

Brownfields Program  
File Room Document Transmittal Sheet

23

Your Name: Shirley Liggins  
Project ID: 0904905021  
Facility Name: Leary Brothers Storage  
Document Group: Environmental Assessment (EA)  
Document Type: Sampling and Analysis Plan (SAP)  
Description: Soil Sampling results by Solutions-IES  
Date of Doc: 4/5/2012  
Author of Doc: James Joyner

**File Room Use Only**

Date Recieved by File Room:

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Month	Day	Year
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0904905021

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09049-05-21

April 5, 2012

Mr. Tony Duque  
NCDENR, Division of Waste Management  
N.C. Brownfields Program  
Mail Service Center 1646  
Raleigh, NC 27699-1646



Re.: Soil Sampling Results  
Former Leary Brothers Storage Site, Edenton, NC  
**Solutions-IES Project No.2012.0013.MARL**

Dear Mr. Duque:

Solutions-IES was retained by Marlin, LLC (formerly Virginia Road, LLC) to conduct soil sampling as required in the Brownfields Agreement between NCDENR and Virginia Road, LLC for the former Leary Brothers Storage Site located at 101 Virginia Road, Edenton, Chowan County, North Carolina (Figure 1). Soil sampling was previously conducted in January 2009 from the accessible areas of the site. At that time, one building remained on-site. This building was recently razed. As stipulated in the Brownfield Agreement, soil sampling was required upon demolition of the building.

Solutions-IES conducted the soil sampling on March 29, 2012 in accordance with the Soil Sampling Work Plan dated March 21, 2012. This summary report presents the sample locations from within the previous building's footprint and the results of the laboratory analyses pursuant to the Brownfield Agreement.

### **Results**

Solutions-IES collected soil samples in accordance with NCDENR Inactive Hazardous Sites Program, *Guidelines for Assessment and Cleanup* (August, 2011). The dimensions of the building footprint were approximately 50 x 80 feet. Based upon the former building footprint, the soil samples were collected on a 20-ft grid pattern. One sample was collected from each grid using a hand auger. Therefore, a total of six grids were sampled as illustrated in Figure 2. The soil samples from each grid were composited into one sample. Following NCDENR guidance, a one additional grab sample was collected from grid #1. All

soil samples were collected from 0 to 6 inches below land surface (bls). The two samples were submitted to ESC Lab Sciences analytical laboratory under chain-of-custody procedures and analyzed for arsenic by USEPA Method 6010B. The laboratory report is attached.

The results of the laboratory analysis on the soil samples are summarized below.

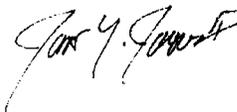
<u>Sample ID</u>	<u>Sample Method</u>	<u>Concentration (mg/kg)</u>
SIES-1	Grab	<1.2
SIES-2	Composite	<1.6

As indicated above, arsenic was not detected in the soil samples above the laboratory detection limit.

This report concludes the investigation activities required in the Brownfields Agreement for the Former Leary Brothers Storage Site. If you have any questions or need any additional information, please feel free to contact me at (919) 873-1060.

Yours truly,

**Solutions-IES**



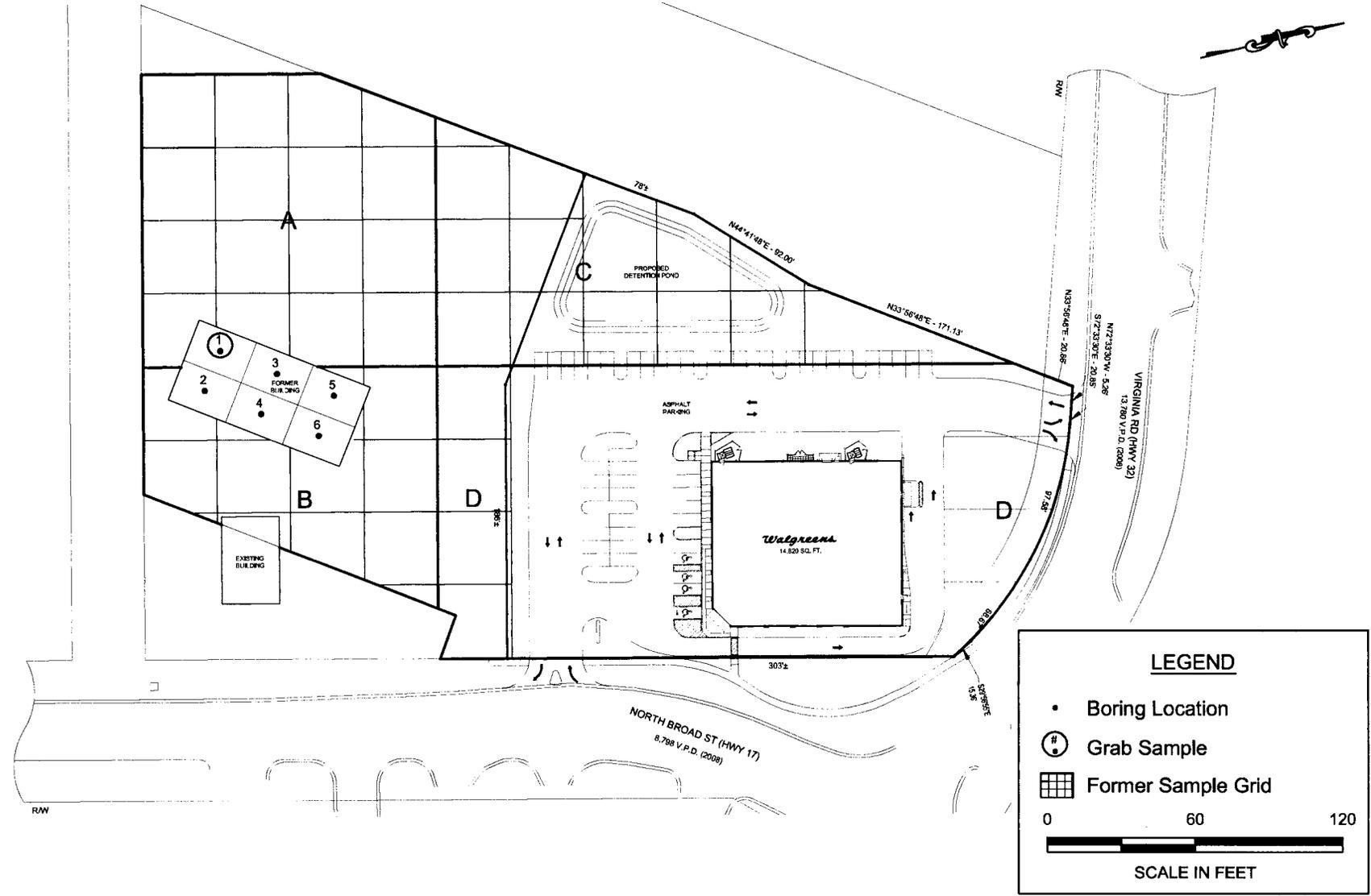
James Y. Joyner, II, RSM  
Senior Project Manager

