

Appendix E

Boring Logs – Former Basin Sludge Storage Area



CONSULTING ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SCIENTISTS

**LOG OF BORING
2013BSS-01**

SHEET 1 OF 1

Report: URS-CHICAGO; Project File: C:\USERS\HEATHER_HERR\DESKTOP\FILES TO SORT\DUPOINT\DUPOINT - MONTAGUE, MINEOPRENE LANDFILL BORINGS 2013.GPJ; Data Template: URS-CHICAGO.GDT Printed: 10/28/13

Project:	Dupont - Montague	Project No.:						18984840		
Location:	Montague, MI	Elevation:			195.0 ft msl	Coordinates (N,E):			43.4, 86.4	
Drilling Company:	Cascade Drilling	Date Started:			10/01/13	Date Finished:		10/01/13		
Drilling Equipment:	Geoprobe with 5' x 2" ID Macrocore	Refusal Depth (ft bgs):			Rock Depth (ft bgs):			Completion Depth (ft bgs):		9.0
Drilling Method:	Geoprobe - DPT	Water Level (ft bgs)				Number of Samples				
Drill Bit Type/Diameter:	2" ID X 5' Macrocore	First Encount.:	At Completion:	Well Installed?	Dist.:	Undist.:	Core:			
Sampler Type/Diameter:	2" OD x 5' Acetate Liner	Driller:			Greg Hampton		Field Logger:		Heather Herr	
Boring Location Description:	Former Basin Sludge Storage	Reviewed by:			George Gregory					

ELEV	Graphic	DESCRIPTION	SAMPLES		PID Direct (ppm)	PID Head space (ppm)	REMARKS
			DEPTH	Rec (ft)			
194		Fill: SILTY SAND "SM", about 65% fine to medium subrounded sand; about 35% fines; grayish brown (10YR 5/2); moist; medium dense; no cementation; few organics; sand mixed with lime.		4.3			0 ft Begin drilling at 08:00.
		Fill: SAND "SP", about 100% fine to medium subrounded sand; light yellowish brown (10YR 6/4); moist; medium dense; no cementation; trace fines.					
		Fill: FILL "FILL", light bluish gray (2 gley 8/1); moist; medium dense; LIME.	2				
192		Fill: SILTY SAND "SM", about 10% fine to medium subrounded to subangular gravel; about 60% fine to medium subrounded sand; about 30% fines; brown (10YR 5/3); moist; medium dense; no cementation; trace coarse subrounded to subangular sand; trace lime debris.					
		Fill: FILL "FILL", light bluish gray (2 gley 8/1); moist; medium dense; LIME.	4				
190				3.6			
			6				
188		SILTY SAND (SM), about 75% fine subrounded sand; about 25% fines; very dark grayish brown (10YR 3/2); moist; medium dense; no cementation; trace organics.					7 ft Collect Sample 7.0'-8.0': 2013BSS-01 (7-8) at 08:20.
		SAND (SP), about 100% fine to medium subrounded to subangular sand; very pale brown (10YR 7/4); moist; very dense; no cementation.	8				
		At 8.2' trace coarse sand.					9 ft Finish drilling at 08:20.

Very hard drilling. End boring at 9 ft. BGS.

Borehole backfilled with bentonite pellets



CONSULTING ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SCIENTISTS

**LOG OF BORING
2013BSS-02**

SHEET 1 OF 1

Report: URS-CHICAGO; Project File: C:\USERS\HEATHER_HERR\DESKTOP\FILES TO SORT\DUPOINT\DUPOINT - MONTAGUE, MINEOPRENE LANDFILL BORINGS 2013.GPJ; Data Template: URS-CHICAGO.GDT Printed: 10/28/13

Project:	Dupont - Montague	Project No.:						18984840					
Location:	Montague, MI	Elevation:			194.9 ft msl				Coordinates (N,E):		43.4, 86.4		
Drilling Company:	Cascade Drilling	Date Started:				09/30/13		Date Finished:				09/30/13	
Drilling Equipment:	Geoprobe with 5' x 2" ID Macrocore	Refusal Depth (ft bgs):						Rock Depth (ft bgs):		Completion Depth (ft bgs):			10.0
Drilling Method:	Geoprobe - DPT	Water Level (ft bgs)						Number of Samples					
Drill Bit Type/Diameter:	2" ID X 5' Macrocore	First Encount.:		At Completion:		Well Installed?		Dist.:		Undist.:		Core:	
Sampler Type/Diameter:	2" OD x 5' Acetate Liner					No		2		0		0	
Boring Location Description:	Former Basin Sludge Storage	Driller:				Greg Hampton		Field Logger:		Heather Herr			
		Reviewed by:				George Gregory							

ELEV	Graphic	DESCRIPTION	SAMPLES		PID Direct (ppm)	PID Head space (ppm)	REMARKS
			DEPTH	Rec (ft)			
		Fill: FILL "FILL", light bluish gray (gley 2 8/1); moist; medium dense; LIME.		4.0			0 ft Begin drilling at 16:55.
194		Fill: SILTY SAND "SM", about 75% fine subrounded sand; about 25% fines; brownish yellow (10YR 6/6); moist; loose; trace LIME.					
		Fill: FILL "FILL", light bluish gray (gley 2 8/1); moist; medium dense; LIME.					
		Fill: CLAYEY SAND "SC", about 65% fine subrounded sand; about 35% fines; with medium plasticity; medium dry strength; slow dilatancy; and medium toughness; strong brown (7.5YR 5/8); moist; firm; medium dense; no cementation; trace LIME.	2				
192		Fill: FILL "FILL", light bluish gray (gley 2 8/1); moist; medium dense; LIME.					
			4				
190				4.2			
		SILTY SAND (SM), about 70% fine subrounded sand; about 30% fines; very dark grayish brown (10YR 3/2); moist; medium dense.	6				6 ft Collect sample 6.0'-7.0': 2013BSS-02 (6-7) at 17:15.
188		SAND (SP), about 100% fine to medium subrounded to subangular sand; strong brown (10YR 5/8); moist; medium dense; no cementation; trace fines.					
			8				
186		SAND (SP), about 100% fine to medium subrounded to subangular sand; light yellowish brown (10YR 6/4); moist; medium dense; no cementation. At 9.0'-9.5' sand becomes hard.					
			10				10 ft Finish drilling at 17:10.

End of boring at 10 ft. BGS.

Borehole backfilled with bentonite pellets



CONSULTING ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SCIENTISTS

LOG OF BORING
2013BSS-03

SHEET 1 OF 1

Project:	Dupont - Montague	Project No.:						18984840					
Location:	Montague, MI	Elevation:			192.2 ft msl				Coordinates (N,E):		43.4, 86.4		
Drilling Company:	Cascade Drilling	Date Started:				10/01/13		Date Finished:				10/01/13	
Drilling Equipment:	Geoprobe with 5' x 2" ID Macrocore	Refusal Depth (ft bgs):						Rock Depth (ft bgs):		Completion Depth (ft bgs):			10.0
Drilling Method:	Geoprobe - DPT	Water Level (ft bgs)						Number of Samples					
Drill Bit Type/Diameter:	2" ID X 5' Macrocore	First Encount.:		At Completion:		Well Installed?		Dist.:		Undist.:		Core:	
Sampler Type/Diameter:	2" OD x 5' Acetate Liner					No		2		0		0	
Boring Location Description:	Former Basin Sludge Storage	Driller:				Greg Hampton			Field Logger:		Heather Herr		
		Reviewed by:				George Gregory							

ELEV	Graphic	DESCRIPTION	SAMPLES		PID Direct (ppm)	PID Head space (ppm)	REMARKS
			DEPTH	Rec (ft)			
192		Fill: FILL "FILL", light bluish gray (2 gley 8/1); moist; medium dense; LIME.		4.3			0 ft Begin drilling at 08:55.
190			2				
		SILTY SAND (SM), about 75% fine subrounded to subangular sand; about 25% fines; dark yellowish brown (10YR 4/4); moist; medium dense; no cementation; trace organics.					
188		SAND (SP), about 100% fine to medium subrounded to subangular sand; strong brown (7.5YR 5/6); moist; medium dense; no cementation. At 4.3' grades to light yellowish brown (10YR 6/4).	4				3.5 ft Collect sample 3.5'-4.5': 2013BSS-03 (3.5-4.5) at 09:20.
				4.0			
186		At 6.0' grades to pale brown (10YR 6/3) with trace coarse sand.	6				
			8				
184							
			10				10 ft End drilling at 09:15.

End boring at 10 ft BGS.

Borehole backfilled with bentonite pellets

Report: URS-CHICAGO; Project File: C:\USERS\HEATHER_HERR\DESKTOP\FILES TO SORT\DUPOINT\DUPOINT - MONTAGUE, MINNEAPOLIS LANDFILL BORINGS 2013.GPJ; Data Template: URS-CHICAGO.GDT Printed: 10/28/13



SHEET 1 OF 1

ELEV	Graphic	DESCRIPTION	SAMPLES		PID Direct (ppm)	PID Head space (ppm)	REMARKS
			DEPTH	Rec (ft)			
194		Fill: FILL "FILL", light bluish gray (gley 2 8/1); moist; medium dense; LIME.		4.0			0 ft Begin drilling at 16:30.
		Fill: SAND "SP", brown (10 YR 5/3); moist; medium dense; trace coarse sand; trace fines; no cementation; trace organics.					
192		Fill: FILL "FILL", light bluish gray (gley 2 8/1); moist; medium dense; LIME.	2				2 ft Collect Sample 2.0'-4.0': 2013BSS-04 (2-4) at 16:45.
		SAND (SP), about 100% fine subrounded to subangular sand; very pale brown (10YR 7/4); moist; very hard; trace coarse sand; no cementation; trace fines.					
		SAND (SP), about 100% fine to medium subrounded to subangular sand; brownish yellow (10YR 6/6); moist; medium dense; no cementation.					
		At 3.0'-3.8' becomes very hard; trace coarse sand; trace fine to medium subrounded gravel.					
		At 3.2' trace organics.	4				
190							
				3.0			
		At 5.2' becomes light yellowish brown (10YR 6/4).					
			6				
188		At 6.0'- 8.0' trace organics grades in.					
			8				
186							
			10				10 ft Finish drilling at 16:50.

