



CON 12-15

Doc # 5170

STATE OF IOWA

THOMAS J. VILSACK, GOVERNOR
SALLY J. PEDERSON, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
JEFFREY R. VONK, DIRECTOR

February 27, 2006

Dubuque Arboretum and Botanical Gardens
c/o Ulstad Architects
1110 Bluff Street
Dubuque, Iowa 52001

Att'n.: Mr. Steve Ulstad

Subject: Removal of buried nitrogen fertilizer

Dear Mr. Ulstad:

I have had the opportunity to review the materials that you submitted regarding the removal of buried fertilizer at the Dubuque Arboretum and Botanical Gardens. The Iowa DNR will not require any additional follow-up at this time, based on currently available information. Should additional information come to light in the future the DNR will evaluate that information and take appropriate action.

We thank you for reporting this matter and for taking the initiative to address it. Please extend our thanks to those persons at the Arboretum who supported this effort.

Respectfully,

A handwritten signature in black ink, appearing to read "Cal Lundberg".

Cal Lundberg, Ph.D., Supervisor
Contaminated Sites Section

C: Tim Hall, Bureau Chief, Geological Survey and Land Quality Bureau, IDNR

Joe Sanfilippo, Supervisor, Field Office 1, IDNR, Manchester

WALLACE STATE OFFICE BUILDING / 502 EAST 9th STREET / DES MOINES, IOWA 50319
515-281-5918 TDD 515-242-5967 FAX 515-281-6794 www.iowadnr.com

February 3, 2006

Dubuque Arboretum and Botanical Gardens
c/o Ulstad Architects
1110 Bluff Street
Dubuque, Iowa 52001

Attention: Mr. Steve Ulstad

Re: Soil Removal Observation Services
Dubuque Arboretum and Botanical Gardens
Dubuque, Iowa
Project No. 07057072



Terracon Consultants, Inc.
870 40th Avenue
Bettendorf, Iowa 52722
Phone 563.355.0702
Fax 563.355.4789
www.terracon.com

Dear Mr. Ulstad:

Based on anecdotal information, up to approximately 300 pounds of waste nitrogen-based fertilizer was inadvertently buried at the Dubuque Arboretum and Botanical Gardens (Dubuque Arboretum) in Dubuque, Iowa. In accordance with the requirements of Title 567 Iowa Administrative Code (IAC) Chapter 100.4, no person shall dump or dispose of solid waste at any site other than a permitted sanitary disposal facility. Burial of the waste fertilizer at the site is not allowed under Iowa regulations. Upon learning of disposal activities, the Dubuque Arboretum initiated measures to overexcavate the disposal area, remove the fertilizer and adjacent soil, and transport the excavated material off-site for proper disposal. The Dubuque Arboretum requested that Terracon be present during the overexcavation activities, conducted by others under separate contract with the Dubuque Arboretum, to observe and document overexcavation activities and to collect confirmation samples for laboratory analysis.

On-Site Activities

In accordance with Terracon Proposal No. 0705346 dated December 7, 2005, and authorized in writing on December 8, 2005, Terracon mobilized a field technician to the site on January 26, 2006, to observe and document on-site activities. American Excavating, Inc. (American), Galena, Illinois, was on-site with equipment and personnel to expose, excavate, and load the waste material for off-site transport.

Upon arrival, American cleared the site of leaf piles and began excavating at the location indicated by Dubuque Arboretum representatives. American excavated overlying material from the area and stockpiled the overburden adjacent to the excavation. At a depth of approximately four to five feet below ground surface (bgs), Terracon observed the waste material. Upon discovery, American excavated approximately six cubic yards of waste fertilizer and surrounding soil and loaded the material into a transport vehicle. Overexcavation activities proceeded until, based on visual observations, buried fertilizer materials were removed from the area. American transported the material off-site for disposal at the Dubuque County Landfill. Stockpiled material was returned to the

DATE STAMP

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excavation. A Site Vicinity Map, Site Plan, and photo documentation of on-site activities are attached.

Confirmation Sampling

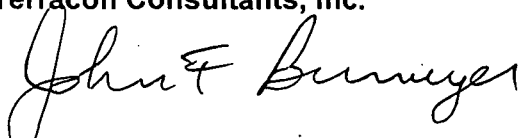
Upon completion of overexcavation activities, American obtained a representative sample of soil from the base of the excavation (approximately nine feet bgs) using the bucket of the backhoe. The Terracon technician collected one soil sample from the excavation base material contained in the backhoe bucket. The soil sample was packaged and submitted to TestAmerica, Inc., Cedar Falls, Iowa, under appropriate chain-of-custody procedures, for analysis of nitrates (as nitrogen) and nitrites (as nitrogen) by United States Environmental Protection Agency (USEPA) Standard Methods 9210 and 4500, respectively. The reported nitrate and nitrite concentrations in the soil sample were below laboratory reporting limits. A copy of the laboratory Analytical Report is attached.

