Berninger Environmental, Inc.
groundwater consultants, engineers, geologists
1615 Ninth Avenue
Bohemia • New York • 11716
Phone: 631 • 588 • 2251
Fax: 631 • 588 • 2926
Web: www.BEI-NY.com

VOLUNTARY CLEANUP PROGRAM

VOLUNTARY INVESTIGATION REPORT

FOR

BURTON INDUSTRIES INC.
243 WYANDANCH AVENUE
NORTH BABYLON, NEW YORK 11704
Site No.: V-00239-1
Index No.: D1-0001-02-05

PREPARED FOR

NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
625 BROADWAY
ALBANY, NEW YORK 12233-7016

PREPARED BY

BEi

BERNINGER ENVIRONMENTAL, INC.

Draft Revision - A
FEBRUARY 2004

TABLE OF CONTENTS

List of Tables

TABLE OF CONTENTS - CON'T

List of Figures

List of Appendices

EXECUTIVE SUMMARY

A Voluntary Site Investigation was performed from September to December 2003 for an industrial property located at 243 Wyandanch Avenue, North Babylon, New York pursuant to the requirements of an executed Voluntary Cleanup Agreement (November 8, 2002) between the New York State Department of Environmental Conservation (NYSDEC), Division of Environmental Remediation (DER), and the Volunteer. The NYSDEC DER had outlined specific investigation requirements at the subject property to evaluate a September 2000 source area remediation performed at an on-site storm drain (SD-6). The additional site investigation was required to determine current groundwater quality conditions, upgradient and downgradient of the remediated storm drain. Historic groundwater data from 1996 was available for use as a comparative basis.

On September 8 - 11, 2003, three (3) shallow groundwater monitoring wells (MW-1, MW-2 and MW-3) were installed at the subject property to determine the direction of groundwater flow and other aquifer characteristics specific to the study site. Localized groundwater flow direction was determined to be to the southeast, consistent with the regional groundwater flow direction. Groundwater samples were collected from the three existing monitoring wells and three temporary monitoring wells (GP-8, GP-9 and GP-10) at two discrete intervals on December 2, 2003 for analysis for Volatile Organic Compounds. Supplemental samples from MW-1, MW-2, MW-3 and GP-10 (22-24 ft bgs) were collected and submitted by the NYSDEC for TAL inorganics.

Two VOC compounds were reported above their respective NYSDEC SGVs of 5 *ug*/L at three of the nine sampling intervals: tetrachloroethene [6 J *ug*/L at MW-2 (5-15 ft bgs)],[39 *ug*/L at MW-3 (5-15 ft bgs)] and [11 *ug*/L at GP-10 (24-26 ft bgs)]. 1,2-dichloroethene was reported above its respective SGVs at [11 J *ug*/L at MW-3 (5-15 ft bgs)] and at [7J *ug*/L GP-10 (24-26 ft bgs)].

Comparison with the 1996 data indicates a substantial reduction in VOC concentrations at the prior groundwater intervals sampled. Furthermore, the 2003 VOC sampling data clearly demonstrates either non-detection or a decrease of VOCs with increased depth below grade at the subject property. This study confirms that no unidentified remaining significant environmental concerns are present in on-site groundwater relative to SD-6, either shallow or deep. TICs were also present at a range of 26 NJ *ug*/L to 3,372 *ug*/L, the same order of magnitude concentration as that quantified in the upgradient location.

Analysis for inorganic parameters by the NYSDEC indicated only two constituents (barium and manganese) present at concentrations elevated above their respective SGVs. No exceedances of chromium, which was the historic target compound of potential environmental concern, were reported at any of the sampling locations. Based upon the above, no significant environmental concerns relative to the presence of inorganic compounds were identified at the subject property.

As the scope of work set forth in the approved Voluntary Investigation Work Plan was successfully completed at the subject property and no remaining significant environmental concerns are present in on-site groundwater, it is requested that this project be considered by the NYSDEC for closure under the Voluntary Cleanup Program.

1.0 INTRODUCTION

This document serves as a Voluntary Investigation Report on site investigation work performed for the subject property pursuant to the requirements of an executed Voluntary Cleanup Agreement (November 8, 2002) between the New York State Department of Environmental Conservation (NYSDEC), Division of Environmental Remediation (DER), and the "Volunteer", Mr. Stanley Yoel, Property Owner. The subject property ("site") is located at 243 Wyandanch Avenue, North Babylon, New York 11704, further described as SCTM District 0100, Section 082, Block 003, Lot 19.6 (See Figure 1). The site occupant and operator is Burton Industries Inc.

A Voluntary Investigation was specifically directed by the NYSDEC DER to provide further characterization of the site's environmental condition (See Section 2). Such further investigation was required to allow an appropriate decision by the DER regarding the need for any further action to be undertaken at the subject property.

1.1 Physical Site Description

Site Name: Burton Industries Inc.

Owner: Mr. Stanley Yoel

Location: 243 Wyandanch Avenue, North Babylon, New York 11704
Latitude 40° 44' 31" N, Longitude 73° 21' 29.5" W

Voluntary Cleanup Agreement: Site No.: V-00239-1
Index No.: D1-0001-02-05

2.0 SCOPE OF WORK

The NYSDEC DER in previous correspondence had outlined specific additional investigation required at the subject property to evaluate a September 2000 source area remediation performed at an on-site storm drain (SD-6), See Figure 2. The additional site investigation was required to determine groundwater quality conditions, upgradient and downgradient of the remediated storm drain. Therefore, the primary objective of this investigatory work was to determine site-specific groundwater flow direction and groundwater quality data, at multiple depths in the shallow aquifer, to the satisfaction of the NYSDEC DER.

The voluntary investigation field work performed during September - December 2003 followed the detailed specifications for the performance of sample collection and analysis of groundwater outlined in the approved work plan. An overview of the sampling protocols followed is provided below in addition to the field screening and sampling results. The required community air monitoring program was also performed continuously during the field investigation. A photographic log that documents the field investigation program is provided as Appendix A.

3.0 INVESTIGATION RESULTS

3.1 Task 1 - Monitoring Well Installation / Groundwater Flow Calculation

On September 8 - 11, 2003, three (3) shallow groundwater monitoring wells were installed at the subject property to determine the direction of groundwater flow and other aquifer characteristics specific to the study site. A hollow stem auger drill rig was used to install three (3) groundwater monitoring wells to depths between 15 and 18 feet below grade surface (bgs), dependent upon depth to water at each location. Depth to groundwater was measured at the subject property as approximately 7.5 feet bgs at the two downgradient wells, MW-2 and MW-3. Depth to water at the upgradient location was measured at approximately 11 feet bgs. Therefore, well construction consisted of 10 feet of 2 inch diameter, Schedule 40, 0.010 inch slotted well screen set to approximately three feet above the groundwater table interface and seven feet below. Approximately 5 to 8 feet of 2-inch diameter, Schedule 40, flush joint threaded riser pipe was used to finish the wells to grade. No split-spoon sampling was performed. (See attached schematic in Appendix B).

The screened interval was backfilled with No. 0 Morie sand to a depth of two feet above the screen. A three-foot bentonite seal followed by a cement-bentonite grout was installed to complete the annulus space backfill. Depths of the above materials were confirmed by measuring same using a steel tape during construction. An 8-inch cast iron flush mount manhole cover was cemented in place to complete the installation, well numbers were embedded in the concrete and the PVC top of the casing was notched on its north side for future elevation measurements.

With NYSDEC permission, the limited quantities of drill cutting spoils were spread on site at unpaved areas subsequent to screening with a Photoionization Detector (PID) which indicated concentrations consistent with ambient background conditions.

3.1.1 Monitoring Well Development and Elevation Survey

The wells were developed using a peristaltic pump and dedicated tubing after the well seal and grout had set for a minimum of 48 hours. The tubing was moved up and down throughout the screen interval during well development. Ms. Haimson, PG, CGWP supervised the well development and recorded procedures, quantities and characteristics of water removed in a field notebook; a summary is presented in the attached correspondence provided in Appendix B. A minimum of five wellbore volumes were removed during development. The turbidity, pH, temperature and conductivity of successive well volumes were recorded during development using the following instrumentation: Hanna Instruments HI93703 microprocessor turbidity unit; Myron L Co Ultrameter (Cond., Res. pH, TDS, ORP); ORS Sonic Probe and YSI 550A DO Meter. Efforts were successfully undertaken to develop the wells until turbidity was less than 50 NTUs and the wells were developed until pH, temperature and conductivity stabilized within 10% on successive well volumes. As indicated as acceptable by the NYSDEC, purge development waters were discharged upgradient/proximate to each of the well locations as no suspect field conditions were noted.

Subsequent to development, the location and casing elevations were determined by a New York State licensed surveyor (Mr. Donald Malm, Jr.) using National Geodetic Vertical Datum (NGVD). The elevation of the top of the well casing was provided to 0.01 foot and the well location to 0.10 foot. A copy of the survey was provided to BEI in early October, 2003.

Surveying the surface of the groundwater table was necessary to calculate the direction and velocity of groundwater flow. Upon completion of the wells, a small v-shaped notch was placed at the north side of the well casing as a future measuring point. Depth to groundwater was measured from each well to the nearest 0.01 foot using a sonic interface probe on October 3, 2003.

Groundwater flow direction was determined based upon measurements of depth to water on October 3, 2003 and December 2, 2003 and elevation data from the surveying of the three groundwater monitoring wells at the subject property (see Figures 3 and 4 and elevation data presented below). Localized groundwater flow direction has been determined to be to the southeast, consistent with the regional groundwater flow direction established by SCDHS water table maps. The horizontal groundwater flow gradient has been determined to be 0.002 ft/ ft. based upon a slope of 0.58 ft over a distance of 304 feet at the subject property. Using a regionally established average value for horizontal hydraulic conductivity of the Upper Glacial aquifer of 270 ft/day, an average porosity of 0.30, a horizontal groundwater flow velocity of 1.72 feet per day is calculated. This calculation is somewhat higher than the average literature regionally-established groundwater flow rates for the Upper Glacial aquifer (Perlmutter and Geraghty, 1963) of one foot per day.

October 3, 2003

MW-1	MW-2	MW-3
Survey Elevation: 51.65	Survey Elevation: 47.89	Survey Elevation: 48.09
Depth to GW: 11.18	Depth to GW: 8.00	Depth to GW: 8.20
GW Elevation: 40.47	GW Elevation: 39.89	GW Elevation:39.89

All elevations are in feet, msl GW- groundwater

December 2, 2003

MW-1	MW-2	MW-3
Survey Elevation: 51.65	Survey Elevation: 47.89	Survey Elevation: 48.09
Depth to GW: 10.79	Depth to GW: 7.62	Depth to GW: 7.82
GW Elevation: 40.86	GW Elevation: 40.27	GW Elevation: 40.27

All elevations are in feet, msl GW- groundwater.

3.1.2 Finalized Groundwater Sampling Locations

An interim letter report dated October 16, 2003 (see Appendix B) was provided to the NYSDEC with the findings of Section 3.1.1. Based upon the direction of groundwater flow determined in October 2, 2003, it was confirmed with the NYSDEC that the proposed locations of the three temporary monitoring wells (via Geoprobe) and three recently installed monitoring wells were consistent for their intended purpose with that previously proposed in the investigation work plan (see Figure 2). Based upon the localized groundwater flow direction, all three of the monitoring wells were determined to be useable for the collection of shallow groundwater samples.

3.2 Groundwater Sampling

In accordance with NYSDEC-approval letter dated November 14, 2003, groundwater sampling was performed at the subject property on December 3, 2003. The NYSDEC in their November 14, 2003 correspondence indicated that the NYSDEC was going to collect and split select groundwater samples, including performing a separate analysis for Target Analyte List (TAL) inorganics.

A Geoprobe model 540U direct push drilling system was used to install temporary monitoring wells adjacent to the existing monitoring wells (MW-1 to MW-3) to collect groundwater samples at multiple depths within the shallow Upper Glacial Aquifer. Each of the existing monitoring wells was opened and depth to water was measured. The bottom of the well was tagged in order to accurately determine the standing column of water. This volume was considered to be one purge volume. Prior to sampling, the monitoring wells were purged a minimum of three purge volumes using a decontaminated peristaltic well pump. A field hydrogeologist supervised the well purging/sampling and recorded procedures, quantities and characteristics of water removed in the dedicated bound field notebook. Field sampling parameters such as temperature, pH, specific conductance and

turbidity were also measured to ensure representative sampling, especially with respect to inorganics in groundwater. Samples were collected from each of the three wells in coordination with NYSDEC when sufficient purge volume had been removed and turbidity was less than 20 NTUs and pH, temperature and conductivity stabilized within 10% on successive well volumes (See Appendix B). Purge waters were discharged upgradient /proximate to each of the well locations as no suspect conditions were noted.

After the sampling of the existing monitoring wells, the Geoprobe drilling system was used to collect discrete groundwater samples using a two foot decontaminated Geoprobe mill-slotted well point sampling tool. Groundwater samples were collected at two successively deeper intervals, approximately 15-17 feet below the water table and 30-32 feet below the water table, dependent upon the depth to water at each of the shallow water table monitoring wells (see table below).

Sample	Groundwater Sample	Groundwater Sample	Groundwater Sample
MW-1	11 - 18 ft bgs	GP-8 at 26 - 28 ft bgs	GP-8 at 41 - 43 ft bgs
MW-2	7 - 15 ft bgs	GP-9 at 22 - 24 ft bgs	GP-9 at 37 - 39 ft bgs
MW-3	7 - 15 ft bgs	GP-10 at 22 - 24 ft bgs	GP-10 at 37 - 43 ft bgs

Upon reaching the pre-selected groundwater sampling horizon, new polyethylene tubing was used to procure a groundwater sample. The groundwater sampling interval was purged several tubing volumes until the turbidity decreased to the desired limit. With care to minimize agitation of the sample, the groundwater samples were transferred from the tubing into the laboratory-supplied glassware. Select samples were split with NYSDEC; specifically separate sample VOC aliquots for MW-1, MW-2, MW-3 and GP-10 (22-24 ft bgs) were provided. A total of three groundwater samples (MW-1, MW-2, and MW-3) were collected and submitted separately by the NYSDEC for analysis to a NYSDOH ELAP-certified laboratory (Lionville Labs) for TAL inorganics. These data were subsequently provided to BEI for inclusion in this report.

During groundwater sampling, two 40 ml glass containers were completely filled to ensure a zero headspace. The VOC glassware were pre-preserved by the laboratory to ensure a pH of <2. The filled glassware were then transferred to an ice-packed cooler and transported under strict chain-of-custody to a New York State Department of Health Services (NYSDOH) ELAP certified laboratory (H2M Labs) for Target Compound List (TCL) VOC analysis by EPA Method 8260 - Purgeable Organics by GC/MS plus Tentatively Identified Compounds (TICs). All groundwater sampling was completed in one day, thereby limiting QA/QC samples to the following: one field and trip blank and one Matrix Spike/Matrix Duplicate (MS/MSD). No QA/QC samples were collected by the NYSDEC for their separate analysis. After the completion of the groundwater sampling, the Geoprobe boreholes were grouted to seal same.

4.0 QUALITY ASSURANCE / QUALITY CONTROL PROCEDURES

Quality Assurance /Quality Control (QA/QC) procedures were developed to ensure that suitable and verifiable data results from sampling and analysis are maintained during the field. The investigation work plan provided detailed quality assurance procedures to be followed for sampling and laboratory analysis activities. These procedures were implemented during the investigation and a description of the quality assurance procedures followed is provided below.

4.1 Sampling Personnel

The activities associated with the field sampling and analysis program were performed under the supervision of a Quality Assurance Officer, in accordance with the NYSDEC, DER "Draft Technical Guidance for Site Investigation and Remediation", December, 2000 (3/26/01). The samplers possessed a minimum of two or more years experience in environmental/geological field work. Additionally, all samplers had received mandatory

forty-hour Occupational Safety and Health Administration (OSHA) training on working with potentially hazardous materials and appropriate Hazard Communication Program and Right-To-Know training.

4.2 Sampling Equipment

Individual QA/QC measures were implemented for each of the types of equipment, field screening instruments, sample containers, etc. used in the performance of the sampling program.

4.2.1 Geoprobe

Prior to arrival on the subject property and between sample locations, the probes were decontaminated by washing them with a detergent (Alconox) and potable water solution and rinsing them with distilled water.

4.2.2 Glassware

All sample glassware were "level A" certified decontaminated containers supplied by a NYSDOH-Certified Commercial Laboratory. Samples analyzed for media potentially containing VOCs were placed in Teflon-lined containers. All samples were preserved by cooling them to a temperature of approximately four degrees Celsius.

4.3 Sample Documentation

To establish and maintain proper sample documentation control, the following sample identification and chain-of custody procedures were followed.

4.3.1 Sample Identification

Sample identification was executed by use of a sample tag, log book and chain-of-custody form. Said documentation provided the following information: I) the

project code; 2) the sample laboratory number; 3) the sample preservation; 4) the date the sample was secured from the source media; 5) the time the sample was secured from the source media; and 6) the person who secured the sample from the source media.

4.3.2 Chain-of Custody Procedure

Due to the evidential nature of samples, possession was traceable from the time the samples were collected until they were received by the testing laboratory. A sample was considered under custody if it: was in a person's possession; it was in a person's view, after being in possession; if it was in a person's possession and they locked it up; or, it was in a designated secure area. When transferring custody, the individuals relinquishing and receiving the samples signed, dated and noted the time on the Chain-of-Custody Form.

4.3.3 Laboratory-Custody Procedures

A designated sample custodian accepted custody of the delivered samples and verified that the information on the sample tags matched that on the Chain-of-Custody Records. Pertinent information as to delivery, pick-up, courier, etc., were entered in the "remarks" section. The custodian entered the sample tag data into a bound logbook. The laboratory custodian used the sample tag number, or assigned a unique laboratory number to each sample tag, and assured that all samples were transferred to the proper analyst or stored in the appropriate source area. The laboratory custodian distributed samples to the appropriate analysts. Laboratory personnel were responsible for the care and custody of samples, from the time they were received, until the sample was exhausted or returned to the sample custodian. All identifying data sheets and laboratory records were retained as part of the permanent documentation. Samples received by the laboratory were retained until after analysis and quality assurance checks were completed.

5.0 GROUNDWATER INVESTIGATION

Three existing monitoring wells (MW-1, MW-2 and MW-3) and three temporary monitoring wells (GP-8, GP-9 and GP-10) were sampled on December 2, 2003 under the oversight of the NYSDEC as described in Section 3.0. A data usability (validation) analysis for data analyzed in accordance by NYSDEC ASP B deliverables was performed by a third party validator (Lab Validation, Inc.) before use in this investigation report. A copy of the summary analytical testing data and the data validation report is provided in Appendix C. The summary data tables provided (Tables 1 and 3) reflect the data validation/usability analysis wherein the data has already been qualified accordingly.

It should be noted that for comparative basis, the reader should evaluate data reported for MW-1 in comparison with GP-8; MW-2 data in conjunction with GP-9; and MW-3 in association with GP-10. Each of the temporary Geoprobe wells represents a deeper sampling interval, at the same relative location, of the monitoring wells. Furthermore, the December 2003 data was developed in order for a comparison to be made to the December 1996 groundwater testing data generated by NYSDEC under a prior Preliminary Site Assessment (see VCP VI Work Plan). A detailed discussion of these data relationships is provided in the following sections.

5.1 Analytical Testing Results - VOCs

A total of nine (9) groundwater samples were collected and submitted to a NYSDOH ELAP-certified laboratory (H2M Labs) for TCL VOC analysis by EPA Method 8260 - Purgeable Organics by GC/MS plus TICs with appropriate QA/QC samples. Three samples were one each from MW-1 to MW-3 and two discrete intervals each from GP-8 to GP-10 (see Table 1). In order to determine groundwater quality, the analytical testing results for the groundwater samples were compared to the NYSDEC Groundwater Class Ga Potable Ambient Water Quality Standards and Guidance Values (SGVs) (NYSDEC TOGS 1.1.1) Revised April 2000. A total of four groundwater samples (MW-1, MW-2, MW-3 and GP-10)

were separately collected and submitted by the NYSDEC to a NYSDOH ELAP-certified laboratory (Lionville Labs) for analysis for TAL inorganics.

