

# Textile Rubber & Chemical Co., Inc.

1300 Tiarco • Dalton, GA 30721 • Phone 706-277-1300 • Fax 706-277-1111 • [www.trcc.com](http://www.trcc.com)

---

RECEIVED  
Georgia EPD  
JUN 21 2010  
Hazardous Sites  
Response Program

To: GA EPD, Hazardous Waste Management Branch  
Attn: Jason Metzger  
From: Chip Howalt, President TRCC  
Date: June 18, 2010

Re: Request for Changes to the Monitoring & Maintenance Plan  
Textile Rubber & Chemical Company Landfill  
HSI No. 10229  
1300 Tiarco Drive, Dalton, Georgia 30720

Dear Jason,

This letter formally requests changes and clarifications to the Monitoring & Maintenance (M&M) Plan dated October 26, 2006. It is our proposal that once these changes have been agreed upon, this letter, any revisions that follow, and your approval letter will serve as an addendum to the M&M Plan; thus documenting these changes as official changes to the M&M Plan dated October 26, 2006.

## Proposed Changes

(1) Timeframe for notification of major damages – the required timeframe for notifying EPD of the presence of major damages found during an inspection is 48 hours, not 24 hours.

(2) Use of P.E. for landfill inspections

Except for inspections occurring during or immediately following landfill cap modifications, P.E. inspections of the landfill are required annually and not quarterly. The other three quarterly inspections will be conducted by a recognized professional (i.e., TRCC's EH&S Manager or a designated representative with similar qualifications). TRCC will conduct the three quarterly inspections based on an inspection checklist prepared in concert with our landfill experts.

(3) Change to sampling well list

*Quality Industrial Coatings, Adhesives & Chemicals*

Under the October 26, 2006 M&M Plan, wells MW-4(\*), MW-5, and MW-6R are required to be sampling annually for regulated substances, and MW-1 is sampled as a background well. TRCC is proposing that sampling for MW-5 be dropped, and sampling for MW-12 be added.

(\*) Note that item 4 clarifies that MW-4R should be listed as the monitored well, not MW-4

This swap in monitoring wells is proposed for two reasons. First, there is no monitoring for the potential of regulated substances in the groundwater at the southern end of the Type 5 area. Second, MW-5 is located at the extreme northwestern edge of the landfill and is up-gradient and/or side-gradient of the groundwater flow for the landfill. This location means that there is very little chance of seeing groundwater issues from sampling MW-5. MW-5 has never shown any regulated substances above the groundwater Type 1 RRS. Please see the enclosed the survey and potentiometric map to verify the position of MW-5 and its unlikelihood to see groundwater contamination and to verify that MW-12 is located such that sampling will provide coverage for groundwater issues at the southern end of the Type 5 area. The enclosed potentiometric map also shows all wells and indicates those that are abandoned.

(4) Proper identification of wells to be sampled – the current M&M Plan lists MW-4 as a well to be sampled; MW-4R is the correct designation.

(5) Dropping analysis for 1,1-dichloroethene

For the following reasons, TRCC is proposing that we drop the analysis for 1,1-dichloroethene:

Historical records of the waste placed in the landfill are not available. However, based on the industrial processes in place at that time, we would expect the waste in the landfill to be predominantly carpet scraps and latex waste. The results of the CSR soil analyses confirms this supposition – soil sample analyses reported in the CSR do not indicate the presence of any VOCs except for acetone which was two orders of magnitude below the Type 1 RRS for soil (i.e., maximum of 5.3 mg/kg versus 400 mg/kg Type 1 RRS). Further, wastes disposed of in the previously operated, now abandoned and covered by the landfill, wastewater treatment ponds were latex wastes which do not contain 1,1-dichloroethene.

Moving on to the 1,1-dichloroethene results for groundwater, this regulated substance has only been found in one well (MW-2) at levels above the Type 1 RRS of 0.007 mg/L. These findings were from 2000 to 2003 with the highest value being 0.012 mg/L in 2001. None of the detected levels were above the Type 2 RRS value of 0.1 mg/L. Since the last finding in 2003 of 0.008 mg/L, 1,1-dichloroethene has not been detected; all results have been < 0.005 mg/L. This regulated substance has never been detected in any of the other wells; this includes samples during the CSR and during routine groundwater monitoring.

TRCC believes this demonstrates that there is not an on-going source of VOCs contaminating the groundwater.

TRCC is not able to shed any light on the reason for the detection of 1,1-dichloroethene during these early stages of investigation. However, given that 1,1-dichloroethene was found in only a single well and there have been no detections since 2003, we believe that it is reasonable to discontinue sampling for this regulated substance.

(6) Change depth-to-water monitoring from semi-annual to annual and take them during the 4<sup>th</sup> quarter – this change is proposed because seasonal water table fluctuations have been fairly consistent

(7) Change the sampling protocol from EISOPQAM to the most recent version of USEPA Region 4 Field Branches Quality System Technical Procedures.

(8) Remove abandoned wells

As part of TRCC's effort in 2009 and 2010, some wells were abandoned, and these wells should be identified to no longer require depth-to-water measurements. The abandoned wells are MW-2, MW-3, and MW-4. Further, it should be clarified that when a replacement well has been installed, the original well does not need to be sampled or checked for depth-to-water measurements. These well pairings include: MW-6 and MW-6R.

(9) Redevelopment of wells

The current M&M Plan requires the redevelopment of any well with accumulation of silt or sand. We are proposing that this requirement apply only to wells that are actively being sampled for groundwater regulated substances. Further, wells used for depth-to-water measurements will only be redeveloped when accumulated silt or sand interferes with obtaining useful data.

(10) Formally change the annual sampling event from November of each year to any time during the 4<sup>th</sup> quarter of each year.

---

We hope that you find our supporting rationale sufficient for making these changes. If you have any questions or comments, please contact me directly.

