

## APPENDIX A

**ENVIRONMENTAL SCIENCES GROUP**  
***FISH AND WILDLIFE IMPACT ANALYSIS***

Ultralife Site

MAY 2006

## **Introduction**

Environmental Sciences Group (ESG), performed a Fish and Wildlife Impact Analysis (FWIA) in the study area of the Ultralife Site in general accordance with the approved revised Work Plan for Revisions to Draft Voluntary Cleanup Project Report (Final Report), dated October 7, 2005. As requested by the NYSDEC, the FWIA (Step I through Step II B) was performed in accordance with the *NYSDEC Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites* (October 1994) guidance document. NYSDEC typically recommends that Step I of the FWIA be prepared prior to the remedial investigation (RI) for planning purposes. Given that the RI had been partially implemented by previous contractors without Step I information, GeoQuest, ESG and DEC will utilize Step I and Step II to help determine environmental impact, and the potential need for further ecological investigation, remediation options, and/or additional field sampling efforts. As part of the FWIA, a terrestrial and aquatic biologist from ESG performed a qualitative field survey of the impacted areas and general vicinity of the site. ESG and GeoQuest also reviewed past records of site contamination, SPDES discharge information, and past site investigations.

## **FWIA Step I**

The procedures outlined in Step I of the Fish and Wildlife Analysis (FWIA) document are titled "Site Description." Step I is subdivided into four specific tasks, which are described below performed by ESG as follows:

### **Site Maps**

A topographic map is provided (see Figure 1) that depicts the Ultralife property, impacted surface water drainage swale, and general vicinity within a two-mile perimeter. This map also lists environmental receptors such as surface waters and wetlands. Figure 2 illustrates site drainage patterns, such as the drainage swale, storm water, and ground water flow. Figure 2 is a more site specific map that shows the site area within approximately 0.5-mile perimeter. This map was based on photos (see Appendix A) taken by ESG during field surveys and USGS topographic maps.

Based on both the available topographic maps and field surveys, there were no habitats of special concern or natural surface waters located directly near the impacted outfall area. There is, however, a wetland area and standing water located approximately 300 yards downstream of the outfall.

### **Characteristics of the Impacted Area**

The area impacted is characterized as a man-made drainage swale. This swale appears to have been historically excavated to allow for drainage of surface storm water and possibly other process wastes and water as allowed under applicable NYSDEC SPDES permits. The swale can be categorized as both an industrial effluent stream and a ditch/artificial intermittent stream (Rank S5). This small swale likely exhibits seasonal intermittent water flow, based on the presence of terrestrial plants and lack of characteristic aquatic biota in the surface water and sediment. According to information provided by GeoQuest, shallow ground water may discharge to the drainage swale, since both media exhibit similar depths below grade.

Swale sediment samples, collected by GeoQuest and Lu Engineers, exhibited elevated concentrations of PAHs and metals. In addition, metals were reported at elevated concentrations in surface water samples collected from the drainage swale (see sediment and surface water data tables). It is important to note that based on a spatial analysis of reported data, the contaminated area of the swale likely extends approximately from the outfall to 25 feet downgradient.

At an area about 300 yards downgradient of the outfall, the drainage swale and water flow sub-surface into a culvert (see site photos in Appendix A). As seen in Appendix A, a second small drainage swale/tributary discharges to the main swale. Rip-rap and gravel appear to have been historically placed at the discharge point to minimize erosion. The culvert then runs under a grass path area for approximately 100 feet downstream. The culvert becomes visible again to the north of the path and the swale water then discharges to wetland/meadow area. There was no appreciable water flow observed after approximately 200 feet downgradient.

#### Chemical and Physical Parameters of Drainage Swale

Standardized chemical and physical parameters were measured in the impacted area of the drainage swale near the outfall (see Table 1). The same observations were made 100 feet downstream of the outfall (see Table 2) in order to compare water quality parameters. Field screening tests were performed on surface water and sediments utilizing general methods described in Volumes 11.04 and 11.05 of the ASTM Water and Environmental Technology Standards Book. Basic water quality measurements were performed during the site survey (10/31/05) using portable field meters (DO, Ph, temperature) and using common LaMotte test kits. These measurements were performed as a screening procedure to determine general water quality parameters and obvious impacts. The stream assessment was performed using ASTM guidance and information from the NYS DEC Bureau of Habitat and Bureau of Water Assessment and Management.

#### *General Observations of Water Quality*

Surface water within the swale exhibits moderate DO levels and near neutral Ph at both areas observed. The water temperatures appeared consistent with ambient air conditions, and may be influenced by ground water discharge temperature. Sediments were characteristic of humus from decaying organic material and soil inorganics. Note in Table 1 that at the outfall, sediments and surface water lack characteristic aquatic biota. Water quality characteristics downstream were somewhat improved, with the presence of aquatic biota and a relative decrease in organic carbon. Based on a comparison of swale water and sediment conditions at the outfall and downstream, there appears to be some recovery of water and sediment quality. This may be an indication that organic chemical residues (ie. semi-vols, PAHs) have not significantly migrated downgradient. This is consistent with known PAH chemical fate properties (ie. relative higher adsorption to sediments and less mobility).

Table 1

Water Quality Parameters of Drainage Swale (10 feet from outfall)	Values
Temperature (F)	54 degrees
Dissolved Oxygen	8 ppm
Ph	6.5
Organic carbon	8 percent
Turbidity	Low
Flow velocity	0.2 feet per second
Average Depth and Width	0.5 feet, 5 feet, respectively
Gradient/slope	Minor
Sediment type	Humus, some silt
Aquatic invertebrates	None observed
Dominant biota	Rye grasses, bluegrasses (Poa)

Table 2

Water Quality Parameters of Swale (100 feet downgradient)	Values
Temperature (F)	55 degrees
Dissolved Oxygen	7 ppm
Ph	6.7
Organic carbon	4 percent
Turbidity	Low
Flow velocity	0.3 feet per second
Average Depth and Width	2 inches, 2 feet, respectively
Gradient/slope	Minor
Sediment type	Humus, some silt
Aquatic invertebrates	Mayfly and caddisfly larvae, water striders, snails, leeches
Dominant biota	reeds, some mosses (Bryhnia), grasses

### Description of Fish and Wildlife Resources

The primary goal of this step of the FWIA is to identify, in a qualitative manner, natural resources that presently exist and that likely existed before contamination of the area. Information from the NYS Natural Heritage Program was used during this step. Although it is beyond the scope of this screening analysis to perform a quantitative field survey of wildlife, field observations were used to augment published information in this step of the FWIA process. Obvious ecological observations in contaminated areas and downstream were identified during the field surveys; these activities included assessing any atypical biotic conditions, stressed wildlife, or absence of common species.

It is noted that no records of actual natural resource damage reports were found. Furthermore, no evidence of stressed wildlife was found at the site. To reiterate, there were atypical biotic conditions found directly at the outfall within the area of contaminated sediments. For this project, fish and wildlife resources were briefly described below.

#### *Upland Areas and Wetland Adjacent to Drainage Swale*

A brief description of the general site vicinity near the swale is given below for the purposes of the FWIA. Site descriptions are based on field surveys performed by ESG, photos, and information from the NYS Natural Heritage Program (1990), Ecological Communities of NYS, as updated in 2002.

To reiterate, observations of dominant aquatic vegetation and invertebrates were described in Tables 1 and 2 in two different observed areas. Note that due to relatively low and intermittent water flow and lack of substrate, the drainage swale water and sediments do not exhibit a habitat suitable for fish. Furthermore, no fish species or obvious fish larvae were observed during the field surveys.

