CSX/Vaughan Landfill and Bramlette Road MGP Sites

Remedial Action Plan Final Report

June 2003

Volume 2

Appendix C

Virgin Backfill Confirmation Laboratory Data

PO# FH101376 MR# 01474877 25393

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Form 89962 (9-97)
Previously Form 35226

Duke Power's Analytical Laboratory
MNS Bldg. # 7405 (MG03A2)
13339 Hagers Ferry Road
Huntersville, NC 28078
Phone: (704) 875-5209/875-5245[1]
Fax: (704) 875-5038

LAB USE[8]

LIMS # 01-AUG-0380		Sample Class MGP
Logged By (Ini.) TW	Time 10:00	Date 8/16/01

Vendored Samples

Vendor	Analysis

Vendor	P.O. #

CLIENT[2]: Tim Hunsucker Report to/Ph.[4]:
Project Name[3]: BEAUFORT MGP Mail Code: MG03A3
FMIS #
Business Unit[4]: Resp. Center To: C897
Project ID[5]: MGPBRAM
Activity ID[6]: ALL ACTV
Process[7]:

Container Type: (✓)Glass ( )Plastic[13]

Preservative Added[14]

HNO_3													
H_2SO_4													
Ice	✓	✓	✓										
Other													
None													

Sample #[9]	Lab PROFS #[10]	Sample Description or ID[11]	Collection Information[12] Date	Time	Signature	GRAB[16]	COMP[17]	Analysis Required[15]: EPA-8260	EPA-8270	TCLP METALS	TOTAL # OF CONTAINERS[18]
21103											
0186	921769907	BRAM-FILL-GMH-081501 HOSPITAL SITE	8/15/01	1030	Tim Hunsucker		✓	1	1	1	3
Relinquished By:			8/17	11:55							
Accepted By:											

Relinquished by:[19]	Date/Time	Accepted By:	Date/Time
Tim Hunsucker	8/15/01 @ 1605	Troy Whisenant	8/15/01 @ 1605
Relinquished by: Duke Vickie Bowen 1140 8/17/01	Date/Time	Accepted by: Fed Ex Tim Oakley Race	Date/Time 8/17 11:40
Seal/Locked by[20]	Date/Time	Seal/Lock Opened By:	Date/Time

Turnaround Requested[21]
- ☐ Routine (2 weeks)
- ☒ Rush (1 week)
- ☐ Emergency Rush (24-48 Hrs.)*

Date Results Requested: _____
*Additional Charges Will Apply

Sample Matrix[22] NC ☐ SC ☒
Ground Water ☐ NPDES ☐
Drinking Water ☐ UST ☐

TEMP:[23]

Comments:[24] Full 8260 & 8270

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Form 89962 (9-97)
Previously Form 35226

Duke Power's Analytical Laboratory
MNS Bldg. # 7405 (MG03A2)
13339 Hagers Ferry Road
Huntersville, NC 28078
Phone: (704) 875-5209/875-5245[1]
Fax: (704) 875-5038

01-AUG-0534 LAB USE[8] RCRA

LIMS # ~~01-AUG-0380~~ Sample Class ~~MGP~~

Logged By (Ini.)	Time	Date
TW	10:00	8/16/01

Vendored Samples

Vendor	Analysis

Vendor	P.O. #

Container Type: (✓) Glass ( ) Plastic[13]

CLIENT[2]: Tim Hunsucker Report to/Ph.[4]:
Project Name[3]: BENNETTE MGP Mail Code: MG03A3
FMIS # Business Unit[4]: Resp. Center To: C897
Project ID[5]: MGP BRAM
Activity ID[6]: ALL ACTV
Process[7]:

Sample #[9]	Lab PROFS #[10]	Sample Description or ID[11]	Collection Information[12] Date	Time	Signature	GRAB[16]	COMP[17]	Analysis Required[15] EPA-8260	EPA-8270	TCLP METALS	TOTAL # OF CONTAINERS[18]
~~2103~~ ~~0136~~	21031215	BRAM-FILL-GMH-081501	8/15/01	1030	Tim Hunsucker		✓	1	1	1	3

Preservative Added[14]

HNO_3																
H_2SO_4																
Ice	✓	✓	✓													
Other																
None																

Relinquished by:[19]	Date/Time	Accepted By:	Date/Time
Tim Hunsucker	8/15/01 @ 1605	Troy Whisenant	8/15/01 @ 1605
Relinquished by:	Date/Time	Accepted By:	Date/Time
Seal/Locked by[20]	Date/Time	Seal/Lock Opened By:	Date/Time

Turnaround Requested[21]
- ☐ Routine (2 weeks)
- ☑ Rush (1 week)
- ☐ Emergency Rush (24-48 Hrs.)*

Date Results Requested: _____
*Additional Charges Will Apply

Sample Matrix[22] NC ☐ SC ☑
Ground Water ☐ NPDES ☐
Drinking Water ☐ UST ☐
RCRA Waste ☐ Other ☑

TEMP:[23]

Comments:[24] FULL 8260 & 8270

See Instructions on the back of this form.

Duke Power
A Duke Energy Company

Duke Power's Analytical Laboratory

Group Environment, Health and Safety
Phone: 704-875-5209
Fax: 704-875-5038

13339 Hagers Ferry Road
Huntersville, NC 28078-7929
McGuire Nuclear Complex - MG03A2

Certificate of Analysis

New York State Department of Health Certification # 11717
Kansas Department of Health and Environment Certificate # E-10311
Louisiana Department of Environmental Quality (LELAP) Certificate # 02012
North Carolina Department of Health & Human Services Certification # 37804
North Carolina Department of Environment and Natural Resources (DENR) Certification # 248
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Field I.D.	BRAM-FILL-GMH-08501
Station / Contact	BRAMLETTE MGP — TIM HUNSUCKER
Collection Date	08/15/01
Analysis Date	09/06/01
Laboratory I.D.	01-AUG-0534 (210.1215)
Matrix Type	Solid (NA % Volume, NA Weight (g))
Laboratory Contact	TROY WHISENANT

Analyte	T.C.L.P. Conc.		T.C.L.P. Regulatory Limit	Waste Code	Analytical Method
Silver (Ag)	< 0.005	mg/L	5 mg/l	D011	7760
Barium (Ba)	0.51	mg/L	100 mg/l	D005	6010
Cadmium (Cd)	< 0.03	mg/L	1 mg/l	D006	6010
Chromium (Cr)	< 0.04	mg/L	5 mg/l	D007	6010
Lead (Pb)	< 0.09	mg/L	5 mg/l	D008	6010
Arsenic (As)	< 0.1	mg/L	5 mg/l	D004	6010
Selenium (Se)	< 0.13	mg/L	1 mg/l	D010	6010
Mercury (Hg)	< 0.001	mg/L	0.2 mg/l	D009	7471
Nickel (Ni)			134 mg/l	---	6010
Thallium (Tl)			130 mg/l	---	6010
% Ash @ 550° C			N/A	---	ASTM D297/D817 E830 @ 550° C
B.T.U.			N/A	---	ASTM D3286-91
Total Sulfur			N/A	---	ASTM D4239-85
Total Chlorine			N/A	---	EPA 9076
(Flash point) Ignitibilit			(Y/N)	---	EPA 1010
pH			< 2.0 or > 12.5	---	EPA 9040
% Water			N/A	---	ASTM D3792

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August 23, 2001

Mr. Troy Whisenant
Duke Power
13339 Hagers Ferry Road
MG03A2
Huntersville, NC 28078

RE: Lab Project Number: 9225393
Client Project ID: 01-AUG-0380/FH101376/MR1474877

Dear Mr. Whisenant:

Enclosed are the analytical results for sample(s) received by the laboratory on August 17, 2001. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kristi R. Tart

Kristi Tart
Kristi.Tart@pacelabs.com
Project Manager

Enclosures

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Duke Power
13339 Hagers Ferry Road
MG03A2
Huntersville, NC 28078

Lab Project Number: 9225393
Client Project ID: 01-AUG-0380/FH101376/MR1474877

Attn: Mr. Troy Whisenant
Phone: (704)875-5204

Solid results are reported on a wet weight basis

Lab Sample No: 921769907 Project Sample Number: 9225393-001 Date Collected: 08/15/01 10:30
Client Sample ID: 21030186/BRAM-FILL-GMH-081501 Matrix: Soil Date Received: 08/17/01 12:10

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote	Req Limit
GC/MS Volatiles							
GC/MS VOCs by 8260, low level	Prep/Method: EPA 8260 / EPA 8260						
Benzene	ND	ug/kg	5.0	08/22/01 19:01 RPJ	71-43-2		
Bromobenzene	ND	ug/kg	5.0	08/22/01 19:01 RPJ	108-86-1		
Bromochloromethane	ND	ug/kg	5.0	08/22/01 19:01 RPJ	74-97-5		
Bromodichloromethane	ND	ug/kg	5.0	08/22/01 19:01 RPJ	75-27-4		
Bromoform	ND	ug/kg	5.0	08/22/01 19:01 RPJ	75-25-2		
Bromomethane	ND	ug/kg	10.	08/22/01 19:01 RPJ	74-83-9		
n-Butylbenzene	ND	ug/kg	5.0	08/22/01 19:01 RPJ	104-51-8		
sec-Butylbenzene	ND	ug/kg	5.0	08/22/01 19:01 RPJ	135-98-8		
tert-Butylbenzene	ND	ug/kg	5.0	08/22/01 19:01 RPJ	98-06-6		
Carbon tetrachloride	ND	ug/kg	5.0	08/22/01 19:01 RPJ	56-23-5		
Chlorobenzene	ND	ug/kg	5.0	08/22/01 19:01 RPJ	108-90-7		
Chloroethane	ND	ug/kg	10.	08/22/01 19:01 RPJ	75-00-3		
Chloroform	ND	ug/kg	5.0	08/22/01 19:01 RPJ	67-66-3		
Chloromethane	ND	ug/kg	10.	08/22/01 19:01 RPJ	74-87-3		
2-Chlorotoluene	ND	ug/kg	5.0	08/22/01 19:01 RPJ	95-49-8		
4-Chlorotoluene	ND	ug/kg	5.0	08/22/01 19:01 RPJ	106-43-4		
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	08/22/01 19:01 RPJ	96-12-8		
Dibromochloromethane	ND	ug/kg	5.0	08/22/01 19:01 RPJ	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	08/22/01 19:01 RPJ	106-93-4		
Dibromomethane	ND	ug/kg	5.0	08/22/01 19:01 RPJ	74-95-3		
1,2-Dichlorobenzene	ND	ug/kg	5.0	08/22/01 19:01 RPJ	95-50-1		
1,3-Dichlorobenzene	ND	ug/kg	5.0	08/22/01 19:01 RPJ	541-73-1		
1,4-Dichlorobenzene	ND	ug/kg	5.0	08/22/01 19:01 RPJ	106-46-7		
Dichlorodifluoromethane	ND	ug/kg	10.	08/22/01 19:01 RPJ	75-71-8		
1,1-Dichloroethane	ND	ug/kg	5.0	08/22/01 19:01 RPJ	75-34-3		
1,2-Dichloroethane	ND	ug/kg	5.0	08/22/01 19:01 RPJ	107-06-2		
1,1-Dichloroethene	ND	ug/kg	5.0	08/22/01 19:01 RPJ	75-35-4		

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Lab Project Number: 9225393
Client Project ID: 01-AUG-0380/FH101376/MR1474877

Lab Sample No: 921769907 Project Sample Number: 9225393-001 Date Collected: 08/15/01 10:30
Client Sample ID: 21030186/BRAM-FILL-GMH-081501 Matrix: Soil Date Received: 08/17/01 12:10

Parameters	Results	Units	Report Limit	Analyzed		CAS No.	Ftnote	Reg Limit
cis-1.2-Dichloroethene	ND	ug/kg	5.0	08/22/01 19:01	RPJ	156-59-2		
trans-1.2-Dichloroethene	ND	ug/kg	5.0	08/22/01 19:01	RPJ	156-60-5		
1.2-Dichloropropane	ND	ug/kg	5.0	08/22/01 19:01	RPJ	78-87-5		
1.3-Dichloropropane	ND	ug/kg	5.0	08/22/01 19:01	RPJ	142-28-9		
2.2-Dichloropropane	ND	ug/kg	5.0	08/22/01 19:01	RPJ	594-20-7		
1.1-Dichloropropene	ND	ug/kg	5.0	08/22/01 19:01	RPJ	563-58-6		
Diisopropyl ether	ND	ug/kg	5.0	08/22/01 19:01	RPJ	108-20-3		
Ethylbenzene	ND	ug/kg	5.0	08/22/01 19:01	RPJ	100-41-4		
Hexachloro-1.3-butadiene	ND	ug/kg	5.0	08/22/01 19:01	RPJ	87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	08/22/01 19:01	RPJ	98-82-8		
p-Isopropyltoluene	ND	ug/kg	5.0	08/22/01 19:01	RPJ	99-87-6		
Methylene chloride	ND	ug/kg	5.0	08/22/01 19:01	RPJ	75-09-2		
Methyl-tert-butyl ether	ND	ug/kg	5.0	08/22/01 19:01	RPJ	1634-04-4		
Naphthalene	ND	ug/kg	5.0	08/22/01 19:01	RPJ	91-20-3		
n-Propylbenzene	ND	ug/kg	5.0	08/22/01 19:01	RPJ	103-65-1		
Styrene	ND	ug/kg	5.0	08/22/01 19:01	RPJ	100-42-5		
1.1.1.2-Tetrachloroethane	ND	ug/kg	5.0	08/22/01 19:01	RPJ	630-20-6		
1.1.2.2-Tetrachloroethane	ND	ug/kg	5.0	08/22/01 19:01	RPJ	79-34-5		
Tetrachloroethene	ND	ug/kg	5.0	08/22/01 19:01	RPJ	127-18-4		
Toluene	ND	ug/kg	5.0	08/22/01 19:01	RPJ	108-88-3		
1.2.3-Trichlorobenzene	ND	ug/kg	5.0	08/22/01 19:01	RPJ	87-61-6		
1.2.4-Trichlorobenzene	ND	ug/kg	5.0	08/22/01 19:01	RPJ	120-82-1		
1.1.1-Trichloroethane	ND	ug/kg	5.0	08/22/01 19:01	RPJ	71-55-6		
1.1.2-Trichloroethane	ND	ug/kg	5.0	08/22/01 19:01	RPJ	79-00-5		
Trichloroethene	ND	ug/kg	5.0	08/22/01 19:01	RPJ	79-01-6		
Trichlorofluoromethane	ND	ug/kg	5.0	08/22/01 19:01	RPJ	75-69-4		
1.2.3-Trichloropropane	ND	ug/kg	5.0	08/22/01 19:01	RPJ	96-18-4		
1.2.4-Trimethylbenzene	ND	ug/kg	5.0	08/22/01 19:01	RPJ	95-63-6		
1.3.5-Trimethylbenzene	ND	ug/kg	5.0	08/22/01 19:01	RPJ	108-67-8		
Vinyl chloride	ND	ug/kg	10.	08/22/01 19:01	RPJ	75-01-4		
m&p-Xylene	ND	ug/kg	10.	08/22/01 19:01	RPJ			
o-Xylene	ND	ug/kg	5.0	08/22/01 19:01	RPJ	95-47-6		
Toluene-d8 (S)	99	%		08/22/01 19:01	RPJ	2037-26-5		
4-Bromofluorobenzene (S)	93	%		08/22/01 19:01	RPJ	460-00-4		
Dibromofluoromethane (S)	102	%		08/22/01 19:01	RPJ			
1.2-Dichloroethane-d4 (S)	101	%		08/22/01 19:01	RPJ	17060-07-0		

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Lab Project Number: 9225393
Client Project ID: 01-AUG-0380/FH101376/MR1474877

PARAMETER FOOTNOTES

ND	Not Detected
NC	Not Calculable
(S)	Surrogate

Pace Analytical Services, In
9800 Kincey Avenue, Suite 1
Huntersville, NC 280
Phone: 704.875.90
Fax: 704.875.90

Lab Project Number: 9225393
Client Project ID: 01-AUG-0380/FH101376/MR1474877

QC Batch: 45851
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: GC/MS VOCs by 8260, low level
Associated Lab Samples: 921769907

METHOD BLANK: 921777942
Associated Lab Samples: 921769907

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/kg	ND	5.0	
Bromobenzene	ug/kg	ND	5.0	
Bromochloromethane	ug/kg	ND	5.0	
Bromodichloromethane	ug/kg	ND	5.0	
Bromoform	ug/kg	ND	5.0	
Bromomethane	ug/kg	ND	10.	
n-Butylbenzene	ug/kg	ND	5.0	
sec-Butylbenzene	ug/kg	ND	5.0	
tert-Butylbenzene	ug/kg	ND	5.0	
Carbon tetrachloride	ug/kg	ND	5.0	
Chlorobenzene	ug/kg	ND	5.0	
Chloroethane	ug/kg	ND	10.	
Chloroform	ug/kg	ND	5.0	
Chloromethane	ug/kg	ND	10.	
2-Chlorotoluene	ug/kg	ND	5.0	
4-Chlorotoluene	ug/kg	ND	5.0	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.0	
Dibromochloromethane	ug/kg	ND	5.0	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.0	
Dibromomethane	ug/kg	ND	5.0	
1,2-Dichlorobenzene	ug/kg	ND	5.0	
1,3-Dichlorobenzene	ug/kg	ND	5.0	
1,4-Dichlorobenzene	ug/kg	ND	5.0	
Dichlorodifluoromethane	ug/kg	ND	10.	
1,1-Dichloroethane	ug/kg	ND	5.0	
1,2-Dichloroethane	ug/kg	ND	5.0	
1,1-Dichloroethene	ug/kg	ND	5.0	
cis-1,2-Dichloroethene	ug/kg	ND	5.0	
trans-1,2-Dichloroethene	ug/kg	ND	5.0	
1,2-Dichloropropane	ug/kg	ND	5.0	

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QUALITY CONTROL DATA

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Phone: 704.875.909
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Lab Project Number: 9225393
Client Project ID: 01-AUG-0380/FH101376/MR1474877

METHOD BLANK: 921777942
Associated Lab Samples: 921769907

Parameter	Units	Blank Result	Reporting Limit	Footnotes
1,3-Dichloropropane	ug/kg	ND	5.0	
2,2-Dichloropropane	ug/kg	ND	5.0	
1,1-Dichloropropene	ug/kg	ND	5.0	
Diisopropyl ether	ug/kg	ND	5.0	
Ethylbenzene	ug/kg	ND	5.0	
Hexachloro-1,3-butadiene	ug/kg	ND	5.0	
Isopropylbenzene (Cumene)	ug/kg	ND	5.0	
p-Isopropyltoluene	ug/kg	ND	5.0	
Methylene chloride	ug/kg	ND	5.0	
Methyl-tert-butyl ether	ug/kg	ND	5.0	
Naphthalene	ug/kg	ND	5.0	
n-Propylbenzene	ug/kg	ND	5.0	
Styrene	ug/kg	ND	5.0	
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.0	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.0	
Tetrachloroethene	ug/kg	ND	5.0	
Toluene	ug/kg	ND	5.0	
1,2,3-Trichlorobenzene	ug/kg	ND	5.0	
1,2,4-Trichlorobenzene	ug/kg	ND	5.0	
1,1,1-Trichloroethane	ug/kg	ND	5.0	
1,1,2-Trichloroethane	ug/kg	ND	5.0	
Trichloroethene	ug/kg	ND	5.0	
Trichlorofluoromethane	ug/kg	ND	5.0	
1,2,3-Trichloropropane	ug/kg	ND	5.0	
1,2,4-Trimethylbenzene	ug/kg	ND	5.0	
1,3,5-Trimethylbenzene	ug/kg	ND	5.0	
Vinyl chloride	ug/kg	ND	10.	
m&p-Xylene	ug/kg	ND	10.	
o-Xylene	ug/kg	ND	5.0	
Toluene-d8 (S)	%	100		
4-Bromofluorobenzene (S)	%	96		
Dibromofluoromethane (S)	%	100		
1,2-Dichloroethane-d4 (S)	%	102		

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QUALITY CONTROL DATA

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Huntersville, NC 280
Phone: 704.875.90
Fax: 704.875.90

Lab Project Number: 9225393
Client Project ID: 01-AUG-0380/FH101376/MR1474877

LABORATORY CONTROL SAMPLE: 921777959

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzene	ug/kg	50	54.32	109	
Bromobenzene	ug/kg	50	53.32	107	
Bromochloromethane	ug/kg	50	57.16	114	
Bromodichloromethane	ug/kg	50	56.03	112	
Bromoform	ug/kg	50	54.03	108	
Bromomethane	ug/kg	50	60.93	122	
n-Butylbenzene	ug/kg	50	49.85	100	
sec-Butylbenzene	ug/kg	50	50.80	102	
tert-Butylbenzene	ug/kg	50	52.55	105	
Carbon tetrachloride	ug/kg	50	54.11	108	
Chlorobenzene	ug/kg	50	54.75	110	
Chloroethane	ug/kg	50	87.08	174	1
Chloroform	ug/kg	50	55.66	111	
Chloromethane	ug/kg	50	38.23	76	
2-Chlorotoluene	ug/kg	50	51.37	103	
4-Chlorotoluene	ug/kg	50	52.32	105	
1,2-Dibromo-3-chloropropane	ug/kg	50	50.65	101	
Dibromochloromethane	ug/kg	50	55.81	112	
1,2-Dibromoethane (EDB)	ug/kg	50	55.51	111	
Dibromomethane	ug/kg	50	56.02	112	
1,2-Dichlorobenzene	ug/kg	50	51.14	102	
1,3-Dichlorobenzene	ug/kg	50	50.66	101	
1,4-Dichlorobenzene	ug/kg	50	51.08	102	
Dichlorodifluoromethane	ug/kg	50	25.91	52	
1,1-Dichloroethane	ug/kg	50	56.08	112	
1,2-Dichloroethane	ug/kg	50	55.41	111	
1,1-Dichloroethene	ug/kg	50	63.55	127	
cis-1,2-Dichloroethene	ug/kg	50	57.29	115	
trans-1,2-Dichloroethene	ug/kg	50	59.48	119	
1,2-Dichloropropane	ug/kg	50	57.22	114	
1,3-Dichloropropane	ug/kg	50	54.95	110	
2,2-Dichloropropane	ug/kg	50	54.90	110	
1,1-Dichloropropene	ug/kg	50	56.19	112	
Diisopropyl ether	ug/kg	50	52.82	106	
Ethylbenzene	ug/kg	50	53.65	107	
Hexachloro-1,3-butadiene	ug/kg	50	49.32	99	

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QUALITY CONTROL DATA

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Phone: 704.875.909
Fax: 704.875.909

Lab Project Number: 9225393
Client Project ID: 01-AUG-0380/FH101376/MR1474877

LABORATORY CONTROL SAMPLE: 921777959

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Isopropylbenzene (Cumene)	ug/kg	50	52.91	106	
p-Isopropyltoluene	ug/kg	50	50.31	101	
Methylene chloride	ug/kg	50	57.24	114	
Methyl-tert-butyl ether	ug/kg	50	49.53	99	
Naphthalene	ug/kg	50	50.99	102	
n-Propylbenzene	ug/kg	50	51.54	103	
Styrene	ug/kg	50	51.82	104	
1,1,1,2-Tetrachloroethane	ug/kg	50	54.81	110	
1,1,2,2-Tetrachloroethane	ug/kg	50	54.01	108	
Tetrachloroethene	ug/kg	50	53.47	107	
Toluene	ug/kg	50	55.49	111	
1,2,3-Trichlorobenzene	ug/kg	50	49.05	98	
1,2,4-Trichlorobenzene	ug/kg	50	47.20	94	
1,1,1-Trichloroethane	ug/kg	50	55.74	111	
1,1,2-Trichloroethane	ug/kg	50	56.61	113	
Trichloroethene	ug/kg	50	56.44	113	
Trichlorofluoromethane	ug/kg	50	58.63	117	
1,2,3-Trichloropropane	ug/kg	50	52.75	106	
1,2,4-Trimethylbenzene	ug/kg	50	51.08	102	
1,3,5-Trimethylbenzene	ug/kg	50	50.58	101	
Vinyl chloride	ug/kg	50	41.61	83	
m&p-Xylene	ug/kg	100	105.1	105	
o-Xylene	ug/kg	50	52.82	106	
Toluene-d8 (S)				101	
4-Bromofluorobenzene (S)				101	
Dibromofluoromethane (S)				98	
1,2-Dichloroethane-d4 (S)				99	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 921777967 921777975

Parameter	Units	921757084 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Benzene	ug/kg	7.038	57.45	52.94	58.51	80	90	10	
Chlorobenzene	ug/kg	0	57.45	31.83	31.70	55	55	0	2.2
1,1-Dichloroethene	ug/kg	0	57.45	68.88	66.54	120	116	3	

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QUALITY CONTROL DATA

Pace Analytical Services, Inc
9800 Kincey Avenue, Suite 10
Huntersville, NC 2807
Phone: 704.875.909
Fax: 704.875.909

Lab Project Number: 9225393
Client Project ID: 01-AUG-0380/FH101376/MR1474877

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 921777967 921777975

Parameter	Units	921757084 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Toluene	ug/kg	4.775	57.45	48.82	45.86	77	72	6	
Trichloroethene	ug/kg	0	57.45	44.39	44.61	77	78	0	
Toluene-d8 (S)						100	99		
4-Bromofluorobenzene (S)						88	89		
Dibromofluoromethane (S)						100	103		
1,2-Dichloroethane-d4 (S)						100	98		

SAMPLE DUPLICATE: 921777983

Parameter	Units	921757100 Result	DUP Result	RPD	Footnotes
Benzene	ug/kg	ND	ND	NC	
Bromobenzene	ug/kg	ND	ND	NC	
Bromochloromethane	ug/kg	ND	ND	NC	
Bromodichloromethane	ug/kg	ND	ND	NC	
Bromoform	ug/kg	ND	ND	NC	
Bromomethane	ug/kg	ND	ND	NC	
n-Butylbenzene	ug/kg	ND	ND	NC	
sec-Butylbenzene	ug/kg	ND	ND	NC	
tert-Butylbenzene	ug/kg	ND	ND	NC	
Carbon tetrachloride	ug/kg	ND	ND	NC	
Chlorobenzene	ug/kg	ND	ND	NC	
Chloroethane	ug/kg	ND	ND	NC	
Chloroform	ug/kg	ND	ND	NC	
Chloromethane	ug/kg	ND	ND	NC	
2-Chlorotoluene	ug/kg	ND	ND	NC	
4-Chlorotoluene	ug/kg	ND	ND	NC	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND	NC	
Dibromochloromethane	ug/kg	ND	ND	NC	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND	NC	
Dibromomethane	ug/kg	ND	ND	NC	
1,2-Dichlorobenzene	ug/kg	ND	ND	NC	
1,3-Dichlorobenzene	ug/kg	ND	ND	NC	
1,4-Dichlorobenzene	ug/kg	ND	ND	NC	
Dichlorodifluoromethane	ug/kg	ND	ND	NC	