Borehole backfilled with bentonite pellets



CONSULTING ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SCIENTISTS

**LOG OF BORING
2013BSS-05**

SHEET 1 OF 1

Report: URS-CHICAGO; Project File: C:\USERS\HEATHER_HERR\DESKTOP\FILES TO SORT\DUPOINT\DUPOINT - MONTAGUE, MINEOPRENE LANDFILL BORINGS 2013.GPJ; Data Template: URS-CHICAGO.GDT Printed: 10/28/13

Project:	Dupont - Montague	Project No.: 18984840						
Location:	Montague, MI	Elevation: 193.5 ft msl			Coordinates (N,E): 43.4, 86.4			
Drilling Company:	Cascade Drilling	Date Started: 10/01/13			Date Finished: 10/01/13			
Drilling Equipment:	Geoprobe with 5' x 2" ID Macrocore	Refusal Depth (ft bgs):		Rock Depth (ft bgs):		Completion Depth (ft bgs): 10.0		
Drilling Method:	Geoprobe - DPT	Water Level (ft bgs)				Number of Samples		
Drill Bit Type/Diameter:	2" ID X 5' Macrocore	First Encount.:	At Completion:	Well Installed? No	Dist.: 2	Undist.: 0	Core: 0	
Sampler Type/Diameter:	2" OD x 5' Acetate Liner	Driller: Greg Hampton			Field Logger: Heather Herr			
Boring Location Description:	Former Basin Sludge Storage	Reviewed by: George Gregory						

ELEV	Graphic	DESCRIPTION	SAMPLES		PID Direct (ppm)	PID Head space (ppm)	REMARKS
			DEPTH	Rec (ft)			
		Fill: SILTY SAND "SM", about 50% fine, sand; about 20% fines; gray (10YR 6/1); moist; medium dense; trace organics; 30% LIME mixed with native material; no cementation.		4.8			0 ft Begin drilling at 08:30.
192		Fill: SAND "SP", about 5% fine to coarse subrounded to subangular gravel; about 95% fine to medium subrounded to subangular sand; brownish yellow (10YR 6/6); moist; medium dense; trace fines; no cementation.					
		Fill: FILL "FILL", light bluish gray (2 gley 8/1); moist; medium dense; LIME.	2				
190		SILTY SAND (SM), about 75% fine to medium subrounded to subangular sand; about 25% fines; dark brown (10YR 3/3); moist; hard; trace organics; trace coarse sand; no cementation.	4				3.25 ft Collect Sample 3.25'-4.25': 2013BSS-05 (3.25-4.25) and 2013BSS-05D (3.25-4.25) at 08:50.
		SAND (SP), about 100% fine to medium subrounded to subangular sand; brownish yellow (10YR 6/6); moist; hard; no cementation.		4.0			
188			6				
			8				
186							
		At 8.3' becomes medium dense and very pale brown (10YR 7/4).					
184							
			10				10 ft Finish drilling at 08:45.

End of Boring at 10 ft BGS.

Borehole backfilled with bentonite pellets



CONSULTING ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SCIENTISTS

**LOG OF BORING
2013BSS-06**

SHEET 1 OF 1

Report: URS-CHICAGO; Project File: C:\USERS\HEATHER_HERR\DESKTOP\FILES TO SORT\DUPOINT\DUPOINT - MONTAGUE, MINEOPRENE LANDFILL BORINGS 2013.GPJ; Data Template: URS-CHICAGO.GDT Printed: 10/28/13

Project:	Dupont - Montague	Project No.:						18984840					
Location:	Montague, MI	Elevation:			192.7 ft msl				Coordinates (N,E):		43.4, 86.4		
Drilling Company:	Cascade Drilling	Date Started:				09/30/13		Date Finished:				09/30/13	
Drilling Equipment:	Geoprobe with 5' x 2" ID Macrocore	Refusal Depth (ft bgs):						Rock Depth (ft bgs):		Completion Depth (ft bgs):			10.0
Drilling Method:	Geoprobe - DPT	Water Level (ft bgs)						Number of Samples					
Drill Bit Type/Diameter:	2" ID X 5' Macrocore	First Encount.:		At Completion:		Well Installed?		Dist.:		Undist.:		Core:	
Sampler Type/Diameter:	2" OD x 5' Acetate Liner					No		2		0		0	
Boring Location Description:	Former Basin Sludge Storage	Driller:				Greg Hampton		Field Logger:		Heather Herr			
		Reviewed by:				George Gregory							

ELEV	Graphic	DESCRIPTION	SAMPLES		PID Direct (ppm)	PID Head space (ppm)	REMARKS
			DEPTH	Rec (ft)			
192		Fill: SILTY SAND "SM", about 40% fine subrounded sand; about 30% fines; dark brown (10YR 3/3); moist; medium dense; few organics; 30% LIME.		4.8			0 ft Begin drilling at 15:30.
		Fill: LEAN CLAY "CL", with medium plasticity; medium dry strength; no dilatancy; and medium toughness; strong brown (7.5 YR 4/6); moist; firm; trace fine sand.					
		Fill: FILL "FILL", light bluish gray (gley 2 8/1); moist; medium dense; LIME.	2				
190		SILTY SAND (SM), about 80% fine subrounded sand; about 20% fines; very dark grayish brown (10YR 3/2); moist; medium dense; no cementation. Becomes yellowish brown (10YR 5/6).					
		SAND (SP), about 100% fine to medium subrounded to subangular sand; light yellowish brown (10YR 6/4); moist; hard; trace fines; no cementation. At 3.6' - 4.8' becomes yellowish brown (10YR 5/4).	4				
188		At 4.8' becomes medium dense.		5.0			3 ft Collect Sample 3.0'-5.0': 2013BSS-06 (3-5) and MS/MSD sample at 15:45.
			6				
186		At 6.9' trace coarse subrounded sand grades in.					
			8				
184							
			10				10 ft Finish drilling at 15:50.

End of Boring at 10 ft BGS.

Borehole backfilled with bentonite pellets



CONSULTING ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SCIENTISTS

LOG OF BORING
2013BSS-07

SHEET 1 OF 1

Project:	Dupont - Montague	Project No.:	18984840				
Location:	Montague, MI	Elevation:	190.9 ft msl	Coordinates (N,E): 43.4, 86.4			
Drilling Company:	Cascade Drilling	Date Started:	09/30/13		Date Finished: 09/30/13		
Drilling Equipment:	Geoprobe with 5' x 2" ID Macrocore	Refusal Depth (ft bgs):		Rock Depth (ft bgs):	Completion Depth (ft bgs): 10.0		
Drilling Method:	Geoprobe - DPT	Water Level (ft bgs)			Number of Samples		
Drill Bit Type/Diameter:	2" ID X 5' Macrocore	First Encount.:	At Completion:	Well Installed?	Dist.:	Undist.:	Core:
Sampler Type/Diameter:	2" OD x 5' Acetate Liner	No			2	0	0
Driller:	Greg Hampton			Field Logger: Heather Herr			
Boring Location Description:	Former Basin Sludge Storage	Reviewed by: George Gregory					

ELEV	Graphic	DESCRIPTION	SAMPLES		PID Direct (ppm)	PID Head space (ppm)	REMARKS
			DEPTH	Rec (ft)			
190		SILTY SAND (SM), about 70% fine to medium subrounded to subangular sand; about 30% fines; dark yellowish brown (10YR 4/4); moist; few organics; rootlets; medium dense.		3.5			0 ft Begin drilling at 14:15.
		SAND (SP), about 100% fine subrounded to subangular sand; brownish yellow (10 YR 6/6); moist; medium dense; trace to few fines; no cementation.					
		SAND (SP), about 100% fine to medium subrounded to subangular sand; brownish yellow (10 YR 6/6); moist; medium dense; no cementation.	2				2 ft Collect Sample 2.0'-4.0': 2013BSS-07 (2-4) at 14:30.
188							
			4				
186				4.6			
			6				
184		At 6.2' trace coarse subrounded sand grades in.					
			8				
182							
			10				10 ft Finish drilling at 14:30.

End of Boring at 10 ft BGS.

