ENVIRONMENTAL RESOURCES MANAGEMENT

SUPPLEMENTAL REMEDIAL INVESTIGATION WORK PLAN

Mayer Landfill
Blooming Grove, NY
(Site Code #3-36-027)
(WA #D003970-01.1)

June 2001

Prepared for:

New York State Department of Environmental Conservation
Division of Environmental Remediation
50 Wolf Road
Albany, New York 12233-7010

Prepared by:

ENVIRONMENTAL RESOURCES MANAGEMENT
175 Froehlich Farm Boulevard
Woodbury, NY 11797

ERM®

APPROVED

Richard J. Tylley Jr 7/06/01

APPROVED

7/6/01

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LIST OF ACRONYMS

ASP	Analytical Services Protocol
ASTM	American Society for Testing and Materials
CERCLA	Comprehensive Emergency Response, Compensation and Liability Act
CLP	Contract Laboratory Program
DUSR	Data Usability Summary Report
ELAP	Environmental Laboratory Accreditation Program
EM	Electromagnetic
ERM	Environmental Resources Management
FWIA	Fish and Wildlife Impact Analysis
GPR	Ground Penetrating Radar
HASP	Health and Safety Plan
HEEA	Health and Environmental Exposure Assessment
NCP	National Contingency Plan
NGVD	National Geodetic Vertical Datum
NTUs	Nephelometric Turbidity Units
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OCDOH	Orange County Department of Health
OSWER	Office of Solid Waste and Emergency Response
PCBs	Polychlorinated Biphenyls
PID/FID	Photoionization Detector and Flameionization Detector
PVC	Polyvinyl Chloride
QA/QC	Quality Assurance/Quality Control
QAO	Quality Assurance Officer
RA	Risk Assessment
RAGS	Risk Assessment Guidance for Superfund
RI/FS	Remedial Investigation and Feasibility Study
SCGs	Standards, Criteria, and Guidelines
SDG	Sample Delivery Group
SOPs	Standard Operating Procedures
SOW	Statement of Work
SRI	Supplemental Remedial Investigation
SVOCs	Semivolatile Organic Compounds
TAGM	Technical And Administrative Guidance Memorandum
TCL/TAL	Target Compound List/Target Analyte List
TVOCs	Total Volatile Organic Compounds

USGS	United States Geological Survey
USEPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds

1.0 INTRODUCTION

The Mayer Landfill (the site) is located between Peddler Hill and Prospect Roads in the Town of Blooming Grove, Orange County, New York just northwest of Bull Mine Mountain. A site location map is provided in Figure 1.

The landfill occupies 20 acres of a 227-acre parcel. The site is currently covered by grasses and low brush and surrounded by hardwood forests. Intermittent streams flow along the western and southern boundaries. During the 2000 Remedial Investigation the exact limits of the landfill were determined using geophysics and through the installation of test pits. The landfill configuration is shown on Figure 2. William Mayer, son of the late William Mayer and Velia Mayer the landfill's original owners and operators, and Johanna Mayer currently own the site.

The landfill began operations in 1940 as an open-face dump, with periodic burning of refuse. In 1956 a portion of the landfill was designated a public dump. After being ordered to stop burning, in 1965, compacting and covering of refuse was undertaken by the Mayers. The landfill accepted all types of refuse (except scavenger wastes) including residential, commercial, industrial, demolition and agricultural.

In the early 1970s, the Orange County Department of Health (OCDOH) frequently cited the landfill for mismanagement. Violations included inadequate compacting and cover, poor utilization of space and overly steep slopes and too thick lifts. Over the years of operation, the size of the landfill measured from 3 acres in 1954, to 13 acres in 1968, to 20 acres in 1974. The landfill closed in 1975 because of the failure to comply with state and county regulations.

In 1985, the Mayer Landfill was listed by the New York State Department of Environmental Conservation (NYSDEC) in the Registry of Inactive Hazardous Waste Disposal Sites in New York State as Site Number 336027 with a Site Classification of "2". This classification indicates that the hazardous wastes disposed at the Mayer Landfill site present a significant threat to public health or the environment and action is required.

Supplemental Remedial Investigation

This document, entitled "Supplemental Remedial Investigation (SRI) Work Plan, Mayer Landfill, Blooming Grove, New York", presents the planned activities to be performed. The SRI Work Plan incorporates the recommendations set forth in the March 16, 2001 "Remedial Investigation Report, Mayer Landfill, Blooming Grove, New York" prepared by Environmental Resources Management (ERM) and subsequent discussions with the NYSDEC.

The goals of the SRI are:

- Collection of quantitative soil gas samples along Peddler Hill Road;
- Collection of additional surface water and sediment sampling downstream of the Mayer Pond;
- Delineation of the extent of Light Non-Aqueous Phase Liquid (LNAPL) detected in MW-4;
- Installation of a bedrock monitoring well in the borrow area located in the southeast portion of the site.

2.0 SITE EVALUATION

2.1 SITE DESCRIPTION

The Mayer Landfill is an inactive landfill located to the east of Prospect Road and to the South of Peddler Hill Road in the Town of Blooming Grove, Orange County. The site occupies approximately 20 acres of a 227-acre parcel owned by the Mayer family. From approximately 1949 to 1975 the property was use to dispose of waste materials. Further site description information can be found in the March 16, 2001 Remedial Investigation Report prepared by ERM on behalf of the NYSDEC.

3.0 *PROJECT SCOPING AND INITIAL EVALUATION*

The scoping of the SRI involved a review of data from the RI and meetings with representatives of the NYSDEC. The scoping phase was intended to: determine data gaps in the RI; describe the methods by which data will be obtained and analyzed; and, prepare appropriate project plans documenting methods and procedures.

3.1 *PROJECT OBJECTIVES*

The four basic objectives of the SRI at this site are: 1) quantitative soil gas sampling along Peddler Hill Road; 2) surface water and sediment sampling downstream of the Mayer Pond; 3) delineation of LNAPL extent adjacent to MW-4; 4) bedrock groundwater monitoring in the borrow area along the southeast portion of the site.

These objectives will be achieved through a series of tasks designed to gather data to further characterize the environmental conditions at the site. The investigative elements and data acquisition will be conducted in a manner to support identification and evaluation of remedial measures pursuant to:

- Technical Administrative Guidance Memorandum (TAGM HWR 92-4044) entitled *Accelerated Remedial Actions at Class 2, Non-RCRA Regulated Landfills*, dated 9 March 1992.
- United States Environmental Protection Agency (USEPA) the Office of Solid Waste and Emergency Response (OSWER) Directive No. 9355.0-49FS. Presumption Remedy for CERCLA Municipal Landfill Sites, September 1993.
- OSWER Direction entitled Conducting Remedial Investigations/ Feasibility Studies for CERCLA Municipal Waste Landfill Sites (OSWER Directive No. 9355.3-11).

4.0 SUPPLEMENTAL REMEDIAL INVESTIGATION

4.1 MOBILIZATION/DEMOBILIZATION

The mobilization includes the planning and initial activities to support the field investigation. As part of the supplemental investigation activities ERM will:

- Mobilize equipment to the site on an as-needed basis;
- Conduct field personnel orientation and a Health and Safety Plan (HASP) meeting; and
- Conduct ambient air screening for total volatile organic compounds (TVOCs) using photoionization detector and/or flamionization detector (PID/FID) equipped instruments to establish background conditions prior to intrusive field work.

The conclusion of activities will include:

- Demobilization of all equipment; and
- Removal of containerized waste generated during the SRI. These activities will be concluded within 45 days after termination of field activities.

4.1.1 *Construction of Site Facilities*

Support for the field investigation will include:

- Sanitary facilities (portable toilet).
- A decontamination area will be segregated on-site. This area will include containers for spent decon fluids and contaminated drill cuttings.

Because fieldwork will likely take place during the summer months an office trailer will not be mobilized to the site. Communication with the Project Manager and for H&S purposes will be accomplished via cellular telephone.

4.1.2 *Field Personnel Orientation*

An on-site project briefing for each field team member will be carried out to familiarize team members with the history of the Mayer Landfill site, the purpose of the SRI, health and safety requirements, quality assurance protocols, and field procedures. Subcontractors involved in any field activities will also participate in an on-site briefing prior to commencing any fieldwork. Daily health and safety and field progress briefings will be held for the project team and subcontractor personnel. These meetings will be conducted by the on-site safety coordinator. Based on the scope of work presented in this document, the Health and Safety Plan (HASP) prepared with the August 1999 "Work Plan for the Remedial Investigation/Feasibility Study, Mayer Landfill, Blooming Grove, NY" is still applicable and therefore will be implemented.

4.1.3 *Demobilization*

All equipment will be demobilized from the Mayer Landfill site at the completion of field sampling activities.

4.2 *FIELD INVESTIGATION*

The SRI investigation has been designed to evaluate data gaps that were identified based on the results of the RI. Four investigative tasks will be carried out as described in Section 1.0. Each investigative task will result in data that will enhance/support data previously obtained during the RI.

4.2.1 *Evaluation of Existing Data*

Data used to determine the scope of work for the SRI was presented in the March 16, 2001 "Remedial Investigation Report, Mayer Landfill, Blooming Grove, NY". This report provided a description of the work completed,

the sampling data collected, and discussion of the results of the investigation. From this information several recommendations were made. These recommendations and discussions with the NYSDEC provided the basis for the scope of work that is presented in this SRI Field Investigation (Section 4.0).

4.2.2 *Soil Gas Sampling*

A total of 6 soil gas samples will be obtained for quantitative laboratory analysis. The samples will be collected from points located on the Mayer Property (in non-fill areas) along Peddler Hill Road. Figure 3 provides the proposed locations of the soil gas sampling points.

At each location a slide hammer will be utilized to create a hole to a depth of approximately four feet below grade. A piece of new tygon tubing will be placed into the hole and sealed at the surface to prevent ambient air from entering the hole. An evacuated canister (Summa canister) will be attached to the above ground end of the tubing. The canister will be opened, drawing in a soil gas sample from the subsurface. Evacuated Summa canisters are provided by the laboratory under a vacuum and when opened, "pull" a soil gas sample into the canister from the sampling point.

All soil gas samples will be analyzed for Volatile Organic Compounds (VOCs) using United States Environmental Protection Agency (USEPA) Method TO-15 and for methane using American Society for Testing and Materials (ASTM) D1946.

4.2.3 *Surface Water and Sediment Sampling*

Six additional surface water and sediment samples will be collected from points located between the outfall of the Mayer Pond and the confluence

with the sub-tributary to Slatterly Creek located to the north of Mayer Pond.

Surface water/sediment sampling points will be distributed approximately 200 feet apart along the length of this portion of the creek. The first sample will be located just south of the confluence of these two un-named sub-tributaries of Slatterly creek and the last sample will be located at the outfall of the Mayer pond with four samples located between these two points. Figure 4 provides the proposed locations of the sampling points.

Surface water samples will be collected first with both filtered and unfiltered samples collected for metals analysis. Analysis of filtered and unfiltered samples will allow evaluation of particulate transport. Sampling will proceed from downgradient to upgradient locations. Sampling locations will be staked for inclusion on the site map.

After the surface water samples are collected, sediment samples will be collected at the same locations proceeding from downgradient to upgradient locations.

All surface water and sediment samples will be analyzed for Target Compound List/ Target Analyte List (TCL/TAL) parameters. In addition, sediment samples will be analyzed for total organic carbon (TOC).

4.2.4 *LNAPL Delineation*

A subsurface investigation will be conducted in the vicinity of MW-4 where, during the RI, an LNAPL was detected. Approximately 12 points will be utilized to determine the horizontal and vertical extent of the LNAPL. The sampling points will be placed radially from MW-4 in the

four cardinal directions with each transect containing 3 points. Sampling will start closest to MW-4 and move outward in each direction until no further contamination is detected.

A Hollow Stem Auger (HSA) drilling rig will be used to install the points. HSA was selected as the most suitable sampling method due to the lithology of the native soil as determined based on RI data, discussions with the drilling contractor, and the possibility of encountering fill material during the delineation. [Geophysical data did not suggest that waste material was present to the north-northeast of MW-4. However, the presence of waste material was suggested in the other directions]. At each location continuous split spoon sampling will conducted from the surface to approximately 20 feet below grade. The soil/fill obtained from the split spoons will be screened for the presence of LNAPL visually and with a PID. If LNAPL is not detected either visually or with the PID, then a temporary 2-inch well will be installed in the borehole for future monitoring. If contamination is detected in the split spoon samples, installation of temporary wells will not be carried out.

The installation of temporary wells will allow verification that LNAPL is or is not present at a given location. Due to the variable nature of the fill material and the uncertainty regarding the LNAPL characteristics, the installation of the temporary well will provide confirmation on the horizontal extent of the contamination. If temporary wells are installed, a minimum of two rounds of LNAPL thickness monitoring will be conducted on the wells spaced approximately one month apart.

Six of the proposed sampling points, three located to the north and three located to the south of MW-4, may not be accessible to the drilling rig because of several stands of trees. A field decision will be made as to the best alternative locations for the sampling points in these two directions to

obtain the desired information. At minimum two sampling points will be installed in each of these directions.

A sample of the LNAPL present in MW-4 will be collected and sent for forensic analysis to Zymax Forensics of San Louis Obispo, CA. Zymax will conduct a full scan analysis of the product to characterize the hydrocarbons present in the LNAPL and the approximate length of time the LNAPL has been in the subsurface.

4.2.5 *Ground Water Monitoring Well Installation*

A new bedrock monitoring well will be installed at the site. The well will be located in the borrow area located along the southeast edge of the landfill property. The installation of the new well will provide additional information on the bedrock aquifer in the area closest to the residences.

4.2.5.1 *Bedrock Well Construction*

The well will be completed at a similar elevation as the existing bedrock wells (approximately 80 to 90 feet below grade). The well will be constructed of 2-inch stainless steel riser (grouted into competent bedrock) with 15 feet of 4-inch open hole. A locking protective standpipe will be installed around the well. The standpipe will be painted a bright contrasting color to facilitate subsequent location by field personnel. In addition, the well designation will be noted on the casing. Locks used for all site wells will be keyed alike and keys provided to the NYSDEC.

4.2.5.2 *Monitoring Well Development*

Drilling and well installation procedures typically result in disturbance of natural bedding and hydraulic permeability of the surrounding formation. Prior to use for collection of liquid level measurements or

ground water samples, it is imperative that hydraulic connection between the well and the surrounding soil be established. For wells completed in bedrock, it is necessary to ensure that water bearing fractures are free of soil and rock fragments that may be lodged as a result of drilling. The new bedrock well will be developed in an effort to meet this goal. The development goal will be achieving a discharge turbidity of 50 Nephelometric Turbidity Units (NTUs) or less. Stabilization (+/- 20% in four successive measurements) of well discharge turbidity, temperature, and specific conductance measurements will be used as the completion criteria for this task. The well will be developed using a submersible pump.