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9800 Kincey Avenue, Suite 10
Huntersville, NC 280
Phone: 704.875.90
Fax: 704.875.90

Lab Project Number: 9225393
Client Project ID: 01-AUG-0380/FH101376/MR1474877

SAMPLE DUPLICATE: 921777983

Parameter	Units	921757100 Result	DUP Result	RPD	Footnotes
1,1-Dichloroethane	ug/kg	ND	ND	NC	
1,2-Dichloroethane	ug/kg	ND	ND	NC	
1,1-Dichloroethene	ug/kg	ND	ND	NC	
cis-1,2-Dichloroethene	ug/kg	ND	ND	NC	
trans-1,2-Dichloroethene	ug/kg	ND	ND	NC	
1,2-Dichloropropane	ug/kg	ND	ND	NC	
1,3-Dichloropropane	ug/kg	ND	ND	NC	
2,2-Dichloropropane	ug/kg	ND	ND	NC	
1,1-Dichloropropene	ug/kg	ND	ND	NC	
Diisopropyl ether	ug/kg	ND	ND	NC	
Ethylbenzene	ug/kg	ND	ND	NC	
Hexachloro-1,3-butadiene	ug/kg	ND	ND	NC	
Isopropylbenzene (Cumene)	ug/kg	ND	ND	NC	
p-Isopropyltoluene	ug/kg	ND	ND	NC	
Methylene chloride	ug/kg	ND	ND	NC	
Methyl-tert-butyl ether	ug/kg	ND	ND	NC	
Naphthalene	ug/kg	ND	ND	NC	
n-Propylbenzene	ug/kg	ND	ND	NC	
Styrene	ug/kg	ND	ND	NC	
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND	NC	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND	NC	
Tetrachloroethene	ug/kg	ND	ND	NC	
Toluene	ug/kg	ND	ND	NC	
1,2,3-Trichlorobenzene	ug/kg	ND	ND	NC	
1,2,4-Trichlorobenzene	ug/kg	ND	ND	NC	
1,1,1-Trichloroethane	ug/kg	ND	ND	NC	
1,1,2-Trichloroethane	ug/kg	ND	ND	NC	
Trichloroethene	ug/kg	ND	ND	NC	
Trichlorofluoromethane	ug/kg	ND	ND	NC	
1,2,3-Trichloropropane	ug/kg	ND	ND	NC	
1,2,4-Trimethylbenzene	ug/kg	ND	ND	NC	
1,3,5-Trimethylbenzene	ug/kg	ND	ND	NC	
Vinyl chloride	ug/kg	ND	ND	NC	
m&p-Xylene	ug/kg	ND	ND	NC	
o-Xylene	ug/kg	ND	ND	NC	
Toluene-d8 (S)	%	100	101		

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QUALITY CONTROL DATA

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Lab Project Number: 9225393
Client Project ID: 01-AUG-0380/FH101376/MR1474877

SAMPLE DUPLICATE: 921777983

Parameter	Units	921757100 Result	DUP Result	RPD	Footnotes
4-Bromofluorobenzene (S)	%	95	94		
Dibromofluoromethane (S)	%	101	102		
1,2-Dichloroethane-d4 (S)	%	101	102		

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Lab Project Number: 9225393
Client Project ID: 01-AUG-0380/FH101376/MR1474877

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D) Laboratory Control Sample (Duplicate)
MS(D) Matrix Spike (Duplicate)
DUP Sample Duplicate
ND Not Detected
NC Not Calculable
RPD Relative Percent Difference
(S) Surrogate
[1] Recovery falls outside of QC limits, however, this compound is not found in the associated samples.
[2] The surrogate and/or spike recovery was outside acceptance limits.

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McGuire Nuclear Complex - MG03A2

Certificate of Analysis

NewYork State Department of Health Certification # 11717
Kansas Department of Health and Environment Certificate # E-10311
Louisiana Department of Environmental Quality (LELAP) Certificate # 02012
North Carolina Department of Health & Human Services Certification # 37804
North Carolina Department of Environment and Natural Resources (DENR) Certification # 248
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Sample ID # : **21030186** Job # : **01-AUG-0380**

Sample Description: **BRAM-FILL-GMH-081501**

Collection Date: **15-Aug-01 16:05:00** Site : BRAMLETT ST Sample Type: SOIL SPECIAL Desktop #

SVOC IN SOIL BY GC/MS - 8270

Test Code: MS8270_S Test Method: SW-846 8270C Date Posted: 08/23/01

	Result	Reporting Limit	Flag
Pyridine	< 0.33 mg/Kg	0.33 mg/Kg	1
n-Nitrosodimethylamine	< 0.33 mg/Kg	0.33 mg/Kg	1
Aniline	< 0.33 mg/Kg	0.33 mg/Kg	1
Phenol	< 0.33 mg/Kg	0.33 mg/Kg	1
bis(2-Chloroethyl)ether	< 0.33 mg/Kg	0.33 mg/Kg	1
2-Chlorophenol	< 0.33 mg/Kg	0.33 mg/Kg	1
1,3-Dichlorobenzene	< 0.33 mg/Kg	0.33 mg/Kg	1
1,4-Dichlorobenzene	< 0.33 mg/Kg	0.33 mg/Kg	1
Benzyl alcohol	< 0.33 mg/Kg	0.33 mg/Kg	1
1,2-Dichlorobenzene	< 0.33 mg/Kg	0.33 mg/Kg	1
2-Methylphenol	< 0.33 mg/Kg	0.33 mg/Kg	1
bis(2-Chloroisopropyl)ether	< 0.33 mg/Kg	0.33 mg/Kg	1
4-Methylphenol	< 0.33 mg/Kg	0.33 mg/Kg	1
Hexachloroethane	< 0.33 mg/Kg	0.33 mg/Kg	1
n-Nitrosodi-n-propylamine	< 0.33 mg/Kg	0.33 mg/Kg	1
Nitrobenzene	< 0.33 mg/Kg	0.33 mg/Kg	1
Isophorone	< 0.33 mg/Kg	0.33 mg/Kg	1
2-Nitrophenol	< 0.33 mg/Kg	0.33 mg/Kg	1
2,4-Dimethylphenol	< 0.33 mg/Kg	0.33 mg/Kg	0
bis(2-Chloroethoxy)methane	< 0.33 mg/Kg	0.33 mg/Kg	1
2,4-Dichlorophenol	< 0.33 mg/Kg	0.33 mg/Kg	0
Benzoic acid	< 0.81 mg/Kg	0.81 mg/Kg	1
1,2,4-Trichlorobenzene	< 0.33 mg/Kg	0.33 mg/Kg	1
Naphthalene	< 0.33 mg/Kg	0.33 mg/Kg	1
4-Chloroaniline	< 0.33 mg/Kg	0.33 mg/Kg	1
Hexachlorobutadiene	< 0.33 mg/Kg	0.33 mg/Kg	1
4-Chloro-3-methylphenol	< 0.33 mg/Kg	0.33 mg/Kg	0
2-Methylnaphthalene	< 0.33 mg/Kg	0.33 mg/Kg	1
Hexachlorocyclopentadiene	< 0.81 mg/Kg	0.81 mg/Kg	1
2,4,6-Trichlorophenol	< 0.33 mg/Kg	0.33 mg/Kg	0
2,4,5-Trichlorophenol	< 0.33 mg/Kg	0.33 mg/Kg	0
2-Chloronaphthalene	< 0.33 mg/Kg	0.33 mg/Kg	0
2-Nitroaniline	< 0.33 mg/Kg	0.33 mg/Kg	0
Dimethylphthalate	< 0.33 mg/Kg	0.33 mg/Kg	0
Acenaphthylene	< 0.33 mg/Kg	0.33 mg/Kg	0
2,6-Dinitrotoluene	< 0.33 mg/Kg	0.33 mg/Kg	0
3-Nitroaniline	< 0.33 mg/Kg	0.33 mg/Kg	0
Acenaphthene	< 0.33 mg/Kg	0.33 mg/Kg	0

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North Carolina Department of Environment and Natural Resources (DENR) Certification # 248
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Sample ID # : **21030186** Job # : **01-AUG-0380**

Sample Description: **BRAM-FILL-GMH-081501**

Collection Date: **15-Aug-01 16:05:00** Site : BRAMLETT ST Sample Type: SOIL SPECIAL Desktop #

SVOC IN SOIL BY GC/MS - 8270

Test Code: **MS8270_S** Test Method: **SW-846 8270C** Date Posted: **08/23/01**

	Result	Reporting Limit	Flag
2,4-Dinitrophenol	< 0.81 mg/Kg	0.81 mg/Kg	1
4-Nitrophenol	< 0.81 mg/Kg	0.81 mg/Kg	0
Dibenzofuran	< 0.33 mg/Kg	0.33 mg/Kg	0
2,4-Dinitrotoluene	< 0.33 mg/Kg	0.33 mg/Kg	0
Diethylphthalate	< 0.33 mg/Kg	0.33 mg/Kg	0
Fluorene	< 0.33 mg/Kg	0.33 mg/Kg	0
4-Chlorophenylphenylether	< 0.33 mg/Kg	0.33 mg/Kg	0
4-Nitroaniline	< 0.33 mg/Kg	0.33 mg/Kg	0
2-Methyl-4,6-dinitrophenol	< 0.81 mg/Kg	0.81 mg/Kg	1
n-Nitrosodiphenylamine	< 0.33 mg/Kg	0.33 mg/Kg	0
1,2-Diphenylhydrazine	< 0.33 mg/Kg	0.33 mg/Kg	0
4-Bromophenylphenylether	< 0.33 mg/Kg	0.33 mg/Kg	0
Hexachlorobenzene	< 0.33 mg/Kg	0.33 mg/Kg	0
Pentachlorophenol	< 0.81 mg/Kg	0.81 mg/Kg	0
Phenanthrene	< 0.33 mg/Kg	0.33 mg/Kg	0
Anthracene	< 0.33 mg/Kg	0.33 mg/Kg	0
di-n-Butylphthalate	< 0.33 mg/Kg	0.33 mg/Kg	0
Fluoranthene	< 0.33 mg/Kg	0.33 mg/Kg	0
Benzidine	< 2.6 mg/Kg	2.6 mg/Kg	1
Pyrene	< 0.33 mg/Kg	0.33 mg/Kg	0
Butylbenzylphthalate	< 0.33 mg/Kg	0.33 mg/Kg	0
3,3-Dichlorobenzidine	< 0.33 mg/Kg	0.33 mg/Kg	0
Benzo(a)anthracene	< 0.33 mg/Kg	0.33 mg/Kg	0
Chrysene	< 0.33 mg/Kg	0.33 mg/Kg	0
bis(2-Ethylhexyl)phthalate	< 0.33 mg/Kg	0.33 mg/Kg	0
di-n-Octylphthalate	< 0.81 mg/Kg	0.81 mg/Kg	0
Benzo(b)fluoranthene	< 0.33 mg/Kg	0.33 mg/Kg	0
Benzo(k)fluoranthene	< 0.33 mg/Kg	0.33 mg/Kg	0
Benzo(a)pyrene	< 0.33 mg/Kg	0.33 mg/Kg	0
Indeno(1,2,3-c,d)pyrene	< 0.33 mg/Kg	0.33 mg/Kg	0
Dibenzo(a,h)anthracene	< 0.33 mg/Kg	0.33 mg/Kg	0

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Kansas Department of Health and Environment Certificate # **E-10311**
Louisiana Department of Environmental Quality (LELAP) Certificate # **02012**
North Carolina Department of Health & Human Services Certification # **37804**
North Carolina Department of Environment and Natural Resources (DENR) Certification # **248**
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # **99005**

Sample ID # : **21030186** Job # : **01-AUG-0380**

Sample Description: **BRAM-FILL-GMH-081501**

Collection Date: **15-Aug-01 16:05:00** Site : BRAMLETT ST Sample Type: SOIL SPECIAL Desktop #

SVOC IN SOIL BY GC/MS - 8270

Test Code: **MS8270_S** Test Method: **SW-846 8270C** Date Posted: **08/23/01**

	Result	Reporting Limit	Flag
Benzo(g,h,i)perylene	< 0.33 mg/Kg	0.33 mg/Kg	0

Description of Flags:

0 - All Analytical Procedure Requirements Were Met
1 - See Case Narrative
2 - Estimated Concentration, *See Case Narrative*
3 - Report Limit Elevated due to insufficient sample amount
4 - Report Limit Elevated due to required analytical dilution
5 - Sample Results Should Not Be Used For Regulatory Purposes (See Case Narrative)
6 - Analyte detected below laboratory reporting limit at an estimated concentration
7 - Reported concentration is the combination of more that one aroclor (Reported Aroclor is the Aroclor of highest concentration in the sample)

Data Reported By, Date

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

rm 89962 (9-97)
usly Form 35226

Duke Power Analytical Laboratory
MNS Bldg. # 7405 (MG03A2)
13339 Hagers Ferry Road
Huntersville, NC 28078
Phone: (704) 875-5209/875-5245
Fax: (704) 875-5038

LAB USE

LIMS #	Sample Class
01-AUG-0380	MGP

Logged By (Ini.)	Time	Date
TW	10:00	8/16/01

Vendored Samples

Vendor	Analysis

Vendor	P.O. #

Container Type: (✓) Glass ( ) Plastic

CLIENT: Tim Hunsucker Report to/Ph.:
Project Name: Bennette MGP Mail Code: MG03A3
FMIS # Business Unit: Resp. Center To: 0897
Project ID: MGPBRAM
Activity ID: ALL ACTV
Process:

Sample #	Lab PROFS #	Sample Description or ID	Collection Information: Date	Time	Signature	GRAB	COMP	Preservative Added: HNO_3	H_2SO_4	Ice	Other	None	Analysis Required: EPA-8260	EPA-8270	TCLP METALS	TOTAL # OF CONTAINERS
21103 01186		BRAM-FILL-GMH-081501	8/15/01	1030	Tim Hunsucker		✓			✓			1	1	1	3
Relinquished By:																
Accepted By:																

Relinquished by:[19] Tim Hunsucker Date/Time 8/15/01 @ 1605
Accepted By: Jason Whisenant Date/Time 8/15/01 @ 1605
Relinquished by: Duke Vickie Bowen Date/Time 1140 8/17/01
Accepted By: Michelle Place Date/Time 8/17 11:40
Seal/Locked by[20] Date/Time
Seal/Lock Opened By: Date/Time

Turnaround Requested[21]
- ☐ Routine (2 weeks)
- ☒ Rush (1 week)
- ☐ Emergency Rush (24-48 Hrs.)*

Date Results Requested:
*Additional Charges Will Apply

Sample Matrix[22] NC ☐ SC ☒
Ground Water ☐ NPDES ☐
Drinking Water ☐ UST ☐
RCRA Waste ☐ Other ☒

TEMP:[23]

Comments:[24] Full 8260 & 8270

Original – AL Files[25] Copy 1 – AL Files Copy 2 – Client Copy

See Instructions on the back of this form.

0818_05 FIELD ID:: BRAMLETT ST-081[illegible] LAB ID:: 01-AUG-0380/2103018[illegible]

Tentatively Identified Compounds Report

Compound		Estimated Concentration (mg/Kg)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis: Library Match	Identification Basis: Manual Interpretation	
UNKNOWN		25.0		6.91			

Internal Standard	(Minutes)
1,4-Dichlorobenzene-D4	9.97
Naphthalene-D8	12.92
Acenaphthene-D10	17.26
Phenanthrene-D10	20.91
Chrysene-D12	27.57
Perylene-D12	32.93

Acid Surrogates	% Recovery
2-Fluorophenol	56.0%
Phenol	59.0%
2,4,6-Tribromophenol	85.0%

B/N Surrogates	% Recovery
Nitrobenzene-D5	53.0%
2-Fluorobiphenyl	68.0%
Terphenyl-D14	102.0%

USEPA--8270/625 G.C. Conditions

30 m x 0.25mm x 0.50um Ultra Two Crosslinked 5% Methyl Silicon Column

(Flags are described on page #2 of Client Report)

0818_05 FIELD ID:: BRAMLETT ST-081501 LAB ID:: 01-AUG-0380/21030186

Tentatively Identified Compounds Report

Compound	Estimated Concentration (mg/Kg)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis: Library Match	Identification Basis: Manual Interpretation
UNKNOWN	25.0		6.91		

Internal Standard	(Minutes)
1,4-Dichlorobenzene-D4	9.97
Naphthalene-D8	12.92
Acenaphthene-D10	17.26
Phenanthrene-D10	20.91
Chrysene-D12	27.57
Perylene-D12	32.93

Acid Surrogates	% Recovery
2-Fluorophenol	56.0%
Phenol	59.0%
2,4,6-Tribromophenol	85.0%

B/N Surrogates	% Recovery
Nitrobenzene-D5	53.0%
2-Fluorobiphenyl	68.0%
Terphenyl-D14	102.0%

USEPA--8270/625 G.C. Conditions

30 m x 0.25mm x 0.50um Ultra Two Crosslinked 5% Methyl Silicon Column

(Flags are described on page #2 of Client Report)

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Form 89962 (9-97)
Previously Form 35226

Duke Power's Analytical Laboratory
MNS Bldg. # 7405 (MG03A2)
13339 Hagers Ferry Road
Huntersville, NC 28078
Phone: (704) 875-5209/875-5245[1]
Fax: (704) 875-5038

LAB USE[8]

LIMS #	Sample Class
01-SEP-0207	MGP

Logged By (Ini.)	Time	Date
VBB	0730	9/12/01

Vendored Samples

Vendor	Analysis

Vendor	P.O. #

Container Type: (✓)Glass ( )Plastic[13]

Preservative Added[14]													
HNO_3													
H_2SO_4													
Ice	✓	✓	✓										
Other													
None													

CLIENT[2]: Tim Hunsucker Report to/Ph.[4]: Tim Hunsucker
Project Name[3]: Bramlette MGP Mail Code: MG03A2

FMIS #
Business Unit[4]: _____ Resp. Center To: 0897
Project ID[5]: MGPBRAM
Activity ID[6]: ALLACTV
Process[7]: _____

Sample #[9]	Lab PROFS #[10]	Sample Description or ID[11]	Collection Information[12]			GRAB[16]	COMP[17]	Analysis Required[15]																	TOTAL # OF CONTAINERS[18]
			Date	Time	Signature			8260	8270	TCLP METALS															
2103377		BRAM-PRBF-091101	9/11/01	0930	Tim Hunsucker		✓	1	1	1															3

Relinquished by:	Date/Time	Accepted By:	Date/Time
Tim Hunsucker	9/12/01 @ 0710	Vickie Bowers	9/12/01 0720
Relinquished by:	Date/Time	Accepted By:	Date/Time
Seal/Locked by[20]	Date/Time	Seal/Lock Opened By:	Date/Time

Turnaround Requested[21]
- ☐ Routine (2 weeks)
- ☐ Rush (1 week)
- ☑ Emergency Rush (24-48 Hrs.)*

Date Results Requested: 9/17/01
*Additional Charges Will Apply

Sample Matrix[22]	NC ☐ SC ☑
Ground Water ☐	NPDES ☐
Drinking Water ☐	UST ☐
RCRA Waste ☐	Other ☑

TEMP:[23] 2.2 °C

Comments:[24] * Full 8260
Full 8270
TCLP LEACH - METALS

Original – AL Files[25] Copy 1– AL Files Copy 2 – Client Copy

See Instructions on the back of this form.

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Duke Power's Analytical Laboratory

Group Environment, Health and Safety
Phone: 704-875-5209
Fax: 704-875-5038

13339 Hagers Ferry Road
Huntersville, NC 28078-7929
McGuire Nuclear Complex - MG03A2

Certificate of Analysis

NewYork State Department of Health Certification # **11717**
Kansas Department of Health and Environment Certificate # **E-10311**
Louisiana Department of Environmental Quality (LELAP) Certificate # **02012**
North Carolina Department of Health & Human Services Certification # **37804**
North Carolina Department of Environment and Natural Resources (DENR) Certification # **248**
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # **99005**

Station Name: **BRAMLETTE** Job Number: **01-SEP-0207**

Sample ID # : **21033777** Desktop # Customer ID: TIM HUNSUCKER

Sample Description: **BRAM-PRBF-091101**

Collection Date: **11-Sep-01 09:30:00** Date Received in Laboratory: **12-Sep-01** Type of Sample : SOIL

Reference Method: EPA 200.7/6010B	Data Posted: 9/17/01 15:09:09	Analyzed By: JMA8927			
ARSENIC BY ICP (DIGESTED)		ARSENIC	< 0.100	mg/l	
Reference Method: EPA 200.7/6010B	Data Posted: 9/17/01 15:09:14	Analyzed By: JMA8927			
BARIUM BY ICP (DIGESTED)		BARIUM	0.300	mg/l	
Reference Method: EPA 200.7	Data Posted: 9/17/01 15:09:21	Analyzed By: JMA8927			
CADMIUM BY ICP (DIGESTED)		CADMIUM	< 0.030	mg/l	
Reference Method: EPA 200.7/6010B	Data Posted: 9/17/01 15:09:24	Analyzed By: JMA8927			
CHROMIUM BY ICP (DIGESTED)		CHROMIUM	< 0.040	mg/l	
Reference Method: SW-846 1311	Data Posted: 9/13/01 08:51:52	Analyzed By: MHH7131			
LEACH OF SOLIDS FOR 8 RCRA METALS		Extraction Date	9/13/2001	Extract Dat	
Reference Method: EPA 200.7/6010B	Data Posted: 9/17/01 15:09:30	Analyzed By: JMA8927			
LEAD BY ICP (DIGESTED)		LEAD	< 0.090	mg/l	
Reference Method: EPA 245.1/7470A	Data Posted: 9/13/01 14:43:26	Analyzed By: MHH7131			
MERCURY (CVAA) -WATER-		MERCURY	< 1.00	ug/L	
Reference Method: N/A	Data Posted: 9/18/01 09:43:17	Analyzed By: SLS2560			
NOTIFICATION OF RUSH SAMPLES FOR METALS ANALYSIS		Rush Samples Acknowledged			
Reference Method: N/A	Data Posted: 9/18/01 09:43:18	Analyzed By: SLS2560			
NOTIFICATION OF RUSH SAMPLES FOR ORGANIC ANALYSIS		Rush Samples Acknowledged			
Reference Method: EPA 200.7/6010B	Data Posted: 9/17/01 15:09:35	Analyzed By: JMA8927			
SELENIUM BY ICP (DIGESTED)		SELENIUM	< 0.125	mg/L	
Reference Method: EPA 200.7/6010B	Data Posted: 9/17/01 15:09:04	Analyzed By: JMA8927			
SILVER BY ICP (DIGESTED)		SILVER	< 0.005	mg/l	

Troy W. Tennant 9/18/1

Data Verified and Approved By, Date

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South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # **99005**

Sample ID # : **21033777** Job # : **01-SEP-0207**

Sample Description: **BRAM-PRBF-091101**

Collection Date: **11-Sep-01 09:30:00** Site : BRAMLETTE Type of Sample : SOIL

SVOC IN SOIL BY GC/MS - 8270

Test Code: **MS8270_S** Test Method: **SW-846 8270C** Date Posted: **09/18/01** By: **SLS2560**

	Result	Reporting Limit	Flag
Pyridine	< 0.34 mg/Kg	0.34 mg/Kg	1
n-Nitrosodimethylamine	< 0.34 mg/Kg	0.34 mg/Kg	1
Aniline	< 0.34 mg/Kg	0.34 mg/Kg	1
Phenol	< 0.34 mg/Kg	0.34 mg/Kg	1
bis(2-Chloroethyl)ether	< 0.34 mg/Kg	0.34 mg/Kg	1
2-Chlorophenol	< 0.34 mg/Kg	0.34 mg/Kg	1
1,3-Dichlorobenzene	< 0.34 mg/Kg	0.34 mg/Kg	1
1,4-Dichlorobenzene	< 0.34 mg/Kg	0.34 mg/Kg	1
Benzyl alcohol	< 0.34 mg/Kg	0.34 mg/Kg	0
1,2-Dichlorobenzene	< 0.34 mg/Kg	0.34 mg/Kg	1
2-Methylphenol	< 0.34 mg/Kg	0.34 mg/Kg	1
bis(2-Chloroisopropyl)ether	< 0.34 mg/Kg	0.34 mg/Kg	0
4-Methylphenol	< 0.34 mg/Kg	0.34 mg/Kg	0
Hexachloroethane	< 0.34 mg/Kg	0.34 mg/Kg	1
n-Nitrosodi-n-propylamine	< 0.34 mg/Kg	0.34 mg/Kg	0
Nitrobenzene	< 0.34 mg/Kg	0.34 mg/Kg	1
Isophorone	< 0.34 mg/Kg	0.34 mg/Kg	0
2-Nitrophenol	< 0.86 mg/Kg	0.86 mg/Kg	1
2,4-Dimethylphenol	< 0.34 mg/Kg	0.34 mg/Kg	0
bis(2-Chloroethoxy)methane	< 0.34 mg/Kg	0.34 mg/Kg	1
2,4-Dichlorophenol	< 0.34 mg/Kg	0.34 mg/Kg	0
Benzoic acid	< 0.86 mg/Kg	0.86 mg/Kg	1
1,2,4-Trichlorobenzene	< 0.34 mg/Kg	0.34 mg/Kg	1
Naphthalene	< 0.34 mg/Kg	0.34 mg/Kg	1
4-Chloroaniline	< 0.34 mg/Kg	0.34 mg/Kg	1
Hexachlorobutadiene	< 0.34 mg/Kg	0.34 mg/Kg	0
4-Chloro-3-methylphenol	< 0.34 mg/Kg	0.34 mg/Kg	0
2-Methylnaphthalene	< 0.34 mg/Kg	0.34 mg/Kg	0
Hexachlorocyclopentadiene	< 0.86 mg/Kg	0.86 mg/Kg	1
2,4,6-Trichlorophenol	< 0.34 mg/Kg	0.34 mg/Kg	0
2,4,5-Trichlorophenol	< 0.34 mg/Kg	0.34 mg/Kg	0
2-Chloronaphthalene	< 0.34 mg/Kg	0.34 mg/Kg	0
2-Nitroaniline	< 0.86 mg/Kg	0.86 mg/Kg	0
Dimethylphthalate	< 0.34 mg/Kg	0.34 mg/Kg	0
Acenaphthylene	< 0.34 mg/Kg	0.34 mg/Kg	0
2,6-Dinitrotoluene	< 0.34 mg/Kg	0.34 mg/Kg	0
3-Nitroaniline	< 0.34 mg/Kg	0.34 mg/Kg	0
Acenaphthene	< 0.34 mg/Kg	0.34 mg/Kg	0