Comments


The analysis presented in this report is based upon data obtained from field activities and from other information discussed in this report. 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, either 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.

We appreciate the opportunity to provide these evaluation services to you. If you should have any questions or comments regarding this proposal, please contact either of the undersigned.

Sincerely,
Terracon Consultants, Inc.



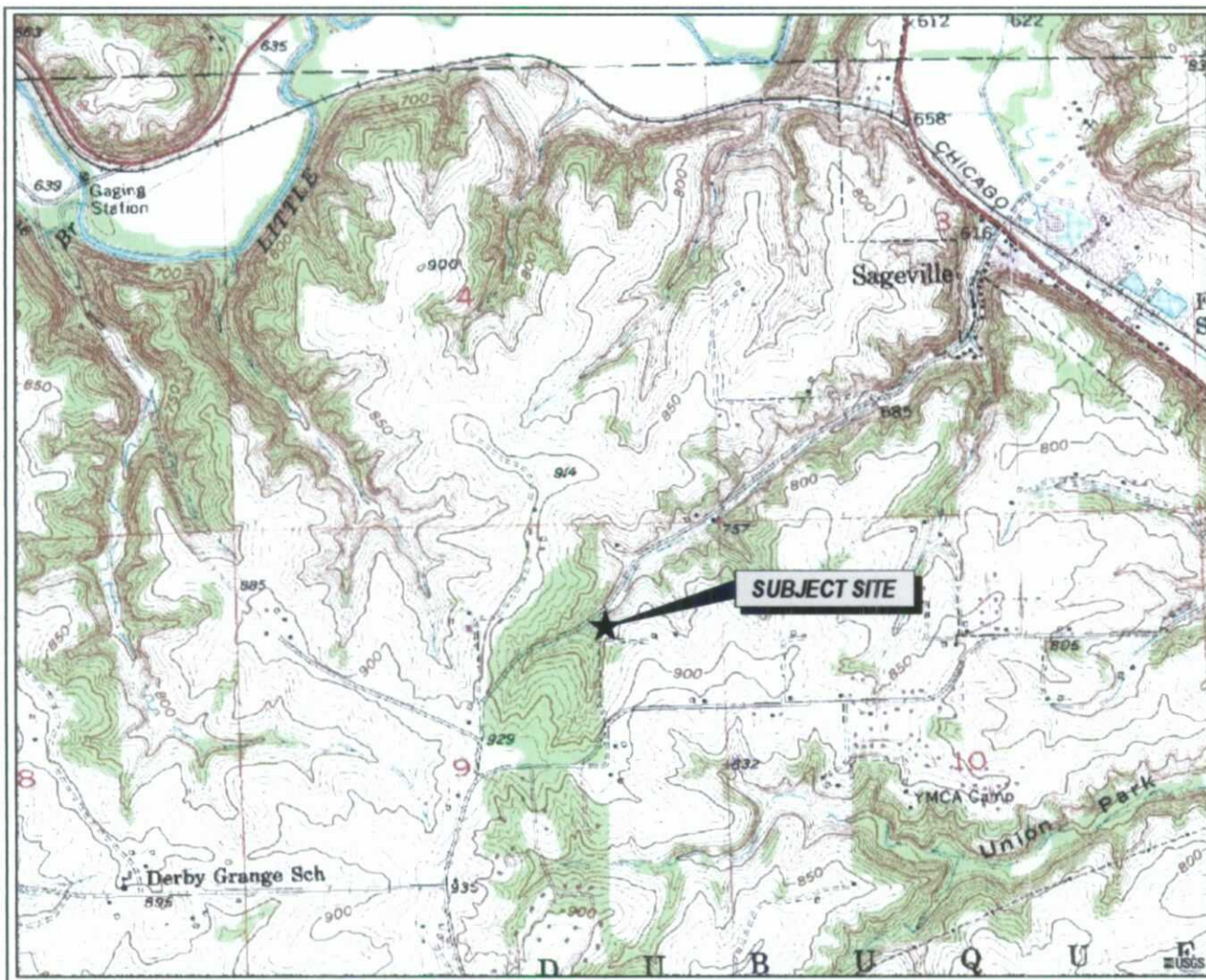
John F. Brimeyer, PE
Environmental Manager



