LIMITED SITE INVESTIGATION
BERRY BEARING BUILDING
1920 5TH AVENUE, MOLINE, ILLINOIS
USEPA BROWNFIELDS HAZARDOUS SUBSTANCES ASSESSMENT GRANT
(MAY 2006)

USEPA Cooperative Agreement No. BF-00E02901
Terracon Project No. 07067060
May 6, 2010

Prepared for:

CITY OF MOLINE
Moline, Illinois

Prepared by:

Terracon

BETTENDORF, IOWA

Terracon

Form 101—1-87

Terracon

May 6, 2010

Mr. Patrick Burke
Economic Development Manager
City of Moline
619 16th Street
Moline, Illinois 61265

Re: Limited Site Investigation
Berry Bearing Building
1920 5th Avenue, Moline, Illinois
USEPA Brownfields Hazardous Substances Assessment Grant (May 2006)
USEPA Cooperative Agreement No. BF-00E02901
Terracon Project No. 07067060

Dear Mr. Burke:

Terracon is pleased to submit this Limited Site Investigation (LSI) report for the Berry Bearing site located at 1920 5th Avenue, Moline, Illinois.

This LSI report presents and evaluates data from recent field activities including the completion of soil borings and the collection of water samples for chemical analyses. Terracon conducted field activities in compliance with plans developed specifically for the Project. Specifically, these plans were as follows.

- *Phase I Environmental Site Assessment,* dated October 14, 2009
- *Generic Quality Assurance Project Plan (QAPP),* dated February 20, 2007, approved by EPA 5 on June 28, 2007.
- *Property-Specific Sampling and Analysis Checklist* dated February 10, 2010, approved by EPA 5 on February 10, 2010.

The LSI provides preliminary intrusive information specific to the needs of the City of Moline as part of determining redevelopment potential of the site. Although the report refers to state-level programs, the LSI is not a part of any Illinois regulatory program. This document is public information due to USEPA funding and may be used by private owners or the public.

Sincerely,
TERRACON CONSULTANTS, INC.

Kathleen E. Toft
for Mark R. Wilson
Project Engineer

John F. Brimeyer
John F. Brimeyer, PE, REM
Project Manager

Distribution per Section 1.2 of the QAPP

MRW/JFB/jb2
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ACRONYMS AND ABBREVIATIONS

ATSDR ..... Agency for Toxic Substances and Disease Registry
bgs ..... below ground surface
BTEX ..... Benzene, Toluene, Ethylbenzene, and Xylenes
CERCLA ..... Comprehensive Environmental Response, Compensation, and Liability Act
Checklist ..... Property-Specific Sampling and Analysis Checklist
City ..... City of Moline
CWS ..... Community Water Supply
EPA 5 ..... United States Environmental Protection Agency Region 5
EQL ..... Estimated Quantitation Limit
ESA ..... Environmental Site Assessment
ESC ..... Environmental Science Corporation
eV ..... electron-volt
FEMA ..... Federal Emergency Management Agency
GIS ..... Geographical Information System
GRO ..... Groundwater Remediation Objective
IAC ..... Illinois Administrative Code
IEPA ..... Illinois Environmental Protection Agency
LUST ..... Leaking Underground Storage Tank
MDL ..... Method Detection Limit
mg/kg ..... milligrams per kilogram, generally equivalent to ppm
mg/L ..... milligrams per liter, generally equivalent to ppm
NFR ..... No Further Remediation
PAH ..... Polycyclic Aromatic Hydrocarbon
PE ..... Professional Engineer
PID ..... Photoionization Detector
ppm ..... parts per million
ppmi ..... parts per million isobutylene equivalents
PVC ..... Polyvinyl Chloride
QA ..... Quality Assurance
QAPP ..... Generic Quality Assurance Project Plan
QC ..... Quality Control
RA ..... Remedial Applicant
RCRA ..... Resource Conservation and Recovery Act
REC ..... Recognized Environmental Condition
RO ..... Remedial Objective
RPD ..... Relative Percent Difference
SRO ..... Soil Remedial Objective
SRP ..... Site Remediation Program
SVOC ..... Semi-Volatile Organic Compound
SWAP ..... Source Water Assessment Program
TACO ..... Tiered Approach to Corrective Action Objectives
TSOP ..... Terracon Standard Operating Procedure-Bettendorf Office
USEPA ..... United States Environmental Protection Agency
USGS ..... United States Geological Survey
UST ..... Underground Storage Tank
VOC ..... Volatile Organic Compound

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May 6, 2010

1.0 INTRODUCTION

The USEPA awarded the City of Moline a Brownfields Assessment Grant to help address the adverse impacts associated with a number of Brownfield properties located in Moline, Illinois. The purpose of the Project is to promote area development and commercial activity. This LSI is part of the City's evaluation of redevelopment feasibility.

The following sequential decision elements are necessary to determine feasibility for redevelopment.

- Does the potential for environmental impairment implied by site conditions exist?
- If identified, has a potential actually resulted in environmental impairment?
- If impaired, does the degree of impairment negatively affect the feasibility for redevelopment of the property?

1.1 Purpose

The purpose of the Project is to provide a mechanism to supplement existing efforts to evaluate parcels for redevelopment and stimulate economic reuse of Brownfield properties in Moline, Illinois.

1.2 Background

On June 28, 2007, Terracon submitted the QAPP for the Project. This document provides a baseline for planning and implementation of Phase II ESAs and evaluation activities. EPA 5 approved the QAPP on June 28, 2007.

A Phase I ESA dated October 14, 2009 was completed by Shive-Hattery, Inc. The Phase I ESA identified RECs and environmental concerns for the site.

On February 10, 2010, Terracon submitted a Property-Specific Sampling and Analysis Checklist. This document guides the assessment of the site using the procedures documented in the QAPP. EPA 5 approved the Checklist on February 10, 2010.

1.3 Historical Site Information

The Phase I ESA for this property, dated October 14, 2009, did not identify conditions of imminent hazard to public health or the environment. A cursory summary of the RECs from the Phase I ESA is provided as follows.

- The O'Rourke Building and Villareal Building, located at 1909 5th Avenue and 1919 5th Avenue, respectively, were identified on a listing of USEPA Brownfields sites. The Villareal Building, located directly across 5th Avenue from the subject site was operated as a drycleaner from 1949-1970.

- The Firestone Garage, located at 1900 5th Avenue, was identified on a listing of Illinois UST sites. The property, located adjacent to the west of the subject site, is listed as having a 250-gallon kerosene UST and a 500-gallon kerosene UST remaining on site.

- The past tenant of the site, Berry Bearing, was considered a REC for the site.

- There are three LUSTs within the immediate vicinity of the subject site.

This LSI evaluated if the RECs have resulted in actual environmental impairment. This was accomplished through sampling and testing of soil and groundwater using a judgmental sampling design approved by EPA 5. Laboratory analyses of samples measured chemicals in soil and groundwater above laboratory reporting limits.

Measurement of chemicals does not mean excess chemical risk is present for public health or the environment. The concentration of a chemical, the chemical's ability to do harm, the degree to which the public could be exposed to the chemical, and the degree to which the public requires protection determine if measured chemicals are at "safe" levels. These factors vary significantly with different types of land use (e.g., less chemical is acceptable for residential or family land use than is considered "safe" for industrial land use). In considering the feasibility of redeveloping a Brownfield, the future land use is typically not yet known; however for this site it is understood that the site will be developed for residential use. This LSI must consider proposed future land uses and present possible planning considerations to remedy chemical impairment accordingly.

1.4 Principal User

The City of Moline is the principal end user of this information. Although the report is available for review by the public, further reliance by others is beyond the scope of the Grant and USEPA funding.

The City of Moline will make primary use of the data to aid in decision-making relative to considering properties for redevelopment. The data will not constitute the sole or final factor in the positive or negative feasibility determination for redevelopment. It is anticipated that this LSI is for preliminary characterization and, if needed, will be used as the basis for secondary phases of remedial investigation.

The information contained in this report is for the sole benefit of the City of Moline in determining feasibility for redevelopment and restoration of the property. The information and funding expended to produce it does not provide windfall or extraneous benefits to property owners.

1.5 Reliance

This report is intended for the use of City of Moline as the principal end user of this information. Although the report is available for review by the public, further reliance by others is beyond the scope of the grant and USEPA funding. Use or reliance by any other party is prohibited without the written authorization of the City of Moline and Terracon Consultants, Inc. (Terracon).

Reliance on the ESA by the client and all authorized parties will be subject to the terms, conditions and limitations stated in the proposal, ESA report, and Terracon's Agreement for Services. The limitation of liability defined in the Agreement for Services is the aggregate limit of Terracon's liability to the client and all relying parties.

The information contained in this report is for the sole benefit of the City of Moline in determining feasibility for redevelopment and restoration of the property. The information and funding expended to produce it does not provide windfall or extraneous benefits to property owners.

The Scope of Services performed during this investigation may not be appropriate for other users, and any use or re-use of this document, or the findings, conclusions, or recommendations presented herein are at the sole risk of said user. Pursuant to ASTM 1527-05, reliance on this report is limited to 180 days from the issuance date of this report.

2.0 PROPERTY DESCRIPTION

2.1 Site Location

The site is located within the southwest quarter of the northeast quarter of Section 32, Township 18 North, Range 1 West of the 4th Principal Meridian in Rock Island County, Illinois. The site consists of a vacant parcel measuring approximately 0.4 acres. The property is generally bounded by an alley on the south, 19th Street on the west, Interstate 74 on the east, and 5th Avenue to the north.

Figure 1 in Appendix A depicts the site's location on a portion of the USGS 7.5-minute series topographic map for the area.

2.2 Natural Setting

2.2.1 Flood Plains

The site is Zoned X and AE by the FEMA Agency Flood Insurance Rate map, Community Panel Number 17161C0120E, dated October 18, 20022, 1981. Areas located within Zone X are described as areas within the 500-year flood zone; areas of 100-year flood with average depths of less than one foot or with drainage areas less than one square mile; and areas protected by levees from 100-year flood. Areas located with Zone AE are areas denoted as special flood hazard areas inundated by 100-year flood with base flood elevations determined.

2.2.2 Soil Conditions

According to the Soil Survey of rock Island County published by the United States Department of Agriculture Soil Conservation Services, the soils at the site are classified as Muscatine Silt Loam. The Muscatine silt loam are deep and moderately deep, moderately well and well drained, soils with moderately coarse textures.

2.2.3 Geologic Conditions

According to the Geologic Map of Illinois published by the Illinois Geological Survey (1967), the site is underlain by the Cedar Valley Limestone formation. The Cedar Valley formation consists of highly fossiliferous, crystalline, light gray limestone with occasional fine-grained, argillaceous shaly zones and sandstone.

2.2.4 Hydrogeologic Conditions

The general surface topography of the site and land surrounding the property is flat and sloping slightly in a north/northwesterly direction. The estimated groundwater gradient is in a north/northwesterly direction toward the Mississippi River.

2.2.5 Surface Water

Surface water features do not adjoin the subject site. The nearest surface water is the Mississippi River, located approximately 3,960 feet north of the site. Surface topography of the site and the area is generally flat. Regionally, topography slopes towards the river.

2.2.6 Potable Water Supply and Well Survey

According to the IEPA SWAP fact sheet for Moline (Facility ID No. 1610450), potable water to the remediation site is supplied by the City. Moline obtains its water from the Mississippi River through one surface water intake (IEPA #31943). The supply provides an average of 5.3 million gallons per day to 18,200 service connections with an estimated population of 43,768 persons in Rock Island County. Moline is interconnected with the Cities of East Moline (Facility ID No. 1610250) and Rock Island (Facility ID No. 1610650) to allow for mutual aid in the event of a water supply emergency.

The City has also established Ordinance No. 3022-2010, which prohibits the installation of potable wells within the municipal limits. According to its website, the IEPA has reviewed and approved the ordinance, and a memorandum of agreement is not required. Appendix C contains a reproduction of the ordinance.

Terracon also performed a search of the IEPA SWAP GIS database. The database includes information compiled from ISWS and ISGS databases. The search indicated that the following were not present at or near the site.

- Regulated Recharge Areas
- Class III Groundwater
- Non-CWS Phase I Wellhead Protection Areas
- Non-CWS Wells
- CWS Phase II Wellhead Protection Areas
- CWS wells
- Adopted Maximum Setback Zones

A CWS Phase I Wellhead Protection Area was identified 1.8 miles northwest of the site on the Rock Island Arsenal. The IEPA SWAP GIS database plotted the closest ISGS well west of the site along 4th Avenue (Well Number 1216100328000).

Table 2-1 Well Survey Information

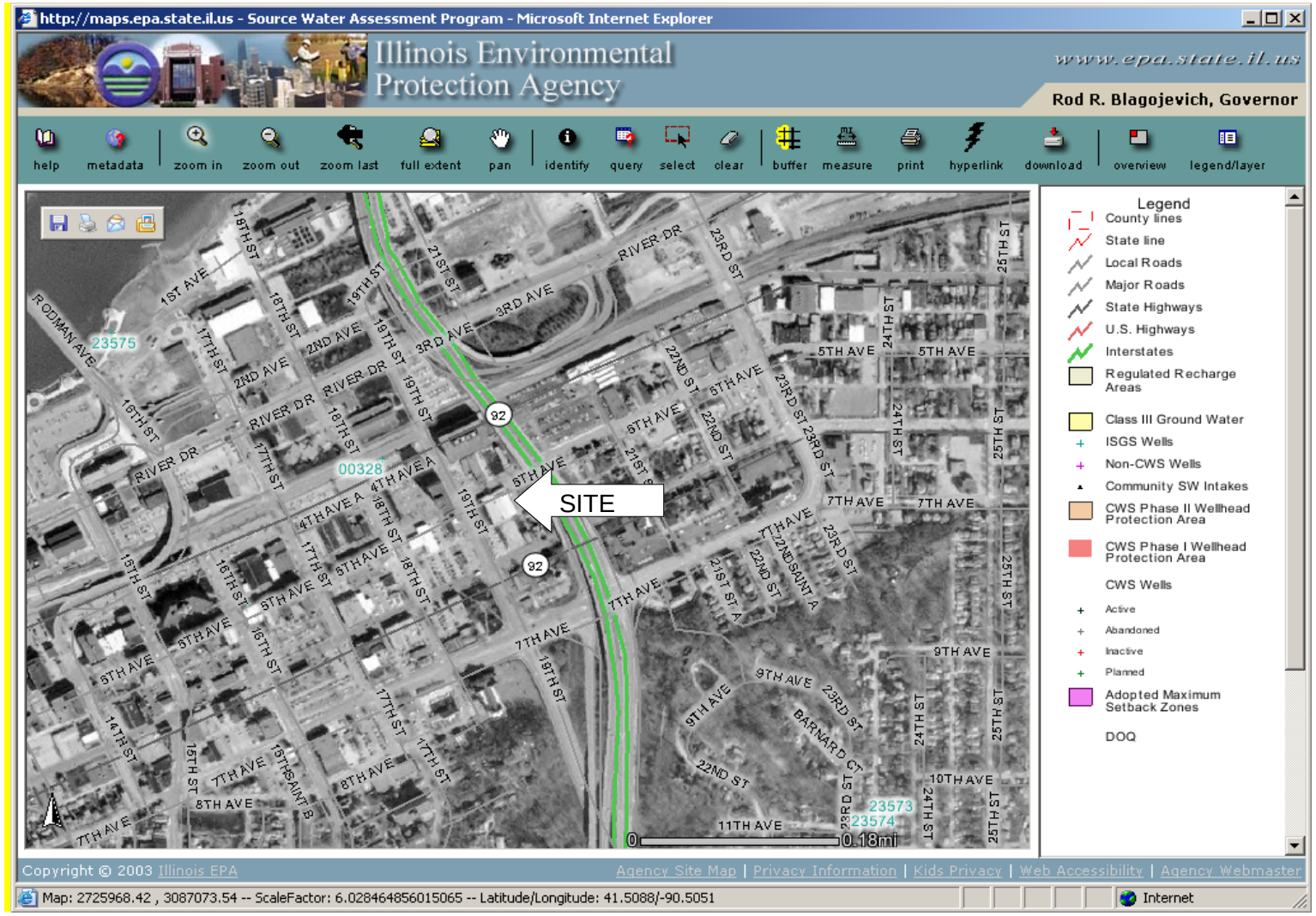
Well Number	Owner	Active?	Distance/Direction From Site	Direction With Respect to On-Site Groundwater Flow Direction
1216100328000*	YMCA	Unknown		Down-gradient
12160086500	Illini Theater	Unknown	898 feet west	Cross-gradient
121612357500*	16th Street Viaduct	Unknown	2,165 feet northwest	Down-gradient
121612240300	Rock Island Arsenal	Unknown	3,115 feet northwest	Down-gradient

Well Number	Owner	Active?	Distance/Direction From Site	Direction With Respect to On-Site Groundwater Flow Direction
121610089100	Rock Island National Cemetery	Unknown	3,538 feet northwest	Down-gradient
121613573 00*	Timber Ridge 2nd Addition	Unknown	2,218 feet southeast	Up-gradient
121613574 00*	Timber Ridge 2nd Addition	Unknown	2,218 feet southeast	Up-gradient
31947	CWS	Unknown	3,485 feet northwest	Down-gradient
00672	Unknown	Unknown	2,429 feet south	Up-gradient
00407	Unknown	Unknown	2,851 feet south	Up-gradient
23374	Unknown	Unknown	4,118 feet southwest	Up-gradient

* Identified as 00382, 2375, 3573 and 3574, respectively on the following map

Based on the well survey information, the remediation site is not located within the regulated setback zone of a well.[1] The following page is a screen capture of the SWAP GIS information.

[1] *The minimum setback zone in Illinois is 200 feet, unless the well is a Community Water Supply well tapping certain vulnerable geologic formations.*


http://maps.epa.state.il.us - Source Water Assessment Program - Microsoft Internet Explorer
Illinois Environmental Protection Agency
www.epa.state.il.us
Rod R. Blagojevich, Governor
help
metadata
zoom in
zoom out
zoom last
full extent
pan
identify
query
select
clear
buffer
measure
print
hyperlink
download
overview
legend/layer
SITE
23575
00328
23573
23574
Legend
County lines
State line
Local Roads
Major Roads
State Highways
U.S. Highways
Interstates
Regulated Recharge Areas
Class III Ground Water
ISGS Wells
Non-CWS Wells
Community SW Intakes
CWS Phase II Wellhead Protection Area
CWS Phase I Wellhead Protection Area
CWS Wells
Active
Abandoned
Inactive
Planned
Adopted Maximum Setback Zones
DOQ
Copyright © 2003 Illinois EPA
Agency Site Map | Privacy Information | Kids Privacy | Web Accessibility | Agency Webmaster
Map: 2725968.42 , 3087073.54 -- ScaleFactor: 6.028464856015065 -- Latitude/Longitude: 41.5088/-90.5051
Internet

2.2.7 Migration Pathways and Exposure Routes

The identified RECs for the site consist of on-site and off-site sources. Environmental impairment from off-site sources would be expected to occur as a result of groundwater migration. Environmental impairment from on-site sources is expected to occur as a result of a release which would impact subsurface soils and could leach downward to the water table. As such, the groundwater ingestion pathway, soil ingestion pathway, soil inhalation pathway, and the soil component of the groundwater ingestion pathway are the applicable exposure routes for evaluation.

2.2.8 Current and Post-Remediation Land Use

As shown on Figure 2 in Appendix A, current land use of the remediation site and the vicinity is generally industrial/commercial. The building was constructed in the 1960s for a grocery store. From the 1970s until May, 2009, Berry Bearing used it for parts sales, office, and warehouse space. The property has been vacant since May 2009. It is understood that the site is planned for use as a parking lot.

3.0 LIMITED SITE INVESTIGATION

Terracon completed the following tasks.

- Terracon advanced six soil borings to a depth of approximately 20 feet below ground surface. Figure 3 in Appendix A depicts the soil boring locations. Terracon converted each soil boring into a temporary groundwater monitoring well.

- Soil samples in each soil boring were collected from the 0 to 2 foot interval, and subsequent two-foot intervals, for screening with a PID. PID readings were recorded on the boring logs which are provided in Appendix D of this report. Soil samples were collected from the 0-3 foot interval from each boring. A second sample was collected from a deeper interval in each of the borings. The second sample was collected from the interval which exhibited the highest PID reading. If PID readings were less than 1 ppm, the sample was selected using field observations of visual or olfactory evidence of contamination or was collected from the capillary fringe.

- Soil samples were submitted for analysis of BTEX, SVOCs, PAHs, and RCRA metals.

- One groundwater sample was collected from each temporary monitoring well and submitted for analysis. Laboratory analysis of groundwater samples included VOCs, BETX, SVOCs, and RCRA metals.

3.1 Methodology

Terracon followed standard procedures for sampling, physical measurements, equipment cleaning, construction of wells, and equipment calibration. The TSOPs that accompanied the sampling team incorporate industry protocols, internal procedures, and equipment operation manuals. The Checklist specified the appropriate TSOPs for use at the site.

3.1.1 Drilling Methodology

Terracon advanced each boring with a truck-mounted Geoprobe® rig using direct-push technology. Terracon collected soil samples from the soil borings using a 48-inch long, macro-core sampler with acetate liners.

Terracon cleaned the macro-core samplers at the beginning of the project and between each soil sample by hand scrubbing in an Alconox™ and potable water solution followed by rinsing in potable water.

Terracon logged the lithology of the recovered material. The soil boring logs in Appendix D detail the subsurface lithology encountered during the investigation activities.

3.1.2 Monitoring Well Construction

Terracon constructed each monitoring well using sections of flush-jointed, one-inch outside diameter, schedule 40 PVC threaded pipe. The screened section of each monitoring well consisted of a 0.01-inch slotted section of PVC pipe installed to intersect the water table. Following installation, Terracon developed each monitoring well by removing approximately three well casing volumes using a low-flow peristaltic sampling pump.

3.2 Property-Specific TSOPs

The Checklist specified the following TSOPs. Terracon implemented these TSOPs during the fieldwork portion of the ESA.

Table 3-1 Phase II ESA TSOPs

Reference No.	Title
E.10	Project Mobilization
E.20	Standard Safe Operating Procedures for Hazardous Waste Operations
E.30	Chain of Custody Documentation
E.50	Sampling – Environmental Representativeness
E.320	Hollow-stem Auger Drilling
E.465	Subsurface Sampling – Split Barrel

Reference No.	Title
E.468	Sample Handling – Soil (Level D)
E.470	Sample Handling – Groundwater (Non-Hazardous)
E.552	Field Headspace Screening – Soil / Photoionization Detector
E.554	Field Screening – Air / Photoionization Detector
E.800	Well Construction – Permanent
E.905	Well Security – Type B (Locking Expansion)
E.920	Well Security – Type C (Flush Mount)
E.1300	Well Development – Volumetric
E.1500	Boring Abandonment – Commercial Sealant
E.1800	Field Measurement – Surface Layout
E.1805	Field Measurement – Elevations
E.1810	Field Measurement – Subsurface Soils
E.1820	Field Measurement – Groundwater
E.1840	Field Measurement – Hydraulic Conductivity Testing (Slug)
E.1900	Groundwater Sampling – Bailer
E.2210	Site Housekeeping - General
E.2220	Disposal of Spent Supplies
E.2230	Handling and Storage of Drill Cuttings (Non-Hazardous)
E.2240	Site Security Procedures
E.2405	Cleaning - General
E.2410	Cleaning - Manual Washing
E.2420	Cleaning - High-Pressure, Hot-water Washing

4.0 ASSESSMENT RESULTS

4.1 Physical Measurements and Field Screening

4.1.1 Soil Lithology

The majority of the site was overlain with 3 to 6 inches of concrete or gravel followed by sandy clay and silty sands to boring termination.

4.1.2 Field Screening

Terracon field screened the soil samples for organic vapors using a PID. This device provides a direct reading in ppm. The PID is a nonspecific total vapor detector and cannot be used to identify unknown substances; it can only roughly quantify them. Upon removal of the sampler from the borehole, Terracon cut a portion of each sample and sealed it in a Ziplock™ bag. After a stabilization period, Terracon screened the headspace above the soil using the PID equipped with a 10.2 eV ultraviolet lamp source. Terracon gas-calibrated the

PID in accordance with the manufacturer's recommendations before the field activities. The boring logs include the field screening results for each soil boring.

4.2 Laboratory Analysis

4.2.1 Laboratory Reporting Limits and Non-Detect Values

Laboratory technology cannot detect to concentrations of zero. Acknowledged by the USEPA, analytical methods dictate MDLs as the lower limit to which the procedures can accurately and repeatedly "see." The MDL is a minimum concentration of a substance that can be measured and reported with 99% confidence that the compound concentration is greater than zero. The MDL is determined from analysis within the given matrix of the sample and affected by matrix materials and/or other compounds within the matrix. EQLs are matrix-dependent and represent the minimum concentrations that can be routinely identified and measured within specified limits of precision and accuracy under normal laboratory operating conditions. EQLs are typically five to ten times the MDLs.

When the laboratory reports that a concentration of a chemical is “non-detect,” or lower than the EQL, it does not mean that the chemical is not present in the sample. These compounds may actually be present but at levels lower than what the laboratory can accurately measure.

4.2.2 Soil Analytical Program

Terracon submitted soil samples for laboratory analysis in accordance with the Checklist. The following table summarizes the chemical analysis for each soil sample.

Table 4-1 Summary of Soil Analytical Program

Locations	BTEX Method 5035/ 8260	SVOCs Method 8270	PAHs Method 8270	RCRA Metals Method 6010/7471
B-1 (0-3)		x		x
B-1 (4-6)		x		x
B-2 (0-3)	x	x		x
B-2 (5-7)	x	x		x
B-3 (0-3)	x		x	
B-3 (8-10)	x		x	
B-4 (0-3)	x	x		x
B-4 (8-10)	x	x		x
B-5 (0-3)		x		x
B-5 (8-10)		x		x
B-6 (0-3)		x		x
B-6 (8-10)		x		x

4.2.3 Groundwater Analytical Program

Terracon submitted groundwater samples for laboratory analysis in accordance with the Checklist. The following table summarizes the chemical analysis for each monitoring well.

Table 4-2 Summary of Groundwater Analytical Program

Locations	VOCs Method 8260	BTEX Method 8260	SVOCs Method 8270	PAHs Method 8270	RCRA Metals Method 6010/7471
B-1	x		x		x
B-2	x		x		x
B-3		x		x	
B-4		x	x		x
B-5			x		x
B-6			x		x

4.3 Analytical Background

4.3.1 VOC and BTEX Analysis Background

This chemical group is known as Volatile Organic Compounds, or VOCs. BTEX is a subset of VOCs. In lay terms, these chemicals readily evaporate to produce vapor. Many are often used as solvents in industry and manufacturing. Sampling and analysis require special care in the field and laboratory to guard against “losing” some of the materials from the soil/fill or groundwater samples before measurement takes place. The project methods provided this level of care.

The ATSDR describes VOCs as substances containing carbon and varying proportions of other elements such as hydrogen, oxygen, fluorine, chlorine, bromine, sulfur, or nitrogen. These substances easily become vapors or gases at room temperatures. A significant number of the VOCs are commonly used as solvents (paint thinners, lacquer thinner, degreasers, and dry cleaning fluids) or in petroleum hydrocarbon fuels (e.g., gasoline). Other information sources generally describe VOCs as organic compounds that evaporate easily.

When released into the atmosphere, VOCs contribute to the formation of ozone and smog, which have been linked to human health issues. In addition, VOCs can have direct adverse effects on human health. VOCs in the atmosphere come from combustible engines, industry, fuel spills, etc. Certain other fumes, such as those released from industrial plants, coating operations, and print shops can contain significant amounts of VOCs.

In addition to contributing to ozone and smog formation, VOCs can have direct adverse effects on human health. Many VOCs have been classified as toxic and carcinogenic (cancer causing) and it is therefore unsafe to be exposed to these compounds in large quantities or over extended periods. Some health effects from overexposure to VOCs are dizziness, headaches, and nausea. Long-term exposure to certain VOCs, such as benzene, has also been shown to cause cancer, and eventually death. Benzene, ethyl benzene, toluene, and xylenes (BETX) is a subset of VOC compounds.

4.3.2 SVOC and PAH Analyses Background

This chemical group is known as Semi-Volatile Organic Compounds, or SVOCs. PAHs are a subset of SVOCs. In lay terms, these are generally chemicals that less readily evaporate to produce vapor and are used in industry in a variety uses. Many of the compounds are also less soluble in water or other materials. Sampling and analysis do not require the same stringent care as for VOCs in the field and laboratory necessary to guard against vaporization of the materials from the soil/fill or groundwater samples before measurement takes place. The project methods provided the appropriate level of care required by the USEPA and the QAPP.

SVOCs, like VOCs, are organic compounds containing carbon and different proportions of other elements such as hydrogen, oxygen, fluorine, chlorine, bromine, sulfur, or nitrogen. Unlike VOCs, these compounds do not typically become vapors or gases at room temperature. A common group of SVOCs is the PAHs. The ATSDR describes PAHs as a group of over 100 different chemicals that are formed during the incomplete burning of coal, oil and gas, garbage, or other organic substances like tobacco or charbroiled meat. PAHs are usually found as a mixture containing two or more of these compounds, such as soot.

Some PAHs are manufactured. These pure PAHs usually exist as colorless, white, or pale yellow-green solids. PAHs are found in coal tar, crude oil, creosote, and roofing tar, but a few are used in medicines or to make dyes, plastics, and pesticides.

Animal studies have shown that PAHs can cause harmful effects on the skin, body fluids, and ability to fight disease after both short- and long-term exposure. These effects, however, have not been seen in people. The Department of Health and Human Services has determined that some PAHs may reasonably be expected to be carcinogens. Some PAHs have caused cancer in laboratory animals when they breathed air containing them, ingested them in food, or had them applied to their skin.

4.3.3 Inorganics Analyses Background

Inorganic compounds are generally considered reasonably stable, non-hydrocarbon based chemicals of concern. These compounds are typically elemental metals. This is not to say

that some metals do not have other properties of volatilization or solubility (e.g., mercury, lead).

Metals occur naturally, and can result from activities related to our lifestyles (e.g., automobile exhaust, industrial activity, etc.). Heavy metals generally cause the most problems, since even low doses are toxic. Municipal and industrial wastes are the main sources. Heavy metals include mercury, lead, and cadmium. In most cases, we are exposed to these metals from the air and the food we eat, however, they can also be inhaled as dust particulate in the air we breathe or absorbed through the skin.

This assessment addressed the eight metals addressed by RCRA in a groundwater sample and focused on lead in the remaining samples. These metals can cause a variety of health effects, including gastrointestinal disturbances, muscular weakness, kidney, liver, bone, and blood damage, and others.

4.4 Soil Analytical Results

Laboratory analytical methods were in accordance with the Checklist. Appendix B contains tables summarizing the soil analytical results. Copies of laboratory analytical reports are included in Appendix E.

4.4.1 Soil BTEX Results

Concentrations of BTEX were not detected above laboratory EQLs in the soil samples with the exception of the following:

Benzene was detected in B-3 (8-10) and B-4 (8-10) at 0.0017 mg/kg and 0.0011 mg/kg respectively. Ethylbenzene was detected in samples B-3 (8-10) at a concentration of 0.0014 mg/kg. These reported concentrations of benzene and ethylbenzene are below the Tier I SROs. Other BTEX constituents were not detected above laboratory EQLs in the soil samples.

Table 4-3 Summary of BETX Detected in Soil Samples

Chemical	Frequency of Detection	Maximum Detected Concentration (mg/kg)	Location of Maximum Concentration
Benzene	2 of 6 (33%)	0.0017	B-3 (8-10)
Ethylbenzene	1 of 6 (17%)	0.0014	B-3 (8-10)

4.4.2 Soil SVOC Results

Concentrations of SVOCs were not detected above the laboratory EQLs with the exception of the seven PAH compounds. PAH compounds are a subset of SVOCs. PAH compounds reported above laboratory EQLs are discussed in the following section.

4.4.3 Soil PAH Results

Concentrations of PAHs were not detected above laboratory EQLs with the exception of the following:

Acenaphthene was detected in sample B-3 (8-10) at a concentration of 0.14 mg/kg which is the most restrictive Tier 1 SRO. Anthracene was detected in sample B-3 (8-10) at a concentration of 0.14 mg/kg which is above the most restrictive Tier 1 SRO. Benzo(b)fluoranthene was detected in sample B-1 (0-3) at a concentration of 0.04 mg/kg which is below the most restrictive Tier 1 SRO. Fluoranthene was detected in sample B-1 (0-3) at a concentration of 0.081 mg/kg which is below the most restrictive Tier 1 SRO. Fluorene was detected in sample B-3 (8-10) at a concentration of 0.2 mg/kg which is below the most restrictive Tier 1 SRO. Phenanthrene was detected in samples B-1 (0-3) and B-3 (8-10) at 0.07 mg/kg and 0.089 mg/kg, respectively which are below the most restrictive Tier 1 SRO. Pyrene was detected in sample B-1 (0-3) at a concentration of 0.062 mg/kg which is below the most restrictive tier 1 SRO. Other PAH compounds were not detected above laboratory EQLs in soil samples.

Table 4-4 Summary of PNAs Detected in Soil Samples

Chemical	Frequency of Detection	Maximum Detected Concentration (mg/kg)	Location of Maximum Concentration
Acenaphthene	1 of 12 (8%)	0.14	B-3 (8-10)
Anthracene	1 of 12 (8%)	**0.14**	B-3 (8-10)
Benzo(b)fluoranthene	1 of 12 (8%)	0.04	B-1 (0-3)
Fluoranthene	1 of 12 (8%)	0.081	B-1 (0-3)
Fluorene	1 of 12 (8%)	0.2	B-3 (8-10)
Phenanthrene	2 of 12 (16%)	0.089	B-3 (8-10)
Pyrene	1 of 12 (8%)	0.062	B-1 (0-3)

Reported concentrations in bold exceed the Tier 1 SRO

4.4.4 Soil RCRA Metals Results

Concentrations of metals were below laboratory EQLs with the following exceptions:

Arsenic was detected above the laboratory EQL and below the most restrictive Tier 1 SRO in samples B-1 (4-6), B-2 (0-3), B-2 (5-7), B-4 (0-3), B-4 (8-10), B-5 (0-3), B-5 (8-10), B-6 (0-3), and B-6 (8-10). Barium, cadmium chromium, and lead were detected above the laboratory EQL and below the most restrictive Tier 1 SRO in samples B-1 (0-3), B-1 (4-6), B-

2 (0-3), B-2 (5-7), B-4 (0-3), B-4 (8-10), B-5 (0-3), B-5 (8-10), B-6 (0-3), and B-6 (8-10). Mercury was detected above the laboratory EQL and below the most restrictive Tier 1 SRO in samples B-1 (4-6) and B-6 (0-3). Selenium was detected above the laboratory EQL and below the most restrictive Tier 1 SRO in samples B-1 (0-3), B-1 (4-6), B-2 (0-3), B-2 (5-7), B-4 (0-3), B-4 (8-10), B-5 (0-3) and B-5 (8-10).