Borehole backfilled with bentonite pellets

Report: URS-CHICAGO: Project File: C:\USERS\HEATHER_HERR\DESKTOP\FILES TO SORT\DUPOINT\DUPOINT - MONTAGUE, MINEOPRENE LANDFILL BORINGS 2013.GPJ: Data Template:URS-CHICAGO.GDT Printed: 10/28/13



CONSULTING ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SCIENTISTS

**LOG OF BORING
2013BSS-08**

SHEET 1 OF 1

Report: URS-CHICAGO; Project File: C:\USERS\HEATHER_HERR\DESKTOP\FILES TO SORT\DUPOINT\DUPOINT - MONTAGUE, MINEOPRENE LANDFILL BORINGS 2013.GPJ; Data Template: URS-CHICAGO.GDT Printed: 10/28/13

Project:	Dupont - Montague	Project No.:						18984840																																																																	
Location:	Montague, MI	Elevation:						190.5 ft msl						Coordinates (N,E):						43.4, 86.4																																																					
Drilling Company:	Cascade Drilling	Date Started:						09/30/13						Date Finished:						09/30/13																																																					
Drilling Equipment:	Geoprobe with 5' x 2" ID Macrocore	Refusal Depth (ft bgs):												Rock Depth (ft bgs):												Completion Depth (ft bgs):						10.0																																									
Drilling Method:	Geoprobe - DPT							Water Level (ft bgs)												Number of Samples																																																					
Drill Bit Type/Diameter:	2" ID X 5' Macrocore	First Encount.:												At Completion:												Well Installed?						No						Dist.:						2						Undist.:						0						Core:						0					
Sampler Type/Diameter:	2" OD x 5' Acetate Liner	Driller:						Greg Hampton						Field Logger:						Heather Herr																																																					
Boring Location Description:	Former Basin Sludge Storage	Reviewed by:						George Gregory																																																																	

ELEV	Graphic	DESCRIPTION	SAMPLES		PID Direct (ppm)	PID Head space (ppm)	REMARKS
			DEPTH	Rec (ft)			
190		Fill: FILL "FILL", light bluish gray (2 gley 8/1); moist; medium dense; LIME.		4.3			0 ft Begin drilling at 14:55.
		Fill: SILTY SAND "SM", about 60% fine to medium subrounded to subangular sand; about 40% fines; dark brown (10YR 3/3); moist; medium dense; few clay; few organics; trace lime debris.					1 ft Collect Sample 1.0'-3.0': 2013BSS-08 (1-3) at 15:10.
		Fill: FILL "FILL", light bluish gray (2 gley 8/1); moist; medium dense; LIME.					
188		SILTY SAND (SM), about 70% fine subrounded to subangular sand; about 30% fines; dark yellowish brown (10YR 4/4); moist; medium dense; few organics; no cementation.	2				
		SAND (SP), about 100% fine subrounded to subangular sand; yellowish brown (10YR 5/4); moist; medium dense; trace fines; no cementation.					
		SAND (SP), about 100% fine to medium subrounded to subangular sand; light yellowish brown (10YR 6/4); medium dense; no cementation.	4				
		At 4.0', 6.3, and 8.2' trace coarse sand.					
186				5.0			
			6				
184							
			8				
182							
			10				10 ft Finish drilling at 15:05.

End of Boring at 10 ft BGS.

Borehole backfilled with bentonite pellets



CONSULTING ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SCIENTISTS

**LOG OF BORING
2013BSS-09**

SHEET 1 OF 1

Report: URS-CHICAGO; Project File: C:\USERS\HEATHER_HERR\DESKTOP\FILES TO SORT\DUPOINT\DUPOINT - MONTAGUE, MINEOPRENE LANDFILL BORINGS 2013.GPJ; Data Template: URS-CHICAGO.GDT Printed: 10/28/13

Project:	Dupont - Montague	Project No.: 18984840						
Location:	Montague, MI	Elevation: 190.3 ft msl			Coordinates (N,E): 43.4, 86.4			
Drilling Company:	Cascade Drilling	Date Started: 09/30/13				Date Finished: 09/30/13		
Drilling Equipment:	Geoprobe with 5' x 2" ID Macrocore	Refusal Depth (ft bgs):		Rock Depth (ft bgs):		Completion Depth (ft bgs): 10.0		
Drilling Method:	Geoprobe - DPT	Water Level (ft bgs)				Number of Samples		
Drill Bit Type/Diameter:	2" ID X 5' Macrocore	First Encount.:	At Completion:	Well Installed? No	Dist.: 2	Undist.: 0	Core: 0	
Sampler Type/Diameter:	2" OD x 5' Acetate Liner	Driller: Greg Hampton			Field Logger: Heather Herr			
Boring Location Description:	Former Basin Sludge Storage	Reviewed by: George Gregory						

ELEV	Graphic	DESCRIPTION	SAMPLES		PID Direct (ppm)	PID Head space (ppm)	REMARKS
			DEPTH	Rec (ft)			
190		Fill: FILL "FILL", light bluish gray (2 gley 8/1); moist; medium dense; LIME.		4.0			0 ft Begin drilling 14:53.
		Fill: SILTY SAND "SP", about 65% fine to medium subrounded to subangular sand; about 35% fines; dark brown (10YR 3/3); moist; medium dense; few organics; trace LIME debris; trace clay; no cementation.					
		Fill: FILL "FILL", light bluish gray (2 gley 8/1); moist; medium dense; LIME.					1.5 ft Collect Sample 1.5'-3.0': 2013BSS-09 (1.5-3) at 14:50.
188		SILTY SAND (SM), about 70% fine subrounded to subangular sand; about 30% fines; dark yellowish brown (10YR 4/4); moist; medium dense; trace organics; no cementation.	2				
		SAND (SP), about 100% fine to medium subrounded to subangular sand; yellowish brown (10YR 5/4); medium dense; trace fines; no cementation.					
186			4				
				3.9			
184		At 6.3' trace coarse subrounded sand grades in.	6				
182			8				
			10				10 ft Finish drilling at 14:50

End of Boring at 10 ft BGS.

Borehole backfilled with bentonite pellets

Appendix F

Field Notes – October 2013

9/30/13

DUPONT - MONTAGUE, MI

pg 1 of 3

BSS - BORINGS

0700 ARRIVE ONSITE

0730 REVIEW BORING LOCATIONS ONSITE

- WALK TERRAIN

0830 ARRIVE @ OFFICE BUILDING

- CHECK BOTTLES & COOLER CONTENTS

- PREP EQUIPMENT

WEATHER: 40s IN AM TO 80s IN AFTERNOON

SUNNY - PTLY CLOUDY

PERSONNEL: H. HERR; G. GREGORY; GORDY

MCLUTH;

STEVE DEVRIES

THIS MORNING.

- CASCADE TO BE ONSITE ~~TOMORROW~~

GEOPROBE ONSITE LATER @ ~11 AM

& SONIC ONSITE @ ~12 PM

1010 MARK BORINGS IN BSS AREA

1100 GEOPROBE ARRIVES ONSITE

1215 SONIC ARRIVES ONSITE

1230 TAILGATE H&S MEETING

1315 FINISH MEETING

1320 RIG INSPECTION

- UNLOAD EQUIPMENT

- WATER. WALK AREA TO ENSURE

STABILITY FOR RIG

1415 Begin geoprobe @ 2013BSS-07

9/30/13

BSS - BORINGS

pg 2 of 3

1430 Collect Sample @ 2-4' BGS
R10813-2013BSS-07 SOIL

-END BORING @ 10' BGS

1435 BEGIN GEOPROBE @ 2013BSS-09

1450 Collect Sample @ 1.5-3'
R10813-2013BSS-09 SOIL

-END BORING @ 10' BGS

1455 BEGIN GEOPROBE @ 2013BSS-08

1510 Collect Sample @ 1-3'
R10913-2013BSS-08 SOIL

1505 FINISH/END BORING @ 10' BGS

1530 BEGIN DRILLING 2013BSS-06

1545 Collect Samples @ 3'-5'
R10813-2013BSS-06 - SOIL

R10813-2013BSS-06-MS SOIL

R10813-2013BSS-06-MSD SOIL

1550 END BORING @ 10' BGS

1630 BEGIN DRILLING @ 2013BSS-04

1645 Collect Sample @ 2'-4' BGS
R10913-2013BSS-04 SOIL

1650 END BORING @ 10' BGS

1655 BEGIN DRILLING @ 2013BSS-02

1715 Collect Sample @ 6-7' BGS
R10913-2013BSS-02

4 9/30/13

DUPONT-MONTAGUE

BSS-BORINGS

pg 3 of 3

1710 FINISH DRILLING 2013BSS-02 @ 10' BGS
 1740 COLLECT TB-093013-BSS-1
 1745 COLLECT EB-093013-BSS-1
 1750 COLLECT EB-093013-BSS-1-BLANK WATER
 1800 FINISHED CLEAN UP OF SUPPLIES
 -DRILLERS OFFSITE
 1810 PAPERWORK - PUT SAMPLES ON ICE
 1830 OFFSITE

[Signature]

09/30/13

DUPONT-MONTAGUE

BSS-BORINGS

pg 1 of 5

10/1/13

0640 ARRIVE ONSITE SCOPE-FINISH BSS BORINGS
 0645 BEGIN PAPERWORK & ORGANIZATION OF FIELD EQUIPMENT PRE-LEVEL D
 0730 BEGIN H&S MEETING
 0745 SET UP @ BSS AREA
 0800 BEGIN DRILLING @ 2013BSS-01
 0820 Collect SAMPLE @ 7'-8'
 R10913-2013BSS-01 SOIL 10/1/13
 -END BORING @ 9' BGS
 0830 BEGIN DRILLING @ 2013BSS-05
 0850 COLLECT SAMPLE @ 3.25-4.25'
 R10913-2013BSS-05 SOIL
 R10913-2013BSS-05-D
 0845 END BORING @ 10' BGS
 0855 BEGIN BORING 2013BSS-03
 0920 COLLECT SAMPLES @ 3.5-4.5'
 R10913-2013BSS-03 SOIL
 0915 FINISH DRILLING @ 10' BGS
 0945 COLLECT EB-100113BSS-2
 0950 COLLECT EB-100113BSS-2 BLANK WATER
 0955 TB-100113BSS-2
 - BEGIN CLEAN UP OF EQUIPMENT @ LOCATIONS ; PUT AWAY GEOPROBE EQUIPMENT
 1040 CASCADE OFFSIDE