The following discussion provides a summary of the data set generated under the VCP with NYSDEC ASP B deliverables. For additional reference, it should be acknowledged that the NYSDEC VOC split sample results are consistent with the ASP B deliverable data or in other instances, reported concentrations less than, but within the same order of magnitude, as the NYSDEC ASP B data set generated by H2M Labs.

Four VOC compounds were quantified above their respective Method Detection Limits (MDLs) at five of the nine groundwater sampling locations. Specifically, 1,2-dichloroethene (1J *ug*/L to 11J *ug*/L), trichloroethene (2J *ug*/L to 3 *ug*/L), acetone (ND to 3 J *ug*/L) and tetrachloroethene (1 J *ug*/L to 39 *ug*/L) were reported at these five groundwater sampling locations at the range in concentration shown in parentheses.

Of these detections, the following sampling locations reported concentrations of VOCs above their respective SGVs of 5 *ug*/L: tetrachloroethene [6 J *ug*/L at MW-2 (5-15 ft bgs)], [39 *ug*/L at MW-3 (5-15 ft bgs)] and [11 *ug*/L at GP-10 (24-26 ft bgs)]. 1,2-dichloroethene was reported above its respective SGVs at [11 J *ug*/L at MW-3 (5-15 ft bgs)] and at [7J *ug*/L GP-10 (24-26 ft bgs)]. Neither trichloroethene or acetone were present at any sampling locations above their respective SGVs. Sampling locations GP-8 (26-28 ft bgs), GP-8 (41-43 ft bgs), GP-9 (24-26 ft bgs), GP-9 (37-39 ft bgs), did not report any VOCs above respective MDLs.

In addition to establishing current groundwater quality data, additional comparison was made to the historic December 1996 groundwater testing data. This analysis was performed to allow an evaluation of the changes in groundwater quality relative to the completion of remediation of SD-6 in September 2000. Specifically, this comparison was performed to determine if VOC concentrations have decreased in on-site groundwater. Data on VOC groundwater concentrations at an approximately 15 foot deeper interval on-site was also

developed under this work plan to provide supplemental information regarding any vertical migration of VOCs relative to the former storm drain.

Table 3 provides a summary of comparison of the December 1996 VOC site data to December 2003 VOC data. The reader should note the following relationships: MW-1 was evaluated with respect to historic GP-1 sampling location and current GP-8 groundwater data; MW-2 with historic GP-4 sampling location in conjunction with GP-9; and MW-3 with historic GP-6 sampling location in conjunction with GP-10.

The data comparison at the upgradient location indicates generally an absence of detectable VOCs at all sampling depths, current and historic. However, elevated Tentatively Identified Compounds (TICs) are present at a range of 67NJ ug/L to 2,729 *ug*/L, with increases noted at increasing depth within the aquifer.

The data comparison at the MW-2, located directly downgradient of SD-6, indicates only a slightly elevated estimated concentration of one VOC (tetrachloroethene at 6J *ug*/L at MW-2) and the absence of detectable VOCs at the remainder of sampling depths. Comparison with historic data indicates a substantial reduction in VOC concentrations at the shallow groundwater table interface (former GP-4 reported in 1996 a concentration of tetrachloroethene at 45 *ug*/L at a depth of 7 ft bgs). TICs were also present at a range of 26 NJ *ug*/L to 3,372 *ug*/L, the same order of magnitude concentration as that quantified in the upgradient location.

The MW-3 location, which is also relatively downgradient of the SD-6 location, reported two VOCs, tetrachloroethene [11 J *ug*/L and 39 *ug*/L at GP-10 (22-24 ft bgs) and MW-3], 1,2-dichloroethene [7J *ug*/L and 11J *ug*/L at GP-10 (22-24 ft bgs) and MW-3] elevated above their SGVs. Again, comparison with the 1996 data indicates a substantial reduction in VOC concentrations from 170 *ug*/L of tetrachloroethene reported at GP-6 at a depth of 22 ft bgs. TICs were also present at a significantly lower range in concentration of 10 NJ *ug*/L to 27 *ug*/L at this location.

Specifically, the 2003 VOC sampling data at MW-2/GP-9 and MW-3/GP-10 clearly demonstrates either non-detection, or a decrease of VOCs with increased depth below grade at the subject property. This is very significant in that the data is supportive of an absence of environmental concerns relative to the vertical migration of VOCs associated with SD-6.

5.2 Analytical Testing Results - Inorganics

A total of three groundwater samples (MW-1, MW-2 and MW-3) were collected and submitted only by the NYSDEC to a NYSDOH ELAP-certified laboratory (Lionville Labs) for TAL inorganics. No ASP B data package was provided for same or any QA/QC samples. In order to determine groundwater quality, the analytical testing results for the groundwater samples were compared to the NYSDEC Groundwater Class Ga Potable Ambient Water Quality SGVs (NYSDEC TOGS 1.1.1) Revised April 2000. Table 2 provides a summary of these data. Analysis for TAL inorganics was performed to allow an evaluation of historic data which indicated that slightly elevated chromium (relative to upgradient concentrations) was present at the site.

Fifteen[1] out of sixteen inorganic (metals) parameters that constitute the TAL were detected; however, it should be noted that these compounds are naturally occurring in groundwater. Out of these fifteen inorganic parameters, only two (barium and manganese) constituents analyzed for were elevated above their respective SGVs at two of three monitoring locations. Specifically, barium was present at slightly elevated concentrations of 1,270 *ug*/L and 1,060 *ug*/L at MW-1 and MW-2, respectively, as compared to its SGV of 1,000 *ug*/L. Manganese was present at 309 *ug*/L and 1,150 *ug*/L at MW-1 and MW-3 ,respectively, as compared to its SGV of 300 *ug*/L. Both of these compounds are naturally occurring and are not known to have been used at the subject property. Furthermore, elevated naturally

[1] Vanadium was not reported above its MDL.

occurring manganese is known to commonly be present on Long Island in the Upper Glacial aquifer. No exceedances of chromium were noted at any of the sampling locations and therefore, no impacts due to chromium were identified. Based upon the above, the limited and likely naturally occurring exceedances of the two inorganic compounds are not an environmental concern at the subject property.

6.0 SUMMARY AND CONCLUSIONS

The scope of work set forth in the approved Voluntary Investigation Work Plan was completed at the subject property from September to December 2003.

6.1 Summary

6.1.1 Monitoring Well Installation / Groundwater Flow Calculation

On September 8 - 11, 2003, three (3) shallow groundwater monitoring wells were installed at the subject property to determine the direction of groundwater flow and other aquifer characteristics specific to the study site. Based upon the direction of groundwater flow determined on October 2, 2003, it was subsequently confirmed with the NYSDEC that the proposed locations of the three temporary monitoring wells and the three installed monitoring wells were consistent for their intended purpose of groundwater quality monitoring. Localized groundwater flow direction was determined to be to the southeast, consistent with the regional groundwater flow direction established by SCDHS water table maps. The horizontal groundwater flow gradient was determined to be 0.002 ft/ ft. based upon a slope of 0.58 ft over a distance of 304 feet at the subject property. Using a regionally established average value for horizontal hydraulic conductivity of the Upper Glacial aquifer of 270 ft/day, an average porosity of 0.30, a horizontal groundwater flow velocity of 1.72 feet per day was calculated. A supplemental groundwater elevation mapping effort in December 2003 confirmed the localized groundwater flow direction.

6.1.2 Groundwater Sampling

Groundwater samples were collected from the three existing monitoring wells (MW-1, MW-2 and MW-3) and three temporary monitoring wells (GP-8, GP-9 and

GP-10) at two discrete intervals on December 2, 2003 under the oversight of the NYSDEC. MW-1, MW-2 and MW-3 samples were split for analysis for VOCs by NYSDEC. Supplemental samples from MW-1, MW-2, MW-3 and GP-10 (22-24 ft bgs) were collected and submitted by the NYSDEC for TAL inorganics. These data were provided to BEI for inclusion in this report.

Two VOC compounds were reported above their respective NYSDEC SGVs of 5 *ug*/L at three of the nine sampling intervals: tetrachloroethene [6 J *ug*/L at MW-2 (5-15 ft bgs)], [39 *ug*/L at MW-3 (5-15 ft bgs)] and [11 *ug*/L at GP-10 (24-26 ft bgs)]. 1,2-dichloroethene was reported above its respective SGVs at [11 J *ug*/L at MW-3 (5-15 ft bgs)] and at [7J *ug*/L GP-10 (24-26 ft bgs)]. Comparison with 1996 data indicates a substantial reduction in VOC concentrations at the prior groundwater intervals sampled. Furthermore, the 2003 VOC sampling data clearly demonstrates either non-detection, or a decrease of VOCs with increased depth below grade at the subject property. This study confirms that no unidentified remaining significant environmental concerns are present in on-site groundwater relative to SD-6, either shallow or deep. TICs were also present at a range of 26 NJ *ug*/L to 3,372 *ug*/L, the same order of magnitude concentration as that quantified in the upgradient location.

Analysis for inorganic parameters by the NYSDEC indicated only two constituents (barium and manganese) present at concentrations elevated above their respective SGVs. No exceedances of chromium, which was the historic target compound of potential environmental concern, were reported at any of the sampling locations. Based upon the above, no significant environmental concerns relative to the presence of inorganic compounds were identified at the subject property.

6.2 Conclusions

The scope of work set forth in the approved Voluntary Investigation Work Plan was completed at the subject property. The December 2003 results of analytical testing of groundwater, both upgradient and downgradient of SD-6, indicates that concentrations of VOCs have significantly decreased from 1996 to 2003. Furthermore, the 2003 VOC sampling data clearly demonstrates either non-detection, or a decrease of VOCs with increased depth below grade at the subject property. This investigation confirms that no unidentified remaining significant environmental concerns are present in on-site groundwater relative to SD-6.

Analysis for inorganic parameters by the NYSDEC reported no exceedances of chromium, which was the historic target compound of potential environmental concern at any of the sampling locations. Based upon the above, no significant environmental concerns relative to the presence of inorganic compounds were identified at the subject property.

As the scope of work set forth in the approved Voluntary Investigation Work Plan was successfully completed at the subject property and no remaining significant environmental concerns are present in on-site groundwater, it is requested that this project be considered by the NYSDEC for closure under the Voluntary Cleanup Program.

TABLES

Table 1

Summary of Volatile Organic Compounds (VOCs) Detected and/or Elevated Above the NYSDEC Ambient Water Quality Standards or Guidance Values

VOCs (*ug*/L)	MW-1* 8-18 ft	GP-8 26-28 ft	GP-8 41-43 ft	MW-2* 5-15 ft	GP-9 22-24 ft	GP-9 37-39 ft	MW-3* 5-15 ft	GP-10 22-24 ft	GP-10* 37-39 ft	NYSDEC SGVs (*ug*/L)
Carbon disulfide	NA/1 J	NA	NA	NA/ND	NA	NA	NA/1 J	NA/ND	NA	5
Tert-butyl methyl ether	NA/73	NA	NA	NA/34	NA	NA	NA/**11**	NA/40	NA	10
1,2-dichloroethene (total)	ND/ND	ND	ND	1 J/2J	ND	ND	**11J/8J**	**7 J/8J**	ND	5
Trichloroethene	ND/ND	ND	ND	ND/ND	ND	ND	3 J/2J	2 J/2J	ND	5
Acetone	ND/ND	ND	ND	ND/ND	ND	ND	ND/ND	ND/ND	3 J	50
Tetrachloroethene	1 J/ND	ND	ND	**6 J**/4J	ND	ND	**39/19**	**11/7J**	ND	5
Total VOCs	1 J/74J	--	–	7 J/40J	–	--	53 J/41J	20 J/57J	3 J	Not available
Total TICs	67 NJ/-	1,413 NJ	2,729 NJ	26 NJ/-	173 NJ	3,372 NJ	10 NJ/-	27 NJ/-	ND	Not available

* - Sample split by the NYSDEC. Data presented as BEI sample/NYSDEC sample results.
ND - Not Detected. NA - Not analyzed for. J - Estimated concentration. N - Presumptive evidence for compound. B- Blanks
MW - monitoring well. GP - temporary monitoring well.
Bold # indicates detected concentration exceeds NYSDEC Ambient Water Quality Standards or Guidance (SGVs) Values for Class Ga groundwater (potable). Methylene chloride detected in the NYSDEC split samples as a blank containment; not listed here.

Table 2

Summary of Inorganics Detected and/or Elevated Above the NYSDEC Ambient Water Quality Standards or Guidance Values

Inorganics (*ug*/L)	MW-1* 8-18 ft	GP-8 26-28 ft	GP-8 41-43 ft	MW-2* 5-15 ft	GP-9 22-24 ft	GP-9 37-39 ft	MW-3* 5-15 ft	GP-10 22-24 ft	GP-10* 37-39 ft	NYSDEC SGVs (*ug*/L)
Aluminum	128 B	NA	NA	246	NA	NA	65.2 B	NA	NA	Not available
Barium	**1,270**	NA	NA	**1,060**	NA	NA	213	NA	NA	1,000
Arsenic	2.9 U	NA	NA	2.9 B	NA	NA	2.9 U	NA	NA	25
Calcium	10,700	NA	NA	9,470	NA	NA	28,400	NA	NA	Not available
Copper	2.9 B	NA	NA	1.8 B	NA	NA	4.7 B	NA	NA	200
Cobalt	4.0 B	NA	NA	0.9 U	NA	NA	2.2 B	NA	NA	Not available
Chromium	1.1 B	NA	NA	1.6 B	NA	NA	0.95 B	NA	NA	50
Cadmium	0.30 U	NA	NA	0.30 U	NA	NA	0.30 U	NA	NA	5
Magnesium	2,120 B	NA	NA	1,180 B	NA	NA	5,720	NA	NA	35,000
Iron	487	NA	NA	379	NA	NA	455	NA	NA	500
Manganese	**309**	NA	NA	30.8	NA	NA	**1,150**	NA	NA	300
Potassium	10,400	NA	NA	10,200	NA	NA	5,890	NA	NA	Not available
Nickel	1.7 B	NA	NA	1.6 U	NA	NA	1.6 U	NA	NA	100
Vanadium	0.60 U	NA	NA	0.83 B	NA	NA	0.60 U	NA	NA	Not available
Sodium	17,700	NA	NA	12,200	NA	NA	16,900	NA	NA	20,000
Zinc	72.7	NA	NA	5.0 B	NA	NA	4.0 B	NA	NA	2,000

* - Sample split by the NYSDEC. Data presented as BEI sample/NYSDEC sample results.
U/ND - Not Detected. NA - Not analyzed for. J - Estimated concentration. N - Presumptive evidence for compound. B- Blanks
MW - monitoring well. GP - temporary monitoring well.
Bold # indicates detected concentration exceeds NYSDEC Ambient Water Quality Standards or Guidance (SGVs) Values for Class Ga groundwaters (potable).

Table 3

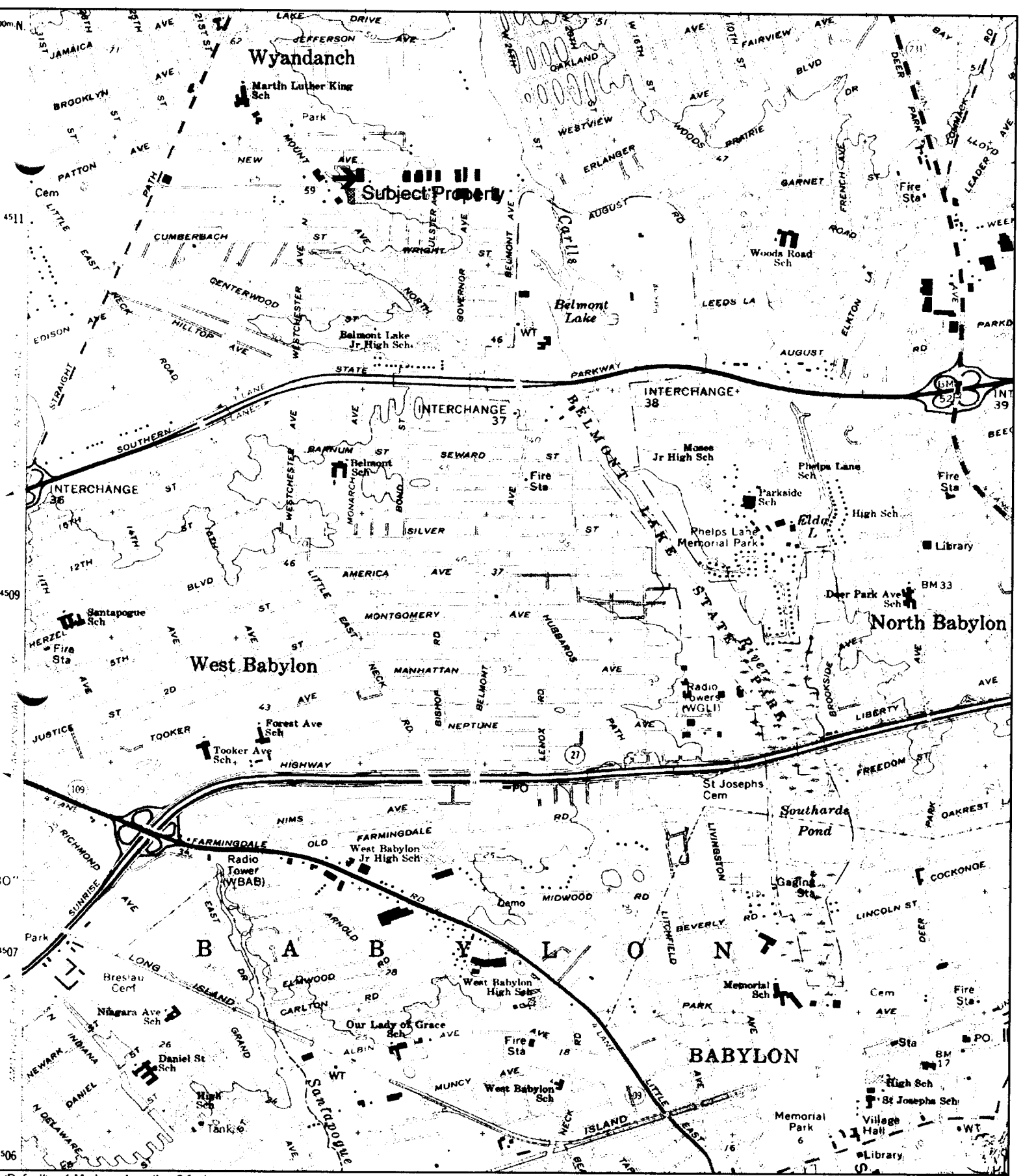
le Organic Compounds (VOCs) Detected and/or
ımbient Water Quality Standards or Guidance Values at
ater Sampling Locations and Monitoring Wells
December 2003 (MW-1, MW- 2 and MW- 3, GP-8, GP-9 and GP-10)

V-2* 15 ft	[redacted]	GP-9 22-24 ft	GP-9 37-39 ft	MW-3* 5-15 ft	[redacted]	GP-10* 22-24 ft	[redacted]	GP-10 37-39 ft	NYSDEC SGVs (ug/L)
J/2J		ND	ND	**11 J/8J**		**7 J/8J**		ND	5
ND		ND	ND	3 J/2J		2 J/2J		ND	5
ND		ND	ND	ND		ND		3 J	50
J/4J		ND	ND	**39/19**		**11/7J**		ND	5
J/3J		–	--	53 J/29J		20 J/17J		3 J	NA
NJ/-		173 NJ	3,372 NJ	10 NJ/-		27 NJ/-		ND	NA

ıce for compound.. ? Unavailable data from 1996.

s or Guidance Values for Class Ga groundwaters (potable).
NYSDEC split samples as a blank containment; not listed here.

