PROPOSED REMEDIAL ACTION PLAN

Mayer Landfill

Town of Blooming Grove, Orange County, New York
Site No. 3-36-027

November 2004

Prepared by:

Division of Environmental Remediation
New York State Department of Environmental Conservation

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SECTION 1: SUMMARY AND PURPOSE OF THE PROPOSED PLAN

The New York State Department of Environmental Conservation (NYSDEC), in consultation with the New York State Department of Health (NYSDOH), is proposing a remedy for the Mayer Landfill. The presence of hazardous waste has created significant threats to human health and/or the environment that are addressed by this proposed remedy. As more fully described in Sections 3 and 5 of this document, former landfilling operations have resulted in the disposal of hazardous wastes, including resin samples and light, nonaqueous phase liquid (LNAPL). These wastes have contaminated groundwater at the site, and have resulted in:

- a significant threat to human health associated with potential exposure to landfill waste and site groundwater.

To eliminate or mitigate these threats, the NYSDEC proposes the following remedy:

- A remedial design program would be implemented to provide the details necessary for the LNAPL and soil excavation, offsite disposal and backfill with clean fill, and the installation of the new sentinel monitoring wells.
- Excavation and offsite disposal of a small area of LNAPL and soil contaminated with LNAPL to prevent future groundwater contamination;
- Establishment of an environmental easement that would prevent the use of groundwater as a source of potable or process water without necessary water quality treatment and prevent any development of the landfill that would result in excavation into the landfill and potential exposures to landfill waste; and
- Development of a Site Management Plan, that would include a plan to monitor the effectiveness of the remedy;
- An annual certification, which would certify that the institutional controls and engineering controls are unchanged and nothing has occurred that would impair the ability of the controls to protect public health or the environment or constitute a violation or failure to comply with any operation and maintenance or the site management plan.

The proposed remedy, discussed in detail in Section 8, is intended to attain the remediation goals identified for this site in Section 6. The remedy must conform with officially promulgated standards and criteria that are directly applicable, or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, criteria and guidance are hereafter called SCGs.

This Proposed Remedial Action Plan (PRAP) identifies the preferred remedy, summarizes the other alternatives considered, and discusses the reasons for this preference. The NYSDEC will select a final remedy for the site only after careful consideration of all comments received during the public comment period.

The NYSDEC has issued this PRAP as a component of the Citizen Participation Plan developed pursuant to the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375. This document is a summary of the information that can be found in greater detail in the March 2001 "Remedial Investigation (RI) Report," the April 2002 "Supplemental Remedial Investigation Report," the August 2002 "Feasibility Study" (FS), the September 2003 "Additional Groundwater and Surface Water Sampling Results Report," and other relevant documents. The public is encouraged to review the project documents, which are available at the following repositories:

Moffat Library
6 West Main Street
Washingtonville, NY 10992
Attn: Ms. Carol McCrossen
(845) 496-5483
Call for hours

Blooming Grove Town Hall
6 Horton Road PO Box 358
Blooming Grove, NY 10914
Attn: Ms. Barbara Decker
(845) 496-3895
Hours: 8:30 am - 4:30 pm

NYSDEC Region 3 Office
21 South Putt Corners Rd
New Paltz, NY 12561
Contact Mr. Mike Knipfing
(845) 256-3154
Hours: 8:30 am - 4:30 pm

NYSDEC
625 Broadway, 11th Floor
Albany, NY 12233-7014
Contact Ms. Karen Maiurano, Project Manager
(518) 402-9662
Hours: 7:30 am - 4:00 pm

The NYSDEC seeks input from the community on all PRAPs. A public comment period has been set from November 10, 2004 until December 10, 2004 to provide an opportunity for public participation in the remedy selection process. A public meeting is scheduled for Tuesday, November 30, 2004 at the Blooming Grove Town Hall, 6 Horton Road, beginning at 7:00 pm.

At the meeting, the results of the RI/FS will be presented along with a summary of the proposed remedy. After the presentation, a question-and-answer period will be held, during which verbal or written comments may be submitted on the PRAP. Written comments may also be sent to Ms. Karen Maiurano at the above address through December 10, 2004.

The NYSDEC may modify the proposed remedy or select another of the alternatives presented in this PRAP, based on new information or public comments. Therefore, the public is encouraged to review and comment on all of the alternatives identified here.

Comments will be summarized and addressed in the responsiveness summary section of the Record of Decision (ROD). The ROD is the NYSDEC's final selection of the remedy for this site.

SECTION 2: SITE LOCATION AND DESCRIPTION

The Mayer Landfill is located in a rural/ residential area on Prospect Road in the Town of Blooming Grove, Orange County (see Figure 1). It is situated on a 20-acre parcel of land; however, the waste disposal area covers approximately 10.3 acres. The landfill is overgrown with grasses, scrub brush and small trees, and is surrounded with hardwood forest. The landfill slopes gently to the south and southwest. An intermittent stream runs along the western edge of the landfill and discharges into a pond on Prospect Road, across from the landfill access road. Scrapped vehicles and white goods have been abandoned at various locations along the landfill access road. The nearest residence is located about 750 feet southeast of the site, along Peddler Hill Road.

Bull Mine Mountain is located just southwest of the landfill. It is a block of granitic gneiss that sits on top of the shale unit seen in landfill bedrock wells. Magnetite (iron oxide) was mined here in the 19th century as an iron ore.

SECTION 3: SITE HISTORY

3.1: Operational/Disposal History

The landfill operation began at the site in 1940, as an open-face dump, with periodic burning of refuse. Residential, commercial, industrial, demolition and agricultural waste were allegedly disposed of at the landfill. Part of the landfill was designated as a public dump in 1956. In 1965, after being ordered to stop burning, the operator began compacting and covering refuse. The Orange County Department of Health (OCDOH) cited the landfill for mismanagement many times in the early 1970s. Violations included inadequate compacting and covering, garbage piled too high and steep, and poor use of space. The landfill ceased operations in April 1975 due to failure to comply with state and county regulations.

3.2: Remedial History

In 1985, the NYSDEC listed the site as a Class 2a site in the Registry of Inactive Hazardous Waste Disposal Sites in New York (the Registry). Class 2a is a temporary classification assigned to a site that has inadequate and/or insufficient data for inclusion in any of the other classifications. Surface water sampled in 1975 by OCDOH showed elevated levels of zinc in a wet area to the south of the landfill. To resolve the class 2a status, a Phase II investigation was conducted at the site from 1989 through 1991. The Phase II investigation found that groundwater standards for several organic compounds were exceeded in one monitoring well. In 1991, the NYSDEC listed the site as a Class 2 site in the Registry of Inactive Hazardous Waste Disposal Sites in New York. A Class 2 site is a site where hazardous waste presents a significant threat to the public health or the environment and action is required.

SECTION 4: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The PRPs for the site, documented to date, include:

- Reichhold Chemicals, Inc., which reportedly generated hazardous wastes that were disposed of at the landfill;
- Round Lake Sanitation Corp., which allegedly transported hazardous waste to the landfill;
- Velia Mayer, the former property owner and landfill operator; and
- Johanna and William Mayer, Jr., the current property owners.

The PRPs declined to implement the RI/FS at the site when requested by the NYSDEC. After the remedy is selected, the PRPs will again be contacted to assume responsibility for the remedial program. If an agreement cannot be reached with the PRPs, the NYSDEC will evaluate the site for further action under the State Superfund. The PRPs are subject to legal actions by the state for recovery of all response costs the state has incurred.

SECTION 5: <u>SITE CONTAMINATION</u>

A remedial investigation/feasibility study (RI/FS) has been conducted to determine the nature and extent of contamination and to evaluate the alternatives for addressing significant threats to human health and/or the environment.

5.1: <u>Summary of the Remedial Investigation</u>

The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The RI was conducted between November 1999 and March 2001. The field activities and findings of the investigation are described in the RI report.

The following activities were conducted during the RI:

- Research of historical information;
- Geophysical survey to determine the lateral extent of waste;
- Excavation of 50 test pits to confirm lateral and vertical extent of waste and obtain soil samples for chemical characterization;
- Collection of three soil gas samples to evaluate the presence of landfill gas and/or VOC contaminated soils and possible vapor exposure pathways;
- Installation of 11 new monitoring wells for chemical analysis of subsurface soils and groundwater as well as hydrogeologic conditions;
- Sampling of 16 new and existing monitoring wells;
- Collection of 10 leachate samples from seeps around the landfill perimeter;
- Collection of 10 surface water and sediment samples from the wetland and stream northwest of the landfill; and
- A survey of residential water supply wells in the area around the site.

A Supplemental Remedial Investigation was conducted in late 2001 and a Supplemental Remedial Investigation Report was completed in April 2002. The following activities were conducted:

- Six additional soil gas samples to evaluate the presence of landfill gas and/or VOC contaminated soils and possible vapor exposure pathways between the landfill and Peddler Hill Road;

- Collection of six sediment samples downstream of the pond. Collection of surface water samples was attempted but could not be collected due to dry conditions;

- Installation of a bedrock monitoring well to further define bedrock groundwater conditions at the southeast corner of the landfill; and

- Installation of four temporary monitoring wells and 13 test soil borings to define the extent of LNAPL at MW-4.