10/1/13

1100 LUNCH

1140 BEGIN REVIEWING SAMPLES &
CHAIN-OF-CUSTODY.

1200 FINISH CHAINS

300 OUT @ SONIC RIG IN BURY PIT AREA w/
GEORGE GREGORY

1330 BEGIN SONIC DRILLING

1630 END DRILLING FOR DAY

- BACK TO PACK SAMPLES

1715 FINISH PACKING SAMPLES, OFFSITE

- GEORGE GREGORY DELIVERS
PACKAGES TO FEDEX

10/2/13

0715 ONSITE

WEATHER: 50s-70s; SUNNY-PTLY
CLOUDY

SCOPE: FINISH SONIC DRILLING TODAY

PPE: LEVEL D

0730 H&S MEETING

- CELL PHONE DRIVING

- BIOLOGICAL HAZARDS

0745 DRILLERS GET WATER FOR DRILLING

0800 BEGIN SET UP @ WELL LOCATION

0820 BEGIN DRILLING

- WORKING W/ G GREGORY

- RESUME FROM 87'

0858 FINISH DRILLING @ 107' BGS IN
LAUSTRINE strong brown-reddish
brown laminated w/ brownish
yellow lean clay0920 GEOSPHERE SET UP TO GAMMA LOG
BOREHOLE

1015 GEOSPHERE FINISHED GAMMA LOGGING

1028 GEOSPHERE FINISHED CLEAN UP
& BEGIN DEPARTING SITE

- BOART BEGINS TO GROUT BOREHOLE

- QUIK GROUT USED TO MIX
BENTONITE GROUT FOR BOREHOLE

8 10/2/13 DUPONT-MONTAGUE pg 2 of 2

1042 MIX 2-50 LB BAGS QUIK GROUT W/ 60 GAL
H₂O FOR GROUT ON BOREHOLE

1045 BEGIN PUMPING GROUT INTO BOREHOLE

1048 MIX 2ND BATCH OF GROUT, SAME RATIO

1050 PUMP ADDITIONAL GROUT IN BOREHOLE

1054 MIX 3RD BATCH OF GROUT, SAME RATIO

1058 PUMP ADDITIONAL GROUT IN BOREHOLE

-BEGIN REMOVING SECTIONS OF
TRENCH PIPE

1102 BEGIN CLEANING GROUT FROM STAND
AREA. FINISHED REMOVING TRENCH PIPE

104 BEGIN REMOVING CASING FROM BOREHOLE
2013SBBP-01

123 MIX 4TH BATCH OF GROUT, SAME RATIO

126 BEGIN PUMPING GROUT DOWN BOREHOLE

33 FINISH REMOVING CASING FROM BOREHOLE
-CONTINUE W/ CLEANUP & DECON

20 ARRIVE BACK AT BUILDING

-PREP TO TAKE GPS POINTS

04 GPS POINTS

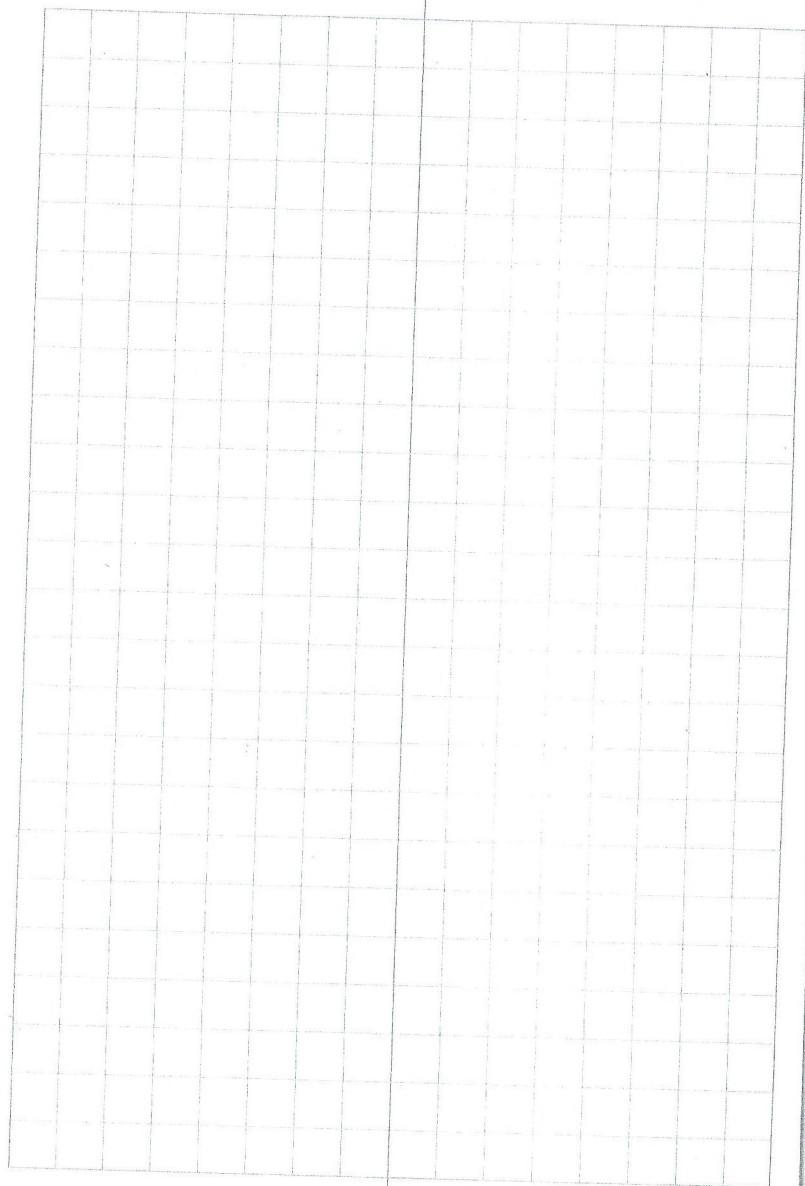
05 FINISH GPS POINTS (BORING LOCATIONS)

-ARRIVE AT FITNESS CENTER

-FINISH PAPERWORK FOR DAY

30 DEPART FOR WISCONSIN

-END FIELD WORK



Appendix G

Laboratory Analytical Report – Remedial Investigation Basin Sludge Storage Area (BSS) 9/13

**ADQM DATA REVIEW
NARRATIVE**

Site **MTG/ Montague**

Project **Remedial Investigation Basin Sludge Storage Area (BSS) 9/13**

Project Reviewer **Dyana Sagges**

Sampling Date **9/30/13 and 10/1/13**

Analytical Protocol

LABORATORY	ANALYSIS	METHOD
Lancaster Labs, Lancaster PA		
	Select List VOA Library Search 1,3-Dichlorobutene-2 (Total)	SW-846 8260B
	Select List BNA Bis(2-Ethylhexyl) phthalate, N-nitrosodiphenylamine, Phenanthrene	SW-846 8270C
	Select List Metals- Total Antimony, Arsenic, Beryllium, Cadmium, Chromium, Copper, Lead, Nickel, Silver, Zinc Selenium Mercury	SW-846 6010B SW-846 6020 SW-846 7471A mod soil/7470A water
	Moisture	SM 2540 G-1997

Sample Receipt

The following items are noted for this data set:

- All samples were received in satisfactory condition and within EPA temperature guidelines on 10/2/13 at Lancaster Labs.
- Sample ids have been modified so that the top and bottom depths listed on the COC will not be seen in the lab report or the database.

- Some of the sample times of collection differed between the labels and the COC. Sample 2013BSS-08-1 had 1515 on the encores, sample EB-093013-BSS1 0950 on the metals container and sample EB-100113-BSS-2 had 0950 on the vials. Laboratory personnel logged the sample time of collection per the COC.

Data Review

The electronic data submitted for this project was reviewed via the DuPont Data Review (DDR) process. Overall the data is acceptable for use with the following qualification. Some of the data was qualified due to matrix spike/matrix spike duplicate samples, imprecision between matrix spike and matrix spike duplicates for toluene and results detected between the method detection limit and the practical quantitation limit.

- In the BNA samples, N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.
- At sample login VOA compound chlorodifluoromethane was logged in as a TIC in both the soil and water matrices. The lab can calibrate and report this compound as part of the soil scan. They have to report this compound as a targeted TIC in the blanks. The soil samples were relogged and analyzed for this single compound on 10/14/13. No additional volume was available to analyze a trip blank or an equipment blank with the second set. This compound was not observed in the blanks from the initial analyses on 10/12/13.

DuPont In-House Review (DDR)

The DDR is an automated internal review process used by the ADQM group to assist with the determination of data usability. The electronic data deliverables received from the laboratory are loaded into the DuPont CRG Envista database and run through an automated program where a series of checks are performed on the data. The data is evaluated against hold time criteria; checked for blank contamination; assessed against matrix spike(MS)/matrix spike duplicate (MSD) recoveries and the relative percent differences (RPDs) between these spikes; laboratory control sample(LCS)/control sample duplicate (LCSD) recoveries and the RPDs between these spikes; assessed against RPDs between laboratory replicates (inorganics); and assessed against surrogate spike recoveries (organics). The DDR applies the following data evaluation qualifiers to analysis results, as warranted:

Qualifier	Definition
B	Not detected substantially above the level reported in the laboratory or field blanks.
R	Unusable result. Analyte may or may not be present in the sample.
J	Analyte present. Reported value may not be accurate or precise.
UJ	Not detected. Reporting limit may not be accurate or precise.