Sincerely,

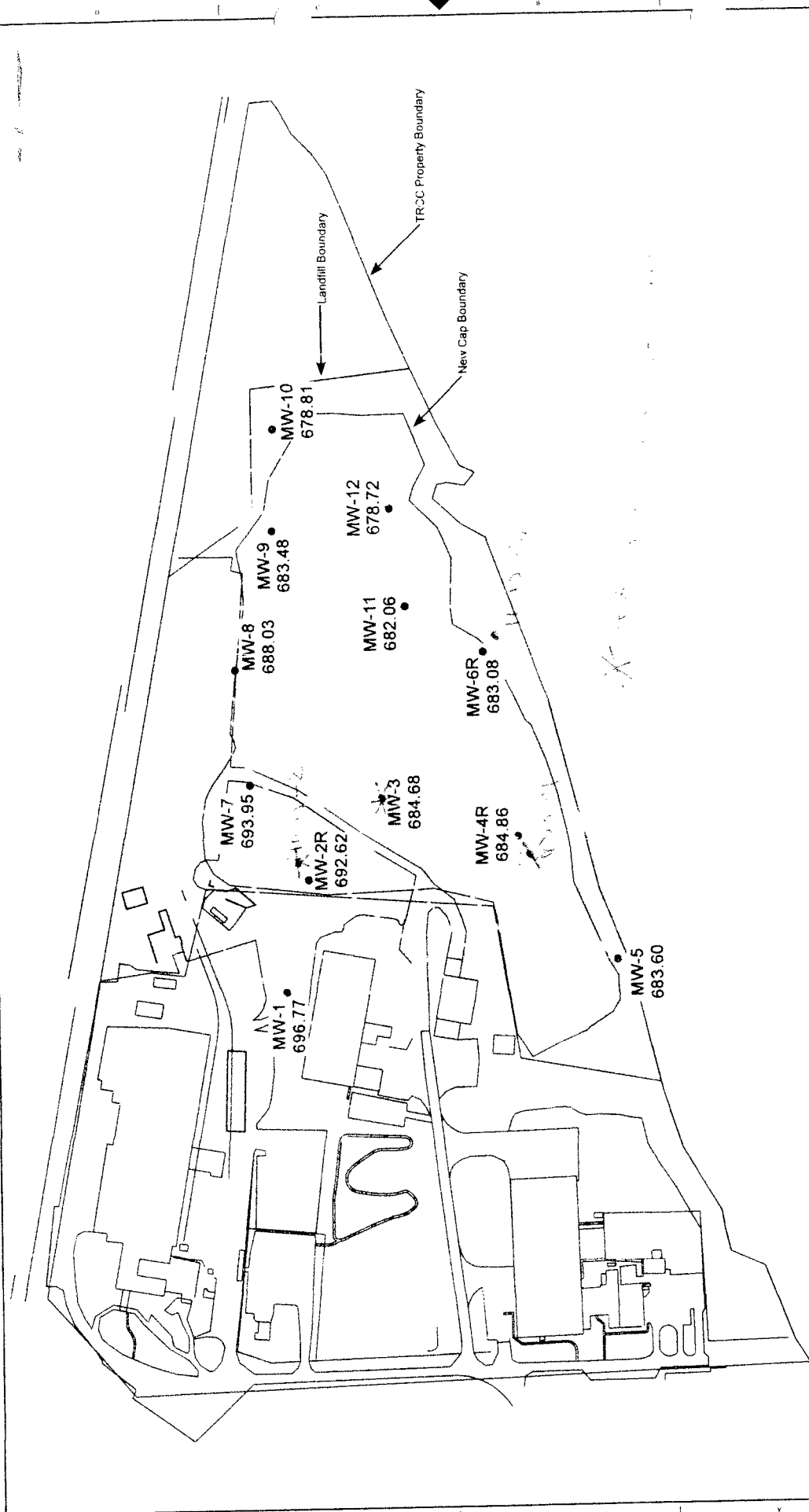


Chip Howalt  
President Textile Rubber & Chemical Company

Enclosures

Potentiometric Map – with abandoned wells marked  
Survey

*File/M&M Plan Changes ltr.doc*



<div data-bbox="1250 1848 1323 1942" data-label="Image"> </div> <div data-bbox="1250 1596 1323 1837" data-label="Text"> <p>MARION ENVIRONMENTAL, INC.          2440 W. HARRISON AVE.          CHATTANOOGA, TENNESSEE 37405          Phone: (423) 499-4019 Fax: (423) 992-5122          Email: info@marionenvironmental.com          Web: www.marionenvironmental.com</p> </div>	<div data-bbox="1250 1428 1323 1491" data-label="Text"> <p>JRS          1/27/10</p> </div>	<div data-bbox="1250 1323 1323 1386" data-label="Text"> <p>1/27/10</p> </div>	<div data-bbox="1250 1218 1323 1281" data-label="Text"> <p>DATE</p> </div>	<div data-bbox="1250 1113 1323 1176" data-label="Text"> <p>JRS          1/27/2010</p> </div>	<div data-bbox="1250 1008 1323 1071" data-label="Text"> <p>SCALE          1" = 210'</p> </div>	<div data-bbox="1250 903 1323 966" data-label="Text"> <p>FIGURE 2</p> </div>	<div data-bbox="1250 798 1323 861" data-label="Text"> <p>09494</p> </div>	<div data-bbox="1250 693 1323 756" data-label="Text"> <p>HSI NO. 10229</p> </div>	<div data-bbox="1250 588 1323 651" data-label="Text"> <p>POTENTIOMETRIC SURFACE MAP          JUNE 3, 2009          TEXTILE RUBBER &amp; CHEMICAL COMPANY</p> </div>
---	--	---	--	--	--	--	---	---	---