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South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # **99005**

Sample ID # : **21033777** Job # : **01-SEP-0207**

Sample Description: **BRAM-PRBF-091101**

Collection Date: **11-Sep-01 09:30:00** Site : BRAMLETTE Type of Sample : SOIL

SVOC IN SOIL BY GC/MS - 8270

Test Code: **MS8270_S** Test Method: **SW-846 8270C** Date Posted: **09/18/01** By: **SLS2560**

	Result	Reporting Limit	Flag
2,4-Dinitrophenol	< 0.86 mg/Kg	0.86 mg/Kg	1
4-Nitrophenol	< 0.86 mg/Kg	0.86 mg/Kg	0
Dibenzofuran	< 0.34 mg/Kg	0.34 mg/Kg	0
2,4-Dinitrotoluene	< 0.86 mg/Kg	0.86 mg/Kg	0
Diethylphthalate	< 0.34 mg/Kg	0.34 mg/Kg	0
Fluorene	< 0.34 mg/Kg	0.34 mg/Kg	0
4-Chlorophenylphenylether	< 0.34 mg/Kg	0.34 mg/Kg	0
4-Nitroaniline	< 0.34 mg/Kg	0.34 mg/Kg	0
2-Methyl-4,6-dinitrophenol	< 0.86 mg/Kg	0.86 mg/Kg	1
n-Nitrosodiphenylamine	< 0.34 mg/Kg	0.34 mg/Kg	0
1,2-Diphenylhydrazine	< 0.34 mg/Kg	0.34 mg/Kg	0
4-Bromophenylphenylether	< 0.34 mg/Kg	0.34 mg/Kg	0
Hexachlorobenzene	< 0.34 mg/Kg	0.34 mg/Kg	0
Pentachlorophenol	< 0.86 mg/Kg	0.86 mg/Kg	0
Phenanthrene	< 0.34 mg/Kg	0.34 mg/Kg	0
Anthracene	< 0.34 mg/Kg	0.34 mg/Kg	0
di-n-Butylphthalate	< 0.34 mg/Kg	0.34 mg/Kg	0
Fluoranthene	< 0.34 mg/Kg	0.34 mg/Kg	0
Benzidine	< 2.8 mg/Kg	2.8 mg/Kg	1
Pyrene	< 0.34 mg/Kg	0.34 mg/Kg	0
Butylbenzylphthalate	< 0.34 mg/Kg	0.34 mg/Kg	0
3,3-Dichlorobenzidine	< 0.34 mg/Kg	0.34 mg/Kg	0
Benzo(a)anthracene	< 0.34 mg/Kg	0.34 mg/Kg	0
Chrysene	< 0.34 mg/Kg	0.34 mg/Kg	0
bis(2-Ethylhexyl)phthalate	< 0.34 mg/Kg	0.34 mg/Kg	0
di-n-Octylphthalate	< 0.86 mg/Kg	0.86 mg/Kg	0
Benzo(b)fluoranthene	< 0.34 mg/Kg	0.34 mg/Kg	0
Benzo(k)fluoranthene	< 0.34 mg/Kg	0.34 mg/Kg	0
Benzo(a)pyrene	< 0.34 mg/Kg	0.34 mg/Kg	0
Indeno(1,2,3-c,d)pyrene	< 0.34 mg/Kg	0.34 mg/Kg	0
Dibenzo(a,h)anthracene	< 0.34 mg/Kg	0.34 mg/Kg	0
Benzo(g,h,i)perylene	< 0.34 mg/Kg	0.34 mg/Kg	0

VOC IN SOIL BY GC/MS - 8260

Test Code: **MS8260_S** Test Method: **SW-846 5030B/8260B** Date Posted: **09/14/01** By: **MAO125C**

	Result	Reporting Limit	Flag
Dichlorodifluoromethane	< 12 ug/Kg	12 ug/Kg	0

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South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # **99005**

Sample ID # : **21033777** Job # : **01-SEP-0207**

Sample Description: **BRAM-PRBF-091101**

Collection Date: **11-Sep-01 09:30:00** Site : BRAMLETTE Type of Sample : SOIL

VOC IN SOIL BY GC/MS - 8260

Test Code: **MS8260_S** Test Method: **SW-846 5030B/8260B** Date Posted: **09/14/01** By: **MAO125C**

	Result	Reporting Limit	Flag
Chloromethane	< 12 ug/Kg	12 ug/Kg	0
Vinyl chloride	< 12 ug/Kg	12 ug/Kg	0
Bromomethane	< 12 ug/Kg	12 ug/Kg	0
Chloroethane	< 12 ug/Kg	12 ug/Kg	0
Trichlorofluoromethane	< 12 ug/Kg	12 ug/Kg	0
Acrolein	< 120 ug/Kg	120 ug/Kg	0
1,1-Dichloroethene	< 12 ug/Kg	12 ug/Kg	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 12 ug/Kg	12 ug/Kg	0
Acetone	< 12 ug/Kg	12 ug/Kg	0
Methyl iodide	< 12 ug/Kg	12 ug/Kg	0
Carbon disulfide	< 12 ug/Kg	12 ug/Kg	0
Methylene chloride	< 12 ug/Kg	12 ug/Kg	1
Acrylonitrile	< 120 ug/Kg	120 ug/Kg	0
MTBE	< 12 ug/Kg	12 ug/Kg	0
trans-1,2-Dichloroethene	< 12 ug/Kg	12 ug/Kg	0
Isopropyl ether	< 12 ug/Kg	12 ug/Kg	0
1,1-Dichloroethane	< 12 ug/Kg	12 ug/Kg	0
Vinyl acetate	< 12 ug/Kg	12 ug/Kg	0
2,2-Dichloropropane	< 12 ug/Kg	12 ug/Kg	0
cis-1,2-Dichloroethene	< 12 ug/Kg	12 ug/Kg	0
2-Butanone	< 12 ug/Kg	12 ug/Kg	0
Chloroform	< 12 ug/Kg	12 ug/Kg	0
1,1-Dichloropropene	< 12 ug/Kg	12 ug/Kg	0
1,1,1-Trichloroethane	< 12 ug/Kg	12 ug/Kg	0
Carbon tetrachloride	< 12 ug/Kg	12 ug/Kg	0
Bromochloromethane	< 12 ug/Kg	12 ug/Kg	0
Benzene	< 12 ug/Kg	12 ug/Kg	0
1,2-Dichloroethane	< 12 ug/Kg	12 ug/Kg	0
Trichloroethene	< 12 ug/Kg	12 ug/Kg	0
1,2-Dichloropropane	< 12 ug/Kg	12 ug/Kg	0
Dibromomethane	< 12 ug/Kg	12 ug/Kg	0
Bromodichloromethane	< 12 ug/Kg	12 ug/Kg	0
2-Chloroethyl vinyl ether	< 38 ug/Kg	38 ug/Kg	1
cis-1,3-Dichloropropene	< 12 ug/Kg	12 ug/Kg	0
4-Methyl-2-pentanone (MIBK)	< 12 ug/Kg	12 ug/Kg	0
Toluene	< 12 ug/Kg	12 ug/Kg	0
trans-1,3-Dichloropropene	< 12 ug/Kg	12 ug/Kg	0
1,1,2-Trichloroethane	< 12 ug/Kg	12 ug/Kg	0

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Sample ID # : **21033777** Job # : **01-SEP-0207**

Sample Description: **BRAM-PRBF-091101**

Collection Date: **11-Sep-01 09:30:00** Site : BRAMLETTE Type of Sample : SOIL

VOC IN SOIL BY GC/MS - 8260

Test Code: **MS8260_S** Test Method: **SW-846 5030B/8260B** Date Posted: **09/14/01** By: **MAO125C**

	Result	Reporting Limit	Flag
1,3-Dichloropropane	< 12 ug/Kg	12 ug/Kg	0
Tetrachloroethene	< 12 ug/Kg	12 ug/Kg	0
2-Hexanone	< 12 ug/Kg	12 ug/Kg	0
Dibromochloromethane	< 12 ug/Kg	12 ug/Kg	0
1,2-Dibromoethane (EDB)	< 12 ug/Kg	12 ug/Kg	0
Chlorobenzene	< 12 ug/Kg	12 ug/Kg	0
Isopropylbenzene	< 12 ug/Kg	12 ug/Kg	0
1,1,1,2-tetrachloroethane	< 12 ug/Kg	12 ug/Kg	0
Ethylbenzene	< 12 ug/Kg	12 ug/Kg	0
m-p-Xylene	< 23 ug/Kg	23 ug/Kg	0
o-Xylene	< 12 ug/Kg	12 ug/Kg	0
Styrene	< 12 ug/Kg	12 ug/Kg	1
Bromoform	< 12 ug/Kg	12 ug/Kg	0
1,4-Dichlorobutane	< 12 ug/Kg	12 ug/Kg	0
1,1,2,2-Tetrachloroethane	< 12 ug/Kg	12 ug/Kg	0
1,2,3-Trichloropropane	< 12 ug/Kg	12 ug/Kg	0
n-Propyl benzene	< 12 ug/Kg	12 ug/Kg	0
Bromobenzene	< 12 ug/Kg	12 ug/Kg	0
1,3,5-trimethylbenzene	< 12 ug/Kg	12 ug/Kg	0
2-Chlorotoluene	< 12 ug/Kg	12 ug/Kg	0
4-Chlorotoluene	< 12 ug/Kg	12 ug/Kg	0
t-Butylbenzene	< 12 ug/Kg	12 ug/Kg	0
1,2,4-Trimethylbenzene	< 12 ug/Kg	12 ug/Kg	0
sec-Butylbenzene	< 12 ug/Kg	12 ug/Kg	0
p-Isopropyltoluene	< 12 ug/Kg	12 ug/Kg	0
1,3-Dichlorobenzene	< 12 ug/Kg	12 ug/Kg	0
1,4-Dichlorobenzene	< 12 ug/Kg	12 ug/Kg	0
n-Butylbenzene	< 12 ug/Kg	12 ug/Kg	0
1,2-Dichlorobenzene	< 12 ug/Kg	12 ug/Kg	0
1,2-Dibromo-3-chloropropane	< 12 ug/Kg	12 ug/Kg	0
1,2,4-Trichlorobenzene	< 12 ug/Kg	12 ug/Kg	0
Hexachlorobutadiene	< 12 ug/Kg	12 ug/Kg	0
Naphthalene	< 12 ug/Kg	12 ug/Kg	0

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Sample ID # : **21033777** Job # : **01-SEP-0207**

Sample Description: **BRAM-PRBF-091101**

Collection Date: **11-Sep-01 09:30:00** Site : BRAMLETTE Type of Sample : SOIL

VOC IN SOIL BY GC/MS - 8260

Test Code: **MS8260_S** Test Method: **SW-846 5030B/8260B** Date Posted: **09/14/01** By: **MAO125C**

	Result	Reporting Limit	Flag
1,2,3-Trichlorobenzene	< 12 ug/Kg	12 ug/Kg	0

Description of Flags:

0 - All Analytical Procedure Requirements Were Met
1 - See Case Narrative
2 - Estimated Concentration, *See Case Narrative*
3 - Report Limit Elevated due to insufficient sample amount
4 - Report Limit Elevated due to required analytical dilution
5 - Sample Results Should Not Be Used For Regulatory Purposes (See Case Narrative)
6 - Analyte detected below laboratory reporting limit at an estimated concentration.
7 - Reported concentration is the combination of more that one aroclor. (Reported Aroclor is the Aroclor of highest concentration in the sample)

Troy W Hussmann 9/

Data Reported By, Date

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8270 / 625 Case Narrative

(This document must accompany release of analytical results)

LIMS Job Number **01-SEP-0207**

- *The percent recovery and/or the average percent recovery for pyridine, n-nitrosodimethylamine, phenol, bis(2-chloroethyl)ether, 2-chlorophenol, 1,2-, 1,3-, 1,4-dichlorobenzene, 2-methylphenol, nitrobenzene, 2-nitrophenol, bis(2-chloroethoxy)methane, 1,2,4-trichlorobenzene, naphthalene, and hexachlorobutadiene in the Matrix Spike and Matrix Spike Duplicate did not meet the laboratory control limits. The results for these analytes should be considered estimates for sample 21033777.*

- *The following compounds often exhibit recoveries lower than 50%: pyridine, aniline, hexachloroethane, benzoic acid, 4-chloroaniline, hexachlorocyclopentadiene, 2,4-dinitrophenol, 2-methyl-4,6-dinitrophenol and benzidine. Because of the potential for low recovery for these compounds, all results for these compounds should be considered as estimates.*

- *Any and all results for benzidine should be considered as estimates. This compound is difficult to accurately quantify by this methodology. This compound often fails calibration criteria, spike recovery criteria and method detection limit criteria.*

Shannon Rollins

Analyst

0914_08	FIELD ID:: BRAMLETTE-PRBF-091101	LAB ID:: 01-SEP-0207/21033777

Tentatively Identified Compounds Report

Compound		Estimated Concentration (mg/Kg)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis: Library Match	Identification Basis: Manual Interpretation	
NO TICS IDENTIFIED							

Internal Standard	(Minutes)
1,4-Dichlorobenzene-D4	9.89
Naphthalene-D8	12.84
Acenaphthene-D10	17.18
Phenanthrene-D10	20.83
Chrysene-D12	27.47
Perylene-D12	32.75

Acid Surrogates	% Recovery
2-Fluorophenol	60.0%
Phenol	56.0%
2,4,6-Tribromophenol	76.0%

B/N Surrogates	% Recovery
Nitrobenzene-D5	62.0%
2-Fluorobiphenyl	60.0%
Terphenyl-D14	101.0%

USEPA--8270/625 G.C. Conditions

30 m x 0.25mm x 0.50um Ultra Two Crosslinked 5% Methyl Silicon Column

(Flags are described on page #2 of Client Report)

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8260 SOIL CASE NARRATIVE

(This document must accompany release of analytical results)

LIMS Job Number **01-SEP-0207**

- *The Continuing Calibration percent difference criteria for methylene chloride, 2 chloroethyl vinyl ether, and stryene did not meet the method requirements. The results for these compounds should be considered as estimates.*

Analyst:

Mary Ann Ogle

FILE:: 12SEP05	FIELD ID:: BRAM-PRBF09	LAB ID:: 01-SEP-0207

Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/kg)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
no TICs								

Internal Standard	RT
Pentafluorobenzene	18.62
D4-1,4-Difluorobenzene	21.88
Chlorobenzene D-5	32.50
D-4 1,4-Dichlorobenzene	41.08

Surrogates	% Recovery
Dibromofluoromethan	118%
Toluene D-8	96%
1,4-Bromofluorobenze	98%

USEPA - 8260 G.C. Conditions

105 m x 0.53 mm x 1.0 um / Restek 502.2
He, 0.5 ml/min, 35 C hold 10 mins, 35 C to 180 C @ 4 C/min, 180 to 200 C @ 10 C/min, hold 5 min

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Form 89962 (9-97)
Previously Form 35226

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Fax: (704) 875-5038

LAB USE[8]

LIMS # 01-OCT-0215			Sample Class MGP
Logged By (Ini.) TW	Time 0810	Date 10/10/01	Vendored Samples

Vendor	Analysis

Vendor	P.O. #

Container Type: (✓)Glass ( )Plastic[13]

CLIENT[2]: TIM HUNSUCKER Report to/Ph.[4]: TIM HUNSUCKER
Project Name[3]: BRAM LETTE MGP Mail Code: MG03A3
FMIS #
Business Unit[4]: _____ Resp. Center To: 0897
Project ID[5]: MGP BRAM
Activity ID[6]: ALL ACTV
Process[7]: _____

Sample #[9]	Lab PROFS #[10]	Sample Description or ID[11]	Collection Information[12] Date	Time	Signature	GRAB[16]	COMP[17]	Preservative Added[14] HNO3	H2SO4	Ice	Other	None	Analysis Required[15] Full 8260	Full 8270	TCLP Leachate - Metals	8260-MGP	8270-MGP	TOTAL # OF CONTAINERS[18]
2103																		
7727		BRAM-MRBF-100801	10/8/01	1435	[redacted]					✓			1	1	1			3
[redacted]		[redacted]																
		MAULDIN ROAD SITE																

Relinquished by:[19]	Date/Time	Accepted By:	Date/Time
Tim Hunsucker	10/10/01 @ 0710	Troy Whisenant	10/10/01 @ 8:00
Relinquished by:	Date/Time	Accepted By:	Date/Time
Seal/Locked by[20]	Date/Time	Seal/Lock Opened By:	Date/Time

Turnaround Requested[21]
- ☐ Routine (2 weeks)
- ☑ Rush (1 week)
- ☐ Emergency Rush (24-48 Hrs.)*

Date Results Requested: _____
*Additional Charges Will Apply

Sample Matrix[22] NC ☐ SC ☑
Ground Water ☐ NPDES ☐
Drinking Water ☐ UST ☐
RCRA Waste ☐ Other ☑

TEMP:[23]

Comments:[24]

See Instructions on the back of this form.

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NewYork State Department of Health Certification # **11717**
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Louisiana Department of Environmental Quality (LELAP) Certificate # **02012**
North Carolina Department of Health & Human Services Certification # **37804**
North Carolina Department of Environment and Natural Resources (DENR) Certification # **248**
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # **99005**

Station Name: **BRAMLETT ST** ENG_ROBERTS Job Number: **01-OCT-0215**

Sample ID # : **21037727** Desktop # Customer ID:

Sample Description: **BRAM-MRBR-100801**

Collection Date: **08-Oct-01 14:35:00** Date Received in Laboratory: **10-Oct-01** Type of Sample : SOIL

Reference Method: EPA 200.7/6010B	Data Posted: 10/17/01 13:05:29		
ARSENIC BY ICP (DIGESTED)		ARSENIC	< 0.100 mg/l
Reference Method: EPA 200.7/6010B	Data Posted: 10/17/01 13:05:29		
BARIUM BY ICP (DIGESTED)		BARIUM	0.954 mg/l
Reference Method: EPA 200.7	Data Posted: 10/17/01 13:05:30		
CADMIUM BY ICP (DIGESTED)		CADMIUM	< 0.030 mg/l
Reference Method: EPA 200.7/6010B	Data Posted: 10/17/01 13:05:30		
CHROMIUM BY ICP (DIGESTED)		CHROMIUM	< 0.040 mg/l
Reference Method: SW-846 1311	Data Posted: 10/16/01 14:44:34		
LEACH OF SOLIDS FOR 8 RCRA METALS		Extraction Date	10/16/2001 Extract Dat
Reference Method: EPA 200.7/6010B	Data Posted: 10/17/01 13:05:30		
LEAD BY ICP (DIGESTED)		LEAD	< 0.090 mg/l
Reference Method: EPA 245.1/7470A	Data Posted: 10/17/01 15:31:52		
MERCURY (CVAA) -WATER-		MERCURY	< 10.00 ug/L
Reference Method: N/A	Data Posted: 10/10/01 08:14:52		
NOTIFICATION OF RUSH SAMPLES FOR METALS ANALYSIS		Rush Samples Acknowledged	
Reference Method: N/A	Data Posted: 10/10/01 08:14:52		
OTIFICATION OF RUSH SAMPLES FOR ORGANIC ANALYSI		Rush Samples Acknowledged	
Reference Method: EPA 200.7/6010B	Data Posted: 10/17/01 13:05:30		
SELENIUM BY ICP (DIGESTED)		SELENIUM	0.127 mg/L
Reference Method: EPA 200.7/6010B	Data Posted: 10/17/01 13:05:29		
SILVER BY ICP (DIGESTED)		SILVER	< 0.005 mg/l

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South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # **99005**

Station Name: **BRAMLETT ST** ENG_ROBERTS Job Number: **01-OCT-0215**

Sample ID # : **21037728** Desktop # Customer ID:

Sample Description: **BRAM-23-B**

Collection Date: **09-Oct-01 14:40:00** Date Received in Laboratory: **10-Oct-01** Type of Sample : SOIL

Reference Method: N/A Data Posted: 10/22/01 20:05:56

OTIFICATION OF RUSH SAMPLES FOR ORGANIC ANALYSI Rush Samples Acknowledged

Troy Whisenant 10/31/01
Data Verified and Approved By, Date

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South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Sample ID # : **21037727** Job # : **01-OCT-0215**

Sample Description: **BRAM-MRBR-100801**

Collection Date: 8-Oct-01 14:35:00 Site : BRAMLETT ST Type of Sample : SOIL

SVOC IN SOIL BY GC/MS - 8270

Test Code: MS8270_S Test Method: SW-846 8270C Date Posted: 10/22/01 By: SLS2560

	Result	Reporting Limit	Flag
Pyridine	< 0.32 mg/Kg	0.32 mg/Kg	1
n-Nitrosodimethylamine	< 0.32 mg/Kg	0.32 mg/Kg	0
Aniline	< 0.32 mg/Kg	0.32 mg/Kg	1
Phenol	< 0.32 mg/Kg	0.32 mg/Kg	0
bis(2-Chloroethyl)ether	< 0.32 mg/Kg	0.32 mg/Kg	0
2-Chlorophenol	< 0.32 mg/Kg	0.32 mg/Kg	0
1,3-Dichlorobenzene	< 0.32 mg/Kg	0.32 mg/Kg	0
1,4-Dichlorobenzene	< 0.32 mg/Kg	0.32 mg/Kg	0
Benzyl alcohol	< 0.32 mg/Kg	0.32 mg/Kg	0
1,2-Dichlorobenzene	< 0.32 mg/Kg	0.32 mg/Kg	0
2-Methylphenol	< 0.32 mg/Kg	0.32 mg/Kg	0
bis(2-Chloroisopropyl)ether	< 0.32 mg/Kg	0.32 mg/Kg	0
4-Methylphenol	< 0.32 mg/Kg	0.32 mg/Kg	0
Hexachloroethane	< 0.32 mg/Kg	0.32 mg/Kg	1
n-Nitrosodi-n-propylamine	< 0.32 mg/Kg	0.32 mg/Kg	0
Nitrobenzene	< 0.32 mg/Kg	0.32 mg/Kg	0
Isophorone	< 0.32 mg/Kg	0.32 mg/Kg	0
2-Nitrophenol	< 0.32 mg/Kg	0.32 mg/Kg	0
2,4-Dimethylphenol	< 0.32 mg/Kg	0.32 mg/Kg	0
bis(2-Chloroethoxy)methane	< 0.32 mg/Kg	0.32 mg/Kg	0
2,4-Dichlorophenol	< 0.32 mg/Kg	0.32 mg/Kg	0
Benzoic acid	< 0.81 mg/Kg	0.81 mg/Kg	1
1,2,4-Trichlorobenzene	< 0.32 mg/Kg	0.32 mg/Kg	0
Naphthalene	< 0.32 mg/Kg	0.32 mg/Kg	0
4-Chloroaniline	< 0.32 mg/Kg	0.32 mg/Kg	1
Hexachlorobutadiene	< 0.32 mg/Kg	0.32 mg/Kg	0
4-Chloro-3-methylphenol	< 0.32 mg/Kg	0.32 mg/Kg	0
2-Methylnaphthalene	< 0.32 mg/Kg	0.32 mg/Kg	0
Hexachlorocyclopentadiene	< 0.81 mg/Kg	0.81 mg/Kg	1
2,4,6-Trichlorophenol	< 0.32 mg/Kg	0.32 mg/Kg	0
2,4,5-Trichlorophenol	< 0.32 mg/Kg	0.32 mg/Kg	0
2-Chloronaphthalene	< 0.32 mg/Kg	0.32 mg/Kg	0
2-Nitroaniline	< 0.32 mg/Kg	0.32 mg/Kg	0
Dimethylphthalate	< 0.32 mg/Kg	0.32 mg/Kg	0
Acenaphthylene	< 0.32 mg/Kg	0.32 mg/Kg	0
2,6-Dinitrotoluene	< 0.32 mg/Kg	0.32 mg/Kg	0
3-Nitroaniline	< 0.32 mg/Kg	0.32 mg/Kg	0
Acenaphthene	< 0.32 mg/Kg	0.32 mg/Kg	0

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North Carolina Department of Environment and Natural Resources (DENR) Certification # 248
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Sample ID # : **21037727** Job # : **01-OCT-0215**

Sample Description: **BRAM-MRBR-100801**

Collection Date: **8-Oct-01 14:35:00** Site : **BRAMLETT ST** Type of Sample : **SOIL**