Please refer to the laboratory report for a description of the lab qualifiers.

DDR Narrative Report

Site: Montague

Sampling Program: REM INVESTIGATION BSS 9/13

Validation Options: LABSTATS

Validation Reason Code: Associated MS and/or MSD analysis had relative percent recovery (RPR) values higher than the upper control limit. The reported result may be biased high.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
RI0913-2013BSS-08-1	09/30/2013	7220898	ARSENIC	2.46	MG/KG	MDL	0.736	2.10	J	6010B		3050B
RI0913-2013BSS-09-1.5	09/30/2013	7220899	LEAD	2.89	MG/KG	MDL	0.525	1.58	J	6010B		3050B
RI0913-2013BSS-09-1.5	09/30/2013	7220899	NICKEL	2.53	MG/KG	MDL	0.137	1.05	J	6010B		3050B
RI0913-2013BSS-09-1.5	09/30/2013	7220899	CHROMIUM	3.03	MG/KG	MDL	0.168	1.58	J	6010B		3050B
RI0913-2013BSS-09-1.5	09/30/2013	7220899	ZINC	17.1	MG/KG	MDL	0.210	2.10	J	6010B		3050B
RI0913-2013BSS-09-1.5	09/30/2013	7220899	ARSENIC	3.03	MG/KG	MDL	0.736	2.10	J	6010B		3050B
RI0913-2013BSS-01-7	10/01/2013	7220887	LEAD	1.80	MG/KG	MDL	0.585	1.75	J	6010B		3050B
RI0913-2013BSS-01-7	10/01/2013	7220887	NICKEL	2.22	MG/KG	MDL	0.152	1.17	J	6010B		3050B
RI0913-2013BSS-01-7	10/01/2013	7220887	CHROMIUM	3.84	MG/KG	MDL	0.187	1.75	J	6010B		3050B
RI0913-2013BSS-01-7	10/01/2013	7220887	ZINC	13.9	MG/KG	MDL	0.234	2.34	J	6010B		3050B
RI0913-2013BSS-02-6	09/30/2013	7220888	LEAD	2.06	MG/KG	MDL	0.564	1.69	J	6010B		3050B
RI0913-2013BSS-02-6	09/30/2013	7220888	NICKEL	2.36	MG/KG	MDL	0.147	1.13	J	6010B		3050B
RI0913-2013BSS-02-6	09/30/2013	7220888	CHROMIUM	3.92	MG/KG	MDL	0.181	1.69	J	6010B		3050B
RI0913-2013BSS-02-6	09/30/2013	7220888	ZINC	25.3	MG/KG	MDL	0.226	2.26	J	6010B		3050B
RI0913-2013BSS-03-3.5	10/01/2013	7220889	LEAD	4.05	MG/KG	MDL	0.540	1.62	J	6010B		3050B
RI0913-2013BSS-03-3.5	10/01/2013	7220889	NICKEL	2.06	MG/KG	MDL	0.141	1.08	J	6010B		3050B
RI0913-2013BSS-03-3.5	10/01/2013	7220889	CHROMIUM	4.52	MG/KG	MDL	0.173	1.62	J	6010B		3050B
RI0913-2013BSS-03-3.5	10/01/2013	7220889	ZINC	17.8	MG/KG	MDL	0.216	2.16	J	6010B		3050B
RI0913-2013BSS-04-2	09/30/2013	7220890	LEAD	1.77	MG/KG	MDL	0.494	1.48	J	6010B		3050B
RI0913-2013BSS-04-2	09/30/2013	7220890	NICKEL	2.53	MG/KG	MDL	0.128	0.988	J	6010B		3050B
RI0913-2013BSS-04-2	09/30/2013	7220890	CHROMIUM	3.61	MG/KG	MDL	0.158	1.48	J	6010B		3050B

Site: Montague

Sampling Program: REM INVESTIGATION BSS 9/13

Validation Options: LABSTATS

Validation Reason Code: Associated MS and/or MSD analysis had relative percent recovery (RPR) values higher than the upper control limit. The reported result may be biased high.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
RI0913-2013BSS-04-2	09/30/2013	7220890	ZINC	9.39	MG/KG	MDL	0.198	1.98	J	6010B		3050B
RI0913-2013BSS-05-3.25	10/01/2013	7220891	LEAD	1.72	MG/KG	MDL	0.510	1.53	J	6010B		3050B
RI0913-2013BSS-05-3.25	10/01/2013	7220891	NICKEL	2.09	MG/KG	MDL	0.133	1.02	J	6010B		3050B
RI0913-2013BSS-05-3.25	10/01/2013	7220891	CHROMIUM	3.44	MG/KG	MDL	0.163	1.53	J	6010B		3050B
RI0913-2013BSS-05-3.25	10/01/2013	7220891	ZINC	15.7	MG/KG	MDL	0.204	2.04	J	6010B		3050B
RI0913-2013BSS-05-3.25-D	10/01/2013	7220892	LEAD	1.97	MG/KG	MDL	0.526	1.58	J	6010B		3050B
RI0913-2013BSS-05-3.25-D	10/01/2013	7220892	NICKEL	2.43	MG/KG	MDL	0.137	1.05	J	6010B		3050B
RI0913-2013BSS-05-3.25-D	10/01/2013	7220892	CHROMIUM	3.64	MG/KG	MDL	0.168	1.58	J	6010B		3050B
RI0913-2013BSS-05-3.25-D	10/01/2013	7220892	ZINC	15.2	MG/KG	MDL	0.210	2.10	J	6010B		3050B
RI0913-2013BSS-06-3	09/30/2013	7220893	LEAD	2.57	MG/KG	MDL	0.604	1.81	J	6010B		3050B
RI0913-2013BSS-06-3	09/30/2013	7220893	NICKEL	3.52	MG/KG	MDL	0.157	1.21	J	6010B		3050B
RI0913-2013BSS-06-3	09/30/2013	7220893	ARSENIC	6.21	MG/KG	MDL	0.845	2.42	J	6010B		3050B
RI0913-2013BSS-06-3	09/30/2013	7220893	CHROMIUM	2.98	MG/KG	MDL	0.193	1.81	J	6010B		3050B
RI0913-2013BSS-06-3	09/30/2013	7220893	ZINC	11.4	MG/KG	MDL	0.242	2.42	J	6010B		3050B
RI0913-2013BSS-07-2	09/30/2013	7220897	CHROMIUM	2.07	MG/KG	MDL	0.190	1.78	J	6010B		3050B
RI0913-2013BSS-07-2	09/30/2013	7220897	ZINC	4.49	MG/KG	MDL	0.238	2.38	J	6010B		3050B
RI0913-2013BSS-08-1	09/30/2013	7220898	LEAD	4.56	MG/KG	MDL	0.526	1.58	J	6010B		3050B
RI0913-2013BSS-07-2	09/30/2013	7220897	NICKEL	1.60	MG/KG	MDL	0.154	1.19	J	6010B		3050B
RI0913-2013BSS-08-1	09/30/2013	7220898	NICKEL	2.25	MG/KG	MDL	0.137	1.05	J	6010B		3050B
RI0913-2013BSS-08-1	09/30/2013	7220898	CHROMIUM	3.15	MG/KG	MDL	0.168	1.58	J	6010B		3050B
RI0913-2013BSS-08-1	09/30/2013	7220898	ZINC	24.9	MG/KG	MDL	0.210	2.10	J	6010B		3050B
RI0913-2013BSS-08-1	09/30/2013	7220898	ANTIMONY	1.57	MG/KG	MDL	0.778	2.10	J	6010B		3050B

Site: Montague

Sampling Program: REM INVESTIGATION BSS 9/13

Validation Options: LABSTATS

Validation Reason Code: Associated MS and/or MSD analysis had relative percent recovery (RPR) values higher than the upper control limit. The reported result may be biased high.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
RI0913-2013BSS-07-2	09/30/2013	7220897	ARSENIC	1.42	MG/KG	MDL	0.832	2.38	J	6010B		3050B
RI0913-2013BSS-07-2	09/30/2013	7220897	LEAD	0.980	MG/KG	MDL	0.594	1.78	J	6010B		3050B
RI0913-2013BSS-06-3	09/30/2013	7220893	ANTIMONY	2.02	MG/KG	MDL	0.894	2.42	J	6010B		3050B
RI0913-2013BSS-05-3.25-D	10/01/2013	7220892	ARSENIC	1.55	MG/KG	MDL	0.736	2.10	J	6010B		3050B
RI0913-2013BSS-05-3.25	10/01/2013	7220891	ARSENIC	1.72	MG/KG	MDL	0.715	2.04	J	6010B		3050B
RI0913-2013BSS-04-2	09/30/2013	7220890	ARSENIC	1.41	MG/KG	MDL	0.691	1.98	J	6010B		3050B
RI0913-2013BSS-03-3.5	10/01/2013	7220889	ARSENIC	1.71	MG/KG	MDL	0.757	2.16	J	6010B		3050B
RI0913-2013BSS-02-6	09/30/2013	7220888	ARSENIC	1.94	MG/KG	MDL	0.790	2.26	J	6010B		3050B
RI0913-2013BSS-01-7	10/01/2013	7220887	ARSENIC	1.75	MG/KG	MDL	0.819	2.34	J	6010B		3050B
RI0913-2013BSS-09-1.5	09/30/2013	7220899	ANTIMONY	0.855	MG/KG	MDL	0.778	2.10	J	6010B		3050B