**FILE COPY**

# **REVISED MONITORING AND MAINTENANCE PLAN**



**TEXTILE RUBBER AND CHEMICAL COMPANY  
1300 TIARCO DRIVE  
DALTON, WHITFIELD COUNTY, GEORGIA  
HSI SITE NO. 10229**

**OCTOBER 26, 2006**

**RECEIVED**  
**OCT 31 2006**  
**HAZ. SITES RESPONSE PROG.**



1880 West Oak Parkway  
Building 100, Suite 106  
Marietta, GA 30062

Phone 770.973-2100  
Fax 770.973.7395  
[www.premiercorp-usa.com](http://www.premiercorp-usa.com)

[www.premiercorp-usa.com](http://www.premiercorp-usa.com)

October 27, 2006

Ms. Regina Campbell  
Georgia Environmental Protection Division  
Hazardous Sites Response Program  
2 Martin Luther King, Jr. Dr., SE, Suite 1462 East  
Atlanta, Georgia 30334

Re: Revised Monitoring and Maintenance Plan  
**Textile Rubber and Chemical Company**  
1300 Tiarco Drive  
Dalton, Georgia 30720  
HSI No. 10229

Dear Ms. Campbell:

On behalf of Textile Rubber and Chemical Company (TRCC), Premier Environmental Services, Inc. (Premier) has prepared this Monitoring and Maintenance Plan (MMP) to address the June 12, 2006 letter from Georgia Environmental Protection Division (EPD) requesting revision to the MMP submitted to EPD on May 18, 2006 by Rindt McDuff Associates.

We appreciate the opportunity to assist Textile Rubber regarding this matter, and look forward to further correspondence regarding this project. If you have questions about this Plan or the project in general, please contact Pat at (770) 973-2100 ext. 2860.

Sincerely,

Stephen Wallace, E.I.T.  
Project Engineer

Patrick Kelley, CHMM  
Senior Scientist

ATTACHMENT





## TABLE OF CONTENTS

I.	INTRODUCTION .....	3
II.	LANDFILL MONITORING AND CONTROL SYSTEMS.....	5
III.	GROUNDWATER MONITORING.....	7
IV.	LANDFILL MAINTENANCE AND INSPECTION PLAN.....	16
V.	PLANNED PROPERTY USE .....	19

## I. INTRODUCTION

The Textile Rubber and Chemical Company (Textile Rubber) site is listed on the State of Georgia's Hazardous Site Inventory pursuant to the Georgia Hazardous Site Response Act, Official Code of Georgia Annotated (O.C.G.A.) §12-8-90 and associated Rules for Hazardous Site Response, Chapter 391-3-19. The landfill portion of the Textile Rubber site (landfill) was remediated using engineering and institutional controls. The TRCC site is listed on the Georgia Hazardous Site Inventory (HSI) as Site # 10229. The landfill portion of the TRCC site will be in compliance with the Type 5 risk reduction standards (RRS) upon certification of the completion of the reinstallation of the landfill cap which was initially installed on the landfill and approved by the Georgia Environmental Protection Division (EPD) in 1986. A Compliance Status Report (CSR) and a Corrective Action Plan (CAP) were submitted to EPD in 2003 and 2004 respectively to depict current site conditions and to describe the clay cap repair and reinstallation activities. The 2-foot thick clay landfill cap was reinstalled as needed over both the former landfill areas and the former process pond areas to both prevent infiltration of rainwater into any waste remaining in the landfill and to isolate any waste material from direct contact. Additionally, institutional controls have been implemented on the TRCC site which include a deed notice and a restrictive covenant that are included as Appendix A in this Monitoring and Maintenance Plan (M&M).

A Compliance Status Report (CSR) was prepared for Textile Rubber and Chemical Company, Inc. Hazardous Site Inventory (HSI) Site No. 10229, with final revisions completed in February 2004. The Site, as listed, is comprised of former onsite landfill areas and former onsite wastewater treatment process ponds owned by Textile Rubber. The former landfill areas and treatment ponds were closed under the direction of the Georgia Environmental Protection Division (EPD) in 1985/1986 by the installation of a 2-foot clay cap over all of these areas. The closure was approved by EPD in a letter dated February 17, 1986.

The CSR documents that impact to groundwater from the former landfill and process pond areas does not currently exceed HSRA type 1 Risk Reduction Standards (RRS). Although historical groundwater data does indicate potential impacts above the Type 1 RRS, recent groundwater sampling using low flow/low stress protocols demonstrates that turbidity may have biased historical data, as the historical samples were collected using bailers.

Although Site groundwater is not impacted above Type 1 RRS, the materials placed in the landfill and former process pond areas do exceed applicable soil RRS for the HSRA regulated constituents, acetone, antimony, barium, and zinc. The EPD approved landfill and process pond caps initially installed in 1986 were considered appropriate for these areas, however significant degradation of this cap had occurred in some areas which required additional corrective action activities outlined in the CAP.

This M&M includes the following sections: planned landfill monitoring and control systems, groundwater monitoring plan, landfill maintenance and inspection plan, and planned land use restrictions for the landfill portion of the TRCC facility.

## II. LANDFILL MONITORING AND CONTROL SYSTEMS

The landfill and process pond areas which were in need of maintenance based on visual evidence and historical use have been cleared of all trees and brush, and clean clay fill obtained from a nearby off-site source near was placed and in these areas to both reinstall the original clay cap, and add additional cap material in the process ponds. After the cap installation was completed, additional clay was placed in the landfill area as needed to obtain an appropriate final grade to minimize any rainwater or runoff ponding on the cap.

Upon completion of the final grading activities, the entire landfill area was seeded with an appropriate native grass to minimize erosion and to help minimize rainfall infiltration. TRCC plans to re-seed any bare areas that develop in the capped areas to further minimize erosion.

As part of the CSR investigation activities, the following groundwater monitoring wells have been installed:

Background Well:	MW-1
Interior Landfill Wells:	MW-2, MW-3, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12
Downgradient Wells:	MW-4, MW-5, MW-6R

These wells are used to identify and/or evaluate the following conditions:

- Release of regulated substances from the landfill above background and/or the risk reduction standards of Section 391-3-19-.07 of the Rules.
- Migration and or expansion of regulated substances located outside of the landfill
- Measure groundwater levels inside and outside of the landfill

The locations of the monitoring wells and the extent of the landfill cap are depicted on Figure 1 of this Plan.