4.2.5.3 *Monitoring Well Horizontal and Vertical Control Survey*

The horizontal location and vertical position (measuring point) of the new bedrock monitoring well will be determined by a licensed land surveyor. The new well will be surveyed to the same datum as existing site wells. This will enable interpolation of gathered hydrogeologic information between wells. The measuring point elevation of each well will be determined to an accuracy of 0.01 feet in order to accurately map ground water flow patterns. Vertical elevations will be determined relative to the National Geodetic Vertical Datum (NGVD).

The land surveyor will also determine the horizontal location of all other sampling points (6 soil gas samples and 6 surface water/sediment samples). Additional points and areas may also be included in the survey to assist in preparation of the Feasibility Study.

4.3 *RI WASTE MANAGEMENT AND DISPOSAL*

The following section describes the handling and disposal of solid and liquid wastes generated during the implementation of the SRI. Waste

generated during the SRI is expected to consist of drill cuttings, trash (boxes, paper, etc.), decontamination wash water, and used protective clothing.

Accordingly, handling and disposal will be as follows:

- Non-contaminated trash and debris will be placed in a trash dumpster and disposed of by a local garbage hauler.
- Non-contaminated protective clothing will be packed in plastic bags and placed in a trash dumpster for disposal by a local garbage hauler.
- Cuttings from the bedrock well installation will be disposed on-site. Cuttings will be collected at the well site during installation. After the well has been installed, cutting will be carefully spread near-by the well so as to minimize airborne spreading of the dust. Development (purge) water will be discharged onto the land surface at a distance from the well location.
- Any fill material encountered during the SRI will be placed in 55-gallon drums. At the end of the SRI the fill material will be disposed of on the landfill as per TAGM 4032.
- Liquids generated from equipment decontamination will be stored in 55-gallon drums. At the end of the SRI the liquids will be disposed of on the filled portion of the landfill.
- Used protective clothing and equipment that is suspected to be contaminated will be placed in plastic bags, packed in 55-gallon ring-top drums, and disposed of in accordance with applicable federal and state regulations.

4.4 *SAMPLE ANALYSIS & VALIDATION*

4.4.1 *Sample Analysis*

All soil gas, surface water, and sediment samples collected during the Mayer Landfill SRI will be submitted to a NYSDOH Environmental Laboratory Accreditation Program (ELAP) Contract Laboratory Program (CLP) certified laboratory meeting requirements for documentation, data reduction and reporting. The forensic analysis of the LNAPL in MW-4 will not be conducted by an ELAP certified laboratory due to the specific

nature of the analysis. The NYSDEC has been informed of this and has used this laboratory on numerous other State related projects.

Data Deliverable Formats

The data deliverable format for data generated by the ELAP laboratory will be ASP CLP. The CLP data deliverable includes all backup Quality Assurance/Quality Control (QA/QC) documentation, which will facilitate a complete validation of the data. The CLP Statement of Work (SOW) for organics requires laboratory verification of temperature upon opening the shipping cooler. After the sample aliquot is taken from the vial, the laboratory is to verify and record the sample pH. (See CLP SOW OLM 03.2, § 4.2.1.2.3 and § 10.2.) Therefore both temperature and pH will be included in the data package for data validation review.

In addition, the NYSDEC "Sample Identification and Analytical Requirement Summary" and "Sample Preparation and Analysis Summary" forms (for VOC Analysis) will be completed and included with each data package. The sample tracking forms are required and included in the 1995 NYSDEC ASP.

4.4.2 *Data Validation Protocols*

Data validation is the assessment of data quality with respect to method requirements and technical performance of the analytical laboratory. Analytical data packages will be examined to ensure that all required lab components are included, all QA/QC requirements were performed, and the data use restrictions are well defined.

Summary documentation regarding QA/QC results will be completed by the laboratory using NYSDEC ASP forms and will be submitted with the raw analytical data packages (NYSDEC ASP CLP deliverables).

Data validation will be performed by an independent third party validator to assess and document analytical data quality in accordance with the project data quality objectives. The validation will evaluate data for its quality and usability. This process will qualify results so that the end user of the analytical results can make decisions with consideration of the potential accuracy and precision of the data. For example, the results are acceptable as presented, qualified as estimated and flagged with a "J", or rejected and flagged with an "R".

Because the NYSDEC ASP is based on the USEPA CLP, the USEPA Region II CLP Organics Data Review guidelines and the USEPA National Functional Guidelines for Evaluating Organics Analyses for the CLP will assist in formulating standard operation procedures (SOPs) and guidelines for the data validation process. Consequently, the data will be validated according to the protocols and QC requirements of the analytical methods, the NYSDEC ASP, USEPA Region II CLP Organics Data Review (CLP/SOW OLM 03.2) SOP No. HW-6 Revision #11 (May 1996), USEPA CLP National Functional Guidelines for Organic Data Review (February 1994), and the reviewer's professional judgment. The order in which the aforementioned guidance documents and/or criteria are listed to be used for validation does not imply a hierarchy of reliance on a particular document. The most comprehensive reference sources will be relied upon to perform the most complete validation possible.

The data validation process will provide an informed assessment of the laboratory's performance based upon contractual requirements and applicable analytical criteria. The report generated as a result of the data validation process will provide a base upon which the usefulness of the data can be evaluated by the end user of the analytical results.

During the review process, it will be determined whether laboratory submittals for sample results are supported by sufficient back-up data and

QA/QC results to enable the reviewer to conclusively determine the quality of data. Each data package will be checked for completeness and technical adequacy of the data. Upon completion of the review, the reviewers will develop a QA/QC data validation report for each sample delivery group (SDG).

At a minimum the following items/criteria will be reviewed:

- Quantitation and detection limits
- Sample holding times and preservation (pH and temperature)
- GC/MS tuning and performance
- Initial calibrations
- Continuing calibrations
- Method, instrument and holding blanks
- Field and trip blanks
- Field duplicate results
- Surrogate spike recoveries
- Matrix spike/matrix spike duplicate/matrix spike blank results
- Internal standard area counts and retention times
- Data system printouts
- GC chromatograms and mass spectra
- Qualitative and quantitative compound identification
- Case narrative and deliverable compliance

After completion of the validation, a data validation report will be prepared by the third party validator. The report will be reviewed by the ERM Quality Assurance Officer.

4.4.3 *Data Validator's Qualifications*

The person completing the data validation will have, at a minimum, the following credentials:

- a bachelors degree in chemistry or natural science with a minimum of 20 hours in chemistry; and

- one year experience in the implementation and application of the protocol(s) used in data generation.

Successful completion of the USEPA Data Validation Training Course may be substituted for the analytical experience requirement. The validator must also have a minimum of one (1) year experience evaluating CLP data packages for contract and protocol compliance. The resume of the Quality Assurance Officer (QAO) and other key personnel will be provided, as required.

It is anticipated that the results of this SRI will not require a Supplemental Health and Environmental Exposure Assessment (HEEA). However, if unexpected results are encountered in any portion of the above mentioned scope of work, then a qualitative HEEA will be prepared. The objectives of the HEEA will be to identify potential exposure pathways for contaminants at the site, identify potential on-site and off-site receptors, and qualitatively evaluate potential exposures to these receptors. The HEEA approach is drawn from the USEPA's Risk Assessment Guidance for Superfund (RAGS) documents. The HEEA will follow the same guidelines set forth in the August 1999 "Work Plan for the Remedial Investigation/Feasibility Study".

6.0 *SRI REPORT*

The preparation of a SRI Report will begin at the conclusion of the field investigation. The SRI Report will build upon the findings and conclusions of previous investigations carried out at the site. The SRI report will be prepared as an addendum to the May 16, 2001 "Remedial Investigation Report, Mayer Landfill, Blooming Grove, NY". The SRI Report will include the following:

- Objectives of the remedial investigation;
- Brief site description, including the physical and environmental setting of the Mayer Landfill site and study area;
- Description of field investigation methods and activities;
- Supporting documentation (e.g., boring logs, field data forms, etc.);
- Figures and tables summarizing all site related data; and
- Findings and conclusions.

A draft SRI Report will be submitted to NYSDEC and NYSDOH for review and comment.

7.0 *FEASIBILITY STUDY*

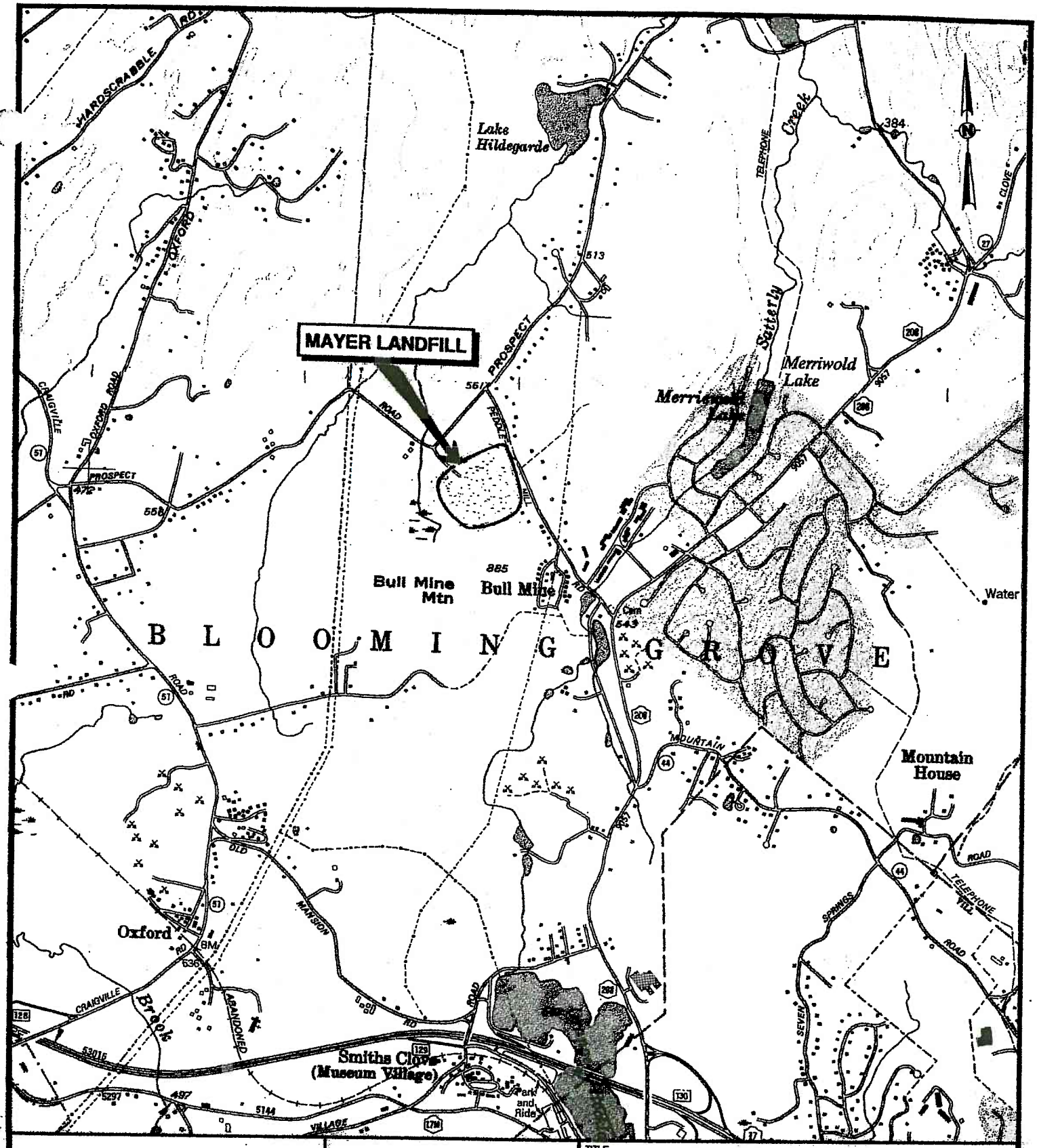
The SRI scope of work will be conducted concurrently with the Feasibility Study (FS). Information and data obtained from the SRI will be made available to the FS team for inclusion in the FS report, as needed. This information will be included in the FS report as outlined in the August 1999 "Work Plan for the Remedial Investigation/Feasibility Study".
It is anticipated that all data from the SRI will be completed prior to the FS report being prepared.

8.0 SCHEDULE

The schedule for the Mayer Landfill site SRI is shown in Figure 5.

9.0 *PROJECTED BUDGET*

The SRI budget, including subcontractor and equipment costs is shown in Appendix A.



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

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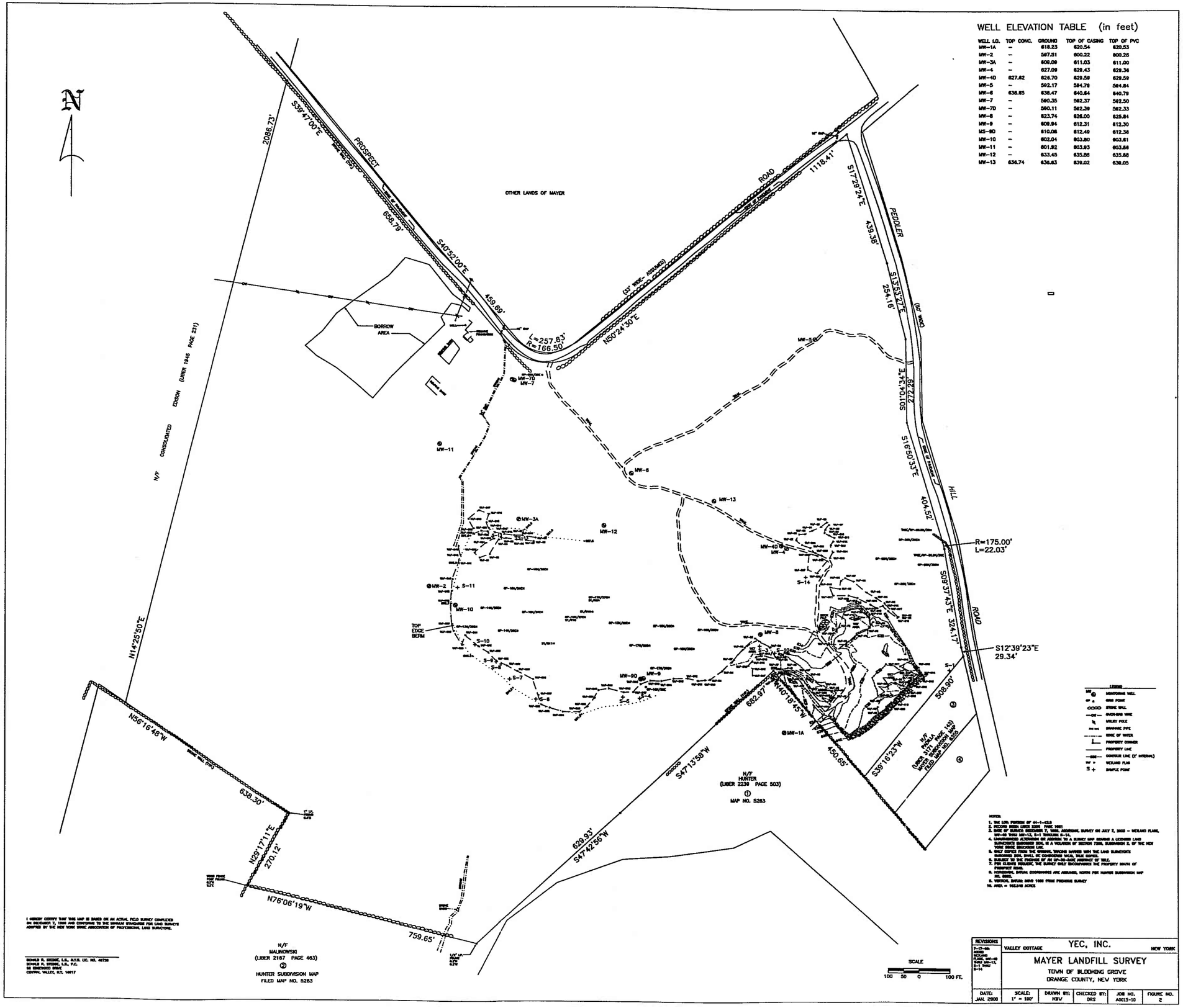
G.G.	164.014		5/4/99