Table 4-5 Summary of Inorganics Detected in Soil Samples

Chemical	Frequency of Detection	Maximum Detected Concentration (mg/Kg)	Location of Maximum Concentration
Arsenic	9 of 10 (90%)	12	B-6 (0-3)
Barium	10 of 10 (100%)	91	B-1 (4-6)
Cadmium	10 of 10 (100%)	0.71	B-2 (5-7)
Chromium	10 of 10 (100%)	23	B-1 (4-6), B-6 (0-3)
Lead	10 of 10 (100%)	580	B-1 (0-3)
Mercury	2 of 10 (20%)	0.029	B-6 (0-3)
Selenium	8 of 10 (80%)	4.2	B-1 (4-6)

Reported concentrations in bold exceed the Tier 1 SRO

4.5 Groundwater Analytical Results

Laboratory analytical methods were in accordance with the Checklist. Appendix B contains tables summarizing the groundwater analytical results. Copies of laboratory analytical reports are included in Appendix E.

4.5.1 Groundwater VOC Results

Concentrations of VOCs were not detected above the EQLs in the groundwater samples submitted for laboratory analysis with the exception of the following:

Benzene was detected in sample B-4 at a concentration above the EQL and below the most restrictive Tier 1 GRO. Methyl tert-butyl ether was detected in sample B-1 at a concentration above the EQL and below the most restrictive Tier 1 GRO.

Table 4-6 Summary of VOCs detected in Groundwater Samples

Chemical	Frequency of Detection	Maximum Detected Concentration (mg/L)	Location of Maximum Concentration
Benzene	1 of 4 (25%)	0.0032	B-4
Methyl tert-butyl ether	1 of 2 (50%)	0.012	B-1

Reported concentrations in bold exceed the Tier 1 GRO

4.5.2 Groundwater SVOC Results

Concentrations of SVOCs were not detected above the EQLs in the groundwater samples submitted for laboratory analysis with the exception of the following:

Butyl benzyl phthalate was detected in sample B-4 at a concentration above the EQL and below the most restrictive tier 1 GRO. PAH compounds were detected above the EQLs. PAHs are a subset of SVOCs. Results of PAHs detected in groundwater are further discussed in Section 4.6.3.

4.5.3 Groundwater PAH Results

Concentrations of PAHs were below EQLs with the exception of the following:

Acenaphthene and fluorene were detected in sample B-2 and anthracene and phenanthrene were detected in samples B-2 and B-4. The detected concentration of these PAH compounds were above the EQLs and below the most restrictive Tier 1 GROs.

Table 4-7 Summary SVOCs and PAHs Detected in Groundwater

Chemical	Frequency of Detection	Maximum Detected Concentration (µg/L)	Location of Maximum Concentration
Acenaphthene	1 of 6 (17%)	0.042	B-2
Anthracene	2 of 6 (33%)	0.069	B-2
Butyl benzyl phthalate	1 of 5 (20%)	0.001	B-4
Fluorene	1 of 6 (17%)	0.052	B-4
Phenanthrene	2 of 6 (33%)	0.024	B-2

Reported concentrations in bold exceed the Tier 1 GRO

4.5.4 Groundwater Inorganic Results

Arsenic was detected in samples B-2, B-4, and B-5 at a concentration above the EQL and above the most restrictive Tier 1 GRO. Arsenic was also detected in sample B-1 at a concentration above the EQL, but below the most restrictive Tier 1 GRO. Barium was detected in each groundwater sample (B-1, B-2, B-4, B-5, and B-6) at concentrations above the EQL and below the most restrictive Tier 1 GRO. Chromium was detected in sample B-2 at a concentration above the EQL and above the most restrictive tier 1 GRO. Chromium was also detected in samples B-1, B-4, and B-5 at concentrations above the EQL, but below the most restrictive Tier 1 GRO. Lead was detected in groundwater samples B-1, B-2, B-4, and B-5 at concentrations above the EQL and above the most restrictive Tier 1 GRO. Selenium was detected in sample B-6 at a concentration above the EQL and below the most restrictive Tier 1 GRO.

Table 4-8 Summary of Inorganics Detected in Groundwater Samples

Chemical	Frequency of Detection	Maximum Detected Concentration (mg/L)	Location of Maximum Concentration
Arsenic	4 of 5 (80%)	**0.12**	B-2, B-5
Barium	5 of 5 (100%)	0.99	B-4
Chromium	4 of 5 (80%)	**0.14**	B-2
Lead	4 of 5 (100%)	**0.098**	B-2
Selenium	1 of 5 (20%)	0.039	B-6

Reported concentrations in bold exceed the Tier 1 GRO

The reported concentrations of arsenic, chromium, and lead do exceed the GRO for the Class I Groundwater Ingestion pathway. Analytical results indicate that environmental impairment may exist at the site; however, reported concentrations present a risk to human health only if the groundwater is ingested. Redevelopment of the property should consider possible restrictions on the use of groundwater at the site as a potable water source.

5.0 FIELD DATA QUALITY

The QAPP set forth the procedures and methods for data collection. The Checklist defined the specific procedures and adjustments necessary to maintain data quality to support the project decision. The LSI required both field and laboratory checks to monitor conformance to project quality limits.

5.1 Property-Specific Corrective Actions

A field methods audit was not conducted during the fieldwork for this site; however, field practices were conducted in a method consistent with the methodology of the QAPP, Checklist, and relevant TSOPs.

5.2 Quality Control Parameters

To assess whether quality assurance objectives for this project have been achieved, the following QC parameters were considered: precision, accuracy, representativeness, comparability, completeness, and sensitivity.

5.2.1 Precision and Accuracy

As described in the QAPP, precision is evaluated using the RPD between an actual sample and a duplicate sample. Accuracy is evaluated using a percent recovery measured in spiked and unspiked samples. Accuracy is a function of the laboratory method, and parameters regarding accuracy are included in the lab report provided by the laboratory. In accordance

with the QAPP, duplicate samples with RPDs less than or equal to 20% were considered precise without further discussion. Duplicate samples with RPDs in excess of 20% (water matrix) and 35% (soil/sediment samples) require further evaluation

A duplicate groundwater sample was collected from borings B-1 and B-4. For each compound that was detected in both samples (e.g., B-1 and its duplicate), Terracon compared the reported concentrations. The absolute values of the RPDs for groundwater ranged from 10.3% to 56%. The RPD of 56% was calculated from the lead concentration in sample B-1 and it's duplicate. The high RPD is likely due to entrained soil particles in the groundwater sample.

A duplicate soil sample was collected at location B-4 (8-10) and from B-3 (8-10). For each compound that was detected in both samples (e.g., B-4 (8-10) and it's duplicate). Terracon compared the reported concentrations. The absolute values of the RPDs for soil ranged from approximately 6.9% to 130%. The RPD of 130% was calculated from the fluorene detected in sample B-3 (8-10) and it's duplicate. The detected concentration of flourene at B-3 (8-10) is considered anomalous and is below the most restrictive Tier 1 SRO. All other RPDs were within the range specified in the QAPP.

Laboratory accuracy controls were documented in accordance with the laboratory's internal QA Manual. The laboratory followed SW-846 procedures.

5.2.2 Representativeness

Terracon has evaluated the representativeness of the LSI activities to document the degree to which the sample data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Review of field methods and procedures indicated that sample collection, handling, and transportation were conducted in accordance with the QAPP and Checklist. Review of analytical results indicates that the analytical data is generally uniform and consistent between sampling points and with previous sampling and analysis activities.

5.2.3 Completeness

Laboratory analysis was completed on each of the samples collected in the field and submitted for analysis. Laboratory completeness was determined to be 100%.

5.2.4 Comparability

To produce comparable data, the units specified for analytical results obtained during the field activities are consistent throughout this project and standardized analytical methods have been used for each parameter.

5.2.5 Sensitivity

The laboratory quantization limits were not sufficient to report concentrations below the statewide standards for some of compounds in the groundwater samples; however, these instances were evaluated in accordance with the procedure described in Section 4.2.1. In Terracon's opinion, the instances of elevated laboratory quantitation limits are not indicative of actual environmental impact.

6.0 LABORATORY DATA QUALITY

The laboratory completed validation and verification of laboratory processes and data. The laboratory report documents compliance to the QAPP. Terracon reviewed the laboratory qualifiers in the report, and determined that the laboratory's data quality was sufficient for this project.

7.0 REGUALTORY SETTING

Based on our review, the site is eligible for enrollment in the IEPA SRP. The SRP is a voluntary cleanup program administered by the Remedial Project Management Section, Bureau of Land. The SRP's intent is to provide RAs (i.e., any persons seeking to perform or performing investigative or remedial activities) the opportunity to receive review and evaluation services, technical assistance and NFR determinations from the IEPA. The SRP is intended to be flexible and responsive to the requirements of RAs, to project constraints, and to variable remediation site conditions. The goal(s) and scope of actions at remediation sites are normally defined by the RA, subject to the regulations at 35 IAC Chapter 740: *Site Remediation Program*. Successful participation in the SRP results in the issuance of an NFR letter by the IEPA. Based on our evaluation of site conditions, issuance of a NFR letter by the IEPA, without the need for physical remediation, is a viable option.

7.1 Program Authority

The IEPA is authorized to provide review, evaluation, and approval services for actions at remediation sites where hazardous substances, pesticides, or petroleum products may be present and for which the remediation site owner requested such services in writing. For RAs other than the remediation site owner, written permission from the remediation site owner, or authorized agent of the owner, must be obtained for enrollment in the SRP. The written permission must clearly identify the remediation site for which the services are sought and must contain the original signature of the owner. An authorized agent means a person who is authorized by written consent or by law to act on behalf of a remediation site owner.

7.2 Relationship to Superfund/CERCLA

The USEPA and the IEPA have entered into a Superfund memorandum of understanding through which the USEPA concurs that further response actions will not be required by the USEPA at sites that have received an NFR letter. In addition, the USEPA will not plan or anticipate federal action under CERCLA at an enrolled site, except in emergency situations.

7.3 Enrollment

Completion of the SRP Application and Services Agreement Form (DRM-1) is required of persons requesting enrollment. This form requires identification of the remediation site, the RA, the property owner, and project objectives. In addition, the RA will be required to either:

1. Make an advance partial payment in the amount of $500 when submitting the application and service agreement, or

2. Request that the IEPA estimate the total costs to the IEPA of providing the requested services and assess an advance partial payment not to exceed $5,000 or one-half of the total anticipated costs of the IEPA, whichever is less.

7.4 Assessment Process

Remediation site activities must be conducted by, or under the supervision of, an Illinois licensed PE. Remediation site investigations must be performed to identify any RECs existing at the remediation site, the related contaminants of concern, and associated factors that will aid in the identification of risks to human health, safety and the environment, the determination of remediation objectives, and the remedial design. Site investigations must satisfy data quality objectives for field and laboratory operations to ensure that all data are scientifically valid and of known precision.

All plans and reports submitted for review and evaluation must be prepared by, or under the supervision of, an Illinois licensed PE. Any plan or report submitted to the IEPA for review and evaluation must be accompanied by a Site Remediation Program Form (DRM-2). The required plans and reports for corrective action projects are as follows.

- Site Investigation Report (SIR)
- Remediation Objectives Report (ROR)
- Remedial Action Plan (RAP)
- Remedial Action Completion Report (RACR)

These reports are described in the following sections.

7.4.1 Site Investigation Report

The SIR identifies RECs existing at the remediation site, the related contaminants of concern, and associated factors. Such information will be used to aid in the identification of risk to human health and the environment, the determination of remediation objectives, and the design and implementation of a RAP.

7.4.2 Remediation Objectives Report

The ROR presents the ROs for the site developed using the TACO procedures set forth in 35 IAC Chapter 742: *Tiered Approach to Corrective Action Objectives*. The TACO procedures present an approach to development of ROs that includes an option for the use of any of three tiers for developing applicable ROs, the exclusion of pathways from further consideration, and the use of area background concentrations as ROs. The existing groundwater ordinance (City Ordinance No. 3022-2010) effectively excludes the groundwater ingestion pathway from further consideration. It is anticipated that development of ROs would be required.

7.4.3 Remedial Action Plan

A RAP, if required, is intended to describe a proposed remedy and to evaluate its ability and effectiveness to achieve the ROs approved for the remediation site.

7.4.4 Remedial Action Completion Report

Upon completion of all corrective actions, the RA must submit a report attesting that all ROs, site-specific response actions, and SRP data quality objectives have been successfully attained. It is anticipated that remedial actions would consist of groundwater ingestion pathway exclusion via the existing city ordinance and utilization of an engineered barrier and that physical remediation would not be required.

7.5 TACO Evaluation

TACO uses a three tiered approach to develop ROs for a subject site. Under Tier 1, the reported concentrations of chemicals of concern are compared to tabulated ROs that are broken down for either residential or industrial/commercial property use. ROs are established for the direct ingestion of groundwater, soil inhalation, soil ingestion, and the soil component of groundwater ingestion (soil leaching). The lowest of the applicable exposure values for each media is considered the RO for the remediation site. At Tier 2, prescribed models may use site-specific information to calculate ROs. The use of both institutional controls and engineered barriers may be considered in developing ROs. Tier 3 provides RAs the opportunity to conduct variable scale risk assessment activities and more complex contaminant fate and transport modeling than the standard Tier 2 exposure models.

Remedial Applicants may also demonstrate protection of human health and the environment by less stringent ROs, by implementing engineered barriers, institutional controls, post-remediation use restrictions, or by any combination of these. Exclusion of pathways from further consideration is based on effective source control coupled with site conditions and an appropriate institutional control that effectively prohibits human exposure through a given pathway. If an exposure route is excluded from consideration, then no numeric cleanup objective need be developed for the exposure route.

8.0 SITE CONSIDERATIONS

Site assessment activities have identified environmental impact in groundwater as a result of off-site activities. Groundwater impairment poses a risk to human health as a result of direct of ingestion of the water. As documented in this report, however; drinking water wells are not present at the site, the site is served by a municipal water system, and an ordinance is in effect prohibiting the installation and use of a drinking water well. Environmentally impaired groundwater at the site is not being used as a source of drinking water and will not be used in the future. If the site were to be enrolled in the SRP, the Remedial Applicant could pursue a NFR on the basis of exclusion of the groundwater ingestion pathway, without the need for physical remediation of groundwater at the site.

In anticipation of possible enrollment of the site in the SRP, Terracon has conducted this LSI in general accordance with SRP guidelines. Further, Terracon has evaluated TACO requirements establishing criteria that must be met to exclude the groundwater ingestion pathway. Specifically, Terracon notes the following:

- Free product was not encountered during field activities

- The site is not located within the minimum or designated maximum setback zone or within a regulated recharge area of a potable water supply well
- The City has established ordinance 3022-2010, which prohibits the installation of potable wells within the municipal limits
- The nearest surface water is the Mississippi River, located approximately 3,960 feet north of the site.

By excluding the groundwater ingestion pathway and installation of an engineered barrier, the site should be eligible for an NFR without undergoing physical remedial activities.

9.0 FINDINGS AND CONCLUSIONS

Terracon has conducted fieldwork and evaluation for the LSI portion of the Project for this property. Terracon makes the following conclusions.

- This LSI has been completed consistent with the intent and strictures of the grants.
- This LSI has been conducted consistent with the QAPP and the Checklist, both approved by USEPA 5.
- This LSI has produced data of a quality sufficient to make the project decisions set forth in the QAPP.
- This LSI has measured environmental impact at the property lines.
- This LSI has not identified conditions of imminent threat or public hazard.
- The primary project decision determined that the property is environmentally impaired. Redevelopment of the property should consider possible restrictions on the use of groundwater at the site as a potable water source and utilization of an engineered barrier.
- The affected areas defined by the LSI appear eligible for successful enrollment in the SRP and issuance of a NFR letter transferable to future successors to title.

10.0 GENERAL COMMENTS

Terracon has performed a LSI consistent with the QAPP and the Checklist.

The analysis presented in this report is based upon data obtained from field activities and from other information discussed in this report. This report does not reflect any variations in subsurface stratigraphy that may occur between borings or across the site. Actual

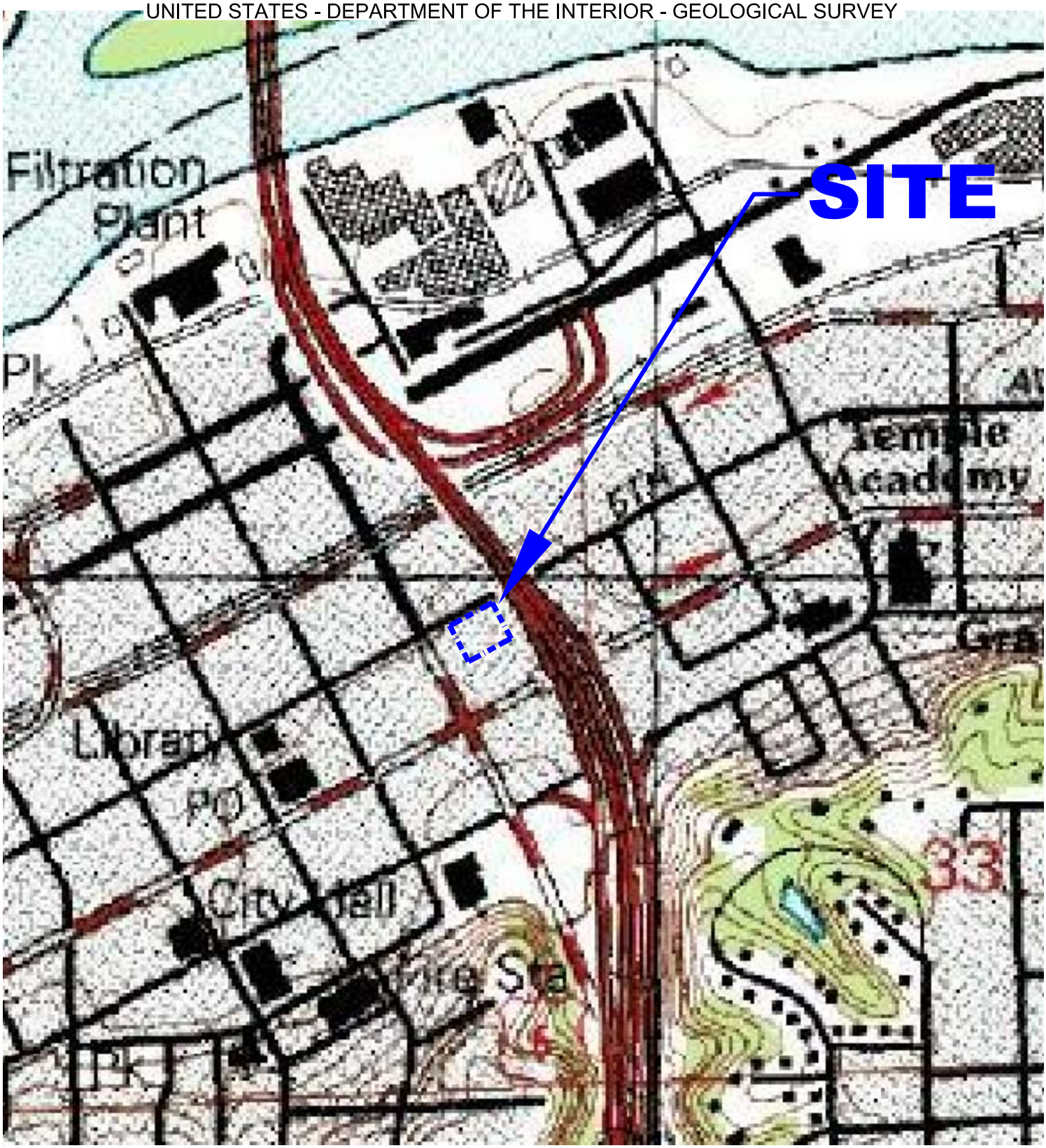
subsurface conditions may vary. The extent of such variations may not become evident without additional exploration. The limitations of this assessment should be recognized as the City of Moline formulates conclusions on the environmental risks associated with this property.

This report is prepared for the exclusive use of our client for the specific application to the project discussed and has been prepared in accordance with generally accepted environmental engineering practices. No warranties, express or implied, are intended or made. In the event any changes in nature or location of subsurface conditions as outlined in this report are observed, the conclusions contained in this report cannot be considered valid unless the changes are reviewed and the conclusions of this report are modified or verified in writing by the environmental engineer.

APPENDIX A
Figures

Figure 1 - Topographic Vicinity Map
Figure 2 - Site Base Map
Figure 3 - Sampling Diagram

UNITED STATES - DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY



Source: USGS TERRASERVER-USA.COM - Topographic Image, Dated 1995

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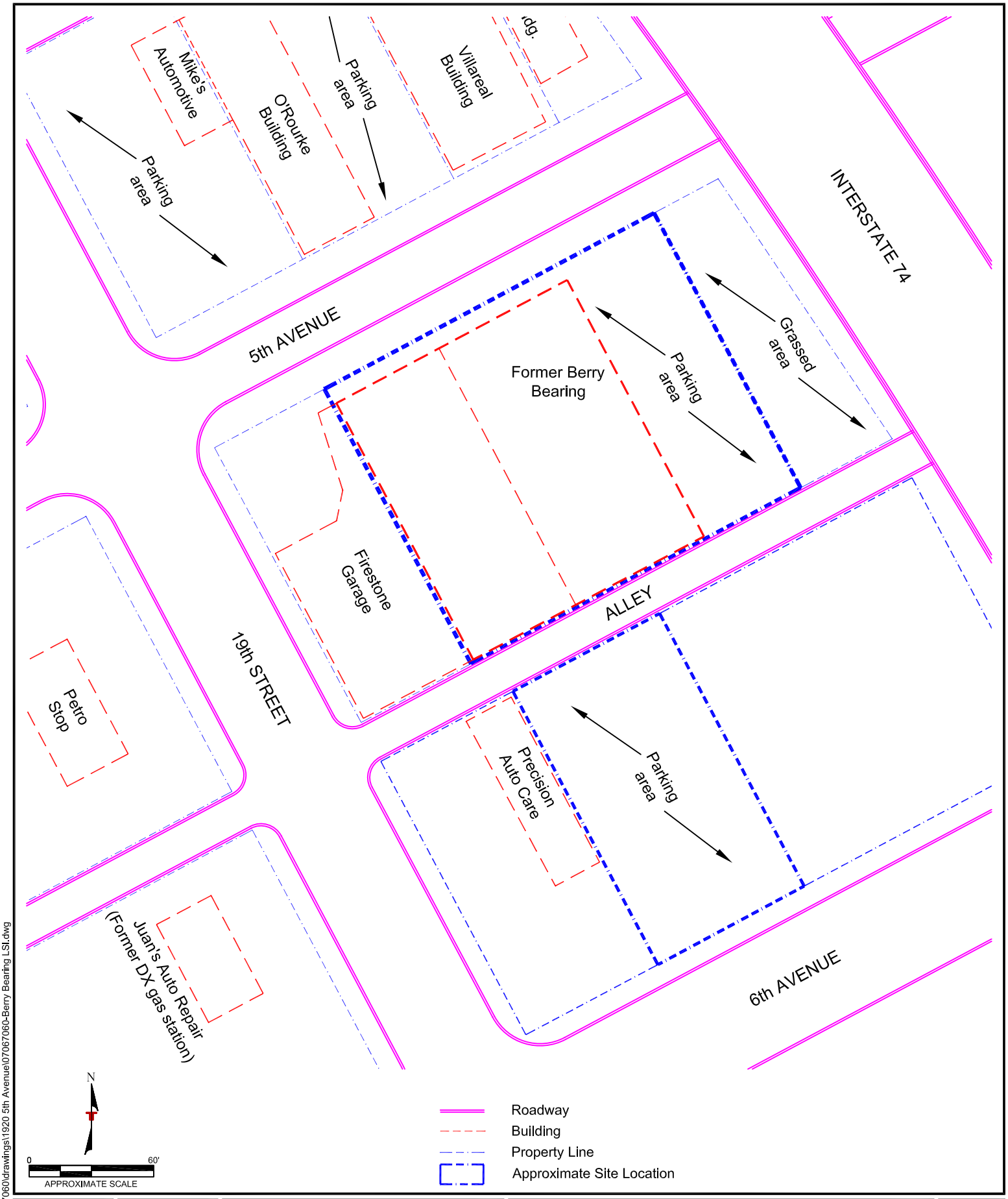
0 500'

APPROXIMATE SCALE

Approximate Site Location

Project Mngr: JFB	Project No. 07067060	Terracon Consulting Engineers and Scientists	TOPOGRAPHIC VICINITY DIAGRAM
Drawn By: JFB	Scale: AS-SHOWN	870 40TH AVENUE BETTENDORF, IOWA 52722	LIMITED SITE INVESTIGATION REPORT
Checked By: JFB	Revised By: JFB	PH. (563) 355-0702 FAX. (563) 355-4789	FORMER BERRY BEARING
Approved By: JFB	Date: May 6, 2010		1920 FIFTH AVENUE MOLINE, ILLINOIS

FIG. No. 1



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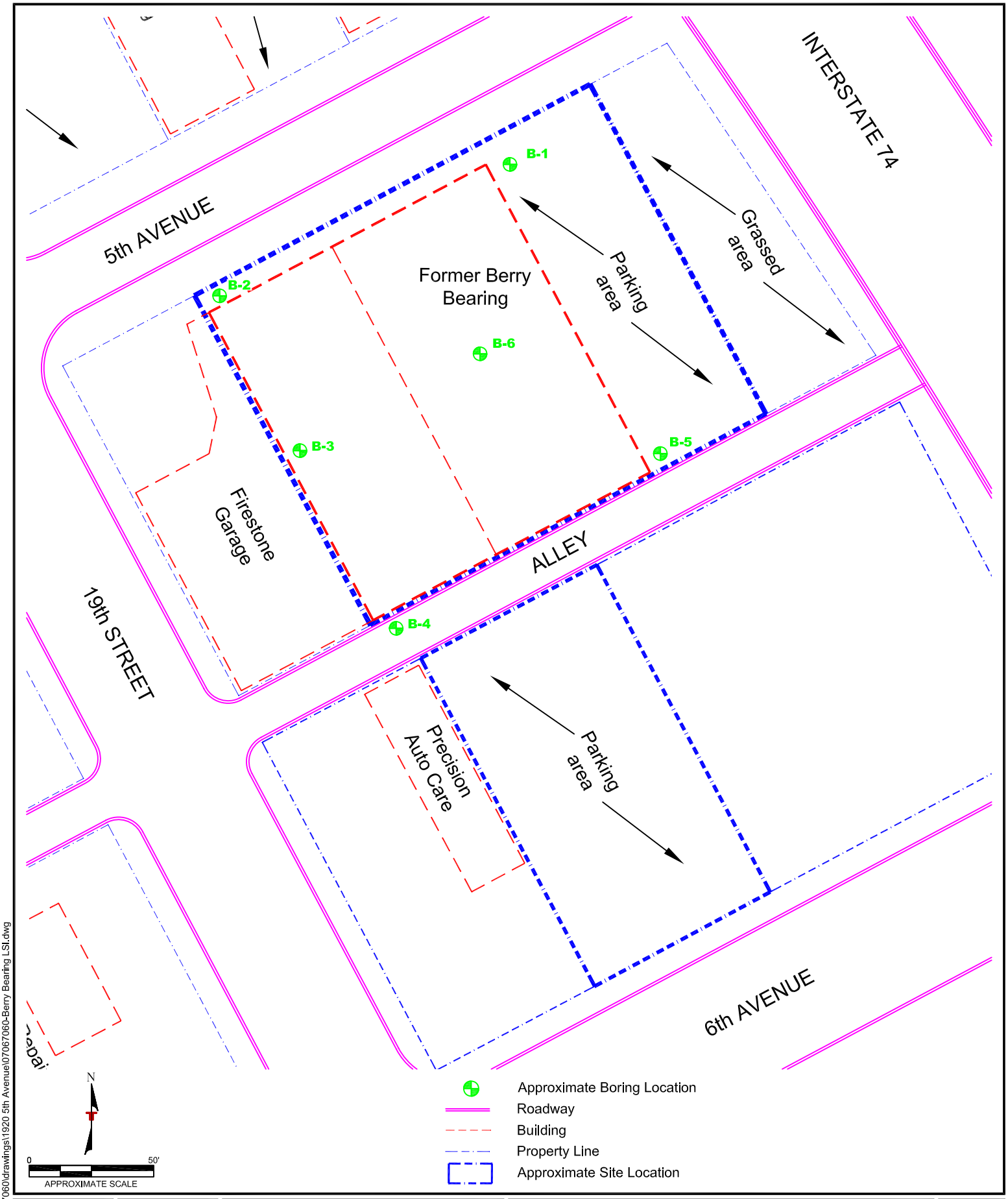
Project Mngr: JFB	Project No. 07067060	Terracon Consulting Engineers and Scientists	SITE DIAGRAM
Drawn By: JFB	Scale: AS-SHOWN	870 40TH AVENUE BETTENDORF, IOWA 52722	LIMITED SITE INVESTIGATION REPORT FORMER BERRY BEARING 1920 FIFTH AVENUE MOLINE, ILLINOIS
Checked By: JFB	Revised By: JFB	PH. (563) 355-0702 FAX. (563) 355-4789	FIG. No. 2
Approved By: JFB	Date: May 6, 2010		

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.



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Project Mngr: JFB	Project No. 07067060	Terracon Consulting Engineers and Scientists	SAMPLING DIAGRAM
Drawn By: JFB	Scale: AS-SHOWN	870 40TH AVENUE BETTENDORF, IOWA 52722	LIMITED SITE INVESTIGATION REPORT FORMER BERRY BEARING 1920 FIFTH AVENUE MOLINE, ILLINOIS
Checked By: JFB	Revised By: JFB	PH. (563) 355-0702 FAX. (563) 355-4789	FIG. No. 3
Approved By: JFB	Date: May 6, 2010		

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

APPENDIX B
Tables

Table Notes
Table 1 – Soil Analytical Results
Table 2 - Groundwater Analytical Results

Table Notes
Limited Site Investigation
Berry Bearing Site
Terracon Project No. 07067060

Remediation Objectives from proposed amendments to 35 Illinois Administrative Code Chapter 742: *Tiered Approach to Corrective Action Objectives* (TACO), September 29, 2006.