FIGURES



<Default> - 1 Markers, Length = 0 feet

Subject Property - 040° 44' 30.7" N, 073° 21' 23.6" W

: BAY SHORE WEST
Date: 3/2/104
Scale: 1 inch equals 2000 feet

Location: 040° 43' 19.1" N 073° 20' 51.0" W
Caption: Burton Industries, Inc.
243 Wyandanch Ave
N Babylon, NY 11704
Figure 1

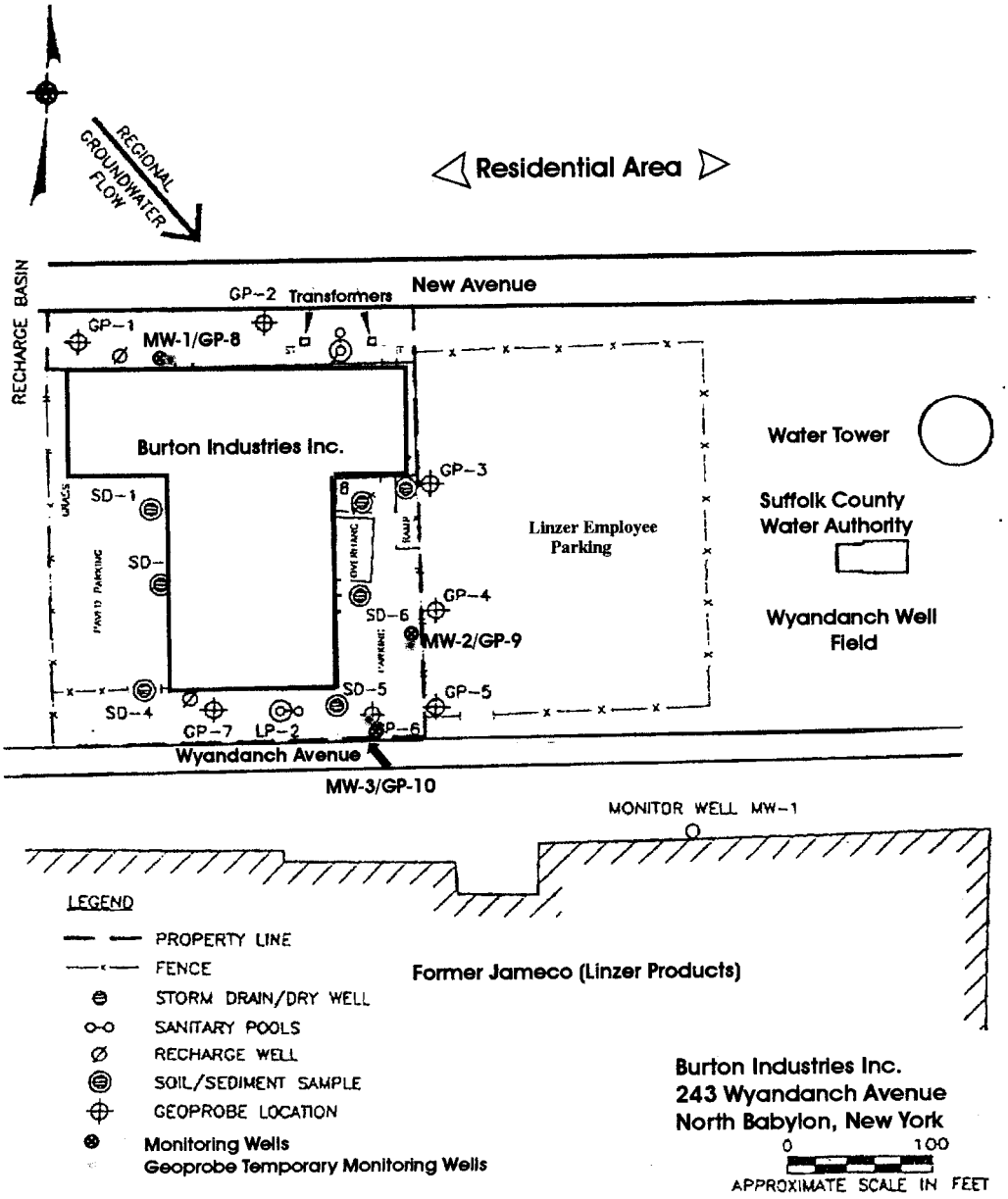


Figure 2 - Monitoring Well Installation/Groundwater Investigation - Tasks 1 & 2

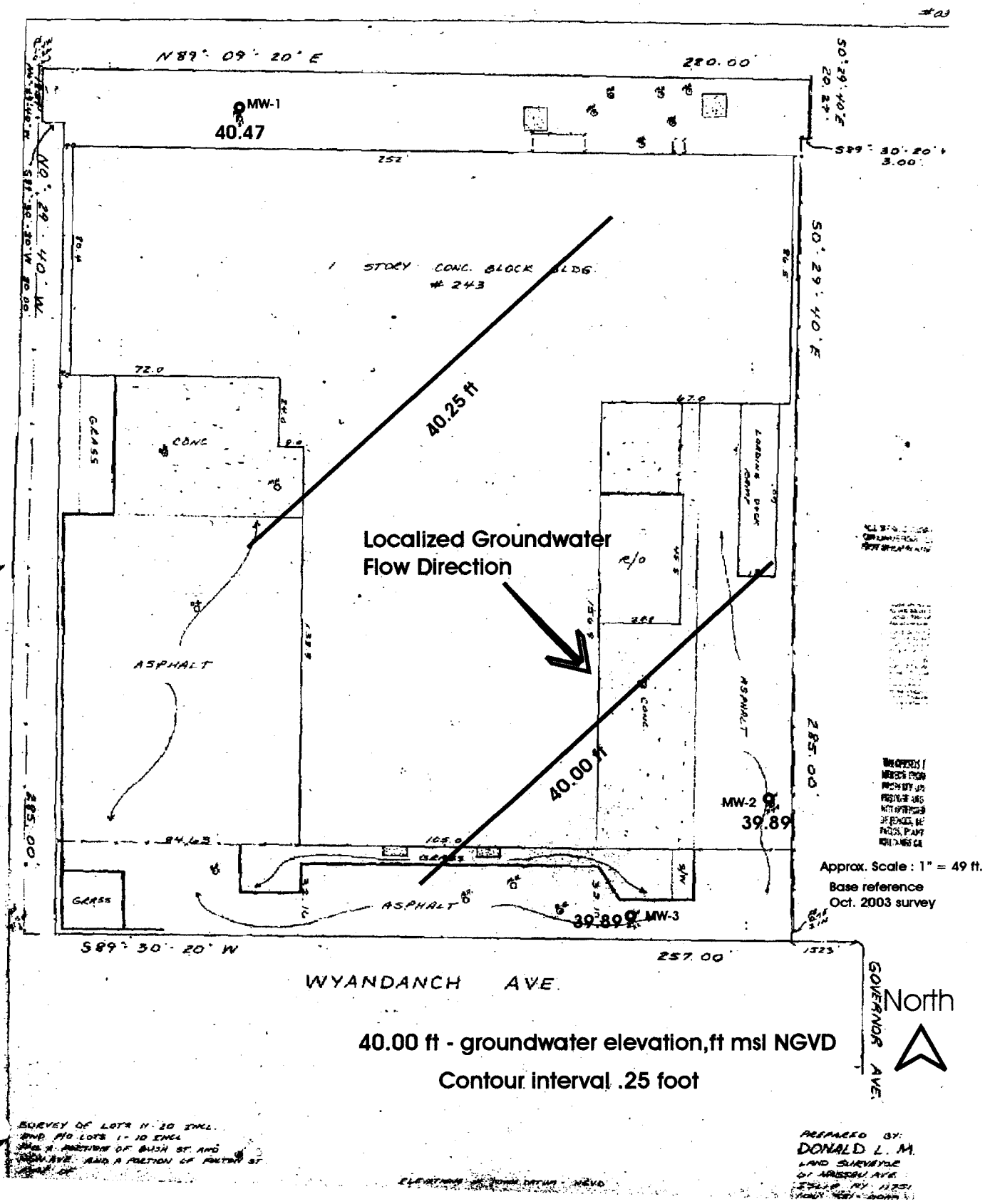


Figure 3 - Groundwater Elevation Map, October 2003

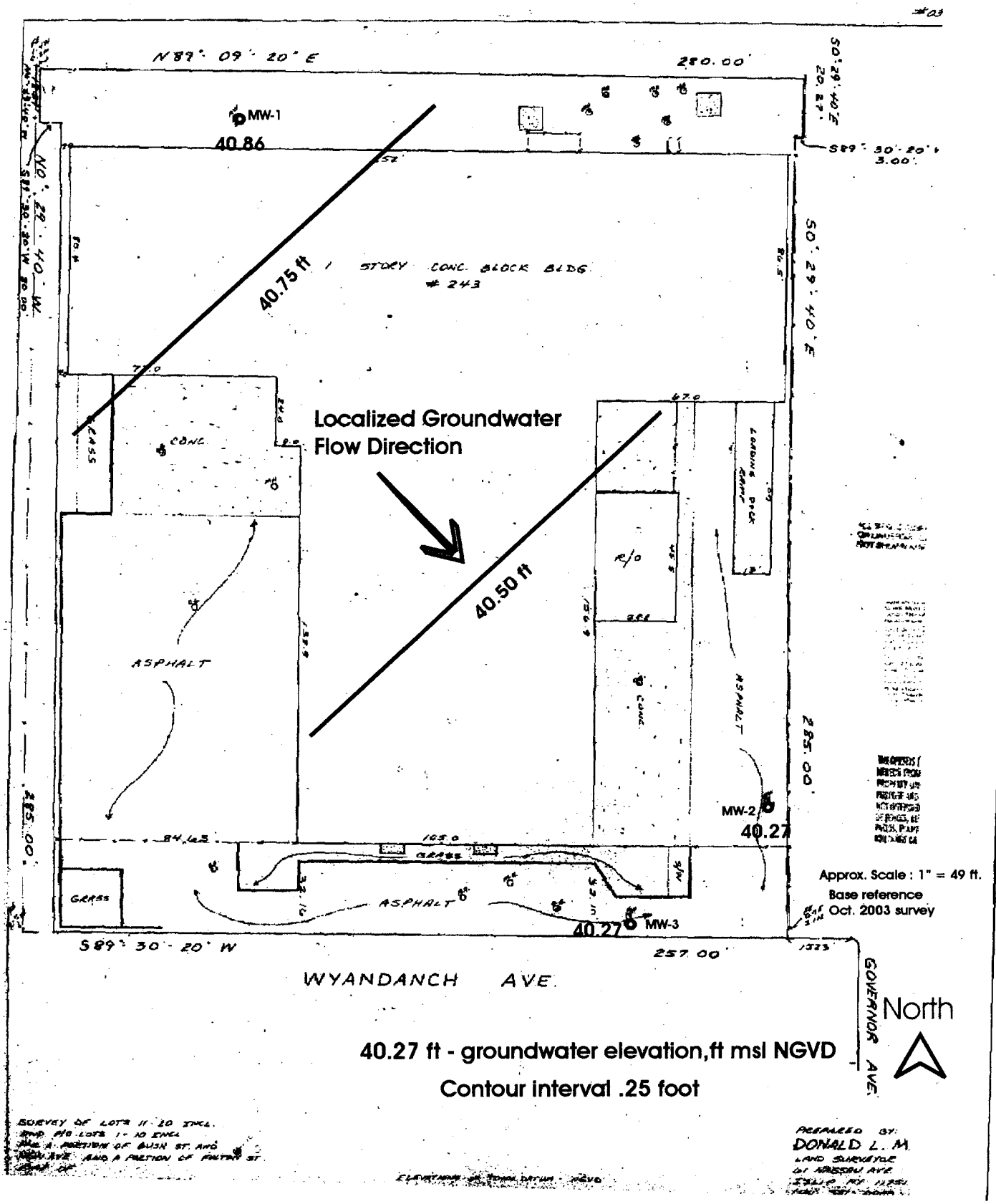
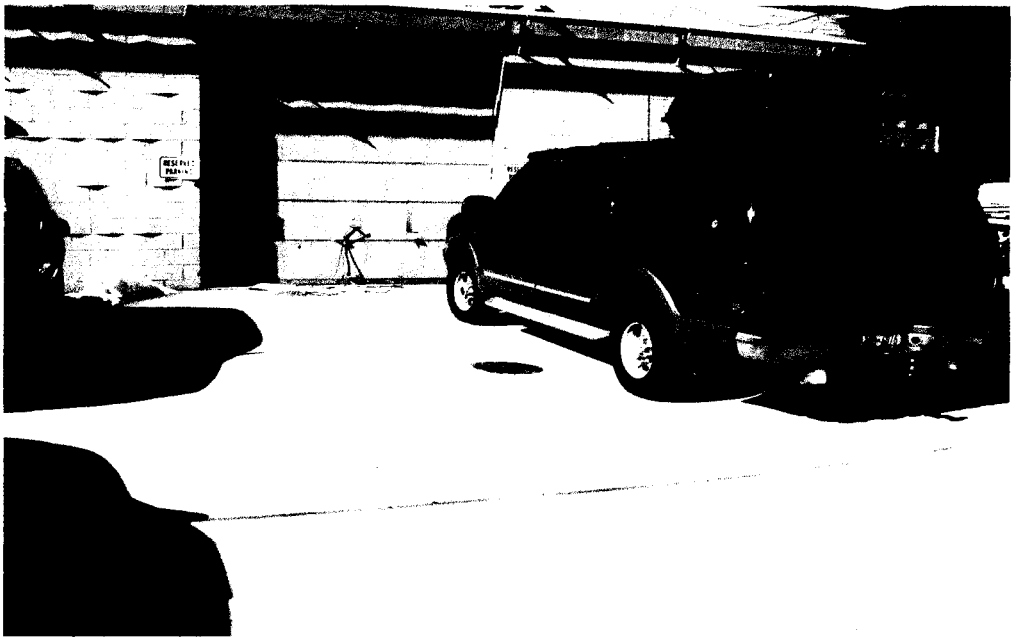


Figure 4 - Groundwater Elevation Map, December 2003

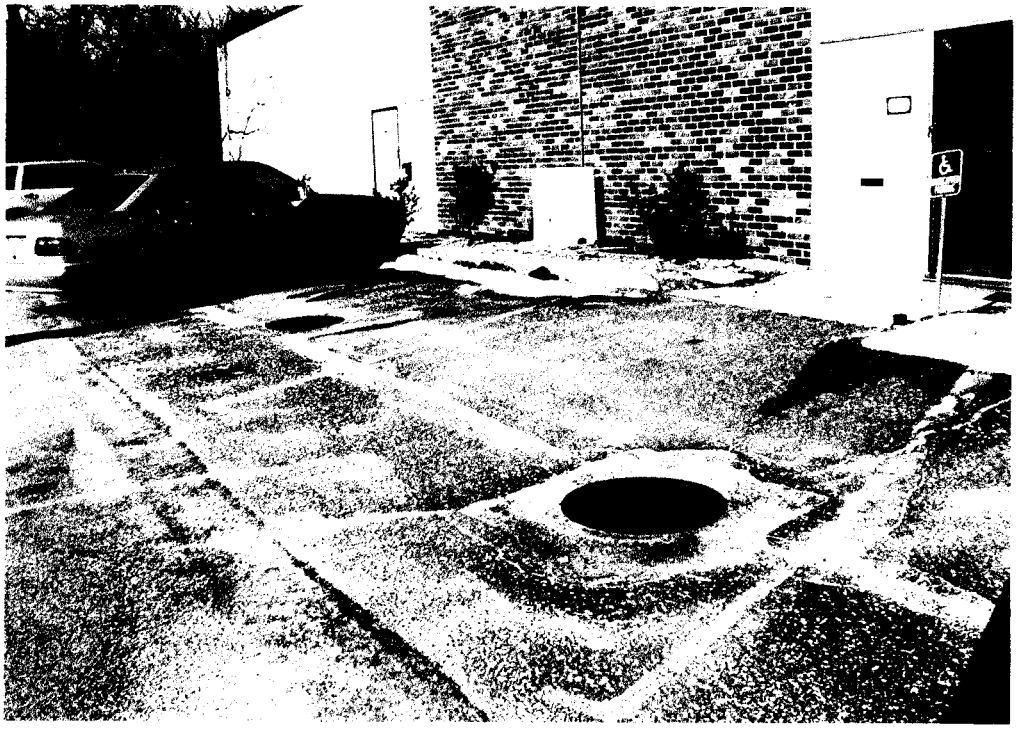
APPENDIX A

PHOTOGRAPHIC LOG

Photograph No. 1 – Front of Burton Industries Inc. building located on the north side of Wyandanch Avenue, North Babylon, New York.

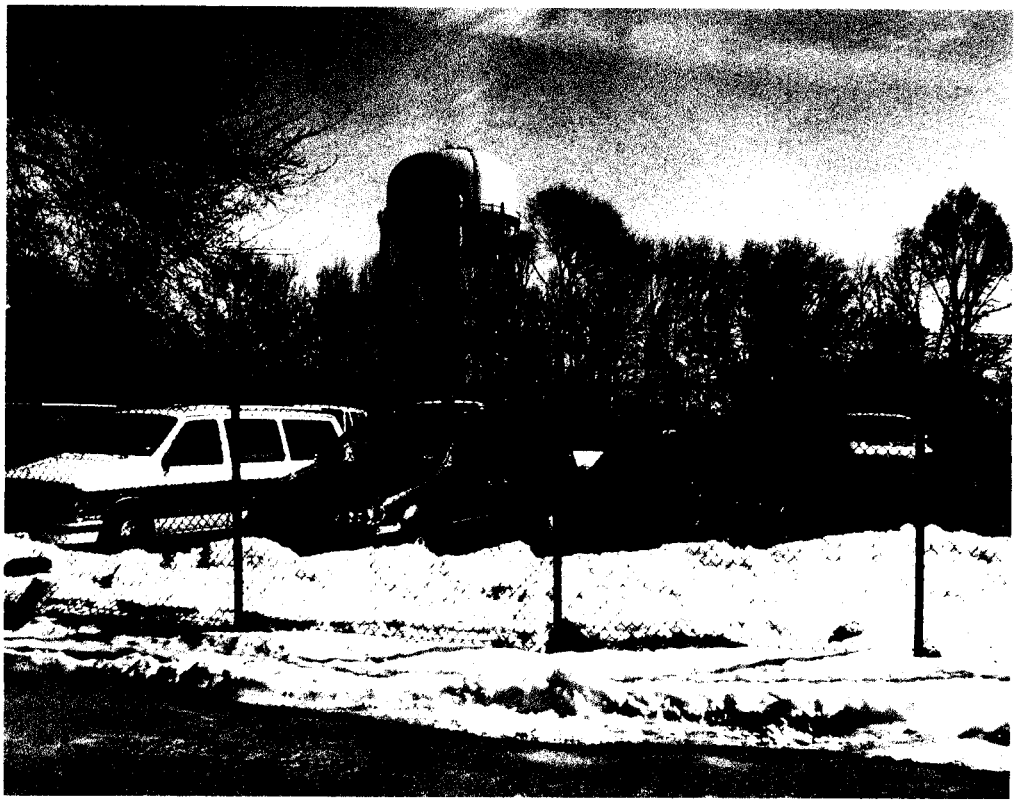


Photograph No. 2 – Location of Storm Drain No. 6, on the eastern side of the Burton Industries Inc. building where remediation was completed in September 2000. Groundwater sampling will be performed downgradient of same.



Photograph No. 3 – South-southeastern portion of the subject property; location of one of the on-site sanitary systems (note cover). Area of proposed groundwater investigation.

Photograph No. 4 – Southeastern portion of the subject property; location of natural gas service. Area of groundwater investigation.



Photograph No. 5 – Employee parking lot for Linzer Products Corp. to the east of the subject property. The SCWA well field is visible in the background.

Photograph No. 6 – Northern portion of subject property; location of proposed upgradient groundwater sampling.