Characteristic open upland areas are found adjacent to the swale (east/west) and transition to the north to a wetland area downstream approximately 300 yards of the outfall. These upland areas were observed to be dominated by three physiognomic groups: grasses, sedges, and forbs. At this site, these areas appear to be successional older fields. There are successional northern deciduous forests to the east and west of the upland areas and north of the wetland (see Figure 2). The wetland area to the north of the site exhibits characteristics of both a sedge meadow and shrub swamp (Rank S4). Refer to photos in Appendix A. There was little or no standing water in the majority of the wetland area; however, as seen in the wetland photo, there is a small area exhibiting standing water more than 300 yards northeast of the impacted sediment area.

The open upland areas and sedge meadow (north) adjacent to the swale were dominated by joe-pye weed (*Eupatorium*), goldenrod (*Solidago*), and willows (*Salix*). Timothy and broom grasses were also commonly observed in the open uplands. Other plants that were observed to dominate this upland area were the sugar maple and poplar

trees. Terrestrial and avian wildlife that were incidentally observed at the site included the shrew (*Blarina*), cottontail rabbit (*Sylvilagus*), whitetail deer (*Odocoileus*), english sparrow (*Passer*), blackbird (*Agelaius*), and junco (*Junco*). Aquatic wildlife that were observed downstream of the impacted area included the leopard frog (*Rana*). Based on field observations, it appears that a muskrat population (*Ondatra*) exists adjacent to the swale downgradient of the impacted area.

#### *Ecological Receptors of Special Concern*

A field survey to identify threatened and endangered species near the site was beyond the scope of this assessment. However, a list of species known to exist in the general region and habitats near the site are listed in the table below. This list was summarized from information from the NYS Natural Heritage Program and the US Fish and Wildlife website database. It is noted that plants are unlikely to be exposed to site contaminants unless directly impacted in the outfall area. However, both plant and animal species of concern were listed. For more information on threatened plant species, refer to the websites of the NY Flora Association and the NYS Invasive Plant Council.

#### Species of Special Concern

Species Common Name	Scientific Name
Bog turtle, Spotted turtle	<i>Clemmys</i>
Short-eared owl	<i>Asio flammeus</i>
Red shouldered hawk	<i>Buteo lineatus</i>
Water plantain	<i>Alisma</i>
Purple milkweed	<i>Asclepias</i>
Northern reedgrass	<i>Calamagrostis</i>
Marsh bluegrass and sedges	<i>Poa, Carex</i>
Pondweed	<i>Potamogeton</i>

#### Description of Fish and Wildlife Resource Value

ESG performed a qualitative assessment of the area, given below, within the near vicinity of the impacted area with regards to the site ability to support fish and wildlife.

The historical hydrological condition of the swale area prior to excavation for drainage is unknown. It is assumed that the area was historically farmed or that the current transitional upland existed prior to the construction of the industrial facility. Since the impacted area is man-made (ie. cultural riverine) and limited in area, the overall habitat quality and use is limited. Although fish populations are not likely to exist in the drainage swale, sediment/stream bank soils and surface water invertebrates and other benthos are often a valuable food resource for mammals, ground gleaning birds, waterfowl, amphibians and reptiles. Note that the ecological use factor for this small swale area is negligible; however, the aquatic environment could represent a limited habitat for macrophytes, and a breeding area for insects (ie. food source), waterfowl, as well as for amphibians and reptiles.

The value of the impacted area and near vicinity with regards to natural resources for human use (such as hunting and fishing) is limited. The area is posted private property and is not used for hunting or hiking. Likewise, since there are no recreational fisheries in the near vicinity, angling is not likely.

#### Identification of Applicable Fish and Wildlife Regulatory Criteria (AFWRC)

ESG and GeoQuest identified contaminant and site specific AFWRC for this site as the NY State surface water quality and sediment quality standards and guidance values that are protective of aquatic or terrestrial biota (ie. NYCRR Part 701, NYSDEC WTOGS). No guidelines for human use were identified as applicable, since the site impacted area has limited or no use relating to human activities.

#### **FWIA Step II**

The procedures outlined in Step II of the FWIA document are titled "Contaminant-Specific Impact Assessment." Step II is also subdivided and the NYSDEC requested in their letter dated April 19, 2005, that only subsections A and B of Step II be completed for this Site.

The goal of Step II is to estimate impacts of site-related contamination (ie. other than background conditions) on fish and wildlife resources. Since background conditions have not been evaluated, it was assumed that environmental impacts are site related. Step II is based on the information gathering from Step I, and is semi-quantitative. During Step II, the impact assessment was used to determine either: (1) contamination has minimal impact, (2) contamination has caused significant impacts, or (3) additional sampling data is needed to adequately assess impacts. A weight of evidence approach was utilized to determine significance of impact to receptors.

#### Pathway Analysis

Step II subsection A indicates the need for a pathway analysis listing potential exposures relating to site fish and wildlife resources as well as potential pathways of contaminant migration and exposure. This step is similar to a qualitative ecological risk assessment; that natural resources, compounds of concern, and likely exposure pathways are identified for the site. Realistic, but conservative exposure point concentrations (EPCs) were estimated.

Ecological receptors can be exposed to contaminant residues either directly through incidental ingestion or contact with surface water and sediment, or through ingestion of aquatic biota (a food source) that have accumulated contaminant residues in tissues. Aquatic invertebrates and decomposers can be impacted by direct toxicity of contaminant residues (contact). Except for invertebrates, the area use factor is low for receptors; thus, there is limited potential for exposure in the swale area directly impacted. There is some potential for contaminants to migrate downstream with sediment washload or dissolved in surface water (ie. metals). However, migration of contaminant residues appears limited, based on reported data. An exposure pathway analysis summary is given in the table below:



### Complete Exposure Pathways for Ecological Receptors

Exposure Pathway	Receptor				Exposure Route	Comment
	MA	AR	I	D		
Contact with Surface Soils	x	x		x	II, C II, C	a
Contact with Sub-surface soils	x	x		x	II, C II, C	a
Contact with Surface Water/Sediment	x	x	x	x	II, C II, C	b
Ingestion of Contaminated Biota (food resources)	x	x			II, C	c

MA- mammals/avian, AR – amphibians/reptiles, I – aquatic invertebrates (benthic, surface water)  
 D - decomposers

II – Ingestion, C – Contact

- a) Drainage swale bank soil exposures are possible.
- b) Surface waters/sediments exhibit contamination.
- c) Biota may bioaccumulate residues such as PAHs and specific heavy metals.

#### Criteria-Specific Analyses

Subsection B of Step II is titled "Criteria-Specific Analysis", since it includes the comparison of site-specific contaminant levels with numerical criteria to provide an assessment of potential impact. During this step, historical and current analytical data were reviewed and summarized for comparison of site concentrations to AFWRCs (ie. NYSDEC Technical Guidance for Screening Contaminated Sediments). Refer to the GeoQuest summary data tables. Site surface water concentrations were compared to the NYS DEC Part 703 standards and guidelines where available. Likewise, detected sediment contaminant levels were compared to sediment guidelines from the "NYSDEC Technical Guidance for Screening Contaminated Sediments". These criterion are listed in the sediment summary data tables. Site specific criterion were developed in order to adjust for organic carbon content (OC) in site sediments. This was performed by using the technical guidance equation below. An average OC content (4.4%) was used based on reported OC values from laboratory reports and field tests.

$$SC = SCoc \times Foc$$

For this equation, SCoc (adjusted) = SC x 44g OC/kg sediment (converted to ppm). Freshwater sediment values were used. The highest criterion levels for sediments (ie. benthic aquatic biota acute values) were listed for comparison in the summary tables, since site concentrations were found to exceed these higher values. Therefore, site

concentrations exceed more conservative guidelines such as those values protective of wildlife bioaccumulation and chronic toxicity values for aquatic biota.