### 2.1 Clay Cap

The cleared landfill and process pond areas had a clay cap installed. Former landfill and process pond areas that are now occupied by roads, parking lots, concrete paved lots or buildings remained as is, since these features were determined to provide an adequate impermeable cap. TRCC obtained clean clay fill from property that is located near the Site. Clay was excavated from this property, trucked to the Site, and placed in the appropriate landfill and process pond areas. The clay was compacted by the

earthmoving equipment used to install/replace the cap. Areas that appeared to have an intact, 2-foot cap only received additional clay as needed for final grading activities.

### III. GROUNDWATER MONITORING

The Georgia Type 1 risk reduction standards (Section 391-3-19-.07 of the Rules) for regulated substances were used as the groundwater standards for the groundwater monitoring plan.

Site groundwater is currently in compliance with Type 1 RRS, although historical data, which may have been biased by sampling technique, exceeded Type 1 RRS for antimony, barium, zinc, and 1,1-dichloroethene. TRCC conducted two additional semi-annual groundwater sampling events in April and September 2005 for all site monitoring wells and analyzed for the above mentioned constituents. The results of these sampling events were documented in the progress reports submitted to EPD on June 20, 2005 and January 10, 2006.

TRCC will conduct the following detection groundwater monitoring program to demonstrate continued compliance with RRS as specified for Type 5 compliance.

- 1) TRCC will collect water level and total well depth measurements on all wells semi-annually in May and November and generate a potentiometric surface map for each set of measurements to verify the direction of groundwater flow.
- 2) TRCC will collect measurements of field parameters (pH, specific conductance, temperature, and turbidity) for the groundwater monitoring wells listed below.
- 3) TRCC will complete annual sampling in November on the following wells which are located along the landfill boundaries using the low flow sampling procedures outlined below:
  - a. Background Well: MW-1
  - b. Downgradient Wells: MW-4, MW-5, and MW-6R

The groundwater samples will be collected in appropriate containers and analyzed for the parameters specified in Table 1. The laboratory analyses will be completed by a Georgia certified laboratory, and the current laboratory certification documentation will be included with the data report.

- 4) TRCC will submit the well inspection data, water level data, potentiometric map, and the results of the groundwater monitoring event in an annual continued compliance report.
- 5) Upon concurrence with EPD, TRCC will terminate the detection monitoring program, and plug and abandon the site monitoring wells as specified in the approved CAP.

**Table 1**  
**Regulated Substances for Groundwater**  
**Textile Rubber and Chemical Company**

<b>Regulated Substance</b>	<b>Frequency of Groundwater Monitoring</b>	<b>Type 1 RRS (mg/L)</b>	<b>Analytical Method</b>
<b>Organics</b>			
1,1-dichloroethene	Annually	0.007	SW846 8260B
<b>Metals</b>			
Antimony	Annually	0.006	SW846 6010B
Barium	Annually	2.0	SW846 6010B
Zinc	Annually	2.0	SW846 6010B

### 3.1 Sampling and Analysis Procedures

This section provides the methodology for groundwater sampling and analysis of both background and detection monitoring wells.

The regulated substances to be measured and the frequency at which samples must be collected appear in Table 1. Field parameters include total depth of the well, water level, specific conductance, pH, temperature, and turbidity. Regulated substances and field parameters must be monitored annually unless notified otherwise by EPD. An M&M review report must be submitted to EPD within sixty (60) days from the close of every fifth year that summarizes and evaluates groundwater trends discerned through that time period and make recommendations as appropriate.

Water levels must be measured on a semi-annual basis from the monitoring wells and the dewatering well to record the fluctuations of the water table due to seasonal effects. High water table conditions typically occur during the winter and spring, due to precipitation. Low water table conditions predominate in the summer and fall due to lower relative precipitation.

The following sections describe procedures for measuring water levels and field parameters and collecting groundwater samples. Water level measurements for a well must be completed before presample purging of the well is conducted. Water level measurement and sample collection must be conducted at the background well first, followed by detection wells. Powderless latex gloves must be worn during water level measurements and groundwater sampling and must be changed between wells. The water level indicator must be decontaminated between wells. All information collected in association with water level measurement, other field parameters and groundwater sampling must be recorded on the groundwater sampling data sheets (Appendix B) and in a logbook. All activities associated with measurements of water levels and field parameters and collection of groundwater samples must be performed in

accordance with the most recent edition of the EPA's Environmental Investigation Standard Operating Procedures and Quality Assurance Manual (EISOPQAM).

### 3.1.1 Water Level Measurement

The equipment required for water level measurement includes:

- Electric water level indicator (probe)
- Logbook
- Well keys
- Decontamination equipment (tubs or buckets, brushes, phosphate-free laboratory-grade detergent, distilled, deionized water, wastewater container)
- Powderless surgical gloves

To measure the water level in the casing, the probe must be lowered into the casing until the light or sound alarm is activated, indicating that the probe has touched the water surface. Before the water level is measured, the probe and its cable must be physically checked against a measuring tape to verify that the water level indicator has not been cut or altered and to confirm that the indicator's reading is accurate. The static water level must be read directly from the indicator cable by holding the cable to the permanent mark at the top of the well casing and reading off the depth to the nearest 0.01 foot. The probe must be raised and lowered two more times in order to obtain two more measurements; the three readings must then be averaged and recorded in the logbook. Next, the probe must be lowered until it encounters resistance, indicating it has reached the bottom of the well casing. This depth must be read off the cable and recorded in the logbook.

The probe and cable must be washed with a phosphate-free laboratory-grade detergent after they are retrieved from the well, and rinsed in distilled, deionized water. Wash and rinse water must be contained in a wastewater container before proceeding to the next well. Generally, water level measurement will be collected starting at the background well and measuring historically clean wells first in a cleanest to most impacted order.