Photograph No. 7 –Location of Linzer Products Corp. (former Jameco) to the south of the subject property. East-west view along the industrial corridor of Wyandanch Avenue.

APPENDIX B

BEI INTERIM REPORT AND OTHER FIELD DATA

Berninger Environmental, Inc.
groundwater consultants, engineers, geologists
1615 Ninth Avenue
Bohemia • New York • 11716

Phone: 631 • 588 • 2251
Fax: 631 • 588 • 2926
Web: www.BEI-NY.com

October 16, 2003

Mr. Jamie Ascher
Engineering Geologist 2
Division of Environmental Remediation, Region I
New York State Department of Environmental Conservation
Building 40, SUNY
Stony Brook, New York 11790-2356

Re: Task 1 of the Voluntary Investigation Work Plan
Burton Industries Inc.
243 Wyandanch Avenue, North Babylon, NY
Site No.:V-00239, Index No.:D1-0001-02-05

Dear Mr. Ascher:

Berninger Environmental, Inc., (BEI) respectfully submits for your review and consideration a summary of the results of Task 1 - Monitoring Well Installation/Groundwater Flow Direction Calculation of the Voluntary Investigation Work Plan that was performed for the Burton Industries Inc. facility located at 243 Wyandanch Avenue, North Babylon, New York.

Monitoring Well Installation

On September 8 -11, 2003, three (3) shallow groundwater monitoring wells were installed at the subject property to determine the direction of groundwater flow and other aquifer characteristics specific to the study site. A hollow stem auger drill rig was used to install three (3) groundwater monitoring wells to depths between 15 and 18 feet below grade surface (bgs), dependent upon depth to water. Depth to groundwater was measured at the subject property as approximately 7.5 feet bgs at the two downgradient wells, MW-2 and MW-3. Depth to water at the upgradient location was measured at approximately 11 feet bgs. Therefore, well construction consisted of 10 feet of 2 inch diameter, Schedule 40, 0.010 inch slotted well screen set to approximately three feet above the groundwater table interface and seven feet below. Approximately 5 to 8 feet of 2-inch diameter, Schedule 40, flush joint threaded riser pipe was used to finish the wells to grade. No split-spoon sampling was performed. (See attached schematic).

The screened interval was backfilled with No. 0 Morie sand to a depth of two feet above the screen. A three-foot bentonite seal followed by a cement-bentonite grout was installed to complete the annulus space backfill. Depths of the above materials were confirmed by measuring same using a steel tape during construction. An 8-inch cast iron flush mount manhole cover was cemented in place to complete the installation, well numbers were embedded in the concrete and the PVC top of the casing was notched on its north side for future elevation measurements.

With NYSDEC permission, the limited quantities of drill cutting spoils were spread on site at unpaved areas subsequent to screening with a Photoionization Detector (PID) which indicated concentrations consistent with ambient background conditions.

Monitoring Well Development and Elevation Survey

The wells were developed using a peristaltic pump and dedicated tubing and/or dedicated disposable polyethylene bailers after the well seal and grout had set for a minimum of 48 hours. The tubing/bailers were moved up and down throughout the screen interval during well development. Ms. Haimson supervised the well development and recorded procedures, quantities and characteristics of water removed in a field notebook; a summary is presented in the attached tables. A minimum of five wellbore volumes were removed during development. The turbidity, pH, temperature and conductivity of successive well volumes were recorded during development using the following instrumentation: Hanna Instruments HI93703 microprocessor turbidity unit; Myron L Co Ultrameter (Cond., Res. pH, TDS, ORP); ORS Sonic Probe and YSI 550A DO Meter. Efforts were successfully undertaken to develop the wells until turbidity was less than 50 NTUs and the wells were developed until pH, temperature and conductivity stabilized within 10% on successive well volumes (see attached tables). As indicated as acceptable by the NYSDEC, purge development waters were discharged upgradient/proximate to each of the well locations as no suspect field conditions were noted.

Subsequent to development, the location and casing elevations were determined by a New York State licensed surveyor (Mr. Donald Malm, Jr.) using National Geodetic Vertical Datum (NGVD). The elevation of the top of the well casing was provided to 0.01 foot and the well location to 0.10 foot. A copy of the survey was provided to BEI in early October, 2003.

Surveying the surface of the groundwater table was necessary to calculate the direction and velocity of groundwater flow. Upon completion of the wells, a small v-shaped notch was placed at the north side of the well casing as a future measuring point. Depth to groundwater was measured from each well to the nearest 0.01 foot using a sonic interface probe on October 3, 2003.

Groundwater flow direction was projected based upon measurements of depth to water on October 3, 2003 and elevation data from the surveying of the three groundwater monitoring wells at the subject property (see Figure 1). Localized groundwater flow direction has been determined to be to the southeast, consistent with the regional groundwater flow direction established by SCDHS water table maps. The horizontal groundwater flow gradient has been determined to be 0.002 ft/ ft. based upon a slope of 0.58 ft over a distance of 304 feet at the subject property. Using a regionally established average value for horizontal hydraulic conductivity of the Upper Glacial aquifer of 270 ft/day, an average porosity of 0.30, a horizontal groundwater flow velocity of 1.72 feet per day is calculated. This calculation is somewhat higher than the average literature regionally-established groundwater flow rates for the Upper Glacial aquifer (Perlmutter and Geraghty, 1963) of one foot per day.

MW-1	MW-2	MW-3
Survey Elevation: 51.65	Survey Elevation: 47.89	Survey Elevation: 48.09
Depth to GW: 11.18	Depth to GW: 8.00	Depth to GW: 8.20
GW Elevation: 40.47	GW Elevation: 39.89	GW Elevation: 39.89

All elevations are in feet, msl

Finalized Groundwater Sampling Locations

Based upon the direction of groundwater flow, the locations of the three temporary monitoring wells (via Geoprobe) are consistent with that previously proposed in the investigation work plan (see Figure 2). Based upon the localized groundwater flow direction, all three of the monitoring wells can be used for the collection of shallow water table samples. See table below for a summary of the proposed groundwater sampling program.

Sampling Location [1]	Groundwater Sample 7 - 13 ft bgs	Groundwater Sample 22 - 28 ft bgs	Groundwater Sample 37 - 43 ft bgs
MW-1	11 - 13 bgs (1)		
MW-2	7 - 9 bgs (1)		
MW-3	7 - 9 bgs (1)		
GP-8		26 - 28 bgs	41 - 43 bgs
GP-9		22 - 24 bgs	37 - 39 bgs
GP-10		22 - 24 bgs	37 - 39 bgs

Notes:

(1) If wells are determined to be adequate by NYSDEC; otherwise samples will be collected at GP-8, GP-9 or GP-10. All groundwater sampling is to be performed in one day, limiting QA/QC samples to one field blank and trip blank and one MS/MSD.

Please advise as to NYSDEC's opinion on this matter at your earliest convenience so that a schedule for the groundwater sampling effort can be established.

Please feel free to give this office a call if you have any questions.

Sincerely,
Berninger Environmental, Inc.

Jill Haimson, PG, CGWP
Project Manager/ Geologist

Walter Berninger
President

cc: John Soderberg, P.E., Esq
207 Hallock Road
Suite 212
Stony Brook, New York 11790
631-751-6458

Mr. Richard Santos
c/o Burton Industries
243 Wyandanch Avenue
North Babylon, NY 11702
631-643-6660

Gary Litwin
Bureau of Environmental Exposure Investigation
New York State Department of Health
547 River Street
Troy, New York 12180
518-402-2880

Mr. Stanley Yoel
80-00 Cooper Avenue
Building #10
Glendale, New York 11385
718-326-8000

Michael J. Lesser, Esq.
Division of Environmental Enforcement
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233
518-402-9620

Table 1 - Monitoring Well No. 1 (MW-1) Development Data

Purge volume (3 wellbores)	Purge volume (6 wellbores)	Final Purge volume gallons	DTW, ft bgs
3.52 gallons	7 gallons	8.5 gallons	10.66
pH: 6.27	pH: 6.30	pH: 6.31	
Temp: 21.8 C	Temp: 21.8 C	Temp: 21.5 C	
Spec. Conduct.: 249.9	Spec. Conduct.: 244.5	Spec. Conduct.: 245.6	
NTUs: 48.09	NTUs: 4.07	NTUs: 17.14	
TDS: 163.1	TDS: 159.6	TDS: 160.4	
		ORP: 16	
		DO: 1.93	

Table 2 - Monitoring Well No. 2 (MW-2) Development Data

Purge volume (3 wellbores)	Purge volume (5 wellbores)	Final Purge volume gallons	DTW, ft bgs
3.6 gallons	6.5 gallons	8.0 gallons	7.48
pH: 6.35	pH: 6.25	pH: 6.33	
Temp: 20.1 C	Temp: 20.98 C	Temp: 20.7 C	
Spec. Conduct.: 137.9	Spec. Conduct.: 135.5	Spec. Conduct.: 137.7	
NTUs: 15.63	NTUs: 12.7	NTUs: 8.83	
TDS: 89.02	TDS: 87.33	TDS: 88.77	
		ORP: 97	
		DO: 2.10	

Table 3 - Monitoring Well No. 3 (MW-3) Development Data

Purge volume (3 wellbores)	Purge volume (5 wellbores)	Final Purge volume gallons	DTW, ft bgs
3.5 gallons	6.0 gallons	8.2 gallons	7.73
pH: 3.48	pH: 5.8	pH: 6.07	
Temp: 18.9 C	Temp: 18.98 C	Temp: 19 C	
Spec. Conduct.: 430.1	Spec. Conduct.: 419.4	Spec. Conduct.: 420.3	
NTUs: 0.40	NTUs: 5.30	NTUs: 1.76	
TDS: 289.4	TDS: 280.2	TDS: 281.0	
		ORP: 61	
		DO: 2.0	

Two inch diameter well bore volumes are 0.16 gallons per linear foot.

Spec. Conduct. = Specific Conductivity
TDS - Total Dissolved Solids
NTUs = Nepholometric Units
ORP = Oxygen Reduction Potential
DO = Dissolved Oxygen

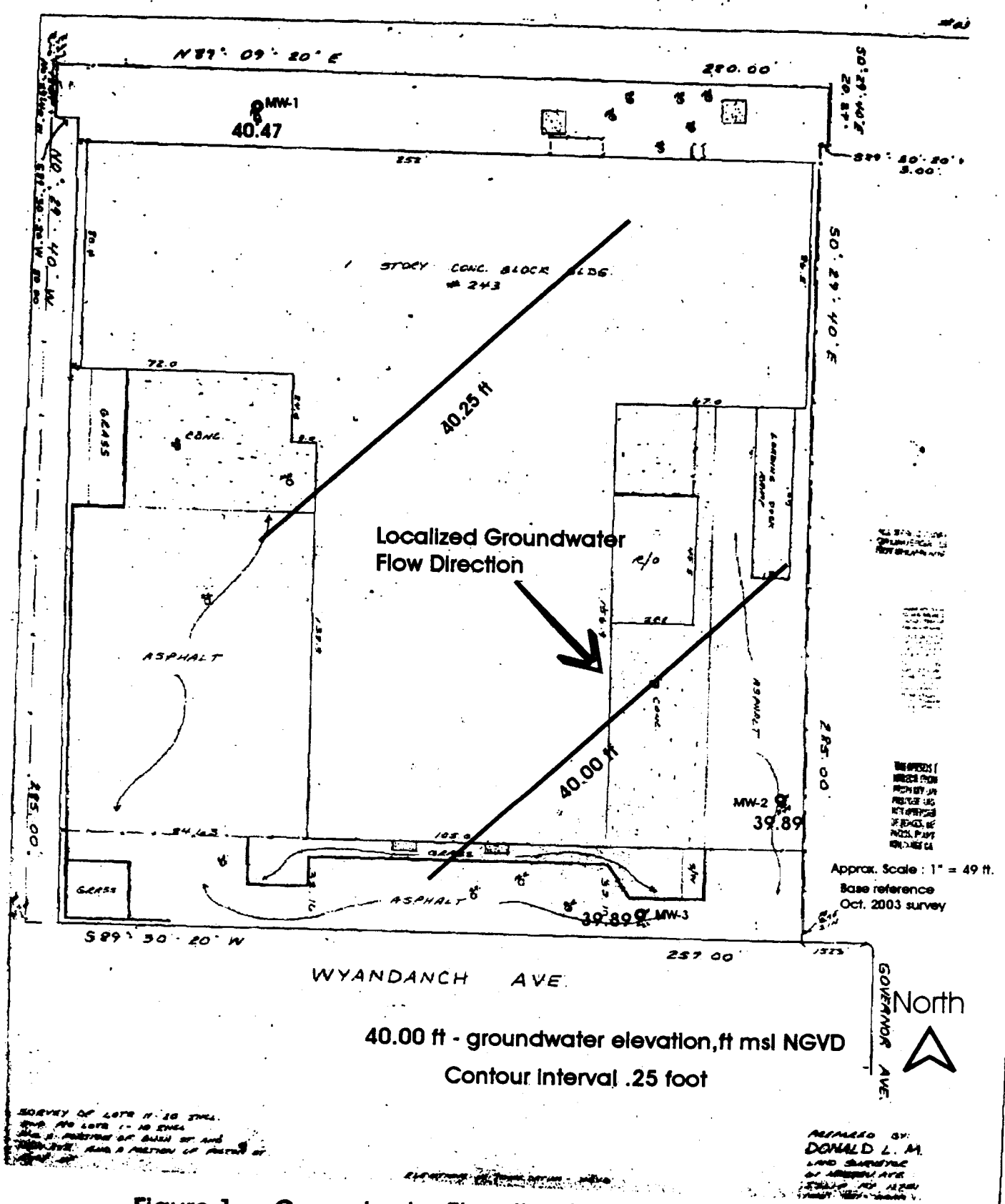


Figure 1 - Groundwater Elevation Map, October 2003

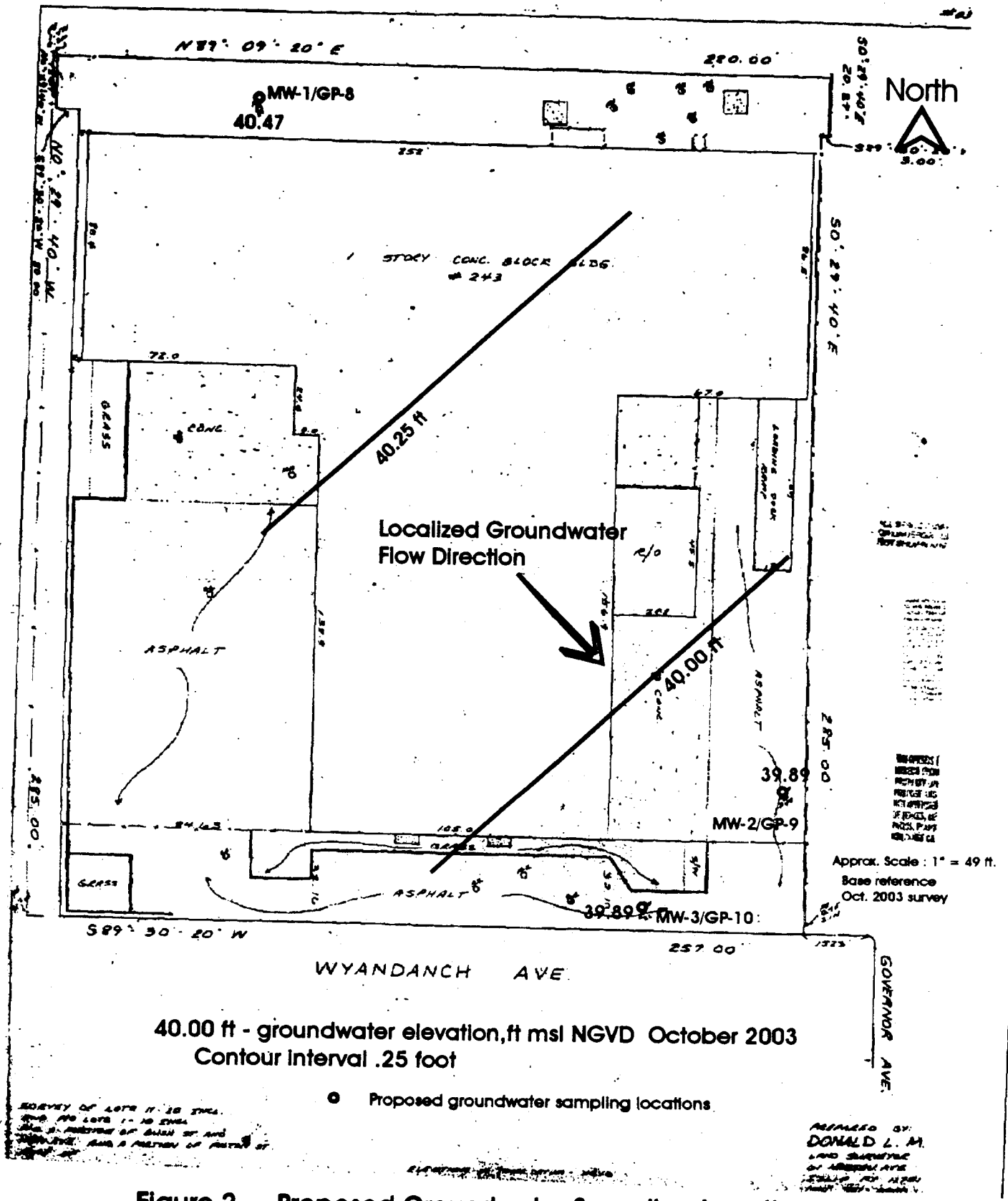
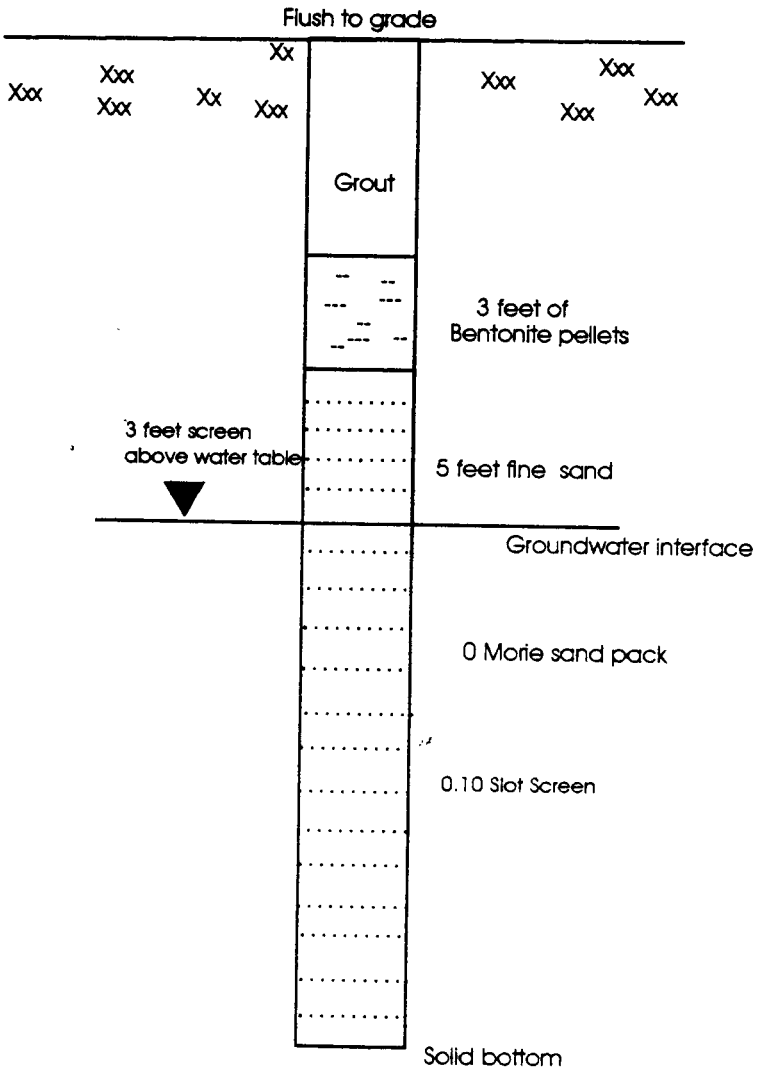


Figure 2 - Proposed Groundwater Sampling Locations

TYPICAL MONITORING WELL SCHEMATIC



BEi

BERNINGER ENVIRONMENTAL, INC.