SVOC IN SOIL BY GC/MS - 8270

Test Code: MS8270_S Test Method: SW-846 8270C Date Posted: 10/22/01 By: SLS2560

	Result	Reporting Limit	Flag
2,4-Dinitrophenol	< 0.81 mg/Kg	0.81 mg/Kg	1
4-Nitrophenol	< 0.81 mg/Kg	0.81 mg/Kg	0
Dibenzofuran	< 0.32 mg/Kg	0.32 mg/Kg	0
2,4-Dinitrotoluene	< 0.32 mg/Kg	0.32 mg/Kg	0
Diethylphthalate	< 0.32 mg/Kg	0.32 mg/Kg	0
Fluorene	< 0.32 mg/Kg	0.32 mg/Kg	0
4-Chlorophenylphenylether	< 0.32 mg/Kg	0.32 mg/Kg	0
4-Nitroaniline	< 0.32 mg/Kg	0.32 mg/Kg	0
2-Methyl-4,6-dinitrophenol	< 0.81 mg/Kg	0.81 mg/Kg	1
n-Nitrosodiphenylamine	< 0.32 mg/Kg	0.32 mg/Kg	0
1,2-Diphenylhydrazine	< 0.32 mg/Kg	0.32 mg/Kg	0
4-Bromophenylphenylether	< 0.32 mg/Kg	0.32 mg/Kg	0
Hexachlorobenzene	< 0.32 mg/Kg	0.32 mg/Kg	0
Pentachlorophenol	< 0.81 mg/Kg	0.81 mg/Kg	0
Phenanthrene	< 0.32 mg/Kg	0.32 mg/Kg	0
Anthracene	< 0.32 mg/Kg	0.32 mg/Kg	0
di-n-Butylphthalate	< 0.32 mg/Kg	0.32 mg/Kg	0
Fluoranthene	< 0.32 mg/Kg	0.32 mg/Kg	0
Benzidine	< 2.6 mg/Kg	2.6 mg/Kg	1
Pyrene	< 0.32 mg/Kg	0.32 mg/Kg	0
Butylbenzylphthalate	< 0.32 mg/Kg	0.32 mg/Kg	0
3,3-Dichlorobenzidine	< 0.32 mg/Kg	0.32 mg/Kg	0
Benzo(a)anthracene	< 0.32 mg/Kg	0.32 mg/Kg	0
Chrysene	< 0.32 mg/Kg	0.32 mg/Kg	0
bis(2-Ethylhexyl)phthalate	< 0.32 mg/Kg	0.32 mg/Kg	0
di-n-Octylphthalate	< 0.81 mg/Kg	0.81 mg/Kg	0
Benzo(b)fluoranthene	< 0.32 mg/Kg	0.32 mg/Kg	0
Benzo(k)fluoranthene	< 0.32 mg/Kg	0.32 mg/Kg	0
Benzo(a)pyrene	< 0.32 mg/Kg	0.32 mg/Kg	0
Indeno(1,2,3-c,d)pyrene	< 0.32 mg/Kg	0.32 mg/Kg	0
Dibenzo(a,h)anthracene	< 0.32 mg/Kg	0.32 mg/Kg	0
Benzo(g,h,i)perylene	< 0.32 mg/Kg	0.32 mg/Kg	0

VOC IN SOIL BY GC/MS - 8260

Test Code: MS8260_S Test Method: SW-846 5030B/8260B Date Posted: 10/16/01 By: MAO125C

	Result	Reporting Limit	Flag
Dichlorodifluoromethane	< 11 ug/Kg	11 ug/Kg	0

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North Carolina Department of Environment and Natural Resources (DENR) Certification # 248
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Sample ID # : 21037727 Job # : 01-OCT-0215

Sample Description: BRAM-MRBR-100801

Collection Date: 8-Oct-01 14:35:00 .Site : BRAMLETT ST Type of Sample : SOIL

VOC IN SOIL BY GC/MS - 8260

Test Code: MS8260_S Test Method: SW-846 5030B/8260B Date Posted: 10/16/01 By: MAO125C

	Result	Reporting Limit	Flag
Chloromethane	< 11 ug/Kg	11 ug/Kg	0
Vinyl chloride	< 11 ug/Kg	11 ug/Kg	0
Bromomethane	< 11 ug/Kg	11 ug/Kg	0
Chloroethane	< 11 ug/Kg	11 ug/Kg	0
Trichlorofluoromethane	< 11 ug/Kg	11 ug/Kg	0
Acrolein	< 110 ug/Kg	110 ug/Kg	0
1,1-Dichloroethene	< 11 ug/Kg	11 ug/Kg	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 11 ug/Kg	11 ug/Kg	0
Acetone	< 11 ug/Kg	11 ug/Kg	0
Methyl Iodide	< 11 ug/Kg	11 ug/Kg	0
Carbon disulfide	< 11 ug/Kg	11 ug/Kg	0
Methylene chloride	< 11 ug/Kg	11 ug/Kg	0
Acrylonitrile	< 110 ug/Kg	110 ug/Kg	0
MTBE	< 11 ug/Kg	11 ug/Kg	0
trans-1,2-Dichloroethene	< 11 ug/Kg	11 ug/Kg	0
Isopropyl ether	< 11 ug/Kg	11 ug/Kg	0
1,1-Dichloroethane	< 11 ug/Kg	11 ug/Kg	0
Vinyl acetate	< 11 ug/Kg	11 ug/Kg	0
2,2-Dichloropropane	< 11 ug/Kg	11 ug/Kg	0
cis-1,2-Dichloroethene	< 11 ug/Kg	11 ug/Kg	0
2-Butanone	< 11 ug/Kg	11 ug/Kg	0
Chloroform	< 11 ug/Kg	11 ug/Kg	0
1,1-Dichloropropene	< 11 ug/Kg	11 ug/Kg	0
1,1,1-Trichloroethane	< 11 ug/Kg	11 ug/Kg	0
Carbon tetrachloride	< 11 ug/Kg	11 ug/Kg	0
Bromochloromethane	< 11 ug/Kg	11 ug/Kg	0
Benzene	< 11 ug/Kg	11 ug/Kg	0
1,2-Dichloroethane	< 11 ug/Kg	11 ug/Kg	0
Trichloroethene	< 11 ug/Kg	11 ug/Kg	0
1,2-Dichloropropane	< 11 ug/Kg	11 ug/Kg	0
Dibromomethane	< 11 ug/Kg	11 ug/Kg	0
Bromodichloromethane	< 11 ug/Kg	11 ug/Kg	0
2-Chloroethyl vinyl ether	< 11 ug/Kg	11 ug/Kg	1
cis-1,3-Dichloropropene	< 11 ug/Kg	11 ug/Kg	0
4-Methyl-2-pentanone (MIBK)	< 11 ug/Kg	11 ug/Kg	0
Toluene	< 11 ug/Kg	11 ug/Kg	0
trans-1,3-Dichloropropene	< 11 ug/Kg	11 ug/Kg	0
1,1,2-Trichloroethane	< 11 ug/Kg	11 ug/Kg	0

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South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Sample ID # : **21037727** Job # : **01-OCT-0215**

Sample Description: **BRAM-MRBR-100801**

Collection Date: 8-Oct-01 14:35:00 Site : BRAMLETT ST Type of Sample : SOIL

VOC IN SOIL BY GC/MS - 8260

Test Code: MS8260_S Test Method: SW-846 5030B/8260B Date Posted: 10/16/01 By: MAO125C

	Result	Reporting Limit	Flag
1,3-Dichloropropane	< 11 ug/Kg	11 ug/Kg	0
Tetrachloroethene	< 11 ug/Kg	11 ug/Kg	0
2-Hexanone	< 11 ug/Kg	11 ug/Kg	0
Dibromochloromethane	< 11 ug/Kg	11 ug/Kg	0
1,2-Dibromoethane (EDB)	< 11 ug/Kg	11 ug/Kg	0
Chlorobenzene	< 11 ug/Kg	11 ug/Kg	0
Isopropylbenzene	< 11 ug/Kg	11 ug/Kg	0
1,1,1,2-tetrachloroethane	< 11 ug/Kg	11 ug/Kg	0
Ethylbenzene	< 11 ug/Kg	11 ug/Kg	0
m-p-Xylene	< 22 ug/Kg	22 ug/Kg	0
o-Xylene	< 11 ug/Kg	11 ug/Kg	0
Styrene	< 11 ug/Kg	11 ug/Kg	0
Bromoform	< 11 ug/Kg	11 ug/Kg	0
1,4-Dichlorobutane	< 11 ug/Kg	11 ug/Kg	0
1,1,2,2-Tetrachloroethane	< 11 ug/Kg	11 ug/Kg	1
1,2,3-Trichloropropane	< 11 ug/Kg	11 ug/Kg	0
n-Propyl benzene	< 11 ug/Kg	11 ug/Kg	0
Bromobenzene	< 11 ug/Kg	11 ug/Kg	0
1,3,5-trimethylbenzene	< 11 ug/Kg	11 ug/Kg	0
2-Chlorotoluene	< 11 ug/Kg	11 ug/Kg	0
4-Chlorotoluene	< 11 ug/Kg	11 ug/Kg	0
t-Butylbenzene	< 11 ug/Kg	11 ug/Kg	0
1,2,4-Trimethylbenzene	< 11 ug/Kg	11 ug/Kg	0
sec-Butylbenzene	< 11 ug/Kg	11 ug/Kg	0
p-Isopropyltoluene	< 11 ug/Kg	11 ug/Kg	0
1,3-Dichlorobenzene	< 11 ug/Kg	11 ug/Kg	0
1,4-Dichlorobenzene	< 11 ug/Kg	11 ug/Kg	0
n-Butylbenzene	< 11 ug/Kg	11 ug/Kg	0
1,2-Dichlorobenzene	< 11 ug/Kg	11 ug/Kg	0
1,2-Dibromo-3-chloropropane	< 11 ug/Kg	11 ug/Kg	1
1,2,4-Trichlorobenzene	< 11 ug/Kg	11 ug/Kg	0
Hexachlorobutadiene	< 11 ug/Kg	11 ug/Kg	1
Naphthalene	< 11 ug/Kg	11 ug/Kg	0

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Sample ID # : 21037727 Job # : 01-OCT-0215

Sample Description: BRAM-MRBR-100801

Collection Date: 8-Oct-01 14:35:00 Site : BRAMLETT ST Type of Sample : SOIL

VOC IN SOIL BY GC/MS - 8260

Test Code: MS8260_S Test Method: SW-846 5030B/8260B Date Posted: 10/16/01 By: MAO125C

	Result	Reporting Limit	Flag
1,2,3-Trichlorobenzene	< 11 ug/Kg	11 ug/Kg	0

Description of Flags:

0 - All Analytical Procedure Requirements Were Met
1 - See Case Narrative
2 - Estimated Concentration, *See Case Narrative*
3 - Report Limit Elevated due to insufficient sample amount
4 - Report Limit Elevated due to required analytical dilution
5 - Sample Results Should Not Be Used For Regulatory Purposes (See Case Narrative)
6 - Analyte detected below laboratory reporting limit at an estimated concentration.
7 - Reported concentration is the combination of more that one aroclor. (Reported Aroclor is the Aroclor of highest concentration in the sample)

Data Reported By, Date

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8270 / 625 Case Narrative

(This document must accompany release of analytical results)

LIMS Job Number **01-OCT-0215**

- *The following compounds often exhibit recoveries lower than 50%: pyridine, aniline, hexachloroethane, benzoic acid, 4-chloroaniline, hexachlorocyclopentadiene, 2,4-dinitrophenol, 2-methyl-4,6-dinitrophenol and benzidine. Because of the potential for low recovery for these compounds, all results for these compounds should be considered as estimates.*

- *Any and all results for benzidine should be considered as estimates. This compound is difficult to accurately quantify by this methodology. This compound often fails calibration criteria, spike recovery criteria and method detection limit criteria.*

Shannon Rollins

Analyst

1015_06	FIELD ID:: BRAMLETT-MRBR-100801	LAB ID:: 01-OCT-0215/21037727

Tentatively Identified Compounds Report

Compound		Estimated Concentration (mg/Kg)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis: Library Match	Identification Basis: Manual Interpretation	
2,5-DIMETHYL-FURAN		0.8	91%	4.65	X		

Internal Standard	(Minutes)
1,4-Dichlorobenzene-D4	10.06
Naphthalene-D8	13.01
Acenaphthene-D10	17.35
Phenanthrene-D10	20.99
Chrysene-D12	27.65
Perylene-D12	33.07

Acid Surrogates	% Recovery
2-Fluorophenol	65.0%
Phenol	66.0%
2,4,6-Tribromophenol	77.0%

B/N Surrogates	% Recovery
Nitrobenzene-D5	66.0%
2-Fluorobiphenyl	65.0%
Terphenyl-D14	102.0%

USEPA--8270/625 G.C. Conditions

30 m x 0.25mm x 0.50um Ultra Two Crosslinked 5% Methyl Silicon Column

October 16, 2001
01:28 PM

Duke Power SM

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8260 Case Narrative

(This document must accompany release of analytical results)

LIMS Job Number **01-OCT-0215**

- The percent recovery in the Laboratory Control Sample for 2-Chloroethyl vinyl ether was outside the laboratory quality control limits.

- The percent recovery and/or the relative percent difference for the Matrix Spike and Matrix Spike Duplicate samples for 1,1,2,2 tetrachloroethane, 1,2 dibromo 3 chloropropane, hexachlorobutadiene, and 2-chloroethyl vinyl ether, exceeded the laboratory quality control limits. The results for these compounds in Bramlett MRBR-100801should be considered estimates.

Analyst:

Mary Ann Ogle

DATA FILE::	11OCT06	FIELD ID::	BRAMLETT MRBR 100801	LAB ID:: -OCT-0215//21037727

Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/kg)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
no TICs								

Internal Standard	RT
Pentafluorobenzene	18.37
D4-1,4-Difluorobenzene	21.89
Chlorobenzene D-5	32.51
D-4 1,4-Dichlorobenzene	41.09

Surrogates	% Recovery
Dibromofluoromethan	105%
Toluene D-8	99%
1,4-Bromofluorobenze	101%

USEPA - 8260 G.C. Conditions

105 m x 0.53 mm x 1.0 um / Restek 502.2
He, 0.5 ml/min, 35 C hold 10 mins, 35 C to 180 C @ 4 C/min, 180 to 200 C @ 10 C/min, hold 5 min

Appendix D

Typical Soil and Debris Shipment Manifests

WM PALMETTO LANDFILL
A WASTE MANAGEMENT COMPANY

Gate Ticket No. 1569

NON-HAZARDOUS WASTE MANIFEST 16957

GENERATOR

Generator: Bramlette MGP Site
Shipping Location
Street: Branlette Road

City: Greenville **State:** SC

County: Greenville

Phone: (864) 241-0911

Mailing Address Duke Engineering
(Return completed manifest to:) Attn: Kenny Ramsey
Street or P.O. Box: 2876

City: Greenville

State: SC **Zip Code:** 29602

Phone: (864) 241-0911

Description of Waste Materials	Profile Number	Total Quantity	Unit of Measure	Contianer Type
MGP Demolition Material	CP4748	17.54	tons	Tri.

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR, Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Dwight Little — Dwight Little — 12-3-02
Generator Authorized Agent Name (Print) — Signature — Delivery Date

TRANSPORTER

Transporter Name Ray Walker
Address Piedmont, SC

I hereby acknowledge receipt of the above described materials for transport from the generator site listed above.

Jimmy Wyatt 12-3-02
Driver Signature — Shipment Date

Driver Name (Print) J WYATT
Truck Number 1096

I hereby acknowledge receipt of the above described materials:
were received from the generator site, and were transported without incident, to the destination as stated on this form.

Jimmy Wyatt 12-3-02
Driver Signature — Delivery Date

DESTINATION

Site Name: Palmetto Landfill & Recycling Center **Phone Number:** (864) 439-8426 • **Fax:** 439-0097

Address: 251 New Hope Road, Wellford, South Carolina 29385

Disposal Location: North L West 21 Level 910

I hereby acknowledge receipt of the above described materials.

DB — DEC
Name of Authorized Agent (Print) — Signature — Receipt Date

NOTE: MANIFEST MUST BE FILLED OUT COMPLETELY BEFORE DISPOSAL

PAL 101

WHITE - ORIGINAL • YELLOW - TRANSPORTER RETAIN • PINK - LANDFILL RETAIN • GOLD - GENERATOR RETAIN

Southeastern Soil Recovery

MANIFEST - NON-HAZARDOUS SOILS

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Project #:	Load #:
3-4-02 ~~2/28/02~~	DUKE ENGINEERING	1105	2001222	013

Generator's Name & Billing Address: DUKE POWER COMPANY PO BOX 1002 CHARLOTTE NC 29201	Generators Phone No.: (704) 382-5314 Person to Contact: RALPH ROBERTS Fax No.: (704) 382-5336
Consultant's Name & Billing Address: DUKE ENGINEERING AND SERVICES WC22H - PO BOX 1004 CHARLOTTE NC 28201	Consultant's Phone No.: (704) 373-7898 Person to Contact: MARK McGARY Fax No.: (704) 373-6970
Generation Site (Transport from): (Name & Address) 400 Bramlette Rd. Greenville, SC	Site Phone No.: 864-241-0911 Person to Contact: Dwight Little Fax No.: 864-241-5083
Designated Facility (Transport to): (Name & Address) SSR, Inc. 1929 Patterson Plant Rd. Enoree, SC 29335 2053	Facility Phone No.: (864) 969-4500 Person to Contact: Plant Operator Fax No.: (864) 969-4545
Transporter Name & Mailing Address: RAY WALKER TRUCKING COMPANY PO BOX 469 PIEDMONT SC 29673	Transporter's Phone No.: 8642775234 Person to Contact: Mike Curl Fax No.:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein has been taken entirely from those soils described in the Material Acceptance/Contract Form completed and certified by me/us for the Generation Site shown above.

Print or Type Name: Generator ☒ Consultant ☐	Signature & Date: Month Day Year
Dwight Little	Dwight Little 3-4-02

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received.

Print or Type Name:	Signature & Date: Month Day Year
FURMAN Crumpton	Furman Crumpton 3/4/02

Recycling Facility certifies the receipt of the soil by this manifest.

Print or Type Name:	Signature & Date: Month Day Year

White – Generator Retain Yellow – Transporter Retain Pink – Recycling Facility Retain

Southeastern Soil Recovery

MANIFEST - NON-HAZARDOUS SOILS

Date of Shipment	Responsible for Payment	Transporter Truck #	Project #	Load #
12-10-02 6/21/02	SSR, INC.	115	20001226	639

Generator's Name & Billing Address SSR, INC. 1929 PATTERSON PLANT RD ENOREE SC 29335	Generator's Phone No. 864-969-4500 Person to Contact PLANT OPERATOR Fax 864-696-4545
Consultant's Name & Billing Address ENERGY DELIVERY SERVICES, INC. PO BOX 2876 GREENVILLE SC 29602	Consultant's Phone No. Person to Contact KENNETH RAMSEY Fax 864-241-0583
Generation Site (Transport from) (Name & Address) SSR-TREATED BACKHAUL 1929 PATTERSON PLANT RD ENOREE, SC 29335	Site Phone No. 864-969-4500 Person to Contact PLANT OPERATOR Fax No. 864-969-4545
Designated Facility (Transport to) (Name & Address) 400 BRAMLETTE RD GREENVILLE, SC 29602	Facility Phone No. 864-241-0911 Person to Contact KENNETH RAMSEY Fax No. 864-241-5083
Transporter Name & Mailing Address RAY WALKER TRUCKING COMPANY PO BOX 469 PIEDMONT SC 29673	Transporter's Phone No. 8642175234 Person to Contact MIKE CURI Fax No. 864-277-1725

Generator's and/or consultant's certification: I/We certify that the soil referenced herein has been taken entirely from those soils described in the Material Acceptance/Contract Form completed and certified by me/us for the Generation Site shown above.

Print or Type Name: Generator ☒ Consultant ☐	Signature & Date: Month Day Year
STEVE LOWE	12 10 02

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received.

Print or Type Name:	Signature & Date: Month Day Year
TONY MAZE	12 16 02

Recycling Facility certifies the receipt of the soil by this manifest.

Print or Type Name:	Signature & Date: Month Day Year

White – Generator Retain Yellow – Transporter Retain Pink – Recycling Facility Retain

Appendix E

Ambient Soil Metals Documentation

Duke Energy

DUKE ENERGY CORPORATION
6615 Craig Street
Charlotte, NC 28214-1706

704 382 4284
704 382 4108 fax

July 22, 2002

Mr. Stephen C. Burdick
South Carolina Department of Health & Environmental Control
Bureau of Land and Waste Management
Waste Assessment Section
2600 Bull Street
Columbia, South Carolina 29201-1708

Subject: Bramlette Road MGP Site Remediation Project
Soil Metals Data

Dear Mr. Burdick:

Following up our telephone conversation of July 19, 2002 regarding metals data associated with soils at the Bramlette Road MGP Site, attached please find the following:

1. Soil metals data (samples C15-2 and C16-2) associated with soils from the Bramlette Road MGP Site soils. Samples were obtained by Southeastern Soil Recovery from the post-treatment soil stockpile at the Laurens County, SC treatment facility.
2. Background soil arsenic data (samples BG-LOC1-1' and BG-LOC2-1') obtained by Duke Energy from within *and* outside of the Bramlette Road MGP Site boundary in Greenville, SC.
3. Background soil sampling location map.

As we discussed, the analytical results obtained by Southeastern Soil Recovery indicated all metal concentrations below EPA Region 9 Residential Soil PRG concentrations with the exception of the carcinogenic endpoint target concentration for arsenic (0.39 ppm). Consequently, Duke Energy obtained soil samples from both within and outside of the Bramlette Road MGP Site to assess background concentrations of this naturally occurring element. Sampling locations are indicated on the accompanying location map. Sample BG-LOC1-1' was obtained at a depth of 1' within the MGP site boundary in an area not targeted for remedial excavation. Sample BG-LOC2-1' was obtained at a depth of 1' outside of the MGP site in a grassed area across West Washington Street. As indicated, analytical results for both background locations (1.18 ppm and 1.46 ppm, respectively) exceeded the carcinogenic endpoint concentration of 0.39 ppm.

Thank you for your time and assistance with this matter. Feel free to contact me at 704-373-7898 or 704-634-7098 with any questions you may have.

Sincerely,

Mark McGary, P.E.
Manager
Remediation Services Group

attachments

Cc w/att: Ralph Roberts Kenney Ramsey

Ms. Jennifer Boynton, SCDHEC Bureau of Water

C-16

SOUTHEASTERN SOIL RECOVERY, INC.
Shipping Address: 1929 Patterson Plant Road Lanford, SC 29571

Soil Class: Class 3

Project #: 2001222

Sample #: C16-2

Waste Approval Code Number

NON-HAZARDOUS WASTE PROFILE SHEET

GENERATOR INFORMATION

Generator Name: DUKE ENERGY
Phone: 704-373-7898 Contact/Title: MARK MCGARY
Address: 6615 CRAIG STREET; CHARLOTTE, NC 28214
Total estimated tons: 1000 Type and Number of containers: BULK

AGENT FOR GENERATOR INFORMATION (if applicable)

Agent for Generator: ENERGY DELIVERY SERVICES, INC.
Phone: 704-373-7898 Contact/Title: MARK MCGARY, MANAGER
Address: 6615 CRAIG STREET; CHARLOTTE, NC 28214
Total estimated tons: 1000 Type and Number of containers: BULK

WASTE DESCRIPTION

SOILS FROM MANUFACTURED GAS PLANT SITE

Process of Waste Generation: STANDARD OPERATIONS OF MGP SITE

WASTE CONSTITUENTS:

Laboratory Name	ENVIRONMENTAL SCIENCE CORPORATION				
Laboratory Address	12065 LEBANON ROAD; MT JULIET, TN 37122				
Laboratory Certification No.	84004				
Laboratory Sample No.	L79628-02				
	Total (ppm)	TCLP (ppm) as requested		Total (ppm)	TCLP (ppm) as requested
Arsenic	4.6	n/a	PCB	n/a	XXXXXXXXX
Barium	82	n/a	TPH	n/a	XXXXXXXXX
Cadmium	<0.30	n/a	BTEX	BDL	XXXXXXXXX
Chromium	14	n/a	Benzene	<0.067	n/a
Lead	100	n/a	TOX	n/a	XXXXXXXXX
Mercury	<0.024	n/a	Total PAH's	0.685	XXXXXXXXX
Selenium	<0.61	n/a	Carc PAH's*	<0.040	XXXXXXXXX
Silver	<0.30	n/a			

* Carcinogenic PAH's as Benzo(a)Pyrene

By signing this profile sheet I certify that:

1.) I am the generator of the waste described on this sheet.
2.) This waste is not a regulated hazardous waste as defined by the EPA or by applicable ordinances of SC.
3.) This sheet and its attachments contain true and accurate descriptions of the waste.
4.) Any laboratory data used to support the validity of the data shown on this sheet has been obtained from the analysis of a volumetrically representative sample, obtained and analyzed according to 40 CFR 261, EPA Document SW-846, Test Methods for Evaluating Solid Waste, of exactly the same waste that I will deliver to SSR, Inc. for treatment.
5.) I certify that the laboratory results listing Lab name, report date, and sample ID# are attached as support to the data certified on this application.
6.) The Laboratory Name, Address, and Certification Number are provided above in the Waste Constituents section.

Signature _____ Date: _____

Print Name, Title & Employer: _____

C-15

Soil Class: Class 3

Project #: 2001222

Sample #: C15-2

SOUTHEASTERN SOIL RECOVERY, INC.
Shipping Address: 1929 Patterson Plant Road Lanford, SC 29571

Waste Approval Code Number

NON-HAZARDOUS WASTE PROFILE SHEET

GENERATOR INFORMATION

Generator Name: DUKE ENERGY
Phone: 704-373-7898 Contact/Title: MARK MCGARY
Address: 6615 CRAIG STREET; CHARLOTTE, NC 28214
Total estimated tons: 1000 Type and Number of containers: BULK

AGENT FOR GENERATOR INFORMATION (if applicable)

Agent for Generator: ENERGY DELIVERY SERVICES, INC.
Phone: 704-373-7898 Contact/Title: MARK MCGARY, MANAGER
Address: 6615 CRAIG STREET; CHARLOTTE, NC 28214
Total estimated tons: 1000 Type and Number of containers: BULK

WASTE DESCRIPTION

SOILS FROM MANUFACTURED GAS PLANT SITE

Process of Waste Generation: STANDARD OPERATIONS OF MGP SITE

WASTE CONSTITUENTS:

Laboratory Name	ENVIRONMENTAL SCIENCE CORPORATION				
Laboratory Address	12065 LEBANON ROAD; MT JULIET, TN 37122				
Laboratory Certification No.	84004				
Laboratory Sample No.	L79628-01				
	Total (ppm)	TCLP (ppm) as requested		Total (ppm)	TCLP (ppm) as requested
Arsenic	2.8	n/a	PCB	n/a	XXXXXXXXX
Barium	78	n/a	TPH	n/a	XXXXXXXXX
Cadmium	<0.30	n/a	BTEX	0.034	XXXXXXXXX
Chromium	14	n/a	Benzene	0.034	n/a
Lead	92	n/a	TOX	n/a	XXXXXXXXX
Mercury	<0.024	n/a	Total PAH's	0.573	XXXXXXXXX
Selenium	0.79	n/a	Carc PAH's*	<0.039	XXXXXXXXX
Silver	<0.30	n/a			

* Carcinogenic PAH's as Benzo(a)Pyrene

By signing this profile sheet I certify that.
1.) I am the generator of the waste described on this sheet.
2.) This waste is not a regulated hazardous waste as defined by the EPA or by applicable ordinances of SC.
3.) This sheet and its attachments contain true and accurate descriptions of the waste.
4.) Any laboratory data used to support the validity of the data shown on this sheet has been obtained from the analysis of a volumetrically representative sample, obtained and analyzed according to 40 CFR 261, EPA Document SW-846, Test Methods for Evaluating Solid Waste, of exactly the same waste that I will deliver to SSR, Inc. for treatment.
5.) I certify that the laboratory results listing lab name, report date, and sample ID# are attached as support to the data certified on this application.
6.) The Laboratory Name, Address, and Certification Number are provided above in the Waste Constituents section.