To summarize, metal concentrations detected in surface water samples exceed surface water standards and guidelines. For sediments, semi-volatiles (PAHs), metals, and pesticides were reported detected at levels above sediment criterion. According to the DEC sediment guidance, if site concentrations exceed criterion by a factor of 5 or more, it should be assumed that contaminants may exhibit toxic effects and may impair receptors. Sediment PAH and metals concentrations significantly exceed DEC criterion. In some cases, site concentrations are and order of magnitude or greater than the protective criterion. For some contaminants, site levels exceed acute and severe effects levels. PAH concentrations also exceed the total PAH concentration sediment benchmark for low health effects of 4 ppm (DEC Bureau of Habitat, Long 1990).

*Evaluation of Impairment - Ecological Receptors*

During this step of the FWIA, it is assumed that ecological receptors identified in Step I of the FWIA, are exposed frequently to concentrations detected in environmental media (for conservatism). Thus, this is considered a screening approach and is a conservative methodology for assessing health risks to natural resources or resource damages.

A weight of evidence approach was utilized to determine significance of impact to receptors. Weight of evidence approaches are useful to assess potential impairment to ecological receptors due to exposure to contaminants or other stressors. For this FWIA, the weight of evidence approach for effects on receptors includes a benchmark comparison (use of DEC criterion) and other qualitative measurements.

Since drainage swale sediment and surface water sample detected concentrations are significantly higher than protective criterion, it is likely that there are localized impairments to benthic and surface water biota directly within the impacted swale area. There may also be a risk of impairment to other higher trophic level ecological receptors utilizing surface water or sediment biota that have bioaccumulated contaminant residues.

**Qualitative Weight-of-Evidence**

The following table illustrates a weighted decision matrix often used to assess the significance of ecological risks.

Assessment Endpoint	Measurement Weighted LOW	Measurement Weighted MEDIUM	Measurement Weighted HIGH
Protection of Higher Trophic Level Species (1)	C, D	B	A
Protection of Aquatic Invertebrate Community (2)		D, E	A, B

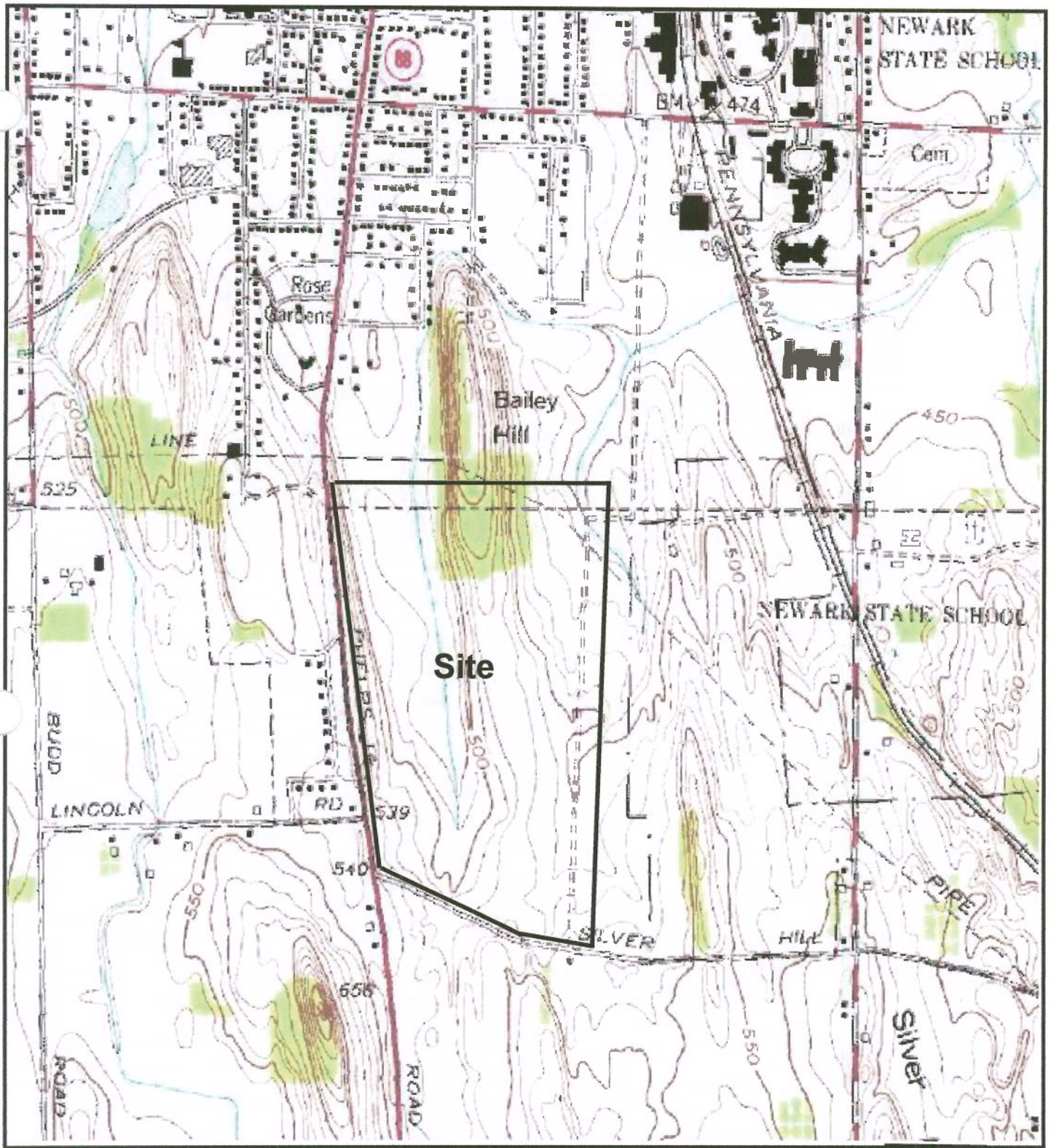
- A** - Site concentrations significantly exceed DEC criterion. Indicates impairment.
- B** - Atypical biotic conditions exists only within impacted area of swale. Indicates localized impairment.
- C** - Ecological exposure area use factor is low for (1). Indicates impairment is limited.
- D** - Some evidence of water quality recovery in drainage swale. Indicates impairment is limited.
- E** - Ecological exposure area use factor is high for (2). Indicates impairment is likely.


Based the matrix above, there is a higher likelihood of ecological impairment with a higher weighted response. This indicates that there is a risk of health effects or other impairments to ecological receptors identified in Step I of the FWIA.

#### Conclusions/Recommendations

Information summarized in Step I and Step II were used to determine if (1) contaminant concentrations are greater than risk-based or regulatory AFWRCs, and (2) whether typical fish and wildlife resources expected to be present at this site prior to contamination, are significantly impacted. In summary, detected concentrations of contaminants reported for sediment and surface water samples are significantly greater than DEC standards and guidelines. Using the FWIA results and other site information, it is concluded that there may be a risk of impairments to ecological receptors. Furthermore, there are likely more significant adverse impacts to the localized benthic community due to the following: (a) the exposure area use factor is high and sediment concentrations exceed DEC criterion (b) atypical biotic conditions exist within the impacted area of the drainage swale.

