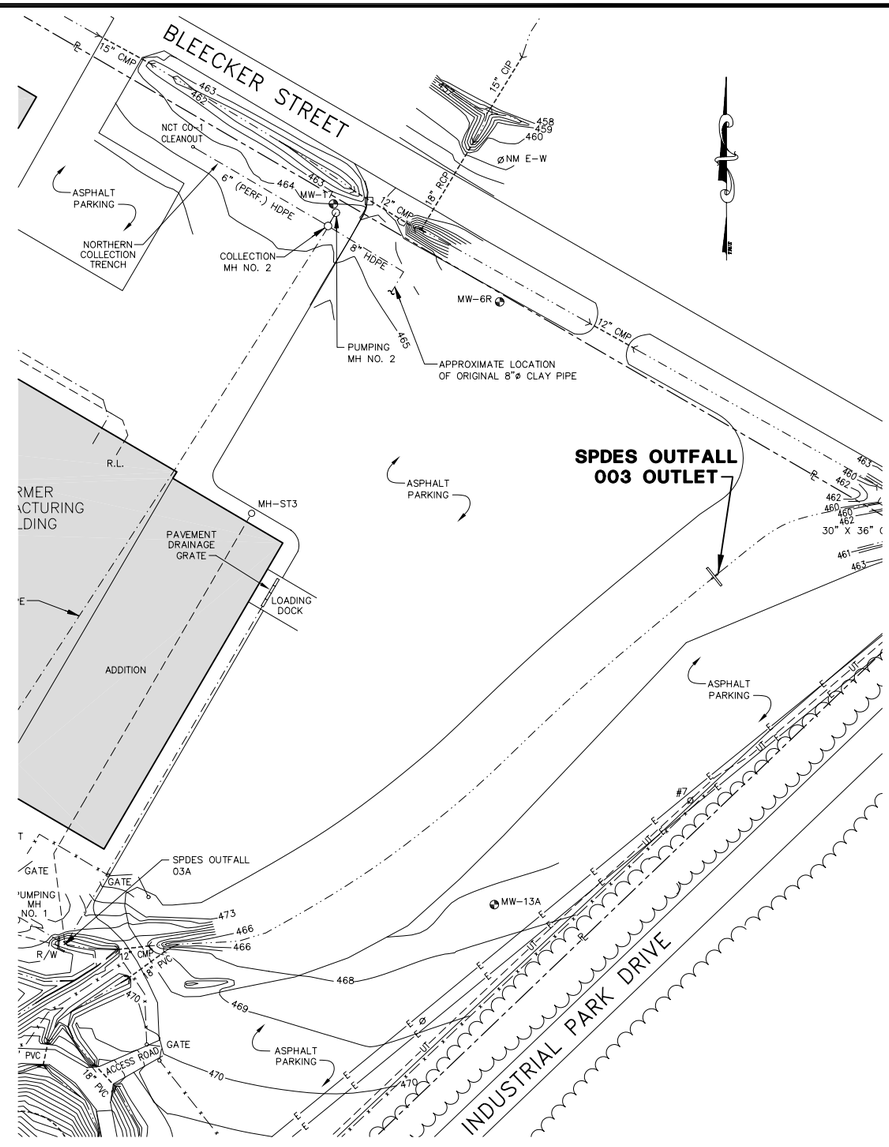
SECTION A-A'

SPDES OUTFALL 003 OUTLET PLAN AND SECTION

SCALE: 3/8" = 1'-0"

0 2' 5'

GRAPHIC SCALE: 3/8" = 1'-0"



OUTLET LOCATION PLAN

SCALE: 1" = 120'

0 120' 240'

GRAPHIC SCALE: 1" = 120'

X: CP-BASE
P: D2BBW
2/5/04
DOMANI/WIP/DANA 001-03-03/20030P&M/DANAB08.DWG

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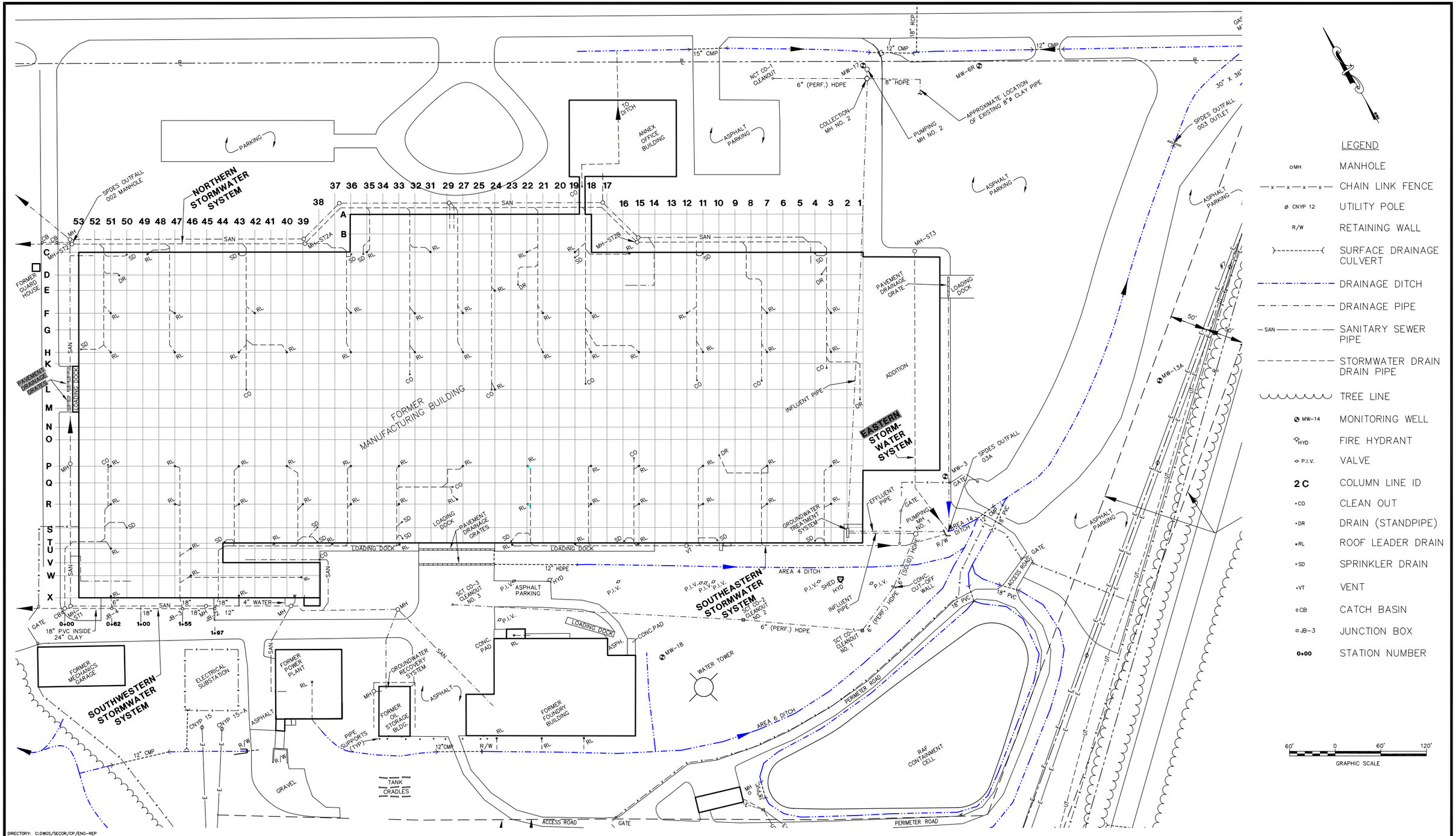
2200 BLEECKER STREET
UTICA, NEW YORK