To further evaluate the site, additional field activities took place in mid-2003. The results were submitted in the September 2003 Additional Groundwater and Surface Water Sampling Results Report. Sampling activities included:

- Collection of nine groundwater samples, six surface water samples downstream of the pond, four on site surface water samples, two leachate samples and two subsurface soil samples.

To determine whether the groundwater, surface water, leachate, sediment and soil contain contamination at levels of concern, data from the investigation were compared to the following SCGs:

- Groundwater, drinking water, and surface water SCGs are based on NYSDEC "Ambient Water Quality Standards and Guidance Values" and Part 5 of the New York State Sanitary Code.

- Soil SCGs are based on the NYSDEC "Technical and Administrative Guidance Memorandum (TAGM) 4046; Determination of Soil Cleanup Objectives and Cleanup Levels."

- Background soil samples were taken from five locations. These locations were outside the landfill perimeter, and were unaffected by historic site operations. The samples were analyzed for inorganic compounds. The results of the analysis were compared to data from the RI to determine appropriate site remediation goals (Table 2).

Based on the RI results, in comparison to the SCGs and potential public health and environmental exposure routes, certain media and areas of the site require remediation. These are summarized below. More complete information can be found in the 2001 RI Report, the 2002 Supplemental RI Report and the 2003 Additional Groundwater and Surface Water Results Report.

5.1.1: Site Geology and Hydrogeology

Native overburden material at the site consists of discontinuous layers of sand, silt and clay and a highly-compacted lodgement till. The overburden varies in depth from 14 feet to 60 feet. Bedrock beneath the till is a black-gray shale with abundant calcite (calcium carbonate) veins with traces of pyrite (iron sulfide). The top few feet of the shale are highly weathered.

The landfill covers an area of approximately 10 acres. Test pits were excavated into waste to a maximum depth of 15 feet, however, the bottom of waste was not encountered over most of the landfill.

Shallow groundwater monitoring wells were installed in the overburden unit and into the weathered shale. Depth to groundwater in these wells varies from 2 feet above ground surface (artesian conditions) in MW-7 at the entrance of the access road to12 feet below ground surface (bgs) in MW-12 along the north edge of the landfill (see figure 2). Shallow groundwater appears to flow radially out from the landfill.

Bedrock groundwater monitoring wells were typically installed as open holes in competent shale below the weathered shale zone. Depth to bedrock groundwater varies from about 1 foot above ground surface (artesian conditions) in MW-2 at the west side of the landfill adjacent to the wetland to 27 feet bgs in MW-4D on the northeast edge of the landfill. Bedrock groundwater flows to the northwest.

An intermittent stream occasionally flows north along the base of the western slope of the landfill and discharges into the pond across Prospect Hill Road.

5.1.2: Nature of Contamination

As described in the RI report, many soil, groundwater, surface water, leachate and sediment samples were collected to characterize the nature and extent of contamination. As summarized in Table 1, the main categories of contaminants that exceed their SCGs are volatile organic compounds (VOCs) and inorganics (metals). The VOCs that most commonly exceed their SCGs are benzene, chlorobenzene and xylene, detected primarily in site groundwater and leachate. The inorganics that exceed their SCGs in landfill waste are arsenic, chromium, copper, iron, lead, manganese, nickel, selenium and zinc.

5.1.3: Extent of Contamination

This section describes the findings of the investigation for all environmental media that were investigated.

Chemical concentrations are reported in parts per billion (ppb) for water, parts per million (ppm) for waste, soil, and sediment, and micrograms per cubic meter ($\mu g/m^3$) for soil gas samples. For comparison purposes, where applicable, SCGs are provided for each medium.

Table 1 summarizes the degree of contamination for the contaminants of concern in site media and compares the data with the SCGs for the site. The following are the media that were investigated and a summary of the findings of the investigation.

Landfill Waste

Data collected during the geophysical survey were used to determine the lateral extent of landfill waste. The landfill boundary was later confirmed by the test pit excavations. The extent of fill, shown on Figure 2, covers approximately 10.3 acres. Waste is comprised of all types of household garbage, including tires, glass, paper, plastic, wood and white goods, and varies from seven to more than 15 feet thick. Nineteen soil samples were collected from waste in the test pits at depths ranging from two to 15 feet. Analytical results show scattered low concentrations of VOCs, SVOCs and pesticides, only slightly above TAGM 4046 recommended soil cleanup objectives for soil. Several inorganic compounds were identified above TAGM objectives, including copper, iron, lead, manganese, nickel, selenium, antimony, arsenic, chromium, mercury and zinc.

An LNAPL was observed in MW-4 on the north edge of the landfill. This area was investigated further during the supplemental RI to determine the areal and vertical extent of contaminated soil and for product characterization. Analytical results of the LNAPL show it to be a highly degraded fuel oil. It covers an area approximately 1,950 square feet and extends from about six feet bgs to a depth of about 18 feet (see Figure 3). The LNAPL is a source area that has the potential to contaminate groundwater and migrate away from the landfill and, therefore, requires remediation.

These findings are consistent with what is commonly seen in closed municipal landfills. The thickness of cover material (topsoil and clay) varies from six inches to four feet. No major source areas of hazardous waste other than the LNAPL were identified during the investigation.

Surface Soil

Seven surficial soil samples were collected from zero to six inches at several test pit locations. Only one VOC, acetone, was detected above SCGs. No SVOCs, pesticides or PCBs were identified above SCGs. Five inorganic compounds were identified above SCGs: lead, manganese, nickel, selenium and zinc.

Five background soil samples were collected in areas not impacted by the landfill to measure levels of naturally occurring inorganic compounds in soil. These results, shown in Table 2, were used as background levels to which site soil and waste samples were compared.

Subsurface Soil

Ten subsurface soil samples were collected in test pits outside the waste area. No VOCs, SVOCs, pesticides or PCBs were detected above SCGs. Inorganic compounds identified above their SCGs include copper, iron, manganese, arsenic, lead, selenium and zinc.

Groundwater

Two rounds of groundwater sampling were conducted during the RI. Nine wells were selected for sampling during the supplemental RI. Not all wells were analyzed for all compounds during each sampling event. Six VOCs (benzene, chlorobenzene, ethylbenzene, xylene, toluene and isopropylbenzene) were identified above groundwater standards. Chlorobenzene and xylene were detected at concentrations up to 58 ppb and 47 ppb, respectively. Three SVOCs, dichlorobenzene, 4-methylphenol and naphthalene were identified above standards, at 12 ppb, 11 ppb and 21 ppb, respectively. All VOC and SVOC exceedences were limited to three overburden wells: MW-3A, MW-8 and MW-10. Single detections of several pesticides and Aroclor 1260, a PCB, were identified. Three inorganic compounds, iron, manganese and sodium, were identified above standards in many of the wells.

A thin layer (less than one inch) of LNAPL was observed on the water surface in MW-4 during the RI (see section on waste materials). Groundwater from this well was not sampled, however, it is assumed to be impacted by the fuel oil constituents.

The bedrock well that was installed during the 2002 Supplemental RI in the borrow area off the southeast corner of the landfill, drilled to a depth of 128 feet, was dry and was not sampled.

Residential well sampling was conducted in selected homes in April 1987 by the OCDOH, and in February/March 2000, August 2000, October 2000, March/April 2001 and June 2003 by the NYSDEC and/or the NYSDOH. A total of 45 homes were sampled at least once. No organic compounds were detected above NYS

Drinking Water Standards. No VOCs, SVOCs, pesticides or PCBs have been identified above drinking water standards in residential wells. Iron and manganese have been detected above drinking water standards in many of the residential wells. These two metals are naturally occurring and their presence in residential wells are not believed to be due to landfilling activities, given the nature of the bedrock and the proximity to the former iron mine up-gradient of the landfill.

Surface Water

A total of 20 surface water samples were collected during the RI, the supplemental RI and the additional sampling activities of 2003. Fourteen of these were collected from the intermittent stream adjacent to the west side of the landfill and the remainder of the surface water samples were collected from the intermittent stream that flows out of the pond across Prospect Road (see Figures 4 and 5). No VOCs, SVOCs, pesticides or PCBs above Class C surface water standards were identified. Only 10 of the surface water samples were analyzed for inorganic compounds. Iron and selenium were the only inorganic compounds detected above standards. The artesian conditions in nearby wells and the lack of contaminants in the surface water adjacent to the landfill indicate that this is an area of natural groundwater discharge that is not impacted by the landfill.

Sediment

Ten sediment samples were collected from the intermittent streambed adjacent to the west side and downgradient of the landfill (Figure 4). Six were collected from the streambed downstream of the pond across Prospect Road during the supplemental RI in 2003, which was dry at the time of the 2000 and 2001 sampling (Figure 5). Due to the frequent dry conditions of this stream, the sediment analytical results were compared to soil cleanup objectives. No VOCS, pesticides or PCBs above SCGs were identified. Several SVOCs were identified above SCGs in sampling locations near the pond, away from the landfill. These SVOCs are polynuclear aromatic hydrocarbons (PAHs), compounds that are likely associated with fossil fuel combustion. The highest concentrations of PAHs measured in sediment, up to 2.4 ppm of benzo(a)pyrene and 0.36 ppm of phenol, were located adjacent to Prospect Road, and are likely the result of runoff from the road. Several inorganic compounds were identified above background in several of the sample locations, particularly manganese and zinc.