The general observations of the appearance and condition of the well casing and protective outer casing, must be recorded in a logbook and on the groundwater sampling data sheets.

### 3.1.2 Sample Collection

In addition to the equipment listed above for water level measurement, sample collection must require the following equipment:



- Sample containers and labels
- Calibrated bucket (example: 5-gallon bucket)
- Coolers, and ice
- Permanent marker
- Low-flow sampling pump (for example, bladder, variable speed, peristaltic)
- Groundwater sampling data sheets
- Instruments for measuring field parameters

All instruments used for measuring field parameters must be calibrated at the beginning of each day of sampling. The instruments response to a calibration standard must be recorded in the logbook and on the groundwater sampling data sheets for all instruments, including those not typically calibrated in the field (such as a specific conductivity meter). The makes, models, serial number, and dates of last calibration of all instruments used must be recorded. The sources, lot numbers, and expiration dates of the standards solutions used for calibration must also be recorded.

After measuring the water level and bottom of well casing, the water volume within the well casing must be calculated. The volume of water inside the well casing is determined by subtracting from the total depth of well casing the depth to groundwater, and multiplying the height of water in the casing by 0.163 gallons per linear foot (for a 2-inch inner diameter well).

Wells must be purged a minimum of three casing volumes and sampled with a low flow pump. Water must be discharged from the pump to a calibrated bucket that has volumes marked in increments of gallons or fractions of gallons. A sample of purge water must either be pumped through a flow cell or discharged into a beaker or other container after each casing volume is removed from the well, for measurement of field parameters. The purge water must be contained in a wastewater container (such as a 55-gallon drum) and discharged into the on-site TRCC wastewater treatment system. If stability of the field parameters is not achieved within purging of 3 well volumes, the sampling team leader must make the determination whether to sample the well.

Field parameters must be measured and recorded on the groundwater sampling data sheets along with the associated cumulative purge volume. Observations of purge water appearance must also be entered on the groundwater sampling data sheet. The well must be purged until field parameters are stable between three consecutive measurements. To be considered stable, field parameters must change by no more than the following tolerance levels: pH measurements remain constant within 0.1 Standard Unit, specific conductance varies no more than 10 percent, and temperature is constant for three consecutive readings. Turbidity must also be measured and recorded. Stability is achieved when pH, specific conductance, and temperature have stabilized and the turbidity has either stabilized or is below 10 Nephelometric Turbidity Units (NTU) (EISOPQAM).

Water levels must be periodically monitored with a water level indicator while purging. The purging rate must be adjusted to avoid purging the well dry.

All preservatives must be added to containers prior to sampling. Samples collected in pre-preserved containers must not be overfilled.

Sample containers must be labeled and placed in a cooler with ice immediately after the containers are filled. Before delivery to the analytical laboratory, all samples must be containerized and packaged to maintain sample integrity and chain of custody.

Any equipment (such as a water level indicator) that will be used to sample in more than one well must be decontaminated using a phosphate-free detergent and rinsed with distilled and deionized water. Decontamination procedures should be noted in the logbook. Any solid wastes such as PPE, etc. generated during the groundwater monitoring and sampling events must be disposed of properly within thirty (30) days of completion of the event. At no time shall empty containers be stock piled and/or stored on the Textile Rubber site.

### 3.1.3 Sample Labeling and Documentation

Samples must be labeled immediately after collection. At a minimum, sample labels must include sample identification (ID) number, date of collection, time of collection, preservative used, required analyses, and sampler names. The name of the well must be used as the ID number (for example, MW-1). The ID number must also be included in the logbook, chain-of-custody forms, and other records documenting sampling activities. The label must be covered with clear plastic tape to prevent damage after it is filled out.

In addition to sample labels, field-sampling activities require other forms of documentation. This additional documentation is necessary to provide an accurate record of sampling events and field observations. This information must be recorded in logbooks, groundwater sampling data sheets, and chain-of-custody forms. Example forms are provided in the Appendix B.

Documentation must be completed legibly in ink. Errors must be crossed out with a single line, dated, and initialed by the sampling team member recording the information. Unused portions of logbook pages must be crossed out, and each page must be signed and dated by the sampling team member who made the entry.

#### 3.1.4 Sample Shipment and Chain of Custody

After samples are collected, labeled, and sealed with custody seals, they must be placed in iced coolers. Inert packing materials (such as vermiculite) must be placed around sample containers to prevent breakage. Coolers must be stored in a secured location until they are shipped to the analytical laboratory. Chain-of-custody (COC) forms must be completed for all samples. Before shipment, the field sample custodian and the courier receiving the samples must sign the COC form. A copy of the COC form must be retained for the project files. After the COC form has been completed and signed, it must be inserted in a sealed plastic bag and taped inside the lid of the cooler. The cooler must be sealed with a minimum of two seals (signed and dated by the field sample custodian), so that the seals must be broken to remove the samples. The field chain of custody terminates when the laboratory receives the samples. At that time, the laboratory assumes responsibility for custody. Upon receipt at the laboratory, a laboratory representative must inspect the contents of the cooler, sign the COC form, and list the date and time.

#### 3.1.5 Quality Control Samples

The quality assurance and quality control (QA/QC) guidance outlined in the EISOPQAM must be followed. QA/QC field samples must be collected to evaluate whether data quality has been affected by field activities or other outside events. QA/QC field samples include field duplicates, equipment blanks, and trip blanks. Additional sample volumes must also be collected for matrix spike and matrix spike duplicate (MS/MSD) samples.

Field duplicate samples are used to assess the reproducibility and representativeness of results. Field duplicate samples are collected in a manner identical to the real sample, but are submitted blind to the analytical laboratory. The well the field duplicate sample was collected from must be recorded in the logbook and on the groundwater sampling form. Field duplicate samples must be collected once for every 10 wells sampled (one every sampling event).