SPDES OUTFALL 003 PLAN AND SECTION

PROJECT NO.: DANA 001-03

DATE: MAR. 2004

FIGURE NO.: **5-3**



DIRECTORY: C:DWGS/SECOR/CP/ENG-REP
FILE NAME: CP-G4 X: CP-BASE1
DATE: 9/17/00

X: CP-BASE
D2BBW
1/24/04
DOMANI/WIP/DANA 001-03-03/2003OP&M/DANAB15.DWG

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2003 ANNUAL
OPERATION, MAINTENANCE, AND
MONITORING REPORT

2200 BLEECKER STREET
UTICA, NEW YORK

STORMWATER SYSTEM PARTIAL PLAN

PROJECT NO.: DANA 001-03
DATE: MAR. 2004
FIGURE NO.: 5-4

6.0 GROUNDWATER TREATMENT SYSTEM

This section documents the OM&M of the GTS, originally constructed as an IRM to address VOCs present in surface water and groundwater. The system became fully operational in March 1995 and is still in operation. As part of the selected RA, the system was modified to collect and treat groundwater in 1999. Presently, the GTS consists of an air stripper unit, located in the southeast corner of the Main Building, the NCT, the SCT, and two pumping manholes designated Pumping Manhole No. 1 (MH-1) and Pumping Manhole No. 2 (MH-2). Figure 6-1 - Groundwater Treatment System Plan provides the location of these components. OBG, on behalf of CPTC, conducts the OM&M of the GTS.

6.1 System Construction

The treatment process involves removal of VOCs from influent water using a low-profile air stripper shown in Figure 6-2 - Air Stripper Plan. The low-profile air stripper treats influent groundwater pumped from MH-1 and MH-2 detailed on Figure 6-3 - Pumping Manhole Plans and Sections. MH-1 currently receives groundwater from the SCT. MH-2 was constructed at the northern (downgradient) extent of the Property to collect effluent water from an existing clay pipe and groundwater from the NCT. Groundwater is directed, via gravity feed, to the manholes where it is then pumped to the air stripper. The collection trenches were constructed as part of the RA at prescribed locations on the Property to collect groundwater.

Each pumping manhole contains two submersible pumps, arranged in lead/lag mode, and five bulb type control switches. MH-1 is equipped with 3/4 horsepower (hp), 65 gallons per minute (gpm) pumps and MH-2 has 1/2 hp, 10 gpm pumps. The pump controls are set, top to bottom, as follows:

- High level alarm;
- Lag pump start;
- Lead pump start;
- Both pumps stop; and
- Low level alarm, second off.

The main control panel for each pump is located in the Main Building, adjacent to the air stripper. Pumped water is conveyed to the air stripper via a double containment system. The low-profile air stripper is a four tray ShallowTray® 31200 Series model, equipped with a 3 phase, 20 hp, 1,800 cubic feet per minute (CFM) blower and is reportedly capable of processing 6 to 425 gpm. Certain aspects of the GTS are continuously monitored by an auto dialer system, a Sensiphone Model 4100, and includes a battery backup. The autodialer is programmed to monitor the following conditions:

- MH-1 High/low water level;
- MH-2 High/low water level; and
- Air stripper high water level/low air pressure.

Should an alarm condition occur, the auto dialer places a call to OBG. This initiates review and maintenance of the GTS.

The treated water from the low-profile air stripper discharges by gravity through an effluent pipe to SPDES Outfall 03A located at the upstream end of the eastern drainage ditch, formerly Area 14. The eastern drainage ditch is ultimately monitored as SPDES Outfall 003, prior to discharging off-site at the northern Property boundary, as shown on Figure 6-1.

The operation and maintenance of the IRM GTS is not provided in the RA OM&M Manual. A separate O&M Manual, dated April 1995, was prepared by BBL to address the GTS components.

6.2 Operation

The GTS is designed to operate continuously. The manhole lead and lag pumps operate, as needed, controlling the level of water. Control bulbs normally activate the lead pump. Should the lead pump fail to control the water level in the manhole, the lag pump is set to be automatically activated. If the lead and lag pump system fail to control the water level, an alarm is triggered and the auto dialer is activated, notifying OBG. The inspection logs, included in Appendix J, provide documentation of recorded alarm conditions during 2003. A summary of alarm conditions and subsequent maintenance for 2003 are presented in the following table:

DATE	INCIDENT/RESOLUTION
2/6/03	System shut down for acid cleaning.
2/14/03	Air stripper shut down, low air pressure alarm, also high manhole alarm. Restarted stripper, possible power failure cause of alarm.
3/4/03	Air stripper shut down, blower alarm, adjusted effluent valve.
4/7-4/11/03	Air stripper shut down for complete dismantling and cleaning. Restarted system on 4/11.
4/11-4/25/03	MH-2 in high alarm following shut down and cleaning. The alarm remained on until the MH-2 was pumped down below the floats on 4/25/03 and the alarm reset.
6/19/03	Air stripper alarm for low air pressure/high water level. Reset alarms and restarted air stripper. Air stripper operating properly. No apparent cause for shut down.
7/03/03	Air stripper alarm for high water. Reset alarms and restarted air stripper. Air stripper operating properly. No apparent cause for alarms.
7/11/03	Air stripper alarm for high water. Reset alarms and restarted air stripper. Air stripper operating properly. No apparent cause for alarms.
8/11/03	Air stripper alarm. Possible power failure. Reset alarms and restarted air stripper. Air stripper operating properly.
10/3/03	Air stripper alarm for high water. Reset alarms and restarted air stripper. Air stripper operating properly. No apparent cause for alarms. Installed outside air duct for assessment of air quality to system.
10/27/03	Air stripper alarm for high water. Probable cause from heavy rains.
11/14/03	Air stripper alarm and air stripper shut down. Probable cause from high winds and power variations in the area.
12/17/03	Removed temporary air ducting to outside air. Ducting was part of air quality assessment.
12/23/03	Air stripper alarm. Probable cause from a power outage due to weather conditions.

The total volume of water pumped to the air stripper is measured by in-line flow meters that provide instantaneous and totalizing flow readings. These flow meters are located at the air stripper in the influent pipes from MH-1, MH-2, and the treatment area floor sump pump. During 2003, a total of approximately 2,969,770 gallons of water was pumped, treated, and released to Outfall 03A. Table 6-1 2003 Manhole Flow Summary, indicates the manhole flow meter readings recorded during weekly inspections and provides average monthly flows for both manholes, as well as total flow for 2003. Table 6-1 indicates, for MH-1, the weekly recorded low, average, and high flow rates are 1,624, 3,889 and 11,137 gpd, respectively. For MH-2, the weekly recorded low, average and high flow rates are 0, 4137 and 14238 gpd, respectively. For MH-2, the weekly recorded low, average and high flow rates are 0, 4,137, and 14,238 gpd per monitoring period, respectively. The GTS pumped an average of 8,026 gpd during 2003.

Air stripper influent and effluent samples are collected and analyzed for required VOCs. Effluent analytical data is collected to satisfy required conditions of CPTC's SPDES Permit (No. NY-0108537), discussed in Section 6.4. Table 6-2, 2003 Influent and Effluent Analytical Summary provides the analytical data for MH-1 and MH-2 influent on a monthly basis, and the air stripper effluent on a weekly basis. Table 6-3, 2003 Air Stripper Flow Summary provides weekly and average monthly flows measured during sampling events.

Information presented in Tables 6-2 and 6-3 were used to evaluate mass removal. Table 6-4, 2003 Air Stripper Mass Removal Summary provides a monthly account of air stripper influent and effluent concentrations, VOCs removed, percent of VOCs removed, and total VOCs removed during 2003. As shown, the total average annual removal efficiency was 90.9%, resulting in 32.1 pounds of VOCs removed in 2003.