Validation Reason Code: High relative percent difference (RPD) observed between MS and MSD samples. The reported result may be imprecise.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
RI0913-2013BSS-06-3	09/30/2013	7220893	TOLUENE	2	UG/KG	MDL	1	6	J	8260B		5035A

Site: Montague

Sampling Program: REM INVESTIGATION BSS 9/13

Validation Options: LABSTATS

Validation Reason Code: High relative percent difference (RPD) observed between REP (laboratory replicate) and parent sample. The reported result may be imprecise.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
RI0913-2013BSS-09-1.5	09/30/2013	7220899	COPPER	26.4	MG/KG	MDL	0.305	1.05	J	6010B		3050B
RI0913-2013BSS-01-7	10/01/2013	7220887	COPPER	1.67	MG/KG	MDL	0.339	1.17	J	6010B		3050B
RI0913-2013BSS-02-6	09/30/2013	7220888	COPPER	1.64	MG/KG	MDL	0.327	1.13	J	6010B		3050B
RI0913-2013BSS-03-3.5	10/01/2013	7220889	COPPER	9.87	MG/KG	MDL	0.313	1.08	J	6010B		3050B
RI0913-2013BSS-04-2	09/30/2013	7220890	COPPER	2.09	MG/KG	MDL	0.286	0.988	J	6010B		3050B
RI0913-2013BSS-05-3.25	10/01/2013	7220891	COPPER	1.60	MG/KG	MDL	0.296	1.02	J	6010B		3050B
RI0913-2013BSS-05-3.25-D	10/01/2013	7220892	COPPER	1.84	MG/KG	MDL	0.305	1.05	J	6010B		3050B
RI0913-2013BSS-06-3	09/30/2013	7220893	COPPER	219	MG/KG	MDL	0.350	1.21	J	6010B		3050B
RI0913-2013BSS-07-2	09/30/2013	7220897	COPPER	2.41	MG/KG	MDL	0.345	1.19	J	6010B		3050B
RI0913-2013BSS-08-1	09/30/2013	7220898	COPPER	17.9	MG/KG	MDL	0.305	1.05	J	6010B		3050B

Site: Montague

Sampling Program: REM INVESTIGATION BSS 9/13

Validation Options: LABSTATS

Validation Reason Code: The result is estimated since the concentration is between the method detection limit and practical quantitation limit.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
RI0913-2013BSS-08-1	09/30/2013	7220898	SELENIUM	0.152	MG/KG	MDL	0.105	0.421	J	6020		3050B
RI0913-2013BSS-07-2	09/30/2013	7220897	BERYLLIUM	0.0808	MG/KG	MDL	0.0796	0.594	J	6010B		3050B
RI0913-2013BSS-08-1	09/30/2013	7220898	MERCURY	0.0179	MG/KG	MDL	0.0098	0.0984	J	7471A		7471A MOD.
RI0913-2013BSS-06-3	09/30/2013	7220893	SELENIUM	0.196	MG/KG	MDL	0.121	0.483	J	6020		3050B
RI0913-2013BSS-06-3	09/30/2013	7220893	BERYLLIUM	0.0882	MG/KG	MDL	0.0809	0.604	J	6010B		3050B
RI0913-2013BSS-05-3.25-D	10/01/2013	7220892	SELENIUM	0.107	MG/KG	MDL	0.105	0.421	J	6020		3050B
RI0913-2013BSS-06-3	09/30/2013	7220893	BENZENE	1	UG/KG	MDL	0.6	6	J	8260B		5035A
RI0913-2013BSS-05-3.25-D	10/01/2013	7220892	BERYLLIUM	0.114	MG/KG	MDL	0.0705	0.526	J	6010B		3050B
RI0913-2013BSS-05-3.25-D	10/01/2013	7220892	MERCURY	0.0160	MG/KG	MDL	0.0101	0.101	J	7471A		7471A MOD.
RI0913-2013BSS-05-3.25	10/01/2013	7220891	SELENIUM	0.128	MG/KG	MDL	0.102	0.408	J	6020		3050B
RI0913-2013BSS-05-3.25-D	10/01/2013	7220892	TETRACHLOROETHENE	1	UG/KG	MDL	1	5	J	8260B		5035A
RI0913-2013BSS-05-3.25	10/01/2013	7220891	BERYLLIUM	0.100	MG/KG	MDL	0.0684	0.510	J	6010B		3050B
RI0913-2013BSS-05-3.25	10/01/2013	7220891	MERCURY	0.0126	MG/KG	MDL	0.0097	0.0972	J	7471A		7471A MOD.
RI0913-2013BSS-05-3.25	10/01/2013	7220891	TETRACHLOROETHENE	1	UG/KG	MDL	1	5	J	8260B		5035A
RI0913-2013BSS-04-2	09/30/2013	7220890	BERYLLIUM	0.106	MG/KG	MDL	0.0662	0.494	J	6010B		3050B
RI0913-2013BSS-04-2	09/30/2013	7220890	MERCURY	0.0184	MG/KG	MDL	0.0096	0.0955	J	7471A		7471A MOD.
RI0913-2013BSS-03-3.5	10/01/2013	7220889	SELENIUM	0.225	MG/KG	MDL	0.108	0.432	J	6020		3050B
RI0913-2013BSS-03-3.5	10/01/2013	7220889	BERYLLIUM	0.130	MG/KG	MDL	0.0724	0.540	J	6010B		3050B
RI0913-2013BSS-02-6	09/30/2013	7220888	SELENIUM	0.121	MG/KG	MDL	0.113	0.452	J	6020		3050B
RI0913-2013BSS-02-6	09/30/2013	7220888	TRICHLOROETHENE	2	UG/KG	MDL	1	6	J	8260B		5035A
RI0913-2013BSS-02-6	09/30/2013	7220888	BERYLLIUM	0.132	MG/KG	MDL	0.0756	0.564	J	6010B		3050B
RI0913-2013BSS-01-7	10/01/2013	7220887	SELENIUM	0.205	MG/KG	MDL	0.117	0.468	J	6020		3050B
RI0913-2013BSS-02-6	09/30/2013	7220888	BENZENE	2	UG/KG	MDL	0.6	6	J	8260B		5035A

Site: Montague

Sampling Program: REM INVESTIGATION BSS 9/13

Validation Options: LABSTATS

Validation Reason Code: The result is estimated since the concentration is between the method detection limit and practical quantitation limit.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
RI0913-2013BSS-01-7	10/01/2013	7220887	TOLUENE	2	UG/KG	MDL	1	5	J	8260B		5035A
RI0913-2013BSS-01-7	10/01/2013	7220887	TETRACHLOROETHENE	3	UG/KG	MDL	1	5	J	8260B		5035A
RI0913-2013BSS-01-7	10/01/2013	7220887	BENZENE	0.8	UG/KG	MDL	0.5	5	J	8260B		5035A
RI0913-2013BSS-01-7	10/01/2013	7220887	BERYLLIUM	0.111	MG/KG	MDL	0.0784	0.585	J	6010B		3050B
RI0913-2013BSS-09-1.5	09/30/2013	7220899	BERYLLIUM	0.104	MG/KG	MDL	0.0704	0.525	J	6010B		3050B
RI0913-2013BSS-08-1	09/30/2013	7220898	BERYLLIUM	0.0978	MG/KG	MDL	0.0705	0.526	J	6010B		3050B
RI0913-2013BSS-08-1	09/30/2013	7220898	CADMIUM	0.123	MG/KG	MDL	0.0799	0.526	J	6010B		3050B

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

October 25, 2013

Project: MTG - REM INV BSS

Submittal Date: 10/02/2013

Group Number: 1423141

PO Number: LBIO-66380

State of Sample Origin: MI

Client Sample DescriptionLancaster Labs (LL) #

RI0913-2013BSS-01-7 Soil	7220887
RI0913-2013BSS-02-6 Soil	7220888
RI0913-2013BSS-03-3.5 Soil	7220889
RI0913-2013BSS-04-2 Soil	7220890
RI0913-2013BSS-05-3.25 Soil	7220891
RI0913-2013BSS-05-D-3.25 Soil	7220892
RI0913-2013BSS-06-3 Soil	7220893
RI0913-2013BSS-06-3 MS Soil	7220894
RI0913-2013BSS-06-3 MSD Soil	7220895
RI0913-2013BSS-06-3 Dupl Soil	7220896
RI0913-2013BSS-07-2 Soil	7220897
RI0913-2013BSS-08-1 Soil	7220898
RI0913-2013BSS-09-1.5 Soil	7220899
EB-093013-BSS-1 Blank Water	7220900
TB-093013-BSS-1 Blank Water	7220901
EB-100113-BSS-2 Blank Water	7220902
TB-100113-BSS-2 Blank Water	7220903