WELL ELEVATION TABLE (in feet)

WELL I.D.	TOP CONC.	GROUND	TOP OF CASING	TOP OF PVC
MW-1A	–	618.23	620.54	620.53
MW-2	–	597.51	600.22	600.26
MW-3A	–	609.09	611.03	611.00
MW-4	–	627.09	629.43	629.36
MW-4D	627.82	626.70	629.59	629.59
MW-5	–	582.17	584.78	584.84
MW-6	638.85	638.47	640.84	640.79
MW-7	–	580.35	582.37	582.50
MW-7D	–	580.11	582.39	582.33
MW-8	–	623.74	626.00	625.84
MW-9	–	609.84	612.31	612.30
MW-9D	–	610.08	612.49	612.38
MW-10	–	602.04	603.80	603.81
MW-11	–	601.82	603.93	603.88
MW-12	–	633.45	635.88	635.88
MW-13	636.74	636.63	639.02	638.05

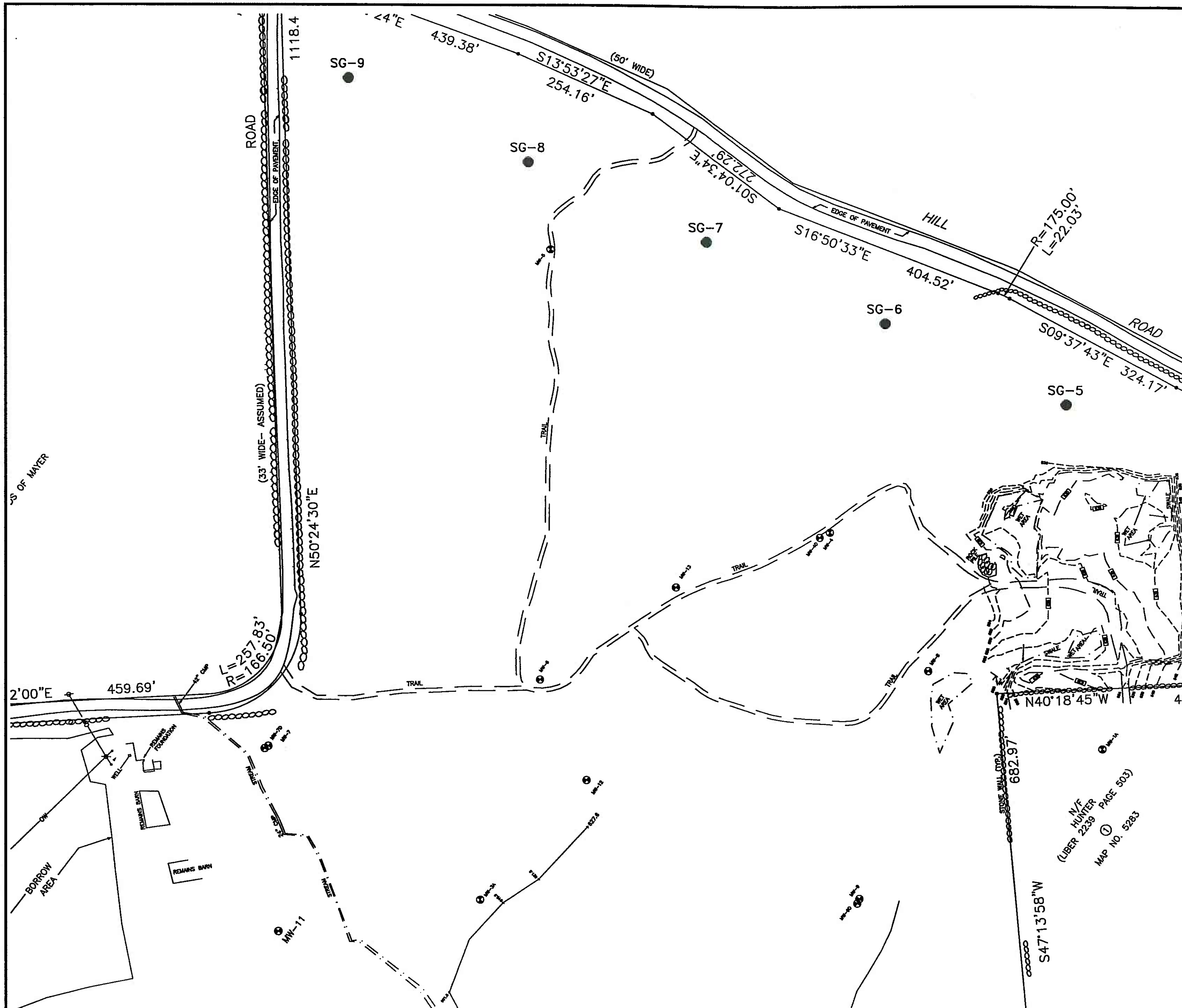


I HEREBY CERTIFY THAT THIS MAP IS BASED ON AN ACTUAL FIELD SURVEY COMPLETED ON DECEMBER 7, 1999 AND CONFORMS TO THE MINIMUM STANDARDS FOR LAND SURVEYS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS.

DONALD R. BYRNE, L.S., N.Y.S. LIC. NO. 49739
DONALD R. BYRNE, L.S., P.C.
66 EDGEWOOD DRIVE
CENTRAL VALLEY, N.Y. 10917

REVISIONS	YEC, INC.	
7-17-00 ADDED WETLAND FLAGS MW-4D THRU MW-13, S-1 THRU S-14	VALLEY COTTAGE	NEW YORK
	MAYER LANDFILL SURVEY	
	TOWN OF BLOOMING GROVE	
	ORANGE COUNTY, NEW YORK	

DATE:	SCALE:	DRAWN BY:	CHECKED BY:	JOB NO.	FIGURE NO.
JAN. 2000	1" = 100'	NBV	DRS	A0013-10	2


LEGEND
PROPOSED SOIL-GAS SAMPLING LOCATION
SG-1
STONE WALL
OVERHEAD WIRE
UTILITY POLE
DRAINAGE PIPE
EDGE OF WATER
PROPERTY CORNER
PROPERTY LINE
CONTOUR LINE (2' INTERVAL)
0
180'
GRAPHIC SCALE
SG-9
SG-8
SG-7
SG-6
SG-5
SG-4
ROAD
(33' WIDE- ASSUMED)
N50°24'30"E
1118.4
(50' WIDE)
439.38'
S13°53'27"E
254.16'
S01°04'34"E
272.29'
S16°50'33"E
404.52'
HILL
ROAD
R=175.00'
L=22.03'
S09°37'43"E
324.17'
S12°39'23"E
29.34'
508.90'
S39°16'23"W
N/F
PADILLA
(LIBER 3171 PAGE 143)
MAYER SUBDIVISION MAP
FILED MAP NO. 6355
N40°18'45"W
450.65'
682.97
S47°13'58"W
N/F
HUNTER
(LIBER 2239 PAGE 503)
MAP NO. 5283
L=257.83'
R=166.50'
459.69'
2'00"E
TRAIL
BORROW
AREA
MW-11

TITLE

PROPOSED
SOIL GAS SAMPLING LOCATIONS

MAYER LANDFILL
BLOOMING GROVE, NY

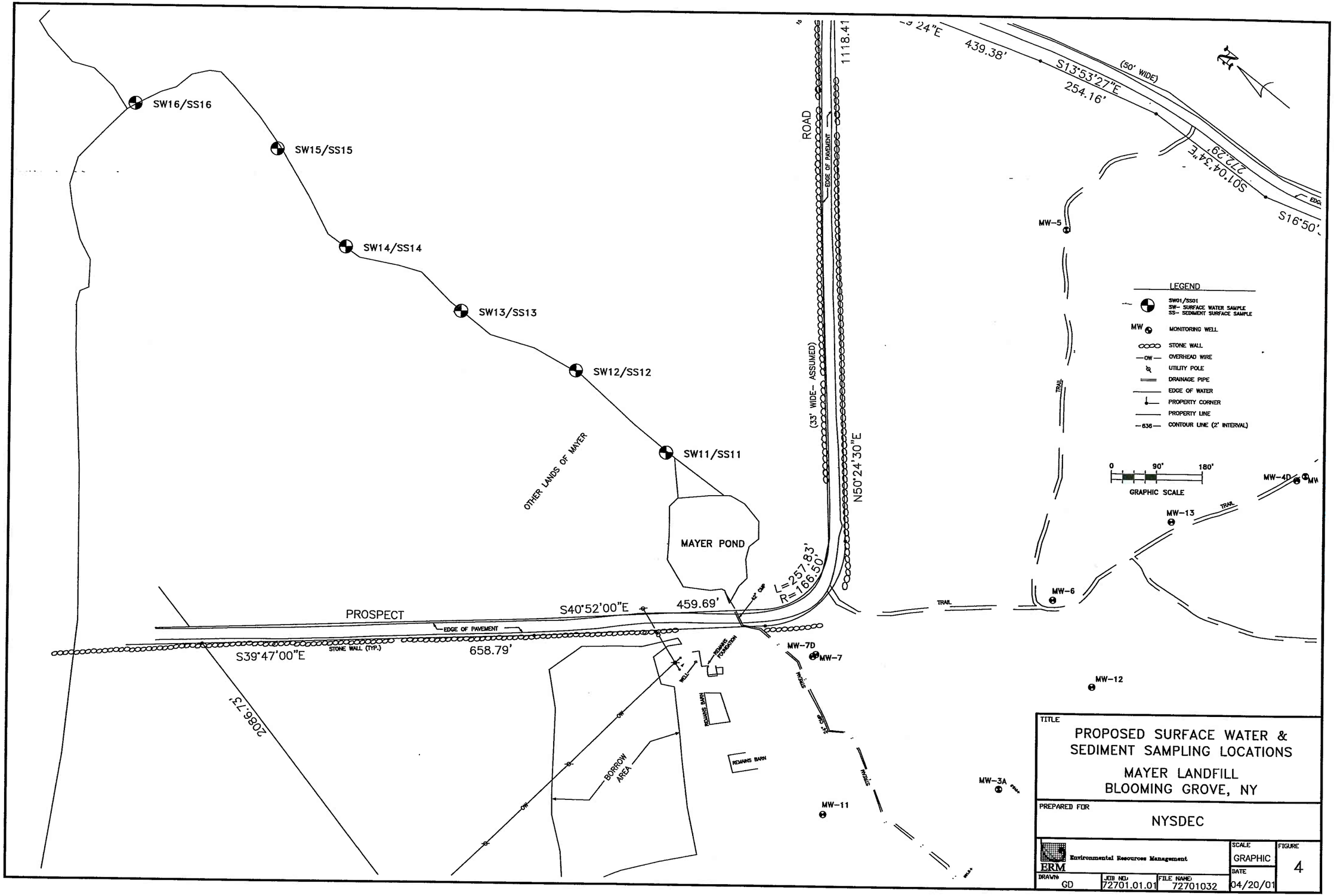
PREPARED FOR

NYSDEC

ERM Environmental Resources Management

SCALE	FIGURE
GRAPHIC	3

DRAWN:	JOB NO:	FILE NAME:	DATE
GD	72701.01.01	72701031	04/19/01



TITLE

PROPOSED SURFACE WATER & SEDIMENT SAMPLING LOCATIONS

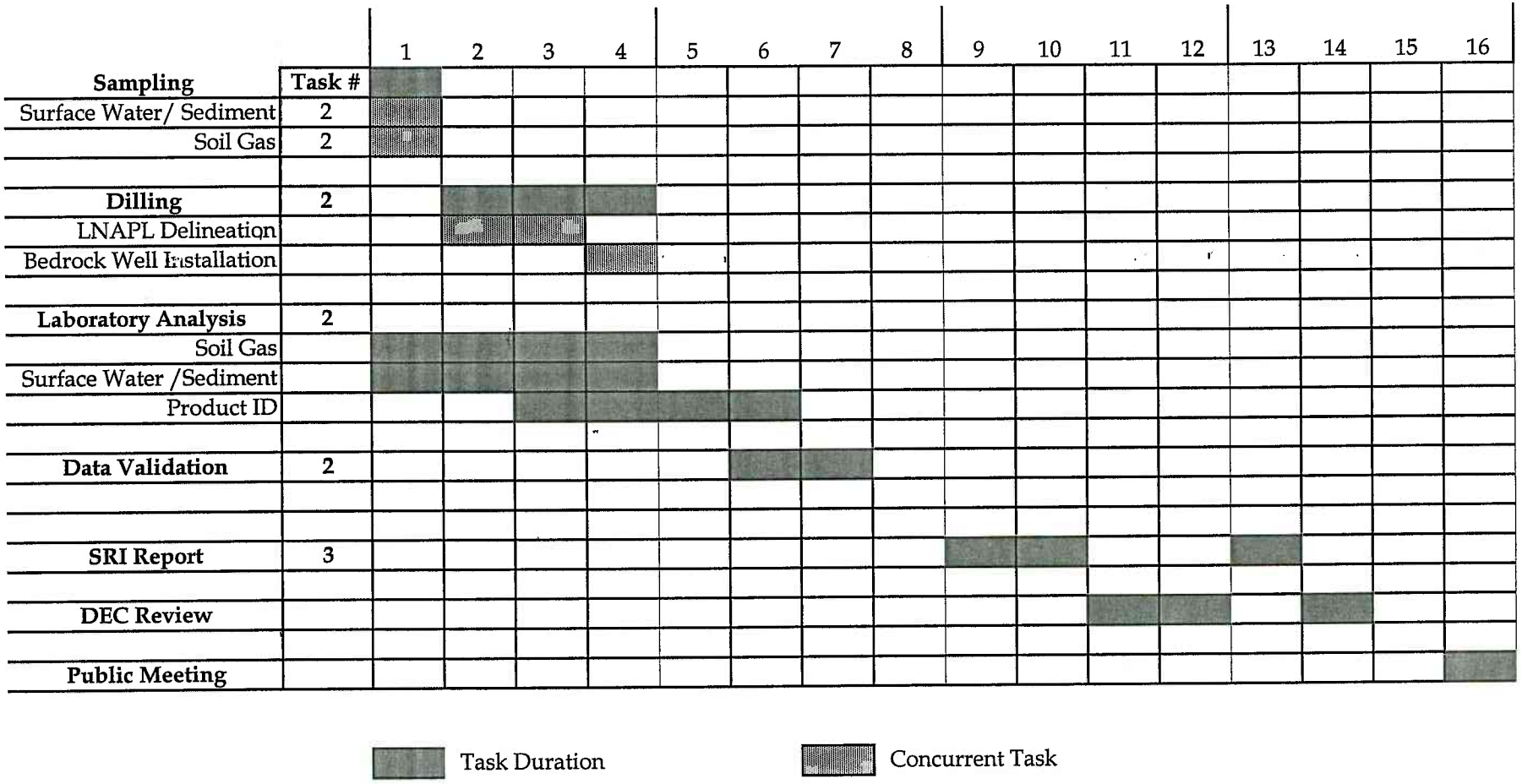
MAYER LANDFILL
BLOOMING GROVE, NY

PREPARED FOR

NYSDEC

Environmental Resources Management ERM		SCALE: GRAPHIC	FIGURE: 4
DRAWN: GD	JOB NO.: 72701.01.01	FILE NAME: 72701032	DATE: 04/20/01

