

September 12, 2012

Mr. Ervin Lane  
NCDENR DWM Solid Waste Section  
1646 Mail Service Center  
Raleigh, North Carolina 27699-1646

**RE: Stockpiled Soil Investigation  
Fogleman and Fogleman LCID Landfill  
Durham, North Carolina- Permit 32F**

Dear Mr. Lane:

As you are aware, Smith Gardner, Inc. (S+G) is assisting the Fogleman & Fogleman Soils, Inc. (Fogleman) Land Clearing and Inert Debris (LCID) landfill with a recent issue regarding receipt of unacceptable material at the site. As we discussed, Fogleman has received clean soil materials for both use on site and for re-sale from a local contractor, Mid-Atlantic Infrastructure, Additionally, the site is also permitted as a sand and soil mine with the Division of Land Quality. The receipt of the soil materials are maintained separately and understood to be clean fill materials.

On Thursday September 6<sup>th</sup> 2012, some of this material was hauled to a site (NCDENR DSCA remediation site on Club Blvd) in Durham and was noticed by quality assurance staff at the site to have a petroleum odor. The coordination and removal of these soils are being managed by the NCDENR DSCA personnel.

Therefore, this letter is sent to propose an investigation and remediation plan for the remaining soil stockpile at the landfill site.

### **Soil Stockpile Investigation Plan**

There are currently two soil stockpiles at the Fogleman Landfill site. Only one of these received soils from Mid-Atlantic Infrastructure. This soil stockpile was being depleted for the year as it is in a location that is difficult to access during winter weather. There currently remains a stockpile that is approximately 40 feet by 80 feet across with a depth ranging from a maximum of 12 feet to approximately zero feet near the road. This stockpile was placed upon weathered bedrock so the base of the stockpile will be easily discerned from soils above it. The location of the stockpile in question is shown on **Figure 1**.

To investigate these soils, we proposed the following actions:

#### ***Test Pit Investigation with Photoionization Detector Evaluation***

S+G will oversee the excavation of approximately eight (8) test pits within the remaining soil stockpile area. These test pits will be excavated to the depth of the soils stockpiled. Test pit locations are shown on **Figure 1**. At approximately each 2 feet in depth, a soil sample for Photoionization Detector (P.I.D.) evaluation. Each of these samples will have an initial P.I.D. meter reading and then will be placed in a Ziploc bag and sealed. After the sample has approximately 10 minutes to warm in the sun, the seal on the bag will be broken to only allow the meter tip to be introduced to the bag. A second

reading from the sample will be collected. Both readings will be recorded. Using this method as a screening tool, S+G personnel will evaluate and isolate areas where soils appear to be impacted based upon meter readings. These areas will be flagged for removal.

### ***Soil Sampling and Analysis***

During the initial investigation, a total of four (4) soil samples will be collected for laboratory analysis of Total Petroleum Hydrocarbons (TPH) both the Diesel Range Organics (DRO) and Gasoline Range Organics (GRO). One of these will be from an area that appears to be impacted by petroleum hydrocarbons. The remaining three samples will be collected from areas that appear to be clean based upon the P.I.D. evaluation. In this way, the quality of soils to be removed and those that will remain on-site will be confirmed.

### ***Soil Removal***

To expedite the remediation of the site, soils that appear to be impacted by petroleum hydrocarbons based upon P.I.D. evaluation and laboratory results will be removed and sent to SoilWorks in Zebulon, North Carolina. SoilWorks is a licensed soil remediation company that is permitted to accept petroleum impacted soils.

### ***Reporting***

Upon completion of this investigation and receipt of laboratory analysis, S+G will prepare a report summarizing our activities, the data collected and the laboratory analyses. Additionally, this report will summarize the quantities of soil removed. This report will include soil disposal manifests, a map showing the locations where soil was removed, conclusions and recommendations (if required).

We request to begin this work as soon as possible to expedite this process and appreciate your review of this plan. If you have any questions, or require additional information, please contact us at your earliest convenience at 919-828-0577 or by e-mail (address below).

Sincerely,  
**Smith Gardner, Inc.**



Joan A. Smyth, P.G.  
Senior Hydrogeologist  
[joan@smithgardnerinc.com](mailto:joan@smithgardnerinc.com) ext. 221