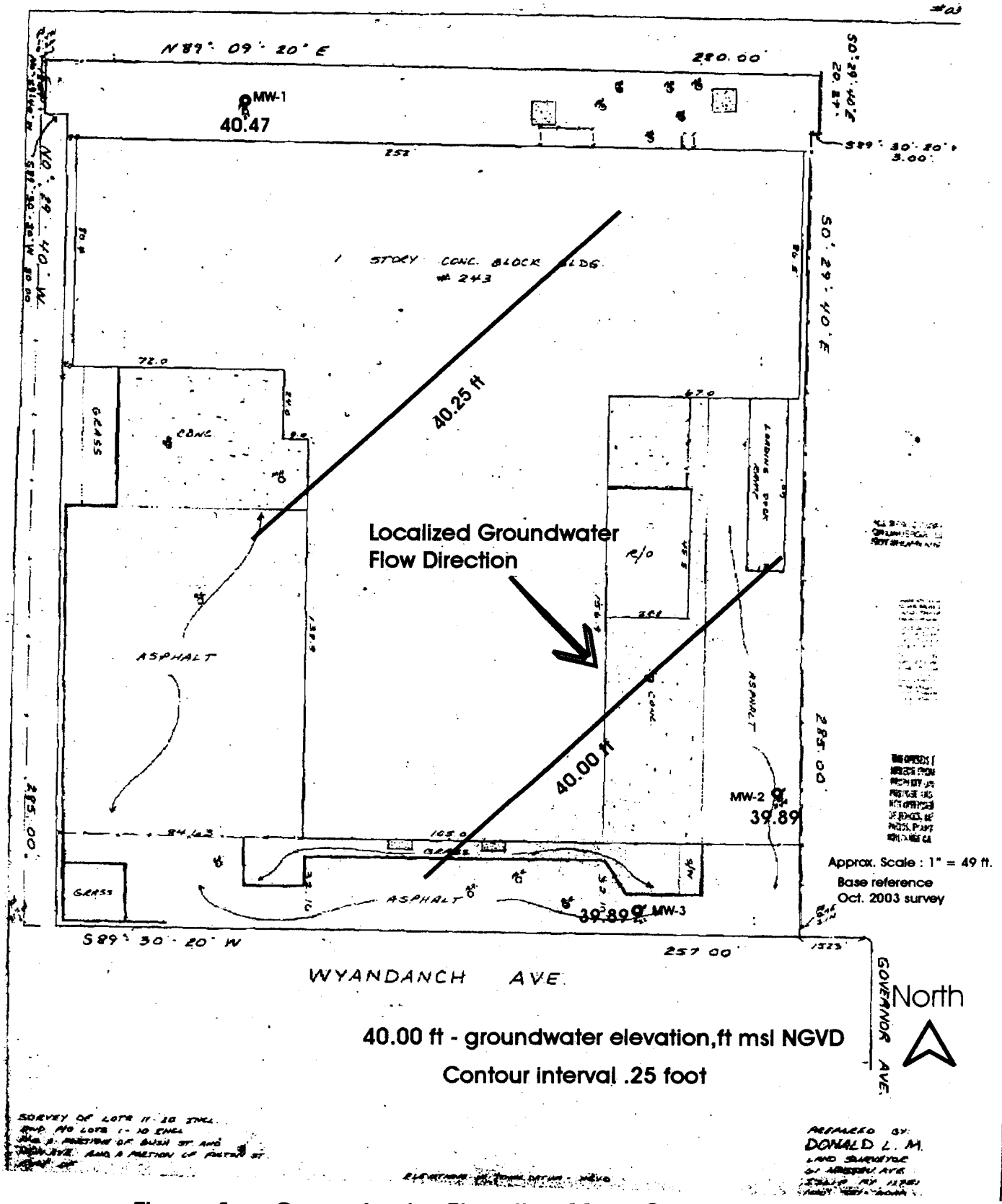


Figure 1 - Groundwater Elevation Map, October 2003

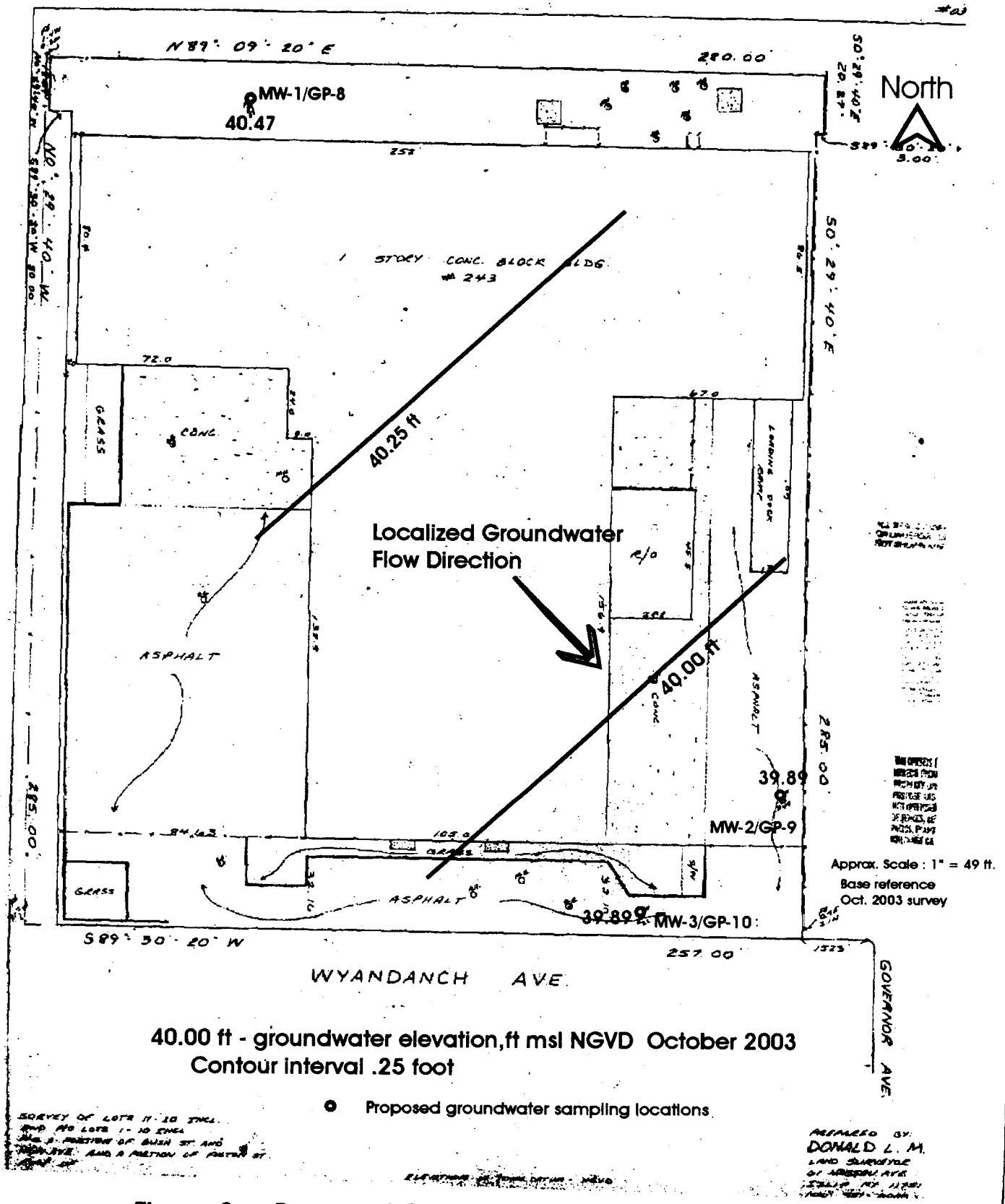
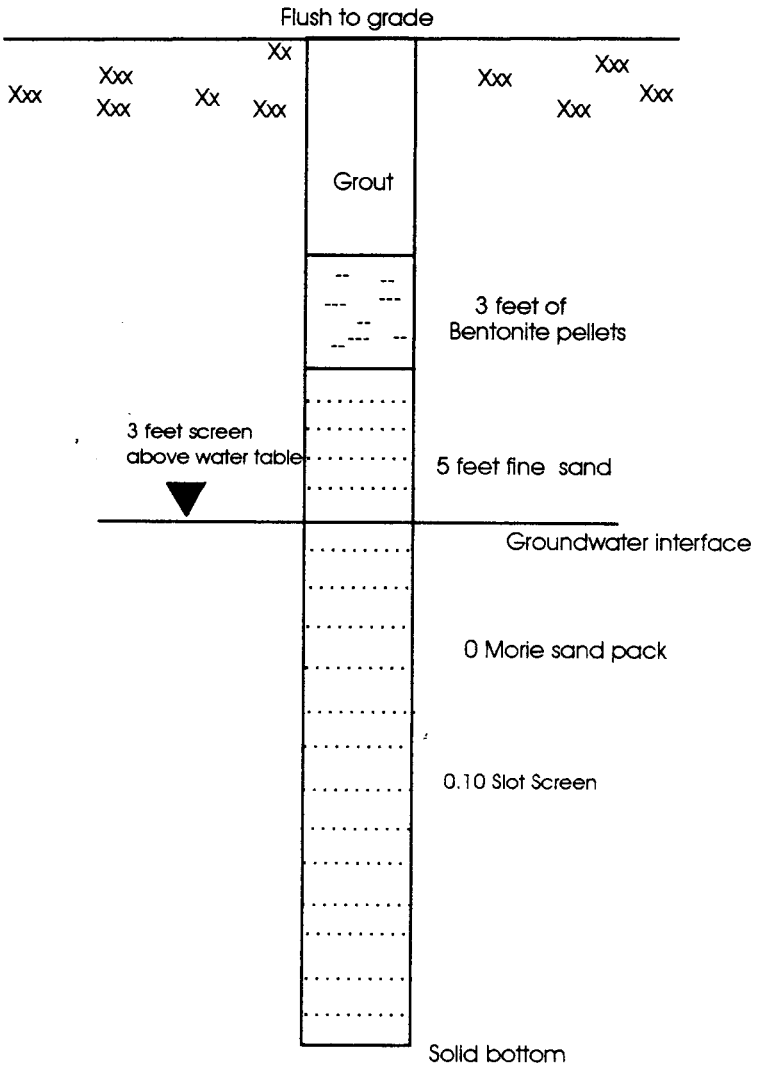


Figure 2 - Proposed Groundwater Sampling Locations

TYPICAL MONITORING WELL SCHEMATIC



BEi

BERNINGER ENVIRONMENTAL, INC.

Monitoring Well Nos. 1, 2 and 3 Purging Data

	MW-1	MW-2	MW-3
Purge vol.	3.50 gallons	3.4 gallons	3.3 gallon
pH	6.4	6.3	6.5
H2O Column	6.71 ft	6.88	6.68 ft
Temp.,degrees	21 C	21 C	21 C
Spec. C.:	135.8	138.9	140.1
NTUs	12	10	12
TDS:	85.6	86.9	83.7

Notes:

Geoprobe locations were purged until turbidity was noted to be minimal. Sample was collected immediately thereafter.

APPENDIX C

DATA VALIDATION REPORTS AND SAMPLE DATA SUMMARY PACKAGE

L.A.B. Validation Corp. 14 West Point Drive, East Northport, N.Y. 11731

DATA VALIDATION REPORT

ORGANIC ANALYSES

NYSDEC ASP 10/95 SW846 METHOD 8260B
VOLATILES BY GC/MS

For Groundwater Samples Collected
December 02, 2003
From 243 Wyandanch Avenue, North Babylon, New York
Burton Industries
Berninger Environmental

SAMPLE DELIVERY GROUP NUMBER: BER009
H2M LABS, INC.

SUBMITTED TO:

Mr. Walter Berninger/President
Berninger Environmental
1615 Ninth Avenue
Bohemia, New York 11716

January 18, 2004

PREPARED BY:

Lori A. Beyer/President
L.A.B. Validation Corp.
14 West Point Drive
East Northport, NY 11731

Phone/Fax (631) 757-0467 email LABValidation@aol.com

Burton Industries –243 Wyandanch Avenue, North Babylon, New York.
Data Validation Report: Volatile Organics

Table of Contents:

Introduction:

A validation was performed on nine (9) groundwater samples and the associated quality control samples (Field Blank, Trip Blank and MS/MSD) for Volatile Organic analysis collected by Berninger Environmental and submitted to H2M LABS, Inc. for subsequent analysis under chain of custody documentation. This report contains the laboratory and validation results for the nine (9) samples itemized below. The samples were collected on December 02, 2003.

The samples were analyzed by H2M LABS, Inc., utilizing SW846 Method 8260B and in accordance with NYSDEC Analytical Services Protocol (10/95) and submitted under NYSDEC ASP Category B equivalent deliverable requirements for the associated analytical methodology employed. The analytical testing consisted of the Target Compound List (TCL) of analytes for Volatile Organics.

The data was evaluated in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (Publication 9240.1-05) and in conjunction with the analytical methodology for which the samples were analyzed, where applicable and relevant.

The data validation report pertains to the following field groundwater and quality control samples:

Sample Identification	Laboratory Identification	Sample Matrix	Collection Date
GP-9 22-24 ft.	0312075-003A	Aqueous	12/02/03
GP-8 41-43 ft.	0312075-002A	Aqueous	12/02/03
GP-8 26-28 ft.	0312075-001A	Aqueous	12/02/03
GP-9 37-39 ft.	0312075-004A	Aqueous	12/02/03
GP-10 22-24 ft.	0312075-005A	Aqueous	12/02/03
GP-10 37-39 ft.	0312075-006A	Aqueous	12/02/03
MW-1	0312075-007A	Aqueous	12/02/03
MW-2	0312075-008A	Aqueous	12/02/03
MW-3 (plus MS/MSD)	0312075-009A	Aqueous	12/02/03
Field Blank	0312075-010A	Aqueous	12/02/03
Trip Blank	0312075-011A	Aqueous	12/02/03

Data Qualifier Definitions:

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate quantity.

Sample Receipt:

The Chain of Custody document from 12/02/03 indicates that 9 groundwater samples and associated field blank, trip blank and MS/MSD were received at H2M LABS, Inc. upon completion of the sampling event. Sample login notes and the chain of custody indicate that at the Validated Time of Sample Receipt (VTSR) at the laboratory, no problems and/or discrepancies were noted. The samples were preserved with HCL at a ph <2 and were properly chilled and, therefore, the integrity of the samples has been assumed to be good.

The data summary tables included in Appendix A includes all usable (qualified) and unusable (rejected) results for the samples identified above. These tables summarize the detailed narrative section of the report. All data validation qualifications have been reported in the excel spreadsheet in bold for ease of review and verification. In cases where the VOC concentration exceeds the NYSDEC Glass GA Ambient Water Quality Standards the value has been presented in bold and italics.

NOTE:
L.A.B. Validation Corp. believes it is appropriate to note that the data validation criteria utilized for data evaluation is different than the method requirements utilized by the laboratory. Qualified data does not necessarily mean that the laboratory was non-compliant in the analysis that was performed.

1.0 Volatile Organics by GC/MS SW846 Method 8260B

The following method criteria were reviewed: holding times, SMCs, MS, MSD, LCS Blanks, Tunes, Calibrations, Internal Standards, Target and Non Target Component Identification, Quantitation, Reported Quantitation Limits and Overall System Performance. The volatile results were considered to be valid and useable as noted on the data summary tables in Appendix A and within the following text:

1.1 Holding Time

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

All aqueous samples pertaining to this SDG were performed within the method and technical holding times for analysis (14 days). No qualifications were required based upon holding time criteria.

1.2 System Monitoring Compound (Surrogate) Recovery

All samples are spiked with surrogate compounds prior to sample analysis to evaluate overall laboratory performance and efficiency of the analytical technique. If the measure of surrogate concentrations is outside contact specification, qualifications are required to be applied to associated samples and analytes.

Surrogate recoveries (%R) were found to be within acceptable limits for SMC compounds for all samples pertaining to this SDG. Qualifications were not required based upon surrogate recovery data.

1.3 Matrix Spikes (MS)/ Matrix Spike Duplicates (MSD)/Matrix Spike Blank

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices.

Matrix Spike/Matrix Spike Duplicate analysis was performed on sample MW-3 associated with this SDG. Acceptable recovery and RPD values were obtained for all spiked components for the MS/MSD and MSB.

1.4 Laboratory Control Sample

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

Acceptable LCS/LFB was analyzed and spiked with all target components as required. All recoveries fell within established QC ranges. No data validation qualifiers were required based upon LCS data.

1.5 Blank Contamination

Quality assurance (QA) blanks; i.e. method, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field blanks measure cross-contamination of samples during field operations. Storage blanks measure cross-contamination during sample storage of the field samples.

The following table was utilized to qualify target analyte results due to contamination. The largest value from all the associated blanks is required to be utilized:

For:	Flag Sample Result with a "U" when:	Report CRQL & Qualify "U" when:	No Qualification is Needed when:
Methylene Chloride, Acetone, Toluene & 2-Butanone	Sample Conc. Is >CRQL, but </=10x blank value	Sample Conc. is <CRQL and </=10x blank value	Sample Conc. is >CRQL and >10x blank value
Other Contaminants	Sample Conc. Is >CRQL, but </=5x blank value	Sample Conc. Is <CRQL and </=5x blank value	Sample Conc. is >CRQL and >5x blank value

Below is a summary of the compounds in the sample and the associated qualifications that have been applied:

A) **Method Blank Contamination:**

Two (2) method blanks were analyzed as part of this SDG.

Target/Non-target analytes were not detected in any of the method blanks.

B) **Field Blank Contamination:**

No target/non-target analytes were detected in the Field Blank.

C) **Trip Blank Contamination:**

No target/non-target analytes were detected in the Trip Blank associated with this sampling event.

D) **Storage Blank Contamination:**

Storage blanks were not submitted for this SDG. It should be noted that storage blanks are not mandated by SW846 Method 8260B.

1.6 **GC/MS Instrument Performance Check**

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The Tuning standard for volatile organics is Bromofluorobenzene (BFB).

Instrument performance was generated within acceptable limits and frequency for Bromofluorobenzene (BFB) for all analyses conducted for this SDG.

Initial Calibrations: The initial calibrations provided and the %RSD was within acceptable limits (30%).

Continuing Calibrations: The continuing calibrations provided and the %D was within acceptable limits (25%) with the following exceptions:

CCAL – 12/03/03:
Methylene Chloride – 25.8%

Non-detects for this compound in all field samples (with the exception of the field and trip blank) must be considered estimated, "UJ" at the levels presented in Appendix A.

CCAL – 12/05/03:
Acetone – 27.8%
Carbon Disulfide – 29.2%
Carbon Tetrachloride – 30.3%
1,1,2,2-Tetrachloroethane – 32.9%

Non-detects for these compounds in all the field blank and trip blank must be considered estimated, "UJ" at the levels presented in Appendix A.

1.8 **Internal Standards**

Internal Standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 2 (-50% to +100%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than +/- 30 seconds from the associated continuing calibration standard. If the area count is outside the (-50% to +100%) range of the associated standard, all of the positive results for compounds quantitated using that IS are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity.

If an internal standard retention time varies by more than 30 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction.

Internal standard area and retention times met QC requirements for all analysis pertaining to this SDG.

1.7 Initial and Continuing Calibrations

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

A) Response Factor GC/MS:
The response factor measures the instrument's response to specific chemical compounds. The response factor for all compounds must be >/= 0.05 in both initial and continuing calibrations. A value <0.05 indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J". All non-detects for that compound in the corresponding samples will be rejected, "R".

All the response factors for the target analytes reported were found to be within acceptable limits (>/=0.05), for the initial and continuing calibrations.