It should be noted that samples collected on December 23, 2003 was during a period at which the GTS was shut down from an interruption in power, and not considered normal operating conditions. As such, the calculated yearly average removal efficiency, excluding December, is 97.5%.

6.3 Maintenance

The following scheduled and unscheduled maintenance events resulted in the temporary shutdown of the GTS:

- The GTS was shut down and the air stripper internally inspected and cleaned with a nitric acid solution on February 6, 2003;
- During the week of April 7, 2003 the GTS was shut down and dismantled for cleaning by hand. The GTS was brought back online on April 11, 2003. These cleaning processes enhanced the air stripper efficiency by removing mineral scaling and sediments;
- A duct supplying outside air to the air stripper was installed on October 3, 2003 in an effort to determine if the inside ambient air was affecting the air stripper discharge concentrations. This duct was removed on December 17, 2003; and
- Pumping MH-2 was accessed on several occasions to determine the cause for diminishing pumping rates, which have led to further inspection and testing.

6.4 SPDES Outfall 03A

The effluent from the air stripper, SPDES Outfall 03A, requires sampling, analytical analysis, and flow measurements to document compliance with the NYSDEC SPDES Permit No. NY0108537. Monitoring activities are summarized below.

- Weekly monitoring of flow and pH.
- Weekly effluent sampling and analysis for:
    - trichloroethylene (TCE);
    - cis-1,2-dichloroethene (cis-1,2-DCE);
    - trans-1,2-dichloroethene (trans-1,2-DCE); and
    - vinyl chloride (VC).

Samples are collected by Upstate Laboratories, Inc. (ULI) personnel and analyzed at ULI on behalf of CPTC. These samples are collected from the SPDES Outfall 03A sampling port located in the effluent pipe prior to discharge to the eastern drainage ditch. Results from weekly sampling from 2000 to 2003 are provided in Table 6-5, Cumulative Summary of Outfall 03A Analytical Results. The analytical results are submitted by OBG to the NYSDEC in the form of monthly DMRs. The 12 monthly DMRs are

presented in Appendix K. Several excursions of SPDES Permit effluent limits were recognized in 2003, as noted on the DMRs. The air stripper has been evaluated on several occasions, followed by adjustments to improve its efficiency, as noted in the previous sections.

6.5 Summary

The GTS has been in operation for approximately 8 years. Operation of the air stripper, pumps, and appurtenances has been consistent and continuous with only a few exceptions. The GTS was shut down for short durations for maintenance, which included system checks and acid cleaning of the internal air stripper components. The treatment system flow totalizers, as recorded on inspection reports, indicate that approximately 2,969,770 gallons (8,026 gpd) of groundwater were processed during 2003, removing 32.1 pounds of VOCs.

Based on data compiled from 2003, it has been concluded that the pumps in MH-2 have diminishing flows and the air stripper efficiency needs to be increased. Therefore, it is recommended that MH-2 pumps be removed, inspected and upgraded, as necessary. It is further recommended that the air stripper be dismantled, inspected, cleaned, and adjusted every four to six to promote increased efficiency and ensure compliance with the SPDES permit. A contingency, based on the success of the cleaning, may include the addition of a pump that would recirculate the water through the air stripper, prior to discharge.

6.6 Tables

TABLE 6-1
2003 MANHOLE FLOW SUMMARY

2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

Monitoring	Flow Totalizer Reading (gal)		Flow per Monitoring Period (gpd)		
Date	MH-1		MH-1	MH-2	Total
12/27/02	26999170	7631360			
1/3/03	27030570	7650820	4486	2780	7266
1/10/03	27066150	7670150	5083	2761	7844
1/16/03	27091750	7680420	4267	1712	5978
1/24/03	27115500	7680420	2969	0	2969
1/30/03	27129450	7706220	2325	4300	6625
		Average Monthly Flow	**3832**	**2202**	**6034**
2/6/03	27149080	7706250	2804	4	2809
2/7/03	27153390	7706280	4310	30	4340
2/14/03	27175780	7732330	3199	3721	6920
2/21/03	27194290	7745230	2644	1843	4487
2/27/03	27220850	7748940	4427	618	5045
		Average Monthly Flow	**3264**	**1526**	**4790**
3/4/03	27239030	7748990	3636	10	3646
3/7/03	27250060	7749010	3677	7	3683
3/14/03	27276030	7749020	3710	1	3711
3/21/03	27330140	7749100	7730	11	7741
3/28/03	27383910	7749230	7681	19	7700
		Average Monthly Flow	**5623**	**10**	**5633**
4/2/03	27414460	7749310	6110	16	6126
4/4/03	27428970	7749340	7255	15	7270
4/11/03	27470560	7749370	5941	4	5946
4/15/03	27495950	7756540	6348	1793	8140
4/18/03	27506260	7768830	3437	4097	7533
4/25/03	27536140	7854520	4269	12241	16510
		Average Monthly Flow	**5437**	**3760**	**9197**
5/2/03	27560060	7913190	3417	8381	11799
5/9/03	27586710	7972750	3807	8509	12316
5/16/03	27618900	8032990	4599	8606	13204
5/23/03	27642200	8086840	3329	7693	11021
5/30/03	27666870	8141910	3524	7867	11391
		Average Monthly Flow	**3735**	**8211**	**11946**
6/6/03	27697000	8200900	4304	8427	12731
6/12/03	27714810	8241280	2968	6730	9698
6/19/03	27736570	8289370	3109	6870	9979
6/26/03	27763800	8339720	3890	7193	11083
		Average Monthly Flow	**3590**	**7326**	**10916**

TABLE 6-1
2003 MANHOLE FLOW SUMMARY

2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

Monitoring	Flow Totalizer Reading (gal)		Flow per Monitoring Period (gpd)		
Date	MH-1		MH-1	MH-2	Total
7/3/03	27775570	8369120	1681	4200	5881
7/11/03	27794900	8415990	2416	5859	8275
7/17/03	27812540	8449790	2940	5633	8573
7/25/03	27835490	8469360	2869	2446	5315
Average Monthly Flow			**2472**	**4470**	**6942**
8/1/03	27852490	8498130	2429	4110	6539
8/8/03	27872370	8498810	2840	97	2937
8/12/03	27895470	8555760	5775	14238	20013
8/19/03	27907240	8588430	1681	4667	6349
8/29/03	27925720	8655410	1848	6698	8546
Average Monthly Flow			**2578**	**5316**	**7894**
9/5/03	27941550	8704040	2261	6947	9209
9/12/03	27952920	8748420	1624	6340	7964
9/19/03	27965730	8793660	1830	6463	8293
9/26/03	27979880	8837910	2021	6321	8343
Average Monthly Flow			**1934**	**6518**	**8452**
10/3/03	27995920	8849400	2291	1641	3933
10/10/03	28019150	8912640	3319	9034	12353
10/17/03	28042170	8963690	3289	7293	10581
10/23/03	28063290	9008190	3520	7417	10937
10/27/03	28074460	9032190	2793	6000	8793
10/30/03	28107870	9054790	11137	7533	18670
Average Monthly Flow			**3764**	**6379**	**10143**
11/7/03	28150060	9066220	5274	1429	6703
11/14/03	28176590	9066370	3790	21	3811
11/21/03	28224490	9094210	6843	3977	10820
11/25/03	28246750	9115880	5565	5418	10983
Average Monthly Flow			**5342**	**2350**	**7691**
12/5/03	28299080	9149000	5233	3312	8545
12/12/03	28334810	9150570	5104	224	5329
12/17/03	28360820	9150600	5202	6	5208
12/23/03	28377370	9150620	2758	3	2762
1/1/04	28438270	9162030	6767	1268	8034
Average Monthly Flow			**5176**	**1247**	**6424**

Total 2003 Flow	gal	gpd
MH-1	**1,439,100**	**3889**
MH-2	**1,530,670**	**4137**
Total	**2,969,770**	**8026**

Notes:

1. All data base on inspection flow meter readings.
2. gal = gallons.

TABLE 6-1
2003 MANHOLE FLOW SUMMARY

2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

Monitoring	Flow Totalizer Reading (gal)		Flow per Monitoring Period (gpd)		
Date	MH-1		MH-1	MH-2	Total

3. gpd = gallons per day.