Attachments: Figure 1 – Site Location  
Figure 2 – Soil Sample Locations  
Analytical Laboratory Report

cc: Steve Lane, Marlin, LLC



FILE Figure 2.pdf	DATE 03/20/2012	PROJECT MANAGER JJ	CHECKED BY JJ	DRAFTER DMM	PROJECT NUMBER 2012.0013.MARL
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**Solutions-IES**  
 Industrial & Environmental Services  
 1101 NOWELL ROAD  
 RALEIGH, NORTH CAROLINA 27607  
 TEL.: (919) 873-1060 FAX.: (919) 873-1074

SOIL SAMPLE LOCATION MAP  
 FORMER LEARY BROTHERS STORAGE SITE  
 101 VIRGINIA ROAD  
 EDENTON, CHOWAN COUNTY, NORTH CAROLINA

FIGURE:

2



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

James Joyner  
Solutions-IES  
1101 Nowell Road  
Raleigh, NC 27607

### Report Summary

Wednesday April 04, 2012

Report Number: L567612

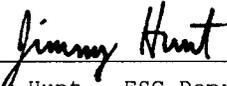
Samples Received: 03/30/12

Client Project:

Description: Virginia Road

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:

  
Jimmy Hunt, ESC Representative

#### Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,  
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,  
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,  
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,  
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,  
TX - T104704245-11-3, OK - 9915, PA - 68-02979

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.



YOUR LAB OF CHOICE

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REPORT OF ANALYSIS

April 04, 2012

James Joyner  
Solutions-IES  
1101 Nowell Road  
Raleigh, NC 27607

Date Received : March 30, 2012  
Description : Virginia Rd  
Sample ID : SIES-1 0-6IN  
Collected By :  
Collection Date : 03/29/12 11:15

ESC Sample # : L567612-01

Site ID :

Project # :

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	86.8	0.100	%	2540G	04/04/12	1
Arsenic	BDL	1.2	mg/kg	6010B	04/01/12	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

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REPORT OF ANALYSIS

April 04, 2012

James Joyner  
Solutions-IES  
1101 Nowell Road  
Raleigh, NC 27607

ESC Sample # : L567612-02

Date Received : March 30, 2012  
Description : Virginia Rd

Site ID :

Sample ID : SIES-2 0-6IN

Project # :

Collected By :  
Collection Date : 03/29/12 11:45

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	63.6	0.100	%	2540G	04/04/12	1
Arsenic	BDL	1.6	mg/kg	6010B	04/01/12	1

Results listed are dry weight basis.

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

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Reported: 04/04/12 13:07 Printed: 04/04/12 13:22



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Solutions-IES  
James Joyner  
1101 Nowell Road  
Raleigh, NC 27607

Quality Assurance Report  
Level II  
L567612

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
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April 04, 2012

Analyte	Result	Laboratory Blank Units % Rec	Limit	Batch	Date Analyzed
Arsenic	< 1	mg/kg		WG585769	04/01/12 23:37
Total Solids	< .1	%		WG586060	04/04/12 12:48

Analyte	Units	Result	Duplicate Duplicate	RPD	Limit	Ref Samp	Batch
Total Solids	%	71.0	75.0	6.02*	5	L567616-01	WG586060

Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
Arsenic	mg/kg	92.6	89.4	96.5	82.9-117	WG585769
Total Solids	%	50	50.1	100.	85-115	WG586060

Batch number /Run number / Sample number cross reference

WG585769: R2098454: L567612-01 02  
WG586060: R2104116: L567612-01 02

\* \* Calculations are performed prior to rounding of reported values.  
\* Performance of this Analyte is outside of established criteria.  
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



**YOUR LAB OF CHOICE**

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James Joyner  
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Raleigh, NC 27607

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Level II

L567612

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April 04, 2012

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