B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):
Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentrations. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be <30% and %D must be <25%. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects are flagged "UJ". If %RSD and %D grossly exceed QC criteria, non-detect data may be qualified, "R", unusable. Additionally, in cases where the %RSD is >30% and eliminating either the high or the low point of the curve does not restore the %RSD to less than or equal to 30% then positive results are qualified, "J". In cases where removal of either the low or high point restores the linearity, then only low or high level results will be qualified, "J" in the portion of the curve where non linearity exists.

1.9 Target Compound List Identification

TCL compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within =/- 0.06RRT units of the standard compound and have an ion spectra which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound.

GC/MS spectra met the qualitative criteria for identification. All retention times were within required specifications.

During the validation process it was determined that 1,2-Dichloroethene (total) was found at 1 ug/L in sample MW-2. The mass spectrum met the qualitative criteria for identification, however, was not reported by the laboratory.

The reported Acetone concentration of 3 ug/L in GP-10 (37-39 ft) should be utilized with caution and must be considered suspect. This compound is a common laboratory contaminant, however, due to the lack of presence in the associated blanks, could not be negated during the validation process.

It should be noted that this compound was detected in MW-3 MS and MW-3 MSD, however, not in the original unspiked sample further supporting that the reported acetone values can be attributed to laboratory contamination.

1.10 Tentatively Identified Compounds (TICs)

TICs were reported in accordance with the project requirements. The identification must be considered tentative (both quantitative and qualitative) due to the lack of required compound specific response factors. Consequently all concentrations should be considered estimate, "J" and as a result of the qualitative uncertainty should be qualified, "N".

GC/MS "3 best match spectra" met method criteria.

All groundwater samples were determined to contain a TIC at 7.88 minutes which is an "unknown alkane." This analyte was not detected in the field blank, trip blank or method blanks and therefore it can be concluded that the presence is from the sampling site.

TICs are presented as an appendix to this report.

1.11 Compound Quantification and Reported Detection Limits

GC/MS quantitative analysis is considered to be acceptable. Correct internal standards per SW846 and response factors were used to calculate final concentrations.

All aqueous samples were analyzed undiluted at 5mls .

1.12 Overall System Performance

Good resolution and chromatographic performance were observed. The laboratory results are valid and useable at the concentrations submitted in Appendix A.

Reviewer's Signature Lori A Bor **Date** 01/18/04

L.A.B. Validation Corp. 14 West Point Drive, East Northport, N.Y. 11731

Appendix A
Data Summary Tables
With Qualifications

Phone/Fax (631) 757-0467 email LABValidation@aol.com

TABLE 1 - SUMMARY OF VOLATILE ORGANIC COMPOUNDS DETECTED AND/OR ELEVATED ABOVE NYSDEC CLASS GA AMBIENT WATER QUALITY STANDARDS

Burton Industries, 254 Wyandanch Avenue, N. Babylon, New York							
SDG BER009							
Berninger Sample ID:	**GP-9 22-24 ft.**	**GP-8 41-43 ft.**	**GP-8 26-28 ft.**	**GP-9 37-39 ft.**	**GP-10 22-24 ft.**	**GP-10 37-39 ft.**	**NYSDEC CLASS GA**
Laboratory ID:	**0312075-003A**	**0312075-002A**	**0312075-001A**	**0312075-004A**	**0312075-005A**	**0312075-006A**	**AMBIENT WATER**
Sampling Date:	**12/2/2003**	**12/2/2003**	**12/2/2003**	**12/2/2003**	**12/2/2003**	**12/2/2003**	**QUALITY STANDARDS**
% Moisture	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**GUIDANCE VALUES**
units: ug/L							**units: ug/L**
Analyte							
Chloromethane	5 U	5 U	5 U	5 U	5 U	5 U	**NA**
Bromomethane	5 U	5 U	5 U	5 U	5 U	5 U	**5**
Vinyl Chloride	5 U	5 U	5 U	5 U	5 U	5 U	**2**
Chloroethane	5 U	5 U	5 U	5 U	5 U	5 U	**50**
Methylene Chloride	**5 UJ**	**5 UJ**	**5 UJ**	**5 UJ**	**5 UJ**	**5 UJ**	**5**
Acetone	5 U	5 U	5 U	5 U	5 U	**3 J**	**50**
Carbon Disulfide	5 U	5 U	5 U	5 U	5 U	5 U	**50**
1,1-Dichloroethene	5 U	5 U	5 U	5 U	5 U	5 U	**5**
1,1-Dichloroethane	5 U	5 U	5 U	5 U	5 U	5 U	**5**
1,2-Dichloroethene (total)	5 U	5 U	5 U	5 U	***7***	5 U	**5**
2-Butanone	5 U	5 U	5 U	5 U	5 U	5 U	**50**
Chloroform	5 U	5 U	5 U	5 U	5 U	5 U	**7**
1,2-Dichloroethane	5 U	5 U	5 U	5 U	5 U	5 U	**5**
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U	5 U	5 U	**5**
Carbon Tetrachloride	5 U	5 U	5 U	5 U	5 U	5 U	**5**
Bromodichloromethane	5 U	5 U	5 U	5 U	5 U	5 U	**50**
1,2-Dichloropropane	5 U	5 U	5 U	5 U	5 U	5 U	**1**
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U	5 U	**5**
Trichloroethene	5 U	5 U	5 U	5 U	2 J	5 U	**5**
Benzene	5 U	5 U	5 U	5 U	5 U	5 U	**0.7**
Dibromochloromethane	5 U	5 U	5 U	5 U	5 U	5 U	**NA**
trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U	5 U	**NA**
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U	5 U	5 U	**5**
Bromoform	5 U	5 U	5 U	5 U	5 U	5 U	**50**
4-Methyl-2-Pentanone	5 U	5 U	5 U	5 U	5 U	5 U	**50**
2-Hexanone	5 U	5 U	5 U	5 U	5 U	5 U	**50**
Tetrachloroethene	5 U	5 U	5 U	5 U	***11***	5 U	**5**
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U	5 U	5 U	**5**
Toluene	5 U	5 U	5 U	5 U	5 U	5 U	**5**
Chlorobenzene	5 U	5 U	5 U	5 U	5 U	5 U	**5**
Ethylbenzene	5 U	5 U	5 U	5 U	5 U	5 U	**5**
Styrene	5 U	5 U	5 U	5 U	5 U	5 U	**5**
Xylene (total)	5 U	5 U	5 U	5 U	5 U	5 U	**5**
TOTAL VOCS	**0**	**0**	**0**	**0**	**20**	**3**	

NA = Not Applicable

TABLE 1 - SUMMARY OF VOLATILE ORGANIC COMPOUNDS DETECTED AND/OR ELEVATED ABOVE NYSDEC CLASS GA AMBIENT WATER QUALITY STANDARDS

Burton Industries, 254 Wyandanch Avenue, N. Babylon, New York						
SDG BER009						
Berninger Sample ID:	**MW-1**	**MW-2**	**MW-3**	**Field Blank**	**Trip Blank**	**NYSDEC CLASS GA AMBIENT WATER QUALITY STANDARDS GUIDANCE VALUES**
Laboratory ID:	**0312075-007A**	**0312075-008A**	**0312075-009A**	**0312075-010A**	**0312075-011A**	
Sampling Date:	**12/2/2003**	**12/2/2003**	**12/2/2003**	**12/2/2003**	**12/2/2003**	
% Moisture	**NA**	**NA**	**NA**	**NA**	**NA**	
units: ug/L						**units: ug/L**
Analyte						
Chloromethane	5 U	5 U	5 U	5 U	5 U	NA
Bromomethane	5 U	5 U	5 U	5 U	5 U	5
Vinyl Chloride	5 U	5 U	5 U	5 U	5 U	2
Chloroethane	5 U	5 U	5 U	5 U	5 U	50
Methylene Chloride	**5 UJ**	**5 UJ**	**5 UJ**	5 U	5 U	5
Acetone	5 U	5 U	5 U	**5 UJ**	**5 UJ**	50
Carbon Disulfide	5 U	5 U	5 U	**5 UJ**	**5 UJ**	50
1,1-Dichloroethene	5 U	5 U	5 U	5 U	5 U	5
1,1-Dichloroethane	5 U	5 U	5 U	5 U	5 U	5
1,2-Dichloroethene (total)	5 U	1 J	***11***	5 U	5 U	5
2-Butanone	5 U	5 U	5 U	5 U	5 U	50
Chloroform	5 U	5 U	5 U	5 U	5 U	7
1,2-Dichloroethane	5 U	5 U	5 U	5 U	5 U	5
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U	5 U	5
Carbon Tetrachloride	5 U	5 U	5 U	**5 UJ**	**5 UJ**	5
Bromodichloromethane	5 U	5 U	5 U	5 U	5 U	50
1,2-Dichloropropane	5 U	5 U	5 U	5 U	5 U	1
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U	5
Trichloroethene	5 U	5 U	3 J	5 U	5 U	5
Benzene	5 U	5 U	5 U	5 U	5 U	0.7
Dibromochloromethane	5 U	5 U	5 U	5 U	5 U	NA
trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U	NA
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U	5 U	5
Bromoform	5 U	5 U	5 U	5 U	5 U	50
4-Methyl-2-Pentanone	5 U	5 U	5 U	5 U	5 U	50
2-Hexanone	5 U	5 U	5 U	5 U	5 U	50
Tetrachloroethene	1 J	***6***	***39***	5 U	5 U	5
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	**5 UJ**	**5 UJ**	5
Toluene	5 U	5 U	5 U	5 U	5 U	5
Chlorobenzene	5 U	5 U	5 U	5 U	5 U	5
Ethylbenzene	5 U	5 U	5 U	5 U	5 U	5
Styrene	5 U	5 U	5 U	5 U	5 U	5
Xylene (total)	5 U	5 U	5 U	5 U	5 U	5
TOTAL VOCS	**1**	**7**	**53**	**0**	**0**	

NA = Not Applicable

L.A.B. Validation Corp. 14 West Point Drive, East Northport, N.Y. 11731

Appendix B
Tentatively Identified Components (VOA GC/MS)

Phone/Fax (631) 757-0467 email LABValidation@aol.com

1F

EPA SAMPLE NO.

GP-9 22-24 FT

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36968.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 2 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.		unknown alkene	4.47	33	J
2.	001634-04-4	Propane, 2-methoxy-2-methyl-	7.88	140	NJ

1F

EPA SAMPLE NO.

GP-8 41-43 FT

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36967.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 6 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.	unknown alkene	4.45	620	J
2.	unknown hydrocarbon	6.88	8	J
3. 000075-65-0	2-Propanol, 2-methyl-	7.30	41	NJ
4. 001634-04-4 2	Propane, 2-methoxy-2-methyl-	7.85	1900	NJ
5.	unknown ether	8.27	10	J
6. 000994-05-8	Butane, 2-methoxy-2-methyl-	9.67	150	NJ

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GP-8 26-28 FT

Lab Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36966.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 5 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.	unknown alkene	4.48	290	J
2. 000075-65-0	2-Propanol, 2-methyl-	7.32	26	NJ
3. 001634-04-4 1	Propane, 2-methoxy-2-methyl-	7.89	1000	ENJ
4.	unknown ether	8.31	6	J
5. 000994-05-8	Butane, 2-methoxy-2-methyl-	9.70	91	NJ

JB

1F

EPA SAMPLE NO.

GP-9 37-39 FT

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36969.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 6 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.	unknown hydrocarbon (4.46)	4.46	770	J
2.	unknown hydrocarbon (6.86)	6.86	11	J
3.	unknown alcohol	7.25	69	J
4. 001634-04-4 2	Propane, 2-methoxy-2-methyl-	7.83	2400	ENJ
5.	unknown ether	8.23	12	J
6. 000994-05-8	Butane, 2-methoxy-2-methyl-	9.65	110	NJ

1F

EPA SAMPLE NO.

GP-10 22-24 FT

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36970.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 1 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1. 001634-04-4	Propane, 2-methoxy-2-methyl-	7.81	27	NJ

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GP-10 37-39 FT

Lab Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36971.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 0 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
MW-1

Lab Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-007A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36972.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 1 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.	001634-04-4	Propane, 2-methoxy-2-methyl-	7.90	67	NJ

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
MW-2

b Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-008A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36973.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 1 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1. 001634-04-4	Propane, 2-methoxy-2-methyl-	7.86	26	NJ

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
MW-3

Lab Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-009A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36965.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 1 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1. 001634-04-4	Propane, 2-methoxy-2-methyl-	7.94	10	NJ

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FIELD BLANK

Lab Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-010A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36982.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/05/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 0 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

1F

EPA SAMPLE NO.

TRIP BLANK

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

b Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-011A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36983.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/05/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 0 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

Appendix C
Chain of Custody

H2M LABS, INC.

575 B[illegible]d Hollow Rd, Melville, NY 11747-5076
Tel: (516) 694-3040 Fax: (516) 420-8436

No. 6[illegible]J7 **EXTERNAL CHAIN OF CUSTODY**

CLIENT: Berlinger

H2M SDG NO: BER009

PROJECT NAME/NUMBER: B[illegible] Industries, 243 Wyandanch Avenue, N. Babylon, New York

SAMPLERS: (signature)/Client: [signature] / Bietel / Parker

DELIVERABLES: STD NYSDEC ASP B

TURNAROUND TIME: STD

Sample Container Description: 40ml vial w/HCl

NOTES: TCL VOCs 8260 plus TICs; NYSDEC ASP B Deliverables; P.O.#312751

Project Contact: Jill Haimson

Phone Number: 576 647-4211

	DATE	TIME	MATRIX	FIELD I.D.	Total No. of Containers	VOA	BNA	Pest/PCB					Metal	CN	LAB I.D. NO.	REMARKS
	12/2/03		L	TRIP BLANK	2	2										
10		1100		FIELD BLANK	2	2									0312075-011	
9		945		MW-3	6	6									010	
5		1015		GP-10 22-24 ft	2	2									009	MS/MSD
6		1045		GP-10 37-39 ft	2	2									005	
8		1100		MW-2	2	2									006	
3		1130		GP-9 22-24 ft	2	2									008	
4		1150		GP-9 37-39 ft	2	2									003	
7		1300		MW-1	2	2									004	
1		1315		GP-8 26-28 ft	2	2									007	
2		1335		GP-8 41-43 ft	2	2									001	
															002	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Joel Meyers	12/02/03	1405	Angela [illegible]	12/2/03	1405

LABORATORY USE ONLY

Discrepancies Between Sample Labels and COC Record? Y or N
Explain:

Samples were:
1. Shipped ___ or Hand Delivered X Airbill# ______
2. Ambient or (chilled)
3. Received in good condition: (Y) or N
4. Properly preserved (Y) or N
5. Samples returned to lab ___ Hrs from collection.

COC Tape was:
1. Present on outer package: (Y) or N
2. Unbroken on outer package: (Y) or N
3. COC record present & complete upon sample receipt: (Y) or N

WHITE COPY - ORIGINAL YELLOW COPY - CLIENT PINK COPY - LABORATORY

BER009-S6

BER009

H2M LABS, INC.

Sample Receipt Checklist

Client Name **BER**

Date and Time Receive **12/2/2003 2:05:00 PM**

Work Order Numbe **0312075**

Received by **AM**

Checklist completed b (Signature) 12/2/03 (Date) Reviewed by -KA (Initials) 12/3/03 (Date)

Matrix

Carrier name Hand Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Presen ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Presen ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Presen ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐ 1°C	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	

Adjusted? _____ Checked b _____

Any No and/or NA (not applicable) response must be detailed in the comments section b

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments:

Corrective Action

BER009 S7

H2M LABS, INC.

INTERNAL CHAIN OF CUSTODY

CLIENT: BER DELIVERABLES: B5-70D TURN AROUND TIME: 21 days

SDG #: BER009 CASE #: MATRIX: GW pH CHECK Y or (N)

REMARKS: Pis # 109 BER 03

RECEIVED BY: ABM SIGNATURE: [signature] DATE: 12/2/03 TIME: 1405

CLIENT ID	H2M LAB #	DATE COLLECTED	BOTTLE TYPE	# OF BOTTLES	TESTS REQUESTED
GP-8 26-28 FT	0312075 001A	12/2/03	DH	2	ASP B5-8260_W + TIC'S
↓ 41-43 FT	002A	↓	↓	↓	↓
GP-9 22-24 FT	003A				
↓ 37-39 FT	004A				
GP-10 22-24 FT	005A				
↓ 37-39 FT	006A				
MW-1	007A				
-2	008A			↓	
↓ -3 (MS/MSD)	009A			6	
Field Blank	010A			2	
Trip Blank	↓ 011A	↓	↓	↓	↓

ABM 12/2/03

VOLATILE

BER009 S8

H2M LABS, INC.

CLIENT: BER

#: BER009

INTERNAL CHAIN OF CUSTODY

DATE	TIME	SAMPLE RELINQUISHED BY	SAMPLE RECEIVED BY	BOTTLE TYPE	PURPOSE OF CHANGE OF CUSTODY	INIT
12/2/[illegible]	1630	SIGN [illegible signature]	SIGN [illegible signature]	DH	Analysis	
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			

VOLATILE

H2M LABS, INC.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY
BERNINGER ENVIRONMENTAL
WATER SAMPLES
SDG NO.: BER009
SAMPLES RECEIVED: 12/2/03

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		*VOA GC/MS	*BNA GC/MS	*GC VOA	PCBs	*METALS	OTHER
GP-8 26-28 FT	0312075-001	X					
GP-8 41-43 FT	0312075-002	X					
GP-9 22-24 FT	0312075-003	X					
GP-9 37-39 FT	0312075-004	X					
GP-10 22-24 FT	0312075-005	X					
GP-10 37-39 FT	0312075-006	X					
MW-1	0312075-007	X					
MW-2	0312075-008	X					
MW-3	0312075-009	X					
FIELD BLANK	0312075-010	X					
TRIP BLANK	0312075-011	X					

* Check Appropriate Boxes
CLP, Non-CLP (Please indicate year of protocol) ASP 10/95
* TCL/TAL, HCL, TS
**TCLP METALS

Volatile Sample Analysis Summary
BER009

EPAsampID	Matrix	Level	CollectDate	ateReceive	AnalDate
GP-8 26-28 FT	Aqueous	LOW	12/2/2003	03-Dec-03	12/3/2003
GP-8 41-43 FT	Aqueous	LOW	12/2/2003	03-Dec-03	12/3/2003
GP-9 22-24 FT	Aqueous	LOW	12/2/2003	03-Dec-03	12/3/2003
GP-9 37-39 FT	Aqueous	LOW	12/2/2003	03-Dec-03	12/3/2003
GP-10 22-24 FT	Aqueous	LOW	12/2/2003	03-Dec-03	12/3/2003
GP-10 37-39 FT	Aqueous	LOW	12/2/2003	03-Dec-03	12/3/2003
MW-1	Aqueous	LOW	12/2/2003	03-Dec-03	12/3/2003
MW-2	Aqueous	LOW	12/2/2003	03-Dec-03	12/3/2003
MW-3MS	Aqueous	LOW	12/2/2003	03-Dec-03	12/3/2003
MW-3	Aqueous	LOW	12/2/2003	03-Dec-03	12/3/2003
MW-3MSD	Aqueous	LOW	12/2/2003	03-Dec-03	12/3/2003
FIELD BLANK	Aqueous	LOW	12/2/2003	03-Dec-03	12/5/2003
TRIP BLANK	Aqueous	LOW	12/2/2003	03-Dec-03	12/5/2003

L.A.B. Validation Corp. 14 West Point Drive, East Northport, N.Y. 11731

Appendix D
SDG Narrative

Phone/Fax (631) 757-0467 email LABValidation@aol.com

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 12/2/03
SDG #: BER009

For Samples:

GP-8 26-28 FT	MW-1
GP-8 41-43 FT	MW-2
GP-9 22-24 FT	MW-3 MS/MSD
GP-9 37-39 FT	FIELD BLANK
GP-10 22-24 FT	TRIP BLANK
GP-10 37-39 FT	

The above samples were analyzed for volatile organics by EPA method 8260B in accordance with the NYSDEC ASP, Rev. 10/95.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- Sample MW-3 was analyzed as the matrix spike/matrix spike duplicate.
- A lab fortified blank was analyzed. All percent recoveries were within QC limits.
- Compounds are reported as estimated values with the qualifier "J" if the concentration is between the MDL and the reporting limit. Values under the MDL are not reported.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: December 18, 2003

****
* V Kreiner for *
* Joann Slavin *
****

Joann M. Slavin
Laboratory Manager

o:\qc\narr2003\ber\voa\ber009.doc

BER 009 S 11

H2M LABS, INC.