Remediation Objectives for Non-TACO Compounds from IEPA Toxicity Assessment Unit, October 1, 2004.

mg/kg = milligrams per kilogram, generally equivalent to ppm

μg/kg = micrograms per kilogram, generally equivalent to ppb

mg/L = milligrams per liter, generally equivalent to parts per million (ppm)

μg/L = micrograms per liter generally equivalent to ppb

TCLP = Toxicity Characteristic Leaching Procedure

SPLP = Synthetic Precipitation Leaching Procedure

TOC was analyzed by USEPA SW-846 Method 9060

Exceedances of applicable ROs are highlighted in **bold**

Table 1
Soil Analytical Data
Limited Site Investigation
Berry Bearing Site
Terracon Project No. 07067060

				Sample ID								
			Sample ID	**B-1 0-3FT**	**B-1 4-6FT**	**B-2 0-3FT**	**B-2 5-7FT**	**B-3 0-3 FT**	**B-3 8-10 FT**	**B-4 0-3FT**	**B-4 8-10FT**	**B-5 0-3FT**
			Sample Depth ft)	0-3 FT	4-6 FT	0-3 FT	5-7 FT	0-3 FT	8-10 FT	0-3 FT	8-10 FT	0-3 FT
			Date	3/23/2010	3/23/2010	3/23/2010	3/23/2010	4/1/2010	4/1/2010	3/23/2010	3/23/2010	3/23/2010
Analyte	**CAS**	**Method**	**Units**									
Volatile Organic Analytical Parameters												
Benzene	71-43-2	8260	µg/kg			<0.0010	<0.0010	<0.0013	0.0017	<0.0010	0.0011	
Ethylbenzene	100-41-4	6010B	µg/kg			<0.0010	<0.0010	<0.0013	0.0014	<0.0010	<0.0010	
Toluene	108-88-3	6010B	µg/kg			<0.0050	<0.0050	<0.0064	<0.0063	<0.0050	<0.0050	
Xylenes, total	1330-20-7	8260	µg/kg			<0.0030	<0.0030	<0.0038	<0.0038	<0.0030	<0.0030	
Semivolatile Organic Analytical Parameters												
1,2,4-Trichlorobenzene	120-82-1	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
2,4,6-Trichlorophenol	95-50-1	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
2,4-Dichlorophenol	541-73-1	8270	mg/kg	**<0.33**	**<0.33**	**<0.33**	**<0.33**			**<0.33**	**<0.33**	**<0.33**
2,4-Dimethylphenol	106-46-7	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
2,4-Dinitrophenol	95-95-4	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
2,4-Dinitrotoluene	88-06-2	8270	mg/kg	**<0.33**	**<0.33**	**<0.33**	**<0.33**			**<0.33**	**<0.33**	**<0.33**
2,6-Dinitrotoluene	120-83-2	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
2-Chloronaphthalene	105-67-9	8270	mg/kg	<0.033	<0.033	<0.033	<0.033			<0.033	<0.033	<0.033
2-Chlorophenol	51-28-5	8270	mg/kg	**<0.33**	**<0.33**	**<0.33**	**<0.33**			**<0.33**	**<0.33**	**<0.33**
2-Nitrophenol	121-14-2	8270	mg/kg	**<0.33**	**<0.33**	**<0.33**	**<0.33**			**<0.33**	**<0.33**	**<0.33**
3,3'-Dichlorobenzidine	606-20-2	8270	mg/kg	**<0.33**	**<0.33**	**<0.33**	**<0.33**			**<0.33**	**<0.33**	**<0.33**
4,6-Dinitro-2-methylphenol	91-58-7	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
4-Bromophenyl phenyl ether	95-57-8	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
4-Chloro-3-methylphenol	91-57-6	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
4-Chlorophenyl phenyl ether	95-48-7	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
4-Nitroaniline	88-74-4	8270	mg/kg	**<0.33**	**<0.33**	**<0.33**	**<0.33**			**<0.33**	**<0.33**	**<0.33**
Acenaphthene	88-75-5	8270	mg/kg	<0.033	<0.033	<0.033	<0.033	<0.042	0.14	<0.033	<0.033	<0.033
Acenaphthylene	91-94-1	8270	mg/kg	**<0.033**	**<0.033**	**<0.033**	**<0.033**	**<0.042**	**<0.042**	**<0.033**	**<0.033**	**<0.033**
Anthracene	99-09-2	8270	mg/kg	**<0.033**	**<0.033**	**<0.033**	**<0.033**	**<0.042**	**0.14**	**<0.033**	**<0.033**	**<0.033**
Benzidine	534-52-1	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
Benzo (a) anthracene	101-55-3	8270	mg/kg	<0.033	<0.033	<0.033	<0.033	<0.042	<0.042	<0.033	<0.033	<0.033
Benzo (a) pyrene	59-50-7	8270	mg/kg	<0.033	<0.033	<0.033	<0.033	<0.042	<0.042	<0.033	<0.033	<0.033
Benzo (b) fluoranthene	106-47-8	8270	mg/kg	0.04	<0.033	<0.033	<0.033	<0.042	<0.042	<0.033	<0.033	<0.033
Benzo (g,h,i) perylene	7005-72-3	8270	mg/kg	<0.033	<0.033	<0.033	<0.033	<0.042	<0.042	<0.033	<0.033	<0.033
Benzo (k) fluoranthene	8001-28-3	8270	mg/kg	<0.033	<0.033	<0.033	<0.033	<0.042	<0.042	<0.033	<0.033	<0.033
Bis(2-chloroethoxy)methane	100-02-7	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
Bis(2-chloroethyl)ether	100-02-7	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
Bis(2-chloroisopropyl) ether	83-32-9	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
Bis(2-ethylhexyl)phthalate	208-96-8	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
Butyl benzyl phthalate	120-12-7	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
Chrysene	92-87-5	8270	mg/kg	<0.033	<0.033	<0.033	<0.033	<0.042	<0.042	<0.033	<0.033	<0.033
Dibenzo (a,h) anthracene	56-55-3	8270	mg/kg	<0.033	<0.033	<0.033	<0.033	<0.042	<0.042	<0.033	<0.033	<0.033
Diethyl phthalate	50-32-8	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
Dimethyl phthalate	205-99-2	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
Di-n-butyl phthalate	191-24-2	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
Di-n-octyl phthalate	207-08-9	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33

Table 1
Soil Analytical Data
Limited Site Investigation
Berry Bearing Site
Terracon Project No. 07067060

				Sample ID								
			Sample ID	**B-1 0-3FT**	**B-1 4-6FT**	**B-2 0-3FT**	**B-2 5-7FT**	**B-3 0-3 FT**	**B-3 8-10 FT**	**B-4 0-3FT**	**B-4 8-10FT**	**B-5 0-3FT**
			Sample Depth ft)	0-3 FT	4-6 FT	0-3 FT	5-7 FT	0-3 FT	8-10 FT	0-3 FT	8-10 FT	0-3 FT
			Date	3/23/2010	3/23/2010	3/23/2010	3/23/2010	4/1/2010	4/1/2010	3/23/2010	3/23/2010	3/23/2010
Fluoranthene	65-85-0	8270	mg/kg	0.081	<0.033	<0.033	<0.033	<0.042	<0.042	<0.033	<0.033	<0.033
Fluorene	100-51-6	8270	mg/kg	<0.033	<0.033	<0.033	<0.033	<0.042	0.2	<0.033	<0.033	<0.033
Hexachlorobenzene	111-91-1	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
Hexachlorobutadiene	111-44-4	8270	mg/kg	**<0.33**	**<0.33**	**<0.33**	**<0.33**			**<0.33**	**<0.33**	**<0.33**
Hexachlorocyclopentadiene	108-60-1	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
Hexachloroethane	117-81-7	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
Indeno (1,2,3-cd) pyrene	85-68-7	8270	mg/kg	<0.033	<0.033	<0.033	<0.033	<0.042	<0.042	<0.033	<0.033	<0.033
Isophorone	86-74-8	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
Naphthalene	218-01-9	8270	mg/kg	<0.033	<0.033	<0.033	<0.033	<0.042	<0.042	<0.033	<0.033	<0.033
Nitrobenzene		8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
N-Nitrosodimethylamine	53-70-3	8270	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
N-Nitrosodi-n-propylamine	132-64-9	6010B	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
N-Nitrosodiphenylamine	84-66-2	6010B	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
Pentachlorophenol	131-11-3	6010B	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
Phenanthrene	84-74-2	6010B	mg/kg	0.07	<0.033	<0.033	<0.033	<0.042	0.089	<0.033	<0.033	<0.033
Phenol	117-84-0	6010B	mg/kg	<0.33	<0.33	<0.33	<0.33			<0.33	<0.33	<0.33
Pyrene	206-44-0	6010B	mg/kg	0.062	<0.033	<0.033	<0.033	<0.042	<0.042	<0.033	<0.033	<0.033
Inorganic Analytical Parameters												
Arsenic	7440-38-2	6010B	mg/kg	<5.0	3.1	3	2.9			3	2.6	1.8
Barium	7440-39-3	6010B	mg/kg	76	91	65	69			74	69	58
Cadmium	7440-43-9	6010B	mg/kg	0.61	0.69	0.43	0.71			0.66	0.56	0.5
Chromium	7440-47-3	6010B	mg/kg	9.9	23	13	21			19	18	17
Lead	7439-92-1	6010B	mg/kg	580	10	12	8.1			9.7	7.6	16
Mercury	7439-97-6	6010B	mg/kg	<0.020	0.021	<0.020	<0.020			<0.020	<0.020	<0.020
Selenium	7782-49-2	6010B	mg/kg	3.2	4.2	2.8	4			4.1	3.1	3.6
Silver	7440-22-4	6010B	mg/kg	<0.50	<0.50	<0.50	<0.50			<0.50	<0.50	<0.50

Table 1
Soil Analytical Data
Limited Site Investigation
Berry Bearing Site
Terracon Project No. 07067060

			Sample ID	B-5 8-10FT	B-6 0-3 FT	B-6 8-10 FT	DUPLICATE 4	DUPLICATE 1	Frequency of Detection	Maximum Detected Concentration	Most Restrictive Tier 1 Soil Remediation Objective	Maximum Exceeds Most Restrictive Objective?
			Sample Depth ft)	8-10 FT	0-3 FT	8-10 FT						
			Date	3/23/2010	4/1/2010	4/1/2010	3/23/2010	4/1/2010				
Analyte	**CAS**	**Method**	**Units**									
Volatile Organic Analytical Parameters												
Benzene	71-43-2	8260	µg/kg				0.001	0.0017	2 of 6 (33%)	0.0017	0.03	NO
Ethylbenzene	100-41-4	6010B	µg/kg				<0.0010	0.0015	1 of 6 (17%)	0.0015	13	NO
Toluene	108-88-3	6010B	µg/kg				<0.0050	<0.0062	0 of 6 (0%)	NA	12	NA
Xylenes, total	1330-20-7	8260	µg/kg				<0.0030	<0.0037	0 of 6 (0%)	NA	5.6	NA
Semivolatile Organic Analytical Parameters												
1,2,4-Trichlorobenzene	120-82-1	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	5	NA
2,4,6-Trichlorophenol	95-50-1	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	17	NA
2,4-Dichlorophenol	541-73-1	8270	mg/kg	**<0.33**	**<0.42**	**<0.41**	**<0.33**		0 of 10 (0%)	NA	0.2	NA
2,4-Dimethylphenol	106-46-7	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	2	NA
2,4-Dinitrophenol	95-95-4	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	270	NA
2,4-Dinitrotoluene	88-06-2	8270	mg/kg	**<0.33**	**<0.42**	**<0.41**	**<0.33**		0 of 10 (0%)	NA	0.2	NA
2,6-Dinitrotoluene	120-83-2	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	1	NA
2-Chloronaphthalene	105-67-9	8270	mg/kg	<0.033	<0.042	<0.041	<0.033		0 of 10 (0%)	NA	9	NA
2-Chlorophenol	51-28-5	8270	mg/kg	**<0.33**	**<0.42**	**<0.41**	**<0.33**		0 of 10 (0%)	NA	0.2	NA
2-Nitrophenol	121-14-2	8270	mg/kg	**<0.33**	**<0.42**	**<0.41**	**<0.33**		0 of 10 (0%)	NA	0.0008	NA
3,3'-Dichlorobenzidine	606-20-2	8270	mg/kg	**<0.33**	**<0.42**	**<0.41**	**<0.33**		0 of 10 (0%)	NA	0.0007	NA
4,6-Dinitro-2-methylphenol	91-58-7	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	49	NA
4-Bromophenyl phenyl ether	95-57-8	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	4	NA
4-Chloro-3-methylphenol	91-57-6	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	7.2	NA
4-Chlorophenyl phenyl ether	95-48-7	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	15	NA
4-Nitroaniline	88-74-4	8270	mg/kg	**<0.33**	**<0.42**	**<0.41**	**<0.33**		0 of 10 (0%)	NA	0.14	NA
Acenaphthene	88-75-5	8270	mg/kg	<0.033	<0.042	<0.041	<0.033	<0.041	1 of 12 (8%)	0.14	NA	NA
Acenaphthylene	91-94-1	8270	mg/kg	**<0.033**	**<0.042**	**<0.041**	**<0.033**	**<0.041**	0 of 12 (0%)	NA	0.007	NA
Anthracene	99-09-2	8270	mg/kg	**<0.033**	**<0.042**	**<0.041**	**<0.033**	**<0.041**	1 of 12 (8%)	0.14	0.01	**YES**
Benzidine	534-52-1	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	200	NA
Benzo (a) anthracene	101-55-3	8270	mg/kg	<0.033	<0.042	<0.041	<0.033	<0.041	0 of 12 (0%)	NA	NA	NA
Benzo (a) pyrene	59-50-7	8270	mg/kg	<0.033	<0.042	<0.041	<0.033	<0.041	0 of 12 (0%)	NA	24	NA
Benzo (b) fluoranthene	106-47-8	8270	mg/kg	<0.033	<0.042	<0.041	<0.033	<0.041	1 of 12 (8%)	0.04	0.7	NO
Benzo (g,h,i) perylene	7005-72-3	8270	mg/kg	<0.033	<0.042	<0.041	<0.033	<0.041	0 of 12 (0%)	NA	NA	NA
Benzo (k) fluoranthene	8001-28-3	8270	mg/kg	<0.033	<0.042	<0.041	<0.033	<0.041	0 of 12 (0%)	NA	NA	NA
Bis(2-chloroethoxy)methane	100-02-7	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	16000	NA
Bis(2-chloroethyl)ether	100-02-7	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	16000	NA
Bis(2-chloroisopropyl) ether	83-32-9	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	570	NA
Bis(2-ethylhexyl)phthalate	208-96-8	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	85	NA
Butyl benzyl phthalate	120-12-7	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	12000	NA
Chrysene	92-87-5	8270	mg/kg	<0.033	<0.042	<0.041	<0.033	<0.041	0 of 12 (0%)	NA	NA	NA
Dibenzo (a,h) anthracene	56-55-3	8270	mg/kg	<0.033	<0.042	<0.041	<0.033	<0.041	0 of 12 (0%)	NA	2	NA
Diethyl phthalate	50-32-8	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	0.8	NA
Dimethyl phthalate	205-99-2	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	5	NA
Di-n-butyl phthalate	191-24-2	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	27000	NA
Di-n-octyl phthalate	207-08-9	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	49	NA

Table 1
Soil Analytical Data
Limited Site Investigation
Berry Bearing Site
Terracon Project No. 07067060

			Sample ID	B-5 8-10FT	B-6 0-3 FT	B-6 8-10 FT	DUPLICATE 4	DUPLICATE 1	Frequency of Detection	Maximum Detected Concentration	Most Restrictive Tier 1 Soil Remediation Objective	Maximum Exceeds Most Restrictive Objective?
			Sample Depth ft)	8-10 FT	0-3 FT	8-10 FT						
			Date	3/23/2010	4/1/2010	4/1/2010	3/23/2010	4/1/2010				
Fluoranthene	65-85-0	8270	mg/kg	<0.033	<0.042	<0.041	<0.033	<0.041	1 of 12 (8%)	0.081	NA	NA
Fluorene	100-51-6	8270	mg/kg	<0.033	<0.042	<0.041	<0.033	0.042	1 of 12 (8%)	0.2	NA	NA
Hexachlorobenzene	111-91-1	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	NA	NA
Hexachlorobutadiene	111-44-4	8270	mg/kg	**<0.33**	**<0.42**	**<0.41**	**<0.33**		0 of 10 (0%)	NA	0.0004	NA
Hexachlorocyclopentadiene	108-60-1	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	2.4	NA
Hexachloroethane	117-81-7	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	410	NA
Indeno (1,2,3-cd) pyrene	85-68-7	8270	mg/kg	<0.033	<0.042	<0.041	<0.033	<0.041	0 of 12 (0%)	NA	930	NA
Isophorone	86-74-8	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	0.6	NA
Naphthalene	218-01-9	8270	mg/kg	<0.033	<0.042	<0.041	<0.033	<0.041	0 of 12 (0%)	NA	160	NA
Nitrobenzene		8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	NA	NA
N-Nitrosodimethylamine	53-70-3	8270	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	0.8	NA
N-Nitrosodi-n-propylamine	132-64-9	6010B	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	6.1	NA
N-Nitrosodiphenylamine	84-66-2	6010B	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	470	NA
Pentachlorophenol	131-11-3	6010B	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	380	NA
Phenanthrene	84-74-2	6010B	mg/kg	<0.033	<0.042	<0.041	<0.033	<0.041	2 of 12 (17%)	0.089	2300	NO
Phenol	117-84-0	6010B	mg/kg	<0.33	<0.42	<0.41	<0.33		0 of 10 (0%)	NA	4100	NA
Pyrene	206-44-0	6010B	mg/kg	<0.033	<0.042	<0.041	<0.033	<0.041	1 of 12 (8%)	0.062	4300	NO
Inorganic Analytical Parameters												
Arsenic	7440-38-2	6010B	mg/kg	2.8	12	4.4	3.3		9 of 10 (90%)	12	61	NO
Barium	7440-39-3	6010B	mg/kg	43	77	79	77		10 of 10 (100%)	91	14000	NO
Cadmium	7440-43-9	6010B	mg/kg	0.47	0.33	0.32	0.74		10 of 10 (100%)	0.74	11.3	NO
Chromium	7440-47-3	6010B	mg/kg	12	23	22	22		10 of 10 (100%)	23	420	NO
Lead	7439-92-1	6010B	mg/kg	6.6	13	7.9	9.2		10 of 10 (100%)	580	700	NO
Mercury	7439-97-6	6010B	mg/kg	<0.020	0.029	<0.025	<0.020		2 of 10 (20%)	0.029	0.45	NO
Selenium	7782-49-2	6010B	mg/kg	2.9	<6.3	<1.2	3.8		8 of 10 (80%)	4.2	1000	NO
Silver	7440-22-4	6010B	mg/kg	<0.50	<0.63	<0.62	<0.50		0 of 10 (0%)	NA	1000	NA

Table 1
Soil Analytical Data
Limited Site Investigation
Berry Bearing Site
Terracon Project No. 07067060

				Tier 1 Soil Remediation Objectives for Industrial/Commercial Properties					Soil Component of the Groundwater Ingestion Route Values	Default Background Concentration for Non-Metropolitan Statistical Areas	Maximum Exceeds Background?
			Sample ID	Exposure Route-Specific Values for Soils							
			Sample Depth ft)	Occupant			Worker				
			Date	Ingestion	Inhalation	Indoor Air	Ingestion	Inhalation	Class I		
Analyte	**CAS**	**Method**	**Units**								
Volatile Organic Analytical Parameters											
Benzene	71-43-2	8260	µg/kg	100	1.6	0.51	2300	2.2	0.03	---	NA
Ethylbenzene	100-41-4	6010B	µg/kg	200000	400	130	20000	58	13	---	NA
Toluene	108-88-3	6010B	µg/kg	410000	650	240	410000	42	12	---	NA
Xylenes, total	1330-20-7	8260	µg/kg	410000	320	100	41000	5.6	150	---	NA
Semivolatile Organic Analytical Parameters											
1,2,4-Trichlorobenzene	120-82-1	8270	mg/kg	20000	3200	980	2000	920	5	---	NA
2,4,6-Trichlorophenol	95-50-1	8270	mg/kg	180000	560	200	18000	310	17	---	NA
2,4-Dichlorophenol	541-73-1	8270	mg/kg	1800	570	---	180	570	0.2	---	NA
2,4-Dimethylphenol	106-46-7	8270	mg/kg	---	17000	9.8	---	340	2	---	NA
2,4-Dinitrophenol	95-95-4	8270	mg/kg	200000	---	---	200000	---	270	---	NA
2,4-Dinitrotoluene	88-06-2	8270	mg/kg	520	390	---	11000	540	0.2	---	NA
2,6-Dinitrotoluene	120-83-2	8270	mg/kg	6100	---	---	610	---	1	---	NA
2-Chloronaphthalene	105-67-9	8270	mg/kg	41000	---	---	41000	---	9	---	NA
2-Chlorophenol	51-28-5	8270	mg/kg	4100	---	---	410	---	0.2	---	NA
2-Nitrophenol	121-14-2	8270	mg/kg	8.4	---	---	180	---	0.0008	---	NA
3,3'-Dichlorobenzidine	606-20-2	8270	mg/kg	8.4	---	---	180	---	0.0007	---	NA
4,6-Dinitro-2-methylphenol	91-58-7	8270	mg/kg	160000	---	---	160000	---	49	---	NA
4-Bromophenyl phenyl ether	95-57-8	8270	mg/kg	10000	53000	49000	10000	53000	4	---	NA
4-Chloro-3-methylphenol	91-57-6	8270	mg/kg	8200	---	83	820	---	7.2	0.29	NA
4-Chlorophenyl phenyl ether	95-48-7	8270	mg/kg	100000	---	4800	100000	---	15	---	NA
4-Nitroaniline	88-74-4	8270	mg/kg	6100	56	---	610	3.6	0.14	---	NA
Acenaphthene	88-75-5	8270	mg/kg	---	---	---	---	---	---	---	NA
Acenaphthylene	91-94-1	8270	mg/kg	13	---	---	280	---	0.007	---	NA
Anthracene	99-09-2	8270	mg/kg	610	400	---	61	26	0.01	---	NA
Benzidine	534-52-1	8270	mg/kg	200	---	---	820	---	---	---	NA
Benzo (a) anthracene	101-55-3	8270	mg/kg	---	---	---	---	---	---	---	NA
Benzo (a) pyrene	59-50-7	8270	mg/kg	14000	---	---	41000	---	24	---	NA
Benzo (b) fluoranthene	106-47-8	8270	mg/kg	8200	---	---	820	---	0.7	---	NA
Benzo (g,h,i) perylene	7005-72-3	8270	mg/kg	---	---	---	---	---	---	---	NA
Benzo (k) fluoranthene	8001-28-3	8270	mg/kg	---	---	---	---	---	---	---	NA
Bis(2-chloroethoxy)methane	100-02-7	8270	mg/kg	16000	---	---	16000	---	---	---	NA
Bis(2-chloroethyl)ether	100-02-7	8270	mg/kg	16000	---	---	16000	---	---	---	NA
Bis(2-chloroisopropyl) ether	83-32-9	8270	mg/kg	120000	---	---	120000	---	570	0.04	NA
Bis(2-ethylhexyl)phthalate	208-96-8	8270	mg/kg	61000	---	---	61000	---	85	0.04	NA
Butyl benzyl phthalate	120-12-7	8270	mg/kg	610000	---	---	610000	---	12000	0.14	NA
Chrysene	92-87-5	8270	mg/kg	---	---	---	---	---	---	---	NA
Dibenzo (a,h) anthracene	56-55-3	8270	mg/kg	8	---	---	170	---	2	0.72	NA
Diethyl phthalate	50-32-8	8270	mg/kg	0.8	---	---	17	---	8	0.98	NA
Dimethyl phthalate	205-99-2	8270	mg/kg	8	---	---	170	---	5	0.7	NA
Di-n-butyl phthalate	191-24-2	8270	mg/kg	61000	---	---	61000	---	27000	0.84	NA
Di-n-octyl phthalate	207-08-9	8270	mg/kg	78	---	---	1700	---	49	0.63	NA

Table 1
Soil Analytical Data
Limited Site Investigation
Berry Bearing Site
Terracon Project No. 07067060

				Tier 1 Soil Remediation Objectives for Industrial/Commercial Properties					Soil Component of the Groundwater Ingestion Route Values	Default Background Concentration for Non-Metropolitan Statistical Areas	Maximum Exceeds Background?
			Sample ID	Exposure Route-Specific Values for Soils							
			Sample Depth ft)	Occupant			Worker				
			Date	Ingestion	Inhalation	Indoor Air	Ingestion	Inhalation	Class I		
Fluoranthene	65-85-0	8270	mg/kg	---	---	---	---	---	---	---	NA
Fluorene	100-51-6	8270	mg/kg	---	---	---	---	---	---	---	NA
Hexachlorobenzene	111-91-1	8270	mg/kg	---	---	---	---	---	---	---	NA
Hexachlorobutadiene	111-44-4	8270	mg/kg	5	0.47	3.7	75	0.66	0.0004	---	NA
Hexachlorocyclopentadiene	108-60-1	8270	mg/kg	82000	1300	---	8200	1300	2.4	---	NA
Hexachloroethane	117-81-7	8270	mg/kg	410	31000	---	4100	31000	3600	---	NA
Indeno (1,2,3-cd) pyrene	85-68-7	8270	mg/kg	410000	930	---	410000	930	930	---	NA
Isophorone	86-74-8	8270	mg/kg	290	---	---	6200	---	0.6	---	NA
Naphthalene	218-01-9	8270	mg/kg	780	---	---	17000	---	160	1.1	NA
Nitrobenzene		8270	mg/kg	---	---	---	---	---	---	---	NA
N-Nitrosodimethylamine	53-70-3	8270	mg/kg	0.8	---	---	17	---	2	0.15	NA
N-Nitrosodi-n-propylamine	132-64-9	6010B	mg/kg	4100	---	---	4100	---	6.1	---	NA
N-Nitrosodiphenylamine	84-66-2	6010B	mg/kg	1000000	2000	---	1000000	2000	470	---	NA
Pentachlorophenol	131-11-3	6010B	mg/kg	1000000	1300	---	1000000	1300	380	---	NA
Phenanthrene	84-74-2	6010B	mg/kg	200000	2300	---	200000	2300	2300	---	NA
Phenol	117-84-0	6010B	mg/kg	41000	10000	---	4100	10000	10000	---	NA
Pyrene	206-44-0	6010B	mg/kg	82000	---	---	82000	---	4300	1.8	NO
Inorganic Analytical Parameters											
Arsenic	7440-38-2	6010B	mg/kg	---	1200	---	61	25000	---	11.3	**YES**
Barium	7440-39-3	6010B	mg/kg	140000	910000	---	14000	870000	---	122	NO
Cadmium	7440-43-9	6010B	mg/kg	11.3	2800	---	200	59000	---	0.5	**YES**
Chromium	7440-47-3	6010B	mg/kg	6100	420	---	4100	690	---	13	**YES**
Lead	7439-92-1	6010B	mg/kg	800	---	---	700	---	---	20.9	**YES**
Mercury	7439-97-6	6010B	mg/kg	610	16	0.45	61	---	---	0.05	NO
Selenium	7782-49-2	6010B	mg/kg	10000	---	---	1000	---	---	0.37	**YES**
Silver	7440-22-4	6010B	mg/kg	10000	---	---	1000	---	---	0.5	NA

Table 2
Groundwater Analytical Data
Limited Site Investigation
Berry Bearing Site
Terracon Project No. 07067060

				Sample ID									
			Sample ID	B-1 17FT	B-2 17FT	B-3 17 FT	B-4 18FT	B-5 17FT	B-6 17 FT	DUPLICATE 1	DUPLICATE 2	DUPLICATE 2	FIELD BLANK
			Date	3/23/2010	3/23/2010	4/1/2010	3/23/2010	3/23/2010	4/1/2010	3/23/2010	3/23/2010	4/1/2010	3/23/2010
Analyte	**CAS**	**Method**	**Units**										
Volatile Organic Analytical Parameters													
1,1,1,2-Tetrachloroethane	630-20-6	8260	mg/L	<0.0010	<0.0010					<0.0010			
1,1,1-Trichloroethane	71-55-6	8260	mg/L	<0.0010	<0.0010					<0.0010			
1,1,2,2-Tetrachloroethane	79-34-5	8260	mg/L	<0.0010	<0.0010					<0.0010			
1,1,2-Trichloro-1,2,2-trifluoroethan	76-13-1	8260	mg/L	<0.0010	<0.0010					<0.0010			
1,1,2-Trichloroethane	79-00-5	8260	mg/L	<0.0010	<0.0010					<0.0010			
1,1-Dichloroethane	75-34-3	8260	mg/L	<0.0010	<0.0010					<0.0010			
1,1-Dichloroethene	75-35-4	8260	mg/L	<0.0010	<0.0010					<0.0010			
1,1-Dichloropropene	563-58-6	8260	mg/L	<0.0010	<0.0010					<0.0010			
1,2,3-Trichlorobenzene	87-61-6	8260	mg/L	<0.0010	<0.0010					<0.0010			
1,2,3-Trichloropropane	96-18-4	8260	mg/L	<0.0010	<0.0010					<0.0010			
1,2,3-Trimethylbenzene	526-73-8	8260	mg/L	<0.0010	<0.0010					<0.0010			
1,2,4-Trichlorobenzene	120-82-1	8260	mg/L	<0.0010	<0.0010					<0.0010			
1,2,4-Trimethylbenzene	95-63-6	8260	mg/L	<0.0010	<0.0010					<0.0010			
1,2-Dibromo-3-Chloropropane	96-12-8	8260	mg/L	<0.0050	<0.0050					<0.0050			
1,2-Dibromoethane	106-93-4	8260	mg/L	<0.0010	<0.0010					<0.0010			
1,2-Dichlorobenzene	95-50-1	8260	mg/L	<0.0010	<0.0010					<0.0010			
1,2-Dichloroethane	107-06-2	8260	mg/L	<0.0010	<0.0010					<0.0010			
1,2-Dichloropropane	78-87-5	8260	mg/L	<0.0010	<0.0010					<0.0010			
1,3,5-Trimethylbenzene	108-67-8	8260	mg/L	<0.0010	<0.0010					<0.0010			
1,3-Dichlorobenzene	541-73-1	8260	mg/L	<0.0010	<0.0010					<0.0010			
1,3-Dichloropropane	142-28-9	8260	mg/L	<0.0010	<0.0010					<0.0010			
1,4-Dichlorobenzene	106-46-7	8260	mg/L	<0.0010	<0.0010					<0.0010			
2,2-Dichloropropane	594-20-7	8260	mg/L	<0.0010	<0.0010					<0.0010			
2-Butanone (MEK)	78-93-3	8260	mg/L	<0.010	<0.010					<0.010			
2-Chloroethyl vinyl ether	110-75-8	8260	mg/L	<0.050	<0.050					<0.050			
2-Chlorotoluene	95-49-8	8260	mg/L	<0.0010	<0.0010					<0.0010			
4-Chlorotoluene	106-43-4	8260	mg/L	<0.0010	<0.0010					<0.0010			
4-Methyl-2-pentanone (MIBK)	108-10-1	8260	mg/L	<0.010	<0.010					<0.010			
Acetone	67-64-1	8260	mg/L	<0.050	<0.050					<0.050			
Acrolein	107-02-8	8260	mg/L	<0.050	<0.050					<0.050			
Acrylonitrile	107-13-1	8260	mg/L	<0.010	<0.010					<0.010			
Benzene	71-43-2	8260	mg/L	<0.0010	<0.0010	<0.0010	0.0032			<0.0010	0.0025	<0.0010	<0.0010
Bromobenzene	108-86-1	8260	mg/L	<0.0010	<0.0010					<0.0010			
Bromodichloromethane	75-27-4	8260	mg/L	**<0.0010**	**<0.0010**					**<0.0010**			
Bromoform	75-25-2	8260	mg/L	<0.0010	<0.0010					<0.0010			
Bromomethane	74-83-9	8260	mg/L	<0.0050	<0.0050					<0.0050			
Carbon tetrachloride	56-23-5	8260	mg/L	<0.0010	<0.0010					<0.0010			
Chlorobenzene	108-90-7	8260	mg/L	<0.0010	<0.0010					<0.0010			
Chlorodibromomethane	124-48-1	8260	mg/L	<0.0010	<0.0010					<0.0010			
Chloroethane	75-00-3	8260	mg/L	<0.0050	<0.0050					<0.0050			
Chloroform	67-66-3	8260	mg/L	**<0.0050**	**<0.0050**					**<0.0050**			

Table 2
Groundwater Analytical Data
Limited Site Investigation
Berry Bearing Site
Terracon Project No. 07067060

				Sample ID									
			Sample ID	**B-1 17FT**	**B-2 17FT**	**B-3 17 FT**	**B-4 18FT**	**B-5 17FT**	**B-6 17 FT**	**DUPLICATE 1**	**DUPLICATE 2**	**DUPLICATE 2**	**FIELD BLANK**
			Date	**3/23/2010**	**3/23/2010**	**4/1/2010**	**3/23/2010**	**3/23/2010**	**4/1/2010**	**3/23/2010**	**3/23/2010**	**4/1/2010**	**3/23/2010**
Chloromethane	74-87-3	8260	mg/L	<0.0025	<0.0025					<0.0025			
cis-1,2-Dichloroethene	156-59-2	8260	mg/L	<0.0010	<0.0010					<0.0010			
cis-1,3-Dichloropropene	10061-01-5	8260	mg/L	**<0.0010**	**<0.0010**					**<0.0010**			
Dibromomethane	74-95-3	8260	mg/L	<0.0010	<0.0010					<0.0010			
Dichlorodifluoromethane	75-71-8	8260	mg/L	<0.0050	<0.0050					<0.0050			
Di-isopropyl ether	108-20-3	8260	mg/L	<0.0010	<0.0010					<0.0010			
Ethylbenzene	100-41-4	8260	mg/L	<0.0010	<0.0010	<0.0010	<0.0010			<0.0010	<0.0010	<0.0010	<0.0010
Hexachlorobutadiene	87-68-3	8260	mg/L	<0.0010	<0.0010					<0.0010			
Isopropylbenzene	98-82-8	8260	mg/L	<0.0010	<0.0010					<0.0010			
Methyl tert-Butyl Ether	1634-04-4	8260	mg/L	0.012	<0.0010					0.01			
Methylene Chloride	75-09-2	8260	mg/L	<0.0050	<0.0050					<0.0050			
Naphthalene	91-20-3	8260	mg/L	<0.0050	<0.0050					<0.0050			
n-Butylbenzene	104-51-8	8260	mg/L	<0.0010	<0.0010					<0.0010			
n-Propylbenzene	103-65-1	8260	mg/L	<0.0010	<0.0010					<0.0010			
p-Isopropyltoluene	99-87-6	8260	mg/L	<0.0010	<0.0010					<0.0010			
sec-Butylbenzene	135-98-8	8260	mg/L	<0.0010	<0.0010					<0.0010			
Styrene	100-42-5	8260	mg/L	<0.0010	<0.0010					<0.0010			
tert-Butylbenzene	98-06-6	8260	mg/L	<0.0010	<0.0010					<0.0010			
Tetrachloroethene	127-18-4	8260	mg/L	<0.0010	<0.0010					<0.0010			
Toluene	108-88-3	8260	mg/L	<0.0050	<0.0050	<0.0050	<0.0050			<0.0050	<0.0050	<0.0050	<0.0050
trans-1,2-Dichloroethene	156-60-5	8260	mg/L	<0.0010	<0.0010					<0.0010			
trans-1,3-Dichloropropene	10061-02-6	8260	mg/L	**<0.0010**	**<0.0010**					**<0.0010**			
Trichloroethene	79-01-6	8260	mg/L	<0.0010	<0.0010					<0.0010			
Trichlorofluoromethane	75-69-4	8260	mg/L	<0.0050	<0.0050					<0.0050			
Vinyl chloride	75-01-4	8260	mg/L	<0.0010	<0.0010					<0.0010			
Xylenes, total	1330-20-7	8260	mg/L	<0.0030	<0.0030	<0.0030	<0.0030			<0.0030	<0.0030	<0.0030	<0.0030
Semivolatile Organic Analytical Parameters													
1,2,4-Trichlorobenzene	120-82-1	8270	mg/L	<0.010	**<0.22**		<0.010	<0.010	<0.010	<0.010			<0.010
2,4,6-Trichlorophenol	88-06-2	8270	mg/L	<0.010	**<0.22**		<0.010	<0.010	<0.010	<0.010			<0.010
2,4-Dichlorophenol	120-83-2	8270	mg/L	<0.010	**<0.22**		<0.010	<0.010	<0.010	<0.010			<0.010
2,4-Dimethylphenol	105-67-9	8270	mg/L	<0.010	**<0.22**		<0.010	<0.010	<0.010	<0.010			<0.010
2,4-Dinitrophenol	51-28-5	8270	mg/L	<0.010	**<0.22**		<0.010	<0.010	<0.010	<0.010			<0.010
2,4-Dinitrotoluene	121-14-2	8270	mg/L	**<0.010**	**<0.22**		**<0.010**	**<0.010**	**<0.010**	**<0.010**			**<0.010**
2,6-Dinitrotoluene	606-20-2	8270	mg/L	**<0.010**	**<0.22**		**<0.010**	**<0.010**	**<0.010**	**<0.010**			**<0.010**
2-Chloronaphthalene	91-58-7	8270	mg/L	<0.0010	<0.022		<0.0010	<0.0010	<0.0010	<0.0010			<0.0010
2-Chlorophenol	95-57-8	8270	mg/L	<0.010	**<0.22**		<0.010	<0.010	<0.010	<0.010			<0.010
2-Nitrophenol	88-75-5	8270	mg/L	<0.010	<0.22		<0.010	<0.010	<0.010	<0.010			<0.010
3,3'-Dichlorobenzidine	91-94-1	8270	mg/L	<0.010	**<0.22**		<0.010	<0.010	<0.010	<0.010			<0.010
4,6-Dinitro-2-methylphenol	534-52-1	8270	mg/L	**<0.010**	**<0.22**		**<0.010**	**<0.010**	**<0.010**	**<0.010**			**<0.010**
4-Bromophenyl phenyl ether	101-55-3	8270	mg/L	<0.010	<0.22		<0.010	<0.010	<0.010	<0.010			<0.010
4-Chloro-3-methylphenol	59-50-7	8270	mg/L	<0.010	<0.22		<0.010	<0.010	<0.010	<0.010			<0.010
4-Chlorophenyl phenyl ether	7005-72-3	8270	mg/L	<0.010	<0.22		<0.010	<0.010	<0.010	<0.010			<0.010
4-Nitroaniline	100-02-7	8270	mg/L	<0.010	**<0.22**		<0.010	<0.010	<0.010	<0.010			<0.010