Leachate

A total of 12 leachate samples were collected from leachate seeps along the south and west sides of the landfill (Figure 4). Because leachate flow in the seeps was minimal at the time of sampling, a small depression was dug in the area of each seep to collect sufficient volume for sample analysis. Analytical results were compared to Class C surface water standards. One VOC, chlorobenzene, was detected at levels up to 100 ppb in seven of the seeps. The surface water standard of 5 ppb is based on human consumption of fish. Because of the small size and intermittent nature of the seeps, there are no fish, and this is not a realistic exposure pathway. Dichlorobenzene, an SVOC, was detected at levels up to 10 ppb in three seeps. Naphthalene, also an SVOC, was detected at 15 ppb in one seep. No pesticides or PCBs were detected above standards. Several inorganic compounds, including iron and silver, were identified in a few of the samples above surface water standards.

Soil Gas

Three landfill gas samples were collected during the RI and evaluated for the presence or absence of VOCs and methane. Several VOCs, including benzene, ethylbenzene, toluene, xylenes (BTEX), methyl ethyl ketone (2-butanone), chloroethenes, chloroethanes and methane were detected; however, the concentrations were not quantified. During the Supplemental RI, six soil gas samples were collected between the landfill and Peddler Hill Road. There were several VOCs detected including acetone, benzene, ethylbenzene, tetrachloroethene, toluene and xylene. Methane was not detected in these six samples.

5.2: <u>Interim Remedial Measures</u>

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the RI/FS. There were no IRMs performed at this site during the RI/FS.

5.3: <u>Summary of Human Exposure Pathways</u>:

This section describes the types of human exposures that may present added health risks to persons at or around the site. A more detailed discussion of the human exposure pathways can be found in Section 4.1 of the RI report.

An exposure pathway describes the means by which an individual may be exposed to contaminants originating from a site. An exposure pathway has five elements: (1) a contaminant source, (2) contaminant release and transport mechanisms, (3) a point of exposure, (4) a route of exposure, and (5) a receptor population.

The source of contamination is the location where contaminants were released to the environment (any waste disposal area or point of discharge). Contaminant release and transport mechanisms carry contaminants from the source to a point where people may be exposed. The exposure point is a location where actual or potential human contact with a contaminated medium may occur. The route of exposure is the manner in which a contaminant actually enters or contacts the body (e.g., ingestion, inhalation, or direct contact). The receptor population is the people who are, or may be, exposed to contaminants at a point of exposure.

An exposure pathway is complete when all five elements of an exposure pathway exist. An exposure pathway is considered a potential pathway when one or more of the elements currently does not exist, but could in the future.

Under current site conditions, trespassers on the property may be exposed to contaminated sediments through dermal contact with sediments or incidental sediment ingestion. Potential exposure may also occur through dermal contact with the leachate seeps at the landfill's edge. However, contact with leachate is unlikely due to the heavy vegetation in the area of the seeps.

Depending on future land use conditions at the site, future residents and construction workers could be exposed to contamination present in soil and groundwater. Future residents and construction workers could come in direct contact with contaminated soil and groundwater if excavation work is conducted on the site. Inhalation of soil particles or vapors released from soil or groundwater may also occur as a result of excavation. Ingestion of contaminated groundwater could also occur if drinking water wells were installed on the site.

5.4: Summary of Environmental Impacts

This section summarizes the existing and potential future environmental impacts presented by the site. Environmental impacts include existing and potential future exposure pathways to fish and wildlife receptors, as well as damage to natural resources such as aquifers and wetlands.

The Fish and Wildlife Impact Analysis, which is included in the RI report, presents a detailed discussion of the existing and potential impacts from the site to fish and wildlife receptors.

Intermittent leachate outbreaks have been identified along the south and west margins of the landfill. Chlorobenzene has been detected at up to 100 ppb at several of these locations. A surface water standard of 5 ppb for chlorobenzene has been established based on human consumption of fish, however, for fish propagation the standard is 400 ppb. An value of 400 ppb for chlorobenzene will be considered the SCG for leachate at this site. Due to the intermittent nature of the outbreaks, these areas do not provide viable fish habitat and the presence of chlorobenzene at these concentrations is not considered a significant environmental impact.

Surface water in the intermittent stream that flows west of the landfill into Mayer Pond is not impacted by the landfill, nor is the stream that flows out of the pond. Although the sediment samples collected in the stream showed elevated levels of inorganic compounds, these also are not expected to significantly impact aquatic life due to the intermittent nature of the stream.

SECTION 6: SUMMARY OF THE REMEDIATION GOALS

Goals for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375-1.10. At a minimum, the remedy selected must eliminate or mitigate all significant threats to public health and/or the environment presented by the hazardous waste disposed at the site through the proper application of scientific and engineering principles.

The remediation goals for this site are to eliminate or reduce to the extent practicable:

- Exposure to waste in the landfill;
- Exposure to LNAPL-contaminated soil in the landfill;
- The migration of LNAPL from the small impacted area of the landfill and the release of LNAPL contaminants into groundwater; and
- Exposure to on-site groundwater.

SECTION 7: SUMMARY OF THE EVALUATION OF ALTERNATIVES

The selected remedy must be protective of human health and the environment, be cost-effective, comply with other statutory requirements, and utilize permanent solutions, alternative technologies or resource recovery technologies to the maximum extent practicable. Potential remedial alternatives for the Mayer Landfill Site were identified, screened and evaluated in the January 2002 Final Feasibility Study, which is available at the document repositories identified in Section 1.

A summary of the remedial alternatives that were considered for this site are discussed below. The present worth represents the amount of money invested in the current year that would be sufficient to cover all present and future costs associated with the alternative. This enables the costs of remedial alternatives to be compared on a common basis. As a convention, a time frame of 30 years is used to evaluate present worth costs for alternatives with an indefinite duration. This does not imply that operation, maintenance, or monitoring would cease after 30 years if remediation goals are not achieved.

7.1: Description of Remedial Alternatives

The following potential remedies were considered to address the groundwater and LNAPL contaminated soil at the site.

Alternative 1: No Action

Present Worth: .... *$ 0*
Capital Cost: .... *$ 0*
Annual OM&M: .... *$ 0*
Duration: .... *0 months*

The No Action Alternative is evaluated as a procedural requirement and as a basis for comparison. Under this alternative, no remedial activities or monitoring would take place. This alternative would leave the site in its present condition and would not provide any additional protection to human health or the environment.

Alternative 2: Limited Action to Excavate LNAPL Area and Monitor Groundwater

Present Worth: .... *$ 397,000*
Capital Cost: .... *$ 112,000*
Annual OM&M: .... *$ 18,500*
Duration: .... *6 months*

This alternative would consist of removing the LNAPL and visibly contaminated soil in the vicinity of MW-4. This would eliminate the fuel product as a source area for groundwater contamination and eliminate the potential for product migration beyond the landfill. Approximately 1,300 cubic yards of contaminated soil would be excavated and disposed of at an approved off-site facility. The excavated area would be backfilled with clean fill, graded and seeded.

Five additional monitoring wells would be installed off site, between the landfill and Prospect Road, as sentinel wells to monitor potential off-site contaminant migration in overburden and bedrock groundwater. A Site Management Plan would be developed to monitor and inspect the landfill on a regular basis, including annual sampling of the five new sentinel wells and the 11 existing on-site monitoring wells. Repairs to the existing cover would be made as needed. An institutional control in the form of an environmental easement would be required to prevent intrusive activities and exposures to waste within the landfill mass, limit the use and development of the property to commercial or industrial uses only, and to prevent unauthorized use of site groundwater.

The remedy design could be completed within three months and implemented within another two months. Remedial goals would be met upon completion of construction, which is expected to take about one month.

Alternative 3: Soil Cover, LNAPL Excavation and Groundwater Monitoring

Present Worth: *$1,179,600*
Capital Cost: .... *$ 859,600*
Annual OM&M: .... *$ 20,260*
Duration: .... *One year*

This alternative would include the LNAPL removal and new monitoring well installations discussed in Alternative 2. A 12 inch soil cover would be placed over the existing landfill cover over the entire landfill area and graded to promote runoff from the surface of the landfill, thereby limiting the potential for infiltration into the waste mass. As with Alternative 2, a Site Management Plan would be developed to monitor and inspect the landfill on a regular basis. An institutional control in the form of an environmental easement as described in Alternative 2 would be required.

The remedy design could be completed in four months and construction could begin about two months later. Remedial goals would be met upon completion of construction, which is expected to take approximately six months.