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Respectfully Submitted,



Nancy Jean Bornholm
Principal Specialist

(717) 556-7250

Sample Description: RI0913-2013BSS-01-7 Soil
REM INV BSS 9/13

LL Sample # SW 7220887
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 10/01/2013 08:20 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-SS01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/kg		ug/kg	ug/kg	
10237	Benzene	71-43-2	0.8	J	0.5	5	0.88
10237	Carbon Tetrachloride	56-23-5	1	U	1	5	0.88
10237	2-Chloro-1,3-butadiene	126-99-8	1	U	1	5	0.88
10237	Chloroform	67-66-3	1	U	1	5	0.88
10237	1,3-Dichlorobutene-2 (total)	926-57-8	1	U	1	5	0.88
10237	Dichlorodifluoromethane	75-71-8	2	U	2	5	0.88
10237	1,1-Dichloroethane	75-34-3	1	U	1	5	0.88
10237	cis-1,2-Dichloroethene	156-59-2	1	U	1	5	0.88
10237	trans-1,2-Dichloroethene	156-60-5	1	U	1	5	0.88
10237	Freon 113	76-13-1	2	U	2	11	0.88
10237	Tetrachloroethene	127-18-4	3	J	1	5	0.88
10237	Tetrahydrofuran	109-99-9	4	U	4	5	0.88
10237	Toluene	108-88-3	2	J	1	5	0.88
10237	1,1,1-Trichloroethane	71-55-6	1	U	1	5	0.88
10237	Trichloroethene	79-01-6	1	U	1	5	0.88
10237	Trichlorofluoromethane	75-69-4	2	U	2	5	0.88
10237	Vinyl Chloride	75-01-4	1	U	1	5	0.88
A targeted library search was performed yielding the following results: chlorodifluoromethane and 1,3-dichlorobutene-2 (total) are non-detect.							
GC/MS	Semivolatiles	SW-846 8270C	ug/kg		ug/kg	ug/kg	
10727	bis(2-Ethylhexyl)phthalate	117-81-7	81	U	81	210	1
10727	N-Nitrosodiphenylamine	86-30-6	20	U	20	40	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10727	Phenanthrene	85-01-8	4	U	4	21	1
Metals	SW-846 6010B		mg/kg		mg/kg	mg/kg	
06944	Antimony	7440-36-0	0.866	U	0.866	2.34	1
06935	Arsenic	7440-38-2	1.75	J	0.819	2.34	1
06947	Beryllium	7440-41-7	0.111	J	0.0784	0.585	1
06949	Cadmium	7440-43-9	0.0889	U	0.0889	0.585	1
06951	Chromium	7440-47-3	3.84		0.187	1.75	1
06953	Copper	7440-50-8	1.67		0.339	1.17	1
06955	Lead	7439-92-1	1.80		0.585	1.75	1
06961	Nickel	7440-02-0	2.22		0.152	1.17	1
06966	Silver	7440-22-4	0.199	U	0.199	0.585	1
06972	Zinc	7440-66-6	13.9		0.234	2.34	1
	SW-846 6020		mg/kg		mg/kg	mg/kg	
06141	Selenium	7782-49-2	0.205	J	0.117	0.468	2
	SW-846 7471A		mg/kg		mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0118	U	0.0118	0.118	1
Wet Chemistry	SM 2540 G-1997		%		%	%	
00111	Moisture	n.a.	17.8		0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-01-7 Soil
REM INV BSS 9/13

LL Sample # SW 7220887
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 10/01/2013 08:20 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-SS01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	SM 2540 G-1997		%	%	%	
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	GC/MS Volatiles	SW-846 8260B	1	X132771AA	10/04/2013 17:17	Chelsea B Stong	0.88
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201327532600	10/02/2013 14:40	Mitchell R Washel	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201327532600	10/02/2013 14:40	Mitchell R Washel	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201327532600	10/02/2013 14:40	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201327532600	10/02/2013 14:39	Mitchell R Washel	n.a.
10727	GC/MS Semivolatiles	SW-846 8270C	1	13278SLG026	10/10/2013 15:04	Joseph M Gambler	1
10809	BNA Soil Microwave	SW-846 3546	1	13278SLG026	10/07/2013 09:10	Anna E Stager	1
06944	Antimony	SW-846 6010B	1	132755708006	10/12/2013 09:03	Tara L Snyder	1
06935	Arsenic	SW-846 6010B	1	132755708006	10/12/2013 09:03	Tara L Snyder	1
06947	Beryllium	SW-846 6010B	1	132755708006	10/12/2013 09:03	Tara L Snyder	1
06949	Cadmium	SW-846 6010B	1	132755708006	10/12/2013 09:03	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	132755708006	10/12/2013 09:03	Tara L Snyder	1
06953	Copper	SW-846 6010B	1	132755708006	10/12/2013 09:03	Tara L Snyder	1
06955	Lead	SW-846 6010B	1	132755708006	10/12/2013 09:03	Tara L Snyder	1
06961	Nickel	SW-846 6010B	1	132755708006	10/12/2013 09:03	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	132755708006	10/12/2013 09:03	Tara L Snyder	1
06972	Zinc	SW-846 6010B	1	132755708006	10/12/2013 09:03	Tara L Snyder	1
06141	Selenium	SW-846 6020	1	132755708006B	10/11/2013 11:54	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	132755711004	10/04/2013 07:53	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	132755708006	10/03/2013 09:45	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	132755711004	10/03/2013 12:35	Denise K Connors	1
00111	Moisture	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-02-6 Soil
REM INV BSS 9/13

LL Sample # SW 7220888
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 17:15 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-SS02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/kg	ug/kg	ug/kg	
10237	Benzene	71-43-2	2 J	0.6	6	0.97
10237	Carbon Tetrachloride	56-23-5	1 U	1	6	0.97
10237	2-Chloro-1,3-butadiene	126-99-8	1 U	1	6	0.97
10237	Chloroform	67-66-3	1 U	1	6	0.97
10237	1,3-Dichlorobutene-2 (total)	926-57-8	1 U	1	6	0.97
10237	Dichlorodifluoromethane	75-71-8	2 U	2	6	0.97
10237	1,1-Dichloroethane	75-34-3	1 U	1	6	0.97
10237	cis-1,2-Dichloroethene	156-59-2	1 U	1	6	0.97
10237	trans-1,2-Dichloroethene	156-60-5	1 U	1	6	0.97
10237	Freon 113	76-13-1	2 U	2	11	0.97
10237	Tetrachloroethene	127-18-4	62	1	6	0.97
10237	Tetrahydrofuran	109-99-9	4 U	4	6	0.97
10237	Toluene	108-88-3	21	1	6	0.97
10237	1,1,1-Trichloroethane	71-55-6	1 U	1	6	0.97
10237	Trichloroethene	79-01-6	2 J	1	6	0.97
10237	Trichlorofluoromethane	75-69-4	2 U	2	6	0.97
10237	Vinyl Chloride	75-01-4	1 U	1	6	0.97

A targeted library search was performed yielding the following results:
chlorodifluoromethane and 1,3-dichlorobutene-2 (total) are non-detect.

The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken:
The sample was re-analyzed and the QC is again outside of the acceptance limits, indicating a matrix effect. The data is reported from the initial trial.

GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
10727	bis(2-Ethylhexyl)phthalate	117-81-7	76 U	76	190	1
10727	N-Nitrosodiphenylamine	86-30-6	19 U	19	38	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
10727	Phenanthrene	85-01-8	4 U	4	19	1

Metals		SW-846 6010B	mg/kg		mg/kg	mg/kg	
06944	Antimony	7440-36-0	0.835	U	0.835	2.26	1
06935	Arsenic	7440-38-2	1.94	J	0.790	2.26	1
06947	Beryllium	7440-41-7	0.132	J	0.0756	0.564	1
06949	Cadmium	7440-43-9	0.0858	U	0.0858	0.564	1
06951	Chromium	7440-47-3	3.92		0.181	1.69	1
06953	Copper	7440-50-8	1.64		0.327	1.13	1
06955	Lead	7439-92-1	2.06		0.564	1.69	1
06961	Nickel	7440-02-0	2.36		0.147	1.13	1
06966	Silver	7440-22-4	0.192	U	0.192	0.564	1
06972	Zinc	7440-66-6	25.3		0.226	2.26	

		SW-846 6020	mg/kg		mg/kg	mg/kg	
06141	Selenium	7782-49-2	0.121	J	0.113	0.452	2

	SW-846 7471A	mg/kg	mg/kg	mg/kg	
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*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-02-6 Soil
REM INV BSS 9/13

LL Sample # SW 7220888
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 17:15 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-SS02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
00159	Mercury	SW-846 7471A 7439-97-6	mg/kg 0.0113 U	mg/kg 0.0113	mg/kg 0.113	1
Wet Chemistry						
00111	Moisture	SM 2540 G-1997 n.a.	% 12.3	% 0.50	% 0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	GC/MS Volatiles	SW-846 8260B	1	X132771AA	10/04/2013 17:40	Chelsea B Stong	0.97
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201327532600	10/02/2013 14:12	Mitchell R Washel	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201327532600	10/02/2013 14:12	Mitchell R Washel	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201327532600	10/02/2013 14:13	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201327532600	10/02/2013 14:12	Mitchell R Washel	n.a.
10727	GC/MS Semivolatiles	SW-846 8270C	1	13278SLG026	10/10/2013 15:30	Joseph M Gambler	1
10809	BNA Soil Microwave	SW-846 3546	1	13278SLG026	10/07/2013 09:10	Anna E Stager	1
06944	Antimony	SW-846 6010B	1	132755708006	10/12/2013 09:07	Tara L Snyder	1
06935	Arsenic	SW-846 6010B	1	132755708006	10/12/2013 09:07	Tara L Snyder	1
06947	Beryllium	SW-846 6010B	1	132755708006	10/12/2013 09:07	Tara L Snyder	1
06949	Cadmium	SW-846 6010B	1	132755708006	10/12/2013 09:07	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	132755708006	10/12/2013 09:07	Tara L Snyder	1
06953	Copper	SW-846 6010B	1	132755708006	10/12/2013 09:07	Tara L Snyder	1
06955	Lead	SW-846 6010B	1	132755708006	10/12/2013 09:07	Tara L Snyder	1
06961	Nickel	SW-846 6010B	1	132755708006	10/12/2013 09:07	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	132755708006	10/12/2013 09:07	Tara L Snyder	1
06972	Zinc	SW-846 6010B	1	132755708006	10/12/2013 09:07	Tara L Snyder	1
06141	Selenium	SW-846 6020	1	132755708006B	10/11/2013 11:57	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	132755711004	10/04/2013 07:56	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	132755708006	10/03/2013 09:45	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	132755711004	10/03/2013 12:35	Denise K Connors	1
00111	Moisture	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-03-3.5 Soil
REM INV BSS 9/13