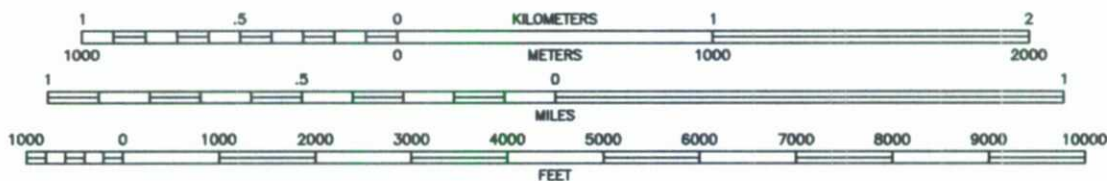
Brian Porter, PE
Environmental Engineer

Attachments

JFB/BRP/jb1
N:\A_PROPSL\ENV\2005\0705346\5b346p01.doc



SCALE 1:24 000



CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
DOTTED LINES REPRESENT 5-FOOT CONTOURS



DUBUQUE NORTH,
IOWA-WIS.-ILL.
QUADRANGLE
7.5 MINUTE SERIES (TOPOGRAPHIC)

TOPOGRAPHIC VICINITY MAP

DUBUQUE ARBORETUM FERTILIZER REMOVAL
ARBORETUM DRIVE
DUBUQUE, IOWA

Project Mng'r: JFB

Designed By: JWC

Drawn By: CKM

Checked By: JFB

Approved By: JFB

Terracon

870 40th Avenue
Bettendorf, Iowa 52722

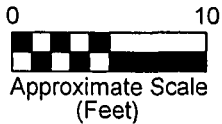
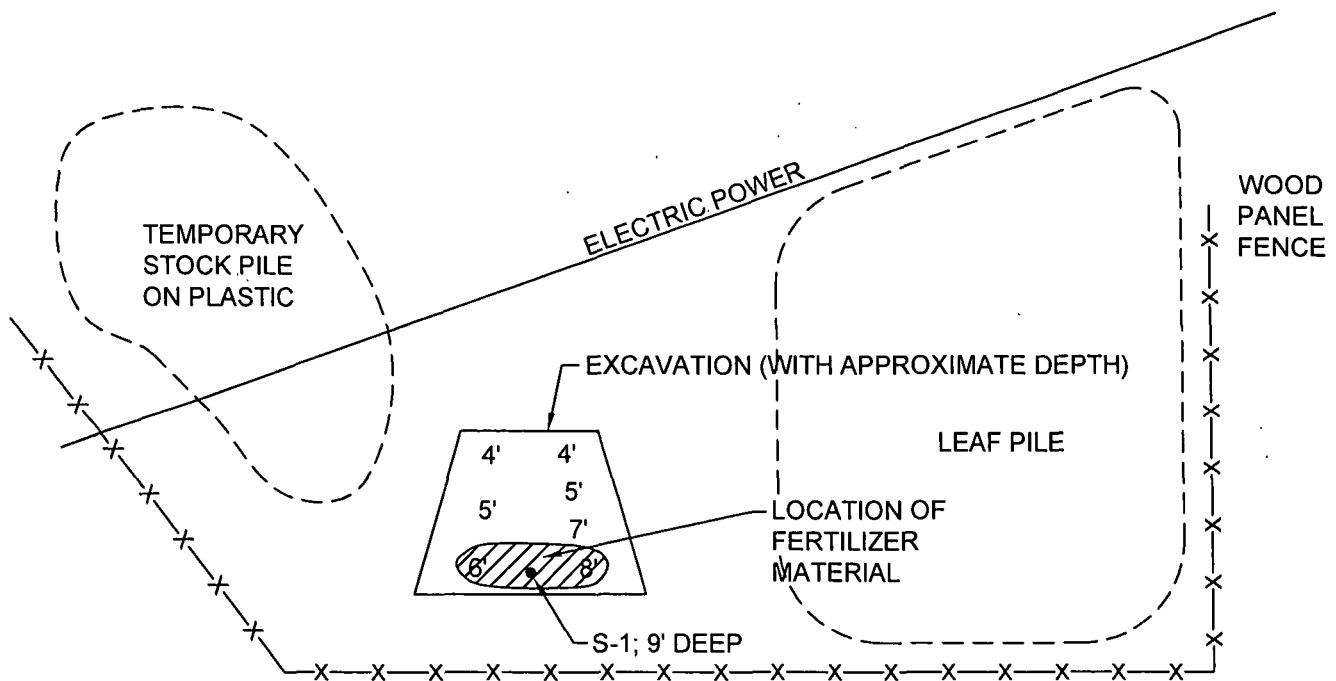
Project No. 07057072

Scale: AS SHOWN

File No. 6B072D01

Date: FEB. 2006

Figure No.



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


SITE DIAGRAM			
DUBUQUE ARBORETUM FERTILIZER REMOVAL			
ARBORETUM DRIVE DUBUQUE, IOWA			
Project Mngr:	JFB	 870 40th Avenue Bettendorf, Iowa 52722	Project No. 07057072
Designed By:	JWC		Scale: AS SHOWN
Drawn By:	CKM		File No. 6B072D02
Checked By:	JFB		Date: FEB. 2006
Approved By:	JFB	Figure No.	2



Photo 1: View of site prior to overexcavation activities. View to east.