Signature_____ Date:_____

Print Name, Title & Employer:_____

Duke Energy

Duke Energy Analytical Laboratory

Environment, Health and Safety Services
Phone: 704-875-5245
Fax: 704-875-5038

13339 Hagers Ferry Road
Huntersville, NC 28078-7929
McGuire Nuclear Complex - MG03A2

Certificate of Analysis

New York State Department of Health Certification # 11717
Nevada Department of Conservation and Natural Resources
Oklahoma Department of Environmental Quality Certification # 9930
Kansas Department of Health and Environment Certificate # E-10311
Louisiana Department of Environmental Quality (LELAP) Certificate # 02012
North Carolina Department of Health & Human Services Certification # 37804
South Carolina (DHEC) Laboratory ID # 99005 North Carolina (DENR) Certification # 248

Sample ID: ***BACKGROUND LOC 1 1'SOIL***
02-JUL-0036 22023721

Element		mg/g	µg/g (PPM)
AS	Arsenic	0.0012	1.180

Duke Energy

Duke Energy Analytical Laboratory

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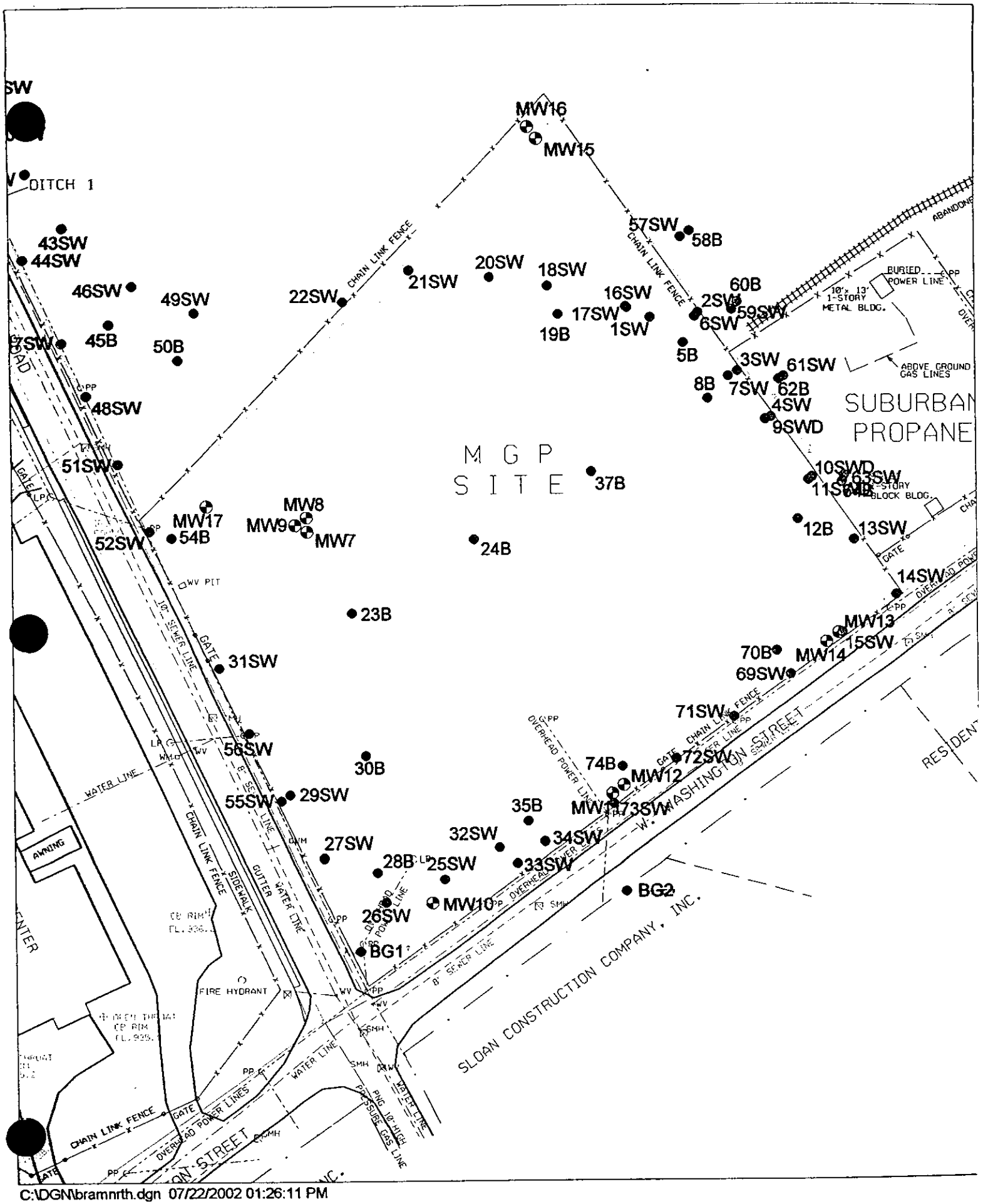
North Carolina Department of Health & Human Services Certification # 37804
South Carolina (DHEC) Laboratory ID # 99005 North Carolina (DENR) Certification # 248

Sample ID: ***BACKGROUND LOC 2 1'SOIL***
02-JUL-0036 22023722

Element		mg/g	µg/g (PPM)
AS	Arsenic	0.0015	1.460



C:\DGN\bramnrth.dgn 07/22/2002 01:26:11 PM

D H E C

PROMOTE PROTECT PROSPER

2600 Bull Street
Columbia, SC 29201-1708

July 18, 2002

Mr. Bobby Perritt
Southeastern Soils Recovery, Inc.–Laurens Facility
4991 Banco Road
Charleston, S.C. 29418

Re: Request of approval for return of C18 soils pile. (treated) to site of origin
Project No. 2062B (Terry Environmental Services)

Dear Mr. Perritt,

We have received your data submittal for the thermal treatment of the C18 soils pile as well as the supporting quality assurance package from Environmental Science Corp. from Mr. Jason Terry of Terry Environmental Services.

The Bramlette Road site is one that is now, and will continue to be, monitored by the Bureau of Water once these soils are acceptably treated and returned to the excavation site. After reviewing these submittals, it was noted that one of the values for Benzo(a)pyrene was 0.002 mg/kg above the regulatory threshold of 0.062 mg/kg. After some discussion it was decided that these soils could be placed into the excavation site. It was conveyed to Mr. Terry that this would be a one time only allowance for the life of this project.

We have conveyed to Mr. Terry, as your agent, further definition guidance, for your use, as to the Department's intent in the special permit conditions placed in your Laurens Road facility permit. These will aid in the continued streamlining of the sampling, analysis, timely review, and approval process. I am certain that as this project continues, this entire process will flow in a smoother manner.

If we may be of further help in this or other matters, especially with regards to permit special conditions, (numbers 8, 10, 11, or 12), please do not hesitate to contact me at (803) 896-4120. Thank You.

Sincerely,

Stephen C. Burdick, Manager
Waste Assessment Section
Bureau of Land and Waste Management

CC: Mr. Art Braswell, Director
Division of Mining and Solid Waste Management

Ms. S. Jennifer Boynton, Bureau of Water

File

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Form 89962 (9-97)
Previously Form 35226

Duke Power's Analytical Laboratory
MNS Bldg. # 7405 (MG03A2)
13339 Hagers Ferry Road
Huntersville, NC 28078
Phone: (704) 875-5209/875-5245[1]
Fax: (704) 875-5038

LAB USE[8]

LIMS #	Sample Class
02-Jul-0036	MGP

Logged By (Ini.)	Time	Date
dm	10:15	7-2-02

Vendored Samples

Vendor	Analysis

Vendor	P.O. #

CLIENT[2]: MARK MCGARY Report to/Ph.[4]:

Project Name[3]: BRAMLETTE MGP Mail Code: TV02B

FMIS #
Business Unit[4]: EDS Resp. Center To: D286
Project ID[5]: EDS484
Activity ID[6]: EDS484
Process[7]:

Container Type: ( )Glass ( )Plastic[13]

Preservative Added[14]

HNO_3	
H_2SO_4	
Ice	
Other	
None	

Sample #[9]	Lab PROFS #[10] 2202	Sample Description or ID[11]	Collection Information[12] Date	Time	Signature	GRAB[16]	COMP[17]	Analysis Required[15]: 1-TCLP Benzene	8260 Benzene	ARSENIC (TOTAL)	TOTAL # OF CONTAINERS[18]
SSA	3719	SCREENED SOIL A	7/1/02	11:00				1			
SSB	3720	SCREENED SOIL B	"	"				1	1		
BG1-1'	3721	BACKGROUND LOC1-1' SOIL	"	"						1	
BG2-1'	3722	BACKGROUND LOC2-1' SOIL	"	"						1	
BG3-BF	3723	BACKGROUND ~~SOIL~~ BACKFILL	"	"						1	

Relinquished by[19]	Date/Time	Accepted By:	Date/Time
	7/1/02 0300		7/1/02 0300
Relinquished by:	Date/Time	Accepted By:	Date/Time
Seal/Locked by[20]	Date/Time	Seal/Lock Opened By:	Date/Time

Turnaround Requested[21]
- ☐ Routine (2 weeks)
- ☐ Rush (1 week)
- ☐ Emergency Rush (24-48 Hrs.)*

Date Results Requested: 7-10-02
*Additional Charges Will Apply

Sample Matrix[22] NC ☐ SC ☐
Ground Water ☐ NPDES ☐
Drinking Water ☐ UST ☐
RCRA Waste ☐ Other ☐

TEMP:[23]

Comments:[24]

See Instructions on the back of this form.

Original – AL Files[25] **Copy 1– AL Files** **Copy 2 – Client Copy**

Duke Energy

Duke Energy Analytical Laboratory

Environment, Health and Safety Services
Phone: 704-875-5245
Fax: 704-875-5038

13339 Hagers Ferry Road
Huntersville, NC 28078-7929
McGuire Nuclear Complex - MG03A2

Certificate of Analysis

New York State Department of Health Certification # **11717**
Nevada Department of Conservation and Natural Resources
Oklahoma Department of Environmental Quality Certification # **9930**
Kansas Department of Health and Environment Certificate # **E-10311**
Louisiana Department of Environmental Quality (LELAP) Certificate # **02012**
North Carolina Department of Health & Human Services Certification # **37804**
South Carolina (DHEC) Laboratory ID # **99005** North Carolina (DENR) Certification # **248**

Sample ID: ***BACKGROUND LOC 1 1'SOIL***
02-JUL-0036 22023721

Element		mg/g	ug/g (PPM)
AS	Arsenic	0.0012	1.180

Duke Energy

Duke Energy Analytical Laboratory

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Louisiana Department of Environmental Quality (LELAP) Certificate # 02012
North Carolina Department of Health & Human Services Certification # 37804
South Carolina (DHEC) Laboratory ID # 99005 North Carolina (DENR) Certification # 248

Sample ID: ***BACKGROUND LOC 2 1'SOIL***
02-JUL-0036 22023722

Element		mg/g	ug/g (PPM)
AS	Arsenic	0.0015	1.460

Duke Energy

Duke Energy Analytical Laboratory

Environment, Health and Safety Services
Phone: 704-875-5245
Fax: 704-875-5038

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North Carolina Department of Health & Human Services Certification # **37804**
South Carolina (DHEC) Laboratory ID # **99005** North Carolina (DENR) Certification # **248**

Sample ID: ***BACKGROUND SOIL ~~BACKGROUND~~*** BACKFILL
02-JUL-0036 22023723

Element		mg/g		µg/g (ppm)
AS	Arsenic	< 0.0001	<	0.130

Duke Energy Analytical Laboratory

Environment, Health and Safety Services
Phone: 704-875-5245
Fax: 704-875-5038
13339 Hagers Ferry Road
Huntersville, NC 28078-7929
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New York State Department of Health Certification # **11717**
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Louisiana Department of Environmental Quality (LELAP) Certificate # **02012**
North Carolina Department of Health & Human Services Certification # **37804**
South Carolina (DHEC) Laboratory ID # **99005** North Carolina (DENR) Certification # **248**

Sample ID # : **22023719** Job # : **02-JUL-0036**

Sample Description: **SCREENED SOIL A**

Collection Date: **1-Jul-02 11:00:00** Site : BRAMLETTE Sample Type: SOIL SPECIAL Desktop #

MGP PARAMETERS IN WATER BY GC/MS - 8260 TCLP

Test Code: **MS8260MGPW** Test Method: **SW-846 5030B/8260B** Date Posted: **07/12/02**

	Result	Reporting Limit	Flag
Benzene	< 20 µg/L	20 µg/L	0
Toluene	< 20 µg/L	20 µg/L	0
Ethylbenzene	< 20 µg/L	20 µg/L	0
m-p-Xylene	< 40 µg/L	40 µg/L	0
o-Xylene	< 20 µg/L	20 µg/L	0

Sample ID # : **22023720** Job # : **02-JUL-0036**

Sample Description: **SCREENED SOIL B**

Collection Date: **1-Jul-02 11:00:00** Site : BRAMLETTE Sample Type: SOIL SPECIAL Desktop #

MGP PARAMETERS IN SOIL BY GC/MS - 8260

Test Code: **MS8260MGPS** Test Method: **SW-846 5030B/8260B** Date Posted: **07/11/02**

	Result	Reporting Limit	Flag
Benzene	< 4.0 ug/Kg (ppb)	4.0 ug/Kg	0
Toluene	< 4.0 ug/Kg	4.0 ug/Kg	0
Ethylbenzene	< 4.0 ug/Kg	4.0 ug/Kg	0
m-p-Xylene	< 7.0 ug/Kg	7.0 ug/Kg	0
o-Xylene	< 4.0 ug/Kg	4.0 ug/Kg	0

Sample ID # : **22024938** Job # : **02-JUL-0036**

Sample Description: **LEACH BLANK (VOL.)**

Collection Date: Site : BRAMLETTE Sample Type: SOIL SPECIAL Desktop #

MGP PARAMETERS IN WATER BY GC/MS - 8260

Test Code: **MS8260MGPW** Test Method: **SW-846 5030B/8260B** Date Posted: **07/12/02**

	Result	Reporting Limit	Flag
Benzene	< 20 µg/L	20 µg/L	0
Toluene	< 20 µg/L	20 µg/L	0
Ethylbenzene	< 20 µg/L	20 µg/L	0
m-p-Xylene	< 40 µg/L	40 µg/L	0

Duke Energy Analytical Laboratory

Environment, Health and Safety Services
Phone: 704-875-5245
Fax: 704-875-5038
13339 Hagers Ferry Road
Huntersville, NC 28078-7929
McGuire Nuclear Complex - MG03A2

Certificate of Analysis

New York State Department of Health Certification # **11717**
Nevada Department of Conservation and Natural Resources
Oklahoma Department of Environmental Quality Certification # **9930**
Kansas Department of Health and Environment Certificate # **E-10311**
Louisiana Department of Environmental Quality (LELAP) Certificate # **02012**
North Carolina Department of Health & Human Services Certification # **37804**
South Carolina (DHEC) Laboratory ID # **99005** North Carolina (DENR) Certification # **248**

Sample ID # : **22024938** Job # : **02-JUL-0036**

Sample Description: **LEACH BLANK (VOL.)**

Collection Date: Site : BRAMLETTE Sample Type: SOIL SPECIAL Desktop #

MGP PARAMETERS IN WATER BY GC/MS - 8260

Test Code: **MS8260MGPW** Test Method: **SW-846 5030B/8260B** Date Posted: **07/12/02**

	Result	Reporting Limit	Flag
o-Xylene	< 20 µg/L	20 µg/L	0

Description of Flags:

0 - All Analytical Procedure Requirements Were Met
1 - See Case Narrative
2 - Estimated Concentration, *See Case Narrative*
3 - Report Limit Elevated due to insufficient sample amount
4 - Report Limit Elevated due to required analytical dilution
5 - Sample Results Should Not Be Used For Regulatory Purposes (See Case Narrative)
6 - Analyte detected below laboratory reporting limit at an estimated concentration.
7 - Reported concentration is the combination of more that one aroclor. (Reported Aroclor is the Aroclor of highest concentration in the sample)

Troy Whisenant 7/15/02
Data Reported By, Date

Appendix F

Monitoring Well Abandonment Records

Duke Engineering & ServicesSM
A Duke Energy Company

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August 9, 2001

Ms. Jennifer Boynton
South Carolina Department of Health & Environmental Control
Bureau of Water
2600 Bull Street
Columbia, South Carolina 29201

Subject: Bramlette Road MGP Site Remediation
Monitoring Well Abandonment

Dear Ms. Boynton:

Attached please find well abandonment records for monitoring wells MW7 through MW14, and MW17 abandoned in support of remediation activities currently ongoing at the Bramlette Road MGP site in Greenville, South Carolina.

Feel free to contact me at 704-373-7898 with any questions you may have.

Sincerely,

Mark McGary, P.E.
Manager
Remediation Services Group

Cc w/att: Ralph Roberts Kenney Ramsey Mark Holder, CSX Real Property

WELL ABANDONMENT RECORD

CSX Vaughn Landfill / Bramlette Rd. MGP

1 WELL LOCATION:
Nearest Town: Greenville, S.C. **County:** Greenville

2 OWNER: CSX Real Property Inc.

3 ADDRESS: 301 W. Bay St. Suite 800
Jacksonville, Fla 32202

4 USE OF WELL: Monitoring **DATE:** 8/2/01

5 TOTAL DEPTH: 17.7 **DIAMETER:** 2" **Well Name:** MW-7

6 CASING REMOVED:

(feet)	(diameter)
0	

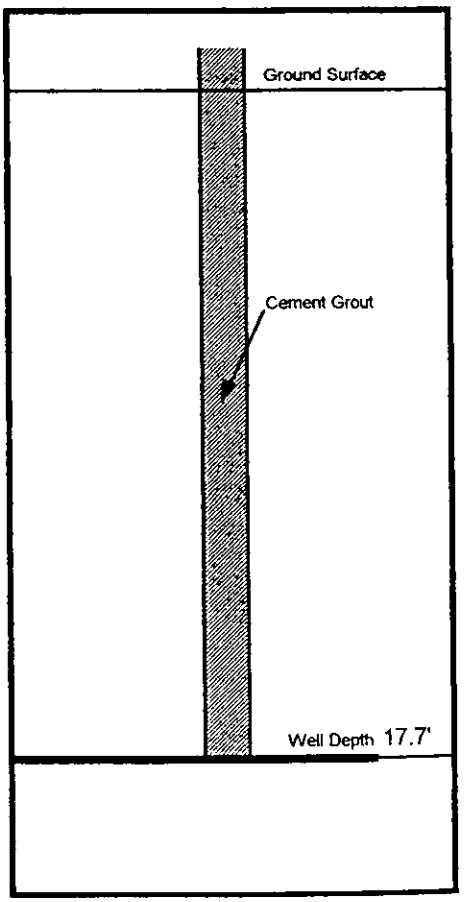
7 SEALING MATERIAL:

bags of cement 1/3

gallons of water 2

8 EXPLAIN METHOD EMPLACEMENT OF MATERIAL:
Grout pre-mixed and pumped bottom up into well using a grout pump and tremie pipe

9 REMARKS:



CONTRACTOR: Duke Power Company
INSPECTOR: Timothy A. Bumgarner
WELL DRILLER CERTIFICATION NUMBER: 1552

WELL ABANDONMENT RECORD

CSX Vaughn Landfill / Bramlette Rd. MGP

1 WELL LOCATION:
Nearest Town: Greenville, S.C. **County:** Greenville

2 OWNER: CSX Real Property Inc.

3 ADDRESS: 301 W. Bay St. Suite 800
Jacksonville, Fla 32202

4 USE OF WELL: Monitoring **DATE:** 8/2/01

5 TOTAL DEPTH: 17.3 **DIAMETER:** 2" **Well Name:** MW-8

6 CASING REMOVED:

(feet)	(diameter)
0	

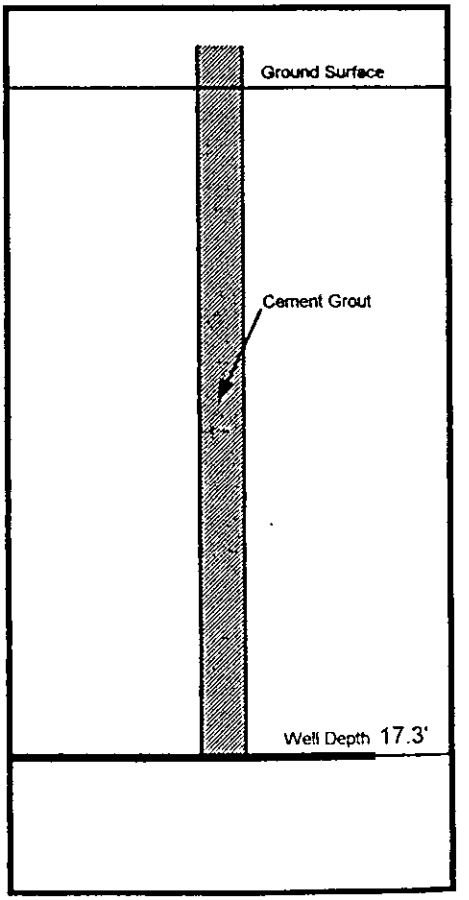
7 SEALING MATERIAL:

bags of cement 1/3

gallons of water 2

8 EXPLAIN METHOD EMPLACEMENT OF MATERIAL:
Grout pre-mixed and pumped bottom up into well using a grout pump and tremie pipe

9 REMARKS:



CONTRACTOR: Duke Power Company
INSPECTOR: Timothy L. Hunsucker
WELL DRILLER CERTIFICATION NUMBER: 1552

WELL ABANDONMENT RECORD

CSX Vaughn Landfill / Bramlette Rd. MGP

1 WELL LOCATION:
Nearest Town: Greenville, S.C. **County:** Greenville

2 OWNER: CSX Real Property Inc.

3 ADDRESS: 301 W. Bay St. Suite 800
Jacksonville, Fla 32202

4 USE OF WELL: Monitoring **DATE:** 8/2/01

5 TOTAL DEPTH: 33.2 **DIAMETER:** 2" **Well Name:** MW-9

6 CASING REMOVED:

(feet)	(diameter)
0	

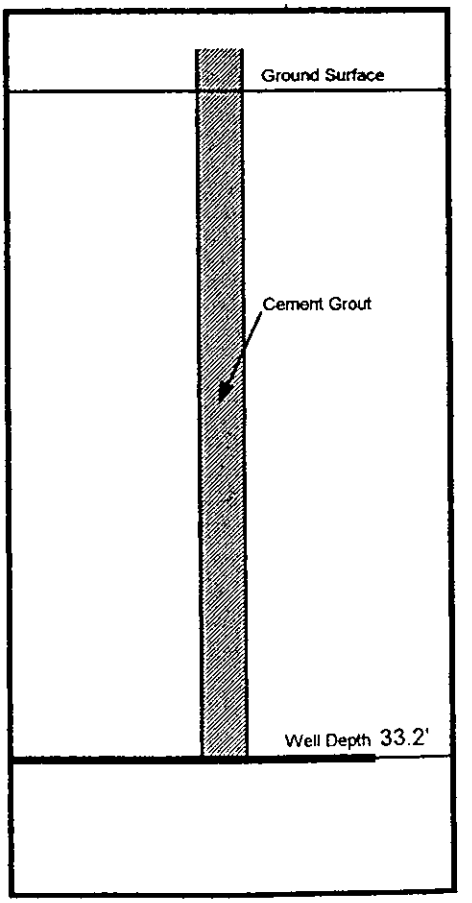
7 SEALING MATERIAL:

bags of cement 2/3

gallons of water 4

8 EXPLAIN METHOD EMPLACEMENT OF MATERIAL:
Grout pre-mixed and pumped bottom up into well using a grout pump and tremie pipe

9 REMARKS:



CONTRACTOR: Duke Power Company
INSPECTOR:
WELL DRILLER CERTIFICATION NUMBER: 1552

WELL ABANDONMENT RECORD

CSX Vaughn Landfill / Bramlette Rd. MGP

1 WELL LOCATION:
Nearest Town: Greenville, S.C. **County:** Greenville

2 OWNER: CSX Real Property Inc.

3 ADDRESS: 301 W. Bay St. Suite 800
Jacksonville, Fla 32202

4 USE OF WELL: Monitoring **DATE:** 8/6/01

5 TOTAL DEPTH: 20.3 **DIAMETER:** 2" **Well Name:** MW-10

6 CASING REMOVED:

(feet)	(diameter)
0	

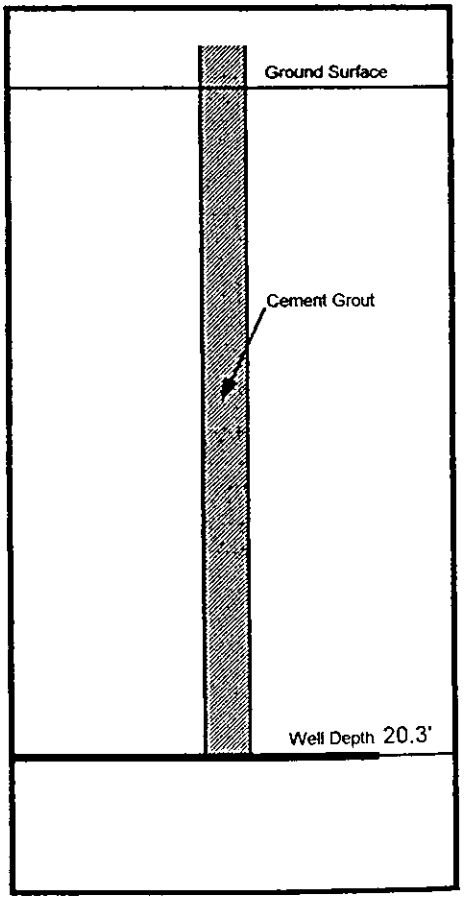
7 SEALING MATERIAL:

bags of cement 1/3

gallons of water 2

8 EXPLAIN METHOD EMPLACEMENT OF MATERIAL:
Grout pre-mixed and pumped bottom up into well using a grout pump and tremie pipe

9 REMARKS:



CONTRACTOR: Duke Power Company
INSPECTOR: Timothy A. Rousseau
WELL DRILLER CERTIFICATION NUMBER: 1552