Table 2
Groundwater Analytical Data
Limited Site Investigation
Berry Bearing Site
Terracon Project No. 07067060

				Sample ID									
			Sample ID	**B-1 17FT**	**B-2 17FT**	**B-3 17 FT**	**B-4 18FT**	**B-5 17FT**	**B-6 17 FT**	**DUPLICATE 1**	**DUPLICATE 2**	**DUPLICATE 2**	**FIELD BLANK**
			Date	**3/23/2010**	**3/23/2010**	**4/1/2010**	**3/23/2010**	**3/23/2010**	**4/1/2010**	**3/23/2010**	**3/23/2010**	**4/1/2010**	**3/23/2010**
Acenaphthene	83-32-9	8270	mg/L	<0.0010	0.042	<0.000050	<0.0010	<0.0010	<0.0010	<0.0010		0.00011	<0.0010
Acenaphthylene	208-96-8	8270	mg/L	<0.0010	<0.022	<0.000050	<0.0010	<0.0010	<0.0010	<0.0010		<0.000050	<0.0010
Anthracene	120-12-7	8270	mg/L	<0.0010	0.069	<0.000050	0.0038	<0.0010	<0.0010	<0.0010		0.00014	<0.0010
Benzidine	92-87-5	8270	mg/L	<0.010	<0.22		<0.010	<0.010	<0.0010	<0.010			<0.010
Benzo (a) anthracene	56-55-3	8270	mg/L	**<0.0010**	**<0.022**	<0.000050	**<0.0010**	**<0.0010**	**<0.0010**	**<0.0010**		<0.000050	**<0.0010**
Benzo (a) pyrene	50-32-8	8270	mg/L	**<0.0010**	**<0.022**	<0.000050	**<0.0010**	**<0.0010**	**<0.0010**	**<0.0010**		<0.000050	**<0.0010**
Benzo (b) fluoranthene	205-99-2	8270	mg/L	**<0.0010**	**<0.022**	<0.000050	**<0.0010**	**<0.0010**	**<0.0010**	**<0.0010**		<0.000050	**<0.0010**
Benzo (g,h,i) perylene	191-24-2	8270	mg/L	<0.0010	<0.022	<0.000050	<0.0010	<0.0010	<0.0010	<0.0010		<0.000050	<0.0010
Benzo (k) fluoranthene	207-08-9	8270	mg/L	**<0.0010**	**<0.022**	<0.000050	**<0.0010**	**<0.0010**	**<0.0010**	**<0.0010**		<0.000050	**<0.0010**
Bis(2-chloroethoxy)methane	111-91-1	8270	mg/L	<0.0010	<0.022		<0.0010	<0.0010	<0.010	<0.0010			<0.0010
Bis(2-chloroethyl)ether	111-44-4	8270	mg/L	<0.010	**<0.22**		<0.010	<0.010	<0.010	<0.010			<0.010
Bis(2-chloroisopropyl) ether	108-60-1	8270	mg/L	<0.010	<0.22		<0.010	<0.010	<0.010	<0.010			<0.010
Bis(2-ethylhexyl)phthalate	117-81-7	8270	mg/L	**<0.010**	**<0.22**		**<0.010**	**<0.010**	<0.0010	**<0.010**			**<0.010**
Butyl benzyl phthalate	85-68-7	8270	mg/L	<0.0010	<0.022		0.001	<0.0010	<0.0010	0.0011			<0.0010
Chrysene	218-01-9	8270	mg/L	<0.0010	**<0.022**	<0.000050	<0.0010	<0.0010	<0.0010	<0.0010		<0.000050	<0.0010
Dibenzo (a,h) anthracene	53-70-3	8270	mg/L	**<0.0010**	**<0.022**	<0.000050	**<0.0010**	**<0.0010**	**<0.0010**	**<0.0010**		<0.000050	**<0.0010**
Diethyl phthalate	84-66-2	8270	mg/L	<0.0010	<0.022		<0.0010	<0.0010	<0.0010	<0.0010			<0.0010
Dimethyl phthalate	131-11-3	8270	mg/L	<0.0010	<0.022		<0.0010	<0.0010	<0.0010	<0.0010			<0.0010
Di-n-butyl phthalate	84-74-2	8270	mg/L	<0.0010	<0.022		<0.0010	<0.0010	<0.0010	<0.0010			<0.0010
Di-n-octyl phthalate	117-84-0	8270	mg/L	<0.0010	<0.022		<0.0010	<0.0010	<0.0010	<0.0010			<0.0010
Fluoranthene	206-44-0	8270	mg/L	<0.0010	<0.022	<0.000050	<0.0010	<0.0010	<0.0010	<0.0010		<0.000050	<0.0010
Fluorene	86-73-7	8270	mg/L	<0.0010	0.052	<0.000050	<0.0010	<0.0010	<0.010	<0.0010		0.0001	<0.0010
Hexachlorobenzene	87-68-3	8270	mg/L	**<0.010**	**<0.22**		**<0.010**	**<0.010**	<0.0010	**<0.010**			**<0.010**
Hexachlorobutadiene	118-74-1	8270	mg/L	**<0.0010**	**<0.022**		**<0.0010**	**<0.0010**	**<0.010**	**<0.0010**			**<0.0010**
Hexachlorocyclopentadiene	77-47-4	8270	mg/L	<0.010	**<0.22**		<0.010	<0.010	<0.010	<0.010			<0.010
Hexachloroethane	67-72-1	8270	mg/L	**<0.010**	**<0.22**	<0.000050	**<0.010**	**<0.010**	<0.0010	**<0.010**		<0.000050	**<0.010**
Indeno (1,2,3-cd) pyrene	193-39-5	8270	mg/L	**<0.0010**	**<0.022**		**<0.0010**	**<0.0010**	**<0.010**	**<0.0010**			**<0.0010**
Isophorone	78-59-1	8270	mg/L	<0.010	<0.22		<0.010	<0.010	<0.0010	<0.010			<0.010
Naphthalene	91-20-3	8270	mg/L	<0.0010	<0.022	<0.00025	<0.0010	<0.0010	<0.010	<0.0010		<0.00025	<0.0010
Nitrobenzene	98-95-3	8270	mg/L	**<0.010**	**<0.22**		**<0.010**	**<0.010**	**<0.010**	**<0.010**			**<0.010**
N-Nitrosodimethylamine	62-75-9	8270	mg/L	<0.010	<0.22		<0.010	<0.010	<0.010	<0.010			<0.010
N-Nitrosodi-n-propylamine	621-64-7	8270	mg/L	**<0.010**	**<0.22**		**<0.010**	**<0.010**	**<0.010**	**<0.010**			**<0.010**
N-Nitrosodiphenylamine	86-30-6	8270	mg/L	**<0.010**	**<0.22**		**<0.010**	**<0.010**	**<0.010**	**<0.010**			**<0.010**
Pentachlorophenol	87-86-5	8270	mg/L	**<0.010**	**<0.22**		**<0.010**	**<0.010**	<0.0010	**<0.010**			**<0.010**
Phenanthrene	85-01-8	8270	mg/L	<0.0010	0.024	<0.000050	0.0026	<0.0010	<0.010	<0.0010		0.00009	<0.0010
Phenol	108-95-2	8270	mg/L	<0.010	**<0.22**		<0.010	<0.010	<0.0010	<0.010			<0.010
Pyrene	129-00-0	8270	mg/L	<0.0010	<0.022	<0.000050	<0.0010	<0.0010	<0.0010	<0.0010		<0.000050	<0.0010
Inorganic Analytical Parameters													
Arsenic	7440-38-2	6020B	mg/L	0.049	**0.12**		**0.068**	**0.12**	<0.020	0.02	0.034		<0.020
Barium	7440-39-3	6020B	mg/L	0.46	0.92		0.99	0.6	0.46	0.3	0.51		0.0055
Cadmium	7440-43-9	6020B	mg/L	<0.0050	<0.0050		<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		<0.0050
Chromium	7440-47-3	6020B	mg/L	0.046	**0.14**		0.073	0.066	<0.010	<0.010	0.032		<0.010
Lead	7439-92-1	6020B	mg/L	**0.032**	**0.098**		**0.073**	**0.06**	<0.0050	<0.0050	**0.018**		<0.0050

Table 2
Groundwater Analytical Data
Limited Site Investigation
Berry Bearing Site
Terracon Project No. 07067060

				Sample ID									
			Sample ID	**B-1 17FT**	**B-2 17FT**	**B-3 17 FT**	**B-4 18FT**	**B-5 17FT**	**B-6 17 FT**	**DUPLICATE 1**	**DUPLICATE 2**	**DUPLICATE 2**	**FIELD BLANK**
			Date	**3/23/2010**	**3/23/2010**	**4/1/2010**	**3/23/2010**	**3/23/2010**	**4/1/2010**	**3/23/2010**	**3/23/2010**	**4/1/2010**	**3/23/2010**
Mercury	7439-97-6	6020B	mg/L	<0.00020	<0.00020		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020		<0.00020
Selenium	7782-49-2	6020B	mg/L	<0.020	<0.020		<0.020	<0.020	0.039	<0.020	<0.020		<0.020
Silver	7440-22-4	6020B	mg/L	<0.010	<0.010		<0.010	<0.010	<0.010	<0.010	<0.010		<0.010

Table 2
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		Frequency of Detection	Maximum Detected Concentration	Most Restrictive Tier 1 Groundwater Remediation Objective	Maximum Exceeds Most Restrictive Objective?	Tier 1 Groundwater Remediation Objective		
						Class I Ingestion	Residential Indoor Air	Ind/Comm Indoor Air
Analyte	**CAS**							
Volatile Organic Analytical Parameters								
1,1,1,2-Tetrachloroethane	630-20-6	0 of 2 (0%)	NA	NA	NA	---	---	---
1,1,1-Trichloroethane	71-55-6	0 of 2 (0%)	NA	0.2	NA	0.2	1300	1300
1,1,2,2-Tetrachloroethane	79-34-5	0 of 2 (0%)	NA	0.42	NA	0.42	---	---
1,1,2-Trichloro-1,2,2-trifluoroethan	76-13-1	0 of 2 (0%)	NA	NA	NA	---	---	---
1,1,2-Trichloroethane	79-00-5	0 of 2 (0%)	NA	0.005	NA	0.005	4400	4400
1,1-Dichloroethane	75-34-3	0 of 2 (0%)	NA	0.7	NA	0.7	660	3800
1,1-Dichloroethene	75-35-4	0 of 2 (0%)	NA	0.007	NA	0.007	49	260
1,1-Dichloropropene	563-58-6	0 of 2 (0%)	NA	NA	NA	---	---	---
1,2,3-Trichlorobenzene	87-61-6	0 of 2 (0%)	NA	NA	NA	---	---	---
1,2,3-Trichloropropane	96-18-4	0 of 2 (0%)	NA	NA	NA	---	---	---
1,2,3-Trimethylbenzene	526-73-8	0 of 2 (0%)	NA	NA	NA	---	---	---
1,2,4-Trichlorobenzene	120-82-1	0 of 2 (0%)	NA	0.07	NA	0.07	35	35
1,2,4-Trimethylbenzene	95-63-6	0 of 2 (0%)	NA	NA	NA	---	---	---
1,2-Dibromo-3-Chloropropane	96-12-8	0 of 2 (0%)	NA	0.028	NA	---	0.028	0.21
1,2-Dibromoethane	106-93-4	0 of 2 (0%)	NA	0.11	NA	---	0.11	0.79
1,2-Dichlorobenzene	95-50-1	0 of 2 (0%)	NA	0.6	NA	0.6	156	156
1,2-Dichloroethane	107-06-2	0 of 2 (0%)	NA	0.005	NA	0.005	0.48	3.4
1,2-Dichloropropane	78-87-5	0 of 2 (0%)	NA	0.005	NA	0.005	0.12	0.85
1,3,5-Trimethylbenzene	108-67-8	0 of 2 (0%)	NA	NA	NA	---	---	---
1,3-Dichlorobenzene	541-73-1	0 of 2 (0%)	NA	0.0063	NA	0.0063	0.85	6
1,3-Dichloropropane	142-28-9	0 of 2 (0%)	NA	NA	NA	---	---	---
1,4-Dichlorobenzene	106-46-7	0 of 2 (0%)	NA	0.075	NA	0.075	---	---
2,2-Dichloropropane	594-20-7	0 of 2 (0%)	NA	NA	NA	---	---	---
2-Butanone (MEK)	78-93-3	0 of 2 (0%)	NA	4.2	NA	4.2	220000	220000
2-Chloroethyl vinyl ether	110-75-8	0 of 2 (0%)	NA	NA	NA	---	---	---
2-Chlorotoluene	95-49-8	0 of 2 (0%)	NA	NA	NA	---	---	---
4-Chlorotoluene	106-43-4	0 of 2 (0%)	NA	NA	NA	---	---	---
4-Methyl-2-pentanone (MIBK)	108-10-1	0 of 2 (0%)	NA	NA	NA	---	---	---
Acetone	67-64-1	0 of 2 (0%)	NA	6.3	NA	6.3	1000000	1000000
Acrolein	107-02-8	0 of 2 (0%)	NA	NA	NA	---	---	---
Acrylonitrile	107-13-1	0 of 2 (0%)	NA	NA	NA	---	---	---
Benzene	71-43-2	1 of 4 (25%)	0.0032	0.005	NO	0.005	0.36	2.4
Bromobenzene	108-86-1	0 of 2 (0%)	NA	NA	NA	---	---	---
Bromodichloromethane	75-27-4	0 of 2 (0%)	NA	0.0002	NA	0.0002	6700	6700
Bromoform	75-25-2	0 of 2 (0%)	NA	0.001	NA	0.001	170	1300
Bromomethane	74-83-9	0 of 2 (0%)	NA	0.0098	NA	0.0098	---	---
Carbon tetrachloride	56-23-5	0 of 2 (0%)	NA	0.005	NA	0.005	0.041	0.27
Chlorobenzene	108-90-7	0 of 2 (0%)	NA	0.1	NA	0.1	120	470
Chlorodibromomethane	124-48-1	0 of 2 (0%)	NA	0.14	NA	0.14	2600	2600
Chloroethane	75-00-3	0 of 2 (0%)	NA	2.8	NA	2.8	---	---
Chloroform	67-66-3	0 of 2 (0%)	NA	0.0002	NA	0.0002	0.15	1

Table 2
Groundwater Analytical Data
Limited Site Investigation
Berry Bearing Site
Terracon Project No. 07067060

		Frequency of Detection	Maximum Detected Concentration	Most Restrictive Tier 1 Groundwater Remediation Objective	Maximum Exceeds Most Restrictive Objective?	Tier 1 Groundwater Remediation Objective		
						Class I Ingestion	Residential Indoor Air	Ind/Comm Indoor Air
Chloromethane	74-87-3	0 of 2 (0%)	NA	0.028	NA	0.028	---	---
cis-1,2-Dichloroethene	156-59-2	0 of 2 (0%)	NA	0.07	NA	0.07	3500	3500
cis-1,3-Dichloropropene	10061-01-5	0 of 2 (0%)	NA	0.0005	NA	0.0005	0.35	2.3
Dibromomethane	74-95-3	0 of 2 (0%)	NA	NA	NA	---	---	---
Dichlorodifluoromethane	75-71-8	0 of 2 (0%)	NA	5.2	NA	---	5.2	28
Di-isopropyl ether	108-20-3	0 of 2 (0%)	NA	NA	NA	---	---	---
Ethylbenzene	100-41-4	0 of 4 (0%)	NA	0.7	NA	0.7	170	170
Hexachlorobutadiene	87-68-3	0 of 2 (0%)	NA	0.0014	NA	0.0014	---	---
Isopropylbenzene	98-82-8	0 of 2 (0%)	NA	2.5	NA	---	4.8	2.5
Methyl tert-Butyl Ether	1634-04-4	1 of 2 (50%)	0.012	0.07	NO	0.07	24000	51000
Methylene Chloride	75-09-2	0 of 2 (0%)	NA	0.005	NA	0.005	11	80
Naphthalene	91-20-3	0 of 2 (0%)	NA	0.14	NA	0.14	31	31
n-Butylbenzene	104-51-8	0 of 2 (0%)	NA	NA	NA	---	---	---
n-Propylbenzene	103-65-1	0 of 2 (0%)	NA	NA	NA	---	---	---
p-Isopropyltoluene	99-87-6	0 of 2 (0%)	NA	NA	NA	---	---	---
sec-Butylbenzene	135-98-8	0 of 2 (0%)	NA	NA	NA	---	---	---
Styrene	100-42-5	0 of 2 (0%)	NA	0.1	NA	0.1	310	310
tert-Butylbenzene	98-06-6	0 of 2 (0%)	NA	NA	NA	---	---	---
Tetrachloroethene	127-18-4	0 of 2 (0%)	NA	0.005	NA	0.005	0.21	1.4
Toluene	108-88-3	0 of 4 (0%)	NA	1	NA	1	530	530
trans-1,2-Dichloroethene	156-60-5	0 of 2 (0%)	NA	0.1	NA	0.1	50	280
trans-1,3-Dichloropropene	10061-02-6	0 of 2 (0%)	NA	0.0005	NA	0.0005	0.35	2.3
Trichloroethene	79-01-6	0 of 2 (0%)	NA	0.005	NA	0.005	0.89	6
Trichlorofluoromethane	75-69-4	0 of 2 (0%)	NA	48	NA	---	48	260
Vinyl chloride	75-01-4	0 of 2 (0%)	NA	0.002	NA	0.002	0.05	0.64
Xylenes, total	1330-20-7	0 of 4 (0%)	NA	10	NA	10	80	110
Semivolatile Organic Analytical Parameters								
1,2,4-Trichlorobenzene	120-82-1	0 of 5 (0%)	NA	0.07	NA	0.07	35	35
2,4,6-Trichlorophenol	88-06-2	0 of 5 (0%)	NA	0.01	NA	0.01	---	---
2,4-Dichlorophenol	120-83-2	0 of 5 (0%)	NA	0.021	NA	0.021	---	---
2,4-Dimethylphenol	105-67-9	0 of 5 (0%)	NA	0.14	NA	0.14	---	---
2,4-Dinitrophenol	51-28-5	0 of 5 (0%)	NA	0.014	NA	0.014	---	---
2,4-Dinitrotoluene	121-14-2	0 of 5 (0%)	NA	0.00002	NA	0.00002	---	---
2,6-Dinitrotoluene	606-20-2	0 of 5 (0%)	NA	0.00031	NA	0.00031	---	---
2-Chloronaphthalene	91-58-7	0 of 5 (0%)	NA	0.56	NA	0.56	---	---
2-Chlorophenol	95-57-8	0 of 5 (0%)	NA	0.035	NA	0.035	220000	220000
2-Nitrophenol	88-75-5	0 of 5 (0%)	NA	NA	NA	---	---	---
3,3'-Dichlorobenzidine	91-94-1	0 of 5 (0%)	NA	0.02	NA	0.02	---	---
4,6-Dinitro-2-methylphenol	534-52-1	0 of 5 (0%)	NA	0.0007	NA	0.0007	---	---
4-Bromophenyl phenyl ether	101-55-3	0 of 5 (0%)	NA	NA	NA	---	---	---
4-Chloro-3-methylphenol	59-50-7	0 of 5 (0%)	NA	0.49	NA	0.49	---	---
4-Chlorophenyl phenyl ether	7005-72-3	0 of 5 (0%)	NA	NA	NA	---	---	---
4-Nitroaniline	100-02-7	0 of 5 (0%)	NA	0.056	NA	0.056	---	---

Table 2
Groundwater Analytical Data
Limited Site Investigation
Berry Bearing Site
Terracon Project No. 07067060

		Frequency of Detection	Maximum Detected Concentration	Most Restrictive Tier 1 Groundwater Remediation Objective	Maximum Exceeds Most Restrictive Objective?	Tier 1 Groundwater Remediation Objective		
						Class I Ingestion	Residential Indoor Air	Ind/Comm Indoor Air
Acenaphthene	83-32-9	1 of 6 (17%)	0.042	0.42	NO	0.42	---	---
Acenaphthylene	208-96-8	0 of 6 (0%)	NA	0.21	NA	0.21	---	---
Anthracene	120-12-7	2 of 6 (33%)	0.069	2.1	NO	2.1	---	---
Benzidine	92-87-5	0 of 5 (0%)	NA	NA	NA	---	---	---
Benzo (a) anthracene	56-55-3	0 of 6 (0%)	NA	0.00013	NA	0.00013	---	---
Benzo (a) pyrene	50-32-8	0 of 6 (0%)	NA	0.0002	NA	0.0002	---	---
Benzo (b) fluoranthene	205-99-2	0 of 6 (0%)	NA	0.00018	NA	0.00018	---	---
Benzo (g,h,i) perylene	191-24-2	0 of 6 (0%)	NA	0.21	NA	0.21	---	---
Benzo (k) fluoranthene	207-08-9	0 of 6 (0%)	NA	0.00017	NA	0.00017	---	---
Bis(2-chloroethoxy)methane	111-91-1	0 of 5 (0%)	NA	NA	NA	---	---	---
Bis(2-chloroethyl)ether	111-44-4	0 of 5 (0%)	NA	0.01	NA	0.01	4	30
Bis(2-chloroisopropyl) ether	108-60-1	0 of 5 (0%)	NA	0.28	NA	0.28	---	---
Bis(2-ethylhexyl)phthalate	117-81-7	0 of 5 (0%)	NA	0.006	NA	0.006	---	---
Butyl benzyl phthalate	85-68-7	1 of 5 (20%)	0.0011	1.4	NO	1.4	---	---
Chrysene	218-01-9	0 of 6 (0%)	NA	0.0015	NA	0.0015	---	---
Dibenzo (a,h) anthracene	53-70-3	0 of 6 (0%)	NA	0.0003	NA	0.0003	---	---
Diethyl phthalate	84-66-2	0 of 5 (0%)	NA	5.6	NA	5.6	---	---
Dimethyl phthalate	131-11-3	0 of 5 (0%)	NA	70	NA	70	---	---
Di-n-butyl phthalate	84-74-2	0 of 5 (0%)	NA	0.7	NA	0.7	---	---
Di-n-octyl phthalate	117-84-0	0 of 5 (0%)	NA	0.14	NA	0.14	---	---
Fluoranthene	206-44-0	0 of 6 (0%)	NA	0.28	NA	0.28	---	---
Fluorene	86-73-7	1 of 6 (17%)	0.052	0.28	NO	0.28	---	---
Hexachlorobenzene	87-68-3	0 of 5 (0%)	NA	0.0014	NA	0.0014	---	---
Hexachlorobutadiene	118-74-1	0 of 5 (0%)	NA	0.00006	NA	0.00006	0.086	0.62
Hexachlorocyclopentadiene	77-47-4	0 of 5 (0%)	NA	0.05	NA	0.05	0.24	1.4
Hexachloroethane	67-72-1	0 of 6 (0%)	NA	0.007	NA	0.007	50	50
Indeno (1,2,3-cd) pyrene	193-39-5	0 of 5 (0%)	NA	0.00043	NA	0.00043	---	---
Isophorone	78-59-1	0 of 5 (0%)	NA	1.4	NA	1.4	12000	12000
Naphthalene	91-20-3	0 of 6 (0%)	NA	0.14	NA	0.14	31	31
Nitrobenzene	98-95-3	0 of 5 (0%)	NA	0.0035	NA	0.0035	770	2100
N-Nitrosodimethylamine	62-75-9	0 of 5 (0%)	NA	NA	NA	---	---	---
N-Nitrosodi-n-propylamine	621-64-7	0 of 5 (0%)	NA	0.0018	NA	0.0018	3.3	24
N-Nitrosodiphenylamine	86-30-6	0 of 5 (0%)	NA	0.0032	NA	0.0032	---	---
Pentachlorophenol	87-86-5	0 of 5 (0%)	NA	0.001	NA	0.001	---	---
Phenanthrene	85-01-8	2 of 6 (33%)	0.024	0.21	NO	0.21	---	---
Phenol	108-95-2	0 of 5 (0%)	NA	0.1	NA	0.1	83000	83000
Pyrene	129-00-0	0 of 6 (0%)	NA	0.21	NA	0.21	---	---
Inorganic Analytical Parameters								
Arsenic	7440-38-2	4 of 5 (80%)	0.12	0.05	**YES**	0.05	---	---
Barium	7440-39-3	5 of 5 (100%)	0.99	2	NO	2	---	---
Cadmium	7440-43-9	0 of 5 (0%)	NA	0.005	NA	0.005	---	---
Chromium	7440-47-3	4 of 5 (80%)	0.14	0.1	**YES**	0.1	---	---
Lead	7439-92-1	4 of 5 (80%)	0.098	0.0075	**YES**	0.0075	---	---

Table 2
Groundwater Analytical Data
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Berry Bearing Site
Terracon Project No. 07067060

		Frequency of Detection	Maximum Detected Concentration	Most Restrictive Tier 1 Groundwater Remediation Objective	Maximum Exceeds Most Restrictive Objective?	Tier 1 Groundwater Remediation Objective		
						Class I Ingestion	Residential Indoor Air	Ind/Comm Indoor Air
Mercury	7439-97-6	0 of 5 (0%)	NA	0.002	NA	0.002	0.06	0.06
Selenium	7782-49-2	1 of 5 (20%)	0.039	0.05	NO	0.05	---	---
Silver	7440-22-4	0 of 5 (0%)	NA	0.05	NA	0.05	---	---

APPENDIX C
City of Moline Ordinance No. 98-10-2

STATE OF ILLINOIS)
) SS
ROCK ISLAND COUNTY)

I, Tracy A. Koranda, City Clerk for the City of Moline, County of Rock Island, State of Illinois, do hereby certify that the foregoing Ordinance, General Ordinance 3022-2010, is a true and correct copy of the original Ordinance passed by the City Council of the City of Moline, Illinois, at a meeting duly convened and held on the 20th day of April, 2010.

IN WITNESS WHEREOF, I have hereunto signed my name and affixed the corporate seal of the City of Moline, Illinois, this 3rd day of May, 2010.

Tracy A. Koranda
City Clerk

(Seal)

Council Bill/General Ordinance No. 3022-2010
Sponsor: _____

AN ORDINANCE

AMENDING Chapter 34, "WATERS AND SEWERS," of the Moline Code of Ordinances, by amending Section 34-2300, "USE OF GROUNDWATER AS A POTABLE WATER SUPPLY PROHIBITED," by repealing said section in its entirety and replacing it with one new Section 34-2300 dealing with the same subject matter.

WHEREAS, the Illinois Environmental Protection Agency has requested the City of Moline make two minor changes to its groundwater regulations; and

WHEREAS, the amended ordinance will allow property owners to request a No Further Remediation letter from the Illinois Environmental Protection Agency after remediation has occurred.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MOLINE, ILLINOIS, as follows:

Section 1 – That Chapter 34, "WATERS AND SEWERS," of the Moline Code of Ordinances, Section 34-2300, "USE OF GROUNDWATER AS A POTABLE WATER SUPPLY PROHIBITED," is hereby amended by repealing said section in its entirety and replacing it with one new Section 34-2300 dealing with the same subject, which shall read as follows:

"SEC. 34-2300. USE OF GROUNDWATER AS A POTABLE WATER SUPPLY PROHIBITED.

Except for such uses or methods in existence before the effective date of this ordinance, the use or attempt to use as a potable water supply groundwater from within the corporate limits of the City of Moline by the installation or drilling of wells or by any other method is hereby prohibited, including at points of withdrawal by the City of Moline."

Section 2 – That this ordinance shall be in full force and effect from and after passage, approval, and if required by law, publication in the manner provided for by law.

CITY OF MOLINE, ILLINOIS

Ronald R. Wehrwein
Mayor

4/20/10
Date

Passed: 4.20.10

Approved: 4.27.10

Attest: Tracy Koranda
City Clerk

APPROVED AS TO FORM:

Law Director

APPENDIX D
Soil Boring Logs and Monitoring Well Construction Diagrams

General Notes
Unified Soil Classification System
Soil Boring Logs and Monitoring Well Construction Diagrams

GENERAL NOTES

DRILLING & SAMPLING SYMBOLS:

SS:	Split Spoon - 1-3/8" I.D., 2" O.D., unless otherwise noted	HS:	Hollow Stem Auger
ST:	Thin-Walled Tube - 2" O.D., unless otherwise noted	PA:	Power Auger
RS:	Ring Sampler - 2.42" I.D., 3" O.D., unless otherwise noted	HA:	Hand Auger
DB:	Diamond Bit Coring - 4", N, B	RB:	Rock Bit
BS:	Bulk Sample or Auger Sample	WB:	Wash Boring or Mud Rotary

The number of blows required to advance a standard 2-inch O.D. split-spoon sampler (SS) the last 12 inches of the total 18-inch penetration with a 140-pound hammer falling 30 inches is considered the "Standard Penetration" or "N-value".

WATER LEVEL MEASUREMENT SYMBOLS:

WL:	Water Level	WS:	While Sampling	N/E:	Not Encountered
WCI:	Wet Cave in	WD:	While Drilling		
DCI:	Dry Cave in	BCR:	Before Casing Removal		
AB:	After Boring	ACR:	After Casing Removal		

Water levels indicated on the boring logs are the levels measured in the borings at the times indicated. Groundwater levels at other times and other locations across the site could vary. In pervious soils, the indicated levels may reflect the location of groundwater. In low permeability soils, the accurate determination of groundwater levels may not be possible with only short-term observations.

DESCRIPTIVE SOIL CLASSIFICATION: Soil classification is based on the Unified Classification System. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; their principal descriptors are: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are principally described as clays if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse-grained soils are defined on the basis of their in-place relative density and fine-grained soils on the basis of their consistency.

CONSISTENCY OF FINE-GRAINED SOILS

Unconfined Compressive Strength, Qu, psf	Standard Penetration or N-value (SS) Blows/Ft.	Consistency
< 500	0 - 1	Very Soft
500 – 1,000	2 - 4	Soft
1,000 – 2,000	4 - 8	Medium Stiff
2,000 – 4,000	8 - 15	Stiff
4,000 – 8,000	15 - 30	Very Stiff
8,000+	> 30	Hard

RELATIVE DENSITY OF COARSE-GRAINED SOILS

Standard Penetration or N-value (SS) Blows/Ft.	Relative Density
0 – 3	Very Loose
4 – 9	Loose
10 – 29	Medium Dense
30 – 49	Dense
> 50	Very Dense

RELATIVE PROPORTIONS OF SAND AND GRAVEL

Descriptive Term(s) of other constituents	Percent of Dry Weight
Trace	< 15
With	15 – 29
Modifier	> 30

GRAIN SIZE TERMINOLOGY

Major Component of Sample	Particle Size
Boulders	Over 12 in. (300mm)
Cobbles	12 in. to 3 in. (300mm to 75 mm)
Gravel	3 in. to #4 sieve (75mm to 4.75 mm)
Sand	#4 to #200 sieve (4.75mm to 0.075mm)
Silt or Clay	Passing #200 Sieve (0.075mm)

RELATIVE PROPORTIONS OF FINES

Descriptive Term(s) of other constituents	Percent of Dry Weight
Trace	< 5
With	5 – 12
Modifiers	> 12

PLASTICITY DESCRIPTION

Term	Plasticity Index
Non-plastic	0
Low	1-10
Medium	11-30
High	> 30

Terracon

UNIFIED SOIL CLASSIFICATION SYSTEM

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests[A]					Soil Classification	
					Group Symbol	Group Name[B]
Coarse Grained Soils More than 50% retained on No. 200 sieve	Gravels More than 50% of coarse fraction retained on No. 4 sieve	Clean Gravels Less than 5% fines[C]	$Cu \geq 4$ and $1 \leq Cc \leq 3$[E]		GW	Well-graded gravel[F]
			$Cu < 4$ and/or $1 > Cc > 3$[E]		GP	Poorly graded gravel[F]
		Gravels with Fines More than 12% fines[C]	Fines classify as ML or MH		GM	Silty gravel[F,G,H]
			Fines classify as CL or CH		GC	Clayey gravel[F,G,H]
	Sands 50% or more of coarse fraction passes No. 4 sieve	Clean Sands Less than 5% fines[D]	$Cu \geq 6$ and $1 \leq Cc \leq 3$[E]		SW	Well-graded sand[I]
			$Cu < 6$ and/or $1 > Cc > 3$[E]		SP	Poorly graded sand[I]
		Sands with Fines More than 12% fines[D]	Fines classify as ML or MH		SM	Silty sand[G,H,I]
			Fines Classify as CL or CH		SC	Clayey sand[G,H,I]
Fine-Grained Soils 50% or more passes the No. 200 sieve	Silts and Clays Liquid limit less than 50	inorganic	PI > 7 and plots on or above "A" line[J]		CL	Lean clay[K,L,M]
			PI < 4 or plots below "A" line[J]		ML	Silt[K,L,M]
		organic	Liquid limit - oven dried	< 0.75	OL	Organic clay[K,L,M,N]
			Liquid limit - not dried			Organic silt[K,L,M,O]
	Silts and Clays Liquid limit 50 or more	inorganic	PI plots on or above "A" line		CH	Fat clay[K,L,M]
			PI plots below "A" line		MH	Elastic Silt[K,L,M]
		organic	Liquid limit - oven dried	< 0.75	OH	Organic clay[K,L,M,P]
			Liquid limit - not dried			Organic silt[K,L,M,Q]
Highly organic soils	Primarily organic matter, dark in color, and organic odor				PT	Peat

[A] Based on the material passing the 3-in. (75-mm) sieve

[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

[C] Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

[D] Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay

[E] $Cu = D_{60}/D_{10}$ $\quad Cc = \dfrac{(D_{30})^2}{D_{10} \times D_{60}}$

[F] If soil contains ≥ 15% sand, add "with sand" to group name.