TABLE 6-2
2003 INFLUENT AND EFFLUENT ANALYTICAL SUMMARY

2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

	Influent from MH-1					Influent from MH-2					Air Stripper Effluent					
Sample Date	Vinyl Chloride	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Trichloroethylene	Total VOCs	Vinyl Chloride	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Trichloroethylene	Total VOCs	Vinyl Chloride	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Trichloroethylene	Total VOCs	Average Monthly VOCs
Permit Limit											10	10	10	10		
1/3/2003											<1	1	<1	3	4	
1/10/2003	<20	78	<20	440	518	<100	380	<100	2200	2580	<1	3	<1	**13**	16	
1/16/2003											<1	1	<1	4	5	
1/24/2003											<1	1	<1	4	5	
1/31/2003											<1	3	<1	10	13	9
2/7/2003	<20	150	<20	530	680	<100	210	<100	870	1080	<1	<1	<1	3	3	
2/13/2003											<1	1	<1	3	4	
2/20/2003											<1	<1	<1	2	2	
2/28/2003											<1	8	<1	**20**	28	9
3/7/2003	<100	340	<100	1300	1640	<100	430	<100	1600	2030	<20	**220**	<20	**470**	690	
3/14/2003											<1	7	<1	**15**	22	
3/20/2003											<2	**12**	<2	**28**	40	
3/28/2003											<2	**21**	<2	**42**	63	204
4/4/2003	<1	6	<1	2	8	<200	1300	<100	4900	6200	<1	8	<1	**20**	28	
4/11/2003											<5	**25**	<5	**72**	97	
4/18/2003											<1	<1	<1	<1	0	
4/25/2003											<1	<1	<1	<1	0	31
5/1/2003	<100	290	<100	1200	1490	<100	340	<100	1400	1740	<1	<1	<1	<1	0	
5/9/2003											<1	<1	<1	<1	0	
5/16/2003											<1	<1	<1	<1	0	
5/23/2003											<1	<1	<1	<1	0	
5/30/2003											<1	<1	<1	<1	0	0
6/6/2003	<50	110	<50	450	560	<50	150	<50	550	700	<1	<1	<1	<1	0	
6/13/2003											<1	<1	<1	<1	0	
6/20/2003											<1	<1	<1	<1	0	
6/27/2003											<1	<1	<1	<1	0	0
7/7/2003	<50	200	<50	1000	1200	<50	300	<50	1500	1800	<1	<1	<1	<1	0	
7/11/2003											<1	<1	<1	<1	0	
7/18/2003											<1	<1	<1	<1	0	
7/25/2003											<1	<1	<1	<1	0	0
8/1/2003	<5	6	<5	37	43	<100	390	<100	1800	2190	<1	<1	<1	<1	0	
8/8/2003											<2	**15**	<2	**38**	53	
8/18/2003											<1	<1	<1	<1	0	
8/22/2003											<5	**15**	<5	**56**	71	
8/29/2003											<1	8	<1	**11**	19	29

TABLE 6-2
2003 INFLUENT AND EFFLUENT ANALYTICAL SUMMARY

2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

	Influent from MH-1					Influent from MH-2					Air Stripper Effluent					
Sample Date	Vinyl Chloride	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Trichloroethylene	Total VOCs	Vinyl Chloride	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Trichloroethylene	Total VOCs	Vinyl Chloride	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Trichloroethylene	Total VOCs	Average Monthly VOCs
9/5/2003	<20	84	<20	260	344	<20	120	<20	330	450	<1	3	<1	6	9	
9/12/2003											<1	4	<1	5	9	
9/19/2003											<5	**27**	<5	**77**	104	
9/26/2003											<1	<1	<1	1	1	31
10/3/2003	<2	<2	<2	<2	0	<50	310	<50	800	1110	<1	<1	<1	<1	0	
10/10/2003											<1	5	<1	6	11	
10/17/2003											<1	<1	<1	<1	0	
10/24/2003											<1	<1	<1	<1	0	
10/31/2003											<1	8	<1	**11**	19	6
11/7/2003	<100	580	<100	1900	2480	<100	710	<100	2300	3010	<1	**14**	<1	**20**	34	
11/14/2003											<2	**11**	<2	**36**	47	
11/21/2003											<5	**42**	<5	**74**	116	
11/25/2003											<1	**13**	<1	**20**	33	58
12/5/2003	3	<1	<1	<1	0	<100	840	<100	2800	3640	<1	**15**	<1	**26**	41	
12/12/2003											<5	**43**	<5	**100**	143	
12/19/2003											<2	**19**	<2	**31**	50	
12/23/2003											<100	**630**	<100	**2000**	2630	
12/30/2003											<1	2	<1	4	6	574

Notes:

1. All values reported in micrograms per liter (ug/l), approximately equivalent to parts per billion (ppb).
2. VOCs = Volatile Organic Compounds.
3. Bolded values exceed permit effluent compliance levels.
4. The 12/23/03 sample was colleted while the GTS was shut down and therefore not representative of normal conditions.

TABLE 6-3
2003 AIR STRIPPER FLOW SUMMARY

2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

Sample Date	Average Flow During Monitoring Period (gpd)	
1/3/2003	7475	
1/10/2003	7830	
1/16/2003	5976	
1/24/2003	2968	
1/31/2003	5874	
	Average Monthly Flow (gpd):	**6025**
2/7/2003	3234	
2/13/2003	7585	
2/20/2003	4705	
2/28/2003	4912	
	Average Monthly Flow (gpd):	**5109**
3/7/2003	3785	
3/14/2003	3881	
3/20/2003	6746	
3/28/2003	9658	
	Average Monthly Flow (gpd):	**6018**
4/4/2003	6748	
4/11/2003	6442	
4/18/2003	9922	
4/25/2003	13811	
	Average Monthly Flow (gpd):	**9231**
5/1/2003	10060	
5/9/2003	12273	
5/16/2003	12995	
5/23/2003	11427	
5/30/2003	11432	
	Average Monthly Flow (gpd):	**11637**
6/6/2003	12687	
6/13/2003	9532	
6/20/2003	9820	
6/27/2003	11562	
	Average Monthly Flow (gpd):	**10900**

TABLE 6-3
2003 AIR STRIPPER FLOW SUMMARY

2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

Sample Date	Average Flow During Monitoring Period (gpd)	
7/7/2003	7104	
7/11/2003	7090	
7/18/2003	7861	
7/25/2003	5090	
	Average Monthly Flow (gpd):	**6786**
8/1/2003	6548	
8/8/2003	3011	
8/18/2003	11376	
8/22/2003	9385	
8/29/2003	8387	
	Average Monthly Flow (gpd):	**7741**
9/5/2003	9115	
9/12/2003	8095	
9/19/2003	8285	
9/26/2003	8334	
	Average Monthly Flow (gpd):	**8457**
10/3/2003	3837	
10/10/2003	12301	
10/17/2003	10700	
10/24/2003	10488	
10/31/2003	12138	
	Average Monthly Flow (gpd):	**9893**
11/7/2003	7150	
11/14/2003	3960	
11/21/2003	10398	
11/25/2003	10925	
	Average Monthly Flow (gpd):	**8108**
12/5/2003	8643	
12/12/2003	5151	
12/19/2003	4908	
12/23/2003	872	
12/30/2003	942	
	Average Monthly Flow (gpd):	**4103**