WELL ABANDONMENT RECORD

CSX Vaughn Landfill / Bramlette Rd. MGP

1 WELL LOCATION:

Nearest Town: Greenville, S.C. **County:** Greenville

2 OWNER: CSX Real Property Inc.

3 ADDRESS: 301 W. Bay St. Suite 800
Jacksonville, Fla 32202

4 USE OF WELL: Monitoring **DATE:** 7/31/01

5 TOTAL DEPTH: 26.8 **DIAMETER:** 2" **Well Name:** MW-11

6 CASING REMOVED:

(feet)	(diameter)
0	

7 SEALING MATERIAL:

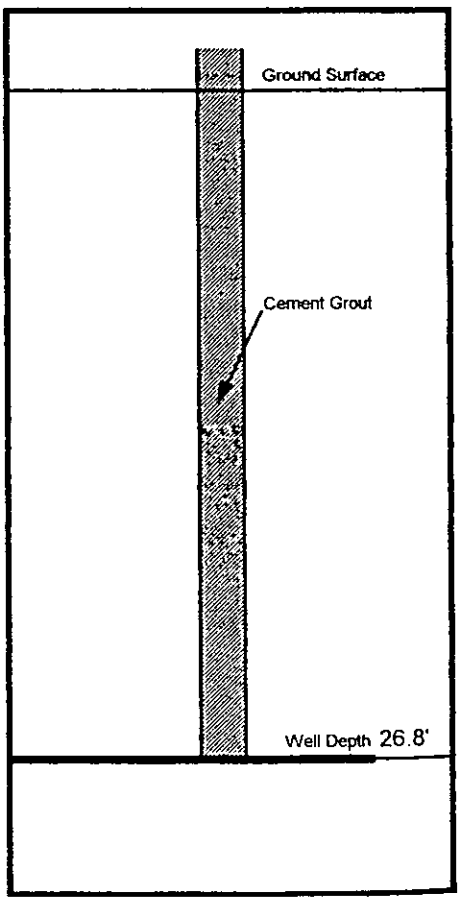
bags of cement 1/2

gallons of water 3

8 EXPLAIN METHOD EMPLACEMENT OF MATERIAL:

Grout pre-mixed and pumped bottom up into well using a grout pump and tremie pipe

9 REMARKS:



CONTRACTOR: Duke Power Company

INSPECTOR: Timothy A. Simmons

WELL DRILLER CERTIFICATION NUMBER: 1552

WELL ABANDONMENT RECORD

CSX Vaughn Landfill / Bramlette Rd. MGP

1 WELL LOCATION:
Nearest Town: Greenville, S.C. **County:** Greenville

2 OWNER: CSX Real Property Inc.

3 ADDRESS: 301 W. Bay St. Suite 800
Jacksonville, Fla 32202

4 USE OF WELL: Monitoring **DATE:** 8/6/01

5 TOTAL DEPTH: 14 **DIAMETER:** 2" **Well Name:** MW-12

6 CASING REMOVED:

(feet)	(diameter)
0	

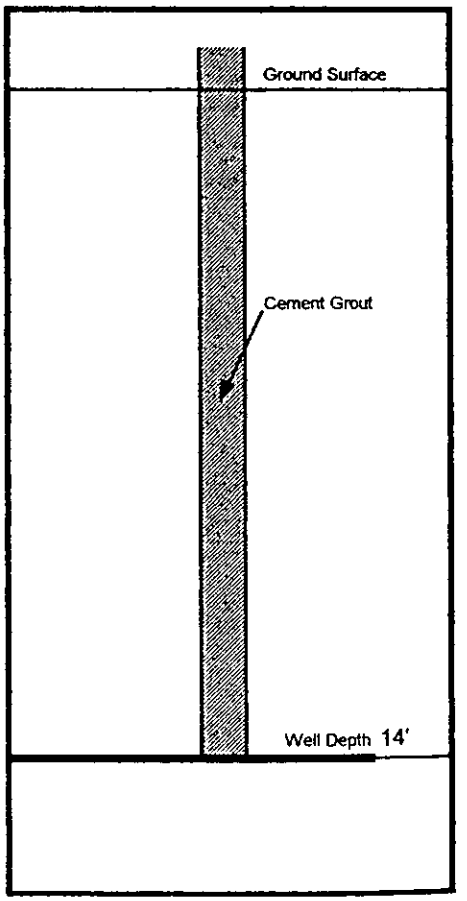
7 SEALING MATERIAL:

bags of cement 1/3

gallons of water 2

8 EXPLAIN METHOD EMPLACEMENT OF MATERIAL:
Grout pre-mixed and pumped bottom up into well using a grout pump and tremie pipe

9 REMARKS:



CONTRACTOR: Duke Power Company
INSPECTOR: Timothy S. Hamrick
WELL DRILLER CERTIFICATION NUMBER: 1552

WELL ABANDONMENT RECORD

CSX Vaughn Landfill / Bramlette Rd. MGP

1 WELL LOCATION:
Nearest Town: Greenville, S.C. **County:** Greenville

2 OWNER: CSX Real Property Inc.

3 ADDRESS: 301 W. Bay St. Suite 800
Jacksonville, Fla 32202

4 USE OF WELL: Monitoring **DATE:** 7/31/01

5 TOTAL DEPTH: 24.3 **DIAMETER:** 2" **Well Name:** MW-13

6 CASING REMOVED:

(feet)	(diameter)
0	

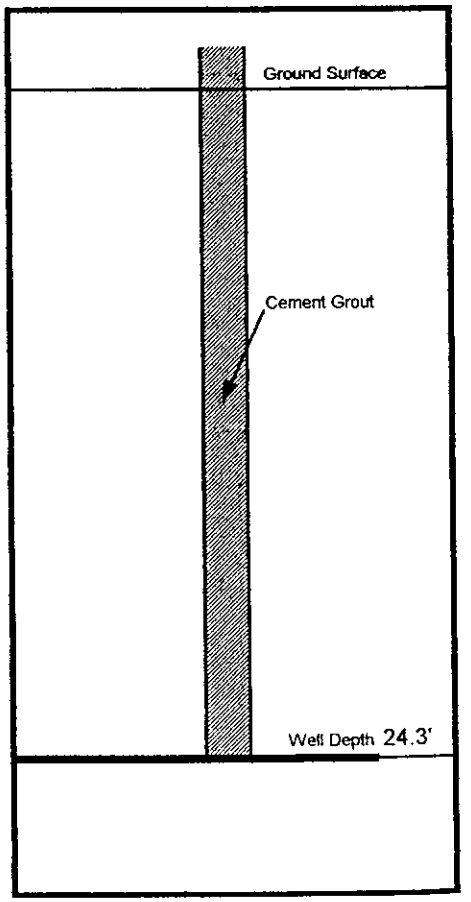
7 SEALING MATERIAL:

bags of cement 1/3

gallons of water 2

8 EXPLAIN METHOD EMPLACEMENT OF MATERIAL:
Grout pre-mixed and pumped bottom up into well using a grout pump and tremie pipe

9 REMARKS:



CONTRACTOR: Duke Power Company
INSPECTOR: Timothy S. Hamsmen
WELL DRILLER CERTIFICATION NUMBER: 1552

WELL ABANDONMENT RECORD

CSX Vaughn Landfill / Bramlette Rd. MGP

1 WELL LOCATION:
Nearest Town: Greenville, S.C. **County:** Greenville

2 OWNER: CSX Real Property Inc.

3 ADDRESS: 301 W. Bay St. Suite 800
Jacksonville, Fla 32202

4 USE OF WELL: Monitoring **DATE:** 7/31/01

5 TOTAL DEPTH: 14.7 **DIAMETER:** 2" **Well Name:** MW-14

6 CASING REMOVED:

(feet)	(diameter)
0	

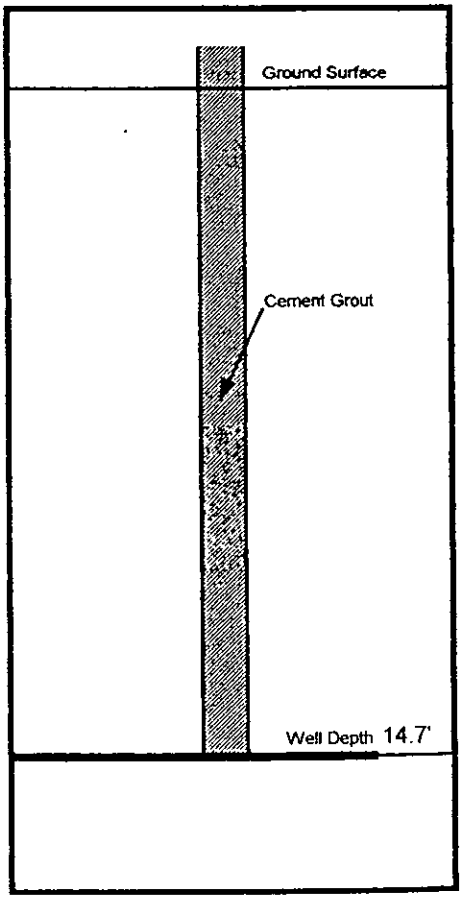
7 SEALING MATERIAL:

bags of cement 1/3

gallons of water 2

8 EXPLAIN METHOD EMPLACEMENT OF MATERIAL:
Grout pre-mixed and pumped bottom up into well using a grout pump and tremie pipe

9 REMARKS:



CONTRACTOR: Duke Power Company
INSPECTOR: Timothy A. Hunsucker
WELL DRILLER CERTIFICATION NUMBER: 1552

WELL ABANDONMENT RECORD

CSX Vaughn Landfill / Bramlette Rd. MGP

1 WELL LOCATION:
Nearest Town: Greenville, S.C. **County:** Greenville

2 OWNER: CSX Real Property Inc.

3 ADDRESS: 301 W. Bay St. Suite 800
Jacksonville, Fla 32202

4 USE OF WELL: Monitoring **DATE:** 8/2/01

5 TOTAL DEPTH: 17.7 **DIAMETER:** 2" **Well Name:** MW-17

6 CASING REMOVED:

(feet)	(diameter)
0	

7 SEALING MATERIAL:

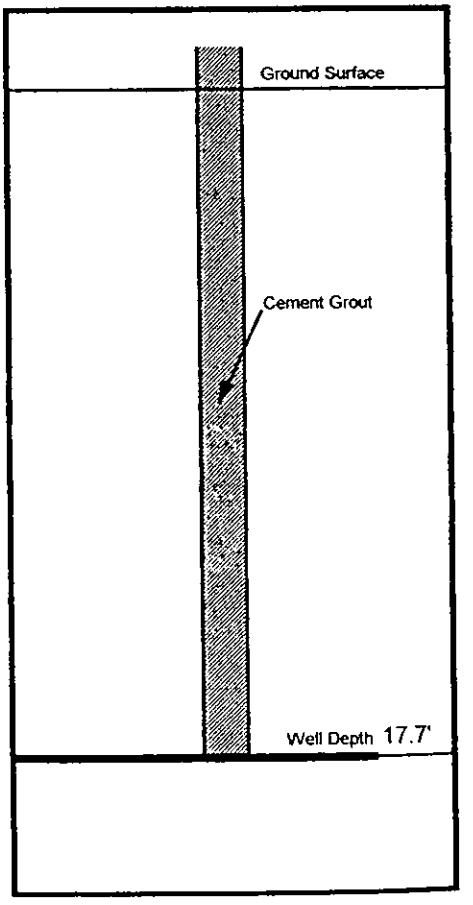
bags of cement 1/3

gallons of water 2

8 EXPLAIN METHOD EMPLACEMENT OF MATERIAL:
Grout pre-mixed and pumped bottom up into well using a grout pump and tremie pipe

9 REMARKS:

CONTRACTOR: Duke Power Company
INSPECTOR: Timothy A. Bowman
WELL DRILLER CERTIFICATION NUMBER: 1552



Appendix G

Suburban Propane Property Investigation Report

BRAMLETTE ROAD MGP SITE
SUBURBAN PROPANE PROPERTY AND NORTHWEST AREA

INVESTIGATION REPORT

JULY 2002

Introduction

This report documents the results of an investigation undertaken to assess the presence and extent of any MGP related constituents in soils within the area immediately north and adjacent to the Bramlette Road MGP Site. The investigation targeted that area referred to as the Suburban Propane property as well as a limited area immediately west of the Suburban Propane property (northwest area) as indicated on Figure 1.

At the time of this investigation, the Bramlette Road MGP Site was undergoing SCDHEC approved remediation involving the excavation and treatment of MGP-impacted soils. Observations made during excavation activities performed along the boundary between the two areas suggested that MGP related constituents potentially extended beyond the Bramlette Road MGP Site boundary and into the Suburban Propane property and northwest area. In addition, testimonials by former employees at the MGP facility indicated that MGP residues may be present in soils along abandoned rail lines extending through the area north of the MGP site boundary.

Both the Suburban Propane property and the northwest area are owned by CSX Transportation. Right of access to both areas was obtained from CSX Transportation, Inc. prior to entry. The Suburban Propane property is delineated by an existing perimeter fence as indicated on Figure 1. At the time of this investigation the Suburban Propane property was leased to Suburban Propane, however, the property was vacant and contained only two large elevated horizontal propane tanks and one small storage shed. The property is essentially level in grade. Existing ground cover consisted of a mixture of gravel, grass and kudzu. Existing access was available through an open gate on West Washington Street.

The northwest area is located immediately west of the Suburban Propane property and is essentially a wooded and overgrown gully that drains toward the north.

Investigation Method

Soils within the Suburban Propane property and the northwest area were investigated by the use of 6 test trenches excavated to various depths using a trackhoe. Access by the trackhoe was gained from the Bramlette Road MGP Site through a new gate installed along the fenceline between the two areas. Soils within the trenches were characterized by observation, presence of odors, PID field screening, and sampling for laboratory

analyses by EPA Methods 8260 (volatile organics) and 8270 (semi-volatile organics). Trench locations are indicated on Figure 2, and observations and soil sample identifications are summarized in Table 1.

Two test trenches (Trenches 1 and 2) were excavated in the northwest area as described below:

Trench 1 was excavated approximately 85 feet west of the Suburban Propane property fence and approximately 20 feet north of the MGP Site fence. Trench 1 was excavated to a total depth of 13 feet. Soil samples were collected from the top 2 feet of the excavation side wall (sample 57SW) and from the bottom (sample 58B). PID readings from these 2 samples were 3.8 ppm and zero, respectively. Non-MGP landfill material was encountered in the top 4 to 5 feet of Trench 1. No MGP-related contamination was observed.

Trench 2 was excavated in the space between two converging abandoned rail lines approximately 20 feet west of the Suburban Propane property fence. Trench 2 was excavated to a depth of 11.5 feet. Soil samples were collected from the top 2 feet of the excavation side wall (sample 59SW) and from the bottom (sample 60B). PID readings from these 2 samples were both zero. Non-MGP landfill material was encountered in the top 4 feet of Trench 2. No MGP-related contamination was observed.

The remaining 4 trenches were excavated within the Suburban Propane property boundary as described below:

Trench 2A was excavated in the southern corner of the property approximately five feet from one of the abandoned rail lines and five feet from the MGP site fence. Trench 2A was excavated to a depth of 13 feet. No soil samples were collected. A slight gasoline-type odor was indicated at a depth of 9 feet at the interface between overlying silty sand and underlying grey clay material. PID readings taken at this depth ranged from 12 to 28 ppm. PID readings taken below 9 feet were zero. No landfill material was encountered, and no MGP-related contamination was observed.

Trench 3 was excavated on the west side of a concrete pad approximately 35 feet from the southern corner of the property and 4 feet from the MGP site fence. Soil samples were collected from the excavation side wall at a depth of 7 feet (sample 61SW) and from the bottom at a depth of 14 feet (sample 62B). No PID readings were taken from these 2 samples. Gasoline type odors were indicated in sandy grey material encountered from 6 to 8 feet deep. No landfill material was encountered, and no MGP-related contamination was observed.

Trench 4 was excavated in an L-shape on the east side of the concrete pad approximately 5 feet from the MGP site fence. Trench 4 was excavated to a depth of 6.5 feet. No soil samples were collected. A gasoline-type odor was indicated in grayish granular material encountered from 2 feet to 6 feet deep in the area of the trench farthest away from the MGP site fence. No PID readings were made. No landfill material was encountered, and no MGP-related contamination was observed.

Trench 5 consisted of a combination of a short deep trench and a series of long, shallow excavations extending well into the Suburban Propane property as indicated on Figure 2. Trench 5 was initially excavated 7 feet from the MGP site fence approximately midway between Trench 4 and the property gate on West Washington Street. This initial section of Trench 5 was excavated to a depth of 8 feet and extended north into the property approximately 52 feet perpendicular to the MGP site fence. Soil samples were collected from the top 2 feet of the excavation side wall (sample 63SW) and from the bottom (sample 64B). Possible MGP-related cinders and coal tar type residues were observed consistently in a layer from 1 to 2 feet deep in this initial part of Trench 5. A PID reading from this material was 75.5 ppm. A PID reading taken of grayish clay material from a depth of 6 to 7 feet was zero. Trench 5 was subsequently continued from the initial excavation at a constant depth of 2 feet in an effort to delineate the extent of this shallow residue layer. The trench was extended parallel to the MGP site fence from Trench 4 to 18 feet from the property gate; and was also extended into other areas of the property ending approximately 40 feet from the northern fenceline. The shallow residue layer was pervasive across the entire area investigated. Additional PID readings of this material ranged from 200 to 768 ppm.

Analytical Methods

As described above, 8 soil samples collected from the test trenches were submitted for laboratory testing. These samples were analyzed for BTEX compounds by EPA Method 8260 and for PAH compounds by EPA Method 8270. Analytical results are summarized in Tables 2 and 3, respectively.

BTEX compounds were detected in 2 of the 8 soil samples analyzed. The BTEX compounds toluene and m-p-xylene were detected at very low concentrations (.0091 ppm and .0077 ppm, respectively) in sample 58B collected from the bottom of Trench 1. The BTEX compounds toluene, ethylbenzene, m-p-xylene and o-xylene were detected at higher concentrations (.57 ppm, .42 ppm, 2.6 ppm and 1.1 ppm, respectively) in sample 63SW collected from the top 2 feet of depth in Trench 5.

PAH compounds were detected at low concentrations in 2 of the 8 soil samples analyzed. Acenaphthene and flourene were detected at 0.49 ppm and 0.79 ppm, respectively, in sample 57SW collected from the top 2 feet of depth in Trench 1. 2-Methylnaphthalene was detected at 0.87 ppm in sample 61SW collected from a depth of 7 feet in Trench 3. Side wall sample 63SW, collected from 1 to 2 feet deep in the aforementioned cinder and coal tar residue layer of Trench 5, exhibited elevated detection limits for all PAH compounds analyzed. PAH compound concentrations within this layer may be assumed to range up to 33 ppm.

Management of Excavated Material

Most material removed during excavation of the test trenches was loaded into an all-terrain truck and transported directly to the MGP site for processing as suspected contaminated material. Clean backfill obtained from an off-site source was used to backfill the trench. Some excavated material, primarily material exhibiting no obvious MGP characteristics or odors, was returned immediately to the trench excavation.

Conclusions

Test trench observations, odors, PID readings, and analytical results indicate or suggest the presence of MGP related contamination in a shallow (surface to 2 feet) but possibly extensive layer across portions of the Suburban Propane property. MGP related contamination was not indicated in the Northwest Area trenches, nor was it indicated at greater depths than 2 feet within the Suburban Propane property.

Some petroleum contamination was indicated at depth in trenches within the Suburban Propane property. The petroleum contamination appears inconsistent with typical MGP-related contamination encountered within the MGP site. This petroleum contamination may be UST related based on the presence of gasoline-type odors existing in the grayish granular backfill material observed in Trench 4. However, no historical research supporting the presence of a former UST has been conducted.

Recommendations

Remedial efforts underway within the MGP Site should be extended to include the excavation and removal of near-surface (surface to 3 feet) MGP-impacted soils present within the Suburban Propane property. The recommendation is made that this work be included within the auspices and per the requirements of the existing SCDHEC approved Remedial Work Plan for the Bramlette Road MGP Site. Removal of other, non-MGP related petroleum contaminated soils (UST-related contamination) should not be included within the scope of any additional remedial efforts.

TABLES

Bramlette Road MGP Site
Suburban Propane Property and Northwest Area

Trench Observations Summary

Trench	Observations			Sample Descriptions	
	Depth Interval	Material Description	PID	Sample ID	Depth
1	Surface to 5'	Inert landfill material	3.8	57SW	Surface to 2'
	5' to 13'	Yellow grey sandy soil	0	58B	13'
2	Surface to 4'	Inert landfill material	0	59SW	Surface to 2'
	4' to 6'	Grey soil	--	--	--
	6' to 11.5'	Yellow grey clay	--	--	--
	11.5'	Yellow grey sandy soil	0	60B	11.5'
2A	Surface to 9'	Silty sandy fill material	--	--	--
	9'	Slight odor at surface of grey clay	12 to 28	--	--
	9' to 13'	Grey clay	0	--	--
3	Surface to 6'	Clean backfill material	--	--	--
	6' to 8'	Sandy grey material with gasoline odor	--	61SW	7'
	8' to 14'	Grey clay	--	--	--
	14'	Yellow clay	--	62B	14'
4	Nearest to MGP Site fence:				
	Surface to 5'	Silty sand	--	--	--
	5' to 6.5'	Red sandy clay	--	--	--
	Farthest from MGP Site fence:				
	Surface to 2'	Silty sand	--	--	--
	2' to 6'	Grey granular fill with gasoline odor	--	--	--
5	Surface to 1'	Gravel and top soil	--	--	--
	1' to 2'	Black material (cinders) with coal tar odor	>300	63SW	1' to 2'
	2' to 6'	Brown silty clay	--	--	--
	6' to 8'	Grey clay	0	64B	8'

Table 1

Bramlette Road MGP Site
Suburban Propane Property and Northwest Area

BTEX Analysis Results Summary
EPA Method 8260

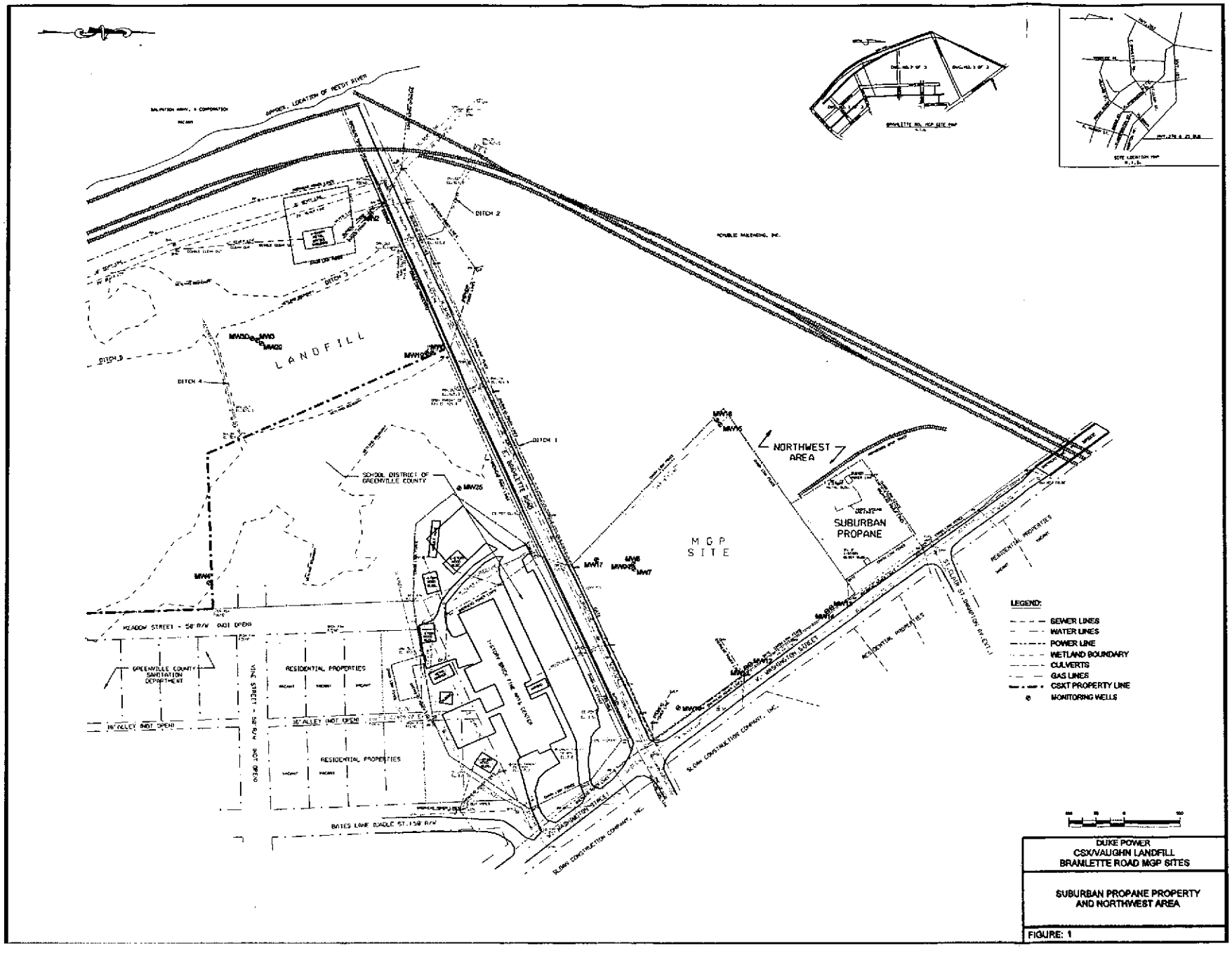
Test Trench:	Trench 1				Trench 2				Trench 3				Trench 5			
Sample Id:	22021401		22021402		22021403		22021404		22021405		22021406		22021407		22021408	
Sample Description:	BRAM 57SW		BRAM 58B		BRAM 59SW		BRAM 60B		BRAM 61SW		BRAM 62B		BRAM 63SW		BRAM 64B	
Sample Depth:	Top 2'		13'		Top 2'		11.5'		7'		14'		Top 2'		8'	
Collected Date:	6/10/02 2:10 PM		6/10/02 2:30 PM		6/11/02 7:40 AM		6/11/02 8:10 AM		6/11/02 10:45 AM		6/11/02 11:10 AM		6/12/02 8:15 AM		6/12/02 8:30 AM	
Compound	Analysis Result (ug/kg)	MDL (ug/kg)	Analysis Result (ug/kg)	MDL (ug/kg)	Analysis Result (ug/kg)	MDL (ug/kg)	Analysis Result (ug/kg)	MDL (ug/kg)	Analysis Result (ug/kg)	MDL (ug/kg)	Analysis Result (ug/kg)	MDL (ug/kg)	Analysis Result (ug/kg)	MDL (ug/kg)	Analysis Result (ug/kg)	MDL (ug/kg)
Benzene	<	6	<	4	<	4	<	4	<	12	<	4	<	330	<	3
Toluene	<	6	**9.1**	---	<	4	<	4	<	12	<	4	**570**	---	<	3
Ethylbenzene	<	6	<	4	<	4	<	4	<	12	<	4	**420**	---	<	3
m-p-Xylene	<	12	**7.7**	---	<	8	<	7	<	24	<	7	**2600**	---	<	6
o-Xylene	<	6	<	4	<	4	<	4	<	12	<	4	**1100**	---	<	3