[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

[H] If fines are organic, add "with organic fines" to group name.

[I] If soil contains ≥ 15% gravel, add "with gravel" to group name.

[J] If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

[K] If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

[L] If soil contains ≥ 30% plus No. 200 predominantly sand, add "sandy" to group name.

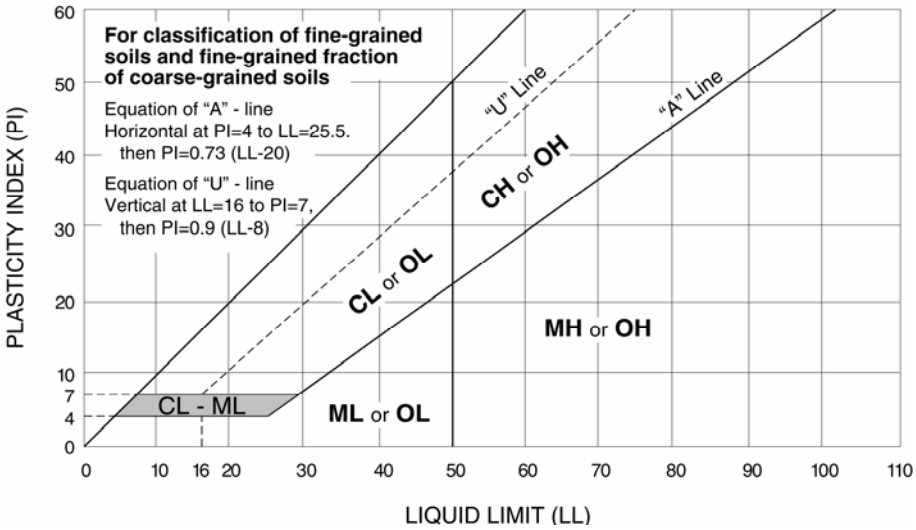
[M] If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.

[N] PI ≥ 4 and plots on or above "A" line.

[O] PI < 4 or plots below "A" line.

[P] PI plots on or above "A" line.

[Q] PI plots below "A" line.



Terracon

BORING NO. 1

CLIENT
City of Moline

SITE
Moline, Illinois

PROJECT
Berry Bearing

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	TESTS WATER CONTENT, %	FIELD VAPOR TEST (PPM)*	SOIL SAMPLE SENT TO LABORATORY
0.333	Approx. 4" Concrete			1	MC	21			<1	0-3'
	SANDY LEAN CLAY Brown									
4	**LEAN CLAY** Brown, Gray	5		2	MC	41			<1	4-6'
		10		3	MC	36			<1	
		15		4	MC	36			<1	
17				5	MC	36			<1	
	SAND WITH GRAVEL Brown									
19										
20	**CLAY OR SHALE** Brown	20								
	BOTTOM OF BORING									

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

* ND indicates a reading of less than the field detection limit (FDL) of one (1) part per million isobutylene equivalents (ppmi).

WATER LEVEL OBSERVATIONS, ft			
WL	16	AB	
WL			
WL			

Terracon

BORING STARTED	3-23-10		
BORING COMPLETED	3-23-10		
RIG	Geoprobe	FOREMAN	JAF
APPROVED	JFB	JOB #	07067060

BORING NO. 2

CLIENT
City of Moline

SITE
Moline, Illinois

PROJECT
Berry Bearing

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	TESTS: WATER CONTENT, %	FIELD VAPOR TEST (PPM)*	SOIL SAMPLE SENT TO LABORATORY
0.5	Approx. 6" Concrete			1	MC	24			<1	0-3'
0.8	Approx. 8" Gravel									
	LEAN CLAY Dark Gray, Brown									
		5		2	MC	36			1.0	5'-7'
		10		3	MC	40			<1	
		15		4	MC	39			1.9	
16	▽									
	SAND, TRACE GRAVEL Dark Gray			5	MC	38			2.9	
18										
	FAT CLAY Dark Gray									
20		20								
	BOTTOM OF BORING									

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

* ND indicates a reading of less than the field detection limit (FDL) of one (1) part per million isobutylene equivalents (ppmi).

WATER LEVEL OBSERVATIONS, ft			
WL	▽ 16	AB	▼
WL	▼		▼
WL			

Terracon

BORING STARTED	3-23-10		
BORING COMPLETED	3-23-10		
RIG	Geoprobe	FOREMAN	JAF
APPROVED	JFB	JOB #	07067060

BORING NO. 3

CLIENT
City of Moline

SITE
Moline, Illinois

PROJECT
Berry Bearing

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	TESTS: WATER CONTENT, %	FIELD VAPOR TEST (PPM)*	SOIL SAMPLE SENT TO LABORATORY
0.333	Approx. 4" Concrete			1	MC	36			<1	0-3'
1.9	**SANDY LEAN CLAY** Brown Sand seams, trace organics									
	LEAN CLAY Brown	5		2	MC	30			<1	
		10		3	MC	28			26	8'-10'
11	**LEAN CLAY WITH SAND** Gray	15		4	MC	34			<1	
16	**FINE TO COARSE SAND** Brown-Gray			5	MC	32				
20	BOTTOM OF BORING	20								

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

* ND indicates a reading of less than the field detection limit (FDL) of one (1) part per million isobutylene equivalents (ppmi).

WATER LEVEL OBSERVATIONS, ft			
WL	12	AB	
WL			
WL			

Terracon

BORING STARTED	4-1-10		
BORING COMPLETED	4-1-10		
RIG	Geoprobe	FOREMAN	JAF
APPROVED	JFB	JOB #	07067060

BORING NO. 4

CLIENT
City of Moline

SITE
Moline, Illinois

PROJECT
Berry Bearing

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	TESTS: WATER CONTENT, %	FIELD VAPOR TEST (PPM)*	SOIL SAMPLE SENT TO LABORATORY
	0.25 Approx. 3" Concrete **GRAVEL**			1	MC	11			<1	0-3'
		5		2	MC	36			<1	
	10 **LEAN CLAY** Brown, Gray Sand seam about 12 feet	10		3	MC	48			19	8'-10'
		15		4	MC	48			<1	
	20			5	MC	39				
	BOTTOM OF BORING	20								

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

* ND indicates a reading of less than the field detection limit (FDL) of one (1) part per million isobutylene equivalents (ppmi).

WATER LEVEL OBSERVATIONS, ft			
WL	14	AB	
WL			
WL			

Terracon

BORING STARTED	3-23-10		
BORING COMPLETED	3-23-10		
RIG	Geoprobe	FOREMAN	JAF
APPROVED	JFB	JOB #	07067060

BORING NO. 5

CLIENT
City of Moline

SITE
Moline, Illinois

PROJECT
Berry Bearing

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	TESTS WATER CONTENT, %	FIELD VAPOR TEST (PPM)*	SOIL SAMPLE SENT TO LABORATORY
0.25	Approx. 3" Concrete **LEAN CLAY** Dark Brown to Black			1	MC	20			<1	0-3'
		5		2	MC	33			<1	
8	**SILTY SAND** Brown			3	MC	36			<1	8'-10'
10	**LEAN CLAY** Brown Gray	10								
		15		4	MC	33			<1	
16	**SAND WITH COARSE SAND AND CLAY** Brown Gray			5	MC	40			<1	
20	BOTTOM OF BORING	20								

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

* ND indicates a reading of less than the field detection limit (FDL) of one (1) part per million isobutylene equivalents (ppmi).

WATER LEVEL OBSERVATIONS, ft			
WL	8	AB	
WL			
WL			

Terracon

BORING STARTED	3-23-10		
BORING COMPLETED	3-23-10		
RIG	Geoprobe	FOREMAN	JAF
APPROVED	JFB	JOB #	07067060

BORING NO. 6

CLIENT
City of Moline

SITE
Moline, Illinois

PROJECT
Berry Bearing

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	TESTS WATER CONTENT, %	FIELD VAPOR TEST (PPM)*	SOIL SAMPLE SENT TO LABORATORY
	0.333 Approx. 4" Concrete **LEAN CLAY** Brown			1	MC	38			<1	0-3'
		5		2	MC	46			<1	
	Sand seams about 4 feet	10		3	MC	48			<1	8'-10'
	12.5 **LEAN CLAY WITH SAND SEAMS** Gray	15		4	MC	37			12.8	
	16 ▽ **FINE TO COARSE SAND WITH LEAN CLAY SEAMS** Brown Gray			5	MC	26			11.0	
	20 BOTTOM OF BORING	20								

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

* ND indicates a reading of less than the field detection limit (FDL) of one (1) part per million isobutylene equivalents (ppmi).

WATER LEVEL OBSERVATIONS, ft			
WL	▽ 16	AB	▼
WL	▼		▼
WL			

Terracon

BORING STARTED	4-1-10		
BORING COMPLETED	4-1-10		
RIG	Geoprobe	FOREMAN	JAF
APPROVED	JFB	JOB #	07067060

APPENDIX E
Analytical Results and Chains of Custody

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

Report Summary

Wednesday April 28, 2010

Report Number: L450873
Samples Received: 03/25/10
Client Project: 03067060

Description: Berry Bearing

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By: _____

Jeff Carr , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140
NJ - TN002,NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.
Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

This report may not be reproduced, except in full, without written approval from ESC Lab Sciences.
Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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Est. 1970

REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28, 2010

ESC Sample # : L450873-01

Site ID :

Project # : 03067060

Date Received : March 25, 2010
Description : Berry Bearing

Sample ID : B-1 0-3FT

Collected By : Jay Fegley
Collection Date : 03/23/10 09:43

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.020	mg/kg	7471	03/26/10	1
Arsenic	BDL	5.0	mg/kg	6010B	03/27/10	5
Barium	76.	0.25	mg/kg	6010B	03/27/10	1
Cadmium	0.61	0.25	mg/kg	6010B	03/27/10	1
Chromium	9.9	0.50	mg/kg	6010B	03/27/10	1
Lead	580	0.25	mg/kg	6010B	03/27/10	1
Selenium	3.2	1.0	mg/kg	6010B	03/27/10	1
Silver	BDL	0.50	mg/kg	6010B	03/27/10	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Acenaphthylene	BDL	0.033	mg/kg	8270C	03/26/10	1
Anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzidine	BDL	0.33	mg/kg	8270C	03/26/10	1
Benzo(a)anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(b)fluoranthene	0.040	0.033	mg/kg	8270C	03/26/10	1
Benzo(k)fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(g,h,i)perylene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(a)pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Bis(2-chlorethoxy)methane	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-chloroethyl)ether	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-chloroisopropyl)ether	BDL	0.33	mg/kg	8270C	03/26/10	1
4-Bromophenyl-phenylether	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Chloronaphthalene	BDL	0.033	mg/kg	8270C	03/26/10	1
4-Chlorophenyl-phenylether	BDL	0.33	mg/kg	8270C	03/26/10	1
Chrysene	BDL	0.033	mg/kg	8270C	03/26/10	1
Dibenz(a,h)anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
3,3-Dichlorobenzidine	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dinitrotoluene	BDL	0.33	mg/kg	8270C	03/26/10	1
2,6-Dinitrotoluene	BDL	0.33	mg/kg	8270C	03/26/10	1
Fluoranthene	0.081	0.033	mg/kg	8270C	03/26/10	1
Fluorene	BDL	0.033	mg/kg	8270C	03/26/10	1
Hexachlorobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
Hexachloro-1,3-butadiene	BDL	0.33	mg/kg	8270C	03/26/10	1
Hexachlorocyclopentadiene	BDL	0.33	mg/kg	8270C	03/26/10	1
Hexachloroethane	BDL	0.33	mg/kg	8270C	03/26/10	1
Indeno(1,2,3-cd)pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Isophorone	BDL	0.33	mg/kg	8270C	03/26/10	1
Naphthalene	BDL	0.033	mg/kg	8270C	03/26/10	1
Nitrobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodimethylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodiphenylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodi-n-propylamine	BDL	0.33	mg/kg	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Est. 1970

REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28, 2010

ESC Sample # : L450873-01

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : B-1 0-3FT

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 09:43

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Phenanthrene	0.070	0.033	mg/kg	8270C	03/26/10	1
Benzylbutyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-ethylhexyl)phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Di-n-butyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Diethyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Dimethyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Di-n-octyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Pyrene	0.062	0.033	mg/kg	8270C	03/26/10	1
1,2,4-Trichlorobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Chlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dichlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dimethylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
4,6-Dinitro-2-methylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dinitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Nitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
4-Nitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Pentachlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Phenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4,6-Trichlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Surrogate Recovery						
Nitrobenzene-d5	70.9		% Rec.	8270C	03/26/10	1
2-Fluorobiphenyl	84.7		% Rec.	8270C	03/26/10	1
p-Terphenyl-d14	85.2		% Rec.	8270C	03/26/10	1
Phenol-d5	77.9		% Rec.	8270C	03/26/10	1
2-Fluorophenol	79.2		% Rec.	8270C	03/26/10	1
2,4,6-Tribromophenol	91.3		% Rec.	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Reported: 04/01/10 08:20 Revised: 04/28/10 14:44

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28,2010

ESC Sample # : L450873-02

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : B-1 4-6FT

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 10:08

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	0.021	0.020	mg/kg	7471	03/26/10	1
Arsenic	3.1	1.0	mg/kg	6010B	03/27/10	1
Barium	91.	0.25	mg/kg	6010B	03/27/10	1
Cadmium	0.69	0.25	mg/kg	6010B	03/27/10	1
Chromium	23.	0.50	mg/kg	6010B	03/27/10	1
Lead	10.	0.25	mg/kg	6010B	03/27/10	1
Selenium	4.2	1.0	mg/kg	6010B	03/27/10	1
Silver	BDL	0.50	mg/kg	6010B	03/27/10	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Acenaphthylene	BDL	0.033	mg/kg	8270C	03/26/10	1
Anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzidine	BDL	0.33	mg/kg	8270C	03/26/10	1
Benzo(a)anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(b)fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(k)fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(g,h,i)perylene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(a)pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Bis(2-chlorethoxy)methane	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-chloroethyl)ether	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-chloroisopropyl)ether	BDL	0.33	mg/kg	8270C	03/26/10	1
4-Bromophenyl-phenylether	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Chloronaphthalene	BDL	0.033	mg/kg	8270C	03/26/10	1
4-Chlorophenyl-phenylether	BDL	0.33	mg/kg	8270C	03/26/10	1
Chrysene	BDL	0.033	mg/kg	8270C	03/26/10	1
Dibenz(a,h)anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
3,3-Dichlorobenzidine	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dinitrotoluene	BDL	0.33	mg/kg	8270C	03/26/10	1
2,6-Dinitrotoluene	BDL	0.33	mg/kg	8270C	03/26/10	1
Fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Fluorene	BDL	0.033	mg/kg	8270C	03/26/10	1
Hexachlorobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
Hexachloro-1,3-butadiene	BDL	0.33	mg/kg	8270C	03/26/10	1
Hexachlorocyclopentadiene	BDL	0.33	mg/kg	8270C	03/26/10	1
Hexachloroethane	BDL	0.33	mg/kg	8270C	03/26/10	1
Indeno(1,2,3-cd)pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Isophorone	BDL	0.33	mg/kg	8270C	03/26/10	1
Naphthalene	BDL	0.033	mg/kg	8270C	03/26/10	1
Nitrobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodimethylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodiphenylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodi-n-propylamine	BDL	0.33	mg/kg	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Est. 1970

REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28,2010

ESC Sample # : L450873-02

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : B-1 4-6FT

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 10:08

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Phenanthrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzylbutyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-ethylhexyl)phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Di-n-butyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Diethyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Dimethyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Di-n-octyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
1,2,4-Trichlorobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Chlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dichlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dimethylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
4,6-Dinitro-2-methylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dinitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Nitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
4-Nitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Pentachlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Phenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4,6-Trichlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Surrogate Recovery						
Nitrobenzene-d5	68.1		% Rec.	8270C	03/26/10	1
2-Fluorobiphenyl	77.9		% Rec.	8270C	03/26/10	1
p-Terphenyl-d14	77.2		% Rec.	8270C	03/26/10	1
Phenol-d5	71.1		% Rec.	8270C	03/26/10	1
2-Fluorophenol	73.7		% Rec.	8270C	03/26/10	1
2,4,6-Tribromophenol	76.9		% Rec.	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Reported: 04/01/10 08:20 Revised: 04/28/10 14:44

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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28, 2010

ESC Sample # : L450873-03

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : B-1 17FT

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 10:20

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.20	ug/l	7470A	03/26/10	1
Arsenic	49.	20.	ug/l	6010B	03/29/10	1
Barium	460	5.0	ug/l	6010B	03/29/10	1
Cadmium	BDL	5.0	ug/l	6010B	03/29/10	1
Chromium	46.	10.	ug/l	6010B	03/29/10	1
Lead	32.	5.0	ug/l	6010B	03/29/10	1
Selenium	BDL	20.	ug/l	6010B	03/29/10	1
Silver	BDL	10.	ug/l	6010B	03/29/10	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	03/30/10	1
Acrolein	BDL	50.	ug/l	8260B	03/30/10	1
Acrylonitrile	BDL	10.	ug/l	8260B	03/30/10	1
Benzene	BDL	1.0	ug/l	8260B	03/30/10	1
Bromobenzene	BDL	1.0	ug/l	8260B	03/30/10	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	03/30/10	1
Bromoform	BDL	1.0	ug/l	8260B	03/30/10	1
Bromomethane	BDL	5.0	ug/l	8260B	03/30/10	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	03/30/10	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	03/30/10	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	03/30/10	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	03/30/10	1
Chlorobenzene	BDL	1.0	ug/l	8260B	03/30/10	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	03/30/10	1
Chloroethane	BDL	5.0	ug/l	8260B	03/30/10	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	03/30/10	1
Chloroform	BDL	5.0	ug/l	8260B	03/30/10	1
Chloromethane	BDL	2.5	ug/l	8260B	03/30/10	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	03/30/10	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	03/30/10	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	03/30/10	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	03/30/10	1
Dibromomethane	BDL	1.0	ug/l	8260B	03/30/10	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	03/30/10	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	03/30/10	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	03/30/10	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	03/30/10	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	03/30/10	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	03/30/10	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	03/30/10	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	03/30/10	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	03/30/10	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	03/30/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28, 2010

ESC Sample # : L450873-03

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : B-1 17FT

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 10:20

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	03/30/10	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	03/30/10	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	03/30/10	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	03/30/10	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	03/30/10	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	03/30/10	1
Ethylbenzene	BDL	1.0	ug/l	8260B	03/30/10	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	03/30/10	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	03/30/10	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	03/30/10	1
2-Butanone (MEK)	BDL	10.	ug/l	8260B	03/30/10	1
Methylene Chloride	BDL	5.0	ug/l	8260B	03/30/10	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	03/30/10	1
Methyl tert-butyl ether	12.	1.0	ug/l	8260B	03/30/10	1
Naphthalene	BDL	5.0	ug/l	8260B	03/30/10	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	03/30/10	1
Styrene	BDL	1.0	ug/l	8260B	03/30/10	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	03/30/10	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	03/30/10	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	1.0	ug/l	8260B	03/30/10	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	03/30/10	1
Toluene	BDL	5.0	ug/l	8260B	03/30/10	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	03/30/10	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	03/30/10	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	03/30/10	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	03/30/10	1
Trichloroethene	BDL	1.0	ug/l	8260B	03/30/10	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	03/30/10	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	03/30/10	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	03/30/10	1
1,2,3-Trimethylbenzene	BDL	1.0	ug/l	8260B	03/30/10	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	03/30/10	1
Vinyl chloride	BDL	1.0	ug/l	8260B	03/30/10	1
Xylenes, Total	BDL	3.0	ug/l	8260B	03/30/10	1
Surrogate Recovery						
Toluene-d8	97.5		% Rec.	8260B	03/30/10	1
Dibromofluoromethane	105.		% Rec.	8260B	03/30/10	1
4-Bromofluorobenzene	85.2		% Rec.	8260B	03/30/10	1
Base/Neutral Extractables						
Acenaphthene	BDL	1.0	ug/l	8270C	03/26/10	1
Acenaphthylene	BDL	1.0	ug/l	8270C	03/26/10	1
Anthracene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzidine	BDL	10.	ug/l	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28, 2010

ESC Sample # : L450873-03

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : B-1 17FT

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 10:20

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo(a)anthracene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzo(b)fluoranthene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzo(k)fluoranthene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzo(g,h,i)perylene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzo(a)pyrene	BDL	1.0	ug/l	8270C	03/26/10	1
Bis(2-chlorethoxy)methane	BDL	10.	ug/l	8270C	03/26/10	1
Bis(2-chloroethyl)ether	BDL	10.	ug/l	8270C	03/26/10	1
Bis(2-chloroisopropyl)ether	BDL	10.	ug/l	8270C	03/26/10	1
4-Bromophenyl-phenylether	BDL	10.	ug/l	8270C	03/26/10	1
2-Chloronaphthalene	BDL	1.0	ug/l	8270C	03/26/10	1
4-Chlorophenyl-phenylether	BDL	10.	ug/l	8270C	03/26/10	1
Chrysene	BDL	1.0	ug/l	8270C	03/26/10	1
Dibenz(a,h)anthracene	BDL	1.0	ug/l	8270C	03/26/10	1
3,3-Dichlorobenzidine	BDL	10.	ug/l	8270C	03/26/10	1
2,4-Dinitrotoluene	BDL	10.	ug/l	8270C	03/26/10	1
2,6-Dinitrotoluene	BDL	10.	ug/l	8270C	03/26/10	1
Fluoranthene	BDL	1.0	ug/l	8270C	03/26/10	1
Fluorene	BDL	1.0	ug/l	8270C	03/26/10	1
Hexachlorobenzene	BDL	1.0	ug/l	8270C	03/26/10	1
Hexachloro-1,3-butadiene	BDL	10.	ug/l	8270C	03/26/10	1
Hexachlorocyclopentadiene	BDL	10.	ug/l	8270C	03/26/10	1
Hexachloroethane	BDL	10.	ug/l	8270C	03/26/10	1
Indeno(1,2,3-cd)pyrene	BDL	1.0	ug/l	8270C	03/26/10	1
Isophorone	BDL	10.	ug/l	8270C	03/26/10	1
Naphthalene	BDL	1.0	ug/l	8270C	03/26/10	1
Nitrobenzene	BDL	10.	ug/l	8270C	03/26/10	1
n-Nitrosodimethylamine	BDL	10.	ug/l	8270C	03/26/10	1
n-Nitrosodiphenylamine	BDL	10.	ug/l	8270C	03/26/10	1
n-Nitrosodi-n-propylamine	BDL	10.	ug/l	8270C	03/26/10	1
Phenanthrene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzylbutyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Bis(2-ethylhexyl)phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Di-n-butyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Diethyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Dimethyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Di-n-octyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Pyrene	BDL	1.0	ug/l	8270C	03/26/10	1
1,2,4-Trichlorobenzene	BDL	10.	ug/l	8270C	03/26/10	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	10.	ug/l	8270C	03/26/10	1
2-Chlorophenol	BDL	10.	ug/l	8270C	03/26/10	1
2,4-Dichlorophenol	BDL	10.	ug/l	8270C	03/26/10	1
2,4-Dimethylphenol	BDL	10.	ug/l	8270C	03/26/10	1
4,6-Dinitro-2-methylphenol	BDL	10.	ug/l	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28, 2010

ESC Sample # : L450873-03

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : B-1 17FT

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 10:20

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2,4-Dinitrophenol	BDL	10.	ug/l	8270C	03/26/10	1
2-Nitrophenol	BDL	10.	ug/l	8270C	03/26/10	1
4-Nitrophenol	BDL	10.	ug/l	8270C	03/26/10	1
Pentachlorophenol	BDL	10.	ug/l	8270C	03/26/10	1
Phenol	BDL	10.	ug/l	8270C	03/26/10	1
2,4,6-Trichlorophenol	BDL	10.	ug/l	8270C	03/26/10	1
Surrogate Recovery						
2-Fluorophenol	51.3		% Rec.	8270C	03/26/10	1
Phenol-d5	36.8		% Rec.	8270C	03/26/10	1
Nitrobenzene-d5	76.4		% Rec.	8270C	03/26/10	1
2-Fluorobiphenyl	77.6		% Rec.	8270C	03/26/10	1
2,4,6-Tribromophenol	107.		% Rec.	8270C	03/26/10	1
p-Terphenyl-d14	88.5		% Rec.	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Reported: 04/01/10 08:20 Revised: 04/28/10 14:44

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28, 2010

ESC Sample # : L450873-04

Site ID :

Project # : 03067060

Date Received : March 25, 2010
Description : Berry Bearing

Sample ID : B-2 0-3FT

Collected By : Jay Fegley
Collection Date : 03/23/10 11:20

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.020	mg/kg	7471	03/26/10	1
Arsenic	3.0	1.0	mg/kg	6010B	03/27/10	1
Barium	65.	0.25	mg/kg	6010B	03/27/10	1
Cadmium	0.43	0.25	mg/kg	6010B	03/27/10	1
Chromium	13.	0.50	mg/kg	6010B	03/27/10	1
Lead	12.	0.25	mg/kg	6010B	03/27/10	1
Selenium	2.8	1.0	mg/kg	6010B	03/27/10	1
Silver	BDL	0.50	mg/kg	6010B	03/27/10	1
Benzene	BDL	0.0010	mg/kg	8260B	03/29/10	1
Toluene	BDL	0.0050	mg/kg	8260B	03/29/10	1
Ethylbenzene	BDL	0.0010	mg/kg	8260B	03/29/10	1
Total Xylenes	BDL	0.0030	mg/kg	8260B	03/29/10	1
Surrogate Recovery						
Toluene-d8	88.7		% Rec.	8260B	03/29/10	1
Dibromofluoromethane	105.		% Rec.	8260B	03/29/10	1
4-Bromofluorobenzene	49.4		% Rec.	8260B	03/29/10	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Acenaphthylene	BDL	0.033	mg/kg	8270C	03/26/10	1
Anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzidine	BDL	0.33	mg/kg	8270C	03/26/10	1
Benzo(a)anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(b)fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(k)fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(g,h,i)perylene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(a)pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Bis(2-chlorethoxy)methane	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-chloroethyl)ether	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-chloroisopropyl)ether	BDL	0.33	mg/kg	8270C	03/26/10	1
4-Bromophenyl-phenylether	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Chloronaphthalene	BDL	0.033	mg/kg	8270C	03/26/10	1
4-Chlorophenyl-phenylether	BDL	0.33	mg/kg	8270C	03/26/10	1
Chrysene	BDL	0.033	mg/kg	8270C	03/26/10	1
Dibenz(a,h)anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
3,3-Dichlorobenzidine	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dinitrotoluene	BDL	0.33	mg/kg	8270C	03/26/10	1
2,6-Dinitrotoluene	BDL	0.33	mg/kg	8270C	03/26/10	1
Fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Fluorene	BDL	0.033	mg/kg	8270C	03/26/10	1
Hexachlorobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
Hexachloro-1,3-butadiene	BDL	0.33	mg/kg	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28, 2010

ESC Sample # : L450873-04

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : B-2 0-3FT

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 11:20

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Hexachlorocyclopentadiene	BDL	0.33	mg/kg	8270C	03/26/10	1
Hexachloroethane	BDL	0.33	mg/kg	8270C	03/26/10	1
Indeno(1,2,3-cd)pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Isophorone	BDL	0.33	mg/kg	8270C	03/26/10	1
Naphthalene	BDL	0.033	mg/kg	8270C	03/26/10	1
Nitrobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodimethylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodiphenylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodi-n-propylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
Phenanthrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzylbutyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-ethylhexyl)phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Di-n-butyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Diethyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Dimethyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Di-n-octyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
1,2,4-Trichlorobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Chlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dichlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dimethylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
4,6-Dinitro-2-methylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dinitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Nitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
4-Nitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Pentachlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Phenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4,6-Trichlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Surrogate Recovery						
Nitrobenzene-d5	74.5		% Rec.	8270C	03/26/10	1
2-Fluorobiphenyl	80.7		% Rec.	8270C	03/26/10	1
p-Terphenyl-d14	79.7		% Rec.	8270C	03/26/10	1
Phenol-d5	80.8		% Rec.	8270C	03/26/10	1
2-Fluorophenol	82.0		% Rec.	8270C	03/26/10	1
2,4,6-Tribromophenol	90.0		% Rec.	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28,2010

ESC Sample # : L450873-05

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : B-2 5-7FT

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 11:55

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.020	mg/kg	7471	03/26/10	1
Arsenic	2.9	1.0	mg/kg	6010B	03/27/10	1
Barium	69.	0.25	mg/kg	6010B	03/27/10	1
Cadmium	0.71	0.25	mg/kg	6010B	03/27/10	1
Chromium	21.	0.50	mg/kg	6010B	03/27/10	1
Lead	8.1	0.25	mg/kg	6010B	03/27/10	1
Selenium	4.0	1.0	mg/kg	6010B	03/27/10	1
Silver	BDL	0.50	mg/kg	6010B	03/27/10	1
Benzene	BDL	0.0010	mg/kg	8260B	03/29/10	1
Toluene	BDL	0.0050	mg/kg	8260B	03/29/10	1
Ethylbenzene	BDL	0.0010	mg/kg	8260B	03/29/10	1
Total Xylenes	BDL	0.0030	mg/kg	8260B	03/29/10	1
Surrogate Recovery						
Toluene-d8	95.3		% Rec.	8260B	03/29/10	1
Dibromofluoromethane	101.		% Rec.	8260B	03/29/10	1
4-Bromofluorobenzene	91.7		% Rec.	8260B	03/29/10	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Acenaphthylene	BDL	0.033	mg/kg	8270C	03/26/10	1
Anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzidine	BDL	0.33	mg/kg	8270C	03/26/10	1
Benzo(a)anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(b)fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(k)fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(g,h,i)perylene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(a)pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Bis(2-chlorethoxy)methane	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-chloroethyl)ether	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-chloroisopropyl)ether	BDL	0.33	mg/kg	8270C	03/26/10	1
4-Bromophenyl-phenylether	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Chloronaphthalene	BDL	0.033	mg/kg	8270C	03/26/10	1
4-Chlorophenyl-phenylether	BDL	0.33	mg/kg	8270C	03/26/10	1
Chrysene	BDL	0.033	mg/kg	8270C	03/26/10	1
Dibenz(a,h)anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
3,3-Dichlorobenzidine	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dinitrotoluene	BDL	0.33	mg/kg	8270C	03/26/10	1
2,6-Dinitrotoluene	BDL	0.33	mg/kg	8270C	03/26/10	1
Fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Fluorene	BDL	0.033	mg/kg	8270C	03/26/10	1
Hexachlorobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
Hexachloro-1,3-butadiene	BDL	0.33	mg/kg	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28,2010

ESC Sample # : L450873-05

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : B-2 5-7FT

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 11:55

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Hexachlorocyclopentadiene	BDL	0.33	mg/kg	8270C	03/26/10	1
Hexachloroethane	BDL	0.33	mg/kg	8270C	03/26/10	1
Indeno(1,2,3-cd)pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Isophorone	BDL	0.33	mg/kg	8270C	03/26/10	1
Naphthalene	BDL	0.033	mg/kg	8270C	03/26/10	1
Nitrobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodimethylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodiphenylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodi-n-propylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
Phenanthrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzylbutyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-ethylhexyl)phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Di-n-butyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Diethyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Dimethyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Di-n-octyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
1,2,4-Trichlorobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Chlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dichlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dimethylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
4,6-Dinitro-2-methylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dinitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Nitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
4-Nitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Pentachlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Phenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4,6-Trichlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Surrogate Recovery						
Nitrobenzene-d5	71.8		% Rec.	8270C	03/26/10	1
2-Fluorobiphenyl	82.0		% Rec.	8270C	03/26/10	1
p-Terphenyl-d14	80.0		% Rec.	8270C	03/26/10	1
Phenol-d5	76.5		% Rec.	8270C	03/26/10	1
2-Fluorophenol	77.5		% Rec.	8270C	03/26/10	1
2,4,6-Tribromophenol	80.4		% Rec.	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28, 2010

ESC Sample # : L450873-06

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : B-2 17FT

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 16:15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.20	ug/l	7470A	03/26/10	1
Arsenic	120	20.	ug/l	6010B	03/29/10	1
Barium	920	5.0	ug/l	6010B	03/29/10	1
Cadmium	BDL	5.0	ug/l	6010B	03/29/10	1
Chromium	140	10.	ug/l	6010B	03/29/10	1
Lead	98.	5.0	ug/l	6010B	03/29/10	1
Selenium	BDL	20.	ug/l	6010B	03/29/10	1
Silver	BDL	10.	ug/l	6010B	03/29/10	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/01/10	1
Acrolein	BDL	50.	ug/l	8260B	04/01/10	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/01/10	1
Benzene	BDL	1.0	ug/l	8260B	04/01/10	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/01/10	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/01/10	1
Bromoform	BDL	1.0	ug/l	8260B	04/01/10	1
Bromomethane	BDL	5.0	ug/l	8260B	04/01/10	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/01/10	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/01/10	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/01/10	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/01/10	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/01/10	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/01/10	1
Chloroethane	BDL	5.0	ug/l	8260B	04/01/10	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/01/10	1
Chloroform	BDL	5.0	ug/l	8260B	04/01/10	1
Chloromethane	BDL	2.5	ug/l	8260B	04/01/10	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/01/10	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/01/10	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/01/10	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/01/10	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/01/10	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/01/10	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/01/10	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/01/10	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/01/10	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/01/10	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/01/10	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/01/10	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/01/10	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/01/10	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/01/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L450873-06 (SV8270BNA) - Dilution due to matrix