Note:
1. gpd = gallons per day

TABLE 6-4
2003 AIR STRIPPER MASS REMOVAL SUMMARY

2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

Sample Month	Air Stripper Influent - Average Monthly VOC Concentration (ug/l)	Air Stripper Effluent - Average Monthly VOC Concentration (ug/l)	VOCs Removed (ug/l)	% VOCs Removed	Air Stripper - Average Monthly Flow (gpd)	VOCs Removed (lbs)
Jan	1270	9	1262	99.3	6025	2.0
Feb	807	9	798	98.9	5109	1.0
Mar	1641	204	1437	87.6	6018	2.2
Apr	3416	31	3385	99.1	9231	7.8
May	1198	0	1198	100.0	11689	3.6
Jun	654	0	654	100.0	10900	1.8
Jul	1586	0	1586	100.0	6786	2.8
Aug	1489	29	1460	98.1	7741	2.9
Sep	426	31	395	92.7	8457	0.8
Oct	698	6	692	99.1	9332	1.7
Nov	2642	58	2584	97.8	8243	5.3
Dec	707	574	133	18.8	4103	0.1
			Annual Average:	**90.9**	Annual Total:	**32.1**
			Annual Average less December:	**97.5**		

Notes:

1. VOCs = Volatile Organic Compounds.
2. ug/l = micrograms per liter, approximately equivalent to parts per billion (ppb).
3. gpd = gallons per day.
3. lbs = pounds.
4. The 12/23/03 sample was colleted while the GTS was shut down and therefore not representative of normal conditions.

TABLE 6-5
CUMULATIVE SUMMARY OF OUTFALL 03A ANALYTICAL RESULTS

2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

Date	Parameter					
	cis-1,2-DCE	trans-1,2-DCE	TCE	VC	Flow	pH
Permit Limits	10	10	10	10		
1/14/00	<1	<1	2	<1	6,326	
1/21/00	<1	<1	3	<1	8,002	
1/28/00	<1	<1	4	<1	6,334	
2/4/00	<1	<1	3	<1	11,974	
2/11/00	Data not available, possibly no flow					
2/18/00	<1	<1	4	<1	4,007	
2/25/00	<1	<1	<1	<1	7,548	
3/3/00	<1	<1	2	<1	12,811	
3/10/00	<1	<1	1	<1	9,617	
3/17/00	<1	<1	<1	<1	9,103	
3/24/00	<1	<1	2	<1	9,637	
3/31/00	<1	<1	<1	<1	8,373	
4/7/00	<1	<1	1	<1	1,975	
4/14/00	<1	<1	2	<1	14,689	
4/21/00	Data not available, possibly no flow					
4/28/00	Data not available, possibly no flow					
5/1/00					no flow	
5/12/00					no flow	
5/15/00	2	<1	7	<1	4,922	
5/22/00	<1	<1	<1	<1	5,120	
5/26/00	<1	<1	<1	<1	10,300	
6/2/00	<1	<1	<1	<1	18,686	
6/9/00	<1	<1	<1	<1	10,123	
6/16/00	<1	<1	<1	<1	10,269	
6/23/00	<1	<1	<1	<1	9,873	
6/30/00	<1	<1	<1	<1	7,627	
7/13/00	<1	<1	<1	<1	6,060	
7/14/00	<1	<1	<1	<1	6,060	
7/21/00	<1	<1	<1	<1	4,936	
7/28/00	<1	<1	<1	<1	14,750	
8/4/00	<1	<1	<1	<1	2,092	
8/11/00	<1	<1	<1	<1	1,771	
8/18/00	<1	<1	<1	<1	7,820	
8/25/00	<1	<1	<1	<1	6,169	
9/7/00	<1	<1	<1	<1	5,683	
9/8/00	<1	<1	<1	<1	5,683	
9/15/00	<1	<1	<1	<1	6,023	
9/22/00	<1	<1	<1	<1	7,481	
10/6/00	<1	<1	<1	<1	3,359	
10/13/00	<1	<1	<1	<1	7,188	
10/20/00	<1	<1	6	<1	3,171	
10/27/00	<1	<1	2	<1	9,261	
11/2/00	<1	<1	<1	<1	7,300	
11/3/00	<1	<1	<1	<1	7,300	
11/9/00	Air stripper cleaning no sample					
11/17/00	<1	<1	<1	<1	10,361	
11/22/00	<1	<1	3	<1	4,818	
12/1/00	<1	<1	1	<1	9,057	
12/8/00	<1	<1	3	<1	7,230	
12/15/00	<1	<1	3	<1	5,397	
12/22/00	<1	<1	4	<1	7,013	

TABLE 6-5
CUMULATIVE SUMMARY OF OUTFALL 03A ANALYTICAL RESULTS

2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

Date	Parameter					
	cis-1,2-DCE	trans-1,2-DCE	TCE	VC	Flow	pH
1/3/01	<1	<1	5	<1	7,109	
1/12/01	<1	<1	<1	<1	5,775	
1/19/01	<1	<1	3	<1	6,435	
1/26/01	<1	<1	2	<1	6,151	
2/7/01	<1	<1	<1	<1	6,170	
2/9/01	8	<1	**21**	<1	6,355	
2/20/01	<1	<1	3	<1	7,278	
2/23/01	<1	<1	4	<1	6,460	
3/2/01	<1	<1	2	<1	7,923	
3/9/01	<1	<1	2	<1	6,801	
3/16/01	**29**	<1	**20**	<1	7,100	
3/23/01	<1	<1	2	<1	10,539	
3/30/01	5	<1	**14**	<1	12,270	
4/3/01	<1	<1	1	<1	16,000	
4/11/01	<1	<1	<1	<1	15,820	
4/20/01	<1	<1	<1	<1	9,996	
4/27/01	3	<1	8	<1	6,790	
5/5/01	Out of service, electrical problem					
5/11/01	<1	<1	1	<1	6,217	
5/18/01	<1	<1	<1	<1	4,177	
5/25/01	<1	<1	<1	<1	3,822	
6/1/01	3	<1	**13**	<1	5,320	
6/8/01	<1	<1	<1	<1	10,420	
6/15/01	<1	<1	<1	<1	26,778	
6/22/01	7	<1	2	<1	2,894	
6/29/01	<1	<1	<1	<1	8,897	
7/6/01	<1	<1	<1	<1	4,584	
7/13/01	<1	<1	<1	<1	4,290	
7/20/01	<1	<1	<1	<1	6,627	
7/27/01	<1	<1	<1	<1	6,017	
8/3/01	1	<1	4	<1	5,078	
8/10/01	<1	<1	<1	<1	4,747	
8/17/01	2	<1	4	<1	4,757	
8/24/01	<1	<1	<1	<1	4,044	
8/31/01	<1	<1	<1	<1	1,107	
9/7/01	<1	<1	<1	<1	10,930	
9/14/01	<1	<1	3	<1	1,850	
9/21/01	<1	<1	<1	<1	1,151	
9/28/01	<1	<1	<1	<1	4,194	
10/5/01	<1	<1	<1	<1	4,405	
10/12/01	<1	<1	<1	<1	4,238	
10/19/01	<1	<1	<1	<1	4,441	
10/26/01	<1	<1	<1	<1	4,481	
11/2/01	<1	<1	<1	<1	4,752	8.3
11/9/01	<1	<1	<1	<1	5,181	8.1
11/16/01	<1	<1	<1	<1	4,588	7.8
11/21/01	<1	<1	<1	<1	4,522	7.7
11/30/01	<1	<1	<1	<1	4,942	7.6
12/7/01	<1	<1	<1	<1	6,549	8.1
12/14/01	<1	<1	<1	<1	5,721	8.2
12/21/01	<1	<1	<1	<1	8,104	7.1
12/28/01	<1	<1	3	<1	7,515	7.2