Alternative 4: 6 NYCRR Part 360 Cap, LNAPL Excavation and Groundwater Monitoring

Present Worth: .... *$ 2,705,600*
Capital Cost: .... *$ 2,385,600*
Annual OM&M: .... *$ 20,760*
Duration: .... *Two and one half years*

This alternative would include the LNAPL removal and new monitoring well installations discussed in Alternative 2, and a low-permeability cap consistent with 6 NYCRR Part 360 would be constructed over the landfill. This would eliminate virtually all precipitation infiltration into the waste mass. As with Alternatives 2 and 3, a Site Management Plan would be developed to monitor and inspect the landfill on a regular basis, and an institutional control in the form of an environmental easement would be required.

The remedy design could be completed in twelve months and construction could begin about three months later. Remedial goals would be met upon completion of construction, which is expected to take approximately twelve months.

7.2 Evaluation of Remedial Alternatives

The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375, which governs the remediation of inactive hazardous waste disposal sites in New York State. A detailed discussion of the evaluation criteria and comparative analysis is included in the FS report.

The first two evaluation criteria are termed "threshold criteria" and must be satisfied in order for an alternative to be considered for selection.

1. Protection of Human Health and the Environment. This criterion is an overall evaluation of each alternative's ability to protect public health and the environment.

2. Compliance with New York State Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether a remedy will meet environmental laws, regulations, and other standards and criteria. In addition, this criterion includes the consideration of guidance which the NYSDEC has determined to be applicable on a case-specific basis.

The next five "primary balancing criteria" are used to compare the positive and negative aspects of each of the remedial strategies.

3. Short-term Effectiveness. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and/or implementation are evaluated. The length of time needed to achieve the

remedial objectives is also estimated and compared against the other alternatives.

4. Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of the remedial alternatives after implementation. If wastes or treated residuals remain on-site after the selected remedy has been implemented, the following items are evaluated: (1) the magnitude of the remaining risks, (2) the adequacy of the engineering and/or institutional controls intended to limit the risk, and (3) the reliability of these controls.

5. Reduction of Toxicity, Mobility or Volume. Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the site.

6. Implementability. The technical and administrative feasibility of implementing each alternative is evaluated. Technical feasibility includes the difficulties associated with the construction of the remedy and the ability to monitor its effectiveness. For administrative feasibility, the availability of the necessary personnel and materials is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, institutional controls, and so forth.

7. Cost-Effectiveness. Capital costs and operation, maintenance, and monitoring costs are estimated for each alternative and compared on a present worth basis. Although cost-effectiveness is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the other criteria, it can be used as the basis for the final decision. The costs for each alternative are presented in Table 3.

This final criterion is considered a "modifying criterion" and is taken into account after evaluating those above. It is evaluated after public comments on the Proposed Remedial Action Plan have been received.

8. Community Acceptance - Concerns of the community regarding the RI/FS reports and the PRAP are evaluated. A responsiveness summary will be prepared that describes public comments received and the manner in which the NYSDEC will address the concerns raised. If the selected remedy differs significantly from the proposed remedy, notices to the public will be issued describing the differences and reasons for the changes.

SECTION 8: SUMMARY OF THE PROPOSED REMEDY

The NYSDEC is proposing Alternative 2, Limited Action to Remove LNAPL and Monitor Groundwater, as the remedy for this site. The elements of this remedy are described at the end of this section.

The proposed remedy is based on the results of the RI and the evaluation of alternatives presented in the FS.

Alternative 2 is proposed because it satisfies the threshold criteria and provides the best balance of the primary criteria described in Section 7.2. It would achieve the remediation goals for the site by removing the LNAPL-contaminated soil, eliminating this as a potential source of groundwater contamination. It would prevent future exposures to waste within the landfill mass by establishing an environmental easement to prevent intrusive activities and the unauthorized use of site groundwater. Alternatives 3 and 4 also satisfy the threshold criteria but at a much greater cost with more extensive short term and long term impacts, without additional benefits to public health or the environment.

The short-term impacts associated with the LNAPL removal activities of Alternative 2 would be negligible. Alternatives 3 (soil cover) and 4 (capping) have more significant short-term impacts due to construction activities. For Alternatives 3 and 4, the existing vegetation covering the landfill would be cleared to allow new cover material to be placed and graded. At the conclusion of construction activities, the landfill would be re-vegetated. The temporary destruction of wildlife habitat for up to three years where no significant environmental impacts have been identified would be difficult to justify. The length of time of these short-term impacts and the time needed to complete remediation would be greatest for Alternative 4. Alternative 2 would be the least disruptive to the existing habitat and would take the least amount of time to complete, while still meeting the remedial objectives.

The greatest long-term effectiveness would be achieved under Alternative 4 with construction of a low-permeability cap over the entire landfill. However, under Alternatives 2, 3, and 4, periodic landfill inspections would take place and repairs to the existing cover (Alternative 2), the soil cover (Alternative 3), or the low-permeability cap (Alternative 4) would be made as needed. An environmental easement and long-term groundwater monitoring would be required by each of these alternatives to monitor their effectiveness.

Alternatives 2, 3, and 4 all would reduce, to a limited extent, the volume of waste at the site by removing the LNAPL-contaminated soil. None of the alternatives would significantly reduce the toxicity, mobility or volume of wastes at the site. The soil cover of Alternative 3 and the low-permeability cap of Alternative 4 would both reduce infiltration and improve surface drainage, but neither infiltration through the landfill waste nor surface runoff appear to be negatively impacting the environment.

All alternatives are readily implementable and technically feasible. The design and construction for Alternatives 3 and 4 would be more complex than Alternative 2; however, both involve standard construction methods. All alternatives would be administratively feasible, although obtaining the environmental easement required by Alternatives 2, 3 and 4 would require cooperation of the property owner.

The estimated total present worth costs for each alternative vary significantly, from under $400,000 for Alternative 2, to about $1,100,000 for Alternative 3, to over $2,700,000 for Alternative 4. Based on the lack of significant impacts to public health and the environment from the waste within the landfill mass on groundwater and surface water quality, Alternatives 3 and 4 would not be cost-effective. Alternative 2 would be the most cost-effective and best protection to public health and the environment.

The estimated present worth cost to implement the remedy is $397,000. The cost to construct the remedy is estimated to be $112,000 and the estimated average annual operation, maintenance, and monitoring costs for 30 years is $18,500.

The elements of the proposed remedy are as follows:

1. A remedial design program would be implemented to provide the details necessary for the LNAPL and soil excavation, offsite disposal and backfill with clean fill, and the installation of new sentinel monitoring wells.

2. The LNAPL and LNAPL-contaminated soils in the vicinity of MW-4 would be excavated and disposed of at an approved offsite facility. The excavated area would be restored by backfilling with clean fill, grading, placement of topsoil, and seeding (see Figure 6).

3. Imposition of an institutional control in form of an environmental easement that would (a) require compliance with the approved site management plan, (b) limit the use and development of the property to commercial or industrial uses only, (c) restrict use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the OCDOH, and (d) require the property owner to complete and submit to the NYSDEC an annual certification.

4. The property owner would provide an annual certification, prepared and submitted by a professional engineer or environmental professional acceptable to the NYSDEC , that would certify that the institutional controls and engineering controls put in place, are unchanged from the previous certification and nothing has occurred that would impair the ability of the control to protect public health or the environment or constitute a violation or failure to comply with any operation and maintenance plan or the site management plan.

5. Since the remedy results in the potential for untreated hazardous waste remaining at the site in the waste mass, a site management plan to (a) monitor groundwater quality and the integrity of the existing cover, and (b) identify any use restrictions on site development or groundwater would be developed. Groundwater will be monitored annually for a period of five years, at which time the frequency and need for continued monitoring will be reevaluated. For cost estimating purposes, 30 years of annual monitoring has been assumed.

Table 1

Nature and Extent of Contamination

WASTE November 1999	Contaminants of Concern	Concentration Range Detected (ppm)[a]	SCG[b] (ppm)[a]	Frequency of Exceeding SCG
Volatile Organic Compounds (VOCs)	acetone	ND - 1.2	0.2	4 of 19
	xylene	ND - 3.0	1.2	3 of 19
	benzene	ND - 0.2	0.06	1 of 19
	2 butanone	ND - 0.33	0.3	1 of 19
	chlorobenzene	ND - 2.2	1.7	1 of 19
Semivolatile Organic Compounds (SVOCs)	benzo(a)anthracene	ND - 0.25	0.224	1 of 19
	benzo(a)pyrene	ND - 0.85	0.061	2 of 19
PCB/Pesticides	Dieldrin	ND - 0.053	0.044	2 of 19
	Aldrin	ND - 0.064	0.041	1 of 19
Inorganic Compounds	antimony	ND - 346	1.9	3 of 19
	arsenic	ND - 11.8	7.5	1 of 19
	chromium	13.9 - 339	50	6 of 19
	copper	18.2 - 2,210	25	12 of 19
	iron	22,600-192,000	24,000	16 of 19
	lead	14.5 - 3130	28	14 of 19
	manganese	258 - 1,940	514	15 of 19
	mercury	ND - 1.8	0.1	5 of 19
	nickel	18 - 458	19	15 of 19
	selenium	ND - 176	2	12 of 19
	zinc	67.9 - 1970	55.27	15 of 19