Equipment blanks are collected to assess the quality of decontamination procedures used on nondisposable sampling equipment (equipment used in more than one well). Equipment blanks are obtained by flushing the sampling equipment with deionized water after it has been decontaminated and air-dried. The flush water must then be containerized and analyzed for the same constituents as the groundwater samples. Equipment blanks must be collected at a frequency of one per sampling event if nondisposable equipment is used.

MS/MSD samples gauge the accuracy and precision of the data derived from sample analysis. Although spiking is an internal laboratory procedure, the laboratory typically requires that a triple volume be collected for MS/MSD

samples. A triple volume of a sample chosen at the discretion of the sampling team must be collected, and each container must be labeled with the same ID number. Under the remarks or comments on the chain-of-custody form, the triple volume must be noted as collected for MS/MSD. MS/MSDs must be collected at a frequency of 1 per 20 wells sampled or at least once during every sampling event, whichever is more frequent.

### 3.2 Laboratory Analysis

A laboratory that complies with the O.C.G.A. 12-2-26, Georgia Commercial Analytical Laboratory Act and associated Rules must analyze the groundwater samples. Samples must be analyzed using the methods presented in Table 1. The analytical laboratory is required to have a QA/QC plan to assure the reliability of analytical results. Any report that submits analytical results to EPD must include a certification that complies with Chapter 391-3-26 of the Rules for Commercial Environmental Laboratories.

### 3.3 Data Evaluation

Analytical results and field parameters must be evaluated to determine if a release has occurred from the landfill to groundwater. This data validation and evaluation process consists of data review, tabulation of qualified data and professional judgment screening. Analytical results from the background well and downgradient monitoring wells must be tabulated and evaluated separately.

Professional judgment must be applied throughout the data evaluation process, but is essential to assess data quality. Professional judgment is required for determining that results are representative of aquifer conditions.

#### 3.3.1 Analytical Data Validation and Tabulation

To evaluate data quality, all data received from the laboratory must be subjected to the EPA's EISOPQAM data validation process. The data quality review must include a report on data quality, which must discuss among other things, detections of any regulated substances in blanks and other QA/QC results. The data must be examined for any other errors, such as those made during transcription. Any data quality issues that may affect the outcome of statistical tests must be noted. The representativeness of the results must also be reviewed and noted.

Qualified data must be tabulated in a format presenting all ID numbers, dates of sampling, and results for all analyses. Results from each monitoring well must be independently compared to background and Type 1 risk reduction standards.

### 3.3.2 Verification Procedure for Suspected Releases

Verification sampling must be conducted if statistically significant or other evidence of a release is not rejected by professional judgment. Only those detection monitoring wells in which a suspected release was detected must be resampled; however, if the next sampling event takes place prior to identifying a suspected release, this newly collected data might be used. Results from resampling must be compared to existing background data for a regulated substance that may have been released. A discrete retest (using only the newly-collected detection monitoring well data) must be performed.

### 3.4 REPORTING

A groundwater monitoring report including data evaluation, along with a cover letter, must be submitted to EPD.

The groundwater monitoring report must be submitted within forty-five (45) days of the sampling event. The report must include tabulation of qualified analytical results and a narrative summary of the results. The report must include analysis of water level data and groundwater flow direction and gradient. The report must discuss any deviations from the M&M plan. The report should provide photographic documentation of the site including each component of the landfill system along with anything that warrants documentation such as damage to site features (i.e. monitoring wells). Each photo should include at a minimum the site name, date, photographer's name and title, and a description of the photo.

The Annual Inspection Report shall include the groundwater monitoring data, and must include the following signed certifications:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate that information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief true and accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

---

Authorized Signature

I certify that I am a qualified groundwater scientist who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and have sufficient training and experience in groundwater hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable me to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport. I further certify that this report was prepared by myself or by a subordinate working under my direction.

---

Georgia Registered Professional  
Geologist or Engineer

#### IV. LANDFILL MAINTENANCE AND INSPECTION PLAN

This section of the M&M plan describes the methods, procedures, and processes that must be used to inspect and maintain the engineering controls of the landfill. These components include final cover and grading; drainage system; and groundwater monitoring network. Use of the property must not disturb the integrity of the soil cap of the landfill or any other components of the containment system, or the function of the monitoring systems. Maintenance and inspection of the landfill must be performed by person(s) experienced in the maintenance and inspection of the engineering controls at the landfill through both professional training and educational experience sufficient to evaluate the condition of the landfill as it relates to the requirements set forth below. Minimum experience requires the inspector be a Georgia certified Professional Engineer with experience in the design and/or evaluation of landfills.

Maintenance and inspection activity documentation includes the M&M Inspection Log form and Maintenance Record form. Inspection logs include the date of the inspection, name of the inspector(s), component inspected, weather conditions, condition of the item inspected, notation of any damages requiring attention and indicate if the noted damage would be classified as major damage. EPD should be notified within 24 hours for each incidence of damage determined to be major damage. A copy of the M&M Inspection Log form is included in Appendix B. Maintenance records include the dates repairs were initiated and completed, and the name of the person recording the information. Comments describing the severity of the damage (i.e.: major) must also be noted on the maintenance records along with a description of the repairs. A copy of the Maintenance Record is included in Appendix B.

TRCC will conduct maintenance and inspection activities to insure that the landfill cap installed as specified in the approved CAP continues to function as designed. The following components will be inspected quarterly by a Georgia licensed Professional Engineer, and documented annually along with any maintenance activities completed as a result of the inspections in an Annual Inspection Report:

- 1) Groundwater Monitoring System – Each monitoring well will be visually inspected to insure that the well, protective stickup, concrete pad, and locking cap/cover are intact and functioning as designed. Any damage or other identified issues with the monitoring wells will be repaired by an environmental drilling contractor.

Wells will also be visually inspected for accumulations of silt and sand by measuring the total depth during the sampling and comparing these depths to previous and original depths. If an accumulation of silt or sand is noted, the well will be redeveloped.