TABLE 6-5
CUMULATIVE SUMMARY OF OUTFALL 03A ANALYTICAL RESULTS

2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

Date	Parameter					
	cis-1,2-DCE	trans-1,2-DCE	TCE	VC	Flow	pH
1/4/02	<1	<1	3	<1	5,721	
1/11/02	<1	<1	1	<1	5,020	
1/18/02	<1	<1	<1	<1	6,455	
1/25/02	<1	<1	<1	<1	6,380	
2/1/02	<1	<1	4	<1	7,925	8.1
2/13/02	**11**	<2	**33**	<2	10,570	8.0
2/15/02	<1	<1	2	<1	10,041	7.8
2/22/02	<1	<1	<1	<1	8,651	8.0
3/1/02	<1	<1	<1	<1	8,928	7.8
3/8/02	<1	<1	2	<1	6,687	7.9
3/15/02	6	<1	**11**	<1	7,048	7.9
3/22/02	5	<1	**11**	<1	11,341	7.7
3/29/02	2	<1	6	<1	6,348	7.8
4/5/02	**79**	<10	**230**	<10	5,741	7.5
4/12/02	4	<1	10	<1	10,452	7.7
4/19/02	3	<1	**17**	<1	12,160	7.9
4/26/02	2	<1	6	<1	7,711	7.8
5/3/02	1	<1	5	<1	11,707	7.9
5/10/02	<1	<1	<1	<1	9,758	7.6
5/17/02	<1	<1	<1	<1	12,755	7.8
5/24/02	<1	<1	<1	1	2,360	7.3
5/31/02	<1	<1	<1	1	7,725	7.6
6/7/02	<1	<1	<1	<1	9,408	7.4
6/14/02	<1	<1	<1	<1	10,371	7.7
6/20/02	<1	<1	<1	<1	8,717	7.6
6/27/02	<1	<1	<1	<1	7,690	7.8
7/3/02	<1	<1	<1	<1	10,938	7.6
7/11/02	<1	<1	2	<1	9,475	7.7
7/18/02	1	<1	3	<1	6,841	7.6
7/25/02	<1	<1	<1	<1	6,005	7.4
8/1/02	<1	<1	<1	<1	5,867	7.7
8/9/02	<1	<1	<1	<1	5,932	7.2
8/16/02	<1	<1	<1	<1	3.951	7.3
8/23/02	<1	<1	<1	<1	5,285	7.3
8/30/03	<1	<1	<1	<1	7,774	7.9
9/5/02	<1	<1	<1	<1	5,180	7.2
9/13/02	<1	<1	<1	<1	6,027	7.3
9/20/02	1	<1	2	<1	6,008	7.8
9/27/02	<1	<1	<1	<1	6,745	8.2
10/4/02	<1	<1	2	<1	8,864	8.0
10/11/02	<1	<1	<1	<1	6,698	7.7
10/21/02	<1	<1	<1	<1	10,371	7.9
10/25/02	<1	<1	<1	<1	8,178	7.8
11/1/02	<1	<1	1	<1	10,244	7.6
11/8/02	<1	<1	2	<1	8,274	7.7
11/15/02	<1	<1	<1	<1	7,975	7.9
11/22/02	6	<1	**11**	<1	3,597	7.7
11/27/02	<1	<1	3	<1	18,722	7.8
12/6/02	7	<2	**19**	<2	11,440	7.6
12/13/02	7	<1	**16**	<1	5,595	7.6
12/20/02	<1	<1	4	<1	6,027	7.9
12/27/02	<1	<1	<1	<1	4,277	7.9