Figure 5
Mayer Landfill Schedule



Schedule 2.11 (a)

Summary of Work Assignment Price

Work Assignment Number D003970-01.1

1)	Direct Salary Costs (Schedules 2.10(a) and 2.11 (b))			$70,765
2)	Indirect Costs (Schedule 2.10(g))			$114,639
3)	Direct Non-Salary Costs (Schedules 2.10 (b)(c)(d) and 2.11(c)(d))			$23,407
4)	Subcontractor Costs			
	Cost-Plus-Fixed-Fee Subcontractors (Schedule 2.10(e) and 2.11(e)			
	Name of Subcontractor	**Services To Be Preformed**	**Subcontract Price**	
	i) Delaware Engineering	Wetland Survey	$10,289	
	ii) Delaware Engineering	Data Validation	$17,802	
	iii) YEC, Inc./YEC Engineering, PC	Survey/CAD Map	$25,356	
	iv) L.A.B Validation Corp.	Data Validation	$1,465	
A)	**Total Cost-Plus-Fixed-Fee Subcontracts**		$54,911	
	Unit Price Subcontracts (Schedule 2.10(f) and 2.11(f)			
	Name of Subcontractor	**Services To Be Preformed**	**Subcontract Price**	
	i) Nothnagle	Well Installation	$68,063	
	ii) MITKEM	Analytical Services	$89,761	
	iii) Environmental Closures	Test Pit Installation	$11,385	
	iv)Northeast Geophysical	Seismic/Electro Surveys	$10,073	
	iii) Severn Trent	Air Analytical Analysis	$1,980	
	iv) Zymax	Forensics	$950	
B)	**Total Unit Price Subcontracts**		$182,212	
5)	Subcontract Management Fee (Only for Unit Price Subcontracts >$10,000)		$8,964	
6)	Total Subcontract Costs (lines 4A + 4B + 5)			$246,088
7)	Fixed Fee (Schedule 2.10(h))			$12,978
8)	Total Work Assignment Price (Lines 1 + 2 + 3 + 6 + 7)			$467,877

Engineer/Contract #: C003970
Project Name Mayer Landfill Site, #3-36-027
Work Assignment No. D003970-01.1

Date Prepared: June 25, 2001

Schedule 2.11 (b)
Direct Labor Hours Budgeted

Labor Classification	IX	VIII	VII	VI	V	IV	III	II	I	Admin.	Total Direct Labor Hrs.
Av. Salary Rate ($) (Year 2001)	$63.20	$55.18	$44.55	$41.24	$34.19	$29.82	$20.93	$18.14	$17.53	$14.01	
Task 4-SRI		12		20		82	174	10		15	313
											0
											0
											0
											0
Total Hours	0	12	0	20	0	82	174	10	0	15	**313**
Total Direct Labor Cost ($)	$0.00	$662.16	$0.00	$824.80	$0.00	$2,445.24	$3,641.82	$181.40	$0.00	$210.15	**$7,965.57**

Engineer/Contract #: C003970
Project Name Mayer Landfill Site, #3-36-027
Work Assignment No. D003970-01.1

Date Prepared: June 25, 2001

Schedule 2.11 (b)
Direct Labor Hours Budgeted

Labor Classification	X	VII	VI	V	IV	III	II	I	Admin	Total Direct Labor Hrs.
Av. Salary Rate ($) (Year 1999)	$59.00	$51.51	$41.59	$38.50	$31.92	$27.84	$19.54	$16.93	$16.36	$13.08	
Task 1 - Work Plan	8	40	76	0	56	0	0	80	0	40	300
Task 2 -Remedial Invest.	0	48	264	0	0	295	0	216	0	96	919
Total Hours	8	88	340	0	56	295	0	296	0	136	1219
Total Direct Labor Cost ($)	$472.00	$4,532.88	$14,140.60	$0.00	$1,787.52	$8,212.80	$0.00	$5,011.28	$0.00	$1,778.88	**$35,935.96**

Engineer/Contract #: C003970
Project Name Mayer Landfill Site, #3-36-027
Work Assignment No. D003970-01.1

Date Prepared: June 25, 2001

Schedule 2.11 (b)
Direct Labor Hours Budgeted

Labor Classification	IX	VII	VII	VI	V	IV	III	II	I	Admin	Total Direct Labor Hrs.
Av. Salary Rate ($) (Year 2000)	$61.06	$53.31	$43.04	$39.85	$33.04	$28.82	$20.22	$17.53	$16.94	$13.54	
Task 2-RI		40	40			40		40		40	200
											0
Task 3-FS	8	58	116		80	160		168		136	726
											0
											0
											0
Total Hours	8	98	156	0	80	200	0	208	0	176	**926**
Total Direct Labor Cost ($)	$488.48	$5,224.38	$6,714.24	$0.00	$2,643.20	$5,764.00	$0.00	$3,646.24	$0.00	$2,383.04	**$26,863.58**

Engineer/Contract #: C003970
Project Name Mayer Landfill Site, #3-36-027
Work Assignment No. D003970-01.1

Date Prepared: June 25, 2001

Schedule 2.11 (b-1)
Direct Administrative Labor Hours Budgeted

Labor Classification	IX	VIII	VII	VI	V	IV	III	II	I	Admin.	Total Direct Labor Hrs.
Av. Salary Rate ($) (Year 2001)	$61.06	$53.31	$43.04	$39.85	$33.04	$28.82	$20.22	$17.53	$16.94	$13.54	
Task 4		12								15	27
Total Hours	0	12	0	0	0	0	0	0	0	15	**27**
Total Direct Labor Cost ($)	$0.00	$639.72	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$203.10	**$842.82**

Contract/Project administrative hours would include (subject to contract allowability) but not necessarily be limited to the following activities:

1) Work Plan Budget Development
Conflict of Interest check
Budget schedules &
supporting documentation
2) Review work assignments (WA) progress
Conduct progress reviews
Prepare monthly project report
Update WA progress schedule
Prepare M/WBE Utilization Report
3) Contractor Application for Payment (CAP)
Oversee and prepare monthly CAP

4) Program Management
Prepare monthly cost control report
Cost control reviews
Staffing Plans
Manage subcontracts
NSPE list Update
Equipment inventory
5) Miscellaneous
Conduct Health & Safety Reviews
Word processing and graphic artists
Report Editing

Contract/Project administrative hours would **not** include:
1) QA/QC reviews
2) Technical oversight by management
3) Develop subcontracts
4) Work plan development
5) Review of deliverables

Engineer/Contract #: C003970
Project Name Mayer Landfill Site, #3-36-027
Work Assignment No. D003970-01.1

Date Prepared: June 25, 2001

Schedule 2.11 (b-1)
Direct Administrative Labor Hours Budgeted

Labor Classification	IX	VIII	VII	VI	V	IV	III	II	I	Admin.	Total Direct Labor Hrs.
Av. Salary Rate ($) (Year 2000)	$61.06	$53.31	$43.04	$39.85	$33.04	$28.82	$20.22	$17.53	$16.94	$13.54	
Task 3		12	48								60
Total Hours	0	12	48	0	0	0	0	0	0	0	**60**
Total Direct Labor Cost ($)	$0.00	$639.72	$2,065.92	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	**$2,705.64**

Contract/Project administrative hours would include (subject to contract allowability) but not necessarily be limited to the following activities:

1) Work Plan Budget Development
Conflict of Interest check
Budget schedules &
supporting documentation
2) Review work assignments (WA) progress
Conduct progress reviews
Prepare monthly project report
Update WA progress schedule
Prepare M/WBE Utilization Report
3) Contractor Application for Payment (CAP)
Oversee and prepare monthly CAP

4) Program Management
Prepare monthly cost control report
Cost control reviews
Staffing Plans
Manage subcontracts
NSPE list Update
Equipment inventory
5) Miscellaneous
Conduct Health & Safety Reviews
Word processing and graphic artists
Report Editing

Contract/Project administrative hours would **not** include:
1) QA/QC reviews
2) Technical oversight by management
3) Develop subcontracts
4) Work plan development
5) Review of deliverables

Engineer/Contract #: C003970
Project Name Mayer Landfill Site, #3-36-027
Work Assignment No. D003970-01.1

Date Prepared: June 25, 2001

Schedule 2.11 (b-1)
Direct Administrative Labor Hours Budgeted

Labor Classification	IX	VIII	VII	VI	V	IV	III	II	I	Admin	Total Direct Labor Hrs.
Av. Salary Rate ($) (Year 1999)	$59.00	$51.51	$41.59	$38.50	$31.92	$27.84	$19.54	$16.93	$16.36	$13.08	
Task 1 - Work Plan Prep		16									16
Task 2-Admin Reporting		12	48								60
Total Hours	0	28	48	0	0	0	0	0	0	0	**76**
Total Direct Labor Cost ($)	$0.00	$1,442.28	$1,996.32	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	**$3,438.60**

Contract/Project administrative hours would include (subject to contract allowability) but not necessarily be limited to the following activities:

1) Work Plan Budget Development
Conflict of Interest check
Budget schedules &
supporting documentation
2) Review work assignments (WA) progress
Conduct progress reviews
Prepare monthly project report
Update WA progress schedule
Prepare M/WBE Utilization Report
3) Contractor Application for Payment (CAP)
Oversee and prepare monthly CAP

4) Program Management
Prepare monthly cost control report
Cost control reviews
Staffing Plans
Manage subcontracts
NSPE list Update
Equipment inventory
5) Miscellaneous
Conduct Health & Safety Reviews
Word processing and graphic artists
Report Editing

Contract/Project administrative hours would **not** include:
1) QA/QC reviews
2) Technical oversight by management
3) Develop subcontracts
4) Work plan development
5) Review of deliverables

Schedule 2.11 (c)

Direct Non-Salary Costs

Work Assignment Number D003970-01.1

Item	Max. Reimbursement Rate (Specify Unit)	Est. No. Units	Total Estimated Cost ($)
Miscellaneous			
Travel	$0.31 mile	3300	$1,023.00
Per Diem			
Lodging	$57.00 day	38	$2,166.00
Meals	$30.00 day	38	$1,140.00
Low Value Equipment	$0.80 hour	1040	$832.00
Tolls			$450.00
Copies	$0.02 copy	101,500	$2,030.00
Shipping	$55.00 package	62	$3,410.00
Computer Usage			
CADD	$7.00 hour	109	$763.00
WP	$1.00 hour	177	$177.00
Air Photos	200 ea.	5	$1,000.00
Total Direct Non-Salary Costs			$12,991.00

Work Assignment No. D003970-01.1

Schedule 2.11(d) 1

Equipment Purchased Under the Contract

Item	Est. Purchase Price ($)	O&M Rate* ($/month)	Terms of Usage (Months)	Est. Usage Cost ($) (Col. 2 + [3 x 4])
N/A				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
			TOTAL	$ -

* The O&M rate is reimbursable only while the equipment is in the custody of the Engineer.

Work Assignment No. D003970-01.1

Schedule 2.11(d) 2

Maximum Reimbursement Rates for Consultant Owned Equipment

Item	Purchase Price ($) x 85%	Usage Rate* ($/Unit of Time)	Capital Recovery** Rate ($/Unit of Time)	O&M Rate ($/Unit of Time)	Est. Usage (Unit of Time)	Est. Usage Cost ($) (Col. 3 x 6)
LEL/O_2 Meter	$ 1,020.00	$ 9.00 day	$ 2.00 day	$ 7.00 day	35	$ 315.00
Microtip	$ 2,975.00	$ 32.00 day	$ 4.00 day	$ 28.00 day	48	$ 1,536.00
2-Inch Submersible	$ 2,527.00	$ 20.75 day	$ 3.75 day	$ 17.00 day	6	$ 124.50
Equipment Van	$ 17,000.00	$ 67.00 day	$ 22.00 day	$ 45.00 day	65	$ 4,355.00
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
					TOTAL	$ 6,330.50

*Usage Rate = Capital Recovery Rate + O&M Rate

*The maximum usage rate for an item of equipment reverts to the O&M rate when the total capital recovery reimbursement rate exceed 85% of the purchase price

**The Capital Recovery Rate is the equipment's depreciation for the useful life of the item.

Work Assignment No. D003970-01.1

Schedule 2.11(d) 3

Maximum Reimbursement Rate for Vendor Rented Equipment

Item	Max. Reimbursement Rate ($)*		Est. Usage (unit of time)		Est. Rental Cost ($) (Co. 2 x 3)	
Equipment Storage Containers	$120	month	6	months	$	720.00
Equipment Storage Containers	$120	month	6	months	$	720.00
Sanitary Facility	$100	month	7	months	$	700.00
					$	-
					$	-
					$	-
					$	-
					$	-
					$	-
			TOTAL		$	2,140.00

*Reimbursement will be made at the Maximum Reimbursement rate or the actual rental rate, whichever is less.