- 2) Final Cover and Drainage system – The integrity and effectiveness of the final cover, which includes the clay cap, asphalt parking lot, and the vegetative cover,

will be inspected to verify that each of these are functioning as designed. The specific inspection elements include:

- a. Soil Cap: The soil cap will be visually inspected to identify any erosion rills, settlement/ponding water, damage from traffic, or damage from other activities. Any damage, erosion, or settlement will be noted on the MMP Inspection Forms and included in the Annual Inspection Report along with the proposed corrective action activities. If corrective action activities are required, a follow up inspection will be conducted to verify that the corrective action was completed in an appropriate manner.
- b. Vegetative Cover: The clay cap was grassed after installation as specified in the CAP. The grass cover will be inspected to identify bare spots and to verify that the grass is relatively healthy and mowed on a routine basis. Some inspection guidelines include: verifying that no bare spots exist with a surface area greater than 2% of the grass cover area, verifying that the grass cover is mowed quarterly if growing conditions warrant it, verifying that fertilization, weed control and trash removal is completed as needed, and verifying that no trees or woody plants are present in the grassed areas.
- c. Drainage System: The clay cap was graded to minimize the potential for ponding water on the cap, and to minimize damage from run-on or run-off of surface water. Any ponding areas or erosion rills, or areas where the grassed cover is missing or distressed will have clay fill and or topsoil added as need to achieve the existing grade, and reseeded with a similar grass.

All drainage swales around the site will be inspected for debris or other obstructions that may prevent proper drainage. If any debris is found, it will be removed and properly disposed off-site. Once each year, one of the quarterly inspections will be performed during a significant rain event so that the drainage system can be evaluated.

- d. Concrete/Paved Areas over the landfill and former process pond areas: Any landfill or former process pond area that has been covered by concrete (including a building footer) or pavement will be inspected to insure that this cap continues to prevent both rainwater infiltration and exposure to any landfilled materials. The concrete or paved areas will be noted in the Annual Inspection Report.
- 3) Property Use – any use of the capped area must not damage the integrity of the clay cap and the grass cover. Vehicle traffic other than that to complete grass and erosion maintenance activities or inspection activities must be kept to a minimum. If any specific property use or activities are proposed for the landfill cap that could harm the integrity of the cap and grass cover, TRCC will submit a plan to redesign the landfill cap to function as designed during this property use.



4) Major Damage Notification – The following conditions will be considered major damage:

- a. Any occurrence causing leaching of contaminated soil to the groundwater.
- b. A rill greater than one foot wide with a depth greater than three inches.
- c. An area of ponding with standing water 48-hours after a rain event where less than 1" of rainfall was measured.
- d. Holes deeper than one foot or similar damage in the vegetative cover or clay cap caused by digging, traffic, or other activities.
- e. Cracks or potholes through the depth of the asphalt parking lot that cause erosion of the underlying soil cap.
- f. Damaged monitoring well manhole cover.
- g. Damaged well cap.
- h. Damaged well casing inside the well.
- i. Erosion undermining concrete pad around well.
- j. Damage or cracking of concrete pad around well.

Major damage will require EPD notification within 48-hours after discovery, and repairs must be completed within seven days of discovery. If repairs cannot be completed within the seven day period, written notification of the damage, the proposed repair, and the schedule for completion of the repair must be submitted within 10-days of the discovery.

All repairs necessitating from a quarterly inspection will be completed in 30-days, and a follow up inspection will be completed. Repairs to the clay cap will be completed by an environmental remediation contractor who maintains pollution liability insurance.

## V. PLANNED PROPERTY USE

The use of the landfill must preserve the integrity and effectiveness of final cover of the landfill. The landfill's initial use was that of vacant contoured ground with a vegetative cover. Any future changes in use of the landfill must be approved by EPD and address the continuation of repairs to the engineering controls as necessary to correct the effects of settling, subsidence, erosion, or other events, and preventing run-on and run-off from causing erosion or otherwise damage to final cover. The M&M Plan must be reviewed and revised as appropriate. If it is determined the M&M Plan must be revised, the revised M&M Plan be submitted to EPD for review and approval within sixty (60) days of the change in use.

### 5.1 NON-RESIDENTIAL USE

The landfill must be inspected annually with regard to the use of the landfill. Use of the landfill must remain non-residential use.

- The inspection must verify the use of the landfill by owners, tenants, and other occupants to be consistent with non-residential use.
- All contract and lease agreements, and informal agreement must be reviewed to insure it is consistent with the non-residential use.
- The restrictive covenant must be reviewed annually to ensure it is in place and the uses of the property must conform to the restrictions placed on the property.

The results of the inspection must be summarized in a landfill use statement.