**FIGURES**



 <p>1134 Titus Avenue Rochester, NY 14617-2411 Phone: (585) 467-1696 Fax: (585) 266-4269 www.geoquestenvironmental.com</p>	<p>Drawn By: YEP-GeoQuest Environmental, Inc. Checked By: SJD-GeoQuest Environmental, Inc. Status: Final Date: 3/20/2005</p>	<p><b>PROJECT TITLE:</b> Ultralife Batteries, Inc. Newark, New York</p>
	<p><b>PROJECT NUMBER:</b> GeoQuest Job No. 51605</p>	<p><b>DRAWING:</b> Figure 1</p>





GRASSES, SEDGES,  
FORBS UPLAND AREAS

WETLAND AREA:  
SEDE MEADOW  
AND SHRUB SWAMP

SUCCESSIONAL NORTHERN  
DECIDUOUS FORESTS (EAST  
AND WEST OF SWALE)

OUTFALL NO. 1

SWALE AREA DOMINATED BY  
REEDS, MOSSES, (BRYHNA),  
BLUEGRASSES (POA)

POND & CLASSIFIED  
STATE STREAM

BUILDING 413

SUCCESSIONAL  
DECIDUOUS FORESTS

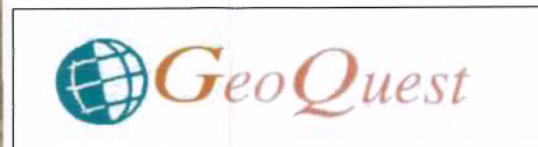
OUTFALL NO. 2

SWALE AREA DOMINATED BY  
REEDS, MOSSES, (BRYHNA),  
BLUEGRASSES (POA)

**COVER TYPE MAP**  
**ULTRALIFE BATTERIES, INC.**  
NEWARK, NEW YORK

FIG. 2 - FISH & WILDLIFE IMPACT ANALYSIS

SCALE: 1"=120'  
DATE: 9-18-2008



THE PIANO WORKS  
349 WEST COMMERCIAL STREET  
SUITE 3200  
EAST ROCHESTER, NY 14445  
T 585.586.0200 F 585.586.6752  
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PARRONE engineering



**Appendix A**



View of upland/grass area  
from facility road





Outfall area ↑

View downstream  
from outfall ↓







Upland area adjacent to swale ↑

Swale 50 ft downstream  
from outfall ↓







↑  
Swale 150 ft downstream from outfall

Swale 300 ft downstream from  
outfall





Swale 200 yards from  
outfall



- Small Tributary
- Rip-Rap
- Adjacent to culvert





Culvert

Under path

Culvert-  
discharge from →  
underneath path







Standing water



Wetland area

## **APPENDIX B**

# Environmental Test Pit Log

TP-1

Project: Additional Subsurface Investigation - Final Investigation Report  
 Location: 2000 Technology Parkway, Newark, New York  
 Client: Ultralife Batteries, Inc.

File No: NA  
 Sheet No: 1 of 1  
 Location: See Plan

Contractor: Terminal Contracting Location: See Figure 2.  
 Equipment: Bobcat 341 Excavator  
 Other: \_\_\_\_\_

Elevation: NA  
 Datum: NA  
 Date: 11/3/2005  
 GeoQuest Rep: S. DeMeo

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0			0.2	Dark brown SILT, trace medium to fine sand, with root fibers, damp. - TOPSOIL -
2	5 jars		3.5	Light brown GRAVEL, some coarse to fine sand, little silt, trace clay, damp.  - GLACIAL TILL -
4				
8				
8				
10				
12				
14				
16				
18				
20				

NOTES: Bottom of test pit at 3.5 feet below ground surface.  
 Groundwater was not encountered.  
 Test pit was backfilled to ground surface with soil from excavation.



# Environmental Test Pit Log

TP-2

Project: Additional Subsurface Investigation - Final Investigation Report  
 Location: 2000 Technology Parkway, Newark, New York  
 Client: Ultralife Batteries, Inc.

File No: NA  
 Sheet No: 1 of 1  
 Location: See Plan

Contractor: Terminal Contracting Location: See Figure 2  
 Equipment: Bobcat 341 Excavator  
 Other: \_\_\_\_\_

Elevation: NA  
 Datum: NA  
 Date: 11/3/2005  
 GeoQuest Rep: S. DeMeo

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0			0.2	Dark brown SILT, trace medium to fine sand, with root fibers, damp. - TOPSOIL -
2				Light brown GRAVEL, some coarse to fine sand, little silt, trace clay, with root fibers, damp.
4				- FILL -
6	3 jars		5.5	
6			6	Grey GRAVEL, some coarse to fine sand, moist to wet. (Apparent storm water sewer line backfill) - FILL -
8				
10				
12				
14				
16				
18				
20				

NOTES: Bottom of test pit at 6.0 feet below ground surface.  
 Groundwater was not encountered.  
 Test pit was backfilled to ground surface with soil from excavation.

# Environmental Test Pit Log

**TP-3**

**Project:** Additional Subsurface Investigation - Final Investigation Report  
**Location:** 2000 Technology Parkway, Newark, New York  
**Client:** Ultralife Batteries, Inc.

**File No:** NA  
**Sheet No:** 1 of 1  
**Location:** See Plan

**Contractor:** Terminal Contracting      **Location:** See Figure 2  
**Equipment:** Bobcat 341 Excavator  
**Other:**

**Elevation:** NA  
**Datum:** NA  
**Date:** 11/3/2005  
**GeoQuest Rep:** S. DeMeo

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0			0.2	Dark brown SILT, trace medium to fine sand, with root fibers, damp. - TOPSOIL -
2			3.5	Light brown GRAVEL, some coarse to fine sand, little silt, trace clay, damp.  - GLACIAL TILL -
4				
6				
8				
10				
12				
14				
16				
18				
20				

**NOTES:** Bottom of test pit at 3.5 feet below ground surface.  
 Groundwater was not encountered.  
 Test pit was backfilled to ground surface with soil from excavation.

# Environmental Test Pit Log

**TP-4**

Project: Additional Subsurface Investigation - Final Investigation Report  
 Location: 2000 Technology Parkway, Newark, New York  
 Client: Ultralife Batteries, Inc.

File No: NA  
 Sheet No: 1 of 1  
 Location: See Plan

Contractor: Terminal Contracting Location: See Figure 2  
 Equipment: Bobcat 341 Excavator  
 Other: \_\_\_\_\_

Elevation: NA  
 Datum: NA  
 Date: 11/3/2005  
 GeoQuest Rep: S. DeMeo

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0			0.2	Dark brown SILT, trace medium to fine sand, with root fibers, damp. - TOPSOIL -
2				Light brown GRAVEL, some coarse to fine sand, little silt, trace clay, with root fibers, moist
4			4.0	- FILL -
6				Light brown GRAVEL, some coarse to fine sand, wet.
	3 jars		7.0	- FILL -
8				
10				
12				
14				
16				
18				
20				
NOTES: Bottom of test pit at 7.0 feet below ground surface. Groundwater was not encountered. Test pit was backfilled to ground surface with soil from excavation.				

# Environmental Test Pit Log

**TP-5**

Project: Additional Subsurface Investigation - Final Investigation Report  
 Location: 2000 Technology Parkway, Newark, New York  
 Client: Ultralife Batteries, Inc.

File No: NA  
 Sheet No: 1 of 1  
 Location: See Plan

Contractor: Terminal Contracting Location: See Figure 2  
 Equipment: Bobcat 341 Excavator  
 Other: \_\_\_\_\_

Elevation: NA  
 Datum: NA  
 Date: 11/3/2005  
 GeoQuest Rep: S. DeMeo

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0			0.2	Dark brown SILT, trace medium to fine sand, with root fibers, damp. - TOPSOIL -
2				Light brown GRAVEL, some coarse to fine sand, little silt, trace clay. - FILL -
4	3 jars		3.0	Grey to black SILT, some fine sand, with root fibers, moist to wet.
6	3 jars		5.0	-BURIED TOPSOIL-
8			7.0	Green-grey fine SAND, some silt, moist to wet. - LACUSTRINE -
8			8.0	Light brown GRAVEL, some coarse to fine sand, wet. - GLACIAL TILL -
10				
12				
14				
16				
18				
20				
NOTES: Bottom of test pit at 8.0 feet below ground surface. Groundwater was not encountered. Test pit was backfilled to ground surface with soil from excavation.				