Work Assignment No. D003970-01.1

Schedule 2.11(d) 4

Site-Dedicated Equipment

Item	Estimated Quantity	Unit Cost ($)	Total Budged Cost ($) (Col. 2 x 3)
N/A			$ -
			$ -
			$ -
			$ -
			$ -
		TOTAL	$ -

Schedule 2.11(d) 5

Consumable Supplies

Item	Estimated Quantity	Unit Cost ($)		Total Budged Cost ($) (Col. 2 x 3)	
Tyvex Suits	96	$	7.50	$	720.00
Cartridges	70	$	7.25	$	507.50
Detector Tubes	56	$	5.00	$	280.00
Boot Covers	70	$	6.25	$	437.50
				$	-
				$	-
				$	-
				$	-
				$	-
			TOTAL	$	1,945.00

Schedule 2.11 (e)
Cost-Plus-Fixed-Fee Subcontracts
Work Assignment Number D003970-01.1

Name of Subcontractor	Services to be Performed	Existing Subcontract Price
YEC, Inc./YEC Engineering, PC	Survey & CAD Mapping	$19,736

A) Direct Salary Costs

Professional Responsibility Level	Labor Classification	Ave. Reimbursement Rate ($/Hr)	Max. Reimbursement Rate ($/Hr)	Est. No. of Hours	Total Est. Direct Salary Cost (Co. 3 x 5)
Principal	VIII	$ 47.69	$ 51.51	8	$ 381.52
Sr. Geologist/Engineer/ Licensed Surveyor	VIII	$ 31.53	$ 34.68	158	$ 4,981.74
Staff Geologist/ Scientist/Engineer	IV	$ 27.40	$ 30.14	0	$ -
Staff Geologist/Scientist/ Engineer/CAD Operator	III	$ 23.78	$ 26.40	20	$ 475.60
Sr. Technician/Staff Engineer/Scientist/ Geologist	II	$ 17.60	$ 19.71	0	$ -
Technician/ Draftsperson	I	$ 15.94	$ 17.85	90	$ 1,434.60
Total Direct Salary Costs					$ 7,273.46

Footnotes:

1) These rates will be held firm until October 31,1999.

2) Reimbursement will be limited to the lesser of either the individuals actual hourly rate or the maximum rate for each labor category.

3) Reimbursement will be limited to the maximum reimbursement rate for the professional responsibility level of the actual work performed.

4) Only those labor classifications indicated with an asterisk will be entitled to overtime premium.

5) Reimbursement for technical time of principals, owners and officers will be limited to the maximum reimbursement rate of that labor category, the actual hourly labor rate paid, or the State M-6 job rate, whichever is lower.

6) The maximum rates in each labor category can be modified only by mutual written agreement and approved by both the Department and the Comptroller.

7) This Footnote applies to Schedules for years 4 through 7 only. If the U.S. cost-of-living index increases at a rate greater than 6% compounded annually, the maximum salary rates will be subject to renegotiation for future years of the contract. There shall be no retroactive adjustments of payment as a result of renegotiated salary schedules

B) *Indirect Costs*

Existing

Indirect - 117 % of direct salary cost

Indirect cost:	$	8,509.95

C) *Maximum Reimbursement Rates for Direct Non-Salary Costs*

Item	Max. Reimbursement Rate (Specify Unit)	Ex. No. of Units	Total Est. Cost
1) Travel			
Mileage	$0.31 mile	500 miles	$155.00
Tolls	$10.00 trip	3 trips	$30.00
2) Supplies			
Survey Equipment	$65.00 day	10 day	$650.00
CAD Equipment	$15.00 hour	20 hours	$300.00
Level D Protection	$15.00 day	20 day	$300.00
Postage/Repro/Supplies	$150.00 ls	1	$150.00
Total Direct Non-Salary Costs			$1,585.00

D) *Fixed Fee*

The fixed fee is:	15%	$	2,367.51

See Schedule 2.10(h) for how the fixed fee should be claimed.

Schedule 2.11 (e)
Cost Plus Fixed-Fee Subcontracts
Work Assignment Number D-003970-01.1
Mayer Landfill

Task 4

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE
YEC, INC.	Surveying & CAD Mapping	**$5,620**

A. Direct Salary Costs

Professional Responsibility Level	Labor Classification	Average Reimbursement Rate ($/Hr.)		Maximum Reimbursement Rate ($/Hr.)		Estimated Number of Hours	Total Estimated Direct Salary Cost ($)
Principal	VIII	2001	52.07	2001	56.24	4	208.28
Senior Geologist/Scientist/ Engineer/ Licensed Surveyor	V	2001	34.43	2001	37.88	36	1,239.48
Staff Geologist/ Scientist/Engineer	IV	2001	29.93	2001	32.92	0	0.00
Staff Geologist/ Scientist/Engineer/CAD Operator	III	2001	25.97	2001	28.82	8	207.76
Senior Technician/Staff Engineer/Scientist/Geologist	II	2001	19.22	2001	21.53	0	0.00
Technician/Draftsperson	I	2001	17.41	2001	19.50	24	417.84
						Total Direct Salary Costs:	2,073.36

B. Indirect Costs - 117% of direct salary cost

Indirect Costs:	2,425.83

C. Maximum Reimbursement Rates for Direct Non-Salary Costs:

Item	Maximum	Estimated No. of Units	
Mileage	0.31 /mile	200 miles/trip	62.00
Level D Protective Equipment	15.00 /man-day	4 man-day	60.00
Tolls	12.00 /trip	2 trips	24.00
Survey Equipment Rental	65.00 day	2 day	130.00
CAD Equipment	15.00 hour	8 hours	120.00
Tele./Postage/Repro./Field supplies	50.00 lump sum	1	50.00
		Total Direct Non Salary Costs:	446.00

D. Fixed Fee (15% of Total Direct and Indirect Salary Costs)

Fixed Fee:	674.88

Schedule 2.11 (e)
Cost-Plus-Fixed-Fee Subcontracts
Work Assignment Number D003970-01.1

Name of Subcontractor	Services to be Performed	Subcontract Price	Existing
Delaware Engineering, P.C.	Wetland Delineation Fish & Wildlife Impact Analysis	$ 10,288.69	

A) Direct Salary Costs

Professional Responsibility Level	Labor Classification	Ave. Reimbursement Rate ($/Hr)	Max. Reimbursement Rate ($/Hr)	Est. No. of Hours	Total Est. Direct Salary Cost (Co. 3 x 5)
	VI	$ 33.47	$ 33.65	114	$ 3,815.58
	III	$ 20.63	$ 22.57	16	$ 330.08
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -
Total Direct Salary Costs					$ 4,145.66

Footnotes:

1) These rates will be held firm until December 31,1999.

2) Reimbursement will be limited to the lesser of either the individuals actual hourly rate or the maximum rate for each labor category.

3) Reimbursement will be limited to the maximum reimbursement rate for the professional responsibility level of the actual work performed.

4) Only those labor classifications indicated with an asterisk will be entitled to overtime premium.

5) Reimbursement for technical time of principals, owners and officers will be limited to the maximum reimbursement rate of that labor category, the actual hourly labor rate paid, or the State M-6 job rate, whichever is lower.

6) The maximum rates in each labor category can be modified only by mutual written agreement and approved by both the Department and the Comptroller.

7) This Footnote applies to Schedules for years 4 through 7 only. If the U.S. cost-of-living index increases at a rate greater than 6% compounded annually, the maximum salary rates will be subject to renegotiation for future years of the contract. There shall be no retroactive adjustments of payment as a result of renegotiated salary schedules

B) *Indirect Costs*

Existing

Indirect costs shall be paid based on a percentage of direct salary costs incurred which shall not exceed a maximum of 117% or the actual rate calculated in accordance with 49 CFR Federal Acquisition Regulation, whichever is lower.

Amount budged for indirect cost is:	$	4,850.42

C) *Maximum Reimbursement Rates for Direct Non-Salary Costs*

Item	Max. Reimbursement Rate (Specify Unit)	Ex. No. of Units	Total Est. Cost
1) Travel			
Mileage	$0.31	400	$124.00
2) Supplies			
LVE Reimbursement	$0.75	48	$36.00
Mapping	$200.00	1	$200.00
Drawings	$1.50	7	$10.50
Copying (Color)	$1.50	7	$10.50
Copying (B&W)	$0.06	200	$12.00
Total Direct Non-Salary Costs			$393.00

D) *Fixed Fee*

The fixed fee is:10%	$	899.61

See Schedule 2.10(h) for how the fixed fee should be claimed.

Schedule 2.11 (e)
Cost-Plus-Fixed-Fee Subcontracts
Work Assignment Number D003970-01.1

Existing

Name of Subcontractor	**Services to be Performed**	**Subcontract Price**
Delaware Engineering, P.C.	Professional Services Data Validation	$ 17,801.78

A) Direct Salary Costs

Professional Responsibility Level	**Labor Classification**	**Ave. Reimbursement Rate ($/Hr)**	**Max. Reimbursement Rate ($/Hr)**	**Est. No. of Hours**	**Total Est. Direct Salary Cost (Co. 3 x 5)**
	VI	$ 33.47	$ 33.65	20.5	$ 686.14
	III	$ 20.63	$ 22.57	328	$ 6,766.64
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -
Total Direct Salary Costs					$ 7,452.78

Footnotes:

1) These rates will be held firm until December 31,1999.

2) Reimbursement will be limited to the lesser of either the individuals actual hourly rate or the maximum rate for each labor category.

3) Reimbursement will be limited to the maximum reimbursement rate for the professional responsibility level of the actual work performed.

4) Only those labor classifications indicated with an asterisk will be entitled to overtime premium.

5) Reimbursement for technical time of principals, owners and officers will be limited to the maximum reimbursement rate of that labor category, the actual hourly labor rate paid, or the State M-6 job rate, whichever is lower.

6) The maximum rates in each labor category can be modified only by mutual written agreement and approved by both the Department and the Comptroller.

7) This Footnote applies to Schedules for years 4 through 7 only. If the U.S. cost-of-living index increases at a rate greater than 6% compounded annually, the maximum salary rates will be subject to renegotiation for future years of the contract. There shall be no retroactive adjustments of payment as a result of renegotiated salary schedules

B) *Indirect Costs* **Existing**

Indirect costs shall be paid based on a percentage of direct salary costs incurred which shall not exceed a maximum of 117% or the actual rate calculated in accordance with 49 CFR Federal Acquisition Regulation, whichever is lower.

Amount budged for indirect cost is: $ 8,719.75

C) *Maximum Reimbursement Rates for Direct Non-Salary Costs*

Item	Max. Reimbursement Rate (Specify Unit)	Ex. No. of Units	Total Est. Cost
Copying (B&W)	$0.06	200	$12.00
Total Direct Non-Salary Costs			$12.00

D) *Fixed Fee*

The fixed fee is:10% $ 1,617.25
See Schedule 2.10(h) for how the fixed fee should be claimed.

Schedule 2.11(f)
Unit Price Subcontracts
Work Assignment Number D003970-01.1

Name of Subcontractor	**Services to be Performed**	**Subcontract Price**	**Management Fee**
Nothnagle Drilling	Well Installation	$ 68,063.00	$ 3,403.15

Item	Max. Reimbursement Rate (Specify Unit)	Est. No. of Units	No. Wells	Total Est. Cost
Attached table 2.11(f) 1.2	Task 2			$ 38,901.00
Attached table 2.11(f) 1.3	Task 4			$ 29,162.00

Subtotal Subcontract Price	$ 68,063.00
Subcontract Management Fee	$ 3,403.15
TOTAL	$ 71,466.15

Schedule 2.11(f)
Unit Price Subcontracts
Work Assignment Number D003970-01.1

Name of Subcontractor	**Services to be Performed**		**Subcontract Price**		Existing **Management Fee**
Nothnagle Drilling	Well Installation		$ 38,901.00		$ 1,945.05
cost					
Item	Max. Reimbursement Rate (Specify Unit)		Est. No. of Units	No. Wells	Total Est. Cost
4"-Hollow Stem Auger	$10.00	ft	30	8	$ 2,400.00
split spoons	$10.00	ea.	15	8	$ 1,200.00
2" screen	$14.00	ft	10	8	$ 1,120.00
2" riser	$8.00	ft	12	8	$ 768.00
sandpack	$7.50	ft	20	8	$ 1,200.00
bentonite seal	$22.00	ft	2	8	$ 352.00
grout	$6.00	ft	8	8	$ 384.00
surface casing	$150.00	ea.	1	8	$ 1,200.00
develop wells	$100.00	hr	1	8	$ 800.00
Decon	$130.00	hr	1	8	$ 1,040.00
4-Inch Hollow Stem Auger	$10.00	ft	30	3	$ 900.00
Temporary Casing	$75.00	ea.	1	3	$ 225.00
NX Coring	$32.00	ft	15	3	$ 1,440.00
surface casing	$150.00	ea.	1	3	$ 450.00
develop wells	$100.00	hr	1	3	$ 300.00
Decon	$130.00	hr	1	3	$ 390.00
2" riser	$8.00	ft	39	3	$ 936.00
bentonite seal	$22.00	ft	2	3	$ 132.00
grout	$6.00	ft	28	3	$ 504.00
4" hollow stem auger	$10.00	ft	10	6	$ 600.00
split spoons	$10.00	ea.	5	6	$ 300.00
Decon	$130.00	hr	1	6	$ 780.00
Level D PPE/Person	$7.00	day	3	10	$ 210.00
Mob/Demob	$18,995.00	LS	1	1	$ 18,995.00
Per Diem	$175.00	day*	13	1	$ 2,275.00
Subtotal Subcontract Price					$ 38,901.00
Subcontract Management Fee					$ 1,945.05
TOTAL					$ 40,846.05

* 3 Person Crew Lodging Maximum Not to exceed $57 and Meals Not to Exceed $30

Schedule 2.11(f)
Unit Price Subcontracts
Work Assignment Number D003970-01.1

Name of Subcontractor	Services to be Performed	Subcontract Price	Task 4 Management Fee
Nothnagle Drilling	Well Installation	$ 29,162.00	$ 1,458.10

cost Item		Max. Reimbursement Rate (Specify Unit)		Est. No. of Units	No. Wells		Total Est. Cost
Install Temporary Wells - Level D PPE							
Drilling using 4.25" augers 0-50	$	10.00	ft	20	12	$	2,400.00
Split Spoon Sampling 0-50	$	10.00	ea	10	12	$	1,200.00
PVC screen - 2", #10 slot, Schedule 40	$	14.00	ft	15	12	$	2,520.00
PVC riser - 2", Schedule 40	$	8.00	ft	5	12	$	480.00
Sand pack	$	7.50	ft	18	12	$	1,620.00
Bentonite pellets	$	22.00	ft	2	12	$	528.00
Flush mount 4" protector, locking cover and concrete apron	$	125.00	ea	1	12	$	1,500.00
Supply DOT-approved 55-Gallon drums w/pallet	$	30.00	ea	1	12	$	360.00
Filling, moving, staging 55-Gallon drums	$	130.00	hr	1	12	$	1,560.00
Well development	$	130.00	hr	1	12	$	1,560.00
Decontamination	$	130.00	hr	1	12	$	1,560.00
Install Bedrock Wells - Level D PPE						$	-
NX Coring 0-50 feet	$	32.00	ft	50	1	$	1,600.00
NX Coring 50-100 feet	$	34.00	ft	40	1	$	1,360.00
Reaming NX-hole to 4 inch diameter 0-50 feet	$	14.00	ft	50	1	$	700.00
Reaming NX-hole to 4 inch diameter 50-100 feet	$	16.00	ft	30	1	$	480.00
Stainless Steel 2-inch ID, Schedule 5	$	18.00	ft	75	1	$	1,350.00
Bentonite pellets	$	22.00	ft	2	1	$	44.00
Cement/bentonite grout	$	4.00	ft	73	1	$	292.00
Above ground 4" protective casing	$	150.00	ea	1	1	$	150.00
Well development by airlift	$	100.00	hr	1	1	$	100.00
Decontamination	$	130.00	hr	1	1	$	130.00
Other Items							
Construct and maintain decontamination pad	$	500.00	ls	1	1	$	500.00
Level D PPE Charge	$	7.00	day	24	1	$	168.00
Mobilization/Demobilization	$	800.00	ls	1	1	$	800.00
Per Diem	$	100.00	day	12	1	$	1,200.00
Equipment Rental:							
Steam Cleaner	$	50.00	day	12	1	$	600.00
Water Tank	$	125.00	day	12	1	$	1,500.00
Other:							
Compressor	$	400.00	day	5	1	$	2,000.00
Generator	$	75.00	day	12	1	$	900.00
Subtotal Subcontract Price						$	29,162.00
Subcontract Management Fee						$	1,458.10
TOTAL						$	30,620.10