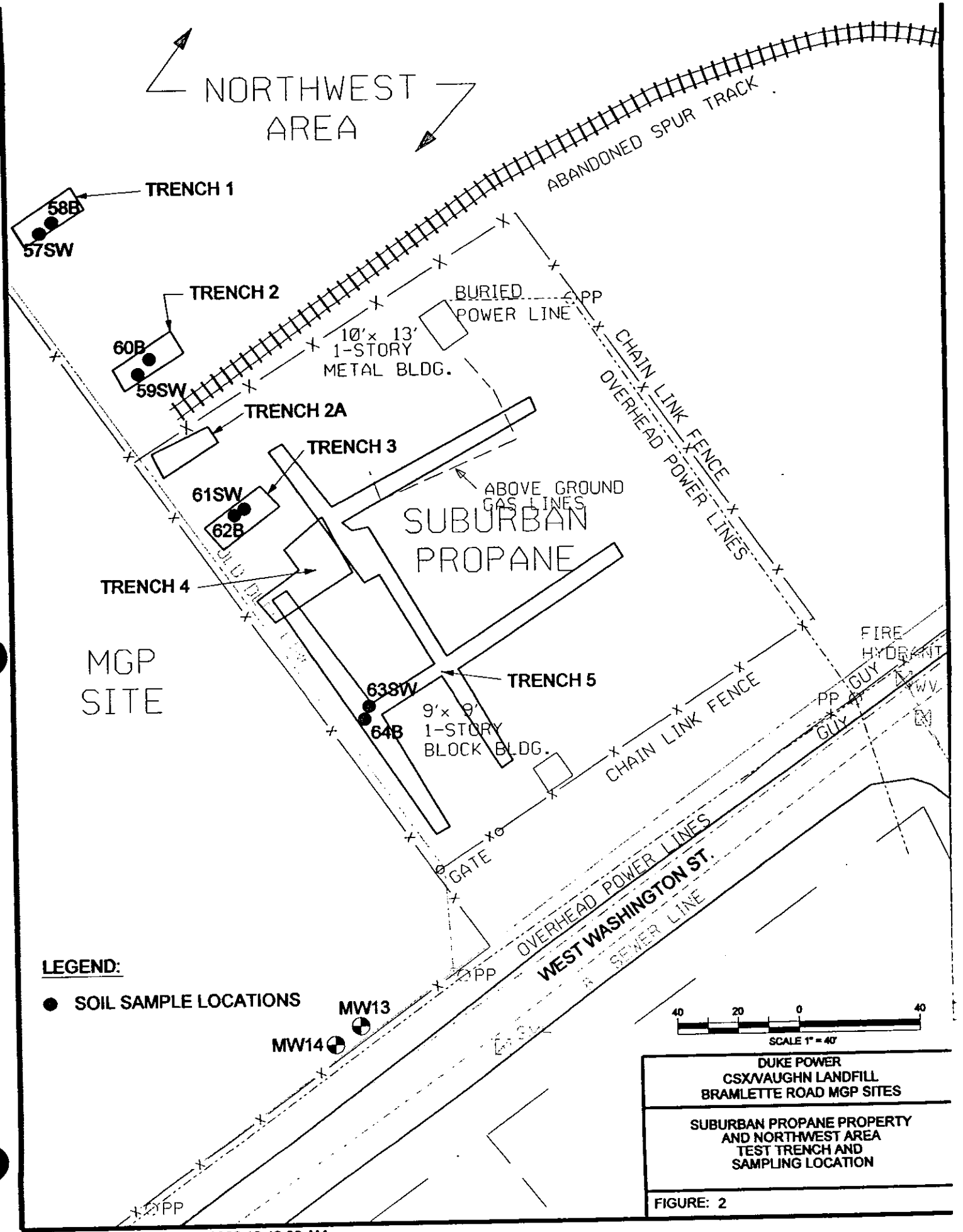
Bramlette Road MGP Site
Suburban Propane Property and Northwest Area

PAH Analysis Results Summary
EPA Method 8270

Test Trench:	Trench 1				Trench 2				Trench 3				Trench 5			
Sample Id:	22021401		22021402		22021403		22021404		22021405		22021406		22021407		22021408	
Sample Description:	BRAM 57SW		BRAM 58B		BRAM 59SW		BRAM 60B		BRAM 61SW		BRAM 62B		BRAM 63SW		BRAM 64B	
Sample Depth:	Top 2'		13'		Top 2'		11.5'		7'		14'		Top 2'		8'	
Collected Date:	6/10/02 2:10 PM		6/10/02 2:30 PM		6/11/02 7:40 AM		6/11/02 8:10 AM		6/11/02 10:45 AM		6/11/02 11:10 AM		6/12/02 8:15 AM		6/12/02 8:30 AM	
Compound	Analysis Result (mg/kg)	MDL (mg/kg)	Analysis Result (mg/kg)	MDL (mg/kg)	Analysis Result (mg/kg)	MDL (mg/kg)	Analysis Result (mg/kg)	MDL (mg/kg)	Analysis Result (mg/kg)	MDL (mg/kg)	Analysis Result (mg/kg)	MDL (mg/kg)	Analysis Result (mg/kg)	MDL (mg/kg)	Analysis Result (mg/kg)	MDL (mg/kg)
Naphthalene	<	0.35	<	0.33	<	0.37	<	0.36	<	0.36	<	0.35	<	33	<	0.35
2-Methylnaphthalene	<	0.35	<	0.33	<	0.37	<	0.36	**0.87**	---	<	0.35	<	33	<	0.35
Acenaphthylene	<	0.35	<	0.33	<	0.37	<	0.36	<	0.36	<	0.35	<	33	<	0.35
Acenaphthene	**0.49**	---	<	0.33	<	0.37	<	0.36	<	0.36	<	0.35	<	33	<	0.35
Dibenzofuran	<	0.35	<	0.33	<	0.37	<	0.36	<	0.36	<	0.35	<	33	<	0.35
Fluorene	**0.79**	---	<	0.33	<	0.37	<	0.36	<	0.36	<	0.35	<	33	<	0.35
Phenanthrene	<	0.35	<	0.33	<	0.37	<	0.36	<	0.36	<	0.35	<	33	<	0.35
Anthracene	<	0.35	<	0.33	<	0.37	<	0.36	<	0.36	<	0.35	<	33	<	0.35
Fluoranthene	<	0.35	<	0.33	<	0.37	<	0.36	<	0.36	<	0.35	<	33	<	0.35
Pyrene	<	0.35	<	0.33	<	0.37	<	0.36	<	0.36	<	0.35	<	33	<	0.35
Benzo(a)anthracene	<	0.35	<	0.33	<	0.37	<	0.36	<	0.36	<	0.35	<	33	<	0.35
Chrysene	<	0.35	<	0.33	<	0.37	<	0.36	<	0.36	<	0.35	<	33	<	0.35
Benzo(b)fluoranthene	<	0.35	<	0.33	<	0.37	<	0.36	<	0.36	<	0.35	<	33	<	0.35
Benzo(k)fluoranthene	<	0.35	<	0.33	<	0.37	<	0.36	<	0.36	<	0.35	<	33	<	0.35
Benzo(a)pyrene	<	0.35	<	0.33	<	0.37	<	0.36	<	0.36	<	0.35	<	33	<	0.35
Indeno(1,2,3-c,d)pyrene	<	0.35	<	0.33	<	0.37	<	0.36	<	0.36	<	0.35	<	33	<	0.35
Dibenzo(a,h)anthracene	<	0.35	<	0.33	<	0.37	<	0.36	<	0.36	<	0.35	<	33	<	0.35

FIGURES


LANDFILL
MGP SITE
NORTHWEST AREA
SUBURBAN PROPANE
SCHOOL DISTRICT OF GREENVILLE COUNTY
GREENVILLE COUNTY SANITATION DEPARTMENT
RESIDENTIAL PROPERTIES
RESIDENTIAL PROPERTIES
MEADOW STREET - 50' R/W NOT OPEN
16' ALLEY (NOT OPEN)
16' ALLEY (NOT OPEN)
BATES LANE (SADDLE ST.) 50' R/W
WASHINGTON STREET
ST. CLAIR ST. (WASHINGTON AVE.) 1
SLOAN CONSTRUCTION COMPANY, INC.
SLOAN CONSTRUCTION COMPANY, INC.
DITCH 1
DITCH 2
DITCH 3
DITCH 4
DITCH 5
LEGEND:
SEWER LINES
WATER LINES
POWER LINE
WETLAND BOUNDARY
CULVERTS
GAS LINES
CSXT PROPERTY LINE
MONITORING WELLS
DUKE POWER
CSX/VAUGHN LANDFILL
BRAMLETTE ROAD MGP SITES
SUBURBAN PROPANE PROPERTY AND NORTHWEST AREA
FIGURE: 1


NORTHWEST AREA
ABANDONED SPUR TRACK
TRENCH 1
58B
57SW
TRENCH 2
60B
59SW
BURIED POWER LINE
PP
10'x 13' 1-STORY METAL BLDG.
CHAIN LINK FENCE
OVERHEAD POWER LINES
TRENCH 2A
TRENCH 3
61SW
62B
ABOVE GROUND GAS LINES
SUBURBAN PROPANE
TRENCH 4
MGP SITE
TRENCH 5
63SW
64B
9'x 9' 1-STORY BLOCK BLDG.
CHAIN LINK FENCE
FIRE HYDRANT
GUY
W.V.
GATE
OVERHEAD POWER LINES
WEST WASHINGTON ST.
SEWER LINE
MW13
MW14
LEGEND:
SOIL SAMPLE LOCATIONS
40 20 0 40
SCALE 1" = 40'
DUKE POWER
CSX/VAUGHN LANDFILL
BRAMLETTE ROAD MGP SITES
SUBURBAN PROPANE PROPERTY AND NORTHWEST AREA TEST TRENCH AND SAMPLING LOCATION
FIGURE: 2
c:\DGN\bramnrth.dgn 08/26/2002 10:42:08 AM

APPENDIX A

CHAIN OF CUSTODY
And
LABORATORY ANALYTICAL RESULTS

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Form 89962 (9-97)
Previously Form 35226

Duke Power's Analytical Laboratory
MNS Bldg. # 7405 (MG03A2)
13339 Hagers Ferry Road
Huntersville, NC 28078
Phone: (704) 875-5209/875-5245[1]
Fax: (704) 875-5038

LAB USE[8]

LIMS #	Sample Class
02-JUN-0276	SOIL

Logged By (Ini.)	Time	Date
JBC	1436	6/13/02

Vendored Samples

Vendor	Analysis

Vendor	P.O. #

Container Type: ( )Glass ( )Plastic[13]

Preservative Added[14]: HNO_3 | H_2SO_4 | Ice | Other | None

CLIENT[2]: Tim Hunsucker Report to/Ph.[4]:
Project Name[3]: Richard Bacon Mail Code: MG03AB
FMIS #
Business Unit[4]: Resp. Center To: 0193
Project ID[5]: MGP BRAM
Activity ID[6]: All ACTV
Process[7]:

Sample #[9]	Lab PROFS #[10]	Sample Description or ID[11]	Collection Information[12] Date	Time	Signature	GRAB[16]	COMP[17]	Analysis Required[15] EPA 8260	EPA 8270	TOTAL # OF CONTAINERS[18]
	2202									
BRAM 55SW	1399	BRAM 55SW	6/5/02	1300	Kenneth Gabbard	X		X	X	
BRAM 56SW	1400	BRAM 56SW	6/5/02	1312						
BRAM 57SW	1401	BRAM 57SW	6/10/02	1410						
BRAM 58B	1402	BRAM 58B	6/10/02	1430						
BRAM 59SW	1403	BRAM 59SW	6/11/02	0740						
BRAM 60B	1404	BRAM 60B	6/11/02	0810						
BRAM 61SW	1405	BRAM 61SW	6/11/02	1045						
BRAM 62B	1406	BRAM 62B	6/11/02	1110						
BRAM 63SW	1407	BRAM 63SW	6/12/02	0815						
BRAM 64B	1408	BRAM 64B	6/12/02	0830						

Relinquished by:[19]	Date/Time	Accepted By:	Date/Time
Kenneth Gabbard	6/13/02 / 0730	Kenneth Ramey	6/13/02 / 0730
Relinquished by: Kenneth A Ramey	6/13/02 / 1420	Accepted By: Troy Whisenant	6/13/02 1420
Seal/Locked by[20]	Date/Time	Seal/Lock Opened By:	Date/Time

Turnaround Requested[21]
- ☑ Routine (2 weeks)
- ☐ Rush (1 week)
- ☐ Emergency Rush (24-48 Hrs.)*

Date Results Requested: _____
*Additional Charges Will Apply

Sample Matrix[22] NC ☐ SC ☐
Ground Water ☐ NPDES ☐
Drinking Water ☐ UST ☐
RCRA Waste ☐ Other ☐

TEMP:[23]

Comments:[24]

See Instructions on the back of this form.

Original – AL Files[25] Copy 1– AL Files Copy 2 – Client Copy

Duke Energy SM

8260 Analysis Case Narrative

(This document must accompany release of Analytical Data)

LIMS Job # ***02-JUN-0276***

Worklist # ***02-JUN-0386***

- The percent recovery in the Continuing Standard for toluene exceeded the laboratory quality control limits. The result for this compound in sample # 22021405 should be considered as an estimate.

Therona James

Analyst
Therona James

Duke Energy Analytical Laboratory Services

Environment Health & Safety Services
Phone 704-875-5245
FAX 704 875 5038

Environmental Center – MG03A2
13339 Hagers Ferry Road
Huntersville NC 28078-7929

Duke Energy SM

8270/625 Analysis Case Narrative

(This document must accompany release of Analytical Data)

LIMS Job # ***02-JUN-0276***

Worklist # ***02-JUN-0378***

- *The percent recovery for naphthalene in the laboratory control sample did not meet the laboratory control limits. The results for this analyte should be considered an estimate for all samples in Job #02-JUN-0276.*
- *The percent recovery and/or the average percent recovery for naphthalene and 2-methylnaphthalene in the Matrix Spike and Matrix Spike Duplicate did not meet the laboratory control limits. The results for these analytes should be considered estimates for sample 22021399.*
- *Sample #22021407 had to be diluted to remove significant matrix interferences. This dilution results in an elevated reporting limit for all analytes.*

Richard L. Engel

Analyst Signature

Richard L. Engel

Duke Energy Analytical Laboratory Services

Environment, Health & Safety Services
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FAX: 704 [illegible]-4039

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Kansas Department of Health and Environment Certificate # E-10311
Louisiana Department of Environmental Quality (LELAP) Certificate # 02012
North Carolina Department of Health & Human Services Certification # 37804
South Carolina (DHEC) Laboratory ID # 99005 North Carolina (DENR) Certification # 248

Sample ID # : **22021399** Job # : **02-JUN-0276**

Sample Description: **BRAM 555W**

Collection Date: **5-Jun-02 13:00:00** Site : BRAMLETT Type of Sample : MGP SOIL

MGP PARAMETERS IN SOIL BY GC/MS - 8260

Test Code: **MS8260MGPS** Test Method: **SW-846 5030B/8260B** Date Posted: **06/26/02** By: **TTJ9266**

	Result	Reporting Limit	Flag
Benzene	< 3.0 ug/Kg	3.0 ug/Kg	0
Toluene	< 3.0 ug/Kg	3.0 ug/Kg	0
Ethylbenzene	< 3.0 ug/Kg	3.0 ug/Kg	0
m-p-Xylene	< 5.0 ug/Kg	5.0 ug/Kg	0
o-Xylene	< 3.0 ug/Kg	3.0 ug/Kg	0

SVOC MGP IN SOIL BY GC/MS - 8270

Test Code: **MS8270MGPS** Test Method: **SW-846 8270C** Date Posted: **06/26/02** By: **RLE9599**

	Result	Reporting Limit	Flag
Naphthalene	< 0.36 mg/Kg	0.36 mg/Kg	1
2-Methylnaphthalene	< 0.36 mg/Kg	0.36 mg/Kg	1
Acenaphthylene	< 0.36 mg/Kg	0.36 mg/Kg	0
Acenaphthene	< 0.36 mg/Kg	0.36 mg/Kg	0
Dibenzofuran	< 0.36 mg/Kg	0.36 mg/Kg	0
Fluorene	< 0.36 mg/Kg	0.36 mg/Kg	0
Phenanthrene	< 0.36 mg/Kg	0.36 mg/Kg	0
Anthracene	< 0.36 mg/Kg	0.36 mg/Kg	0
Fluoranthene	< 0.36 mg/Kg	0.36 mg/Kg	0
Pyrene	< 0.36 mg/Kg	0.36 mg/Kg	0
Benzo(a)anthracene	< 0.36 mg/Kg	0.36 mg/Kg	0
Chrysene	< 0.36 mg/Kg	0.36 mg/Kg	0
Benzo(b)fluoranthene	< 0.36 mg/Kg	0.36 mg/Kg	0
Benzo(k)fluoranthene	< 0.36 mg/Kg	0.36 mg/Kg	0
Benzo(a)pyrene	< 0.36 mg/Kg	0.36 mg/Kg	0
Indeno(1,2,3-c,d)pyrene	< 0.36 mg/Kg	0.36 mg/Kg	0
Dibenzo(a,h)anthracene	< 0.36 mg/Kg	0.36 mg/Kg	0

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North Carolina Department of Health & Human Services Certification # 37804
South Carolina (DHEC) Laboratory ID # 99005 North Carolina (DENR) Certification # 248

Sample ID # : **22021399** Job # : **02-JUN-0276**

Sample Description: **BRAM 555W**

Collection Date: **5-Jun-02 13:00:00** Site : BRAMLETT Type of Sample : MGP SOIL

SVOC MGP IN SOIL BY GC/MS - 8270

Test Code: **MS8270MGPS** Test Method: **SW-846 8270C** Date Posted: **06/26/02** By: **RLE9599**

	Result	Reporting Limit	Flag
Benzo(g,h,i)perylene	< 0.36 mg/Kg	0.36 mg/Kg	0

Description of Flags:

0 - All Analytical Procedure Requirements Were Met
1 - See Case Narrative
2 - Estimated Concentration, *See Case Narrative*
3 - Report Limit Elevated due to insufficient sample amount
4 - Report Limit Elevated due to required analytical dilution
5 - Sample Results Should Not Be Used For Regulatory Purposes (See Case Narrative)
6 - Analyte detected below laboratory reporting limit at an estimated concentration.
7 - Reported concentration is the combination of more that one aroclor. (Reported Aroclor is the Aroclor of highest concentration in the sample)

Data Reported By, Date

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Sample ID # : **22021400** Job # : **02-JUN-0276**

Sample Description: **BRAM 565W**

Collection Date: **5-Jun-02 13:12:00** Site : BRAMLETT Type of Sample : MGP SOIL

MGP PARAMETERS IN SOIL BY GC/MS - 8260

Test Code: **MS8260MGPS** Test Method: **SW-846 5030B/8260B** Date Posted: **06/26/02** By: **TTJ9266**

	Result	Reporting Limit	Flag
Benzene	< 3.0 ug/Kg	3.0 ug/Kg	0
Toluene	< 3.0 ug/Kg	3.0 ug/Kg	0
Ethylbenzene	< 3.0 ug/Kg	3.0 ug/Kg	0
m-p-Xylene	< 5.0 ug/Kg	5.0 ug/Kg	0
o-Xylene	< 3.0 ug/Kg	3.0 ug/Kg	0

SVOC MGP IN SOIL BY GC/MS - 8270

Test Code: **MS8270MGPS** Test Method: **SW-846 8270C** Date Posted: **06/26/02** By: **RLE9599**

	Result	Reporting Limit	Flag
Naphthalene	< 0.32 mg/Kg	0.32 mg/Kg	1
2-Methylnaphthalene	< 0.32 mg/Kg	0.32 mg/Kg	0
Acenaphthylene	0.65 mg/Kg	0.32 mg/Kg	0
Acenaphthene	< 0.32 mg/Kg	0.32 mg/Kg	0
Dibenzofuran	< 0.32 mg/Kg	0.32 mg/Kg	0
Fluorene	< 0.32 mg/Kg	0.32 mg/Kg	0
Phenanthrene	4.0 mg/Kg	0.32 mg/Kg	0
Anthracene	0.72 mg/Kg	0.32 mg/Kg	0
Fluoranthene	6.5 mg/Kg	3.2 mg/Kg	0
Pyrene	5.8 mg/Kg	3.2 mg/Kg	0
Benzo(a)anthracene	< 0.32 mg/Kg	0.32 mg/Kg	0
Chrysene	3.1 mg/Kg	0.32 mg/Kg	0
Benzo(b)fluoranthene	2.6 mg/Kg	0.32 mg/Kg	0
Benzo(k)fluoranthene	2.9 mg/Kg	0.32 mg/Kg	0
Benzo(a)pyrene	3.0 mg/Kg	0.32 mg/Kg	0
Indeno(1,2,3-c,d)pyrene	1.7 mg/Kg	0.32 mg/Kg	0
Dibenzo(a,h)anthracene	0.51 mg/Kg	0.32 mg/Kg	0

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North Carolina Department of Health & Human Services Certification # 37804
South Carolina (DHEC) Laboratory ID # 99005 North Carolina (DENR) Certification # 248

Sample ID # : **22021400** Job # : **02-JUN-0276**

Sample Description: **BRAM 565W**

Collection Date: **5-Jun-02 13:12:00** Site : BRAMLETT Type of Sample : MGP SOIL

SVOC MGP IN SOIL BY GC/MS - 8270

Test Code: **MS8270MGPS** Test Method: **SW-846 8270C** Date Posted: **06/26/02** By: **RLE9599**

	Result	Reporting Limit	Flag
Benzo(g,h,i)perylene	1.6 mg/Kg	0.32 mg/Kg	0

Description of Flags:

0 - All Analytical Procedure Requirements Were Met
1 - See Case Narrative
2 - Estimated Concentration, *See Case Narrative*
3 - Report Limit Elevated due to insufficient sample amount
4 - Report Limit Elevated due to required analytical dilution
5 - Sample Results Should Not Be Used For Regulatory Purposes (See Case Narrative)
6 - Analyte detected below laboratory reporting limit at an estimated concentration.
7 - Reported concentration is the combination of more that one aroclor. (Reported Aroclor is the Aroclor of highest concentration in the sample)

Data Reported By, Date

Duke Energy

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South Carolina (DHEC) Laboratory ID # 99005 North Carolina (DENR) Certification # 248

Sample ID # : **22021402** Job # : **02-JUN-0276**

Sample Description: **BRAM 58B**

Collection Date: **10-Jun-02 14:30:00** Site : BRAMLETT Type of Sample : MGP SOIL

MGP PARAMETERS IN SOIL BY GC/MS - 8260

Test Code: **MS8260MGPS** Test Method: **SW-846 5030B/8260B** Date Posted: **06/26/02** By: **TTJ9266**

	Result	Reporting Limit	Flag
Benzene	< 4.0 ug/Kg	4.0 ug/Kg	0
Toluene	9.1 ug/Kg	4.0 ug/Kg	0
Ethylbenzene	< 4.0 ug/Kg	4.0 ug/Kg	0
m-p-Xylene	7.7 ug/Kg	7.0 ug/Kg	0
o-Xylene	< 4.0 ug/Kg	4.0 ug/Kg	0

SVOC MGP IN SOIL BY GC/MS - 8270

Test Code: **MS8270MGPS** Test Method: **SW-846 8270C** Date Posted: **06/26/02** By: **RLE9599**

	Result	Reporting Limit	Flag
Naphthalene	< 0.33 mg/Kg	0.33 mg/Kg	1
2-Methylnaphthalene	< 0.33 mg/Kg	0.33 mg/Kg	0
Acenaphthylene	< 0.33 mg/Kg	0.33 mg/Kg	0
Acenaphthene	< 0.33 mg/Kg	0.33 mg/Kg	0
Dibenzofuran	< 0.33 mg/Kg	0.33 mg/Kg	0
Fluorene	< 0.33 mg/Kg	0.33 mg/Kg	0
Phenanthrene	< 0.33 mg/Kg	0.33 mg/Kg	0
Anthracene	< 0.33 mg/Kg	0.33 mg/Kg	0
Fluoranthene	< 0.33 mg/Kg	0.33 mg/Kg	0
Pyrene	< 0.33 mg/Kg	0.33 mg/Kg	0
Benzo(a)anthracene	< 0.33 mg/Kg	0.33 mg/Kg	0
Chrysene	< 0.33 mg/Kg	0.33 mg/Kg	0
Benzo(b)fluoranthene	< 0.33 mg/Kg	0.33 mg/Kg	0
Benzo(k)fluoranthene	< 0.33 mg/Kg	0.33 mg/Kg	0
Benzo(a)pyrene	< 0.33 mg/Kg	0.33 mg/Kg	0
Indeno(1,2,3-c,d)pyrene	< 0.33 mg/Kg	0.33 mg/Kg	0
Dibenzo(a,h)anthracene	< 0.33 mg/Kg	0.33 mg/Kg	0

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Sample ID # : **22021401 S** Job # : **02-JUN-0276**

Sample Description: **BRAM 57 SW**

Collection Date: **10-Jun-02 14:10:00** Site : **BRAMLETT** Type of Sample : **MGP SOIL**

MGP PARAMETERS IN SOIL BY GC/MS - 8260

Test Code: **MS8260MGPS** Test Method: **SW-846 5030B/8260B** Date Posted: **06/26/02** By: **TTJ9266**

	Result	Reporting Limit	Flag
Benzene	< 6.0 ug/Kg	6.0 ug/Kg	0
Toluene	< 6.0 ug/Kg	6.0 ug/Kg	0
Ethylbenzene	< 6.0 ug/Kg	6.0 ug/Kg	0
m-p-Xylene	< 12 ug/Kg	12 ug/Kg	0
o-Xylene	< 6.0 ug/Kg	6.0 ug/Kg	0