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28, 2010

ESC Sample # : L450873-06

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : B-2 17FT

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 16:15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/01/10	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/01/10	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/01/10	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/01/10	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/01/10	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/01/10	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/01/10	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/01/10	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/01/10	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/01/10	1
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/01/10	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/01/10	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/01/10	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/01/10	1
Naphthalene	BDL	5.0	ug/l	8260B	04/01/10	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/01/10	1
Styrene	BDL	1.0	ug/l	8260B	04/01/10	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/01/10	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/01/10	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	1.0	ug/l	8260B	04/01/10	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/01/10	1
Toluene	BDL	5.0	ug/l	8260B	04/01/10	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/01/10	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/01/10	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/01/10	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/01/10	1
Trichloroethene	BDL	1.0	ug/l	8260B	04/01/10	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/01/10	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	04/01/10	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/01/10	1
1,2,3-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/01/10	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/01/10	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/01/10	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/01/10	1
Surrogate Recovery						
Toluene-d8	96.1		% Rec.	8260B	04/01/10	1
Dibromofluoromethane	112.		% Rec.	8260B	04/01/10	1
4-Bromofluorobenzene	75.2		% Rec.	8260B	04/01/10	1
Base/Neutral Extractables						
Acenaphthene	42.	22.	ug/l	8270C	03/29/10	22.2
Acenaphthylene	BDL	22.	ug/l	8270C	03/29/10	22.2
Anthracene	69.	22.	ug/l	8270C	03/29/10	22.2
Benzidine	BDL	220	ug/l	8270C	03/29/10	22.2

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L450873-06 (SV8270BNA) - Dilution due to matrix

12065 Lebanon Rd.
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(615) 758-5858
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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28, 2010

ESC Sample # : L450873-06

Site ID :

Project # : 03067060

Date Received : March 25, 2010
Description : Berry Bearing

Sample ID : B-2 17FT

Collected By : Jay Fegley
Collection Date : 03/23/10 16:15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo(a)anthracene	BDL	22.	ug/l	8270C	03/29/10	22.2
Benzo(b)fluoranthene	BDL	22.	ug/l	8270C	03/29/10	22.2
Benzo(k)fluoranthene	BDL	22.	ug/l	8270C	03/29/10	22.2
Benzo(g,h,i)perylene	BDL	22.	ug/l	8270C	03/29/10	22.2
Benzo(a)pyrene	BDL	22.	ug/l	8270C	03/29/10	22.2
Bis(2-chlorethoxy)methane	BDL	220	ug/l	8270C	03/29/10	22.2
Bis(2-chloroethyl)ether	BDL	220	ug/l	8270C	03/29/10	22.2
Bis(2-chloroisopropyl)ether	BDL	220	ug/l	8270C	03/29/10	22.2
4-Bromophenyl-phenylether	BDL	220	ug/l	8270C	03/29/10	22.2
2-Chloronaphthalene	BDL	22.	ug/l	8270C	03/29/10	22.2
4-Chlorophenyl-phenylether	BDL	220	ug/l	8270C	03/29/10	22.2
Chrysene	BDL	22.	ug/l	8270C	03/29/10	22.2
Dibenz(a,h)anthracene	BDL	22.	ug/l	8270C	03/29/10	22.2
3,3-Dichlorobenzidine	BDL	220	ug/l	8270C	03/29/10	22.2
2,4-Dinitrotoluene	BDL	220	ug/l	8270C	03/29/10	22.2
2,6-Dinitrotoluene	BDL	220	ug/l	8270C	03/29/10	22.2
Fluoranthene	BDL	22.	ug/l	8270C	03/29/10	22.2
Fluorene	52.	22.	ug/l	8270C	03/29/10	22.2
Hexachlorobenzene	BDL	22.	ug/l	8270C	03/29/10	22.2
Hexachloro-1,3-butadiene	BDL	220	ug/l	8270C	03/29/10	22.2
Hexachlorocyclopentadiene	BDL	220	ug/l	8270C	03/29/10	22.2
Hexachloroethane	BDL	220	ug/l	8270C	03/29/10	22.2
Indeno(1,2,3-cd)pyrene	BDL	22.	ug/l	8270C	03/29/10	22.2
Isophorone	BDL	220	ug/l	8270C	03/29/10	22.2
Naphthalene	BDL	22.	ug/l	8270C	03/29/10	22.2
Nitrobenzene	BDL	220	ug/l	8270C	03/29/10	22.2
n-Nitrosodimethylamine	BDL	220	ug/l	8270C	03/29/10	22.2
n-Nitrosodiphenylamine	BDL	220	ug/l	8270C	03/29/10	22.2
n-Nitrosodi-n-propylamine	BDL	220	ug/l	8270C	03/29/10	22.2
Phenanthrene	24.	22.	ug/l	8270C	03/29/10	22.2
Benzylbutyl phthalate	BDL	22.	ug/l	8270C	03/29/10	22.2
Bis(2-ethylhexyl)phthalate	BDL	22.	ug/l	8270C	03/29/10	22.2
Di-n-butyl phthalate	BDL	22.	ug/l	8270C	03/29/10	22.2
Diethyl phthalate	BDL	22.	ug/l	8270C	03/29/10	22.2
Dimethyl phthalate	BDL	22.	ug/l	8270C	03/29/10	22.2
Di-n-octyl phthalate	BDL	22.	ug/l	8270C	03/29/10	22.2
Pyrene	BDL	22.	ug/l	8270C	03/29/10	22.2
1,2,4-Trichlorobenzene	BDL	220	ug/l	8270C	03/29/10	22.2
Acid Extractables						
4-Chloro-3-methylphenol	BDL	220	ug/l	8270C	03/29/10	22.2
2-Chlorophenol	BDL	220	ug/l	8270C	03/29/10	22.2
2,4-Dichlorophenol	BDL	220	ug/l	8270C	03/29/10	22.2
2,4-Dimethylphenol	BDL	220	ug/l	8270C	03/29/10	22.2
4,6-Dinitro-2-methylphenol	BDL	220	ug/l	8270C	03/29/10	22.2

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L450873-06 (SV8270BNA) - Dilution due to matrix

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(615) 758-5858
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28, 2010

ESC Sample # : L450873-06

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : B-2 17FT

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 16:15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2,4-Dinitrophenol	BDL	220	ug/l	8270C	03/29/10	22.2
2-Nitrophenol	BDL	220	ug/l	8270C	03/29/10	22.2
4-Nitrophenol	BDL	220	ug/l	8270C	03/29/10	22.2
Pentachlorophenol	BDL	220	ug/l	8270C	03/29/10	22.2
Phenol	BDL	220	ug/l	8270C	03/29/10	22.2
2,4,6-Trichlorophenol	BDL	220	ug/l	8270C	03/29/10	22.2
Surrogate Recovery						
2-Fluorophenol	0.00		% Rec.	8270C	03/29/10	22.2
Phenol-d5	0.00		% Rec.	8270C	03/29/10	22.2
Nitrobenzene-d5	0.00		% Rec.	8270C	03/29/10	22.2
2-Fluorobiphenyl	0.00		% Rec.	8270C	03/29/10	22.2
2,4,6-Tribromophenol	0.00		% Rec.	8270C	03/29/10	22.2
p-Terphenyl-d14	0.00		% Rec.	8270C	03/29/10	22.2

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Reported: 04/01/10 08:20 Revised: 04/28/10 14:45
L450873-06 (SV8270BNA) - Dilution due to matrix

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28, 2010

ESC Sample # : L450873-07

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : B-4 0-3FT

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 12:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.020	mg/kg	7471	03/27/10	1
Arsenic	3.0	1.0	mg/kg	6010B	03/27/10	1
Barium	74.	0.25	mg/kg	6010B	03/27/10	1
Cadmium	0.66	0.25	mg/kg	6010B	03/27/10	1
Chromium	19.	0.50	mg/kg	6010B	03/27/10	1
Lead	9.7	0.25	mg/kg	6010B	03/27/10	1
Selenium	4.1	1.0	mg/kg	6010B	03/27/10	1
Silver	BDL	0.50	mg/kg	6010B	03/27/10	1
Benzene	BDL	0.0010	mg/kg	8260B	03/29/10	1
Toluene	BDL	0.0050	mg/kg	8260B	03/29/10	1
Ethylbenzene	BDL	0.0010	mg/kg	8260B	03/29/10	1
Total Xylenes	BDL	0.0030	mg/kg	8260B	03/29/10	1
Surrogate Recovery						
Toluene-d8	94.2		% Rec.	8260B	03/29/10	1
Dibromofluoromethane	107.		% Rec.	8260B	03/29/10	1
4-Bromofluorobenzene	95.9		% Rec.	8260B	03/29/10	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Acenaphthylene	BDL	0.033	mg/kg	8270C	03/26/10	1
Anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzidine	BDL	0.33	mg/kg	8270C	03/26/10	1
Benzo(a)anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(b)fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(k)fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(g,h,i)perylene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(a)pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Bis(2-chlorethoxy)methane	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-chloroethyl)ether	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-chloroisopropyl)ether	BDL	0.33	mg/kg	8270C	03/26/10	1
4-Bromophenyl-phenylether	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Chloronaphthalene	BDL	0.033	mg/kg	8270C	03/26/10	1
4-Chlorophenyl-phenylether	BDL	0.33	mg/kg	8270C	03/26/10	1
Chrysene	BDL	0.033	mg/kg	8270C	03/26/10	1
Dibenz(a,h)anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
3,3-Dichlorobenzidine	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dinitrotoluene	BDL	0.33	mg/kg	8270C	03/26/10	1
2,6-Dinitrotoluene	BDL	0.33	mg/kg	8270C	03/26/10	1
Fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Fluorene	BDL	0.033	mg/kg	8270C	03/26/10	1
Hexachlorobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
Hexachloro-1,3-butadiene	BDL	0.33	mg/kg	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Est. 1970

REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28, 2010

ESC Sample # : L450873-07

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : B-4 0-3FT

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 12:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Hexachlorocyclopentadiene	BDL	0.33	mg/kg	8270C	03/26/10	1
Hexachloroethane	BDL	0.33	mg/kg	8270C	03/26/10	1
Indeno(1,2,3-cd)pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Isophorone	BDL	0.33	mg/kg	8270C	03/26/10	1
Naphthalene	BDL	0.033	mg/kg	8270C	03/26/10	1
Nitrobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodimethylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodiphenylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodi-n-propylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
Phenanthrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzylbutyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-ethylhexyl)phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Di-n-butyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Diethyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Dimethyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Di-n-octyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
1,2,4-Trichlorobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Chlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dichlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dimethylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
4,6-Dinitro-2-methylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dinitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Nitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
4-Nitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Pentachlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Phenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4,6-Trichlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Surrogate Recovery						
Nitrobenzene-d5	65.3		% Rec.	8270C	03/26/10	1
2-Fluorobiphenyl	75.3		% Rec.	8270C	03/26/10	1
p-Terphenyl-d14	75.4		% Rec.	8270C	03/26/10	1
Phenol-d5	70.4		% Rec.	8270C	03/26/10	1
2-Fluorophenol	60.9		% Rec.	8270C	03/26/10	1
2,4,6-Tribromophenol	45.7		% Rec.	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Reported: 04/01/10 08:20 Revised: 04/28/10 14:45

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28,2010

ESC Sample # : L450873-08

Site ID :

Project # : 03067060

Date Received : March 25, 2010
Description : Berry Bearing

Sample ID : B-4 8-10FT

Collected By : Jay Fegley
Collection Date : 03/23/10 12:58

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.020	mg/kg	7471	03/27/10	1
Arsenic	2.6	1.0	mg/kg	6010B	03/27/10	1
Barium	69.	0.25	mg/kg	6010B	03/27/10	1
Cadmium	0.56	0.25	mg/kg	6010B	03/27/10	1
Chromium	18.	0.50	mg/kg	6010B	03/27/10	1
Lead	7.6	0.25	mg/kg	6010B	03/27/10	1
Selenium	3.1	1.0	mg/kg	6010B	03/27/10	1
Silver	BDL	0.50	mg/kg	6010B	03/27/10	1
Benzene	0.0011	0.0010	mg/kg	8260B	03/29/10	1
Toluene	BDL	0.0050	mg/kg	8260B	03/29/10	1
Ethylbenzene	BDL	0.0010	mg/kg	8260B	03/29/10	1
Total Xylenes	BDL	0.0030	mg/kg	8260B	03/29/10	1
Surrogate Recovery						
Toluene-d8	95.9		% Rec.	8260B	03/29/10	1
Dibromofluoromethane	106.		% Rec.	8260B	03/29/10	1
4-Bromofluorobenzene	91.7		% Rec.	8260B	03/29/10	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Acenaphthylene	BDL	0.033	mg/kg	8270C	03/26/10	1
Anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzidine	BDL	0.33	mg/kg	8270C	03/26/10	1
Benzo(a)anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(b)fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(k)fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(g,h,i)perylene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(a)pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Bis(2-chlorethoxy)methane	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-chloroethyl)ether	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-chloroisopropyl)ether	BDL	0.33	mg/kg	8270C	03/26/10	1
4-Bromophenyl-phenylether	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Chloronaphthalene	BDL	0.033	mg/kg	8270C	03/26/10	1
4-Chlorophenyl-phenylether	BDL	0.33	mg/kg	8270C	03/26/10	1
Chrysene	BDL	0.033	mg/kg	8270C	03/26/10	1
Dibenz(a,h)anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
3,3-Dichlorobenzidine	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dinitrotoluene	BDL	0.33	mg/kg	8270C	03/26/10	1
2,6-Dinitrotoluene	BDL	0.33	mg/kg	8270C	03/26/10	1
Fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Fluorene	BDL	0.033	mg/kg	8270C	03/26/10	1
Hexachlorobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
Hexachloro-1,3-butadiene	BDL	0.33	mg/kg	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Est. 1970

REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28,2010

ESC Sample # : L450873-08

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : B-4 8-10FT

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 12:58

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Hexachlorocyclopentadiene	BDL	0.33	mg/kg	8270C	03/26/10	1
Hexachloroethane	BDL	0.33	mg/kg	8270C	03/26/10	1
Indeno(1,2,3-cd)pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Isophorone	BDL	0.33	mg/kg	8270C	03/26/10	1
Naphthalene	BDL	0.033	mg/kg	8270C	03/26/10	1
Nitrobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodimethylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodiphenylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodi-n-propylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
Phenanthrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzylbutyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-ethylhexyl)phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Di-n-butyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Diethyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Dimethyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Di-n-octyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
1,2,4-Trichlorobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Chlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dichlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dimethylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
4,6-Dinitro-2-methylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dinitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Nitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
4-Nitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Pentachlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Phenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4,6-Trichlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Surrogate Recovery						
Nitrobenzene-d5	67.0		% Rec.	8270C	03/26/10	1
2-Fluorobiphenyl	77.4		% Rec.	8270C	03/26/10	1
p-Terphenyl-d14	82.5		% Rec.	8270C	03/26/10	1
Phenol-d5	76.3		% Rec.	8270C	03/26/10	1
2-Fluorophenol	75.8		% Rec.	8270C	03/26/10	1
2,4,6-Tribromophenol	87.0		% Rec.	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28, 2010

ESC Sample # : L450873-09

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : B-4 18FT

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 13:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.20	ug/l	7470A	03/26/10	1
Arsenic	68.	20.	ug/l	6010B	03/29/10	1
Barium	990	5.0	ug/l	6010B	03/29/10	1
Cadmium	BDL	5.0	ug/l	6010B	03/29/10	1
Chromium	73.	10.	ug/l	6010B	03/29/10	1
Lead	73.	5.0	ug/l	6010B	03/29/10	1
Selenium	BDL	20.	ug/l	6010B	03/29/10	1
Silver	BDL	10.	ug/l	6010B	03/29/10	1
Benzene	3.2	1.0	ug/l	8260B	03/30/10	1
Toluene	BDL	5.0	ug/l	8260B	03/30/10	1
Ethylbenzene	BDL	1.0	ug/l	8260B	03/30/10	1
Total Xylenes	BDL	3.0	ug/l	8260B	03/30/10	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	03/30/10	1
Dibromofluoromethane	106.		% Rec.	8260B	03/30/10	1
4-Bromofluorobenzene	99.1		% Rec.	8260B	03/30/10	1
Base/Neutral Extractables						
Acenaphthene	BDL	1.0	ug/l	8270C	03/26/10	1
Acenaphthylene	BDL	1.0	ug/l	8270C	03/26/10	1
Anthracene	3.8	1.0	ug/l	8270C	03/26/10	1
Benzidine	BDL	10.	ug/l	8270C	03/26/10	1
Benzo(a)anthracene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzo(b)fluoranthene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzo(k)fluoranthene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzo(g,h,i)perylene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzo(a)pyrene	BDL	1.0	ug/l	8270C	03/26/10	1
Bis(2-chlorethoxy)methane	BDL	10.	ug/l	8270C	03/26/10	1
Bis(2-chloroethyl)ether	BDL	10.	ug/l	8270C	03/26/10	1
Bis(2-chloroisopropyl)ether	BDL	10.	ug/l	8270C	03/26/10	1
4-Bromophenyl-phenylether	BDL	10.	ug/l	8270C	03/26/10	1
2-Chloronaphthalene	BDL	1.0	ug/l	8270C	03/26/10	1
4-Chlorophenyl-phenylether	BDL	10.	ug/l	8270C	03/26/10	1
Chrysene	BDL	1.0	ug/l	8270C	03/26/10	1
Dibenz(a,h)anthracene	BDL	1.0	ug/l	8270C	03/26/10	1
3,3-Dichlorobenzidine	BDL	10.	ug/l	8270C	03/26/10	1
2,4-Dinitrotoluene	BDL	10.	ug/l	8270C	03/26/10	1
2,6-Dinitrotoluene	BDL	10.	ug/l	8270C	03/26/10	1
Fluoranthene	BDL	1.0	ug/l	8270C	03/26/10	1
Fluorene	BDL	1.0	ug/l	8270C	03/26/10	1
Hexachlorobenzene	BDL	1.0	ug/l	8270C	03/26/10	1
Hexachloro-1,3-butadiene	BDL	10.	ug/l	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28, 2010

ESC Sample # : L450873-09

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : B-4 18FT

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 13:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Hexachlorocyclopentadiene	BDL	10.	ug/l	8270C	03/26/10	1
Hexachloroethane	BDL	10.	ug/l	8270C	03/26/10	1
Indeno(1,2,3-cd)pyrene	BDL	1.0	ug/l	8270C	03/26/10	1
Isophorone	BDL	10.	ug/l	8270C	03/26/10	1
Naphthalene	BDL	1.0	ug/l	8270C	03/26/10	1
Nitrobenzene	BDL	10.	ug/l	8270C	03/26/10	1
n-Nitrosodimethylamine	BDL	10.	ug/l	8270C	03/26/10	1
n-Nitrosodiphenylamine	BDL	10.	ug/l	8270C	03/26/10	1
n-Nitrosodi-n-propylamine	BDL	10.	ug/l	8270C	03/26/10	1
Phenanthrene	2.6	1.0	ug/l	8270C	03/26/10	1
Benzylbutyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Bis(2-ethylhexyl)phthalate	1.0	1.0	ug/l	8270C	03/26/10	1
Di-n-butyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Diethyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Dimethyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Di-n-octyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Pyrene	BDL	1.0	ug/l	8270C	03/26/10	1
1,2,4-Trichlorobenzene	BDL	10.	ug/l	8270C	03/26/10	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	10.	ug/l	8270C	03/26/10	1
2-Chlorophenol	BDL	10.	ug/l	8270C	03/26/10	1
2,4-Dichlorophenol	BDL	10.	ug/l	8270C	03/26/10	1
2,4-Dimethylphenol	BDL	10.	ug/l	8270C	03/26/10	1
4,6-Dinitro-2-methylphenol	BDL	10.	ug/l	8270C	03/26/10	1
2,4-Dinitrophenol	BDL	10.	ug/l	8270C	03/26/10	1
2-Nitrophenol	BDL	10.	ug/l	8270C	03/26/10	1
4-Nitrophenol	BDL	10.	ug/l	8270C	03/26/10	1
Pentachlorophenol	BDL	10.	ug/l	8270C	03/26/10	1
Phenol	BDL	10.	ug/l	8270C	03/26/10	1
2,4,6-Trichlorophenol	BDL	10.	ug/l	8270C	03/26/10	1
Surrogate Recovery						
2-Fluorophenol	59.4		% Rec.	8270C	03/26/10	1
Phenol-d5	45.7		% Rec.	8270C	03/26/10	1
Nitrobenzene-d5	84.9		% Rec.	8270C	03/26/10	1
2-Fluorobiphenyl	78.6		% Rec.	8270C	03/26/10	1
2,4,6-Tribromophenol	105.		% Rec.	8270C	03/26/10	1
p-Terphenyl-d14	95.9		% Rec.	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28, 2010

ESC Sample # : L450873-10

Site ID :

Project # : 03067060

Date Received : March 25, 2010
Description : Berry Bearing

Sample ID : B-5 0-3FT

Collected By : Jay Fegley
Collection Date : 03/23/10 14:27

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.020	mg/kg	7471	03/27/10	1
Arsenic	1.8	1.0	mg/kg	6010B	03/27/10	1
Barium	58.	0.25	mg/kg	6010B	03/27/10	1
Cadmium	0.50	0.25	mg/kg	6010B	03/27/10	1
Chromium	17.	0.50	mg/kg	6010B	03/27/10	1
Lead	16.	0.25	mg/kg	6010B	03/27/10	1
Selenium	3.6	1.0	mg/kg	6010B	03/27/10	1
Silver	BDL	0.50	mg/kg	6010B	03/27/10	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Acenaphthylene	BDL	0.033	mg/kg	8270C	03/26/10	1
Anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzidine	BDL	0.33	mg/kg	8270C	03/26/10	1
Benzo(a)anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(b)fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(k)fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(g,h,i)perylene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(a)pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Bis(2-chlorethoxy)methane	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-chloroethyl)ether	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-chloroisopropyl)ether	BDL	0.33	mg/kg	8270C	03/26/10	1
4-Bromophenyl-phenylether	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Chloronaphthalene	BDL	0.033	mg/kg	8270C	03/26/10	1
4-Chlorophenyl-phenylether	BDL	0.33	mg/kg	8270C	03/26/10	1
Chrysene	BDL	0.033	mg/kg	8270C	03/26/10	1
Dibenz(a,h)anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
3,3-Dichlorobenzidine	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dinitrotoluene	BDL	0.33	mg/kg	8270C	03/26/10	1
2,6-Dinitrotoluene	BDL	0.33	mg/kg	8270C	03/26/10	1
Fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Fluorene	BDL	0.033	mg/kg	8270C	03/26/10	1
Hexachlorobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
Hexachloro-1,3-butadiene	BDL	0.33	mg/kg	8270C	03/26/10	1
Hexachlorocyclopentadiene	BDL	0.33	mg/kg	8270C	03/26/10	1
Hexachloroethane	BDL	0.33	mg/kg	8270C	03/26/10	1
Indeno(1,2,3-cd)pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Isophorone	BDL	0.33	mg/kg	8270C	03/26/10	1
Naphthalene	BDL	0.033	mg/kg	8270C	03/26/10	1
Nitrobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodimethylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodiphenylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodi-n-propylamine	BDL	0.33	mg/kg	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28, 2010

ESC Sample # : L450873-10

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : B-5 0-3FT

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 14:27

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Phenanthrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzylbutyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-ethylhexyl)phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Di-n-butyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Diethyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Dimethyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Di-n-octyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
1,2,4-Trichlorobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Chlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dichlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dimethylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
4,6-Dinitro-2-methylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dinitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Nitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
4-Nitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Pentachlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Phenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4,6-Trichlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Surrogate Recovery						
Nitrobenzene-d5	75.5		% Rec.	8270C	03/26/10	1
2-Fluorobiphenyl	84.9		% Rec.	8270C	03/26/10	1
p-Terphenyl-d14	87.9		% Rec.	8270C	03/26/10	1
Phenol-d5	82.4		% Rec.	8270C	03/26/10	1
2-Fluorophenol	78.8		% Rec.	8270C	03/26/10	1
2,4,6-Tribromophenol	79.2		% Rec.	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28,2010

ESC Sample # : L450873-11

Site ID :

Project # : 03067060

Date Received : March 25, 2010
Description : Berry Bearing

Sample ID : B-5 8-10FT

Collected By : Jay Fegley
Collection Date : 03/23/10 14:36

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.020	mg/kg	7471	03/27/10	1
Arsenic	2.8	1.0	mg/kg	6010B	03/27/10	1
Barium	43.	0.25	mg/kg	6010B	03/27/10	1
Cadmium	0.47	0.25	mg/kg	6010B	03/27/10	1
Chromium	12.	0.50	mg/kg	6010B	03/27/10	1
Lead	6.6	0.25	mg/kg	6010B	03/27/10	1
Selenium	2.9	1.0	mg/kg	6010B	03/27/10	1
Silver	BDL	0.50	mg/kg	6010B	03/27/10	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Acenaphthylene	BDL	0.033	mg/kg	8270C	03/26/10	1
Anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzidine	BDL	0.33	mg/kg	8270C	03/26/10	1
Benzo(a)anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(b)fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(k)fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(g,h,i)perylene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(a)pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Bis(2-chlorethoxy)methane	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-chloroethyl)ether	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-chloroisopropyl)ether	BDL	0.33	mg/kg	8270C	03/26/10	1
4-Bromophenyl-phenylether	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Chloronaphthalene	BDL	0.033	mg/kg	8270C	03/26/10	1
4-Chlorophenyl-phenylether	BDL	0.33	mg/kg	8270C	03/26/10	1
Chrysene	BDL	0.033	mg/kg	8270C	03/26/10	1
Dibenz(a,h)anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
3,3-Dichlorobenzidine	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dinitrotoluene	BDL	0.33	mg/kg	8270C	03/26/10	1
2,6-Dinitrotoluene	BDL	0.33	mg/kg	8270C	03/26/10	1
Fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Fluorene	BDL	0.033	mg/kg	8270C	03/26/10	1
Hexachlorobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
Hexachloro-1,3-butadiene	BDL	0.33	mg/kg	8270C	03/26/10	1
Hexachlorocyclopentadiene	BDL	0.33	mg/kg	8270C	03/26/10	1
Hexachloroethane	BDL	0.33	mg/kg	8270C	03/26/10	1
Indeno(1,2,3-cd)pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Isophorone	BDL	0.33	mg/kg	8270C	03/26/10	1
Naphthalene	BDL	0.033	mg/kg	8270C	03/26/10	1
Nitrobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodimethylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodiphenylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodi-n-propylamine	BDL	0.33	mg/kg	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28,2010

ESC Sample # : L450873-11

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : B-5 8-10FT

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 14:36

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Phenanthrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzylbutyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-ethylhexyl)phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Di-n-butyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Diethyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Dimethyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Di-n-octyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
1,2,4-Trichlorobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Chlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dichlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dimethylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
4,6-Dinitro-2-methylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dinitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Nitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
4-Nitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Pentachlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Phenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4,6-Trichlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Surrogate Recovery						
Nitrobenzene-d5	72.5		% Rec.	8270C	03/26/10	1
2-Fluorobiphenyl	88.7		% Rec.	8270C	03/26/10	1
p-Terphenyl-d14	88.8		% Rec.	8270C	03/26/10	1
Phenol-d5	81.4		% Rec.	8270C	03/26/10	1
2-Fluorophenol	85.3		% Rec.	8270C	03/26/10	1
2,4,6-Tribromophenol	92.4		% Rec.	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Reported: 04/01/10 08:20 Revised: 04/28/10 14:45

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28,2010

ESC Sample # : L450873-12

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : B-5 17FT

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 14:50

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.20	ug/l	7470A	03/26/10	1
Arsenic	120	20.	ug/l	6010B	03/29/10	1
Barium	600	5.0	ug/l	6010B	03/29/10	1
Cadmium	BDL	5.0	ug/l	6010B	03/29/10	1
Chromium	66.	10.	ug/l	6010B	03/29/10	1
Lead	60.	5.0	ug/l	6010B	03/29/10	1
Selenium	BDL	20.	ug/l	6010B	03/29/10	1
Silver	BDL	10.	ug/l	6010B	03/29/10	1
Base/Neutral Extractables						
Acenaphthene	BDL	1.0	ug/l	8270C	03/26/10	1
Acenaphthylene	BDL	1.0	ug/l	8270C	03/26/10	1
Anthracene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzidine	BDL	10.	ug/l	8270C	03/26/10	1
Benzo(a)anthracene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzo(b)fluoranthene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzo(k)fluoranthene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzo(g,h,i)perylene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzo(a)pyrene	BDL	1.0	ug/l	8270C	03/26/10	1
Bis(2-chlorethoxy)methane	BDL	10.	ug/l	8270C	03/26/10	1
Bis(2-chloroethyl)ether	BDL	10.	ug/l	8270C	03/26/10	1
Bis(2-chloroisopropyl)ether	BDL	10.	ug/l	8270C	03/26/10	1
4-Bromophenyl-phenylether	BDL	10.	ug/l	8270C	03/26/10	1
2-Chloronaphthalene	BDL	1.0	ug/l	8270C	03/26/10	1
4-Chlorophenyl-phenylether	BDL	10.	ug/l	8270C	03/26/10	1
Chrysene	BDL	1.0	ug/l	8270C	03/26/10	1
Dibenz(a,h)anthracene	BDL	1.0	ug/l	8270C	03/26/10	1
3,3-Dichlorobenzidine	BDL	10.	ug/l	8270C	03/26/10	1
2,4-Dinitrotoluene	BDL	10.	ug/l	8270C	03/26/10	1
2,6-Dinitrotoluene	BDL	10.	ug/l	8270C	03/26/10	1
Fluoranthene	BDL	1.0	ug/l	8270C	03/26/10	1
Fluorene	BDL	1.0	ug/l	8270C	03/26/10	1
Hexachlorobenzene	BDL	1.0	ug/l	8270C	03/26/10	1
Hexachloro-1,3-butadiene	BDL	10.	ug/l	8270C	03/26/10	1
Hexachlorocyclopentadiene	BDL	10.	ug/l	8270C	03/26/10	1
Hexachloroethane	BDL	10.	ug/l	8270C	03/26/10	1
Indeno(1,2,3-cd)pyrene	BDL	1.0	ug/l	8270C	03/26/10	1
Isophorone	BDL	10.	ug/l	8270C	03/26/10	1
Naphthalene	BDL	1.0	ug/l	8270C	03/26/10	1
Nitrobenzene	BDL	10.	ug/l	8270C	03/26/10	1
n-Nitrosodimethylamine	BDL	10.	ug/l	8270C	03/26/10	1
n-Nitrosodiphenylamine	BDL	10.	ug/l	8270C	03/26/10	1
n-Nitrosodi-n-propylamine	BDL	10.	ug/l	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28,2010

ESC Sample # : L450873-12

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : B-5 17FT

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 14:50

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Phenanthrene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzylbutyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Bis(2-ethylhexyl)phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Di-n-butyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Diethyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Dimethyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Di-n-octyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Pyrene	BDL	1.0	ug/l	8270C	03/26/10	1
1,2,4-Trichlorobenzene	BDL	10.	ug/l	8270C	03/26/10	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	10.	ug/l	8270C	03/26/10	1
2-Chlorophenol	BDL	10.	ug/l	8270C	03/26/10	1
2,4-Dichlorophenol	BDL	10.	ug/l	8270C	03/26/10	1
2,4-Dimethylphenol	BDL	10.	ug/l	8270C	03/26/10	1
4,6-Dinitro-2-methylphenol	BDL	10.	ug/l	8270C	03/26/10	1
2,4-Dinitrophenol	BDL	10.	ug/l	8270C	03/26/10	1
2-Nitrophenol	BDL	10.	ug/l	8270C	03/26/10	1
4-Nitrophenol	BDL	10.	ug/l	8270C	03/26/10	1
Pentachlorophenol	BDL	10.	ug/l	8270C	03/26/10	1
Phenol	BDL	10.	ug/l	8270C	03/26/10	1
2,4,6-Trichlorophenol	BDL	10.	ug/l	8270C	03/26/10	1
Surrogate Recovery						
2-Fluorophenol	45.3		% Rec.	8270C	03/26/10	1
Phenol-d5	34.3		% Rec.	8270C	03/26/10	1
Nitrobenzene-d5	66.4		% Rec.	8270C	03/26/10	1
2-Fluorobiphenyl	70.5		% Rec.	8270C	03/26/10	1
2,4,6-Tribromophenol	110.		% Rec.	8270C	03/26/10	1
p-Terphenyl-d14	95.7		% Rec.	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28,2010

ESC Sample # : L450873-13

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : DUPLICATE 1

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.20	ug/l	7470A	03/26/10	1
Arsenic	20.	20.	ug/l	6010B	03/29/10	1
Barium	300	5.0	ug/l	6010B	03/29/10	1
Cadmium	BDL	5.0	ug/l	6010B	03/29/10	1
Chromium	BDL	10.	ug/l	6010B	03/29/10	1
Lead	BDL	5.0	ug/l	6010B	03/29/10	1
Selenium	BDL	20.	ug/l	6010B	03/29/10	1
Silver	BDL	10.	ug/l	6010B	03/29/10	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	03/30/10	1
Acrolein	BDL	50.	ug/l	8260B	03/30/10	1
Acrylonitrile	BDL	10.	ug/l	8260B	03/30/10	1
Benzene	BDL	1.0	ug/l	8260B	03/30/10	1
Bromobenzene	BDL	1.0	ug/l	8260B	03/30/10	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	03/30/10	1
Bromoform	BDL	1.0	ug/l	8260B	03/30/10	1
Bromomethane	BDL	5.0	ug/l	8260B	03/30/10	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	03/30/10	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	03/30/10	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	03/30/10	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	03/30/10	1
Chlorobenzene	BDL	1.0	ug/l	8260B	03/30/10	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	03/30/10	1
Chloroethane	BDL	5.0	ug/l	8260B	03/30/10	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	03/30/10	1
Chloroform	BDL	5.0	ug/l	8260B	03/30/10	1
Chloromethane	BDL	2.5	ug/l	8260B	03/30/10	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	03/30/10	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	03/30/10	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	03/30/10	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	03/30/10	1
Dibromomethane	BDL	1.0	ug/l	8260B	03/30/10	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	03/30/10	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	03/30/10	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	03/30/10	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	03/30/10	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	03/30/10	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	03/30/10	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	03/30/10	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	03/30/10	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	03/30/10	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	03/30/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28,2010