Table 1
Nature and Extent of Contamination (continued)

SURFACE SOIL Nov - Dec 1999	**Contaminants of Concern**	**Concentration Range Detected (ppm)[a]**	**SCG[b] (ppm)[a]**	**Frequency of Exceeding SCG**
Volatile Organic Compounds (VOCs)	acetone	ND - 1.2	0.2	1 of 7
Semivolatile Organic Compounds (SVOCs)	none above SCGs			
PCB/Pesticides	none above SCGs			
Inorganic Compounds	lead	14.3 - 32.5	28	1 of 7
	manganese	183 - 940	514	4 of 7
	nickel	17.3 - 25.7	19	3 of 7
	selenium	6.3 - 21.4	2	7 of 7
	zinc	50.2 - 96	55	4 of 7

SUBSURFACE SOIL Nov - Dec 1999	**Contaminants of Concern**	**Concentration Range Detected (ppm)[a]**	**SCG[b] (ppm)[a]**	**Frequency of Exceeding SCG**
Volatile Organic Compounds (VOCs)	none above SCGs			
Semivolatile Organic Compounds (SVOCs)	none above SCGs			
PCB/Pesticides	none above SCGs			
Inorganic Compounds	arsenic	2.4 - 17.2	7.5	1 of 10
	copper	3.8 - 48.9	25	4 of 10
	iron	17,000 - 74,000	24,000	5 of 10
	lead	4.4 - 40.6	28	1 of 10
	manganese	582 - 1, 080	514	10 of 10
	mercury	ND - 0.71	0.1	2 of 10
	selenium	ND - 10.8	2	3 of 10

Table 1
Nature and Extent of Contamination (continued)

SUBSURFACE SOIL Nov - Dec 1999	Contaminants of Concern	Concentration Range Detected (ppm)[a]	SCG[b] (ppm)[a]	Frequency of Exceeding SCG
	zinc	49.2 - 111	55	8 of 10

SURFACE WATER June 2000 & June 2003	Contaminants of Concern	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)[a]	Frequency of Exceeding SCG
Volatile Organic Compounds (VOCs)	none above SCGs			
Semivolatile Organic Compounds (SVOCs)	none above SCGS			
PCB/Pesticides	none above SCGs			
Inorganic Compounds	iron	362 - 623	300	10 of 10*
	selenium	ND - 6.4	4.6	5 of 10*

* June 2003 surface water samples (10 samples) were not analyzed for inorganic compounds

Table 1
Nature and Extent of Contamination (continued)

SEDIMENT June 2000 & Aug 2001	**Contaminants of Concern**	**Concentration Range Detected (ppm)**[a]	**SCG**[b] **(ppm)**[a]	**Frequency of Exceeding SCG**
Volatile Organic Compounds (VOCs)	none above SCGs			
Semivolatile Organic Compounds (SVOCs)	phenol	ND - 0.36	0.03	3 of 10
	chrysene	ND - 1.9	0.4	2 of 10
	benzo(a)anthracene	ND - 1.9	0.224	1 of 10
	benzo(b)fluoranthene	ND - 3.3	1.1	1 of 10
	benzo(k)fluoranthene	ND - 1.1	1.1	1 of 10
	benzo(a)pyrene	ND - 2.4	0.061	3 of 10
	dibenzo(a,h)anthracene	ND - 0.27	0.014	1 of 10
PCB/Pesticides	none above SCGs			
Inorganic Compounds	arsenic	1.5 - 18.7	7.5	8 of 16
	copper	ND - 39.1	25	1 of 16
	iron	15,100 - 46,100	24,000	8 of 16
	lead	11.2 - 37.4	28	5 of 16
	manganese	187 - 2,720	514	9 of 16
	nickel	11.8 - 23.4	19	8 of 16
	silver	1.2 - 7.5	2.2	8 of 16
	zinc	45.6 - 176	55	11 of 16

Table 1
Nature and Extent of Contamination (continued)

LEACHATE June 2000 & June 2003	**Contaminants of Concern**	**Concentration Range Detected (ppb)[a]**	**SCG[b] (ppb)[a]**	**Frequency of Exceeding SCG**
Volatile Organic Compounds (VOCs)	chlorobenzene	ND - 100	5	7 of 12
Semivolatile Organic Compounds (SVOCs)	dichlorobenzene	ND - 10	5	3 of 12
	naphthalene	ND - 15	13	1 of 12
PCB/Pesticides	none above SCGs			
Inorganic Compounds	iron	110 - 164,000	300	11 of 12
	lead	ND - 46	3.8	4 of 12
	nickel	1 - 108	52	2 of 12
	selenium	ND - 88.5	4.6	2 of 12
	silver	ND - 30.3	0.1	6 of 12
	vanadium	ND - 53.6	14	2 of 12
	zinc	ND - 238	83	1 of 12

Table 1
Nature and Extent of Contamination (continued)

GROUNDWATER March & May 2000	**Contaminants of Concern**	**Concentration Range Detected (ppb)[a]**	**SCG[b] (ppb)[a]**	**Frequency of Exceeding SCG**
Volatile Organic Compounds (VOCs)	benzene	ND - 9	1	4 of 34
	chlorobenzene	ND - 58	5	5 of 34
	ethylbenzene	ND - 34	1	1 of 34
	xylene	ND - 47	5	5 of 34
	toluene	ND - 23	5	1 of 34
	isopropylbenzene	ND - 7	5	1 of 34
Semivolatile Organic Compounds (SVOCs)	1,4 dichlorobenzene	ND - 12	3	5 of 34
	4 methylphenol	ND - 11	1	4 of 34
	naphthalene	ND - 21	10	1 of 34
PCB/Pesticides	heptachlor	ND - 0.2	0.04	1 of 29
	dieldrin	ND - 0.14	0.004	1 of 29
	endrin	ND - 2.5	ND	1 of 29
	aroclor 1260	ND - 2.5	ND	1 of 29
	alpha BHC	ND - 0.14	0.01	1 of 29
	gamma BHC (lindane)	ND - 0.14	0.05	1 of 29
	aldrin	ND - 0.15	ND	1 of 29
Inorganic Compounds	iron	29.4 - 65,300	300	24 of 34
	manganese	ND - 5,790	300	23 of 34
	sodium	1,820 - 355,000	20,000	10 of 34

Table 1

Nature and Extent of Contamination (continued)

SOIL GAS Dec 1999 & Aug 2001	**Contaminants of Concern**	**Concentration Range Detected (μg/m³)[a]**	**SCG[b] (μg/m³)[a]**	**Number of Detections**
Volatile Organic Compounds (VOCs)	benzene	ND - 2.35	No SCGs for Soil Gas	9 of 9
	toluene	12.3 - 25.3		8 of 9
	tetrachloroethene	38.6 - 82.7		7 of 9
	ethylbenzene	3.6 - 6.53		7 of 9
	xylenes	20.3 - 39.2		9 of 9
	acetone	3.4 - 84.0		6 of 9
	methyl ethyl ketone (2-butanone)	ND - 9.1		4 of 9

[a] ppb = parts per billion, which is equivalent to micrograms per liter, ug/L, in water;
ppm = parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
ug/m³ = micrograms per cubic meter

[b] SCG = standards, criteria, and guidance values;