SAMPLE DATA SUMMARY PACKAGE

TABLE OF CONTENTS

BERNINGER ENVIRONMENTAL
PROJECT: BURTON INDUSTRIES

SAMPLES RECEIVED: 12/2/03
SDG NO.: BER009

H2M LABS, INC.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY
BERNINGER ENVIRONMENTAL
WATER SAMPLES
SDG NO.: BER009
SAMPLES RECEIVED: 12/2/03

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		*VOA GC/MS	*BNA GC/MS	*GC VOA	PCBs	*METALS	OTHER
GP-8 26-28 FT	0312075-001	X					
GP-8 41-43 FT	0312075-002	X					
GP-9 22-24 FT	0312075-003	X					
GP-9 37-39 FT	0312075-004	X					
GP-10 22-24 FT	0312075-005	X					
GP-10 37-39 FT	0312075-006	X					
MW-1	0312075-007	X					
MW-2	0312075-008	X					
MW-3	0312075-009	X					
FIELD BLANK	0312075-010	X					
TRIP BLANK	0312075-011	X					

* Check Appropriate Boxes
CLP, Non-CLP (Please indicate year of protocol) ASP 10/95
* TCL/TAL, HCL, TS
**TCLP METALS

Volatile Sample Analysis Summary
BER009

EPAsamplD	Matrix	Level	CollectDate	ateReceive	AnalDate
GP-8 26-28 FT	Aqueous	LOW	12/2/2003	03-Dec-03	12/3/2003
GP-8 41-43 FT	Aqueous	LOW	12/2/2003	03-Dec-03	12/3/2003
GP-9 22-24 FT	Aqueous	LOW	12/2/2003	03-Dec-03	12/3/2003
GP-9 37-39 FT	Aqueous	LOW	12/2/2003	03-Dec-03	12/3/2003
GP-10 22-24 FT	Aqueous	LOW	12/2/2003	03-Dec-03	12/3/2003
GP-10 37-39 FT	Aqueous	LOW	12/2/2003	03-Dec-03	12/3/2003
MW-1	Aqueous	LOW	12/2/2003	03-Dec-03	12/3/2003
MW-2	Aqueous	LOW	12/2/2003	03-Dec-03	12/3/2003
MW-3MS	Aqueous	LOW	12/2/2003	03-Dec-03	12/3/2003
MW-3	Aqueous	LOW	12/2/2003	03-Dec-03	12/3/2003
MW-3MSD	Aqueous	LOW	12/2/2003	03-Dec-03	12/3/2003
FIELD BLANK	Aqueous	LOW	12/2/2003	03-Dec-03	12/5/2003
TRIP BLANK	Aqueous	LOW	12/2/2003	03-Dec-03	12/5/2003

2. CHAIN OF CUSTODY DOCUMENTATION

H2M LABS, INC.

575 Br[illegible] Hollow Rd, Melville, NY 11747-5076
Tel: (516) 694-3040 Fax: (516) 420-8436

No. 6[illegible]7 **EXTERNAL CHAIN OF CUSTODY**

CLIENT: Berlinger

H2M SDG NO: BER009

Project Contact: Jill Haimson

Phone Number: 574 647-4211

PROJECT NAME/NUMBER: B[illegible] Industries, 243 Wyandance Avenue, N. Babylon, New York

SAMPLERS: (signature)/Client: [signature] / Bietel / Peter

DELIVERABLES: NYSDEC ASP B

TURNAROUND TIME: STD

Sample Container Description: 40ml vial w/HCl

NOTES: TCL VOCs 8260 plus TICs, NYSDEC ASP B Deliverables, P.O.#312751

	DATE	TIME	MATRIX	FIELD I.D.	Total No. of Containers	VOA	BNA	Pest/PCB					Metal	CN	LAB I.D. NO.	REMARKS:
11	12/2/03		L	TRIP BLANK	2	2									0312075-011	
10		1100		FIELD BLANK	2	2									010	
9		945		MW-3	6	6									009	MS/MSD
5		1015		GP-10 22-24 ft	2	2									005	
6		1015		GP-10 37-39 ft	2	2									006	
8		1100		MW-2	2	2									008	
3		1130		GP-9 22-24 ft	2	2									003	
4		1130		GP-9 37-39 ft	2	2									004	
7		1300		MW-1	2	2									007	
1		1315		GP-8 26-28 ft	2	2									001	
2		1330		GP-8 41-43 ft	2	2									002	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Joel Meyers	12/02/03	1405	Angela [illegible]	12/2/03	1405

LABORATORY USE ONLY

Discrepancies Between Sample Labels and COC Record? Y or N
Explain:

Samples were:
1. Shipped ___ or Hand Delivered X Airbill# ___
2. Ambient or (chilled)
3. Received in good condition (Y) or N
4. Properly preserved (Y) or N
5. Samples returned to lab ___ Hrs from collection.

COC Tape was:
1. Present on outer package: (Y) or N
2. Unbroken on outer package: (Y) or N
3. COC record present & complete upon sample receipt: (Y) or N

BER009-S6

WHITE COPY - ORIGINAL   YELLOW COPY - CLIENT   PINK COPY - LABORATORY

BER009

C

H2M LABS, INC.

Sample Receipt Checklist

Client Name **BER**

Work Order Numbe **0312075**

Date and Time Receive **12/2/2003 2:05:00 PM**

Received by **AM**

Checklist completed b Signature 12/2/03 Date

Reviewed by -KA Initials 12/3/03 Date

Matrix

Carrier name Hand Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Presen ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Presen ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Presen ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐ 1.0°C	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	

Adjusted? _____ Checked b _____

Any No and/or NA (not applicable) response must be detailed in the comments section b

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

BER009 S7

H2M LABS, INC.

INTERNAL CHAIN OF CUSTODY

CLIENT: BER DELIVERABLES: B5-70D TURN AROUND TIME: 21 days

SDG #: BER009 CASE #: _____ MATRIX: GW pH CHECK Y or (N)

REMARKS: PIS # 109 BER 03

RECEIVED BY: H2M SIGNATURE: Angela Mirra DATE: 12/2/03 TIME: 1405

CLIENT ID	H2M LAB #	DATE COLLECTED	BOTTLE TYPE	# OF BOTTLES	TESTS REQUESTED
GP-8 26-28 FT	03 2075 CC1A	12/2/03	DH	2	ASPB5 S260-W + TICS
↓ 41-43 FT	CC2A	↓	↓	↓	↓
GP-9 22-24 FT	CC3A				
↓ 37-39 FT	CC4A				
BP-10 22-24 FT	CC5A				
↓ 37-39 FT	CC6A				
MW-1	CC7A				
- 2 (MS/MSD)	CC8A				
↓ - 3	CC9A			6	
Field Blank	CC0A			2	
Trip Blank	CC1A	↓	↓	↓	↓
"					
"					
"					
"		H2M	12/2/03		
"					
"					
"					
"					
"					

VOLATILE

P 0025

BER009 S8

H2M LABS, INC.

CLIENT: BER

#: BER009

INTERNAL CHAIN OF CUSTODY

DATE	TIME	SAMPLE RELINQUISHED BY	SAMPLE RECEIVED BY	BOTTLE TYPE	PURPOSE OF CHANGE OF CUSTODY	INIT
12/2/13	1630	SIGN [signature]	SIGN [signature]	DH	Analysis	
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			

VOLATILE

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 12/2/03
SDG #: BER009

For Samples:

GP-8 26-28 FT	MW-1
GP-8 41-43 FT	MW-2
GP-9 22-24 FT	MW-3 MS/MSD
GP-9 37-39 FT	FIELD BLANK
GP-10 22-24 FT	TRIP BLANK
GP-10 37-39 FT	

The above samples were analyzed for volatile organics by EPA method 8260B in accordance with the NYSDEC ASP, Rev. 10/95.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- Sample MW-3 was analyzed as the matrix spike/matrix spike duplicate.
- A lab fortified blank was analyzed. All percent recoveries were within QC limits.
- Compounds are reported as estimated values with the qualifier "J" if the concentration is between the MDL and the reporting limit. Values under the MDL are not reported.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: December 18, 2003

****
* J Kramer for *
* Joann Slavin *
****

Joann M. Slavin
Laboratory Manager

o:\qc\narr2003\ber\voa\ber009.doc

BER 009 S 11

4. SAMPLE REPORTS

4.1 VOLATILES

QUALIFIERS FOR REPORTING ORGANICS DATA

Value - If the result is a value greater than or equal to the quantification limit, report the value.

U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture. For example, 10U for phenol in water if the sample final volume is the protocol-specified final volume. If a 1 to 10 dilution of extract is necessary, the reported limit is 100 U. For a soil sample, the value must also be adjusted for percent moisture. For example, if the sample had 24% moisture and a 1 to 10 dilution factor, the sample quantitation limit for phenol (330 U) would be corrected to:

$$\frac{(300\ U)}{D} \times df \text{ where } D = \frac{100\%moisture}{100}$$

and df - dilution factor

For example, at 24% moisture, $D = \frac{100 - 24}{100} = 0.76$

$$\frac{(300\ U)}{.76} \times 10 - 4300\ U$$ rounded to the appropriate number of significant figures

For semivolatile soil samples, the extract must be concentrated to 0.5 mL, and the sensitivity of the analysis is not compromised by the cleanup procedures. Similarly, pesticide samples subjected to GPC are concentrated to 5.0 mL. Therefore, the CRQL values in Exhibit C will apply to all samples, regardless of cleanup. However, if a sample extract cannot be concentrated to the protocol-specified volume (see Exhibit C), this fact must be accounted for in reporting the sample quantitation limit.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified quantification limit but greater than zero. (e.g.: If limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, report as 3J.) The sample quantitation limit must be adjusted for dilution as discussed for the U flag.

N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.

P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported of Form I with a "P".

C - This flag applies to pesticide results when the identification has been confirmed by GC/MS.. If GC/MS confirmation was attempted but was unsuccessful, do not apply this flag, instead use a Laboratory defined flag, discussed below.

B - This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound.

E - This flag identified compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. If one or more compounds have a response greater than full scale, except as noted in Exhibit D, the sample or extract must be diluted and re-analyzed according to the specifications in Exhibit D. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration ranges in the second analysis, then the results of both analyses shall be reported on separate copies of Form I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number. NOTE: For total xylenes, where three isomers are quantified as two peaks, the calibration range of each peak should be considered separately, e.g. a diluted analysis is not required for total xylenes unless the concentration of the peak representing the single isomer exceed 200 ug/L or the peak representing the two coeluting isomers on that GC column exceed 400 ug/L. Similarly, if the two 1,2-Dichloroethene isomers coelute, a diluted analysis is not required unless the concentration exceed 400 ug/L.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and all concentration values reported on that Form I are flagged with the "D" flag. This flag alerts data users that any discrepancies between the concentrations reported may be due to dilution of the sample or extract.

A - This flag indicates that a TIC is a suspected aldol-condensation product.

X - This flag indicates that a TIC is suspected column bleed.

The combination of flags "BU' or "UB" is expressly prohibited. Blank contaminants are flagged "B" only when they are detected in the sample.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BLANK

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-010A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36982.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/05/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon disulfide	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BLANK

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-010A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36982.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/05/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1330-20-7	Xylene (total)	10	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FIELD BLANK

Lab Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-010A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36982.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/05/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 0 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP-8 26-28 FT

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36966.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	5	U
75-15-0	Carbon disulfide	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

BER009 V42 @12/3/03

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP-8 26-28 FT

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36966.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: ________ (µL) Soil Aliquot Volume ________ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1330-20-7	Xylene (total)	5	U

BER009V43 @12/3/03

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GP-8 26-28 FT

Lab Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36966.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 5 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.		unknown alkene	4.48	290	J
2.	000075-65-0	2-Propanol, 2-methyl-	7.32	26	NJ
3.	001634-04-4 1	Propane, 2-methoxy-2-methyl-	7.89	1000	ENJ
4.		unknown ether	8.31	6	J
5.	000994-05-8	Butane, 2-methoxy-2-methyl-	9.70	91	NJ

BER009 S20

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP-8 41-43 FT

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36967.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: ________ (µL) Soil Aliquot Volume ________ (µL)

CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	5	U
75-15-0	Carbon disulfide	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

BER009 V29 @12/30/03

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP-8 41-43 FT

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36967.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1330-20-7	Xylene (total)	5	U

BER009 V30 @ 12/3/03

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GP-8 41-43 FT

Lab Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36967.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 6 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.	unknown alkene	4.45	620	J
2.	unknown hydrocarbon	6.88	8	J
3. 000075-65-0	2-Propanol, 2-methyl-	7.30	41	NJ
4. 001634-04-4 2	Propane, 2-methoxy-2-methyl-	7.85	1900	ENJ
5.	unknown ether	8.27	10	J
6. 000994-05-8	Butane, 2-methoxy-2-methyl-	9.67	150	NJ

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP-9 22-24 FT

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36968.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND (µg/L or µg/Kg)	UG/L	Q
74-87-3	Chloromethane	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	5	U
75-15-0	Carbon disulfide	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

BER009 VOA 12/3/03

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP-9 22-24 FT

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36968.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1330-20-7	Xylene (total)	5	U

BER009 VQ1 @ 12/30/03

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GP-9 22-24 FT

Lab Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36968.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 2 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.		unknown alkene	4.47	33	J
2.	001634-04-4	Propane, 2-methoxy-2-methyl-	7.88	140	NJ

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP-9 37-39 FT

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36969.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: ________ (µL) Soil Aliquot Volume ________ (µL)

CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	5	U
75-15-0	Carbon disulfide	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

BER009 V54 @12/3/03

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP-9 37-39 FT

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36969.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1330-20-7	Xylene (total)	5	U

BER009 V55 @12/30/03

1F

EPA SAMPLE NO.

GP-9 37-39 FT

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36969.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 6 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.	unknown hydrocarbon (4.46)	4.46	770	J
2.	unknown hydrocarbon (6.86)	6.86	11	J
3.	unknown alcohol	7.25	69	J
4. 001634-04-4 2	Propane, 2-methoxy-2-methyl-	7.83	2400	ENJ
5.	unknown ether	8.23	12	J
6. 000994-05-8	Butane, 2-methoxy-2-methyl-	9.65	110	NJ

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP-10 22-24 FT

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36970.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: ________ (μL) Soil Aliquot Volume ________ (μL)

CONCENTRATION UNITS: (μg/L or μg/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	5	U
75-15-0	Carbon disulfide	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	7	
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	2	J
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	11	
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

BER009 V67 (12/12/03)

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP-10 22-24 FT

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36970.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1330-20-7	Xylene (total)	5	U

BERO09V68 @ 12/3/03

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GP-10 22-24 FT

Lab Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36970.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 1 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1	001634-04-4	Propane, 2-methoxy-2-methyl-	7.81	27	NJ

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP-10 37-39 FT

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36971.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	3	J
75-35-4	1,1-Dichloroethene	5	U
75-15-0	Carbon disulfide	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

B2R009 VLT 12/30/03

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP-10 37-39 FT

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36971.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1330-20-7	Xylene (total)	5	U

BER009 VTSA 12/3/03

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GP-10 37-39 FT

Lab Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36971.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 0 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-007A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36972.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	5	U
75-15-0	Carbon disulfide	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	J
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

B3R009 V85 @12/19/03

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-007A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36972.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1330-20-7	Xylene (total)	5	U

BER009 / 186 12/13/03

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
MW-1

Lab Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-007A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36972.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 1 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1. 001634-04-4	Propane, 2-methoxy-2-methyl-	7.90	67	NJ

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-008A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36973.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: ________ (µL) Soil Aliquot Volume ________ (µL)

CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	5	U
75-15-0	Carbon disulfide	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	1 ~~5~~	~~U~~ J
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	6	
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

FORM I VOA - 1 OLM04.2

01/18/04

BER000V94

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-008A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36973.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1330-20-7	Xylene (total)	5	U

B3R009V95 @12/29/03

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
MW-2

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: BER SAS No.: _____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-008A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36973.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 1 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.	001634-04-4	Propane, 2-methoxy-2-methyl-	7.86	26	NJ

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-009A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36965.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: ____ (µL) Soil Aliquot Volume ____ (µL)

CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	5	U
75-15-0	Carbon disulfide	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	11	
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	3	J
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	39	
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

FORM I VOA - 1 OLM04.2

BER009 V104

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-009A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36965.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1330-20-7	Xylene (total)	5	U

BER009 V105 12/30/03

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
MW-3

Lab Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-009A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36965.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 1 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1. 001634-04-4	Propane, 2-methoxy-2-methyl-	7.94	10	NJ

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BLANK

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-010A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36982.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/05/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: ________ (µL) Soil Aliquot Volume ________ (µL)

CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	5	U
75-15-0	Carbon disulfide	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

BER009 V114 12/12/03

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BLANK

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-010A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36982.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/05/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1330-20-7	Xylene (total)	5	U

B3R009V115 @ 12/3/03

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-011A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36983.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/05/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	5	U
75-15-0	Carbon disulfide	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

BSR009 V121 @12/30/03

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-011A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36983.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/05/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1330-20-7	Xylene (total)	5	U

B32009 VB2 @12/30/03

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TRIP BLANK

Lab Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-011A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36983.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/05/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 0 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

5. SURROGATE SPIKE ANALYSIS RESULTS

5.1 VOLATILES

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: BER SAS No.: _____ SDG No.: BER009

	EPA SAMPLE NO.	SMC1 DCE #	SMC2 TOL #	SMC3 BFB #	Other	TOT OUT
01	VBLK120303	95	102	95		0
02	LFB120303	100	101	100		0
03	MSB120303	96	101	97		0
04	MW-3MS	96	99	96		0
05	MW-3MSD	97	102	97		0
06	MW-3	97	102	98		0
07	GP-8 26-28 FT	95	102	97		0
08	GP-8 41-43 FT	95	101	98		0
09	GP-9 22-24 FT	96	102	98		0
10	GP-9 37-39 FT	96	102	95		0
11	GP-10 22-24 FT	95	102	98		0
12	GP-10 37-39 FT	97	102	98		0
13	MW-1	96	102	95		0
14	MW-2	96	102	98		0
15	VBLK120503	93	102	98		0
16	FIELD BLANK	94	102	98		0
17	TRIP BLANK	94	102	99		0

			QC Limits
SMC 1	DCE	= 1,2-Dichloroethane-d4	(76-114)
SMC 2	TOL	= Toluene-d8	(88-110)
SMC 3	BFB	= 4-Bromofluorobenzene	(86-115)

Column to be used to flag recovery values

* Values outside of contract required QC limits

FORM II VOA-1 OLM04.2

6. MATRIX SPIKE / MATRIX SPIKE DUPLICATE SUMMARY

6.1 VOLATILES

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: BER SAS No.: _____ SDG No.: BER009

Matrix Spike - EPA Sample No.: MW-3

COMPOUND	SPIKE ADDED (µg/L)	SAMPLE CONCENTRATION (µg/L)	MS CONCENTRATION (µg/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	52	104	61-145
Trichloroethene	50	3	62	118	71-120
Benzene	50	0	55	110	76-127
Toluene	50	0	61	122	76-125
Chlorobenzene	50	0	62	124	75-130

COMPOUND	SPIKE ADDED (µg/L)	MSD CONCENTRATION (µg/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50	52	104	0	14	61-145
Trichloroethene	50	61	116	2	14	71-120
Benzene	50	54	107	3	11	76-127
Toluene	50	61	122	0	13	76-125
Chlorobenzene	50	61	122	2	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