ESC Sample # : L450873-13

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : DUPLICATE 1

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	03/30/10	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	03/30/10	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	03/30/10	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	03/30/10	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	03/30/10	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	03/30/10	1
Ethylbenzene	BDL	1.0	ug/l	8260B	03/30/10	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	03/30/10	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	03/30/10	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	03/30/10	1
2-Butanone (MEK)	BDL	10.	ug/l	8260B	03/30/10	1
Methylene Chloride	BDL	5.0	ug/l	8260B	03/30/10	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	03/30/10	1
Methyl tert-butyl ether	10.	1.0	ug/l	8260B	03/30/10	1
Naphthalene	BDL	5.0	ug/l	8260B	03/30/10	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	03/30/10	1
Styrene	BDL	1.0	ug/l	8260B	03/30/10	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	03/30/10	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	03/30/10	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	1.0	ug/l	8260B	03/30/10	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	03/30/10	1
Toluene	BDL	5.0	ug/l	8260B	03/30/10	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	03/30/10	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	03/30/10	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	03/30/10	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	03/30/10	1
Trichloroethene	BDL	1.0	ug/l	8260B	03/30/10	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	03/30/10	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	03/30/10	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	03/30/10	1
1,2,3-Trimethylbenzene	BDL	1.0	ug/l	8260B	03/30/10	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	03/30/10	1
Vinyl chloride	BDL	1.0	ug/l	8260B	03/30/10	1
Xylenes, Total	BDL	3.0	ug/l	8260B	03/30/10	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	03/30/10	1
Dibromofluoromethane	104.		% Rec.	8260B	03/30/10	1
4-Bromofluorobenzene	101.		% Rec.	8260B	03/30/10	1
Base/Neutral Extractables						
Acenaphthene	BDL	1.0	ug/l	8270C	03/26/10	1
Acenaphthylene	BDL	1.0	ug/l	8270C	03/26/10	1
Anthracene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzidine	BDL	10.	ug/l	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28,2010

ESC Sample # : L450873-13

Site ID :

Project # : 03067060

Date Received : March 25, 2010
Description : Berry Bearing

Sample ID : DUPLICATE 1

Collected By : Jay Fegley
Collection Date : 03/23/10 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo(a)anthracene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzo(b)fluoranthene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzo(k)fluoranthene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzo(g,h,i)perylene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzo(a)pyrene	BDL	1.0	ug/l	8270C	03/26/10	1
Bis(2-chlorethoxy)methane	BDL	10.	ug/l	8270C	03/26/10	1
Bis(2-chloroethyl)ether	BDL	10.	ug/l	8270C	03/26/10	1
Bis(2-chloroisopropyl)ether	BDL	10.	ug/l	8270C	03/26/10	1
4-Bromophenyl-phenylether	BDL	10.	ug/l	8270C	03/26/10	1
2-Chloronaphthalene	BDL	1.0	ug/l	8270C	03/26/10	1
4-Chlorophenyl-phenylether	BDL	10.	ug/l	8270C	03/26/10	1
Chrysene	BDL	1.0	ug/l	8270C	03/26/10	1
Dibenz(a,h)anthracene	BDL	1.0	ug/l	8270C	03/26/10	1
3,3-Dichlorobenzidine	BDL	10.	ug/l	8270C	03/26/10	1
2,4-Dinitrotoluene	BDL	10.	ug/l	8270C	03/26/10	1
2,6-Dinitrotoluene	BDL	10.	ug/l	8270C	03/26/10	1
Fluoranthene	BDL	1.0	ug/l	8270C	03/26/10	1
Fluorene	BDL	1.0	ug/l	8270C	03/26/10	1
Hexachlorobenzene	BDL	1.0	ug/l	8270C	03/26/10	1
Hexachloro-1,3-butadiene	BDL	10.	ug/l	8270C	03/26/10	1
Hexachlorocyclopentadiene	BDL	10.	ug/l	8270C	03/26/10	1
Hexachloroethane	BDL	10.	ug/l	8270C	03/26/10	1
Indeno(1,2,3-cd)pyrene	BDL	1.0	ug/l	8270C	03/26/10	1
Isophorone	BDL	10.	ug/l	8270C	03/26/10	1
Naphthalene	BDL	1.0	ug/l	8270C	03/26/10	1
Nitrobenzene	BDL	10.	ug/l	8270C	03/26/10	1
n-Nitrosodimethylamine	BDL	10.	ug/l	8270C	03/26/10	1
n-Nitrosodiphenylamine	BDL	10.	ug/l	8270C	03/26/10	1
n-Nitrosodi-n-propylamine	BDL	10.	ug/l	8270C	03/26/10	1
Phenanthrene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzylbutyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Bis(2-ethylhexyl)phthalate	1.1	1.0	ug/l	8270C	03/26/10	1
Di-n-butyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Diethyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Dimethyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Di-n-octyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Pyrene	BDL	1.0	ug/l	8270C	03/26/10	1
1,2,4-Trichlorobenzene	BDL	10.	ug/l	8270C	03/26/10	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	10.	ug/l	8270C	03/26/10	1
2-Chlorophenol	BDL	10.	ug/l	8270C	03/26/10	1
2,4-Dichlorophenol	BDL	10.	ug/l	8270C	03/26/10	1
2,4-Dimethylphenol	BDL	10.	ug/l	8270C	03/26/10	1
4,6-Dinitro-2-methylphenol	BDL	10.	ug/l	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Est. 1970

REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28,2010

ESC Sample # : L450873-13

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : DUPLICATE 1

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2,4-Dinitrophenol	BDL	10.	ug/l	8270C	03/26/10	1
2-Nitrophenol	BDL	10.	ug/l	8270C	03/26/10	1
4-Nitrophenol	BDL	10.	ug/l	8270C	03/26/10	1
Pentachlorophenol	BDL	10.	ug/l	8270C	03/26/10	1
Phenol	BDL	10.	ug/l	8270C	03/26/10	1
2,4,6-Trichlorophenol	BDL	10.	ug/l	8270C	03/26/10	1
Surrogate Recovery						
2-Fluorophenol	40.4		% Rec.	8270C	03/26/10	1
Phenol-d5	28.4		% Rec.	8270C	03/26/10	1
Nitrobenzene-d5	62.4		% Rec.	8270C	03/26/10	1
2-Fluorobiphenyl	65.8		% Rec.	8270C	03/26/10	1
2,4,6-Tribromophenol	99.9		% Rec.	8270C	03/26/10	1
p-Terphenyl-d14	90.9		% Rec.	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Reported: 04/01/10 08:20 Revised: 04/28/10 14:45

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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28, 2010

ESC Sample # : L450873-14

Site ID :

Project # : 03067060

Date Received : March 25, 2010
Description : Berry Bearing

Sample ID : DUPLICATE 2

Collected By : Jay Fegley
Collection Date : 03/23/10 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.20	ug/l	7470A	03/26/10	1
Arsenic	34.	20.	ug/l	6010B	03/29/10	1
Barium	510	5.0	ug/l	6010B	03/29/10	1
Cadmium	BDL	5.0	ug/l	6010B	03/29/10	1
Chromium	32.	10.	ug/l	6010B	03/29/10	1
Lead	18.	5.0	ug/l	6010B	03/29/10	1
Selenium	BDL	20.	ug/l	6010B	03/29/10	1
Silver	BDL	10.	ug/l	6010B	03/29/10	1
Benzene	2.5	1.0	ug/l	8260B	03/30/10	1
Toluene	BDL	5.0	ug/l	8260B	03/30/10	1
Ethylbenzene	BDL	1.0	ug/l	8260B	03/30/10	1
Total Xylenes	BDL	3.0	ug/l	8260B	03/30/10	1
Surrogate Recovery						
Toluene-d8	103.		% Rec.	8260B	03/30/10	1
Dibromofluoromethane	111.		% Rec.	8260B	03/30/10	1
4-Bromofluorobenzene	94.2		% Rec.	8260B	03/30/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Reported: 04/01/10 08:20 Revised: 04/28/10 14:45

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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28,2010

ESC Sample # : L450873-15

Site ID :

Project # : 03067060

Date Received : March 25, 2010
Description : Berry Bearing

Sample ID : DUPLICATE 4

Collected By : Jay Fegley
Collection Date : 03/23/10 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.020	mg/kg	7471	03/27/10	1
Arsenic	3.3	1.0	mg/kg	6010B	03/27/10	1
Barium	77.	0.25	mg/kg	6010B	03/27/10	1
Cadmium	0.74	0.25	mg/kg	6010B	03/27/10	1
Chromium	22.	0.50	mg/kg	6010B	03/27/10	1
Lead	9.2	0.25	mg/kg	6010B	03/27/10	1
Selenium	3.8	1.0	mg/kg	6010B	03/27/10	1
Silver	BDL	0.50	mg/kg	6010B	03/27/10	1
Benzene	0.0010	0.0010	mg/kg	8260B	03/29/10	1
Toluene	BDL	0.0050	mg/kg	8260B	03/29/10	1
Ethylbenzene	BDL	0.0010	mg/kg	8260B	03/29/10	1
Total Xylenes	BDL	0.0030	mg/kg	8260B	03/29/10	1
Surrogate Recovery						
Toluene-d8	94.9		% Rec.	8260B	03/29/10	1
Dibromofluoromethane	107.		% Rec.	8260B	03/29/10	1
4-Bromofluorobenzene	93.0		% Rec.	8260B	03/29/10	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Acenaphthylene	BDL	0.033	mg/kg	8270C	03/26/10	1
Anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzidine	BDL	0.33	mg/kg	8270C	03/26/10	1
Benzo(a)anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(b)fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(k)fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(g,h,i)perylene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzo(a)pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Bis(2-chlorethoxy)methane	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-chloroethyl)ether	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-chloroisopropyl)ether	BDL	0.33	mg/kg	8270C	03/26/10	1
4-Bromophenyl-phenylether	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Chloronaphthalene	BDL	0.033	mg/kg	8270C	03/26/10	1
4-Chlorophenyl-phenylether	BDL	0.33	mg/kg	8270C	03/26/10	1
Chrysene	BDL	0.033	mg/kg	8270C	03/26/10	1
Dibenz(a,h)anthracene	BDL	0.033	mg/kg	8270C	03/26/10	1
3,3-Dichlorobenzidine	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dinitrotoluene	BDL	0.33	mg/kg	8270C	03/26/10	1
2,6-Dinitrotoluene	BDL	0.33	mg/kg	8270C	03/26/10	1
Fluoranthene	BDL	0.033	mg/kg	8270C	03/26/10	1
Fluorene	BDL	0.033	mg/kg	8270C	03/26/10	1
Hexachlorobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
Hexachloro-1,3-butadiene	BDL	0.33	mg/kg	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28,2010

ESC Sample # : L450873-15

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : DUPLICATE 4

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Hexachlorocyclopentadiene	BDL	0.33	mg/kg	8270C	03/26/10	1
Hexachloroethane	BDL	0.33	mg/kg	8270C	03/26/10	1
Indeno(1,2,3-cd)pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Isophorone	BDL	0.33	mg/kg	8270C	03/26/10	1
Naphthalene	BDL	0.033	mg/kg	8270C	03/26/10	1
Nitrobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodimethylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodiphenylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
n-Nitrosodi-n-propylamine	BDL	0.33	mg/kg	8270C	03/26/10	1
Phenanthrene	BDL	0.033	mg/kg	8270C	03/26/10	1
Benzylbutyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Bis(2-ethylhexyl)phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Di-n-butyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Diethyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Dimethyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Di-n-octyl phthalate	BDL	0.33	mg/kg	8270C	03/26/10	1
Pyrene	BDL	0.033	mg/kg	8270C	03/26/10	1
1,2,4-Trichlorobenzene	BDL	0.33	mg/kg	8270C	03/26/10	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Chlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dichlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dimethylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
4,6-Dinitro-2-methylphenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4-Dinitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2-Nitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
4-Nitrophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Pentachlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Phenol	BDL	0.33	mg/kg	8270C	03/26/10	1
2,4,6-Trichlorophenol	BDL	0.33	mg/kg	8270C	03/26/10	1
Surrogate Recovery						
Nitrobenzene-d5	69.5		% Rec.	8270C	03/26/10	1
2-Fluorobiphenyl	81.3		% Rec.	8270C	03/26/10	1
p-Terphenyl-d14	73.8		% Rec.	8270C	03/26/10	1
Phenol-d5	73.9		% Rec.	8270C	03/26/10	1
2-Fluorophenol	76.5		% Rec.	8270C	03/26/10	1
2,4,6-Tribromophenol	81.9		% Rec.	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28,2010

ESC Sample # : L450873-16

Site ID :

Project # : 03067060

Date Received : March 25, 2010
Description : Berry Bearing

Sample ID : FIELD BLANK

Collected By : Jay Fegley
Collection Date : 03/23/10 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.20	ug/l	7470A	03/26/10	1
Arsenic	BDL	20.	ug/l	6010B	03/29/10	1
Barium	5.5	5.0	ug/l	6010B	03/29/10	1
Cadmium	BDL	5.0	ug/l	6010B	03/29/10	1
Chromium	BDL	10.	ug/l	6010B	03/29/10	1
Lead	BDL	5.0	ug/l	6010B	03/29/10	1
Selenium	BDL	20.	ug/l	6010B	03/29/10	1
Silver	BDL	10.	ug/l	6010B	03/29/10	1
Benzene	BDL	1.0	ug/l	8260B	03/30/10	1
Toluene	BDL	5.0	ug/l	8260B	03/30/10	1
Ethylbenzene	BDL	1.0	ug/l	8260B	03/30/10	1
Total Xylenes	BDL	3.0	ug/l	8260B	03/30/10	1
Surrogate Recovery						
Toluene-d8	103.		% Rec.	8260B	03/30/10	1
Dibromofluoromethane	111.		% Rec.	8260B	03/30/10	1
4-Bromofluorobenzene	92.0		% Rec.	8260B	03/30/10	1
Base/Neutral Extractables						
Acenaphthene	BDL	1.0	ug/l	8270C	03/26/10	1
Acenaphthylene	BDL	1.0	ug/l	8270C	03/26/10	1
Anthracene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzidine	BDL	10.	ug/l	8270C	03/26/10	1
Benzo(a)anthracene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzo(b)fluoranthene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzo(k)fluoranthene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzo(g,h,i)perylene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzo(a)pyrene	BDL	1.0	ug/l	8270C	03/26/10	1
Bis(2-chlorethoxy)methane	BDL	10.	ug/l	8270C	03/26/10	1
Bis(2-chloroethyl)ether	BDL	10.	ug/l	8270C	03/26/10	1
Bis(2-chloroisopropyl)ether	BDL	10.	ug/l	8270C	03/26/10	1
4-Bromophenyl-phenylether	BDL	10.	ug/l	8270C	03/26/10	1
2-Chloronaphthalene	BDL	1.0	ug/l	8270C	03/26/10	1
4-Chlorophenyl-phenylether	BDL	10.	ug/l	8270C	03/26/10	1
Chrysene	BDL	1.0	ug/l	8270C	03/26/10	1
Dibenz(a,h)anthracene	BDL	1.0	ug/l	8270C	03/26/10	1
3,3-Dichlorobenzidine	BDL	10.	ug/l	8270C	03/26/10	1
2,4-Dinitrotoluene	BDL	10.	ug/l	8270C	03/26/10	1
2,6-Dinitrotoluene	BDL	10.	ug/l	8270C	03/26/10	1
Fluoranthene	BDL	1.0	ug/l	8270C	03/26/10	1
Fluorene	BDL	1.0	ug/l	8270C	03/26/10	1
Hexachlorobenzene	BDL	1.0	ug/l	8270C	03/26/10	1
Hexachloro-1,3-butadiene	BDL	10.	ug/l	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 28,2010

ESC Sample # : L450873-16

Date Received : March 25, 2010
Description : Berry Bearing

Site ID :

Sample ID : FIELD BLANK

Project # : 03067060

Collected By : Jay Fegley
Collection Date : 03/23/10 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Hexachlorocyclopentadiene	BDL	10.	ug/l	8270C	03/26/10	1
Hexachloroethane	BDL	10.	ug/l	8270C	03/26/10	1
Indeno(1,2,3-cd)pyrene	BDL	1.0	ug/l	8270C	03/26/10	1
Isophorone	BDL	10.	ug/l	8270C	03/26/10	1
Naphthalene	BDL	1.0	ug/l	8270C	03/26/10	1
Nitrobenzene	BDL	10.	ug/l	8270C	03/26/10	1
n-Nitrosodimethylamine	BDL	10.	ug/l	8270C	03/26/10	1
n-Nitrosodiphenylamine	BDL	10.	ug/l	8270C	03/26/10	1
n-Nitrosodi-n-propylamine	BDL	10.	ug/l	8270C	03/26/10	1
Phenanthrene	BDL	1.0	ug/l	8270C	03/26/10	1
Benzylbutyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Bis(2-ethylhexyl)phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Di-n-butyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Diethyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Dimethyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Di-n-octyl phthalate	BDL	1.0	ug/l	8270C	03/26/10	1
Pyrene	BDL	1.0	ug/l	8270C	03/26/10	1
1,2,4-Trichlorobenzene	BDL	10.	ug/l	8270C	03/26/10	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	10.	ug/l	8270C	03/26/10	1
2-Chlorophenol	BDL	10.	ug/l	8270C	03/26/10	1
2,4-Dichlorophenol	BDL	10.	ug/l	8270C	03/26/10	1
2,4-Dimethylphenol	BDL	10.	ug/l	8270C	03/26/10	1
4,6-Dinitro-2-methylphenol	BDL	10.	ug/l	8270C	03/26/10	1
2,4-Dinitrophenol	BDL	10.	ug/l	8270C	03/26/10	1
2-Nitrophenol	BDL	10.	ug/l	8270C	03/26/10	1
4-Nitrophenol	BDL	10.	ug/l	8270C	03/26/10	1
Pentachlorophenol	BDL	10.	ug/l	8270C	03/26/10	1
Phenol	BDL	10.	ug/l	8270C	03/26/10	1
2,4,6-Trichlorophenol	BDL	10.	ug/l	8270C	03/26/10	1
Surrogate Recovery						
2-Fluorophenol	50.2		% Rec.	8270C	03/26/10	1
Phenol-d5	33.9		% Rec.	8270C	03/26/10	1
Nitrobenzene-d5	61.7		% Rec.	8270C	03/26/10	1
2-Fluorobiphenyl	63.7		% Rec.	8270C	03/26/10	1
2,4,6-Tribromophenol	87.5		% Rec.	8270C	03/26/10	1
p-Terphenyl-d14	97.9		% Rec.	8270C	03/26/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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.
Reported: 04/01/10 08:20 Revised: 04/28/10 14:45

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L450873-01	WG469528	SAMP	2,4-Dimethylphenol	R1159689	J4
	WG469518	SAMP	Arsenic	R1159928	O
L450873-02	WG469528	SAMP	Benzo(g,h,i)perylene	R1159689	J3
	WG469528	SAMP	Dibenz(a,h)anthracene	R1159689	J3
	WG469528	SAMP	Indeno(1,2,3-cd)pyrene	R1159689	J3
	WG469528	SAMP	2,4-Dimethylphenol	R1159689	J4
L450873-03	WG470227	SAMP	2,2-Dichloropropane	R1162508	J3
	WG469529	SAMP	2,4-Dimethylphenol	R1160168	J4
	WG469529	SAMP	4-Nitrophenol	R1160168	J4
L450873-04	WG469528	SAMP	2,4-Dimethylphenol	R1159689	J4
	WG470178	SAMP	4-Bromofluorobenzene	R1161589	J2
L450873-05	WG469528	SAMP	2,4-Dimethylphenol	R1159689	J4
L450873-06	WG469529	SAMP	2,4-Dimethylphenol	R1160168	J4
	WG469529	SAMP	4-Nitrophenol	R1160168	J4
	WG469529	SAMP	2-Fluorophenol	R1160168	J7
	WG469529	SAMP	Phenol-d5	R1160168	J7
	WG469529	SAMP	Nitrobenzene-d5	R1160168	J7
	WG469529	SAMP	2-Fluorobiphenyl	R1160168	J7
	WG469529	SAMP	2,4,6-Tribromophenol	R1160168	J7
	WG469529	SAMP	p-Terphenyl-d14	R1160168	J7
L450873-07	WG469528	SAMP	2,4-Dimethylphenol	R1159689	J4
L450873-08	WG469528	SAMP	2,4-Dimethylphenol	R1159689	J4
L450873-09	WG469529	SAMP	2,4-Dimethylphenol	R1160168	J4
	WG469529	SAMP	4-Nitrophenol	R1160168	J4
L450873-10	WG469528	SAMP	2,4-Dimethylphenol	R1159689	J4
L450873-11	WG469528	SAMP	2,4-Dimethylphenol	R1159689	J4
L450873-12	WG469529	SAMP	2,4-Dimethylphenol	R1160168	J4
	WG469529	SAMP	4-Nitrophenol	R1160168	J4
L450873-13	WG469529	SAMP	2,4-Dimethylphenol	R1160168	J4
	WG469529	SAMP	4-Nitrophenol	R1160168	J4
L450873-15	WG469528	SAMP	2,4-Dimethylphenol	R1159689	J4
L450873-16	WG469529	SAMP	2,4-Dimethylphenol	R1160168	J4
	WG469529	SAMP	4-Nitrophenol	R1160168	J4

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J7	Surrogate recovery limits cannot be evaluated; surrogates were diluted out
O	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods,it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Differrence.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromotography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Company Name/Address:

Terracon - Bettendorf

870 40th Avenue
Bettendorf.IA 52722

Billing Information:

Accounts Payable
870 40th Avenue

Bettendorf,IA 52722

Analysis/Container/Preservative

Chain of Custody
Page 1 of 2

ESC LAB SCIENCES
12065 Lebanon Road
Mt. Juliet, TN 37122

Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859

B128

Report to: John Brimeyer

Email to: JF brimeyer@Terracon.com

Project Description: Barry Bearing Brownfield Hazardous Waste

City/Sate Collected: Moline IL 3-23-10

Phone: (563) 355-0702
FAX: (563) 355-4789

Client Project #: 67047060

ESC Key:

Collected by: (print) Jay Fegley

Site/Facility ID#:

P.O.#:

CoCode TERRABIA (lab use only)

Template/Prelogin

Shipped Via:

Collected by (signature): Jay Fegley

Immediately Packed on Ice N X

Rush? (Lab MUST Be Notified)
____ Same Day.....200%
____ Next Day.....100%
____ Two Day.....50%
____ Three Day.....25%

Date Results Needed: 3-29-10

Email? __No X Yes

FAX? __No X Yes

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	VOCs 8260	BTEX 8260	SVOCs 8270	PAHs 8270	RCRA Metals 6010/7470 8151/7471			Remarks/Contaminant	Sample # (lab only)
B-1, 0-3	Grab	SS	0-3	3-23-10	9:43	3			X		X				L450873-01
B-1, 4-6		SS	4-6		10:08	3			X		X				-02
B-1		GW	17'		10:20	5	X		X		X				-03
B-2, 0-3		SS	0-3		11:20	7		X	X		X				-04
B-2, 5-7		SS	5-7		11:55	7		X	X		X				-05
B-2		GW	17'		16:15	5	X		X		X				-06
B-4, 0-3		SS	0-3		12:30	6		X	X		X				-07
B-4, 8-10		SS	8-10		12:58	7		X	X		X				-08
B-4		GW	16'		13:00	5		X	X		X				-09

*Matrix: **SS** - Soil/Solid **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐	Condition: (lab use only)
Jay Fegley	3-29-10	18:00 PM			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 18° C / Bottles Received: 77 of 78	CoC Seals Intact ___Y ___N ___NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 3/26/10 / Time: 0900	pH Checked: <2 / NCF:

Company Name/Address:

Terracon - Bettendorf

870 40th Avenue
Bettendorf.IA 52722

Billing Information:

Accounts Payable
870 40th Avenue

Bettendorf,IA 52722

Report to: John Brimeyer

Email to: jt brimeyer@terracon.com

Project Description: Bettendorf Bearing Brownfield Hazardous Waste

City/State Collected: Moline, IL, 3-23-10

Phone: (563) 355-0702
FAX: (563) 355-4789

Client Project #: 03067040

ESC Key:

Collected by: (print) Jay Begley

Site/Facility ID#:

P.O.#:

Collected by (signature): Jay Begley

Immediately Packed on Ice N ___ (X)

Rush? (Lab MUST Be Notified)
___ Same Day..... 200%
___ Next Day..... 100%
___ Two Day..... 50%
___ Three Day..... 25%

Date Results Needed: 3-24-10

Email? __No X Yes

FAX? __No __Yes

Analysis/Container/Preservative

Chain of Custody
Page 2 of 2

ESC
L-A-B S-C-I-E-N-C-E-S
12065 Lebanon Road
Mt. Juliet, TN 37122

Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859

CoCode TERRABIA (lab use only)

Template/Prelogin

Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	VOCs 8260	BETX 8260	SVOCs 8270	PAHs 8270	RCRA metals 6010/7470			Remarks/Contaminant	Sample # (lab only)
B-5, 0-3	Grab	SS	0-3	3-23-10	14:27	3			X		X				L450873-10
B-5, 8-10		SS	8-10		14:36	3			X		X				-11
B-5		GW	17'		14:50	3			X		X				-12
Duplicate #1		DW			—	5	X		X		X				-13
Duplicate 2		~~SS~~ DW			—	~~4~~ 3		X			X				-14
Duplicate #4		SS			—	7		X	X		X				-15
MS/MSD B-4 *		GW			—	5		X	X		X				~~-14~~ -16
						(X)									

*Matrix: **SS** - Soil/Solid **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other_____

pH _____ Temp _____

Remarks: *FIELD BLANK PER CLIENT (X)

Flow _____ Other _____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____	Condition: (lab use only)	
Jay Begley	3-23-10	PM				
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.8°C	Bottles Received: 7+2TB	CoC Seals Intact ___Y ___N ✓NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) Jeremy	Date: 3/25/10	Time: 0900	pH Checked: LZ	NCF:

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

Report Summary

Monday April 12, 2010

Report Number: L452314
Samples Received: 04/02/10
Client Project: 07067060

Description: Berry Bearing Brownfield Limited Access

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By: _____
Jeff Carr , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140
NJ - TN002,NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.
Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 12,2010

ESC Sample # : L452314-01

Site ID :

Project # : 07067060

Date Received : April 02, 2010
Description : Berry Bearing Brownfield Limited Access

Sample ID : B-3 0-3 FT

Collected By : Jay Fegley
Collection Date : 04/01/10 08:28

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	78.3		%	2540G	04/07/10	1
Benzene	BDL	0.0013	mg/kg	8260B	04/08/10	1
Toluene	BDL	0.0064	mg/kg	8260B	04/08/10	1
Ethylbenzene	BDL	0.0013	mg/kg	8260B	04/08/10	1
Total Xylenes	BDL	0.0038	mg/kg	8260B	04/08/10	1
Surrogate Recovery						
Toluene-d8	94.4		% Rec.	8260B	04/08/10	1
Dibromofluoromethane	105.		% Rec.	8260B	04/08/10	1
4-Bromofluorobenzene	85.7		% Rec.	8260B	04/08/10	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.042	mg/kg	8270C	04/06/10	1
Acenaphthene	BDL	0.042	mg/kg	8270C	04/06/10	1
Acenaphthylene	BDL	0.042	mg/kg	8270C	04/06/10	1
Benzo(a)anthracene	BDL	0.042	mg/kg	8270C	04/06/10	1
Benzo(a)pyrene	BDL	0.042	mg/kg	8270C	04/06/10	1
Benzo(b)fluoranthene	BDL	0.042	mg/kg	8270C	04/06/10	1
Benzo(g,h,i)perylene	BDL	0.042	mg/kg	8270C	04/06/10	1
Benzo(k)fluoranthene	BDL	0.042	mg/kg	8270C	04/06/10	1
Chrysene	BDL	0.042	mg/kg	8270C	04/06/10	1
Dibenz(a,h)anthracene	BDL	0.042	mg/kg	8270C	04/06/10	1
Fluoranthene	BDL	0.042	mg/kg	8270C	04/06/10	1
Fluorene	BDL	0.042	mg/kg	8270C	04/06/10	1
Indeno(1,2,3-cd)pyrene	BDL	0.042	mg/kg	8270C	04/06/10	1
Naphthalene	BDL	0.042	mg/kg	8270C	04/06/10	1
Phenanthrene	BDL	0.042	mg/kg	8270C	04/06/10	1
Pyrene	BDL	0.042	mg/kg	8270C	04/06/10	1
Surrogate Recovery						
Nitrobenzene-d5	65.0		% Rec.	8270C	04/06/10	1
2-Fluorobiphenyl	85.7		% Rec.	8270C	04/06/10	1
p-Terphenyl-d14	117.		% Rec.	8270C	04/06/10	1

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Est. 1970

REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 12, 2010

ESC Sample # : L452314-02

Site ID :

Project # : 07067060

Date Received : April 02, 2010
Description : Berry Bearing Brownfield Limited Access

Sample ID : B-3 8-10 FT

Collected By : Jay Fegley
Collection Date : 04/01/10 09:21

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	79.0		%	2540G	04/07/10	1
Benzene	0.0017	0.0013	mg/kg	8260B	04/08/10	1
Toluene	BDL	0.0063	mg/kg	8260B	04/08/10	1
Ethylbenzene	0.0014	0.0013	mg/kg	8260B	04/08/10	1
Total Xylenes	BDL	0.0038	mg/kg	8260B	04/08/10	1
Surrogate Recovery						
Toluene-d8	90.8		% Rec.	8260B	04/08/10	1
Dibromofluoromethane	108.		% Rec.	8260B	04/08/10	1
4-Bromofluorobenzene	97.9		% Rec.	8260B	04/08/10	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	0.14	0.042	mg/kg	8270C	04/06/10	1
Acenaphthene	0.14	0.042	mg/kg	8270C	04/06/10	1
Acenaphthylene	BDL	0.042	mg/kg	8270C	04/06/10	1
Benzo(a)anthracene	BDL	0.042	mg/kg	8270C	04/06/10	1
Benzo(a)pyrene	BDL	0.042	mg/kg	8270C	04/06/10	1
Benzo(b)fluoranthene	BDL	0.042	mg/kg	8270C	04/06/10	1
Benzo(g,h,i)perylene	BDL	0.042	mg/kg	8270C	04/06/10	1
Benzo(k)fluoranthene	BDL	0.042	mg/kg	8270C	04/06/10	1
Chrysene	BDL	0.042	mg/kg	8270C	04/06/10	1
Dibenz(a,h)anthracene	BDL	0.042	mg/kg	8270C	04/06/10	1
Fluoranthene	BDL	0.042	mg/kg	8270C	04/06/10	1
Fluorene	0.20	0.042	mg/kg	8270C	04/06/10	1
Indeno(1,2,3-cd)pyrene	BDL	0.042	mg/kg	8270C	04/06/10	1
Naphthalene	BDL	0.042	mg/kg	8270C	04/06/10	1
Phenanthrene	0.089	0.042	mg/kg	8270C	04/06/10	1
Pyrene	BDL	0.042	mg/kg	8270C	04/06/10	1
Surrogate Recovery						
Nitrobenzene-d5	109.		% Rec.	8270C	04/06/10	1
2-Fluorobiphenyl	94.0		% Rec.	8270C	04/06/10	1
p-Terphenyl-d14	111.		% Rec.	8270C	04/06/10	1

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 12,2010

ESC Sample # : L452314-03

Date Received : April 02, 2010
Description : Berry Bearing Brownfield Limited Access

Site ID :

Sample ID : B-3 17 FT

Project # : 07067060

Collected By : Jay Fegley
Collection Date : 04/01/10 09:53

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l	8260B	04/09/10	1
Toluene	BDL	0.0050	mg/l	8260B	04/09/10	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	04/09/10	1
Total Xylenes	BDL	0.0030	mg/l	8260B	04/09/10	1
Surrogate Recovery						
Toluene-d8	99.0		% Rec.	8260B	04/09/10	1
Dibromofluoromethane	105.		% Rec.	8260B	04/09/10	1
4-Bromofluorobenzene	94.0		% Rec.	8260B	04/09/10	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.000050	mg/l	8270C-SIM	04/06/10	1
Acenaphthene	BDL	0.000050	mg/l	8270C-SIM	04/06/10	1
Acenaphthylene	BDL	0.000050	mg/l	8270C-SIM	04/06/10	1
Benzo(a)anthracene	BDL	0.000050	mg/l	8270C-SIM	04/06/10	1
Benzo(a)pyrene	BDL	0.000050	mg/l	8270C-SIM	04/06/10	1
Benzo(b)fluoranthene	BDL	0.000050	mg/l	8270C-SIM	04/06/10	1
Benzo(g,h,i)perylene	BDL	0.000050	mg/l	8270C-SIM	04/06/10	1
Benzo(k)fluoranthene	BDL	0.000050	mg/l	8270C-SIM	04/06/10	1
Chrysene	BDL	0.000050	mg/l	8270C-SIM	04/06/10	1
Dibenz(a,h)anthracene	BDL	0.000050	mg/l	8270C-SIM	04/06/10	1
Fluoranthene	BDL	0.000050	mg/l	8270C-SIM	04/06/10	1
Fluorene	BDL	0.000050	mg/l	8270C-SIM	04/06/10	1
Indeno(1,2,3-cd)pyrene	BDL	0.000050	mg/l	8270C-SIM	04/06/10	1
Naphthalene	BDL	0.00025	mg/l	8270C-SIM	04/06/10	1
Phenanthrene	BDL	0.000050	mg/l	8270C-SIM	04/06/10	1
Pyrene	BDL	0.000050	mg/l	8270C-SIM	04/06/10	1
Surrogate Recovery						
Nitrobenzene-d5	37.0		% Rec.	8270C-SIM	04/06/10	1
2-Fluorobiphenyl	45.7		% Rec.	8270C-SIM	04/06/10	1
p-Terphenyl-d14	72.8		% Rec.	8270C-SIM	04/06/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Est. 1970

REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 12, 2010

ESC Sample # : L452314-04

Site ID :

Project # : 07067060

Date Received : April 02, 2010
Description : Berry Bearing Brownfield Limited Access