Waste sample results compared to TAGM 4046 Recommended Soil Cleanup Objectives

Leachate sample results compared to Class C surface water standards

ND: non-detect

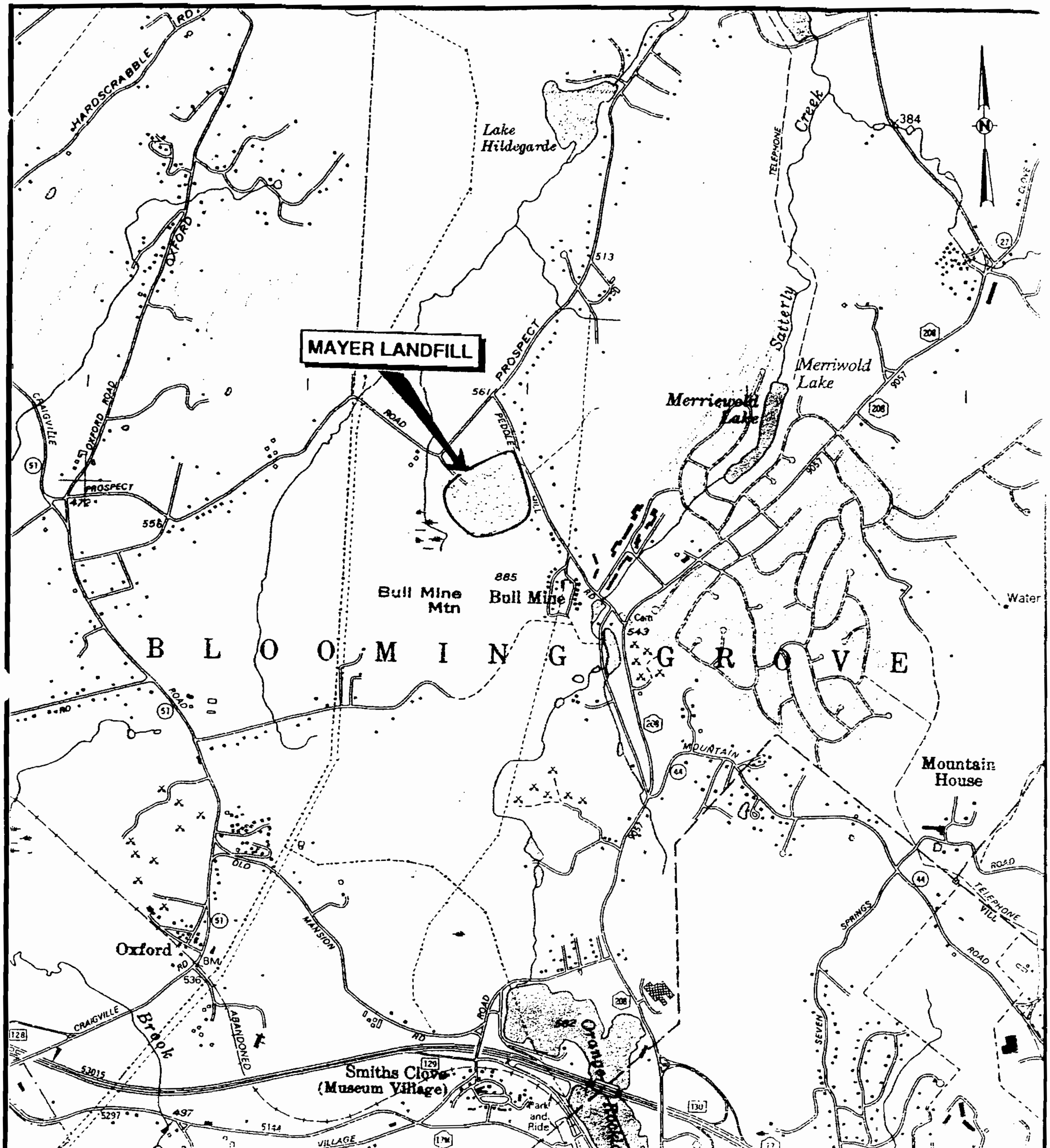
BHC: Hexachlorocyclohexane

Table 2
Background Soil Samples
June 2000

Analyte	TAGM 4046 (mg/kg)	Range of Concentrations mg/kg	95% UCL of Average mg/kg
antimony	site background	ND - 2.0	1.9
beryllium	0.16 or site background	0.37 - 0.83	0.6
iron	2,000 or site background	17,200 - 21,800	24,000
lead	site background	11.5 - 41.4	28
manganese	site background	188 - 742	514
nickel	13 or site background	16.3 - 21.4	19
silver	site background	0.99 - 2.8	2.2
zinc	20 or site background	43.8 - 56.9	55

Table 3
Remedial Alternative Costs

Remedial Alternative	Capital Cost	Annual OM&M	Total Present Worth
Alternative 1: No Action	$0	$0	$0
Alternative 2: Limited Action	$112,000	$18,500	$397,000
Alternative 3: Soil Cover	$859,600	$20,260	$1,179,600
Alternative 4: Part 360 Cap	$2,385,600	$20,760	$2,705,600



LAT 41° 22' 15"
LONG 74° 12' 15"

0 1000 2000 ft

SCALE
1 in. = 2000 ft

QUADRANGLE LOCATION

SOURCE: NYSDOT; MONROE & MAYBROOK
MAYBROOK QUADRANGLES,
NEW YORK ORANGE COUNTY,
7.5 MINUTE SERIES.