Photo 2: View of site at start of overexcavation activities. View to east.



Photo 3: View of site during overexcavation activities. View to east.



Photo 4: View of excavation pit with exposed fertilizer in side wall. View to southeast.



Photo 5: View of site during backfilling activities. View to south.



Photo 6: View of site following completion of backfilling activities. View to southwest.

January 30, 2006

Client:

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722

Work Order: CPA1213
Project Name: Dubuque Arboretum
Project Number: 07057072

Attn: John Brimeyer

Date Received: 01/27/06

An executed copy of the chain of custody is also included as an addendum to this report

If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-(800)750-2401.

SAMPLE IDENTIFICATION

LAB NUMBER

COLLECTION DATE AND TIME

S-1 9'

CPA1213-01

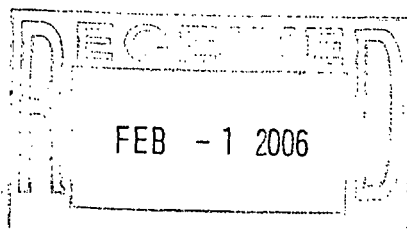
01/26/06 10:15

Samples were received into laboratory at a temperature of 1 °C.

The reported results were obtained in compliance with the 2003 NELAC standards unless otherwise noted.

Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.

TestAmerica Analytical Testing Corporation certifies that the analytical results contained herein apply only to the specific sample analyzed.



Approved By:

Linda Cmelik

TestAmerica Analytical - Cedar Falls
Linda Cmelik
Project Coordinator

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CPA1213
Project: Dubuque Arboretum
Project Number: 07057072

Received: 01/27/06
Reported: 01/30/06 13:59

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Seq/ Analyst Batch	Method
Sample ID: CPA1213-01 (S-1 9' - Soil)				Sampled: 01/26/06 10:15		Recvd: 01/27/06 08:30		
General Chemistry Parameters								
% Solids	80.0		%	0.100	1	01/27/06 16:00	sas 6011049	SM 2540 G
Nitrate as N	<6.25		mg/kg dry	6.25	0.982	01/27/06 11:30	lbb 6010991	SW 9210
Nitrite as N	<6.25		mg/kg dry	6.25	0.981	01/27/06 12:15	mdk 6011005	SM4500 NO3 E

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CPA1213
Project: Dubuque Arboretum
Project Number: 07057072

Received: 01/27/06
Reported: 01/30/06 13:59

CERTIFICATION SUMMARY

TestAmerica Analytical - Cedar Falls

Method	Matrix	Nelac	Iowa
SM 2540 G	Solid/Soil		
SM4500 NO3 E	Solid/Soil		
SW 9210	Solid/Soil	X	

Any abnormalities or departures from sample acceptance policy shall be documented on the 'Sample Receipt and Temperature Log Form' and 'Sample Non-conformance Form' (if applicable) included with this report.

For information concerning certifications of this facility or another TestAmerica facility, please visit our website at www.TestAmericaInc.com

Samples collected by TestAmerica Field Services personnel are noted on the Chain of Custody (COC) and are sampled in accordance with TA-CF SOP CF09-01.

DATA QUALIFIERS AND DEFINITIONS

ADDITIONAL COMMENTS

Results are reported on a wet weight basis unless otherwise noted.

Quote #: PO#:

Page 1 of 1

Sample Receipt and Temperature Log Form

Client: Terralon Project: Dubuque Arboretum

City: _____

Date: 1-27-06 Receiver's Initials CH Time (Delivered): 8:30

Temperature Record

Cooler ID# (If Applicable)
STS
1° °C On Ice

Thermometer:

- ☒ IR - 905085 "A"
☐ IR - 809065 "B"
☐ CF07-03-T2
☐ 22126775

Courier:

- | | |
|---|---------------------------------------|
| <input type="checkbox"/> Airborne | <input type="checkbox"/> Speedy |
| <input checked="" type="checkbox"/> UPS | <input type="checkbox"/> TA Courier |
| <input type="checkbox"/> Velocity | <input type="checkbox"/> TA Field Sys |
| <input type="checkbox"/> FedEx | <input type="checkbox"/> Client |
| <input type="checkbox"/> DHL | |
| <input type="checkbox"/> US Postal | <input type="checkbox"/> Other |

☒ Temp Blank

☐ Temperature out of compliance

Custody seals present?

☒ Yes

Custody seals intact?

☒ Yes ☐ No

☐ Non-Conformance report started

Exceptions Noted

- ☐ Sample(s) not received in a cooler.
- ☐ Samples(s) received same day of sampling.
- ☐ Evidence of a chilling process
- ☐ Temperature not taken: _____

01-27-06

Per John it is OK to do Nitrate as Method SW9210

Log-In by:

CW MF EM

OT _____