Sample ID : B-6 0-3 FT

Collected By : Jay Fegley
Collection Date : 04/01/10 10:48

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	79.0		%	2540G	04/07/10	1
Mercury	0.029	0.025	mg/kg	7471	04/06/10	1
Arsenic	12.	1.3	mg/kg	6010B	04/10/10	1
Barium	77.	0.32	mg/kg	6010B	04/10/10	1
Cadmium	0.33	0.32	mg/kg	6010B	04/10/10	1
Chromium	23.	0.63	mg/kg	6010B	04/10/10	1
Lead	13.	0.32	mg/kg	6010B	04/10/10	1
Selenium	BDL	6.3	mg/kg	6010B	04/10/10	5
Silver	BDL	0.63	mg/kg	6010B	04/10/10	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.042	mg/kg	8270C	04/05/10	1
Acenaphthylene	BDL	0.042	mg/kg	8270C	04/05/10	1
Anthracene	BDL	0.042	mg/kg	8270C	04/05/10	1
Benzidine	BDL	0.42	mg/kg	8270C	04/05/10	1
Benzo(a)anthracene	BDL	0.042	mg/kg	8270C	04/05/10	1
Benzo(b)fluoranthene	BDL	0.042	mg/kg	8270C	04/05/10	1
Benzo(k)fluoranthene	BDL	0.042	mg/kg	8270C	04/05/10	1
Benzo(g,h,i)perylene	BDL	0.042	mg/kg	8270C	04/05/10	1
Benzo(a)pyrene	BDL	0.042	mg/kg	8270C	04/05/10	1
Bis(2-chlorethoxy)methane	BDL	0.42	mg/kg	8270C	04/05/10	1
Bis(2-chloroethyl)ether	BDL	0.42	mg/kg	8270C	04/05/10	1
Bis(2-chloroisopropyl)ether	BDL	0.42	mg/kg	8270C	04/05/10	1
4-Bromophenyl-phenylether	BDL	0.42	mg/kg	8270C	04/05/10	1
2-Chloronaphthalene	BDL	0.042	mg/kg	8270C	04/05/10	1
4-Chlorophenyl-phenylether	BDL	0.42	mg/kg	8270C	04/05/10	1
Chrysene	BDL	0.042	mg/kg	8270C	04/05/10	1
Dibenz(a,h)anthracene	BDL	0.042	mg/kg	8270C	04/05/10	1
3,3-Dichlorobenzidine	BDL	0.42	mg/kg	8270C	04/05/10	1
2,4-Dinitrotoluene	BDL	0.42	mg/kg	8270C	04/05/10	1
2,6-Dinitrotoluene	BDL	0.42	mg/kg	8270C	04/05/10	1
Fluoranthene	BDL	0.042	mg/kg	8270C	04/05/10	1
Fluorene	BDL	0.042	mg/kg	8270C	04/05/10	1
Hexachlorobenzene	BDL	0.42	mg/kg	8270C	04/05/10	1
Hexachloro-1,3-butadiene	BDL	0.42	mg/kg	8270C	04/05/10	1
Hexachlorocyclopentadiene	BDL	0.42	mg/kg	8270C	04/05/10	1
Hexachloroethane	BDL	0.42	mg/kg	8270C	04/05/10	1
Indeno(1,2,3-cd)pyrene	BDL	0.042	mg/kg	8270C	04/05/10	1
Isophorone	BDL	0.42	mg/kg	8270C	04/05/10	1
Naphthalene	BDL	0.042	mg/kg	8270C	04/05/10	1
Nitrobenzene	BDL	0.42	mg/kg	8270C	04/05/10	1
n-Nitrosodimethylamine	BDL	0.42	mg/kg	8270C	04/05/10	1

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
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Est. 1970

REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 12, 2010

ESC Sample # : L452314-04

Site ID :

Project # : 07067060

Date Received : April 02, 2010
Description : Berry Bearing Brownfield Limited Access

Sample ID : B-6 0-3 FT

Collected By : Jay Fegley
Collection Date : 04/01/10 10:48

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
n-Nitrosodiphenylamine	BDL	0.42	mg/kg	8270C	04/05/10	1
n-Nitrosodi-n-propylamine	BDL	0.42	mg/kg	8270C	04/05/10	1
Phenanthrene	BDL	0.042	mg/kg	8270C	04/05/10	1
Benzylbutyl phthalate	BDL	0.42	mg/kg	8270C	04/05/10	1
Bis(2-ethylhexyl)phthalate	BDL	0.42	mg/kg	8270C	04/05/10	1
Di-n-butyl phthalate	BDL	0.42	mg/kg	8270C	04/05/10	1
Diethyl phthalate	BDL	0.42	mg/kg	8270C	04/05/10	1
Dimethyl phthalate	BDL	0.42	mg/kg	8270C	04/05/10	1
Di-n-octyl phthalate	BDL	0.42	mg/kg	8270C	04/05/10	1
Pyrene	BDL	0.042	mg/kg	8270C	04/05/10	1
1,2,4-Trichlorobenzene	BDL	0.42	mg/kg	8270C	04/05/10	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.42	mg/kg	8270C	04/05/10	1
2-Chlorophenol	BDL	0.42	mg/kg	8270C	04/05/10	1
2,4-Dichlorophenol	BDL	0.42	mg/kg	8270C	04/05/10	1
2,4-Dimethylphenol	BDL	0.42	mg/kg	8270C	04/05/10	1
4,6-Dinitro-2-methylphenol	BDL	0.42	mg/kg	8270C	04/05/10	1
2,4-Dinitrophenol	BDL	0.42	mg/kg	8270C	04/05/10	1
2-Nitrophenol	BDL	0.42	mg/kg	8270C	04/05/10	1
4-Nitrophenol	BDL	0.42	mg/kg	8270C	04/05/10	1
Pentachlorophenol	BDL	0.42	mg/kg	8270C	04/05/10	1
Phenol	BDL	0.42	mg/kg	8270C	04/05/10	1
2,4,6-Trichlorophenol	BDL	0.42	mg/kg	8270C	04/05/10	1
Surrogate Recovery						
Nitrobenzene-d5	83.3		% Rec.	8270C	04/05/10	1
2-Fluorobiphenyl	94.3		% Rec.	8270C	04/05/10	1
p-Terphenyl-d14	71.2		% Rec.	8270C	04/05/10	1
Phenol-d5	89.2		% Rec.	8270C	04/05/10	1
2-Fluorophenol	69.5		% Rec.	8270C	04/05/10	1
2,4,6-Tribromophenol	94.0		% Rec.	8270C	04/05/10	1

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 12,2010

ESC Sample # : L452314-05

Date Received : April 02, 2010
Description : Berry Bearing Brownfield Limited Access

Site ID :

Sample ID : DUPLICATE 2

Project # : 07067060

Collected By : Jay Fegley
Collection Date : 04/01/10 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l	8260B	04/09/10	1
Toluene	BDL	0.0050	mg/l	8260B	04/09/10	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	04/09/10	1
Total Xylenes	BDL	0.0030	mg/l	8260B	04/09/10	1
Surrogate Recovery						
Toluene-d8	105.		% Rec.	8260B	04/09/10	1
Dibromofluoromethane	97.0		% Rec.	8260B	04/09/10	1
4-Bromofluorobenzene	100.		% Rec.	8260B	04/09/10	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	0.00014	0.000050	mg/l	8270C-SIM	04/07/10	1
Acenaphthene	0.00011	0.000050	mg/l	8270C-SIM	04/07/10	1
Acenaphthylene	BDL	0.000050	mg/l	8270C-SIM	04/07/10	1
Benzo(a)anthracene	BDL	0.000050	mg/l	8270C-SIM	04/07/10	1
Benzo(a)pyrene	BDL	0.000050	mg/l	8270C-SIM	04/07/10	1
Benzo(b)fluoranthene	BDL	0.000050	mg/l	8270C-SIM	04/07/10	1
Benzo(g,h,i)perylene	BDL	0.000050	mg/l	8270C-SIM	04/07/10	1
Benzo(k)fluoranthene	BDL	0.000050	mg/l	8270C-SIM	04/07/10	1
Chrysene	BDL	0.000050	mg/l	8270C-SIM	04/07/10	1
Dibenz(a,h)anthracene	BDL	0.000050	mg/l	8270C-SIM	04/07/10	1
Fluoranthene	BDL	0.000050	mg/l	8270C-SIM	04/07/10	1
Fluorene	0.00010	0.000050	mg/l	8270C-SIM	04/07/10	1
Indeno(1,2,3-cd)pyrene	BDL	0.000050	mg/l	8270C-SIM	04/07/10	1
Naphthalene	BDL	0.00025	mg/l	8270C-SIM	04/07/10	1
Phenanthrene	0.000090	0.000050	mg/l	8270C-SIM	04/07/10	1
Pyrene	BDL	0.000050	mg/l	8270C-SIM	04/07/10	1
Surrogate Recovery						
Nitrobenzene-d5	82.6		% Rec.	8270C-SIM	04/07/10	1
2-Fluorobiphenyl	83.3		% Rec.	8270C-SIM	04/07/10	1
p-Terphenyl-d14	99.8		% Rec.	8270C-SIM	04/07/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 12, 2010

ESC Sample # : L452314-06

Date Received : April 02, 2010
Description : Berry Bearing Brownfield Limited Access

Site ID :

Sample ID : DUPLICATE 1

Project # : 07067060

Collected By : Jay Fegley
Collection Date : 04/01/10 00:00

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	80.4		%	2540G	04/07/10	1
Benzene	0.0017	0.0012	mg/kg	8260B	04/09/10	1
Toluene	BDL	0.0062	mg/kg	8260B	04/09/10	1
Ethylbenzene	0.0015	0.0012	mg/kg	8260B	04/09/10	1
Total Xylenes	BDL	0.0037	mg/kg	8260B	04/09/10	1
Surrogate Recovery						
Toluene-d8	96.2		% Rec.	8260B	04/09/10	1
Dibromofluoromethane	106.		% Rec.	8260B	04/09/10	1
4-Bromofluorobenzene	97.6		% Rec.	8260B	04/09/10	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.041	mg/kg	8270C	04/06/10	1
Acenaphthene	BDL	0.041	mg/kg	8270C	04/06/10	1
Acenaphthylene	BDL	0.041	mg/kg	8270C	04/06/10	1
Benzo(a)anthracene	BDL	0.041	mg/kg	8270C	04/06/10	1
Benzo(a)pyrene	BDL	0.041	mg/kg	8270C	04/06/10	1
Benzo(b)fluoranthene	BDL	0.041	mg/kg	8270C	04/06/10	1
Benzo(g,h,i)perylene	BDL	0.041	mg/kg	8270C	04/06/10	1
Benzo(k)fluoranthene	BDL	0.041	mg/kg	8270C	04/06/10	1
Chrysene	BDL	0.041	mg/kg	8270C	04/06/10	1
Dibenz(a,h)anthracene	BDL	0.041	mg/kg	8270C	04/06/10	1
Fluoranthene	BDL	0.041	mg/kg	8270C	04/06/10	1
Fluorene	0.042	0.041	mg/kg	8270C	04/06/10	1
Indeno(1,2,3-cd)pyrene	BDL	0.041	mg/kg	8270C	04/06/10	1
Naphthalene	BDL	0.041	mg/kg	8270C	04/06/10	1
Phenanthrene	BDL	0.041	mg/kg	8270C	04/06/10	1
Pyrene	BDL	0.041	mg/kg	8270C	04/06/10	1
Surrogate Recovery						
Nitrobenzene-d5	88.7		% Rec.	8270C	04/06/10	1
2-Fluorobiphenyl	101.		% Rec.	8270C	04/06/10	1
p-Terphenyl-d14	109.		% Rec.	8270C	04/06/10	1

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 12,2010

ESC Sample # : L452314-07

Date Received : April 02, 2010
Description : Berry Bearing Brownfield Limited Access

Site ID :

Sample ID : B-6 17 FT

Project # : 07067060

Collected By : Jay Fegley
Collection Date : 04/01/10 12:04

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.00020	mg/l	7470A	04/06/10	1
Arsenic	BDL	0.020	mg/l	6010B	04/08/10	1
Barium	0.46	0.0050	mg/l	6010B	04/08/10	1
Cadmium	BDL	0.0050	mg/l	6010B	04/08/10	1
Chromium	BDL	0.010	mg/l	6010B	04/08/10	1
Lead	BDL	0.0050	mg/l	6010B	04/08/10	1
Selenium	0.039	0.020	mg/l	6010B	04/08/10	1
Silver	BDL	0.010	mg/l	6010B	04/08/10	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.0010	mg/l	8270C	04/05/10	1
Acenaphthylene	BDL	0.0010	mg/l	8270C	04/05/10	1
Anthracene	BDL	0.0010	mg/l	8270C	04/05/10	1
Benzidine	BDL	0.010	mg/l	8270C	04/05/10	1
Benzo(a)anthracene	BDL	0.0010	mg/l	8270C	04/05/10	1
Benzo(b)fluoranthene	BDL	0.0010	mg/l	8270C	04/05/10	1
Benzo(k)fluoranthene	BDL	0.0010	mg/l	8270C	04/05/10	1
Benzo(g,h,i)perylene	BDL	0.0010	mg/l	8270C	04/05/10	1
Benzo(a)pyrene	BDL	0.0010	mg/l	8270C	04/05/10	1
Bis(2-chlorethoxy)methane	BDL	0.010	mg/l	8270C	04/05/10	1
Bis(2-chloroethyl)ether	BDL	0.010	mg/l	8270C	04/05/10	1
Bis(2-chloroisopropyl)ether	BDL	0.010	mg/l	8270C	04/05/10	1
4-Bromophenyl-phenylether	BDL	0.010	mg/l	8270C	04/05/10	1
2-Chloronaphthalene	BDL	0.0010	mg/l	8270C	04/05/10	1
4-Chlorophenyl-phenylether	BDL	0.010	mg/l	8270C	04/05/10	1
Chrysene	BDL	0.0010	mg/l	8270C	04/05/10	1
Dibenz(a,h)anthracene	BDL	0.0010	mg/l	8270C	04/05/10	1
3,3-Dichlorobenzidine	BDL	0.010	mg/l	8270C	04/05/10	1
2,4-Dinitrotoluene	BDL	0.010	mg/l	8270C	04/05/10	1
2,6-Dinitrotoluene	BDL	0.010	mg/l	8270C	04/05/10	1
Fluoranthene	BDL	0.0010	mg/l	8270C	04/05/10	1
Fluorene	BDL	0.0010	mg/l	8270C	04/05/10	1
Hexachlorobenzene	BDL	0.0010	mg/l	8270C	04/05/10	1
Hexachloro-1,3-butadiene	BDL	0.010	mg/l	8270C	04/05/10	1
Hexachlorocyclopentadiene	BDL	0.010	mg/l	8270C	04/05/10	1
Hexachloroethane	BDL	0.010	mg/l	8270C	04/05/10	1
Indeno(1,2,3-cd)pyrene	BDL	0.0010	mg/l	8270C	04/05/10	1
Isophorone	BDL	0.010	mg/l	8270C	04/05/10	1
Naphthalene	BDL	0.0010	mg/l	8270C	04/05/10	1
Nitrobenzene	BDL	0.010	mg/l	8270C	04/05/10	1
n-Nitrosodimethylamine	BDL	0.010	mg/l	8270C	04/05/10	1
n-Nitrosodiphenylamine	BDL	0.010	mg/l	8270C	04/05/10	1
n-Nitrosodi-n-propylamine	BDL	0.010	mg/l	8270C	04/05/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 12,2010

ESC Sample # : L452314-07

Date Received : April 02, 2010
Description : Berry Bearing Brownfield Limited Access

Site ID :

Sample ID : B-6 17 FT

Project # : 07067060

Collected By : Jay Fegley
Collection Date : 04/01/10 12:04

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Phenanthrene	BDL	0.0010	mg/l	8270C	04/05/10	1
Benzylbutyl phthalate	BDL	0.0010	mg/l	8270C	04/05/10	1
Bis(2-ethylhexyl)phthalate	BDL	0.0010	mg/l	8270C	04/05/10	1
Di-n-butyl phthalate	BDL	0.0010	mg/l	8270C	04/05/10	1
Diethyl phthalate	BDL	0.0010	mg/l	8270C	04/05/10	1
Dimethyl phthalate	BDL	0.0010	mg/l	8270C	04/05/10	1
Di-n-octyl phthalate	BDL	0.0010	mg/l	8270C	04/05/10	1
Pyrene	BDL	0.0010	mg/l	8270C	04/05/10	1
1,2,4-Trichlorobenzene	BDL	0.010	mg/l	8270C	04/05/10	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.010	mg/l	8270C	04/05/10	1
2-Chlorophenol	BDL	0.010	mg/l	8270C	04/05/10	1
2,4-Dichlorophenol	BDL	0.010	mg/l	8270C	04/05/10	1
2,4-Dimethylphenol	BDL	0.010	mg/l	8270C	04/05/10	1
4,6-Dinitro-2-methylphenol	BDL	0.010	mg/l	8270C	04/05/10	1
2,4-Dinitrophenol	BDL	0.010	mg/l	8270C	04/05/10	1
2-Nitrophenol	BDL	0.010	mg/l	8270C	04/05/10	1
4-Nitrophenol	BDL	0.010	mg/l	8270C	04/05/10	1
Pentachlorophenol	BDL	0.010	mg/l	8270C	04/05/10	1
Phenol	BDL	0.010	mg/l	8270C	04/05/10	1
2,4,6-Trichlorophenol	BDL	0.010	mg/l	8270C	04/05/10	1
Surrogate Recovery						
2-Fluorophenol	25.4		% Rec.	8270C	04/05/10	1
Phenol-d5	15.8		% Rec.	8270C	04/05/10	1
Nitrobenzene-d5	60.1		% Rec.	8270C	04/05/10	1
2-Fluorobiphenyl	76.9		% Rec.	8270C	04/05/10	1
2,4,6-Tribromophenol	100.		% Rec.	8270C	04/05/10	1
p-Terphenyl-d14	116.		% Rec.	8270C	04/05/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 12,2010

ESC Sample # : L452314-08

Date Received : April 02, 2010
Description : Berry Bearing Brownfield Limited Access

Site ID :

Sample ID : B-6 8-10 FT

Project # : 07067060

Collected By : Jay Fegley
Collection Date : 04/01/10 11:09

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	80.6		%	2540G	04/07/10	1
Mercury	BDL	0.025	mg/kg	7471	04/07/10	1
Arsenic	4.4	1.2	mg/kg	6010B	04/10/10	1
Barium	79.	0.31	mg/kg	6010B	04/10/10	1
Cadmium	0.32	0.31	mg/kg	6010B	04/10/10	1
Chromium	22.	0.62	mg/kg	6010B	04/10/10	1
Lead	7.9	0.31	mg/kg	6010B	04/10/10	1
Selenium	BDL	1.2	mg/kg	6010B	04/10/10	1
Silver	BDL	0.62	mg/kg	6010B	04/10/10	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.041	mg/kg	8270C	04/07/10	1
Acenaphthylene	BDL	0.041	mg/kg	8270C	04/07/10	1
Anthracene	BDL	0.041	mg/kg	8270C	04/07/10	1
Benzidine	BDL	0.41	mg/kg	8270C	04/07/10	1
Benzo(a)anthracene	BDL	0.041	mg/kg	8270C	04/07/10	1
Benzo(b)fluoranthene	BDL	0.041	mg/kg	8270C	04/07/10	1
Benzo(k)fluoranthene	BDL	0.041	mg/kg	8270C	04/07/10	1
Benzo(g,h,i)perylene	BDL	0.041	mg/kg	8270C	04/07/10	1
Benzo(a)pyrene	BDL	0.041	mg/kg	8270C	04/07/10	1
Bis(2-chlorethoxy)methane	BDL	0.41	mg/kg	8270C	04/07/10	1
Bis(2-chloroethyl)ether	BDL	0.41	mg/kg	8270C	04/07/10	1
Bis(2-chloroisopropyl)ether	BDL	0.41	mg/kg	8270C	04/07/10	1
4-Bromophenyl-phenylether	BDL	0.41	mg/kg	8270C	04/07/10	1
2-Chloronaphthalene	BDL	0.041	mg/kg	8270C	04/07/10	1
4-Chlorophenyl-phenylether	BDL	0.41	mg/kg	8270C	04/07/10	1
Chrysene	BDL	0.041	mg/kg	8270C	04/07/10	1
Dibenz(a,h)anthracene	BDL	0.041	mg/kg	8270C	04/07/10	1
3,3-Dichlorobenzidine	BDL	0.41	mg/kg	8270C	04/07/10	1
2,4-Dinitrotoluene	BDL	0.41	mg/kg	8270C	04/07/10	1
2,6-Dinitrotoluene	BDL	0.41	mg/kg	8270C	04/07/10	1
Fluoranthene	BDL	0.041	mg/kg	8270C	04/07/10	1
Fluorene	BDL	0.041	mg/kg	8270C	04/07/10	1
Hexachlorobenzene	BDL	0.41	mg/kg	8270C	04/07/10	1
Hexachloro-1,3-butadiene	BDL	0.41	mg/kg	8270C	04/07/10	1
Hexachlorocyclopentadiene	BDL	0.41	mg/kg	8270C	04/07/10	1
Hexachloroethane	BDL	0.41	mg/kg	8270C	04/07/10	1
Indeno(1,2,3-cd)pyrene	BDL	0.041	mg/kg	8270C	04/07/10	1
Isophorone	BDL	0.41	mg/kg	8270C	04/07/10	1
Naphthalene	BDL	0.041	mg/kg	8270C	04/07/10	1
Nitrobenzene	BDL	0.41	mg/kg	8270C	04/07/10	1
n-Nitrosodimethylamine	BDL	0.41	mg/kg	8270C	04/07/10	1

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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The reported analytical results relate only to the sample submitted

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Brimeyer
Terracon - Bettendorf
870 40th Avenue
Bettendorf, IA 52722

April 12,2010

ESC Sample # : L452314-08

Site ID :

Project # : 07067060

Date Received : April 02, 2010
Description : Berry Bearing Brownfield Limited Access

Sample ID : B-6 8-10 FT

Collected By : Jay Fegley
Collection Date : 04/01/10 11:09

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
n-Nitrosodiphenylamine	BDL	0.41	mg/kg	8270C	04/07/10	1
n-Nitrosodi-n-propylamine	BDL	0.41	mg/kg	8270C	04/07/10	1
Phenanthrene	BDL	0.041	mg/kg	8270C	04/07/10	1
Benzylbutyl phthalate	BDL	0.41	mg/kg	8270C	04/07/10	1
Bis(2-ethylhexyl)phthalate	BDL	0.41	mg/kg	8270C	04/07/10	1
Di-n-butyl phthalate	BDL	0.41	mg/kg	8270C	04/07/10	1
Diethyl phthalate	BDL	0.41	mg/kg	8270C	04/07/10	1
Dimethyl phthalate	BDL	0.41	mg/kg	8270C	04/07/10	1
Di-n-octyl phthalate	BDL	0.41	mg/kg	8270C	04/07/10	1
Pyrene	BDL	0.041	mg/kg	8270C	04/07/10	1
1,2,4-Trichlorobenzene	BDL	0.41	mg/kg	8270C	04/07/10	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.41	mg/kg	8270C	04/07/10	1
2-Chlorophenol	BDL	0.41	mg/kg	8270C	04/07/10	1
2,4-Dichlorophenol	BDL	0.41	mg/kg	8270C	04/07/10	1
2,4-Dimethylphenol	BDL	0.41	mg/kg	8270C	04/07/10	1
4,6-Dinitro-2-methylphenol	BDL	0.41	mg/kg	8270C	04/07/10	1
2,4-Dinitrophenol	BDL	0.41	mg/kg	8270C	04/07/10	1
2-Nitrophenol	BDL	0.41	mg/kg	8270C	04/07/10	1
4-Nitrophenol	BDL	0.41	mg/kg	8270C	04/07/10	1
Pentachlorophenol	BDL	0.41	mg/kg	8270C	04/07/10	1
Phenol	BDL	0.41	mg/kg	8270C	04/07/10	1
2,4,6-Trichlorophenol	BDL	0.41	mg/kg	8270C	04/07/10	1
Surrogate Recovery						
Nitrobenzene-d5	65.6		% Rec.	8270C	04/07/10	1
2-Fluorobiphenyl	87.1		% Rec.	8270C	04/07/10	1
p-Terphenyl-d14	91.1		% Rec.	8270C	04/07/10	1
Phenol-d5	71.4		% Rec.	8270C	04/07/10	1
2-Fluorophenol	67.6		% Rec.	8270C	04/07/10	1
2,4,6-Tribromophenol	67.0		% Rec.	8270C	04/07/10	1

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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The reported analytical results relate only to the sample submitted
Reported: 04/12/10 11:23 Printed: 04/12/10 15:18

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L452314-02	WG470933	SAMP	Anthracene	R1170708	J5
	WG470933	SAMP	Acenaphthene	R1170708	J5J3
	WG470933	SAMP	Chrysene	R1170708	J3
	WG470933	SAMP	Fluorene	R1170708	J5J3
	WG470933	SAMP	Phenanthrene	R1170708	J5
L452314-03	WG471178	SAMP	Benzo(a)pyrene	R1171428	J6J3
	WG471178	SAMP	Benzo(b)fluoranthene	R1171428	J6
	WG471178	SAMP	Benzo(g,h,i)perylene	R1171428	J6J3
	WG471178	SAMP	Benzo(k)fluoranthene	R1171428	J6
	WG471178	SAMP	Dibenz(a,h)anthracene	R1171428	J6
	WG471178	SAMP	Indeno(1,2,3-cd)pyrene	R1171428	J6J3
L452314-04	WG471381	SAMP	Barium	R1178489	J3
	WG471381	SAMP	Cadmium	R1178489	P1
	WG471381	SAMP	Chromium	R1178489	J3
	WG471381	SAMP	Lead	R1178489	J3
	WG471381	SAMP	Selenium	R1178489	O
	WG471116	SAMP	n-Nitrosodimethylamine	R1169988	J3
	WG471116	SAMP	Di-n-butyl phthalate	R1169988	J5
L452314-07	WG471160	SAMP	Benzylbutyl phthalate	R1169856	J5
	WG471517	SAMP	Selenium	R1176328	P1
	WG471517	SAMP	Silver	R1176328	J6
L452314-08	WG471381	SAMP	Barium	R1178489	J3J5
	WG471381	SAMP	Cadmium	R1178489	P1
	WG471381	SAMP	Chromium	R1178489	J3
	WG471381	SAMP	Lead	R1178489	J3
	WG471586	SAMP	4,6-Dinitro-2-methylphenol	R1175308	J4

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low
O	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods,it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Differrence.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromotography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
04/12/10 at 15:18:57

TSR Signing Reports: 206
R5 - Desired TAT

Sample: L452314-01 Account: TERRABIA Received: 04/02/10 09:00 Due Date: 04/09/10 00:00 RPT Date: 04/12/10 11:23

Sample: L452314-02 Account: TERRABIA Received: 04/02/10 09:00 Due Date: 04/09/10 00:00 RPT Date: 04/12/10 11:23
MS/MSD this sample
Sample: L452314-03 Account: TERRABIA Received: 04/02/10 09:00 Due Date: 04/09/10 00:00 RPT Date: 04/12/10 11:23
MS/MSD this sample
Sample: L452314-04 Account: TERRABIA Received: 04/02/10 09:00 Due Date: 04/09/10 00:00 RPT Date: 04/12/10 11:23
MS/MSD this sample
Sample: L452314-05 Account: TERRABIA Received: 04/02/10 09:00 Due Date: 04/09/10 00:00 RPT Date: 04/12/10 11:23

Sample: L452314-06 Account: TERRABIA Received: 04/02/10 09:00 Due Date: 04/09/10 00:00 RPT Date: 04/12/10 11:23

Sample: L452314-07 Account: TERRABIA Received: 04/02/10 09:00 Due Date: 04/09/10 00:00 RPT Date: 04/12/10 11:23
MS/MSD this sample
Sample: L452314-08 Account: TERRABIA Received: 04/02/10 09:00 Due Date: 04/09/10 00:00 RPT Date: 04/12/10 11:23
MS/MSD this sample

Company Name/Address:

Terracon - Bettendorf

870 40th Avenue
Bettendorf.IA 52722

Billing Information:

Accounts Payable
870 40th Avenue

Bettendorf,IA 52722

Analysis/Container/Preservati

G240

Chain of Custody
Page ___ of ___

ESC
L·A·B S·C·I·E·N·C·E·S
12065 Lebanon Road
Mt. Juliet, TN 37122

Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859

Report to: John Brinegyer

Email to: JFbrinegyer@terracon.com

Project Description: Beatty Bearing Brownfield Limited Assess

City/Sate Collected: Moline, IL 4-1-10

Phone: (563) 355-0702
FAX: (563) 355-4789

Client Project #:

ESC Key:

Collected by: (print) Jay Fegley

Site/Facility ID#:

P.O.#:

Collected by (Signature): Jay Fegley

Immediately Packed on Ice N ___ (Y)

Rush? (Lab MUST Be Notified)
___ Same Day. 200%
___ Next Day. 100%
___ Two Day. 50%
___ Three Day. 25%

Date Results Needed:

Email? __No__Yes

FAX? __No__Yes

CoCode TERRABIA (lab use only)

Template/Prelogin

Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	BETX 5035/8260	SVOCs 8270	PAHs 8270	RCRA Metals 6010/7470 or 7471				Remarks/Contaminant	Sample # (lab only)
B-3, 0-3'	Grab	SS	0-3	4-1-10	8:28	7	X		X						L452314-01
B-3, 8-10		SS	8-10	4-1-10	9:21	6	X		X						02
B-3 MS/MSD		SS	8-10	4-1-10	9:21	6	X		X						-02 ~~03~~
B-3 MS/MSD		GW	17	4-1-10	9:53	4	X		X						-03 ~~04~~
B-3		GW	17	4-1-10	9:53	4	X		X						-03 05
B-6		SS	0-3	4-1-10	10:48	3		X		X					-04 06
B-6 MS/MSD		SS	0-3	4-1-10	10:48	3		X		X					↓ ~~07~~ JCH
Duplicate 2		GW		4-1-10	—	4	X		X						-05 ~~08~~
Duplicate 1	Grab	SS		4-1-10	—	~~5~~ 6	X		X						-06 ~~09~~

*Matrix: **SS** - Soil/Solid **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other_____

pH _____ Temp _____

Remarks:

Flow _____ Other _____

7985 3223 5339

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ____	Condition: (lab use only)	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.7°C / Bottles Received: 51	CoC Seals Intact ___Y ___N ___NA	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) Kenn Wood	Date: 4/2/10 / Time: 0900	pH Checked: <2	NCF: ✓

Company Name/Address:

Terracon - Bettendorf

870 40th Avenue
Bettendorf.IA 52722

Billing Information:

Accounts Payable
870 40th Avenue

Bettendorf,IA 52722

Analysis/Container/Preservative

Chain of Custody
Page ___ of ___

ESC
L·A·B S·C·I·E·N·C·E·S
12065 Lebanon Road
Mt. Juliet, TN 37122

Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859

Report to: John Brimeyer

Email to: J.Brimeyer@terracon.com

Project Description: Barry Bearing Brownfields Limited Site Assess

City/State Collected: Moline, IL 4-1-10

Phone: (563) 355-0702
FAX: (563) 355-4789

Client Project #: 07067060

ESC Key:

Collected by: (print) Jay Fegley

Site/Facility ID#:

P.O.#:

Collected by (signature): Jay Fegley

Immediately Packed on Ice N ___ (Y)

Rush? (Lab MUST Be Notified)
___ Same Day.....200%
___ Next Day.....100%
___ Two Day.....50%
___ Three Day.....25%

Date Results Needed:

Email? __No X Yes
FAX? __No __Yes

CoCode TERRABIA (lab use only)

Template/Prelogin

Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	SVOCs 8270	RCRA metal 6010/7470						Remarks/Contaminant	Sample # (lab only)
B-6	Grab	GW	17	4-1-10	12:04	3	+	+							L452314-07
B6 MS/MSD	Grab	GW	17	4-1-10	12:04	3								Leave blank	↓

*Matrix: **SS** - Soil/Solid **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other_____

pH _____ Temp _____

Remarks:

Flow _____ Other _____

7934 10066219

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ _____	Condition: (lab use only)	
Jay Fegley	4-1-10	PM				
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.2°C	Bottles Received: 51	CoC Seals Intact ___ Y ___ N ___ NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4/2/10	Time: 0900	pH Checked: <2 NCF: ✓

J.C

ENVIRONMENTAL SCIENCE CORP.

SAMPLE NON-CONFORMANCE FORM

Sample No. : LY52314

Date: 4/2/10

Evaluated by: K. Wallace

Client: TERRABIA

Non-Conformance (check applicable items)

	Chain of Custody is missing	X	Login Clarification Needed
	Improper container type		Improper preservation
	Chain of custody is incomplete		Container lid not intact
	Parameter(s) past holding time		Improper temperature
	Broken container(s) see below		Broken container: sufficient sample volume remains for analysis requested

_____ Insufficient packing material around container

_____ Insufficient packing material inside cooler

_____ Improper handling by carrier (FedEx / UPS / Courier)

_____ Sample was frozen

Comments: Recieved 3 soils Sample Id B-6 (8-10) Time 11:09 Not on COC

Login Instructions: TSR Initials: JC

Client informed by cal / email / fax / voice mail date: 4/5/10 time: 1016

Client contact:

Jeff Carr

From: Brimeyer, John F. [jfbrimeyer@terracon.com]
Sent: Monday, April 05, 2010 10:15 AM
To: Jeff Carr
Subject: RE: Berry Bearing samples

Jeff,

Those should be analyzed for SVOCs and RCRA metals.

John

From: Jeff Carr [mailto:JCarr@esclabsciences.com]
Sent: Friday, April 02, 2010 2:31 PM
To: Brimeyer, John F.
Subject: Berry Bearing samples

John, we received some samples from your Berry Bearing project today and there are 3 soil samples not listed on the COC. Sample ID's are all B-6 (8-10) collected at 11:09. Please instruct me as to what you would like done with them. Thanks.

Jeffrey A. Carr
ESC Lab Sciences
Technical Service Representative
(615) 758-5858 | Ext. 9667

www.esclabsciences.com

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