# Environmental Test Pit Log

**TP-6**

Project: Additional Subsurface Investigation - Final Investigation Report  
 Location: 2000 Technology Parkway, Newark, New York  
 Client: Ultralife Batteries, Inc.

File No: NA  
 Sheet No: 1 of 1  
 Location: See Plan

Contractor: Terminal Contracting Location: See Figure 2  
 Equipment: Bobcat 341 Excavator  
 Other: \_\_\_\_\_

Elevation: NA  
 Datum: NA  
 Date: 11/3/2005  
 GeoQuest Rep: S. DeMeo

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0			0.2	Dark brown SILT, trace medium to fine sand, with root fibers. - TOPSOIL -
2			3.0	Light brown GRAVEL, some coarse to fine sand, little silt, trace clay. - FILL -
4			4.0	Grey to black SILT, some fine sand, with root fibers, moist to wet. -BURIED TOPSOIL-
6			5.0	Green-grey fine SAND, some silt, moist to wet. -LACUSTRINE-
			7.0	Light brown GRAVEL, some coarse to fine sand, wet. - GLACIAL TILL -
8				
10				
12				
14				
16				
18				
20				
<p>NOTES: Bottom of test pit at 7.0 feet below ground surface.            Groundwater was not encountered.            Test pit was backfilled to ground surface with soil from excavation.</p>				

# Environmental Test Pit Log

**TP-7**

**Project:** Additional Subsurface Investigation - Final Investigation Report  
**Location:** 2000 Technology Parkway, Newark, New York  
**Client:** Ultralife Batteries, Inc.

**File No:** NA  
**Sheet No:** 1 of 1  
**Location:** See Plan

**Contractor:** Terminal Contracting      **Location:** See Figure 2  
**Equipment:** Bobcat 341 Excavator  
**Other:**

**Elevation:** NA  
**Datum:** NA  
**Date:** 11/3/2005  
**GeoQuest Rep:** S. DeMeo

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0			0.2	Dark brown SILT, trace medium to fine sand, with root fibers. - TOPSOIL -
2			3.0	Light brown GRAVEL, some coarse to fine sand, little silt, trace clay. - FILL -
4			4.0	Light brown GRAVEL, some coarse to fine sand, little silt, trace clay, damp. -GLACIAL TILL-
6			5.0	Green-grey fine SAND, some silt, moist to wet. -LACUSTRINE-
			7.0	Light brown GRAVEL, some coarse to fine sand, wet. - GLACIAL TILL -
8				
10				
12				
14				
16				
18				
20				

**NOTES:** Bottom of test pit at 7.0 feet below ground surface.  
 Groundwater was not encountered.  
 Test pit was backfilled to ground surface with soil from excavation.

# Environmental Test Pit Log

**TP-8**

<b>Project:</b> Additional Subsurface Investigation - Final Investigation Report <b>Location:</b> 2000 Technology Parkway, Newark, New York <b>Client:</b> Ultralife Batteries, Inc.	<b>File No:</b> NA <b>Sheet No:</b> 1 of 1 <b>Location:</b> See Plan
<b>Contractor:</b> Terminal Contracting <b>Equipment:</b> Bobcat 341 Excavator <b>Other:</b>	<b>Location:</b> See Figure 2 <b>Elevation:</b> NA <b>Datum:</b> NA <b>Date:</b> 11/3/2005 <b>GeoQuest Rep:</b> S. DeMeco

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0			0.2	Dark brown SILT, trace medium to fine sand, with root fibers. - TOPSOIL -
2			3.0	Light brown GRAVEL, some coarse to fine sand, little silt, trace clay. - FILL -
4			4.0	Grey to black SILT, some fine sand, with root fibers, moist to wet. -BURIED TOPSOIL-
6			5.0	Green-grey fine SAND, some silt, moist to wet -LACUSTRINE-
			7.0	Light brown GRAVEL, some coarse to fine sand, wet - GLACIAL TILL -
8				
10				
12				
14				
16				
18				
20				
<p><b>NOTES:</b> Bottom of test pit at 7.0 feet below ground surface.            Groundwater was not encountered            Test pit was backfilled to ground surface with soil from excavation.</p>				

# Environmental Test Pit Log

TP-9

Project: Additional Subsurface Investigation - Final Investigation Report  
 Location: 2000 Technology Parkway, Newark, New York  
 Client: Ultralife Batteries, Inc.

File No: NA  
 Sheet No: 1 of 1  
 Location: See Plan

Contractor: Terminal Contracting Location: See Figure 2  
 Equipment: Bobcat 341 Excavator  
 Other: \_\_\_\_\_

Elevation: NA  
 Datum: NA  
 Date: 11/3/2005  
 GeoQuest Rep: S. DeMeo

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0			0.2	Dark brown SILT, trace medium to fine sand, with root fibers. - TOPSOIL - Light brown GRAVEL, some coarse to fine sand, little silt, trace clay. -GLACIAL TILL-
2			2	-GLACIAL TILL-
4				
6				
8				
10				
12				
14				
16				
18				
20				

NOTES: Bottom of test pit at 2.0 feet below ground surface.  
 Groundwater encountered this test pit at 2.0 feet.  
 Test pit was backfilled to ground surface with soil from excavation.



Project: Additional Subsurface Investigation - Final Investigation Report  
 Location: 2000 Technology Parkway, Newark, New York  
 Client: Ultralife Batteries, Inc.

File No: NA  
 Sheet No: 1 of 1  
 Location: See Plan

Contractor: Terminal Contracting Location: See Figure 2  
 Equipment: Bobcat 341 Excavator  
 Other: \_\_\_\_\_

Elevation: NA  
 Datum: NA  
 Date: 11/3/2005  
 GeoQuest Rep: S. DeMeo

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0			0.2	Dark brown SILT, trace medium to fine sand, with root fibers. - TOPSOIL - Light Brown GRAVEL, some coarse to fine sand, little silt, trace clay, damp.
2				-FILL-
			3.0	Grey to black SILT, some fine sand, with root fibers, moist to wet.
4			4.0	-BURIED TOPSOIL-
			5.0	Green-gray fine SAND, some silt, moist to wet. - LACUSTRINE -
6				
8				
10				
12				
14				
16				
18				
20				

NOTES: Bottom of test pit at 5.0 feet below ground surface.  
 Groundwater was not encountered.  
 Test pit was backfilled to ground surface with soil from excavation.

# Environmental Test Pit Log

**TP-11**

Project: Additional Subsurface Investigation - Final Investigation Report  
 Location: 2000 Technology Parkway, Newark, New York  
 Client: Ultralife Batteries, Inc.

File No: NA  
 Sheet No: 1 of 1  
 Location: See Plan

Contractor: Terminal Contracting Location: See Figure 2  
 Equipment: Bobcat 341 Excavator  
 Other: \_\_\_\_\_

Elevation: NA  
 Datum: NA  
 Date: 11/3/2005  
 GeoQuest Rep: S. DeMeo

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0			1.0	Dark brown SILT, trace medium to fine sand, with root fibers. - TOPSOIL -
2				
4				
6				
8				
10				
12				
14				
16				
18				
20				
				<p>NOTES: Bottom of test pit at 1.0 feet below ground surface.                      Groundwater was encountered in test pit at 1.0 feet.                      Test pit was backfilled to ground surface with soil from excavation.</p>

# Environmental Test Pit Log

**TP-12**

Project: Additional Subsurface Investigation - Final Investigation Report  
 Location: 2000 Technology Parkway, Newark, New York  
 Client: Ultralife Batteries, Inc.