* 3 Person Crew Lodging Maximum Not to exceed $57 and Meals Not to Exceed $30

Schedule 2.11(f)
Unit Price Subcontracts
Work Assignment Number D003970-01.1

Name of Subcontractor	**Services to be Performed**	**Subcontract Price**	**Management Fee**
MITKEM	Analytical Services	$89,761	$ 4,488.05

Item	Max. Reimbursement Rate (Specify Unit)	Est. No. of Units	Total Est. Cost
Attached table 2.11(f) 2.2	Task 2		$ 77,261.00
Attached table 2.11(f) 2.3	Task 4		$ 12,500.00

Subtotal Subcontract Price	$ 89,761.00
Subcontract Management Fee	$ 4,488.05
TOTAL	$ 94,249.05

Total Cost Breakdown for Analytical Services for Mayer Landfill
Work Assignment No. D003970-01

MITKEM Summary	Test Pits / Trenches		MW Installation		Background		Surface Water		Leachate		Sediment		Groundwater				Totals				MITKEM Unit Costs				MITKEM Total Costs			
	Superfund Category Reporting		Superfund Category Reporting		Superfund Category Reporting		Superfund Category Reporting		Superfund Category Reporting		Superfund Category Reporting		Category A Reporting		Superfund Category Reporting		Category A Reporting		Superfund Category Reporting		Category A Reporting		Superfund Category Reporting		Category A Reporting		Superfund Category Reporting	
Matrix	Aqueous	Non-Aqueous	Aqueous	Non-Aqueous	Aqueous	Non-Aqueous	Aqueous	Non-Aqueous	Aqueous	Non-Aqueous	Aqueous	Non-Aqueous	Aqueous	Non-Aqueous	Aqueous	Non-Aqueous	Aqueous	Non-Aqueous	Aqueous	Non-Aqueous	Aqueous	Non-Aqueous	Aqueous	Non-Aqueous	Aqueous	Non-Aqueous	Aqueous	Non-Aqueous
Analysis & Method																												
TCL VOCs + 10 by NYSDEC ASP CLP Method 95-1		34		22			13		13			13			42				68	69	$110	$110	$110	$110			$7,480	$7,590
TCL SVOCs+20 by NYSDEC ASP CLP Method 95-2		31		11			13		13			13			29				55	55	$200	$225	$200	$225			$11,000	$12,375
TCL Pest/PCBs by NYSDEC ASP CLP Method 95-3		30		11			13		13			13			26				52	54	$140	$150	$140	$150			$7,280	$8,100
TAL Inorganics + CN by NYSDEC ASP CLP Methods for Inorganics,Exhibit D Part V (10/95) FILTERED							13		13						36				62	0	$90	$100	$90	$100			$5,580	$0
TAL Inorganics + CN by NYSDEC ASP CLP Methods for Inorganics,Exhibit D Part V (10/95) UNFILTERED		31		11		5	13		13			13			36				62	60	$90	$100	$90	$100			$5,580	$6,000
Cyanide Method 335.2 (CLP-M)						NR	13		13			14			36				62	14	$20	$20	$20	$20			$1,240	$280
Total Organic Carbon Standard Methods Method 5310 B or C												13							0	13	$35	$60	-	-				$780
Ammonia Standard Methods 4500 NH3 C													31				31				$20	$25	-	-	$620			
Chloride Standard Methods 4500 Cl													31				31				$15	$20	-	-	$465			
Alkalinity Standard Methods Method 2320 B													31				31				$15	$20	-	-	$465			
Hardness Standard Methods Method 4340 C													31				31				$20	$25	-	-	$620			
VOCs & Landfill Gas(Methane) by modified 8260 and 8015B respectively (using Emflux samplers)						6														6	-	-	-	$301				$1,806
TOTALS		126		55		11	78		78	0		79	124		205										$2,170	$0	$38,160	$36,931

GRAND TOTAL $77,261

NR - Not required

Field Blank and Trip Blank Assumptions (VOLATILES ONLY)

6 Test pits / day of 50 total therefore 6 FB & 6TB's

11 new wells in 3 weeks therefore 11 FB's & 11 TB's

No FB's or TB's

The first round of sampling will include all background soil, surface-water, sediment, leachate and ground-water sampling and will be over 3 days therefore we will assume 3 FB's and 3 TB's. The second round of sampling will only include groundwater sampling and will be over 2 days therefore we will assume 2 FB's and 2 TB's ****All FB's and TB's for these activities have been added to the groundwater total.****

MS/MSD samples and field duplicates have been added to sample total where applicable

Cost Estimate for Laboratory Services - Mitkem Warwick RI

Engineer/Contract #: C003970
Project Name Mayer Landfill Site, #3-36-027 Task 4
Work Assignment Number D003970-01.1

Sampling Event	Media	Number	Analytical Method	QA/QC (MS/MSD sets)	Duplicates	Field Blanks [1]	Trip Blanks [1]	Total Number of samples	Price per sample	Unit Cost
Surface Water Sampling	Water	6	TCL VOCs + 10 NYSDEC ASP CLP Method 95-1	1	1	1	1	11	$110	$1,210
		6	TCL SVOCs + 20 NYSDEC ASP CLP Method 95-2	1	1	1	N/A	10	$200	$2,000
		12	TAL Inorganics no CN^- NYSDEC ASP CLP Methods for Inorganics,Exhibit D Part V (10/95)	1	1	1	N/A	16	$90	$1,440
		6	TCL Pesticides/PCBs	1	1	1	N/A	10	$140	$1,400
Sediment Sampling	Soil	6	TCL VOCs + 10 NYSDEC ASP CLP Method 95-1	1	1	1	N/A	10	$110	$1,100
		6	TCL SVOCs + 20 NYSDEC ASP CLP Method 95-2	1	1	1	N/A	10	$225	$2,250
		6	TAL Inorganics no CN^- NYSDEC ASP CLP Methods for Inorganics,Exhibit D Part V (10/95)	1	1	1	N/A	10	$100	$1,000
		6	TCL Pesticides/PCBs	1	1	1	N/A	10	$150	$1,500
		6	TOC	1	1	1	N/A	10	$60	$600
									TOTAL	**$12,500**

Schedule 2.11(f)
Unit Price Subcontracts
Work Assignment Number D003970-01.1

Name of Subcontractor	**Services to be Performed**		**Subcontract Price**	**Management Fee**
Environmental Closures	Test Pit Installation		$ 11,385.00	$ 569.25
Estimated Costs				
Item	Max. Reimbursement Rate (Specify Unit)		Est. No. of Units	Total Est. Cost
Mobilization	$420	LS	1	$ 420.00
Decontamination Pad	$730	LS	1	$ 730.00
Decontamination	$1,365	LS	1	$ 1,365.00
Test Pit Excavation/Backfill	$125	each	50	$ 6,250.00
Containers-Decon Liquid	$40	each	50	$ 2,000.00
Demobilization	$620	LS	1	$ 620.00
Clearing / Access				
Subtotal Subcontract Price				$ 11,385.00
Subcontract Management Fee				$ 569.25
TOTAL				$ 11,954.25

Schedule 2.11(f)
Unit Price Subcontracts
Work Assignment Number D003970-01.1

Name of Subcontractor	**Services to be Performed**	**Subcontract Price**	**Management Fee**
Northeast Geophysical Services	Geophysics	$ 10,073.25	$ 503.66

Item	Max. Reimbursement Rate (Specify Unit)	Est. No. of Units	Total Est. Cost
Mobilization	$4,807 lump sum	1	$ 4,807.00
Seismic Refraction Study	$7,200 week	0	$ -
Magnetic Survey	$5,800 week	0.25	$ 1,450.00
Electromagnetic Survey	$5,900 week	0.25	$ 1,475.00
Travel Expenses	$725 week	0.25	$ 181.25
Report Preparation	$8,640 each	0.25	$ 2,160.00

Subtotal Subcontract Price	$ 10,073.25
Subcontract Management Fee	$ 503.66
	$ 10,576.91

Schedule 2.11(f)
Unit Price Subcontracts
Work Assignment Number D003970-01.1

Task 4

Name of Subcontractor	**Services to be Performed**	**Subcontract Price**	**Management Fee**
Zymax Forensics San Louis Obispo, California	Laboratory Analyses	$ 950	$ -

Item	Max. Reimbursement Rate (Specify Unit)	Est. No. of Units	Total Est. Cost
Product			
GC/MS Full Scan Forensic Analysis	$475	2	$ 950.00
			$ -
			$ -
Subtotal Subcontract Price			$ 950.00
Subcontract Management Fee			$ -
TOTAL			$ 950.00

Schedule 2.11(f)
Unit Price Subcontracts
Work Assignment Number D003970-01.1

Task 4

Name of Subcontractor	**Services to be Performed**	**Subcontract Price**	**Management Fee**
Severn Trent Laboratories Burlington, Vermont	Laboratory Analyses	$ 1,980	$ -

Item	Max. Reimbursement Rate (Specify Unit)	Est. No. of Units	Total Est. Cost
AIR			
VOCs by TO-15	$240	6	$ 1,440.00
			$ -
Methane in air By ASTM D1946	$90	6	$ 540.00
			$ -
			$ -
Subtotal Subcontract Price			$ 1,980.00
Subcontract Management Fee			$ -
TOTAL			$ 1,980.00

Cost Estimate for Laboratory Services - STL Burlington, VT

Engineer/Contract #: C003970
Project Name Mayer Landfill Site, #3-36-027 Task4
Work Assignment Number D003970-01.1

Sampling Event	Media	Number	Analytical Method	QA/QC (MS/MSD sets)	Duplicates	Field Blanks [1]	Trip Blanks [1]	Total Number of samples	Price per sample	Unit Cost
Soil Gas Sampling	Air	6	Volatiles in air by TO-15	N/A	N/A	N/A	N/A	6	$240	$1,440
		6	Methane in air by ASTM D1946	N/A	N/A	N/A	N/A	6	$90	$540
		6	Summa Canisters					6	$0	$0
									Total	**$1,980**

Schedule 2.11(f)
Unit Price Subcontracts
Work Assignment Number D003970-01.1

Task 4

Name of Subcontractor	Services to be Performed	Subcontract Price	Management Fee
L.A.B Validation Corp. East Northport, NY	Validation	$ 1,465	$ -

Item	Max. Reimbursement Rate (Specify Unit)	Est. No. of Units	Total Est. Cost
Surface Water Sampling			
TCL VOCs + 10 NYSDEC ASP CLP Method 95-1	$15	9	$ 135.00
TCL SVOCs + 20 NYSDEC ASP CLP Method 95-2	$20	8	$ 160.00
TAL Inorganics no CN^- NYSDEC ASP CLP Methods for Inorganics,Exhibit D Part V (10/95)	$15	14	$ 210.00
TCL Pesticides/PCBs	$20	8	$ 160.00
Sediment Sampling			
TCL VOCs + 10 NYSDEC ASP CLP Method 95-1	$15	8	$ 120.00
TCL SVOCs + 20 NYSDEC ASP CLP Method 95-2	$20	8	$ 160.00
TAL Inorganics no CN^- NYSDEC ASP CLP Methods for Inorganics,Exhibit D Part V (10/95)	$15	8	$ 120.00
TCL Pesticides/PCBs	$20	8	$ 160.00
TOC	$5	8	$ 40.00
Air Sampling			
Volatiles in air by TO-15	$20	7	$ 140.00
Methane in air by ASTM D1946	$10	6	$ 60.00
			$ 1,465.00
Subcontract Management Fee			$ -
TOTAL			$ 1,465.00

Schedule 2.11(g)
Monthly Cost Control Report
Summary of Fiscal Information

Engineer: ERM North East Engineers, P.C.
Contract Number: D003970
Project Name: Mayer Landfill
Work Assignment No.: D003970-01.1
Task No./Name: Task 1 - Work Plan Preparation
Complete: _____ %

Date Prepared: _____
Billing Period: _____
Invoice #: _____

	A	B	C	D	E	F	G	H
Expenditure Category	*Cost Claimed This Period*	*Paid to Date*	*Total Disallowed to Date*	*Total Costs Incurred to Date (A+B+C)*	*Estimated Costs to Completion*	*Estimated Total Work Assignment Price (A+B+E)*	*Approved Budget*	*Estimated Under/Over (G-F)*
1. Direct salary Costs							$ 9,358	
2. Indirect Costs 162%							$ 15,161	
3. Subtotal Direct Salary Costs and Indirect Costs							$ 24,519	
4. Travel							$ 410	
5. Other Non-Salary Costs							$ 518	
6. Subtotal Direct Non-Salary Costs							$ 928	
7. Subcontractors							$ -	
8. Subcontractor Management Fee							$ -	
9. Total WA Costs							$ 25,447	
10. Fixed Fee							$ 1,716.32	
11. Total WA Price							$ 27,163	

Project Manager (Engineer) _____ Date _____

Schedule 2.11(g)
Monthly Cost Control Report
Summary of Fiscal Information

Engineer: ERM North East Engineers, P.C.
Contract Number: D003970
Project Name: Mayer Landfill
Work Assignment No.: D003970
Task No./Name: Project
Complete: _____ %

Date Prepared: _____
Billing Period: _____
Invoice #: _____

	A	B	C	D	E	F	G	H
Expenditure Category	*Cost Claimed This Period*	*Paid to Date*	*Total Disallowed to Date*	*Total Costs Incurred to Date (A+B+C)*	*Estimated Costs to Completion*	*Estimated Total Work Assignment Price (A+B+E)*	*Approved Budget*	*Estimated Under/Over (G-F)*
1. Direct salary Costs							$ 70,765	
2. Indirect Costs 162%							$ 114,639	
3. Subtotal Direct Salary Costs and Indirect Costs							$ 185,405	
4. Travel							$ 4,779	
5. Other Non-Salary Costs							$ 18,628	
6. Subtotal Direct Non-Salary Costs							$ 23,407	
7. Subcontractors							$ 237,123	
8. Subcontractor Management Fee							$ 8,964	
9. Total WA Costs							$ 454,899	
10. Fixed Fee							$ 12,978	
11. Total WA Price							$ 467,877	

Project Manager (Engineer) _____ Date _____

Schedule 2.11(g)
Monthly Cost Control Report
Summary of Fiscal Information

Engineer: ERM North East Engineers, P.C.
Contract Number: D003970
Project Name: Mayer Landfill
Work Assignment No.: D003970-01.1
Task No./Name: Task 2 - Remedial Investigation
Complete: _____ %