3A

SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: BER SAS No.: _____ SDG No.: BER009

Sample ID LFB120303 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (µg/L)	SAMPLE CONCENTRATION (µg/L)	SPIKE CONCENTRATION (µg/L)	SPIKE % REC #	QC. LIMITS REC.
Chloromethane	50	0	45	89	70-114
Bromomethane	50	0	52	104	50-136
Vinyl chloride	50	0	46	93	66-117
Chloroethane	50	0	47	95	71-116
Methylene chloride	50	0	50	100	80-112
Acetone	50	0	51	102	71-125
1,1-Dichloroethene	50	0	47	94	67-120
Carbon disulfide	50	0	47	93	61-126
1,1-Dichloroethane	50	0	49	98	77-114
1,2-Dichloroethene (total)	100	0	96	96	78-128
Chloroform	50	0	49	98	75-119
1,2-Dichloroethane	50	0	51	102	76-120
2-Butanone	50	0	53	106	74-121
1,1,1-Trichloroethane	50	0	48	96	66-126
Carbon tetrachloride	50	0	47	95	64-126
Bromodichloromethane	50	0	50	101	78-118
1,2-Dichloropropane	50	0	50	100	81-115
cis-1,3-Dichloropropene	50	0	50	100	79-116
Trichloroethene	50	0	49	97	72-121
Dibromochloromethane	50	0	51	101	75-125
1,1,2-Trichloroethane	50	0	51	102	82-116
Benzene	50	0	49	98	77-116
trans-1,3-Dichloropropene	50	0	52	103	77-120
Bromoform	50	0	51	103	75-121
4-Methyl-2-pentanone	50	0	53	107	79-121
2-Hexanone	50	0	54	108	76-119
Tetrachloroethene	50	0	48	96	59-133
1,1,2,2-Tetrachloroethane	50	0	52	105	77-120
Toluene	50	0	49	98	70-125
Chlorobenzene	50	0	49	98	72-124

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 33 outside limits

COMMENTS: _____

3A

SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: BER SAS No.: _____ SDG No.: BER009

Sample ID MSB120303 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (µg/L)	SAMPLE CONCENTRATION (µg/L)	SPIKE CONCENTRATION (µg/L)	SPIKE % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	53	106	61-145
Trichloroethene	50	0	60	120	71-120
Benzene	50	0	55	109	76-127
Toluene	50	0	61	123	76-125
Chlorobenzene	50	0	61	123	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

3A

SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: BER SAS No.: _____ SDG No.: BER009

Sample ID LFB120303 Level: (low/med) LOW

Ethylbenzene	50	0	48	95	68-128
Styrene	50	0	49	98	72-124
Xylene (total)	150	0	150	99	78-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 33 outside limits

COMMENTS: _____

7. BLANK SUMMARY DATA AND RESULTS

7.1 VOLATILES

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK120303

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: BER SAS No. _____ SDG No.: BER009

Lab File ID: A\A36955.D Lab Sample ID: VBLK120303

Date Analyzed: 12/03/03 Time Analyzed: 10:38

GC Column: R-502. ID: .53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5971

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LFB120303	LFB120303	A\A36956.D	11:20
02	MSB120303	MSB120303	A\A36961.D	15:38
03	MW-3MS	0312075-009AMS	A\A36963.D	16:34
04	MW-3MSD	0312075-009AMSD	A\A36964.D	17:02
05	MW-3	0312075-009A	A\A36965.D	17:31
06	GP-8 26-28 FT	0312075-001A	A\A36966.D	17:59
07	GP-8 41-43 FT	0312075-002A	A\A36967.D	18:28
08	GP-9 22-24 FT	0312075-003A	A\A36968.D	18:56
09	GP-9 37-39 FT	0312075-004A	A\A36969.D	19:24
10	GP-10 22-24 FT	0312075-005A	A\A36970.D	19:53
11	GP-10 37-39 FT	0312075-006A	A\A36971.D	20:21
12	MW-1	0312075-007A	A\A36972.D	20:50
13	MW-2	0312075-008A	A\A36973.D	21:18

COMMENTS: _____

_____

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK120303

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: VBLK120303

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36955.D

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	5	U
75-15-0	Carbon disulfide	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

BER009 V1168 @12/30/03

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK120303

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: VBLK120303

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36955.D

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1330-20-7	Xylene (total)	5	U

BER009 V1G9 @12/3/03

1F

EPA SAMPLE NO.

VBLK120303

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: VBLK120303

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36955.D

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 0 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

4A

EPA SAMPLE NO.

VBLK120503

VOLATILE METHOD BLANK SUMMARY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: BER SAS No. _____ SDG No.: BER009

Lab File ID: A\A36978.D Lab Sample ID: VBLK120503

Date Analyzed: 12/05/03 Time Analyzed: 12:10

GC Column: R-502. ID: .53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5971

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	FIELD BLANK	0312075-010A	A\A36982.D	14:03
02	TRIP BLANK	0312075-011A	A\A36983.D	14:31

COMMENTS: _____

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK120503

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: VBLK120503

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36978.D

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 12/05/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: ______ (µL) Soil Aliquot Volume ______ (µL)

CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	5	U
75-15-0	Carbon disulfide	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

BER009 V175 @12/30/03

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK120503

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: VBLK120503

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36978.D

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 12/05/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1330-20-7	Xylene (total)	5	U

BER009179 @12/30/03

1F

EPA SAMPLE NO.

VBLK120503

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name H2M LABS, INC. Contract _____

Lab Code 10478 Case No. BER SAS No. _____ SDG No. BER009

Matrix: (soil/water) WATER Lab Sample ID: VBLK120503

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36978.D

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 12/05/03

GC Column R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 0 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

8. INTERNAL STANDARD AREA DATA

8.1 VOLATILES

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MSB120303

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: MSB120303

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36961.D

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	53	
75-15-0	Carbon disulfide	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	3	J
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	60	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	55	
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	61	
108-90-7	Chlorobenzene	61	
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

B2R009V182 @12/30/03

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MSB120303

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: MSB120303

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36961.D

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1330-20-7	Xylene (total)	5	U

BER009V183 @ 12/30/03

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LFB120303

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: LFB120303

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36956.D

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
74-87-3	Chloromethane	45	
74-83-9	Bromomethane	52	
75-01-4	Vinyl chloride	46	
75-00-3	Chloroethane	47	
75-09-2	Methylene chloride	50	
67-64-1	Acetone	51	
75-35-4	1,1-Dichloroethene	47	
75-15-0	Carbon disulfide	47	
75-34-3	1,1-Dichloroethane	49	
540-59-0	1,2-Dichloroethene (total)	96	
67-66-3	Chloroform	49	
107-06-2	1,2-Dichloroethane	51	
78-93-3	2-Butanone	53	
71-55-6	1,1,1-Trichloroethane	48	
56-23-5	Carbon tetrachloride	47	
75-27-4	Bromodichloromethane	50	
78-87-5	1,2-Dichloropropane	50	
10061-01-5	cis-1,3-Dichloropropene	50	
79-01-6	Trichloroethene	49	
124-48-1	Dibromochloromethane	51	
79-00-5	1,1,2-Trichloroethane	51	
71-43-2	Benzene	49	
10061-02-6	trans-1,3-Dichloropropene	52	
75-25-2	Bromoform	51	
108-10-1	4-Methyl-2-pentanone	53	
591-78-6	2-Hexanone	54	
127-18-4	Tetrachloroethene	48	
79-34-5	1,1,2,2-Tetrachloroethane	52	
108-88-3	Toluene	49	
108-90-7	Chlorobenzene	49	
100-41-4	Ethylbenzene	48	
100-42-5	Styrene	49	

b32009 V190 @12/3/03

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LFB120303

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: LFB120303

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36956.D

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1330-20-7	Xylene (total)	150	

BSB009 V191 @12/3/03

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3MS

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-009AMS

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36963.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	4	J
75-35-4	1,1-Dichloroethene	52	
75-15-0	Carbon disulfide	2	J
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	7	
67-66-3	Chloroform	1	J
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	62	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	55	
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	34	
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	61	
108-90-7	Chlorobenzene	62	
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

BERO09 V197 12/20/03

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3MS

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-009AMS

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36963.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1330-20-7	Xylene (total)	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3MSD

Lab Name: H2M LABS, INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-009AMSD

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36964.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	3	J
75-35-4	1,1-Dichloroethene	52	
75-15-0	Carbon disulfide	2	J
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	7	
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	61	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	54	
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	33	
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	61	
108-90-7	Chlorobenzene	61	
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

BER009 V201 @12/30/03

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3MSD

Lab Name: H2M LABS. INC. Contract: ____

Lab Code: 10478 Case No.: BER SAS No.: ____ SDG No.: BER009

Matrix: (soil/water) WATER Lab Sample ID: 0312075-009AMSD

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A36964.D

Level: (low/med) LOW Date Received: 12/02/03

% Moisture: not dec. Date Analyzed: 12/03/03

GC Column: R-502.2 ID: .53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1330-20-7	Xylene (total)	5	U

BER009 V202 12/13/03

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: BER SAS No. _____ SDG No.: BER009

Lab File ID (Standard): A\A36954.D Date Analyzed: 12/03/03

EPA Sample No.(VSTD050##): VSTD050 Time Analyzed: 10:05

Instrument ID: HP5971 Heated Purge: (Y/N) N

GC Column: R-502. ID: .53 (mm)

		IS1 AREA #	RT #	IS2 DFB AREA #	RT #	IS3 CBZ AREA #	RT #
	12 HOUR STD	78224	9.33	390568	10.12	356378	14.61
	UPPER LIMIT	156448	9.83	781136	10.62	712756	15.11
	LOWER LIMIT	39112	8.83	195284	9.62	178189	14.11
	EPA SAMPLE						
01	VBLK120303	77537	9.33	385719	10.13	342708	14.60
02	LFB120303	77109	9.37	381265	10.15	348084	14.62
03	MSB120303	78429	9.34	388203	10.12	350512	14.61
04	MW-3MS	78953	9.29	390113	10.10	351399	14.59
05	MW-3MSD	76467	9.29	382192	10.09	342910	14.59
06	MW-3	79209	9.33	395908	10.12	354145	14.60
07	GP-8 26-28 FT	78602	9.29	391515	10.09	353210	14.58
08	GP-8 41-43 FT	79340	9.26	395612	10.07	358835	14.57
09	GP-9 22-24 FT	78301	9.28	391647	10.08	350651	14.58
10	GP-9 37-39 FT	78197	9.24	390218	10.05	353207	14.55
11	GP-10 22-24 FT	80515	9.22	397415	10.03	353241	14.54
12	GP-10 37-39 FT	81186	9.30	400378	10.09	358125	14.58
13	MW-1	77486	9.30	386764	10.09	343433	14.58
14	MW-2	79357	9.26	394614	10.07	353208	14.56

IS1 = Bromochloromethane
IS2 DFB = 1,4-Difluorobenzene
IS3 CBZ = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: BER SAS No. _____ SDG No.: BER009

Lab File ID (Standard): A\A36977.D Date Analyzed: 12/05/03

EPA Sample No.(VSTD050##): VSTD050 Time Analyzed: 11:08

Instrument ID: HP5971 Heated Purge: (Y/N) N

GC Column: R-502. ID: .53 (mm)

		IS1 AREA #	RT #	IS2 DFB AREA #	RT #	IS3 CBZ AREA #	RT #
	12 HOUR STD	80766	9.35	403071	10.14	370566	14.63
	UPPER LIMIT	161532	9.85	806142	10.64	741132	15.13
	LOWER LIMIT	40383	8.85	201536	9.64	185283	14.13
	EPA SAMPLE						
01	VBLK120503	80335	9.25	399012	10.07	356356	14.59
02	FIELD BLANK	81882	9.24	407659	10.05	364070	14.58
03	TRIP BLANK	80738	9.23	399312	10.05	355338	14.58

IS1 = Bromochloromethane
IS2 DFB = 1,4-Difluorobenzene
IS3 CBZ = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

Burton Industries

Geoprobe next to MW3

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 22'-24' bls

SH103-1202-D21(10)

Lab Name: Lionville Labs, Inc. Contract: 01667601001

Lab Code: Lionvi Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 0312L302-001

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: x120918

Level: (low/med) LOW Date Received: 12/05/03

% Moisture: not dec. _____ Date Analyzed: 12/09/03

GC Column: ID: _____(mm) Dilution Factor: 1.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichlorotrifluoroethane	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene Chloride	7	BJ
156-60-5	Trans-1,2-dichloroethene	10	U
1634-04-4	tert-Butyl Methyl Ether	40	
75-34-3	1,1-Dichloroethane	10	U
156-59-2	Cis-1,2-dichloroethene	8	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	2	J
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	7	J
591-78-6	2-Hexanone	10	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SH103-1202-D21900

Lab Name: Lionville Labs, Inc. Contract: 01667601001

Lab Code: Lionvi Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 0312L302-001

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: X120918

Level: (low/med) LOW Date Received: 12/05/03

% Moisture: not dec. _____ Date Analyzed: 12/09/03

GC Column: ID: ____(mm) Dilution Factor: 1.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

MW 1

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SH103-1202-D21901

Lab Name: Lionville Labs, Inc. Contract: 01667601001

Lab Code: Lionvi Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 0312L302-002

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: x120919

Level: (low/med) LOW Date Received: 12/05/03

% Moisture: not dec. _____ Date Analyzed: 12/09/03

GC Column: ID: ____(mm) Dilution Factor: 1.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichlorotrifluoroethane	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	1	J
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene Chloride	9	BJ
156-60-5	Trans-1,2-dichloroethene	10	U
1634-04-4	tert-Butyl Methyl Ether	73	
75-34-3	1,1-Dichloroethane	10	U
156-59-2	Cis-1,2-dichloroethene	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U

MW-1

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SH103-1202-D21901

Lab Name: Lionville Labs, Inc. Contract: 01667601001

Lab Code: Lionvi Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 0312L302-002

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: x120919

Level: (low/med) LOW Date Received: 12/05/03

% Moisture: not dec. _____ Date Analyzed: 12/09/03

GC Column: ID: _____(mm) Dilution Factor: 1.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

MW-2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SH103-1202-D21902

Lab Name: Lionville Labs, Inc. Contract: 01667601001

Lab Code: Lionvi Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 0312L302-003

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: x120920

Level: (low/med) LOW Date Received: 12/05/03

% Moisture: not dec. _____ Date Analyzed: 12/09/03

GC Column: ID: ____(mm) Dilution Factor: 1.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichlorotrifluoroethane	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene Chloride	7	JB
156-60-5	Trans-1,2-dichloroethene	10	U
1634-04-4	tert-Butyl Methyl Ether	34	
75-34-3	1,1-Dichloroethane	10	U
156-59-2	Cis-1,2-dichloroethene	2	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	4	J
591-78-6	2-Hexanone	10	U

MW-2

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SH103-1202-D21912

Lab Name: Lionville Labs, Inc. Contract: 01667601001

Lab Code: Lionvi Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 0312L302-003

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: x120920

Level: (low/med) LOW Date Received: 12/05/03

% Moisture: not dec. _____ Date Analyzed: 12/09/03

GC Column: ID: ____(mm) Dilution Factor: 1.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

MW-3

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SH103-1202-D21003

Lab Name: Lionville Labs, Inc. Contract: 01667601001

Lab Code: Lionvi Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 0312L302-004

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: X120921

Level: (low/med) LOW Date Received: 12/05/03

% Moisture: not dec. _____ Date Analyzed: 12/09/03

GC Column: ID: ____(mm) Dilution Factor: 1.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichlorotrifluoroethane	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	1	J
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene Chloride	7	JB
156-60-5	Trans-1,2-dichloroethene	10	U
1634-04-4	tert-Butyl Methyl Ether	11	
75-34-3	1,1-Dichloroethane	10	U
156-59-2	Cis-1,2-dichloroethene	8	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	2	J
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	19	
591-78-6	2-Hexanone	10	U

MW-3

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SH103-1202-D21903

Lab Name: Lionville Labs, Inc. Contract: 01667601001

Lab Code: Lionvi Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 0312L302-004

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: x120921

Level: (low/med) LOW Date Received: 12/05/03

% Moisture: not dec. _____ Date Analyzed: 12/09/03

GC Column: ID: _____(mm) Dilution Factor: 1.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

60

MW #1

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

D21901

Lab Name: LIONVILLE_LABORATORY_____ Contract: 01667_____

Lab Code: LVLI__ Case No.: SH103_ SAS No.: _____ SDG No.: 1202__

Matrix (soil/water): WATER Lab Sample ID: 0312L302-002

Level (low/med): LOW__ Date Received: 12/05/03

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	128	B		P
7440-36-0	Antimony	2.7	U		P
7440-38-2	Arsenic	2.9	U		P
7440-39-3	Barium	1270			P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	10700			P
7440-47-3	Chromium	1.1	B		P
7440-48-4	Cobalt	4.0	B		P
7440-50-8	Copper	2.9	B		P
7439-89-6	Iron	487			P
7439-92-1	Lead	2.9	U		P
7439-95-4	Magnesium	2120	B		P
7439-96-5	Manganese	309			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	1.7	B		P
7440-09-7	Potassium	10400			P
7782-49-2	Selenium	3.2	U		P
7440-22-4	Silver	0.60	U		P
7440-23-5	Sodium	17700			P
7440-28-0	Thallium	5.8	U		P
7440-62-2	Vanadium	0.60	U		P
7440-66-6	Zinc	72.7		E	P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

SH103-1202-D21901

FORM I - IN

ILM04.0

MW #2

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

D21902

Lab Name: LIONVILLE_LABORATORY_____ Contract: 01667_____

Lab Code: LVLI__ Case No.: SH103_ SAS No.: _____ SDG No.: 1202__

Matrix (soil/water): WATER Lab Sample ID: 0312L302-003

Level (low/med): LOW__ Date Received: 12/05/03

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	246			P
7440-36-0	Antimony	2.7	U		P
7440-38-2	Arsenic	2.9	B		P
7440-39-3	Barium	1060			P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	9470			P
7440-47-3	Chromium	1.6	B		P
7440-48-4	Cobalt	0.90	U		P
7440-50-8	Copper	1.8	B		P
7439-89-6	Iron	379			P
7439-92-1	Lead	2.9	U		P
7439-95-4	Magnesium	1180	B		P
7439-96-5	Manganese	30.8			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	1.6	U		P
7440-09-7	Potassium	10200			P
7782-49-2	Selenium	3.2	U		P
7440-22-4	Silver	0.60	U		P
7440-23-5	Sodium	12200			P
7440-28-0	Thallium	5.8	U		P
7440-62-2	Vanadium	0.83	B		P
7440-66-6	Zinc	5.0	B	E	P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

SH103-1202-D21902

FORM I - IN ILM04.0

MW #3

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

D21903

Lab Name: LIONVILLE_LABORATORY Contract: 01667

Lab Code: LVLI Case No.: SH103 SAS No.: SDG No.: 1202

Matrix (soil/water): WATER Lab Sample ID: 0312L302-004

Level (low/med): LOW Date Received: 12/05/03

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	65.2	B		P
7440-36-0	Antimony	2.7	U		P
7440-38-2	Arsenic	2.9	U		P
7440-39-3	Barium	213			P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	28400			P
7440-47-3	Chromium	0.95	B		P
7440-48-4	Cobalt	2.2	B		P
7440-50-8	Copper	4.7	B		P
7439-89-6	Iron	455			P
7439-92-1	Lead	2.9	U		P
7439-95-4	Magnesium	5720			P
7439-96-5	Manganese	1150			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	1.6	U		P
7440-09-7	Potassium	5890			P
7782-49-2	Selenium	3.2	U		P
7440-22-4	Silver	0.60	U		P
7440-23-5	Sodium	16900			P
7440-28-0	Thallium	5.8	U		P
7440-62-2	Vanadium	0.60	U		P
7440-66-6	Zinc	4.0	B	E	P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

SH103-1202-D21903