File No: NA  
 Sheet No: 1 of 1  
 Location: See Plan

Contractor: Terminal Contracting      Location: See Figure 2  
 Equipment: Bobcat 341 Excavator  
 Other: \_\_\_\_\_

Elevation: NA  
 Datum: NA  
 Date: 11/3/2005  
 GeoQuest Rep: S. DeMeo

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0				
2			3.0	Light brown GRAVEL, some coarse to fine sand, little silt, trace clay. - FILL -
4			3.5	Grey to black SILT, some fine sand, with root fibers, moist to wet. -BURIED TOPSOIL-
4			4.0	Light brown GRAVEL, some coarse to fine sand, wet. -GLACIAL TILL-
6				
8				
10				
12				
14				
16				
18				
20				
NOTES: Bottom of test pit at 7.0 feet below ground surface. Groundwater was encountered in test pit at 4.0 feet. Test pit was backfilled to ground surface with soil from excavation.				

# Environmental Test Pit Log

**TP-13**

Project: Additional Subsurface Investigation - Final Investigation Report  
 Location: 2000 Technology Parkway, Newark, New York  
 Client: Ultralife Batteries, Inc.

File No: NA  
 Sheet No: 1 of 1  
 Location: See Plan

Contractor: Terminal Contracting Location: See Figure 2.  
 Equipment: Bobcat 341 Excavator  
 Other: \_\_\_\_\_

Elevation: NA  
 Datum: NA  
 Date: 11/3/2005  
 GeoQuest Rep: S. DeMeco

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0				
2			3.0	Light brown GRAVEL, some coarse to fine sand, little silt, trace clay. - FILL -
4			3.5	Grey to black SILT, some fine sand, with root fibers, moist to wet. -BURIED TOPSOIL-
4			4.0	Light brown GRAVEL, some coarse to fine sand, wet. -GLACIAL TILL-
6				
8				
10				
12				
14				
16				
18				
20				
NOTES: Bottom of test pit at 7.0 feet below ground surface. Groundwater was encountered in test pit at 4.0 feet. Test pit was backfilled to ground surface with soil from excavation.				

# Environmental Test Pit Log

**TP-14**

Project: Additional Subsurface Investigation - Final Investigation Report  
 Location: 2000 Technology Parkway, Newark, New York  
 Client: Ultralife Batteries, Inc

File No: NA  
 Sheet No: 1 of 1  
 Location: See Plan

Contractor: Terminal Contracting Location: See Figure 2.  
 Equipment: Bobcat 341 Excavator  
 Other: \_\_\_\_\_

Elevation: NA  
 Datum: NA  
 Date: 11/3/2005  
 GeoQuest Rep: S DeMeco

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0			1.5	Dark brown SILT, trace medium to fine sand, with root fibers. -TOPSOIL-
2				
4				
6				
8				
10				
12				
14				
16				
18				
20				

NOTES: Bottom of test pit at 7.0 feet below ground surface.  
 Groundwater was encountered in test pit at 1.5 feet.  
 Test pit was backfilled to ground surface with soil from excavation.

# Environmental Test Pit Log

TP-15

Project: <u>Additional Subsurface Investigation - Final Investigation Report</u>		File No: <u>NA</u>
Location: <u>2000 Technology Parkway, Newark, New York</u>		Sheet No: <u>1 of 1</u>
Client: <u>Ultralife Batteries, Inc.</u>		Location: <u>See Plan</u>
Contractor: <u>Terminal Contracting</u>	Location: <u>See Figure 2.</u>	Elevation: <u>NA</u>
Equipment: <u>Bobcat 341 Excavator</u>		Datum: <u>NA</u>
Other: _____		Date: <u>11/3/2005</u>
		GeoQuest Rep: <u>S. DeMeo</u>

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0				
			2.0	Dark brown SILT, trace medium to fine sand, with root fibers. -TOPSOIL-
2				
4				
6				
8				
10				
12				
14				
16				
18				
20				

NOTES: Bottom of test pit at 7.0 feet below ground surface.  
Groundwater was encountered in test pit at 2.0 feet.  
Test pit was backfilled to ground surface with soil from excavation.

Project: Additional Subsurface Investigation - Final Investigation Report  
 Location: 2000 Technology Parkway, Newark, New York  
 Client: Ultralife Batteries, Inc.

File No: NA  
 Sheet No: 1 of 1  
 Location: See Plan

Contractor: Terminal Contracting Location: See Figure 2.  
 Equipment: Bobcat 341 Excavator  
 Other: \_\_\_\_\_

Elevation: NA  
 Datum: NA  
 Date: 5/10/2007  
 GeoQuest Rep: S. DeMeo

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0			0.2	Dark brown SILT, trace medium to fine sand, with root fibers. - TOPSOIL -
2				Light brown GRAVEL, some coarse to fine sand, little silt, trace clay. - FILL -
4			3.0	Light brown GRAVEL, some coarse to fine sand, little silt, trace clay, damp.
			4.0	-LACUSTRINE-
6			5.0	Green-grey fine SAND, some silt, moist to wet. -LACUSTRINE-
			7.0	Light brown GRAVEL, some coarse to fine sand, wet. - GLACIAL TILL -
8				
10				
12				
14				
16				
18				
20				

NOTES: Bottom of test pit at 7.0 feet below ground surface.  
 Groundwater was not encountered.  
 Test pit was backfilled to ground surface with soil from excavation.

# Environmental Test Pit Log

TP-17

Project: <u>Additional Subsurface Investigation - Final Investigation Report</u>		File No: <u>NA</u>
Location: <u>2000 Technology Parkway, Newark, New York</u>		Sheet No: <u>1 of 1</u>
Client: <u>Ultralife Batteries, Inc.</u>		Location: <u>See Plan</u>
Contractor: <u>Terminal Contracting s</u>		Elevation: <u>NA</u>
Location: <u>See Figure 2.</u>		Datum: <u>NA</u>
Equipment: <u>Bobcat 341 Excavator</u>		Date: <u>5/10/2007</u>
Other: _____		GeoQuest Rep: <u>S. DeMeo</u>

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0			0.2	Dark brown SILT, trace medium to fine sand, with root fibers, damp. - TOPSOIL -
2				Light brown GRAVEL, some coarse to fine sand, little silt, trace clay. - FILL -
4			3.0	
			5.0	Gray to black SILT, some fine sand, with root fibers, moist to wet. -BURIED TOPSOIL-
6				Green-grey fine SAND, some silt, moist to wet.
			7.0	- LACUSTRINE -
8			8.0	Light brown GRAVEL, some coarse to fine sand, wet. - GLACIAL TILL -
10				
12				
14				
16				
18				
20				

NOTES: Bottom of test pit at 8.0 feet below ground surface.  
Groundwater was not encountered.  
Test pit was backfilled to ground surface with soil from excavation.



**Project:** Additional Subsurface Investigation - Final Investigation Report  
**Location:** 2000 Technology Parkway, Newark, New York  
**Client:** Ultralife Batteries, Inc.

**File No:** NA  
**Sheet No:** 1 of 1  
**Location:** See Plan

**Contractor:** Terminal Contracting      **Location:** See Figure 2.  
**Equipment:** Bobcat 341 Excavator  
**Other:** \_\_\_\_\_

**Elevation:** NA  
**Datum:** NA  
**Date:** 5/10/2007  
**GeoQuest Rep:** S. DeMeco

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0			0.2	Dark brown SILT, trace medium to fine sand, with root fibers. - TOPSOIL - Light Brown GRAVEL, some coarse to fine sand, little silt, trace clay, damp.
2				-FILL-
			3.0	Grey to black SILT, some fine sand, with root fibers, moist to wet.
4			4.0	-BURIED TOPSOIL-
				Green-grey fine SAND, some silt, moist to wet. - LACUSTRINE -
6			6	Light brown GRAVEL, little coarse to fine sand, damp.
8				-GLACIAL TILL-
10				
12				
14				
16				
18				
20				

**NOTES:** Bottom of test pit at 8.0 feet below ground surface.  
 Groundwater was not encountered.  
 Test pit was backfilled to ground surface with soil from excavation.