SVOC MGP IN SOIL BY GC/MS - 8270

Test Code: **MS8270MGPS** Test Method: **SW-846 8270C** Date Posted: **06/26/02** By: **RLE9599**

	Result	Reporting Limit	Flag
Naphthalene	< 0.35 mg/Kg	0.35 mg/Kg	1
2-Methylnaphthalene	< 0.35 mg/Kg	0.35 mg/Kg	0
Acenaphthylene	< 0.35 mg/Kg	0.35 mg/Kg	0
Acenaphthene	0.49 mg/Kg	0.35 mg/Kg	0
Dibenzofuran	< 0.35 mg/Kg	0.35 mg/Kg	0
Fluorene	0.79 mg/Kg	0.35 mg/Kg	0
Phenanthrene	< 0.35 mg/Kg	0.35 mg/Kg	0
Anthracene	< 0.35 mg/Kg	0.35 mg/Kg	0
Fluoranthene	< 0.35 mg/Kg	0.35 mg/Kg	0
Pyrene	< 0.35 mg/Kg	0.35 mg/Kg	0
Benzo(a)anthracene	< 0.35 mg/Kg	0.35 mg/Kg	0
Chrysene	< 0.35 mg/Kg	0.35 mg/Kg	0
Benzo(b)fluoranthene	< 0.35 mg/Kg	0.35 mg/Kg	0
Benzo(k)fluoranthene	< 0.35 mg/Kg	0.35 mg/Kg	0
Benzo(a)pyrene	< 0.35 mg/Kg	0.35 mg/Kg	0
Indeno(1,2,3-c,d)pyrene	< 0.35 mg/Kg	0.35 mg/Kg	0
Dibenzo(a,h)anthracene	< 0.35 mg/Kg	0.35 mg/Kg	0

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North Carolina Department of Health & Human Services Certification # 37804
South Carolina (DHEC) Laboratory ID # 99005 North Carolina (DENR) Certification # 248

Sample ID # : 22021401 S Job # : 02-JUN-0276

Sample Description: BRAM 575W

Collection Date: 10-Jun-02 14:10:00 Site : BRAMLETT Type of Sample : MGP SOIL

SVOC MGP IN SOIL BY GC/MS - 8270

Test Code: MS8270MGPS Test Method: SW-846 8270C Date Posted: 06/26/02 By: RLE9599

	Result	Reporting Limit	Flag
Benzo(g,h,i)perylene	< 0.35 mg/Kg	0.35 mg/Kg	0

Description of Flags:

0 - All Analytical Procedure Requirements Were Met
1 - See Case Narrative
2 - Estimated Concentration. *See Case Narrative*
3 - Report Limit Elevated due to insufficient sample amount
4 - Report Limit Elevated due to required analytical dilution
5 - Sample Results Should Not Be Used For Regulatory Purposes (See Case Narrative)
6 - Analyte detected below laboratory reporting limit at an estimated concentration.
7 - Reported concentration is the combination of more that one aroclor. (Reported Aroclor is the Aroclor of highest concentration in the sample)

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Sample ID # : **22021402** Job # : **02-JUN-0276**

Sample Description: **BRAM 58B**

Collection Date: **10-Jun-02 14:30:00** Site : BRAMLETT Type of Sample : MGP SOIL

SVOC MGP IN SOIL BY GC/MS - 8270

Test Code: **MS8270MGPS** Test Method: **SW-846 8270C** Date Posted: **06/26/02** By: **RLE9599**

	Result	Reporting Limit	Flag
Benzo(g,h,i)perylene	< 0.33 mg/Kg	0.33 mg/Kg	0

Description of Flags:

0 - All Analytical Procedure Requirements Were Met
1 - See Case Narrative
2 - Estimated Concentration, *See Case Narrative*
3 - Report Limit Elevated due to insufficient sample amount
4 - Report Limit Elevated due to required analytical dilution
5 - Sample Results Should Not Be Used For Regulatory Purposes (See Case Narrative)
6 - Analyte detected below laboratory reporting limit at an estimated concentration.
7 - Reported concentration is the combination of more that one aroclor. (Reported Aroclor is the Aroclor of highest concentration in the sample)

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Sample ID # : **22021403** Job # : **02-JUN-0276**

Sample Description: **BRAM 59SW**

Collection Date: **11-Jun-02 07:40:00** Site : BRAMLETT Type of Sample : MGP SOIL

MGP PARAMETERS IN SOIL BY GC/MS - 8260

Test Code: **MS8260MGPS** Test Method: **SW-846 5030B/8260B** Date Posted: **06/26/02** By: **TTJ9266**

	Result	Reporting Limit	Flag
Benzene	< 4.0 ug/Kg	4.0 ug/Kg	0
Toluene	< 4.0 ug/Kg	4.0 ug/Kg	0
Ethylbenzene	< 4.0 ug/Kg	4.0 ug/Kg	0
m-p-Xylene	< 8.0 ug/Kg	8.0 ug/Kg	0
o-Xylene	< 4.0 ug/Kg	4.0 ug/Kg	0

SVOC MGP IN SOIL BY GC/MS - 8270

Test Code: **MS8270MGPS** Test Method: **SW-846 8270C** Date Posted: **06/26/02** By: **RLE9599**

	Result	Reporting Limit	Flag
Naphthalene	< 0.37 mg/Kg	0.37 mg/Kg	1
2-Methylnaphthalene	< 0.37 mg/Kg	0.37 mg/Kg	0
Acenaphthylene	< 0.37 mg/Kg	0.37 mg/Kg	0
Acenaphthene	< 0.37 mg/Kg	0.37 mg/Kg	0
Dibenzofuran	< 0.37 mg/Kg	0.37 mg/Kg	0
Fluorene	< 0.37 mg/Kg	0.37 mg/Kg	0
Phenanthrene	< 0.37 mg/Kg	0.37 mg/Kg	0
Anthracene	< 0.37 mg/Kg	0.37 mg/Kg	0
Fluoranthene	< 0.37 mg/Kg	0.37 mg/Kg	0
Pyrene	< 0.37 mg/Kg	0.37 mg/Kg	0
Benzo(a)anthracene	< 0.37 mg/Kg	0.37 mg/Kg	0
Chrysene	< 0.37 mg/Kg	0.37 mg/Kg	0
Benzo(b)fluoranthene	< 0.37 mg/Kg	0.37 mg/Kg	0
Benzo(k)fluoranthene	< 0.37 mg/Kg	0.37 mg/Kg	0
Benzo(a)pyrene	< 0.37 mg/Kg	0.37 mg/Kg	0
Indeno(1,2,3-c,d)pyrene	< 0.37 mg/Kg	0.37 mg/Kg	0
Dibenzo(a,h)anthracene	< 0.37 mg/Kg	0.37 mg/Kg	0

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Sample ID # : **22021403** Job # : **02-JUN-0276**

Sample Description: **BRAM 59SW**

Collection Date: **11-Jun-02 07:40:00** Site : **BRAMLETT** Type of Sample : **MGP SOIL**

SVOC MGP IN SOIL BY GC/MS - 8270

Test Code: **MS8270MGPS** Test Method: **SW-846 8270C** Date Posted: **06/26/02** By: **RLE9599**

	Result	Reporting Limit	Flag
Benzo(g,h,i)perylene	< 0.37 mg/Kg	0.37 mg/Kg	0

Description of Flags:

0 - All Analytical Procedure Requirements Were Met
1 - See Case Narrative
2 - Estimated Concentration. *See Case Narrative*
3 - Report Limit Elevated due to insufficient sample amount
4 - Report Limit Elevated due to required analytical dilution
5 - Sample Results Should Not Be Used For Regulatory Purposes (See Case Narrative)
6 - Analyte detected below laboratory reporting limit at an estimated concentration.
7 - Reported concentration is the combination of more that one aroclor. (Reported Aroclor is the Aroclor of highest concentration in the sample)

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Sample ID # : **22021404** Job # : **02-JUN-0276**

Sample Description: **BRAM 60B**

Collection Date: **11-Jun-02 08:10:00** Site : **BRAMLETT** Type of Sample : **MGP SOIL**

MGP PARAMETERS IN SOIL BY GC/MS - 8260

Test Code: **MS8260MGPS** Test Method: **SW-846 5030B/8260B** Date Posted: **06/26/02** By: **TTJ9266**

	Result	Reporting Limit	Flag
Benzene	< 4.0 ug/Kg	4.0 ug/Kg	0
Toluene	< 4.0 ug/Kg	4.0 ug/Kg	0
Ethylbenzene	< 4.0 ug/Kg	4.0 ug/Kg	0
m-p-Xylene	< 7.0 ug/Kg	7.0 ug/Kg	0
o-Xylene	< 4.0 ug/Kg	4.0 ug/Kg	0

SVOC MGP IN SOIL BY GC/MS - 8270

Test Code: **MS8270MGPS** Test Method: **SW-846 8270C** Date Posted: **06/26/02** By: **RLE9599**

	Result	Reporting Limit	Flag
Naphthalene	< 0.36 mg/Kg	0.36 mg/Kg	1
2-Methylnaphthalene	< 0.36 mg/Kg	0.36 mg/Kg	0
Acenaphthylene	< 0.36 mg/Kg	0.36 mg/Kg	0
Acenaphthene	< 0.36 mg/Kg	0.36 mg/Kg	0
Dibenzofuran	< 0.36 mg/Kg	0.36 mg/Kg	0
Fluorene	< 0.36 mg/Kg	0.36 mg/Kg	0
Phenanthrene	< 0.36 mg/Kg	0.36 mg/Kg	0
Anthracene	< 0.36 mg/Kg	0.36 mg/Kg	0
Fluoranthene	< 0.36 mg/Kg	0.36 mg/Kg	0
Pyrene	< 0.36 mg/Kg	0.36 mg/Kg	0
Benzo(a)anthracene	< 0.36 mg/Kg	0.36 mg/Kg	0
Chrysene	< 0.36 mg/Kg	0.36 mg/Kg	0
Benzo(b)fluoranthene	< 0.36 mg/Kg	0.36 mg/Kg	0
Benzo(k)fluoranthene	< 0.36 mg/Kg	0.36 mg/Kg	0
Benzo(a)pyrene	< 0.36 mg/Kg	0.36 mg/Kg	0
Indeno(1,2,3-c,d)pyrene	< 0.36 mg/Kg	0.36 mg/Kg	0
Dibenzo(a,h)anthracene	< 0.36 mg/Kg	0.36 mg/Kg	0

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Sample ID # : **22021404** Job # : **02-JUN-0276**

Sample Description: **BRAM 60B**

Collection Date: **11-Jun-02 08:10:00** Site : BRAMLETT Type of Sample : MGP SOIL

SVOC MGP IN SOIL BY GC/MS - 8270

Test Code: **MS8270MGPS** Test Method: **SW-846 8270C** Date Posted: **06/26/02** By: **RLE9599**

	Result	Reporting Limit	Flag
Benzo(g,h,i)perylene	< 0.36 mg/Kg	0.36 mg/Kg	0

Description of Flags:

0 - All Analytical Procedure Requirements Were Met
1 - See Case Narrative
2 - Estimated Concentration, *See Case Narrative*
3 - Report Limit Elevated due to insufficient sample amount
4 - Report Limit Elevated due to required analytical dilution
5 - Sample Results Should Not Be Used For Regulatory Purposes (See Case Narrative)
6 - Analyte detected below laboratory reporting limit at an estimated concentration.
7 - Reported concentration is the combination of more that one aroclor. (Reported Aroclor is the Aroclor of highest concentration in the sample)

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Sample ID # : **22021405** Job # : **02-JUN-0276**

Sample Description: **BRAM 61SW**

Collection Date: **11-Jun-02 10:45:00** Site : BRAMLETT Type of Sample : MGP SOIL

MGP PARAMETERS IN SOIL BY GC/MS - 8260

Test Code: **MS8260MGPS** Test Method: **SW-846 5030B/8260B** Date Posted: **06/27/02** By: **TTJ9266**

	Result	Reporting Limit	Flag
Benzene	< 12 ug/Kg	12 ug/Kg	0
Toluene	< 12 ug/Kg	12 ug/Kg	1
Ethylbenzene	< 12 ug/Kg	12 ug/Kg	0
m-p-Xylene	< 24 ug/Kg	24 ug/Kg	0
o-Xylene	< 12 ug/Kg	12 ug/Kg	0

SVOC MGP IN SOIL BY GC/MS - 8270

Test Code: **MS8270MGPS** Test Method: **SW-846 8270C** Date Posted: **06/26/02** By: **RLE9599**

	Result	Reporting Limit	Flag
Naphthalene	< 0.36 mg/Kg	0.36 mg/Kg	1
2-Methylnaphthalene	0.87 mg/Kg	0.36 mg/Kg	0
Acenaphthylene	< 0.36 mg/Kg	0.36 mg/Kg	0
Acenaphthene	< 0.36 mg/Kg	0.36 mg/Kg	0
Dibenzofuran	< 0.36 mg/Kg	0.36 mg/Kg	0
Fluorene	< 0.36 mg/Kg	0.36 mg/Kg	0
Phenanthrene	< 0.36 mg/Kg	0.36 mg/Kg	0
Anthracene	< 0.36 mg/Kg	0.36 mg/Kg	0
Fluoranthene	< 0.36 mg/Kg	0.36 mg/Kg	0
Pyrene	< 0.36 mg/Kg	0.36 mg/Kg	0
Benzo(a)anthracene	< 0.36 mg/Kg	0.36 mg/Kg	0
Chrysene	< 0.36 mg/Kg	0.36 mg/Kg	0
Benzo(b)fluoranthene	< 0.36 mg/Kg	0.36 mg/Kg	0
Benzo(k)fluoranthene	< 0.36 mg/Kg	0.36 mg/Kg	0
Benzo(a)pyrene	< 0.36 mg/Kg	0.36 mg/Kg	0
Indeno(1,2,3-c,d)pyrene	< 0.36 mg/Kg	0.36 mg/Kg	0
Dibenzo(a,h)anthracene	< 0.36 mg/Kg	0.36 mg/Kg	0

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Sample ID # : **22021405** Job # : **02-JUN-0276**

Sample Description: **BRAM 61SW**

Collection Date: **11-Jun-02 10:45:00** Site : BRAMLETT Type of Sample : MGP SOIL

SVOC MGP IN SOIL BY GC/MS - 8270

Test Code: **MS8270MGPS** Test Method: **SW-846 8270C** Date Posted: **06/26/02** By: **RLE9599**

	Result	Reporting Limit	Flag
Benzo(g,h,i)perylene	< 0.36 mg/Kg	0.36 mg/Kg	0

Description of Flags:

0 - All Analytical Procedure Requirements Were Met
1 - See Case Narrative
2 - Estimated Concentration, *See Case Narrative*
3 - Report Limit Elevated due to insufficient sample amount
4 - Report Limit Elevated due to required analytical dilution
5 - Sample Results Should Not Be Used For Regulatory Purposes (See Case Narrative)
6 - Analyte detected below laboratory reporting limit at an estimated concentration.
7 - Reported concentration is the combination of more that one aroclor. (Reported Aroclor is the Aroclor of highest concentration in the sample)

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Sample ID # : **22021406** Job # : **02-JUN-0276**

Sample Description: **BRAM 62B**

Collection Date: **11-Jun-02 11:10:00** Site : BRAMLETT Type of Sample : MGP SOIL

MGP PARAMETERS IN SOIL BY GC/MS - 8260

Test Code: **MS8260MGPS** Test Method: **SW-846 5030B/8260B** Date Posted: **06/26/02** By: **TTJ9266**

	Result	Reporting Limit	Flag
Benzene	< 4.0 ug/Kg	4.0 ug/Kg	0
Toluene	< 4.0 ug/Kg	4.0 ug/Kg	0
Ethylbenzene	< 4.0 ug/Kg	4.0 ug/Kg	0
m-p-Xylene	< 7.0 ug/Kg	7.0 ug/Kg	0
o-Xylene	< 4.0 ug/Kg	4.0 ug/Kg	0

SVOC MGP IN SOIL BY GC/MS - 8270

Test Code: **MS8270MGPS** Test Method: **SW-846 8270C** Date Posted: **06/26/02** By: **RLE9599**

	Result	Reporting Limit	Flag
Naphthalene	< 0.35 mg/Kg	0.35 mg/Kg	1
2-Methylnaphthalene	< 0.35 mg/Kg	0.35 mg/Kg	0
Acenaphthylene	< 0.35 mg/Kg	0.35 mg/Kg	0
Acenaphthene	< 0.35 mg/Kg	0.35 mg/Kg	0
Dibenzofuran	< 0.35 mg/Kg	0.35 mg/Kg	0
Fluorene	< 0.35 mg/Kg	0.35 mg/Kg	0
Phenanthrene	< 0.35 mg/Kg	0.35 mg/Kg	0
Anthracene	< 0.35 mg/Kg	0.35 mg/Kg	0
Fluoranthene	< 0.35 mg/Kg	0.35 mg/Kg	0
Pyrene	< 0.35 mg/Kg	0.35 mg/Kg	0
Benzo(a)anthracene	< 0.35 mg/Kg	0.35 mg/Kg	0
Chrysene	< 0.35 mg/Kg	0.35 mg/Kg	0
Benzo(b)fluoranthene	< 0.35 mg/Kg	0.35 mg/Kg	0
Benzo(k)fluoranthene	< 0.35 mg/Kg	0.35 mg/Kg	0
Benzo(a)pyrene	< 0.35 mg/Kg	0.35 mg/Kg	0
Indeno(1,2,3-c,d)pyrene	< 0.35 mg/Kg	0.35 mg/Kg	0
Dibenzo(a,h)anthracene	< 0.35 mg/Kg	0.35 mg/Kg	0

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Sample ID # : **22021406** Job # : **02-JUN-0276**

Sample Description: **BRAM 62B**

Collection Date: **11-Jun-02 11:10:00** Site : BRAMLETT Type of Sample : MGP SOIL

SVOC MGP IN SOIL BY GC/MS - 8270

Test Code: **MS8270MGPS** Test Method: **SW-846 8270C** Date Posted: **06/26/02** By: **RLE9599**

	Result	Reporting Limit	Flag
Benzo(g,h,i)perylene	< 0.35 mg/Kg	0.35 mg/Kg	0

Description of Flags:

0 - All Analytical Procedure Requirements Were Met
1 - See Case Narrative
2 - Estimated Concentration, *See Case Narrative*
3 - Report Limit Elevated due to insufficient sample amount
4 - Report Limit Elevated due to required analytical dilution
5 - Sample Results Should Not Be Used For Regulatory Purposes (See Case Narrative)
6 - Analyte detected below laboratory reporting limit at an estimated concentration.
7 - Reported concentration is the combination of more that one aroclor. (Reported Aroclor is the Aroclor of highest concentration in the sample)

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Sample ID # : **22021407** Job # : **02-JUN-0276**

Sample Description: **BRAM 63SW**

Collection Date: **12-Jun-02 08:15:00** Site : BRAMLETT Type of Sample : MGP SOIL

MGP PARAMETERS IN SOIL BY GC/MS - 8260

Test Code: **MS8260MGPS** Test Method: **SW-846 5030B/8260B** Date Posted: **06/26/02** By: **TTJ9266**

	Result	Reporting Limit	Flag
Benzene	< 330 ug/Kg	330 ug/Kg	0
Toluene	570 ug/Kg	330 ug/Kg	0
Ethylbenzene	420 ug/Kg	330 ug/Kg	0
m-p-Xylene	2600 ug/Kg	670 ug/Kg	0
o-Xylene	1100 ug/Kg	330 ug/Kg	0

SVOC MGP IN SOIL BY GC/MS - 8270

Test Code: **MS8270MGPS** Test Method: **SW-846 8270C** Date Posted: **06/26/02** By: **RLE9599**

	Result	Reporting Limit	Flag
Naphthalene	< 33 mg/Kg	33 mg/Kg	1
2-Methylnaphthalene	< 33 mg/Kg	33 mg/Kg	1
Acenaphthylene	< 33 mg/Kg	33 mg/Kg	1
Acenaphthene	< 33 mg/Kg	33 mg/Kg	1
Dibenzofuran	< 33 mg/Kg	33 mg/Kg	1
Fluorene	< 33 mg/Kg	33 mg/Kg	1
Phenanthrene	< 33 mg/Kg	33 mg/Kg	1
Anthracene	< 33 mg/Kg	33 mg/Kg	1
Fluoranthene	< 33 mg/Kg	33 mg/Kg	1
Pyrene	< 33 mg/Kg	33 mg/Kg	1
Benzo(a)anthracene	< 33 mg/Kg	33 mg/Kg	1
Chrysene	< 33 mg/Kg	33 mg/Kg	1
Benzo(b)fluoranthene	< 33 mg/Kg	33 mg/Kg	1
Benzo(k)fluoranthene	< 33 mg/Kg	33 mg/Kg	1
Benzo(a)pyrene	< 33 mg/Kg	33 mg/Kg	1
Indeno(1,2,3-c,d)pyrene	< 33 mg/Kg	33 mg/Kg	1
Dibenzo(a,h)anthracene	< 33 mg/Kg	33 mg/Kg	1

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Sample ID # : **22021407** Job # : **02-JUN-0276**

Sample Description: **BRAM 63SW**

Collection Date: **12-Jun-02 08:15:00** Site : BRAMLETT Type of Sample : MGP SOIL

SVOC MGP IN SOIL BY GC/MS - 8270

Test Code: MS8270MGPS Test Method: SW-846 8270C Date Posted: 06/26/02 By: RLE9599

	Result	Reporting Limit	Flag
Benzo(g,h,i)perylene	< 33 mg/Kg	33 mg/Kg	1

Description of Flags:

0 - All Analytical Procedure Requirements Were Met
1 - See Case Narrative
2 - Estimated Concentration, *See Case Narrative*
3 - Report Limit Elevated due to insufficient sample amount
4 - Report Limit Elevated due to required analytical dilution
5 - Sample Results Should Not Be Used For Regulatory Purposes (See Case Narrative)
6 - Analyte detected below laboratory reporting limit at an estimated concentration.
7 - Reported concentration is the combination of more that one aroclor. (Reported Aroclor is the Aroclor of highest concentration in the sample)

Data Reported By, Date

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Sample ID # : **22021408** Job # : **02-JUN-0276**

Sample Description: **BRAM 64B**

Collection Date: **12-Jun-02 08:30:00** Site : BRAMLETT Type of Sample : MGP SOIL

MGP PARAMETERS IN SOIL BY GC/MS - 8260

Test Code: **MS8260MGPS** Test Method: **SW-846 5030B/8260B** Date Posted: **06/26/02** By: **TTJ9266**

	Result	Reporting Limit	Flag
Benzene	< 3.0 ug/Kg	3.0 ug/Kg	0
Toluene	< 3.0 ug/Kg	3.0 ug/Kg	0
Ethylbenzene	< 3.0 ug/Kg	3.0 ug/Kg	0
m-p-Xylene	< 6.0 ug/Kg	6.0 ug/Kg	0
o-Xylene	< 3.0 ug/Kg	3.0 ug/Kg	0

SVOC MGP IN SOIL BY GC/MS - 8270

Test Code: **MS8270MGPS** Test Method: **SW-846 8270C** Date Posted: **06/26/02** By: **RLE9599**

	Result	Reporting Limit	Flag
Naphthalene	< 0.35 mg/Kg	0.35 mg/Kg	1
2-Methylnaphthalene	< 0.35 mg/Kg	0.35 mg/Kg	0
Acenaphthylene	< 0.35 mg/Kg	0.35 mg/Kg	0
Acenaphthene	< 0.35 mg/Kg	0.35 mg/Kg	0
Dibenzofuran	< 0.35 mg/Kg	0.35 mg/Kg	0
Fluorene	< 0.35 mg/Kg	0.35 mg/Kg	0
Phenanthrene	< 0.35 mg/Kg	0.35 mg/Kg	0
Anthracene	< 0.35 mg/Kg	0.35 mg/Kg	0
Fluoranthene	< 0.35 mg/Kg	0.35 mg/Kg	0
Pyrene	< 0.35 mg/Kg	0.35 mg/Kg	0
Benzo(a)anthracene	< 0.35 mg/Kg	0.35 mg/Kg	0
Chrysene	< 0.35 mg/Kg	0.35 mg/Kg	0
Benzo(b)fluoranthene	< 0.35 mg/Kg	0.35 mg/Kg	0
Benzo(k)fluoranthene	< 0.35 mg/Kg	0.35 mg/Kg	0
Benzo(a)pyrene	< 0.35 mg/Kg	0.35 mg/Kg	0
Indeno(1,2,3-c,d)pyrene	< 0.35 mg/Kg	0.35 mg/Kg	0
Dibenzo(a,h)anthracene	< 0.35 mg/Kg	0.35 mg/Kg	0

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Certificate of Analysis

New York State Department of Health Certification # 11717
Nevada Department of Conservation and Natural Resources
Oklahoma Department of Environmental Quality Certification # 9930
Kansas Department of Health and Environment Certificate # E-10311
Louisiana Department of Environmental Quality (LELAP) Certificate # 02012
North Carolina Department of Health & Human Services Certification # 37804
South Carolina (DHEC) Laboratory ID # 99005 North Carolina (DENR) Certification # 248

Sample ID # : **22021408** Job # : **02-JUN-0276**

Sample Description: **BRAM 64B**

Collection Date: **12-Jun-02 08:30:00** Site : BRAMLETT Type of Sample : MGP SOIL

SVOC MGP IN SOIL BY GC/MS - 8270

Test Code: **MS8270MGPS** Test Method: **SW-846 8270C** Date Posted: **06/26/02** By: **RLE9599**

	Result	Reporting Limit	Flag
Benzo(g,h,i)perylene	< 0.35 mg/Kg	0.35 mg/Kg	0

Description of Flags:

0 - All Analytical Procedure Requirements Were Met
1 - See Case Narrative
2 - Estimated Concentration, *See Case Narrative*
3 - Report Limit Elevated due to insufficient sample amount
4 - Report Limit Elevated due to required analytical dilution
5 - Sample Results Should Not Be Used For Regulatory Purposes (See Case Narrative)
6 - Analyte detected below laboratory reporting limit at an estimated concentration.
7 - Reported concentration is the combination of more that one aroclor. (Reported Aroclor is the Aroclor of highest concentration in the sample)

Troy Whisenant 6/28/02
Data Reported By, Date