Date Prepared: _____
Billing Period: _____
Invoice #: _____

	A	B	C	D	E	F	G	H
Expenditure Category	*Cost Claimed This Period*	*Paid to Date*	*Total Disallowed to Date*	*Total Costs Incurred to Date (A+B+C)*	*Estimated Costs to Completion*	*Estimated Total Work Assignment Price (A+B+E)*	*Approved Budget*	*Estimated Under/Over (G-F)*
1. Direct salary Costs							$ 32,827	
2. Indirect Costs 162%							$ 53,180	
3. Subtotal Direct Salary Costs and Indirect Costs							$ 86,007	
4. Travel							$ 2,598	
5. Other Non-Salary Costs							$ 13,491	
6. Subtotal Direct Non-Salary Costs							$ 16,089	
7. Subcontractors							$ 185,447	
8. Subcontractor Management Fee							$ 6,881	
9. Total WA Costs							$ 294,424	
10. Fixed Fee							$ 6,021	
11. Total WA Price							$ 300,444	

Project Manager (Engineer) _____ Date _____

Schedule 2.11(g)
Monthly Cost Control Report
Summary of Fiscal Information

Engineer: ERM North East Engineers, P.C.
Contract Number: D003970
Project Name: Mayer Landfill
Work Assignment No.: D003970-01.1
Task No./Name: Task 3 - Feasibility Study
Complete: _____ %

Date Prepared: _____
Billing Period: _____
Invoice #: _____

	A	B	C	D	E	F	G	H
Expenditure Category	Cost Claimed This Period	Paid to Date	Total Disallowed to Date	Total Costs Incurred to Date (A+B+C)	Estimated Costs to Completion	Estimated Total Work Assignment Price (A+B+E)	Approved Budget	Estimated Under/Over (G-F)
1. Direct salary Costs							$ 20,614	
2. Indirect Costs 162%							$ 33,395	
3. Subtotal Direct Salary Costs and Indirect Costs							$ 54,009	
4. Travel							$ 205	
5. Other Non-Salary Costs							$ 1,850	
6. Subtotal Direct Non-Salary Costs							$ 2,055	
7. Subcontractors							$ -	
8. Subcontractor Management Fee							$ -	
9. Total WA Costs							$ 56,064	
10. Fixed Fee							$ 3,781	
11. Total WA Price							$ 59,844	

Project Manager (Engineer) _____ Date _____

Schedule 2.11(g)
Monthly Cost Control Report
Summary of Fiscal Information

Engineer: ERM North East Engineers, P.C.
Contract Number: D003970
Project Name: Mayer Landfill
Work Assignment No.: D003970-01.1
Task No./Name: Task 4 - Supplemental RI
Complete: _____ %

Date Prepared: _____
Billing Period: _____
Invoice #: _____

	A	B	C	D	E	F	G	H
Expenditure Category	*Cost Claimed This Period*	*Paid to Date*	*Total Disallowed to Date*	*Total Costs Incurred to Date (A+B+C)*	*Estimated Costs to Completion*	*Estimated Total Work Assignment Price (A+B+E)*	*Approved Budget*	*Estimated Under/Over (G-F)*
1. Direct salary Costs							$ 7,966	
2. Indirect Costs 162%							$ 12,904	
3. Subtotal Direct Salary Costs and Indirect Costs							$ 20,870	
4. Travel							$ 1,566	
5. Other Non-Salary Costs							$ 2,769	
6. Subtotal Direct Non-Salary Costs							$ 4,335	
7. Subcontractors							$ 51,677	
8. Subcontractor Management Fee							$ 2,083	
9. Total WA Costs							$ 78,965	
10. Fixed Fee							$ 1,461	
11. Total WA Price							$ 80,426	

Project Manager (Engineer) _____ Date _____

Schedule 2.11(g) - Supplemental

Cost Control Report for Subcontracts

Engineer: ERM North East Engineers, P.C.
Contract Number: D003970
Project Name: Mayer Landfill
Work Assignment No.: D003970-01.1

Date Prepared:
Billing Period:
Invoice No.:

	A	B	C	D	E	F	G
Subcontract Name	Subcontract Costs Claimed this Application Inc. Resubmittals	Subcontract Costs Approved for Payment from Previous Applications	Total Subcontract Costs to Date (A+B)	Subcontract Approved Budget	Management Fee Budget	Management Fee Paid	Total Costs to Date (C+F)
Delaware Engineering				$ 28,090			$ -
YEC, Inc.				$ 25,356			$ -
Nothnagel Drilling				$ 68,063	$ 3,403	$ -	$ -
MITKEM				$ 89,761	$ 4,488	$ -	$ -
Environmental Closures				$ 11,385	$ 569	$ -	$ -
Northeast Geoph				$ 10,073	$ 504	$ -	$ -
Severn Trent				$ 1,980			$ -
Zymax Forensics				$ 950			$ -
L.A.B. Validation, Corp				$ 1,465			$ -
TOTALS	$ -	$ -	$ -	$ 237,123	$ 8,964	$ -	$ -

Project Manager (Engineer) _____ Date _____

NOTES:

1) Costs listed in Columns A, B, C &D do not include any management fee costs.
2) Management fee is applicable to only properly procured, satisfactorily completed, unit price subcontracts over $10,000.
3) Line 11, Column G should equal Line 7 (Subcontractors), Column D of Summary Cost Control Report.

Schedule 2.11(h)
Monthly Cost Control Report
Summary of Labor Hours
Number of Direct Labor Hours Expended to Date/Estimated Number of Direct Labor Hours to Completion

Engineer/Contract No. ERM North East Engineers, P.C.
Project Name Mayer Landfill
Work Assignment No. D003970-01.1

Date Prepared _____
Billing Period _____
Invoice No. _____

NSPE Labor Classification	IX		VIII		VII		VI		V		IV		III		II		I		Admin.		Total No. of Direct Labor Hours	
	Exp.	Est*	Exp.	Est	Exp.	Est	Exp.	Est	Exp.	Est	Exp.	Est	Exp.	Est	Exp.	Est	Exp.	Est	Exp.	Est	Exp.	Est
Task 1 Work Plan		8		40		76				56						80				40		300
Task 2 - RI				88		304						335				256				136		1119
Task 3 - FS		8		58		116				80		160				168				136		726
Task 4 - SRI				12				20				82		174		10				15		313
Task 5																						
Task 6																						
Task 7																						
Task 8																						
Task 9																						
Task 10																						
Task 11																						
Task 12																						
Total Hours	0	16	0	198	0	496	0	20	0	136	0	577	0	174	0	514	0	0	0	327	0	2458

*Expended/Estimated

Schedule 2.11(i)
Monthly Cost Control Report
*Equipment Inventory Control Form**

Engineer _____ ***Contract No.*** _____

1) Equipment Description _____
Purchase Date _____
Purchase Price _____
Dates & Location of Use Since Last Report (Identify WA) _____
Present Storage Location _____
Condition of Equipment _____
Reposible Person and Phone No. _____

2) Equipment Description _____
Purchase Date _____
Purchase Price _____
Dates & Location of Use Since Last Report (Identify WA) _____
Present Storage Location _____
Condition of Equipment _____
Reposible Person and Phone No. _____

3) Equipment Description _____
Purchase Date _____
Purchase Price _____
Dates & Location of Use Since Last Report (Identify WA) _____
Present Storage Location _____
Condition of Equipment _____
Reposible Person and Phone No. _____

4) Equipment Description _____
Purchase Date _____
Purchase Price _____
Dates & Location of Use Since Last Report (Identify WA) _____
Present Storage Location _____
Condition of Equipment _____
Reposible Person and Phone No. _____

* This form must be completed for all Department owned equipment in the custody of the Engineer and submitted as part of the Monthly Cost Control Report.

SEVERN TRENT SERVICES
Severn Trent Laboratories, Inc.
STL CONNECTICUT
128 Long Hill Cross Road
Shelton, CT 06468

Tel 203 929 8140
Fax 203 929 8142

April 20, 2001(Rev 05/09/2001)
STL QUOTATION
Prepared for:
Mr. Greg Dunn
175 Froehlich Farm Blvd.
Woodbury, NY 11797
516 921 4300
516 921 5637 FAX

ERM

RE: Mayer Landfill, NY

Dear Mr. Dunn:

Severn Trent Laboratories (STL) is pleased to provide the following analytical cost proposal for the site referenced above. Thank you for this opportunity. Our Burlington, VT laboratory will be providing the analytical support for this soil gas study. Please feel free to call the lab with any questions or concerns, and as always you may reach me directly at 201 847 2951.

Table 1

Quantity-Matrix	Analysis-Method	Unit Cost	Extension
6 – Air	Methane in air - ASTM D1946	$90	$540
	Volatiles in air by TO-15	$240	$1,440
		Estimated Project Total:	$1,980

The cost of SUMMA rentals is included in the above pricing.

Project Specifics:

Protocols: ASTM/EPA Compendium Methods
Deliverables: NYS ASP Cat B
EDD: GISKEY & STL STD

Certification: New York
Project Start: Late Summer 2001
Project Duration: One Event

Prepared by:

Kevin Hoogerhyde

Kevin Hoogerhyde
Account Executive

Thank you for choosing Severn Trent Laboratories.

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Q13809

TO: Greg Dunn
ERM
175 Froehlick Farm Blvd.
Woodbury NY 11797

PHONE: 516-921-4300
FAX: 516-921-5637

FROM: Robin Walla

SUBJECT: Quotation for Analytical Services -

DATE: 4/24/01

AIR TOXICS LTD is pleased to provide you a quote for analytical services relating to the analysis of air samples using method EPA Method TO-15. Please call if you have questions or need additional information.

Quote

Modified EPA Method TO-15. . . . . $235 ea.
- GC/MS, Full Scan
- Reporting Limit = 2.0-5.0 ppbv
- Standard Compound list
- Standard Report

No Charge QA/QC:
- 100% Surrogates
- 10% Laboratory Blanks
- 10% Sample Duplicates
- 10% Method Spikes

Note: Quoted reporting limits do not take into account the dilution effect from matrix interferences.

Modified ASTM Method D-1946 . . . . . $50 ea.
- GC/FID/TCD
- Reporting Limit = 10 ppmv
- Methane only

No charge QA/QC:
- 10% Laboratory Blanks
- 10% Method Spikes
- 10% Sample Duplicates

6L Summa Canister, cleaned and batch certified to 0.2 ppbv . . . . . $55 ea.
- Price includes shipping to the site.

STANDARD REPORT TURN AROUND IS 10 WORKING DAYS FOR FAXED RESULTS
INVOICING ON A NET 30 DAYS BASIS

Prices valid for one year.

Air Toxics Ltd. (ATL) is certified by the State of California's Department of Health Services, New York's Department of Health, Utah Department of Health, the NAVY-NEESA Program and the Army Corps of Engineers-Missouri River Division. ATL also participates in the Federal Superfund CLP-SAS Program. In addition, ATL was selected by the EPA's Contract Laboratory Program (CLP) as one of four laboratories to validate the Superfund Program's Draft SOW for canisters and Tenax tubes.

Client bears sole responsibility for determining the applicability of and compliance with all regulations applicable to the shipment of samples back to the laboratory. Air Toxics Limited assumes no liability with respect to the collection, handling, or shipping of samples. D.O.T. HAZMAT Hotline (800) 467-4922.

Cost Estimate For Drilling Services
Mayer Landfill, Blooming Grove, NY
Nothnagle Drilling

Install Temporary Wells - Level D PPE

Item	Units	Quantity	Rate	Cost
Drilling using 4.25" augers 0-50	feet	20	$ 10.00	$ 200.00
Split Spoon Sampling 0-50	each	10	$ 10.00	$ 100.00
PVC screen - 2", #10 slot, Schedule 40	feet	15	$ 14.00	$ 210.00
PVC riser - 2", Schedule 40	feet	5	$ 8.00	$ 40.00
Sand pack	feet	18	$ 7.50	$ 135.00
Bentonite pellets	feet	2	$ 22.00	$ 44.00
Flush mount 4" protector, locking cover and concrete apron	each	1	$ 125.00	$ 125.00
Supply DOT-approved 55-Gallon drums w/pallet	each	1	$ 30.00	$ 30.00
Filling, moving, staging 55-Gallon drums	hour	1	$ 130.00	$ 130.00
Well development	hour	1	$ 130.00	$ 130.00
Decontamination	hour	1	$ 130.00	$ 130.00
		Cost per Well		$ 1,274.00
		Cost for Twelve Wells		$ 15,288.00

Install Bedrock Wells - Level D PPE

Item	Units	Quantity	Rate	Cost
NX Coring 0-50 feet	feet	50	$ 32.00	$ 1,600.00
NX Coring 50-100 feet	feet	40	$ 34.00	$ 1,360.00
Reaming NX-hole to 4 inch diameter 0-50 feet	feet	50	$ 14.00	$ 700.00
Reaming NX-hole to 4 inch diameter 50-100 feet	feet	30	$ 16.00	$ 480.00
Stainless Steel 2-inch ID, Schedule 5	feet	75	$ 18.00	$ 1,350.00
Bentonite pellets	feet	2	$ 22.00	$ 44.00
Cement/bentonite grout	feet	73	$ 4.00	$ 292.00
Above ground 4" protective casing	each	1	$ 150.00	$ 150.00
Well development by airlift	hour	1	$ 100.00	$ 100.00
Decontamination	hour	1	$ 130.00	$ 130.00
	Cost per Well			$ 6,206.00
	Cost for one Well			$ 6,206.00

Other Items	Units	Quantity	Rate	Cost
Construct and maintain decontamination pad	lump sum	1	$ 500.00	$ 500.00
Level D PPE Charge	per person per day	24	$ 7.00	$ 168.00
Mobilization/Demobilization	lump sum	1	$ 800.00	$ 800.00
Per Diem	per crew per day	12	$ 100.00	$ 1,200.00
Equipment Rental:				$
Steam Cleaner	per day	12	$ 50.00	$ 600.00
Water Tank	per day	12	$ 125.00	$ 1,500.00
				$
Other:				$
Compressor		5	$ 400.00	$ 2,000.00
Generator		12	$ 75.00	$ 900.00
				$
Other Items Subtotal				$ 7,668.00

Total Estiamted Project Cost $ 29,162.00

Assumptions:
Contractor will not need to remove temporary wells.
Bedrock well will be 15' of four inch open hole

Cost Estimate For Drilling Services
Mayer Landfill, Blooming Grove, NY
Nothnagle Drilling