Project: Additional Subsurface Investigation - Final Investigation Report  
 Location: 2000 Technology Parkway, Newark, New York  
 Client: Utralife Batteries, Inc.

File No: NA  
 Sheet No: 1 of 1  
 Location: See Plan

Contractor: Terminal Contracting s Location: See Figure 2.  
 Equipment: Bobcat 341 Excavator  
 Other: \_\_\_\_\_

Elevation: NA  
 Datum: NA  
 Date: 5/10/2007  
 GeoQuest Rep: S. DeMeo

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0			0.2	Dark brown SILT, trace medium to fine sand, with root fibers. - TOPSOIL - Light Brown GRAVEL, some coarse to fine sand, little silt, trace clay, damp.
2				-FILL-
			3.0	Grey to black SILT, some fine sand, with root fibers, moist to wet.
4			4.0	-BURIED TOPSOIL-
				Green-grey fine SAND, some silt, moist to wet. - LACUSTRINE -
6			6	Light brown GRAVEL, little coarse to fine sand, damp. -GLACIAL TILL-
8				
10				
12				
14				
16				
18				
20				

NOTES: Bottom of test pit at 8.0 feet below ground surface.  
 Groundwater was not encountered.  
 Test pit was backfilled to ground surface with soil from excavation.

# Environmental Test Pit Log

**TP-20**

**Project:** Additional Subsurface Investigation - Final Investigation Report  
**Location:** 2000 Technology Parkway, Newark, New York  
**Client:** Ultralife Batteries, Inc.

**File No:** NA  
**Sheet No:** 1 of 1  
**Location:** See Plan

**Contractor:** Terminal Contracting **Location:** See Figure 2  
**Equipment:** Bobcat 341 Excavator  
**Other:** \_\_\_\_\_

**Elevation:** NA  
**Datum:** NA  
**Date:** 5/10/2007  
**GeoQuest Rep:** S. DeMeo

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0			0.2	Dark brown SILT, trace medium to fine sand, with root fibers. - TOPSOIL -
2				Light brown GRAVEL, some coarse to fine sand, little silt, trace clay. - FILL -
4			3.0	Grey to black SILT, some fine sand, with root fibers, moist to wet.
			4.0	-BURIED TOPSOIL-
			5.0	Green-grey fine SAND, some silt, moist to wet. -LACUSTRINE-
6				Light brown GRAVEL, some coarse to fine sand, wet.
			7.0	- GLACIAL TILL -
8				
10				
12				
14				
16				
18				
20				

**NOTES:** Bottom of test pit at 7.0 feet below ground surface.  
 Groundwater was not encountered.  
 Test pit was backfilled to ground surface with soil from excavation.

# Environmental Test Pit Log

TP-21

Project: <u>Additional Subsurface Investigation - Final Investigation Report</u>		File No: <u>NA</u>
Location: <u>2000 Technology Parkway, Newark, New York</u>		Sheet No: <u>1 of 1</u>
Client: <u>Ultralife Batteries, Inc.</u>		Location: <u>See Plan</u>
Contractor: <u>Terminal Contracting</u>	Location: <u>See Figure 2</u>	Elevation: <u>NA</u>
Equipment: <u>Bobcat 341 Excavator</u>		Datum: <u>NA</u>
Other: _____		Date: <u>5/10/2007</u>
		GeoQuest Rep: <u>S. DeMeo</u>

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0			0.2	Dark brown SILT, trace medium to fine sand, with root fibers. - TOPSOIL -
2				Light brown GRAVEL, some coarse to fine sand, little silt, trace clay. - FILL -
4			3.0	Grey to black SILT, some fine sand, with root fibers, moist to wet
			4.0	-BURIED TOPSOIL-
			5.0	Green-grey fine SAND, some silt, moist to wet -LACUSTRINE-
6				Light brown GRAVEL, some coarse to fine sand, wet.
8			7.0	- GLACIAL TILL -
10				
12				
14				
16				
18				
20				

NOTES: Bottom of test pit at 9.0 feet below ground surface.  
Groundwater was not encountered.  
Test pit was backfilled to ground surface with soil from excavation.

**Project:** Additional Subsurface Investigation - Final Investigation Report  
**Location:** 2000 Technology Parkway, Newark, New York  
**Client:** Ultralife Batteries, Inc.

**File No:** NA  
**Sheet No:** 1 of 1  
**Location:** See Plan

**Contractor:** Terminal Contracting                      **Location:** See Figure 2.  
**Equipment:** Bobcat 341 Excavator  
**Other:** \_\_\_\_\_

**Elevation:** NA  
**Datum:** NA  
**Date:** 5/10/2007  
**GeoQuest Rep:** S. DeMeo

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0			0.2	Dark brown SILT, trace medium to fine sand, with root fibers, damp. - TOPSOIL -
2				Light brown GRAVEL, some coarse to fine sand, little silt, trace clay. - FILL -
4			3.0	Gray to black SILT, some fine sand, with root fibers, moist to wet.
8			5.0	-BURIED TOPSOIL-
8			7.0	Green-grey fine SAND, some silt, moist to wet. - LACUSTRINE -
8				Light brown GRAVEL, some coarse to fine sand, wet. - GLACIAL TILL -
10				
12				
14				
16				
18				
20				

**NOTES:** Bottom of test pit at 9.5 feet below ground surface.  
 Groundwater was not encountered.  
 Test pit was backfilled to ground surface with soil from excavation.

# Environmental Test Pit Log

**TP-23**

**Project:** Additional Subsurface Investigation - Final Investigation Report  
**Location:** 2000 Technology Parkway, Newark, New York  
**Client:** Ultralife Batteries, Inc.

**File No:** NA  
**Sheet No:** 1 of 1  
**Location:** See Plan

**Contractor:** Terminal Contracting s      **Location:** See Figure 2.  
**Equipment:** Bobcat 341 Excavator  
**Other:** \_\_\_\_\_

**Elevation:** NA  
**Datum:** NA  
**Date:** 5/10/2007  
**GeoQuest Rep:** S. DeMao

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0			0.2	Dark brown SILT, trace medium to fine sand, with root fibers, damp. - TOPSOIL -
2				Light brown GRAVEL, some coarse to fine sand, little silt, trace clay. - FILL -
4			3.0	
6			5.0	Gray to black SILT, some fine sand, with root fibers, moist to wet. -BURIED TOPSOIL-
8			7.0	Green-grey fine SAND, some silt, moist to wet. - LACUSTRINE -
10				Light brown GRAVEL, some coarse to fine sand, wet. - GLACIAL TILL -
12				
14				
18				
20				

**NOTES:** Bottom of test pit at 9.5 feet below ground surface.  
 Groundwater was not encountered.  
 Test pit was backfilled to ground surface with soil from excavation.

# Environmental Test Pit Log

**TP-24**

**Project:** Additional Subsurface Investigation - Final Investigation Report  
**Location:** 2000 Technology Parkway, Newark, New York  
**Client:** Ultralife Batteries, Inc.