TITLE

SITE LOCATION

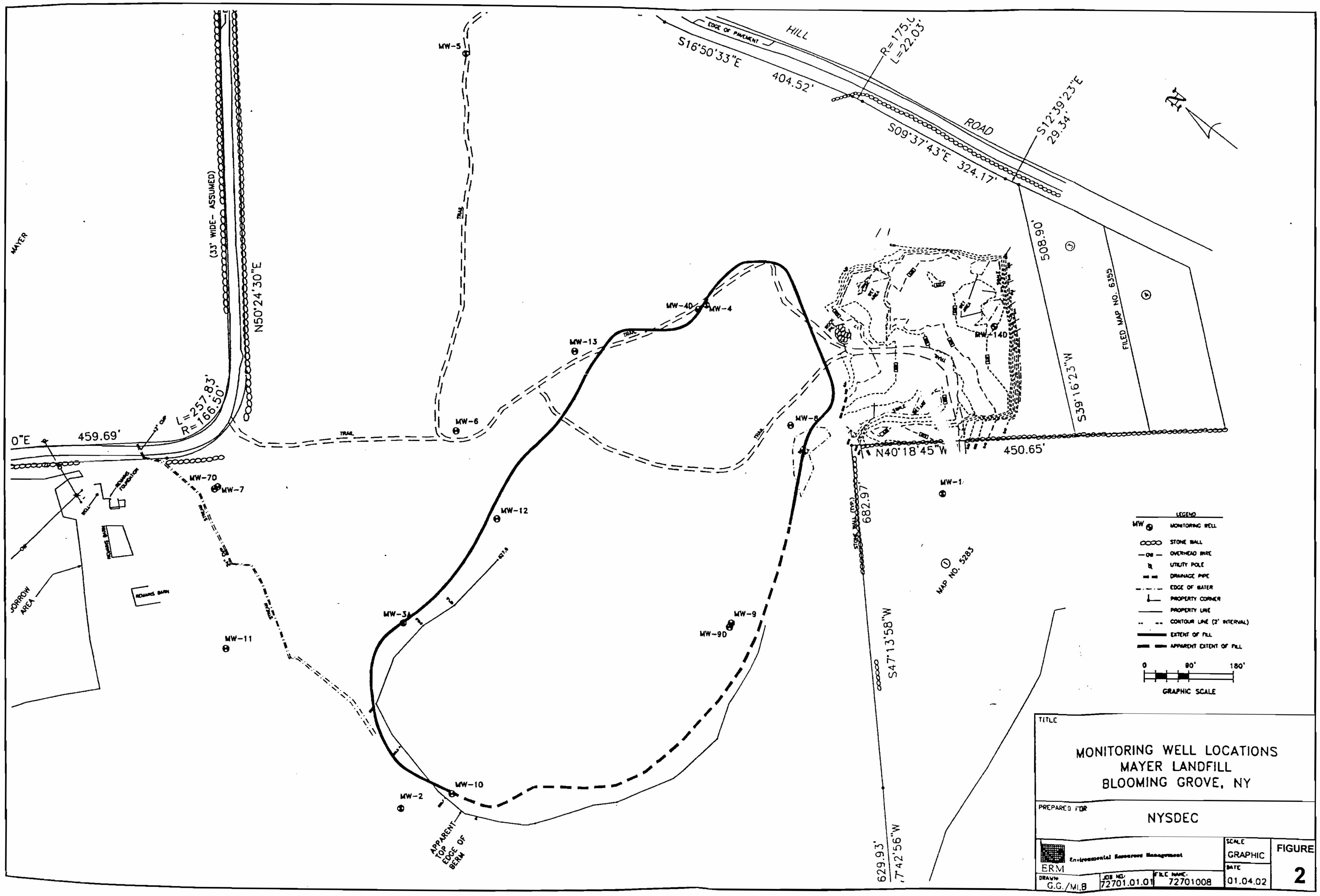
PREPARED FOR

MAYER LANDFILL
NYSDEC I.D. NO. 336027

ERM Environmental Resources Management

SCALE	FIGURE
1"=2000'	1
DATE 5/4/99	

DRAWN:	JOB NO	FILE NAME
G.G.	154.014	



TITLE

MONITORING WELL LOCATIONS MAYER LANDFILL BLOOMING GROVE, NY

PREPARED FOR

NYSDEC

ERM Environmental Resources Management

SCALE	FIGURE
GRAPHIC	2

DRAWN	JOB NO.	FILE NAME	DATE
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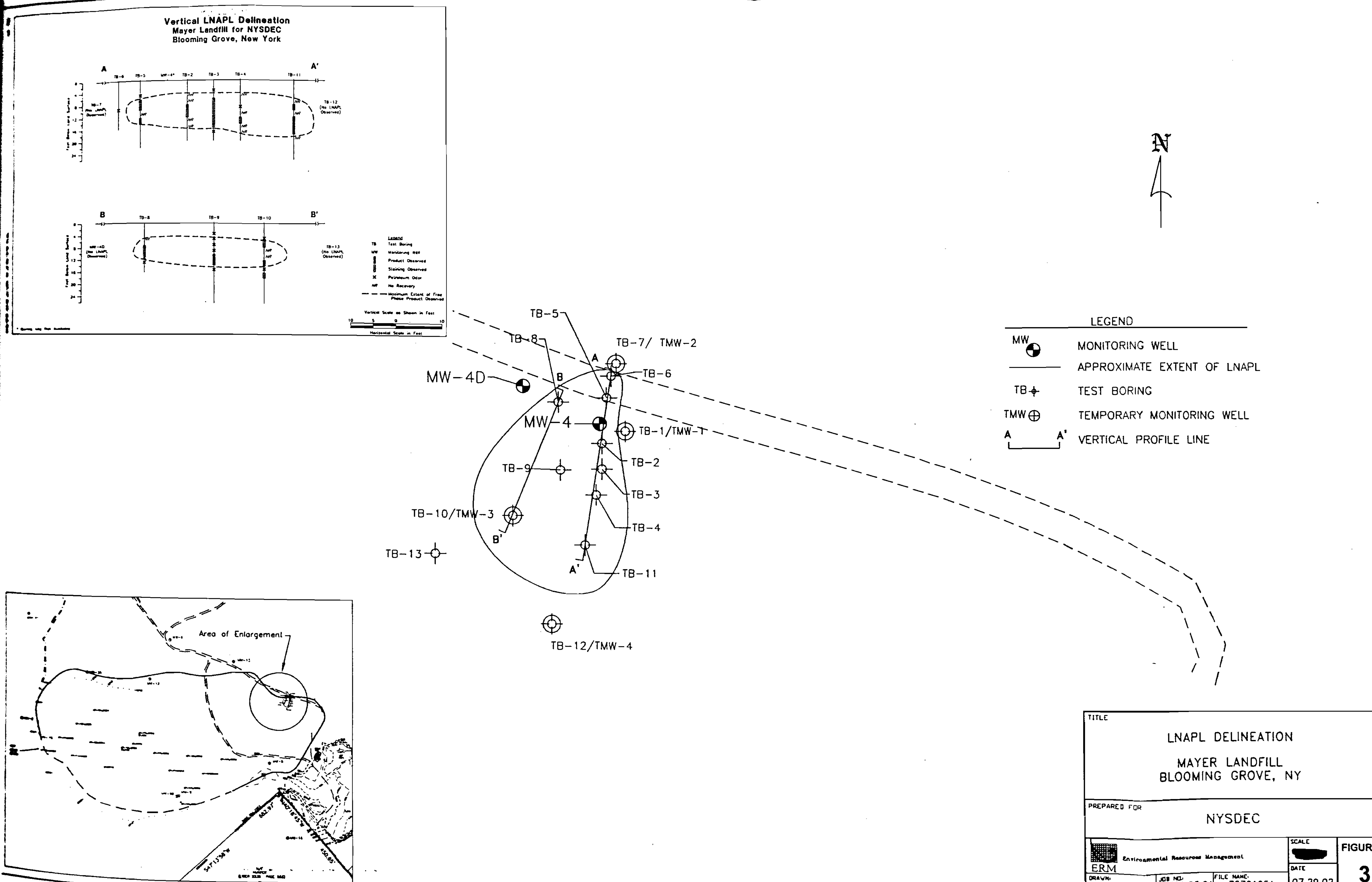

TITLE

LNAPL DELINEATION

MAYER LANDFILL
BLOOMING GROVE, NY

PREPARED FOR

NYSDEC

ERM Environmental Resources Management

SCALE	FIGURE
DATE 07.29.02	3

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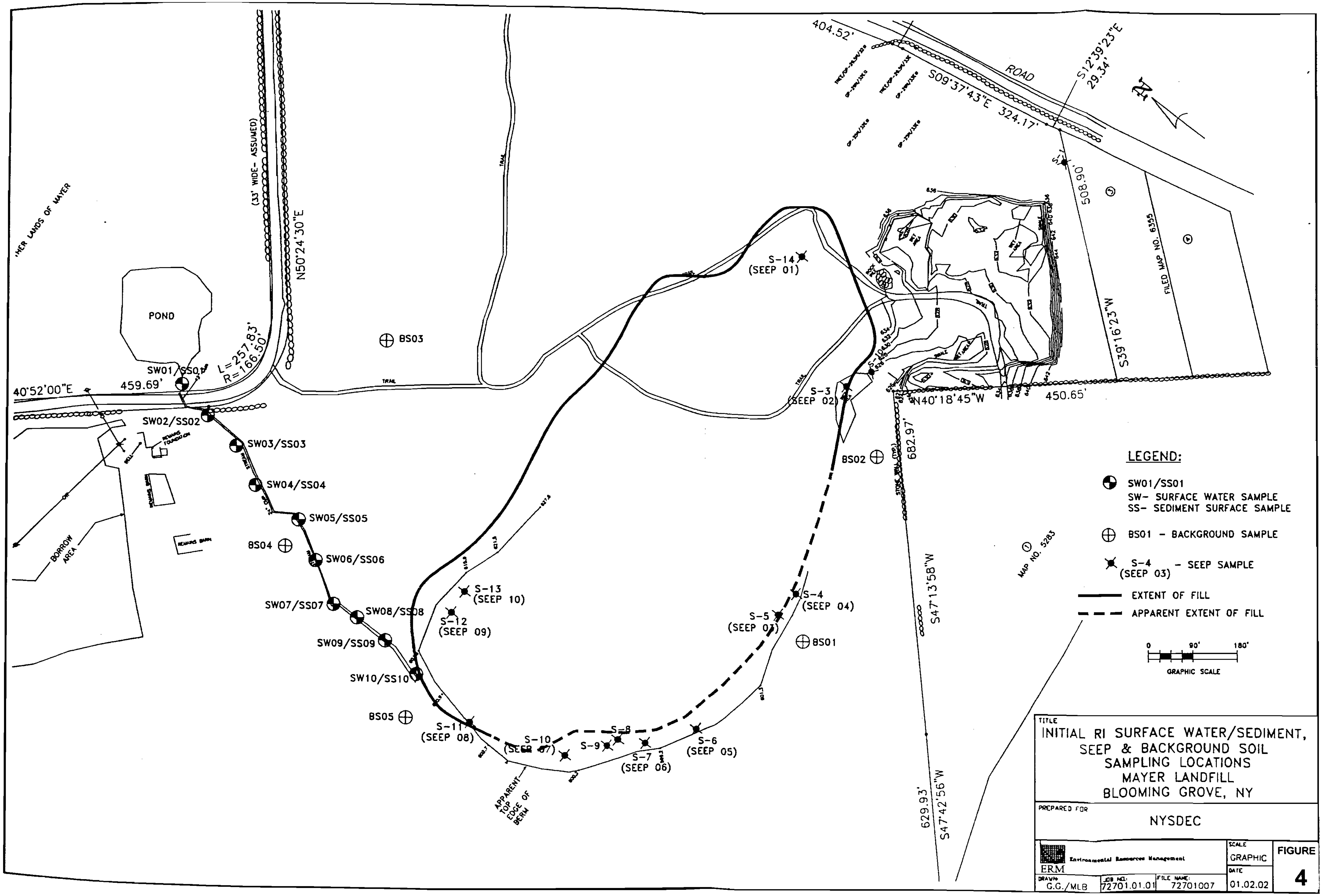
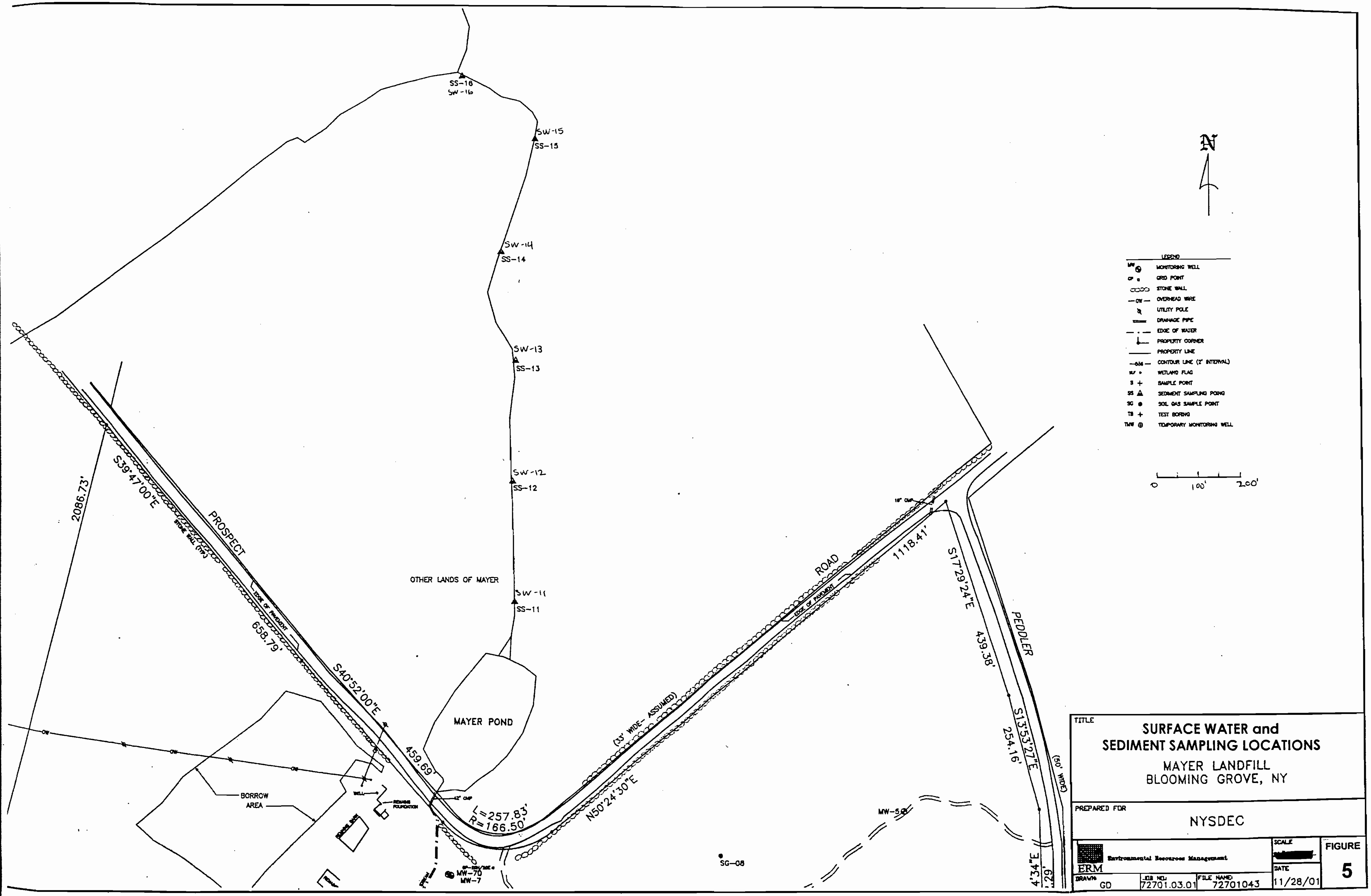