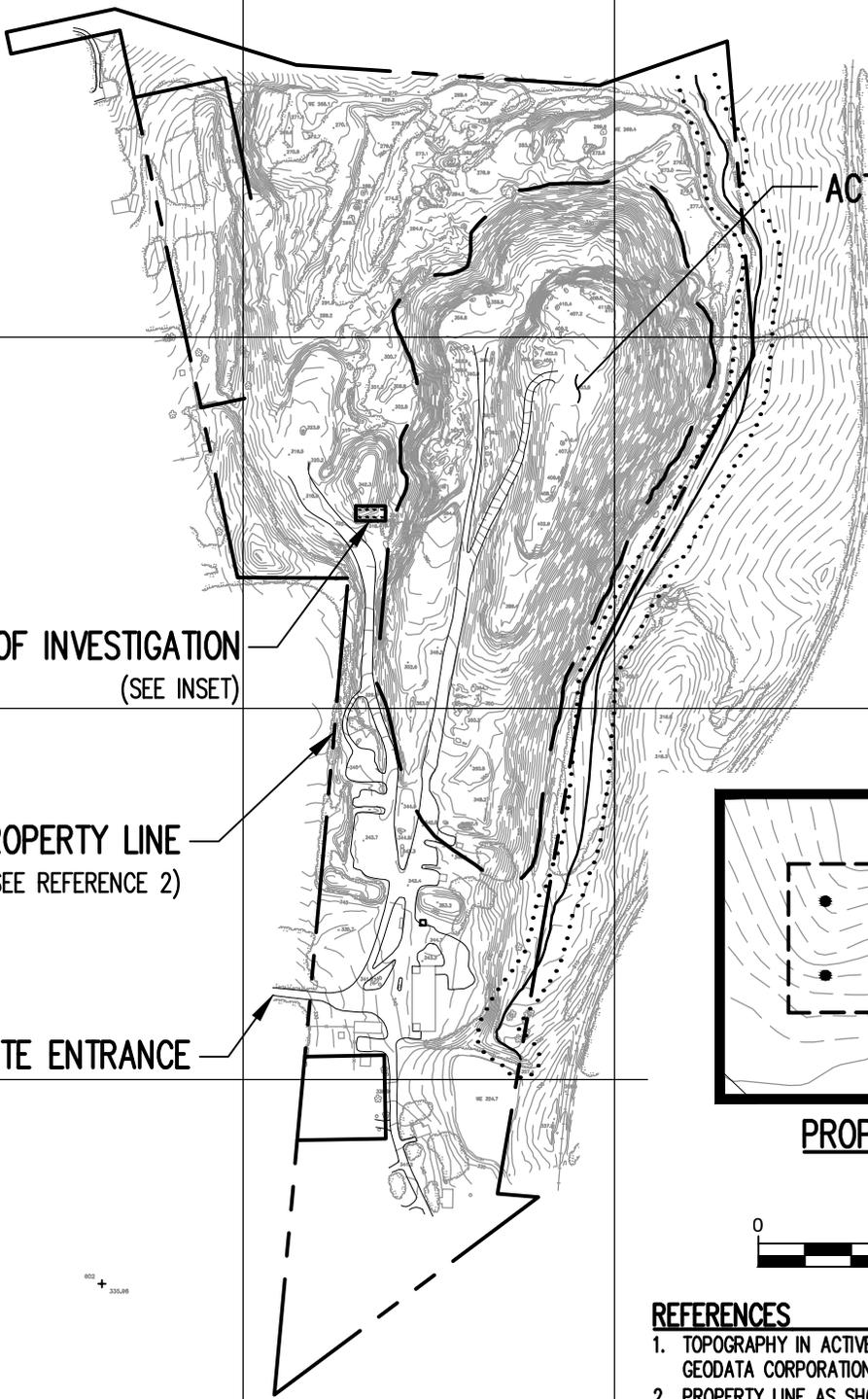
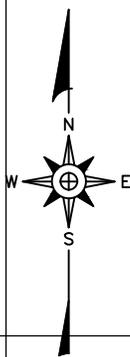


Stacey A. Smith, P.E.  
Senior Project Engineer  
[stacey@smithgardnerinc.com](mailto:stacey@smithgardnerinc.com) ext. 127

### **Attachments**

CC: Linda Fogleman – Fogleman and Fogleman Landfill  
Wayne Randolph – NCDENR UST Section  
John Patrone – NCDENR  
File

G:\CAD\Fogleman & Fogleman Soils\Fogle 11-1\sheets\FOGLE-A0012.dwg - 9/12/2012 2:04 PM

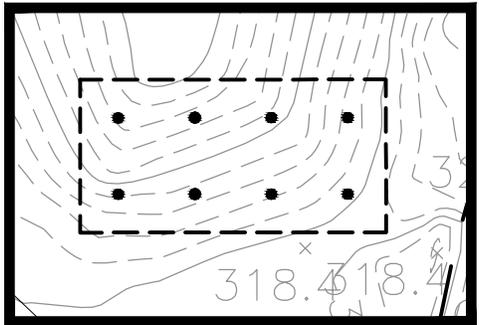


AREA OF INVESTIGATION  
(SEE INSET)

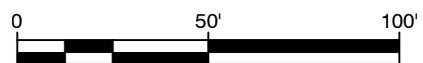
PROPERTY LINE  
(SEE REFERENCE 2)

SITE ENTRANCE

ACTIVE LCD LANDFILL



PROPOSED TEST PIT  
LOCATIONS



**REFERENCES**

1. TOPOGRAPHY IN ACTIVE AREAS FROM AERIAL SURVEY PERFORMED BY GEODATA CORPORATION, ZEBULON, NC, DATED JULY 1, 2011.
2. PROPERTY LINE AS SHOWN ON DRAWING "PROPOSED DEMOLITION LANDFILL, PROPERTY OF JOHN H. FOGLEMAN", PREPARED BY WILLIAM C WALKER, JR., REGISTERED LAND SURVEYOR, DURHAM, NC, DATED OCTOBER 15, 1991, REVISED FEBRUARY 2008.

PREPARED FOR:

**FOGLEMAN LANDFILL  
SOIL STOCKPILE WITH PROPOSED TEST PIT LOCATIONS  
DURHAM, NORTH CAROLINA**

PREPARED BY:

NC LIC. NO. C-0828 [ENGINEERING]

**SMITH+GARDNER**

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

|                  |           |                    |                   |                            |                  |                           |
|------------------|-----------|--------------------|-------------------|----------------------------|------------------|---------------------------|
| DRAWN:<br>J.A.L. | APPROVED: | SCALE:<br>AS SHOWN | DATE:<br>Sep 2012 | PROJECT NO.:<br>FOGLE 11-1 | FIGURE NO.:<br>1 | FILE NAME:<br>FOGLE-A0012 |
|------------------|-----------|--------------------|-------------------|----------------------------|------------------|---------------------------|