**File No:** NA  
**Sheet No:** 1 of 1  
**Location:** See Plan

**Contractor:** Terminal Contracting      **Location:** See Figure 2.  
**Equipment:** Bobcat 341 Excavator  
**Other:** \_\_\_\_\_

**Elevation:** NA  
**Datum:** NA  
**Date:** 5/10/2007  
**GeoQuest Rep:** S. DeMeo

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0			0.2	Dark brown SILT, trace medium to fine sand, with root fibers. - TOPSOIL - Light Brown GRAVEL, some coarse to fine sand, little silt, trace clay, damp.
2				-FILL-
			3.0	Grey to black SILT, some fine sand, with root fibers, moist to wet.
4			4.0	-BURIED TOPSOIL-
				Green-grey fine SAND, some silt, moist to wet. - LACUSTRINE -
6			6	Light brown GRAVEL, little coarse to fine sand, damp. -GLACIAL TILL-
8				
10				
12				
14				
16				
18				
20				

**NOTES:** Bottom of test pit at 8.0 feet below ground surface.  
 Groundwater was not encountered.  
 Test pit was backfilled to ground surface with soil from excavation.

Project: Additional Subsurface Investigation - Final Investigation Report  
 Location: 2000 Technology Parkway, Newark, New York  
 Client: Ultralife Batteries, Inc.

File No: NA  
 Sheet No: 1 of 1  
 Location: See Plan

Contractor: Terminal Contracting Location: See Figure 2.  
 Equipment: Bobcat 341 Excavator  
 Other: \_\_\_\_\_

Elevation: NA  
 Datum: NA  
 Date: 5/10/2007  
 GeoQuest Rep: S. DeMeo

Depth (FT)	Sample Depth (FT)	Field Screening Results (PPM)	Strata Change (FT)	Visual Classification and Remarks
0			0.2	Dark brown SILT, trace medium to fine sand, with root fibers. - TOPSOIL -
2				Light brown GRAVEL, some coarse to fine sand, little silt, trace clay. - FILL -
4			3.0	Light brown GRAVEL, some coarse to fine sand, little silt, trace clay, damp.
			4.0	-LACUSTRINE-
			5.0	Green-grey fine SAND, some silt, moist to wet. -LACUSTRINE-
6				Light brown GRAVEL, some coarse to fine sand, wet.
			7.0	- GLACIAL TILL -
8				
10				
12				
14				
16				
18				
20				

NOTES: Bottom of test pit at 7.0 feet below ground surface.  
 Groundwater was not encountered.  
 Test pit was backfilled to ground surface with soil from excavation.



## APPENDIX C

**FINAL INVESTIGATION REPORT**  
**ID # V00178-8**  
**Ultralife Batteries, Inc. Newark, New York**  
**PHOTOGRAPHIC LOG**



**PHOTOGRAPH NO. 1**  
**Test Pit 1 - Soil Excavation**



**PHOTOGRAPH NO. 2**  
**Test Pit 2 - Location**

**FINAL INVESTIGATION REPORT**  
**ID # V00178-8**  
**Ultralife Batteries, Inc. Newark, New York**  
**PHOTOGRAPHIC LOG**



**PHOTOGRAPH NO. 3**  
**Test Pit 2 – Soil Excavation**



**PHOTOGRAPH NO. 4**  
**Test Pit 3 -Location**

**FINAL INVESTIGATION REPORT**  
**ID # V00178-8**  
**Ultralife Batteries, Inc. Newark, New York**  
**PHOTOGRAPHIC LOG**



**PHOTOGRAPH NO. 5**  
**Test Pit 5 – Soil Excavation**



**PHOTOGRAPH NO. 6**  
**Test Pit 5 – Soil Excavation**

**FINAL INVESTIGATION REPORT**  
**ID # V00178-8**  
**Ultralife Batteries, Inc. Newark, New York**  
**PHOTOGRAPHIC LOG**



**PHOTOGRAPH NO. 7**  
**Test Pit 5 -Adjacent to Storm Water Lateral**

**FINAL INVESTIGATION REPORT**  
**ID # V00178-8**  
**Ultralife Batteries, Inc. Newark, New York**  
**PHOTOGRAPHIC LOG**



**PHOTOGRAPH NO. 8**  
**Test Pit – Removal of Buried Topsoil**



**PHOTOGRAPH NO. 9**  
**Test Pit 6 - Location**

**FINAL INVESTIGATION REPORT**  
**ID # V00178-8**  
**Ultralife Batteries, Inc. Newark, New York**  
**PHOTOGRAPHIC LOG**



**PHOTOGRAPH NO. 10**  
**Test Pit 9 -Location**

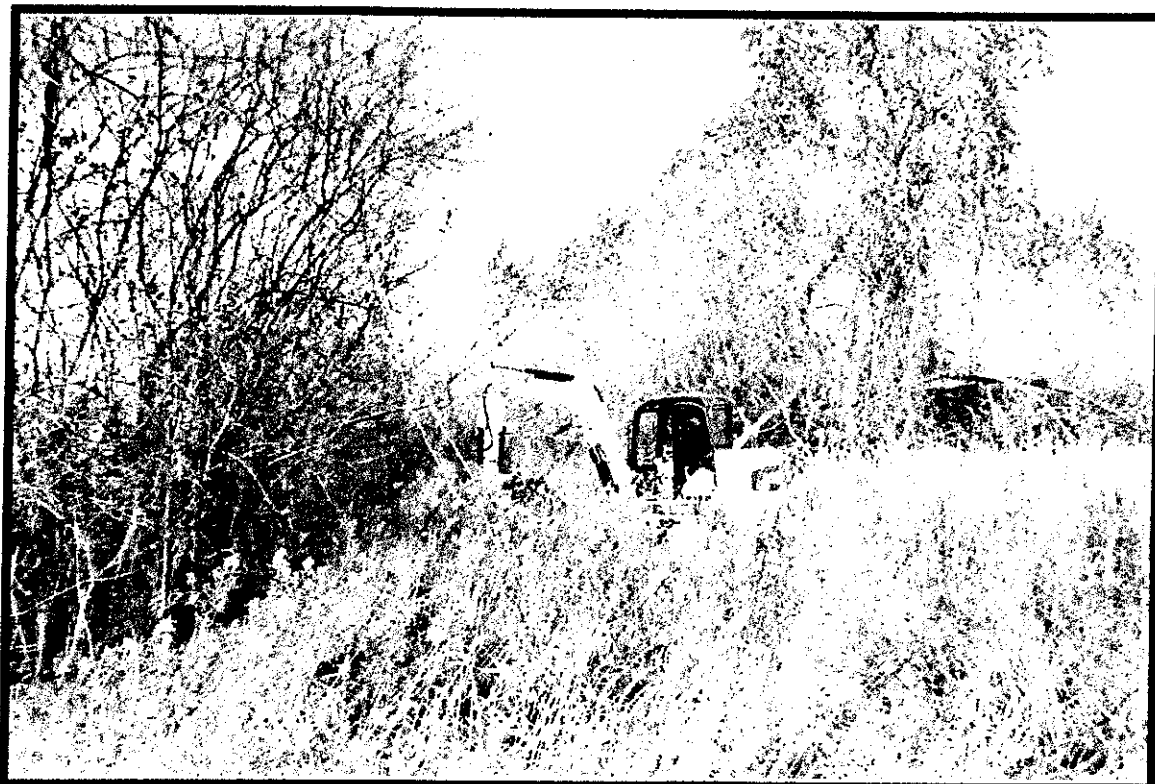
**FINAL INVESTIGATION REPORT**  
**ID # V00178-8**  
**Ultralife Batteries, Inc. Newark, New York**  
**PHOTOGRAPHIC LOG**



**PHOTOGRAPH NO. 11**  
**Test Pit 11 - Adjacent to Surface Water**



**FINAL INVESTIGATION REPORT**  
**ID # V00178-8**  
**Ultralife Batteries, Inc. Newark, New York**  
**PHOTOGRAPHIC LOG**



**PHOTOGRAPH NO. 12**  
**Test Pit 12 - Location**