ROAD
404.52'
S09°37'43"E 324.17'
S12°39'23"E 29.34'
N
(33' WIDE- ASSUMED)
N50°24'30"E
POND
SW01/SS01
L=257.83'
R=166.50'
40°52'00"E
459.69'
SW02/SS02
SW03/SS03
SW04/SS04
SW05/SS05
SW06/SS06
SW07/SS07
SW08/SS08
SW09/SS09
SW10/SS10
BS01
BS02
BS03
BS04
BS05
S-14 (SEEP 01)
S-3 (SEEP 02)
S-4 (SEEP 04)
S-5 (SEEP 03)
S-6 (SEEP 05)
S-7 (SEEP 06)
S-8
S-9
S-10 (SEEP 07)
S-11 (SEEP 08)
S-12 (SEEP 09)
S-13 (SEEP 10)
S-1
TRAIL
BORROW AREA
APPARENT TOP EDGE OF BERM
508.90'
S39°16'23"W
FILED MAP NO. 6355
N40°18'45"W
450.65'
682.97'
S47°13'58"W
629.93'
S47°42'56"W
MAP NO. 5283
LEGEND:
SW01/SS01
SW- SURFACE WATER SAMPLE
SS- SEDIMENT SURFACE SAMPLE
BS01 - BACKGROUND SAMPLE
S-4 (SEEP 03) - SEEP SAMPLE
EXTENT OF FILL
APPARENT EXTENT OF FILL
0 90' 180'
GRAPHIC SCALE
TITLE
INITIAL RI SURFACE WATER/SEDIMENT, SEEP & BACKGROUND SOIL SAMPLING LOCATIONS
MAYER LANDFILL
BLOOMING GROVE, NY
PREPARED FOR
NYSDEC
ERM Environmental Resources Management
SCALE GRAPHIC
DATE 01.02.02
FIGURE 4
DRAWN G.G./MLB
JOB NO. 72701.01.01
FILE NAME 72701007



TITLE

SURFACE WATER and SEDIMENT SAMPLING LOCATIONS

MAYER LANDFILL
BLOOMING GROVE, NY

PREPARED FOR

NYSDEC

ERM Environmental Resources Management

SCALE	[redacted]	FIGURE
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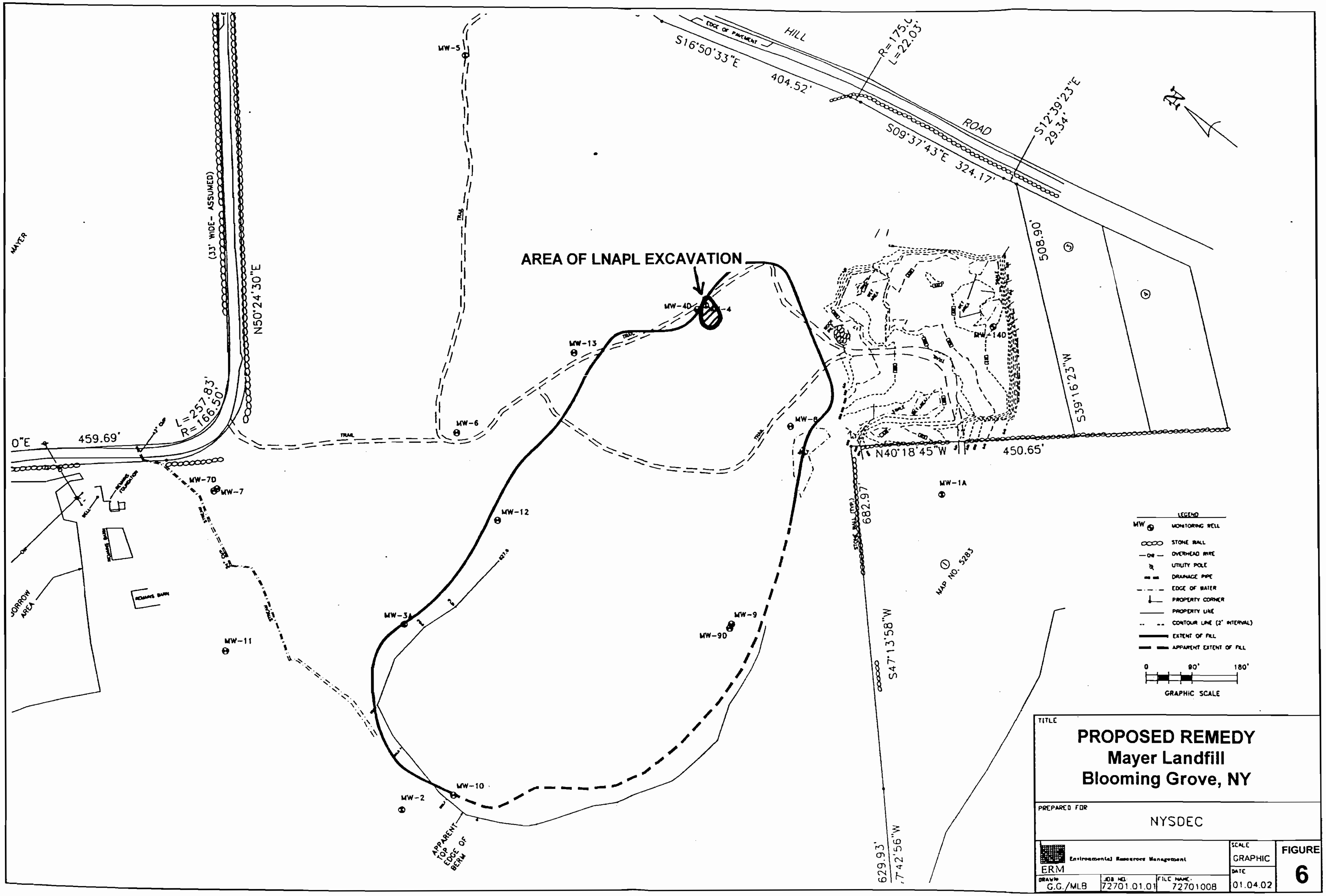
DATE	11/28/01	5



AREA OF LNAPL EXCAVATION
HILL
ROAD
EDGE OF PAVEMENT
S16°50'33"E
404.52'
R=175.0
L=22.03'
S09°37'43"E 324.17'
S12°39'23"E
29.34'
508.90'
S39°16'23"W
N40°18'45"W
450.65'
682.97
S47°13'58"W
629.93'
7°42'56"W
N50°24'30"E
(33' WIDE - ASSUMED)
L=257.83'
R=166.50'
459.69'
MAYER
BORROW AREA
MAP NO. 5283
MW-5
MW-6
MW-13
MW-4D
MW-12
MW-3A
MW-10
MW-2
MW-11
MW-7D
MW-7
MW-9
MW-9D
MW-1A
MW-8
MW-14D
TRAIL
APPARENT TOP EDGE OF BERM
LEGEND
MONITORING WELL
STONE WALL
OVERHEAD WIRE
UTILITY POLE
DRAINAGE PIPE
EDGE OF WATER
PROPERTY CORNER
PROPERTY LINE
CONTOUR LINE (2' INTERVAL)
EXTENT OF FILL
APPARENT EXTENT OF FILL
0
90'
180'
GRAPHIC SCALE
TITLE
PROPOSED REMEDY
Mayer Landfill
Blooming Grove, NY
PREPARED FOR
NYSDEC
Environmental Resources Management
ERM
SCALE
GRAPHIC
FIGURE
6
DRAWN
G.G./MLB
JOB NO.
72701.01.01
FILE NAME
72701008
DATE
01.04.02