### 5.2 REPORTING

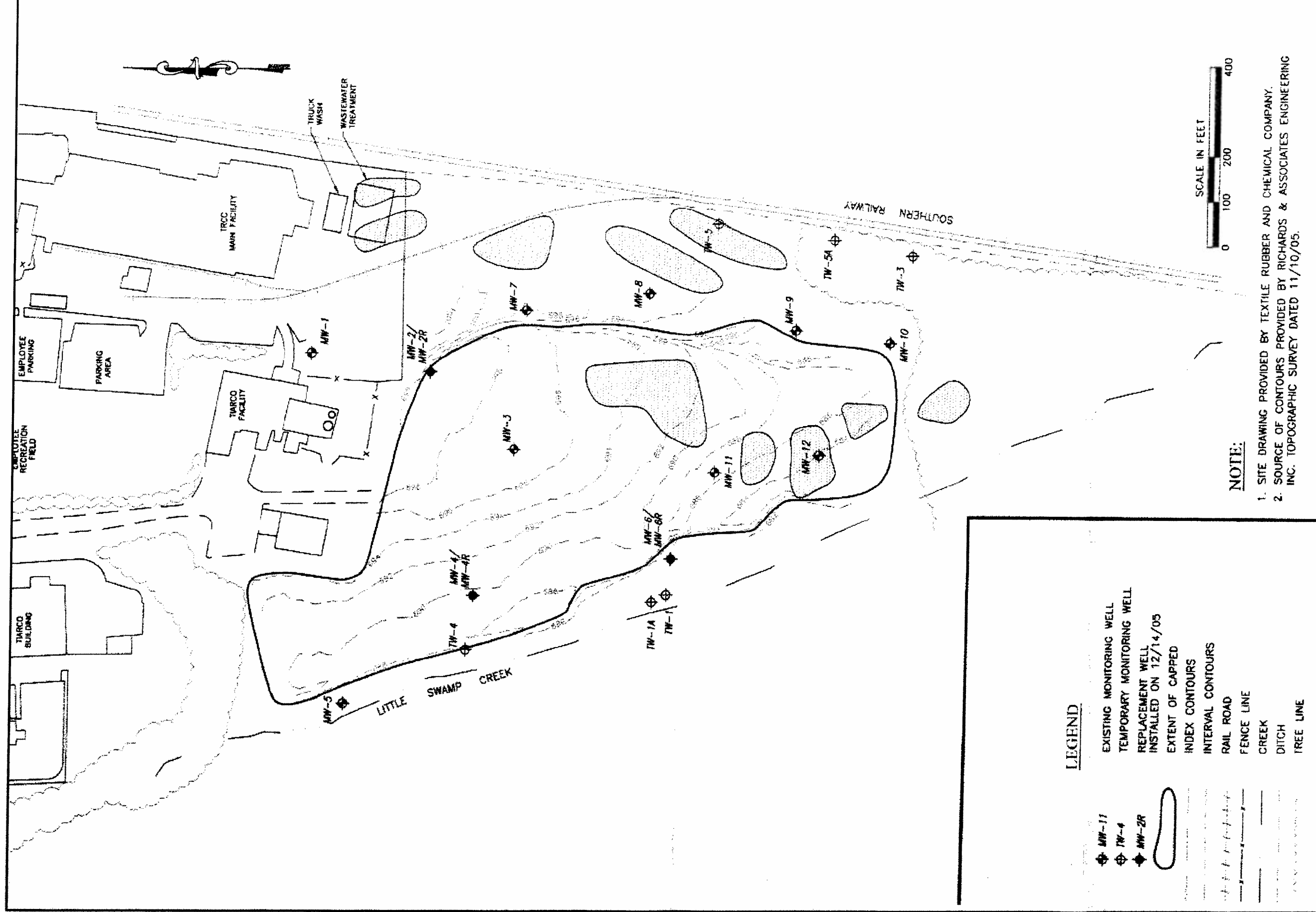
A landfill use statement regarding compliance with the non-residential use must be submitted to EPD annually with the annual groundwater monitoring report.

The landfill use statement must include the following signed certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate that information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief true and accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

---

Authorized Signature



**NOTE:**

1. SITE DRAWING PROVIDED BY TEXTILE RUBBER AND CHEMICAL COMPANY.
2. SOURCE OF CONTOURS PROVIDED BY RICHARDS & ASSOCIATES ENGINEERING INC. TOPOGRAPHIC SURVEY DATED 11/10/05.

Source: Textile Rubber CAP Progress Report

**LEGEND**

- EXISTING MONITORING WELL
- TEMPORARY MONITORING WELL
- REPLACEMENT WELL  
INSTALLED ON 12/14/05
- EXTENT OF CAPPED
- INDEX CONTOURS
- INTERVAL CONTOURS
- RAIL ROAD
- FENCE LINE
- CREEK
- DITCH
- TREE LINE

Monitoring Well Locations  
And the Landfill Cap Area

**PREMIER**  
ENVIRONMENTAL SERVICES, INC.  
2625 SANDY PLAINS ROAD, SUITE 201  
MARIETTA, GA 30066  
(770) 973-2100

TEXTILE RUBBER AND CHEMICAL COMPANY  
1300 TIARCO DRIVE  
DALTON, WHITFIELD COUNTY, GEORGIA  
PROJECT NO. 206215.00

**APPENDIX A**

**RESTRICTIVE COVENANT AND DEED NOTICE**

## **APPENDIX B**

### **FORMS**

**TEXTILE RUBBER AND CHEMICAL COMPANY  
DALTON, GEORGIA  
M&M INSPECTION LOG**

**DATE:** \_\_\_\_\_

**WEATHER:** \_\_\_\_\_

**INSPECTOR(S):** \_\_\_\_\_

<b>Component Inspected</b>	<b>Condition of Component</b>	<b>Check if Major Damage</b>

Comments:

TEXTILE RUBBER AND CHEMICAL COMPANY  
DALTON, GEORGIA  
MAINTENANCE RECORD FORM

DATE: \_\_\_\_\_ WEATHER: \_\_\_\_\_

INSPECTOR(S): \_\_\_\_\_

Component Inspected	Repair Dates		Inspector	Description of Repairs	Check if Major Damage
	Initiated	Completed			



## GROUNDWATER SAMPLING DATA SHEET

## SITE INFORMATION

Site Name: \_\_\_\_\_ Municipality: \_\_\_\_\_

Project Number: \_\_\_\_\_ County: \_\_\_\_\_

Personnel: \_\_\_\_\_ State: \_\_\_\_\_

Date: \_\_\_\_\_ Street or Map Location: \_\_\_\_\_

(If Off-Site): \_\_\_\_\_

## WEATHER CONDITIONS AND EQUIPMENT

Temperature Range: \_\_\_\_\_ Equipment Name: \_\_\_\_\_

Precipitation: \_\_\_\_\_ Equipment Number: \_\_\_\_\_

Barometric Pressure: \_\_\_\_\_ Latest Calibration Date: \_\_\_\_\_

Tidally-Influenced     ☐ Yes     ☐ No

[illegible]