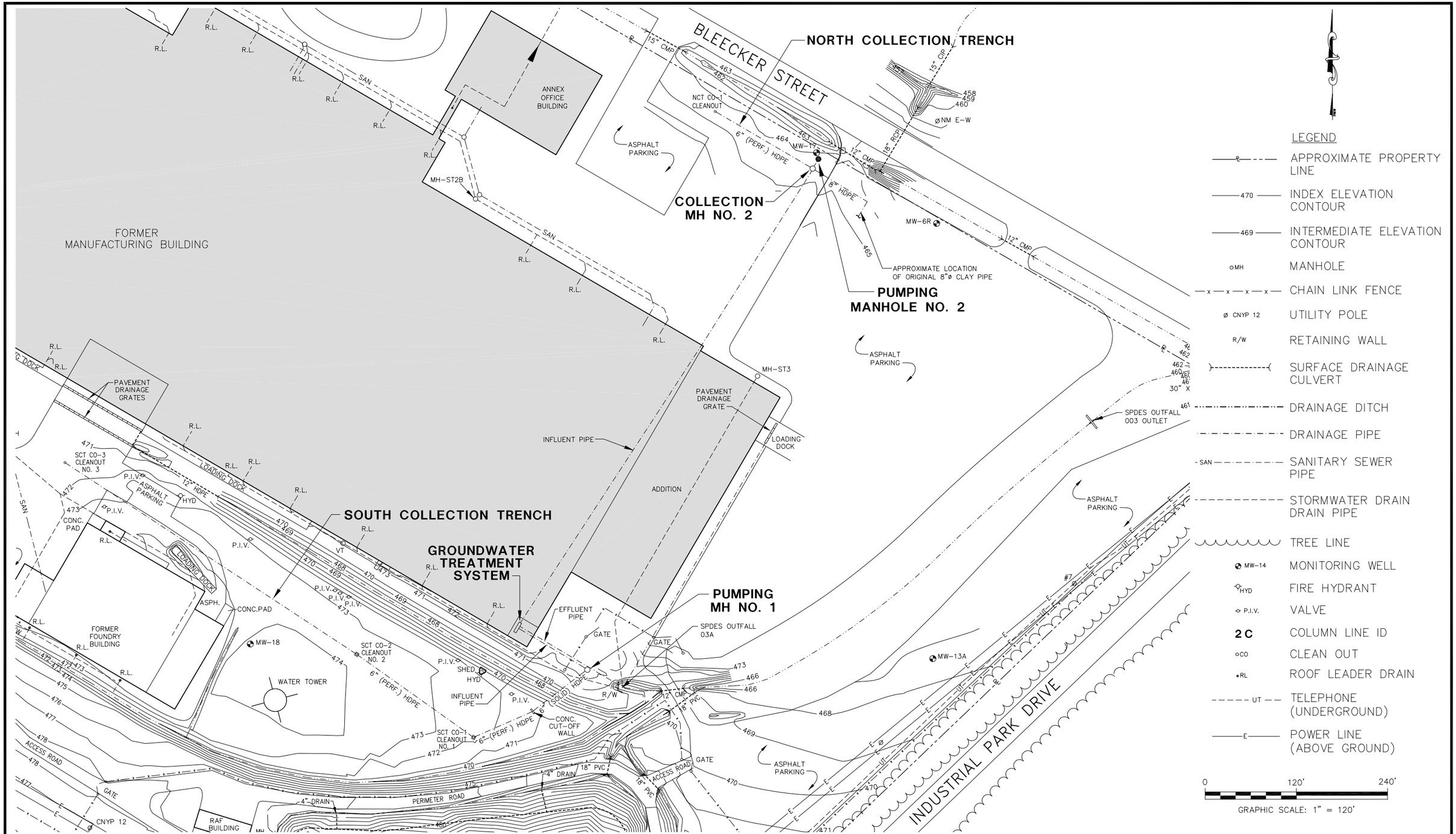
TABLE 6-5
CUMULATIVE SUMMARY OF OUTFALL 03A ANALYTICAL RESULTS

2003 ANNUAL OM&M REPORT
2200 BLEECKER STREET, UTICA, NEW YORK
NYSDEC SITE NO. 622003

Date	Parameter					
	cis-1,2-DCE	trans-1,2-DCE	TCE	VC	Flow	pH
1/3/03	1	<1	3	<1	7,475	7.8
1/10/03	3	<1	**13**	<1	7,830	7.9
1/16/03	1	<1	4	<1	5,976	7.8
1/24/03	<1	<1	4	<1	2,968	7.9
1/31/03	3	<1	10	<1	5,874	7.6
2/7/03	<1	<1	3	<1	3,234	7.8
2/14/03	1	<1	3	<1	7,585	7.8
2/20/03	<1	<1	2	<1	4,705	8.1
2/28/03	8	<1	**20**	<1	4,912	8.0
3/7/03	**220**	<20	**470**	<20	3,785	7.8
3/14/03	7	<1	**15**	<1	3,881	7.9
3/20/03	**12**	<2	**28**	<2	6,746	7.7
3/28/03	**21**	<2	**42**	<2	9,658	7.7
4/4/03	8	<1	**20**	<1	6,748	7.9
4/11/03	**25**	<5	**72**	<5	6,442	7.4
4/18/03	<1	<1	<1	<1	9,922	7.7
4/25/03	<1	<1	<1	<1	13,811	7.6
5/1/03	<1	<1	<1	<1	10,060	8.0
5/9/03	<1	<1	<1	<1	12,273	8.3
5/16/03	<1	<1	<1	<1	12,995	7.8
5/23/03	<1	<1	<1	<1	11,427	8.2
5/30/03	<1	<1	<1	<1	11,432	7.6
6/6/03	<1	<1	<1	<1	12,687	7.8
6/13/03	<1	<1	<1	<1	9,532	8.0
6/20/03	<1	<1	<1	<1	9,820	7.7
6/27/03	<1	<1	<1	<1	11,562	8.1
7/7/03	<1	<1	<1	<1	7,104	7.9
7/11/03	<1	<1	<1	<1	7,090	7.8
7/18/03	<1	<1	<1	<1	7,861	7.1
7/25/03	<1	<1	<1	<1	5,090	7.5
8/1/03	<1	<1	<1	<1	6,548	7.9
8/8/03	**15**	<2	**38**	<2	3,011	7.3
8/18/03	<1	<1	<1	<1	11,376	7.8
8/22/03	**15**	<5	**56**	<5	9,385	8.1
8/29/03	8	<1	**11**	<1	8,387	8.2
9/5/03	3	<1	6	<1	9,115	8.4
9/12/03	4	<1	5	<1	8,095	7.8
9/19/03	**27**	<5	**77**	<5	8,285	7.8
9/26/03	<1	<1	1	<1	8,334	8.3
10/3/03	<1	<1	<1	<1	3,837	7.9
10/10/03	5	<1	6	<1	12,301	8.3
10/17/03	<1	<1	<1	<1	10,700	8.5
10/24/03	<1	<1	<1	<1	10,488	8.2
11/7/03	**14**	<1	**20**	<1	7,150	8.1
11/14/03	**11**	<2	**36**	<2	3,960	7.8
11/21/03	**42**	<5	**74**	<5	10,938	8.1
11/28/03	**13**	<1	**20**	<1	10,925	8.4
12/5/03	**15**	<1	**26**	<1	8,643	7.9
12/12/03	**43**	<5	**100**	<5	5,151	7.7
12/19/03	**19**	<2	**31**	<2	4,908	8.2
12/23/03	**<100**	**630**	**2000**	<100	872	8.3
12/30/03	2	<1	4	<1	942	8.0

Note:
1. cis-1,2-DCE = cis-1,2-Dichloroethene in micrograms per liter (ug/l).
2. trans-1,2-DCE = trans-1,2-Dichloroethene in micrograms per liter (ug/l).
3. TCE = Trichloroethylene in micrograms per liter (ug/l).
4. VC = Vinyl Chloride in micrograms per liter (ug/l).
5. Flow = Average gallon per day.
6. Bolded values exceed permit effluent compliance levels.

6.7 Figures



NOTES:

1. BASE MAP INFORMATION SHOWN ON THIS DRAWING IS BASED ON A LIMITED FIELD SURVEY PERFORMED BY BLASLAND, BOUCK & LEE, INC. (BBL), DATED 10/97, AS-BUILT SURVEY INFORMATION PERFORMED BY LAFAVE, WHITE & MCGIVERN, L.S., P.C., DATED 5/99, AND ON INFORMATION OBTAINED FROM PREVIOUS SITE PLANS WHICH MAY BE CONCEPTUAL OR ASSUMED.
2. ALL ORIGINAL DRAINS AND DRAIN PIPE LOCATIONS INSIDE AND OUTSIDE OF THE BUILDINGS WERE DIGITIZED FROM COPIES OF THE 1948 CONSTRUCTION DRAWINGS AND ARE APPROXIMATE.