Install Temporary Wells - Level D PPE

Item	Units	Quantity	Rate	Cost
Drilling using 4.25" augers 0-50	feet	20	$ 10.00	$ 200.00
Split Spoon Sampling 0-50	each	10	$ 10.00	$ 100.00
PVC screen - 2", #10 slot, Schedule 40	feet	15	$ 14.00	$ 210.00
PVC riser - 2", Schedule 40	feet	5	$ 8.00	$ 40.00
Sand pack	feet	18	$ 7.50	$ 135.00
Bentonite pellets	feet	2	$ 22.00	$ 44.00
Flush mount 4" protector, locking cover and concrete apron	each	1	$ 125.00	$ 125.00
Supply DOT-approved 55-Gallon drums w/ pallet	each	1	$ 30.00	$ 30.00
Filling, moving, staging 55-Gallon drums	hour	1	$ 130.00	$ 130.00
Well development	hour	1	$ 130.00	$ 130.00
Decontamination	hour	1	$ 130.00	$ 130.00
		Cost per Well		$ 1,274.00
		Cost for Twelve Wells		$ 15,288.00

Install Bedrock Wells - Level D PPE

Item	Units	Quantity	Rate	Cost
NX Coring 0-50 feet	feet	50	$ 32.00	$ 1,600.00
NX Coring 50-100 feet	feet	30	$ 34.00	$ 1,020.00
Reaming NX-hole to 4 inch diameter 0-50 feet	feet	50	$ 14.00	$ 700.00
Reaming NX-hole to 4 inch diameter 50-100 feet	feet	30	$ 16.00	$ 480.00
PVC riser - 2", Schedule 40	feet	65	$ 8.00	$ 520.00
Bentonite pellets	feet	2	$ 22.00	$ 44.00
Cement/bentonite grout	feet	63	$ 4.00	$ 252.00
Above ground 4" protective casing	each	1	$ 150.00	$ 150.00
Well development by airlift	hour	1	$ 100.00	$ 100.00
Decontamination	hour	1	$ 130.00	$ 130.00
	Cost per Well			$ 4,996.00
	Cost for one Well			$ 4,996.00

Other Items	Units	Quantity	Rate	Cost
Construct and maintain decontamination pad	lump sum	1	$ 500.00	$ 500.00
Level D PPE Charge	per person per day	24	$ 7.00	$ 168.00
Mobilization/Demobilization	lump sum	1	800.00	$ 800.00
Per Diem	per crew per day	12	$100.00	$1200.00
Equipment Rental:				$
Steam Cleaner	per day	12	$ 50.00	$ 600.00
Water Tank	per day	12	$ 125.00	$1500.00
				$
Other:				$
Compressor	per day	5	400.00	$2000.00
Generator	per day	12	75.00	$ 900.00
				$
Other Items Subtotal				

Subtotal Estimated Contract Costs $ 20,284.00
Subtotal Other Items $ 7,668.00
Total Estimated Project Cost $ 27,952.00

Assumptions:
Contractor will not need to remove temporary wells.
Bedrock well will be 15' of four inch open hole

Reviewed by signature

Timothy M. Nothnagle/President
NOTHNAGLE DRILLING, INC.
1821 Scottsville-Mumford Road
Scottsville, NY 14546
May 9, 2001

Cost Estimate For Drilling Services
Mayer Landfill, Blooming Grove, NY
Aquifer Drilling and Testing

Install Temporary Wells - Level D PPE

Item	Units	Quantity	Rate	Cost
Drilling using 4.25" augers 0-50	feet	20	$ 16.00	$ 320.00
Split Spoon Sampling 0-50	each	10	$ 20.00	$ 200.00
PVC screen - 2", #10 slot, Schedule 40	feet	15	$ 12.00	$ 180.00
PVC riser - 2", Schedule 40	feet	5	$ 8.00	$ 40.00
Sand pack	feet	18	$ 3.00	$ 54.00
Bentonite pellets	feet	2	$ 0.75	$ 1.50
Flush mount 4" protector, locking cover and concrete apron	each	1	$ 150.00	$ 150.00
Supply DOT-approved 55-Gallon drums w/pallet	each	1	$ 35.00	$ 35.00
Filling, moving, staging 55-Gallon drums	hour	1	$ 120.00	$ 120.00
Well development	hour	1	$ 120.00	$ 120.00
Decontamination	hour	1	$ 120.00	$ 120.00
		Cost per Well		$ 1,340.50
		Cost for Twelve Wells		$ 16,086.00

Install Bedrock Wells - Level D PPE

Item	Units	Quantity	Rate	Cost
NX Coring 0-50 feet	feet	50	$ 42.00	$ 2,100.00
NX Coring 50-100 feet	feet	40	$ 52.00	$ 2,080.00
Reaming NX-hole to 4 inch diameter 0-50 feet	feet	50	$ 22.00	$ 1,100.00
Reaming NX-hole to 4 inch diameter 50-100 feet	feet	30	$ 26.00	$ 780.00
Stainless Steel 2-inch ID, Schedule 5	feet	75	$ 15.00	$ 1,125.00
Bentonite pellets	feet	2	$ 0.75	$ 1.50
Cement/bentonite grout	feet	73	$ 2.00	$ 146.00
Above ground 4" protective casing	each	1	$ 120.00	$ 120.00
Well development by airlift	hour	1	$ 120.00	$ 120.00
Decontamination	hour	1	$ 120.00	$ 120.00
Cost per Well				$ 7,692.50
Cost for one Well				$ 7,692.50

Other Items	Units	Quantity	Rate	Cost
Construct and maintain decontamination pad	lump sum	1	$ 200.00	$ 200.00
Level D PPE Charge	per person per day	24	$ 10.00	$ 240.00
Mobilization/Demobilization	lump sum	1	$ 1,500.00	$ 1,500.00
Per Diem	per crew per day	12	$ 175.00	$ 2,100.00
Equipment Rental:				$ -
Steam Cleaner	per day	12	$ 50.00	$ 600.00
Water Tank	per day	12	$ 75.00	$ 900.00
				$ -
Other:				$ -
				$ -
				$ -
				$ -
Other Items Subtotal				$ 5,540.00

Total Estiamted Project Cost $ 29,318.50

Assumptions:
Contractor will not need to remove temporary wells.
Bedrock well will be 15' of four inch open hole

Cost Estimate For Drilling Services
Mayer Landfill, Blooming Grove, NY
Aquifer Drilling and Testing

Install Temporary Wells - Level D PPE

Item	Units	Quantity	Rate	Cost
Drilling using 4 25" augers 0-50	feet	20	$ 16.00	$ 320.00
Split Spoon Sampling 0-50	each	10	$ 20.00	$ 200.00
PVC screen - 2", #10 slot, Schedule 40	feet	15	$ 12.00	$ 180.00
PVC riser - 2", Schedule 40	feet	5	$ 8.00	$ 40.00
Sand pack	feet	18	$ 3.00	$ 54.00
Bentonite pellets	each	2	$ 0.75	$ 1.50
Flush mount 4" protector, locking cover and concrete apron	each	1	$ 150.00	$ 150.00
Supply DOT-approved 55-Gallon drums w/ pallet	each	1	$ 35.00	$ 35.00
Filling, moving, staging 55-Gallon drums	hour	1	$ 120.00	$ 120.00
Well development	hour	1	$ 120.00	$ 120.00
Decontamination	hour	1	$ 120.00	$ 120.00
		Cost per Well		$ 1,340.50
		Cost for Twelve Wells		$ 16,086.00

5 TO 7 DAYS

Install Bedrock Wells - Level D PPE

Item	Units	Quantity	Rate	Cost
NX Coring 0-50 feet	feet	50	$ 42.00	$ 2,100.00
NX Coring 50-100 feet	feet	30	$ 52.00	$ 1,560.00
Reaming NX-hole to 4 inch diameter 0-50 feet	feet	50	$ 22.00	$ 1,100.00
Reaming NX-hole to 4 inch diameter 50-100 feet	feet	30	$ 26.00	$ 780.00
PVC riser - 2", Schedule 40	feet	65	$ 8.00	$ 520.00
Bentonite pellets	feet	2	$ 0.75	$ 1.50
Cement/bentonite grout	feet	63	$ 2.00	$ 126.00
Above ground 4" protective casing	each	1	$ 120.00	$ 120.00
Well development by airlift	hour	1	$ 120.00	$ 120.00
Decontamination	hour	1	$ 120.00	$ 120.00
		Cost per Well		$ 6,547.50
		Cost for one Well		$ 6,547.50

3 TO 5 DAYS

Other Items	Units	Quantity	Rate	Cost
Construct and maintain decontamination pad	lump sum	1	$ 200.00	$ 200.00
Level D PPE Charge	per person per day	24	$ 10.00	$ 240
Mobilization/Demobilization - TRUCK RIG	lump sum	1	~~$ 500~~	~~$ 500~~ 300
Per Diem	per crew per day	12	$ 175	$ 2100
Equipment Rental:				$
Steam Cleaner	per day	12	$ 50.00	$ 600
Water Tank	per day	12	$ 75.00	$ 900
				$
				$
Other: - MOB/DEMOB - ATV DRILL RIG	L.S.	1	1500	$ 1500
				$
				$
Other Items Subtotal				

1 DAY

Subtotal Estimated Contract Costs $ 22,633.50
Subtotal Other Items $ 6040
Total Estiamted Project Cost $ 28,673.5

Assumptions:
Contractor will not need to remove temporary wells.
Bedrock well will be 15' of four inch open hole

Reviewed by signature

JOE MIRANDA
ADT - ALBANY NY
518-464-2848

Cost Estimate For Drilling Services
Mayer Landfill, Blooming Grove, NY
Delta Well and Pump

Install Temporary Wells - Level D PPE

Item	Units	Quantity	Rate	Cost
Drilling using 4.25" augers 0-50	feet	20	$ 15.00	$ 300.00
Split Spoon Sampling 0-50	each	10	$ 35.00	$ 350.00
PVC screen - 2", #10 slot, Schedule 40	feet	15	$ 5.00	$ 75.00
PVC riser - 2", Schedule 40	feet	5	$ 2.00	$ 10.00
Sand pack	feet	18	$ 7.00	$ 126.00
Bentonite pellets	feet	2	$ 18.00	$ 36.00
Flush mount 8" protector, locking cover and concrete apron	each	1	$ 150.00	$ 150.00
Supply DOT-approved 55-Gallor drums w/pallet	each	1	$ 40.00	$ 40.00
Filling, moving, staging 55-Gallon drums	hour	1	$ 75.00	$ 75.00
Well development	hour	1	$ 120.00	$ 120.00
Decontamination	hour	1	$ 120.00	$ 120.00
		Cost per Well		$ 1,402.00
		Cost for Twelve Wells		$ 16,824.00

Install Bedrock Wells - Level D PPE

Item	Units	Quantity	Rate	Cost
NX Coring 0-50 feet	feet	50	$ 65.00	$ 3,250.00
NX Coring 50-100 feet	feet	40	$ 70.00	$ 2,800.00
Reaming NX-hole to 4 inch diameter 0-50 feet	feet	50	$ 20.00	$ 1,000.00
Reaming NX-hole to 4 inch diameter 50-100 feet	feet	30	$ 25.00	$ 750.00
Stainless Steel 2-inch ID, Schedule 5	feet	75	$ 12.00	$ 900.00
Bentonite pellets	feet	2	$ 18.00	$ 36.00
Cement/bentonite grout	feet	73	$ 6.00	$ 438.00
Above ground 4" protective casing	each	1	$ 200.00	$ 200.00
Well development by airlift	hour	1	$ 120.00	$ 120.00
Decontamination	hour	1	$ 120.00	$ 120.00
Cost per Well				$ 9,614.00
Cost for one Well				$ 9,614.00

Other Items	Units	Quantity	Rate	Cost
Construct and maintain decontamination pad	lump sum	1	$ 500.00	$ 500.00
Level D PPE Charge	per person per day	24	$ 50.00	$ 1,200.00
Mobilization/Demobilization	lump sum	1	$ 10,000.00	$ 10,000.00
Per Diem	per crew per day	12	$ 300.00	$ 3,600.00
Equipment Rental:				$ -
Steam Cleaner	per day	12	$ 50.00	$ 600.00
Water Tank	per day	12	$ 150.00	$ 1,800.00
				$
Other:				$
				$
				$
				$
Other Items Subtotal				$ 17,700.00

Total Estiamted Project Cost $ 44,138.00

Assumptions:
Contractor will not need to remove temporary wells.
Bedrock well completed with 15' of 4" diameter open hole

Delta Well and Pump

Install Temporary Wells - Level D PPE

Item	Units	Quantity	Rate	Cost
Drilling using 4.25' augers 0-50	feet	20	$ 15.00	$ 300.00
Split Spoon Sampling 0-50	each	10	$ 35.00	$ 350.00
PVC screen - 2", #10 slot, Schedule 40	feet	15	$ 5.00	$ 75.00
PVC riser - 2", Schedule 40	feet	5	$ 2.00	$ 10.00
Sand pack	feet	18	$ 7.00	$ 126.00
Bentonite pellets	feet	2	$ 18.00	$ 36.00
Flush mount 8" protector, locking cover and concrete apron	each	1	$ 150.00	$ 150.00
Supply DOT-approved 55-Gallon drums w/pallet	each	1	$ 40.00	$ 40.00
Filling, moving, staging 55-Gallon drums	hour	1	$ 75.00	$ 75.00
Well development	hour	1	$ 120.00	$ 120.00
Decontamination	hour	1	$ 120.00	$ 120.00
		Cost per Well		$ 1,402.00
		Cost for Twelve Wells		$ 16,824.00

Install Bedrock Wells - Level D PPE

Item	Units	Quantity	Rate	Cost
NX Coring 0-50 feet	feet	50	$ 65.00	$ 3,250.00
NX Coring 50-100 feet	feet	30	$ 70.00	$ 2,100.00
Reaming NX-hole to 4 inch diameter 0-50 feet	feet	50	$ 20.00	$ 1,000.00
Reaming NX-hole to 4 inch diameter 50-100 feet	feet	30	$ 25.00	$ 750.00
PVC riser - 2", Schedule 40	feet	65	$ 2.00	$ 130.00
Bentonite pellets	feet	2	$ 18.00	$ 36.00
Cement/bentonite grout	feet	63	$ 6.00	$ 378.00
Above ground 4" protective casing	each	1	$ 200.00	$ 200.00
Well development by airlift	hour	1	$ 120.00	$ 120.00
Decontamination	hour	1	$ 120.00	$ 120.00
Cost per Well				$ 8,084.00
Cost for one Well				$ 8,084.00

Other Items

	Units	Quantity	Rate	Cost
Construct and maintain decontamination pad	lump sum	1	$ 500.00	$ 500.00
Level D PPE Charge	per person per day	30	$ 50.00	$ 1,500.00
Mobilization/Demobilization	lump sum	1		$ 10,000.00
Per Diem	per crew per day	15	$ 300.00	$ 4,500.00
Equipment Rental:				$
Steam Cleaner	per day	15	$ 50.00	$ 750.00
Water Tank	per day	15	$ 150.00	$ 2,250.00
				$
Other:				$
				$
				$
				$
Other Items Subtotal				

Subtotal Estimated Contract Costs $ 24,908.00

Subtotal Other Items $ 19,500.00

Total Estiamted Project Cost $ 44,408.00

Assumptions:
Contractor will not need to remove temporary wells.
Bedrock well completed with 15' of 4" diameter open hole

Reviewed by signature Christopher M. Okun

CHRISTOPHER M. OKUN