X: CP-BASE
D2BBW
1/26/04
DOMANI/WIP/DANA 001-03-03/2003OP&M/DANAB12.DWG

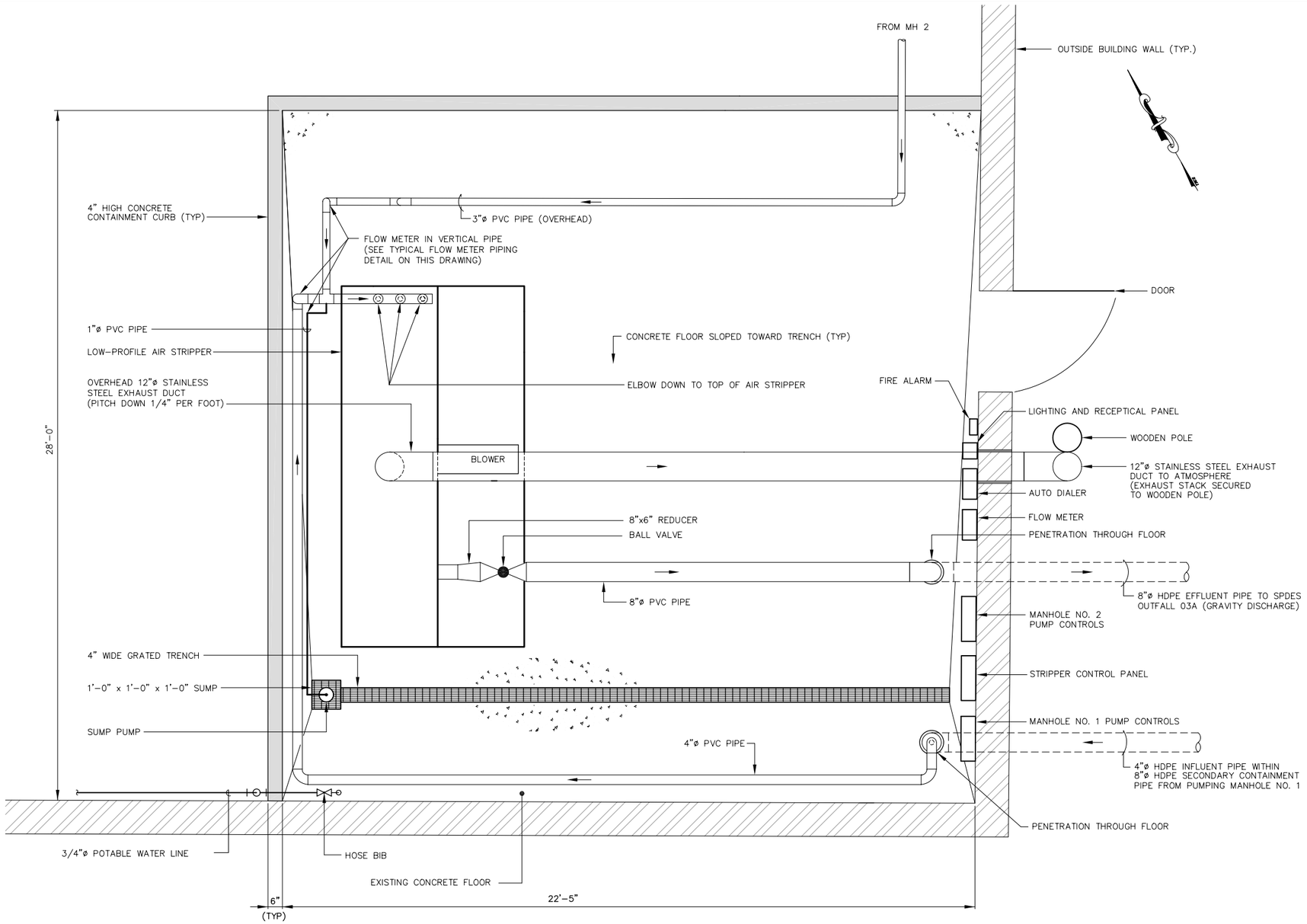
DOMANI
120 EAST WASHINGTON STREET
SYRACUSE, NEW YORK 13202
315-475-3700

2003 ANNUAL OPERATION, MAINTENANCE, AND MONITORING REPORT

2200 BLEECKER STREET
UTICA, NEW YORK

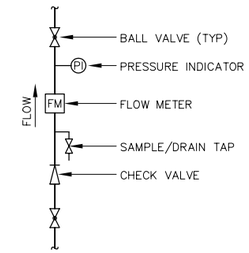
GROUNDWATER TREATMENT SYSTEM PLAN

PROJECT NO.: DANA 001-03
DATE: MAR. 2004
FIGURE NO.: 6-1



FLOOR PLAN

1/4" = 1'-0"



TYPICAL FLOW METER PIPING DETAIL

NOT TO SCALE

GRAPHIC SCALE

0 2' 4' 8'

1/4" = 1'-0"

X: CP-BASE
D2BBW
1/18/04
DOMANI/WIP/DANA 001-03-03/2003OP&M/DANAB14.DWG

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2003 ANNUAL OPERATION, MAINTENANCE, AND MONITORING REPORT

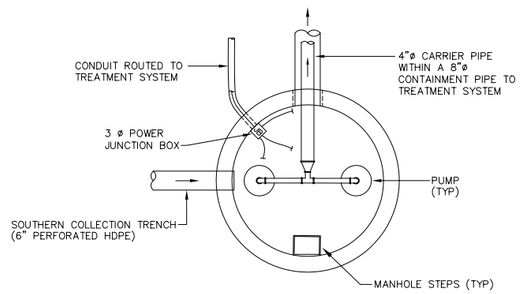
2200 BLEECKER STREET
UTICA, NEW YORK

AIR STRIPPER PLAN

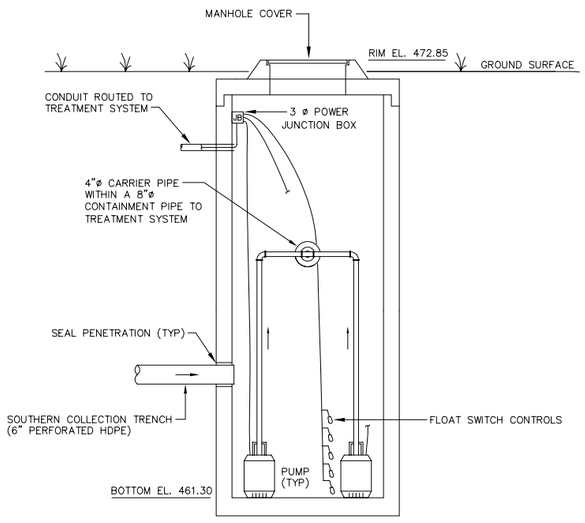
PROJECT NO.: DANA 001-03

DATE: MAR. 2004

FIGURE NO.: 6-2



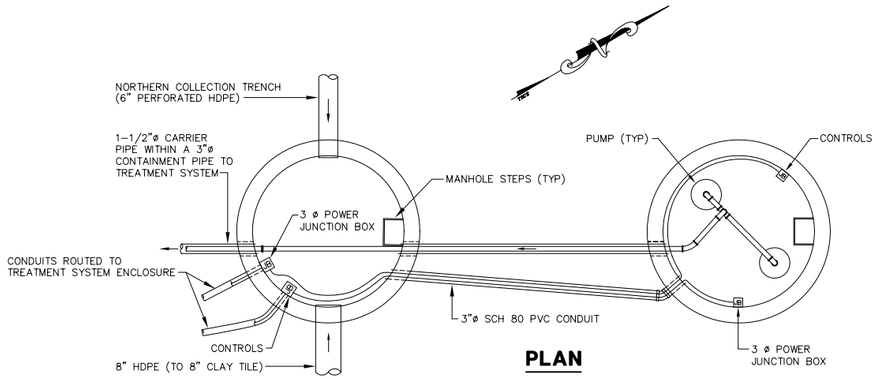
PLAN



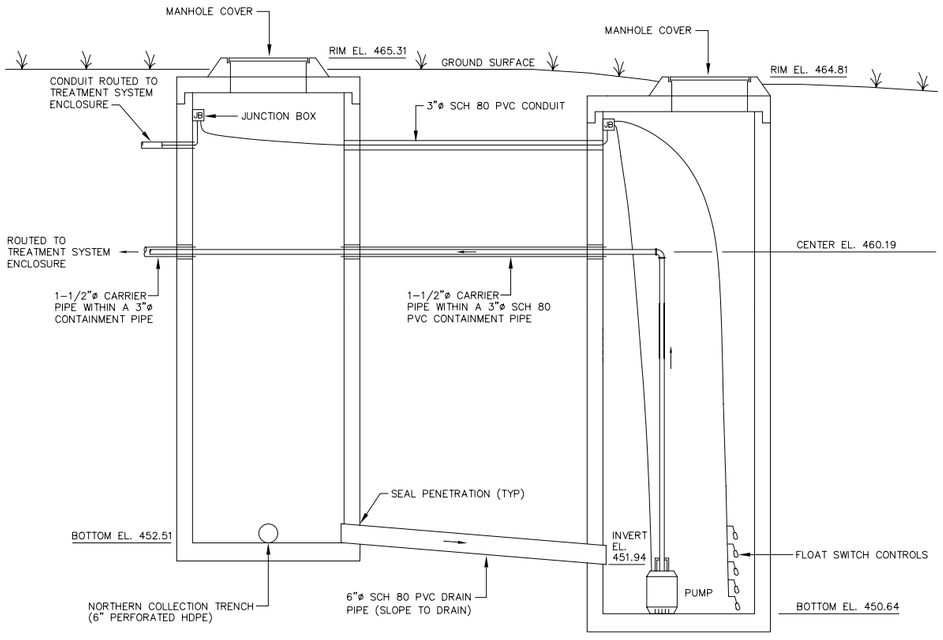
GENERAL SECTION

PUMPING MANHOLE NO. 1 PLAN AND SECTION

SCALE: 1/4" = 1'-0"



PLAN



COLLECTION MANHOLE **PUMPING MANHOLE**

GENERAL SECTION

PUMPING MANHOLE NO. 2 PLAN AND SECTION

SCALE: 1/4" = 1'-0"

0 4' 8'

GRAPHIC SCALE: 1/4" =1'-0"

X: CP-BASE
D2BBW
1/24/04
DOMANI/WIP/DANA 001-03-03/2003OP&M/DANAB13.DWG

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2003 ANNUAL
OPERATION, MAINTENANCE, AND
MONITORING REPORT

2200 BLEECKER STREET
UTICA, NEW YORK

PUMPING MANHOLE PLANS AND SECTIONS

PROJECT NO.: DANA 001-03
DATE: MAR. 2004
FIGURE NO.: 6-3