LL Sample # SW 7220889
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 10/01/2013 09:20 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-SS03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/kg	ug/kg	ug/kg	
10237	Benzene	71-43-2	0.6 U	0.6	6	1.01
10237	Carbon Tetrachloride	56-23-5	1 U	1	6	1.01
10237	2-Chloro-1,3-butadiene	126-99-8	1 U	1	6	1.01
10237	Chloroform	67-66-3	1 U	1	6	1.01
10237	1,3-Dichlorobutene-2 (total)	926-57-8	1 U	1	6	1.01
10237	Dichlorodifluoromethane	75-71-8	2 U	2	6	1.01
10237	1,1-Dichloroethane	75-34-3	1 U	1	6	1.01
10237	cis-1,2-Dichloroethene	156-59-2	1 U	1	6	1.01
10237	trans-1,2-Dichloroethene	156-60-5	1 U	1	6	1.01
10237	Freon 113	76-13-1	2 U	2	11	1.01
10237	Tetrachloroethene	127-18-4	1 U	1	6	1.01
10237	Tetrahydrofuran	109-99-9	4 U	4	6	1.01
10237	Toluene	108-88-3	1 U	1	6	1.01
10237	1,1,1-Trichloroethane	71-55-6	1 U	1	6	1.01
10237	Trichloroethene	79-01-6	1 U	1	6	1.01
10237	Trichlorofluoromethane	75-69-4	2 U	2	6	1.01
10237	Vinyl Chloride	75-01-4	1 U	1	6	1.01
A targeted library search was performed yielding the following results: chlorodifluoromethane and 1,3-dichlorobutene-2 (total) are non-detect.						
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
10727	bis(2-Ethylhexyl)phthalate	117-81-7	73 U	73	180	1
10727	N-Nitrosodiphenylamine	86-30-6	18 U	18	36	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
10727	Phenanthrene	85-01-8	4 U	4	18	1
Metals	SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
06944	Antimony	7440-36-0	0.800 U	0.800	2.16	1
06935	Arsenic	7440-38-2	1.71 J	0.757	2.16	1
06947	Beryllium	7440-41-7	0.130 J	0.0724	0.540	1
06949	Cadmium	7440-43-9	0.0821 U	0.0821	0.540	1
06951	Chromium	7440-47-3	4.52	0.173	1.62	1
06953	Copper	7440-50-8	9.87	0.313	1.08	1
06955	Lead	7439-92-1	4.05	0.540	1.62	1
06961	Nickel	7440-02-0	2.06	0.141	1.08	1
06966	Silver	7440-22-4	0.184 U	0.184	0.540	1
06972	Zinc	7440-66-6	17.8	0.216	2.16	1
	SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06141	Selenium	7782-49-2	0.225 J	0.108	0.432	2
	SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0096 U	0.0096	0.0956	1
Wet Chemistry	SM 2540 G-1997	%	%	%	%	
00111	Moisture	n.a.	9.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-03-3.5 Soil
REM INV BSS 9/13

LL Sample # SW 7220889
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 10/01/2013 09:20 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-SS03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	SM 2540 G-1997		%	%	%	
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	GC/MS Volatiles	SW-846 8260B	1	X132771AA	10/04/2013 18:03	Chelsea B Stong	1.01
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201327532600	10/02/2013 14:42	Mitchell R Washel	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201327532600	10/02/2013 14:43	Mitchell R Washel	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201327532600	10/02/2013 14:43	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201327532600	10/02/2013 14:42	Mitchell R Washel	n.a.
10727	GC/MS Semivolatiles	SW-846 8270C	1	13278SLG026	10/10/2013 15:56	Joseph M Gambler	1
10809	BNA Soil Microwave	SW-846 3546	1	13278SLG026	10/07/2013 09:10	Anna E Stager	1
06944	Antimony	SW-846 6010B	1	132755708006	10/12/2013 09:19	Tara L Snyder	1
06935	Arsenic	SW-846 6010B	1	132755708006	10/12/2013 09:19	Tara L Snyder	1
06947	Beryllium	SW-846 6010B	1	132755708006	10/12/2013 09:19	Tara L Snyder	1
06949	Cadmium	SW-846 6010B	1	132755708006	10/12/2013 09:19	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	132755708006	10/12/2013 09:19	Tara L Snyder	1
06953	Copper	SW-846 6010B	1	132755708006	10/12/2013 09:19	Tara L Snyder	1
06955	Lead	SW-846 6010B	1	132755708006	10/12/2013 09:19	Tara L Snyder	1
06961	Nickel	SW-846 6010B	1	132755708006	10/12/2013 09:19	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	132755708006	10/12/2013 09:19	Tara L Snyder	1
06972	Zinc	SW-846 6010B	1	132755708006	10/12/2013 09:19	Tara L Snyder	1
06141	Selenium	SW-846 6020	1	132755708006B	10/11/2013 12:04	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	132755711004	10/04/2013 07:58	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	132755708006	10/03/2013 09:45	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	132755711004	10/03/2013 12:35	Denise K Connors	1
00111	Moisture	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-04-2 Soil
REM INV BSS 9/13

LL Sample # SW 7220890
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 16:45 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-SS04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10237	Benzene	71-43-2	0.5 U	0.5	5	1.03
10237	Carbon Tetrachloride	56-23-5	1 U	1	5	1.03
10237	2-Chloro-1,3-butadiene	126-99-8	1 U	1	5	1.03
10237	Chloroform	67-66-3	1 U	1	5	1.03
10237	1,3-Dichlorobutene-2 (total)	926-57-8	1 U	1	5	1.03
10237	Dichlorodifluoromethane	75-71-8	2 U	2	5	1.03
10237	1,1-Dichloroethane	75-34-3	1 U	1	5	1.03
10237	cis-1,2-Dichloroethene	156-59-2	1 U	1	5	1.03
10237	trans-1,2-Dichloroethene	156-60-5	1 U	1	5	1.03
10237	Freon 113	76-13-1	2 U	2	10	1.03
10237	Tetrachloroethene	127-18-4	1 U	1	5	1.03
10237	Tetrahydrofuran	109-99-9	4 U	4	5	1.03
10237	Toluene	108-88-3	1 U	1	5	1.03
10237	1,1,1-Trichloroethane	71-55-6	1 U	1	5	1.03
10237	Trichloroethene	79-01-6	1 U	1	5	1.03
10237	Trichlorofluoromethane	75-69-4	2 U	2	5	1.03
10237	Vinyl Chloride	75-01-4	1 U	1	5	1.03
A targeted library search was performed yielding the following results: chlorodifluoromethane and 1,3-dichlorobutene-2 (total) are non-detect.						
GC/MS Semivolatiles SW-846 8270C						
10727	bis(2-Ethylhexyl)phthalate	117-81-7	67 U	67	170	1
10727	N-Nitrosodiphenylamine	86-30-6	17 U	17	34	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
10727	Phenanthrene	85-01-8	3 U	3	17	1
Metals SW-846 6010B						
06944	Antimony	7440-36-0	0.731 U	0.731	1.98	1
06935	Arsenic	7440-38-2	1.41 J	0.691	1.98	1
06947	Beryllium	7440-41-7	0.106 J	0.0662	0.494	1
06949	Cadmium	7440-43-9	0.0751 U	0.0751	0.494	1
06951	Chromium	7440-47-3	3.61	0.158	1.48	1
06953	Copper	7440-50-8	2.09	0.286	0.988	1
06955	Lead	7439-92-1	1.77	0.494	1.48	1
06961	Nickel	7440-02-0	2.53	0.128	0.988	1
06966	Silver	7440-22-4	0.168 U	0.168	0.494	1
06972	Zinc	7440-66-6	9.39	0.198	1.98	1
SW-846 6020						
06141	Selenium	7782-49-2	0.0988 U	0.0988	0.395	2
SW-846 7471A						
00159	Mercury	7439-97-6	0.0184 J	0.0096	0.0955	1
Wet Chemistry SM 2540 G-1997						
00111	Moisture	n.a.	1.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-04-2 Soil
REM INV BSS 9/13

LL Sample # SW 7220890
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 16:45 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-SS04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	SM 2540 G-1997		%	%	%	
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	GC/MS Volatiles	SW-846 8260B	1	X132771AA	10/04/2013 18:26	Chelsea B Stong	1.03
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201327532598	10/02/2013 12:50	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201327532598	10/02/2013 12:50	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201327532598	10/02/2013 12:51	Stephanie A Sanchez	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201327532598	10/02/2013 12:50	Stephanie A Sanchez	n.a.
10727	GC/MS Semivolatiles	SW-846 8270C	1	13278SLG026	10/10/2013 16:22	Joseph M Gambler	1
10809	BNA Soil Microwave	SW-846 3546	1	13278SLG026	10/07/2013 09:10	Anna E Stager	1
06944	Antimony	SW-846 6010B	1	132755708006	10/12/2013 09:23	Tara L Snyder	1
06935	Arsenic	SW-846 6010B	1	132755708006	10/12/2013 09:23	Tara L Snyder	1
06947	Beryllium	SW-846 6010B	1	132755708006	10/12/2013 09:23	Tara L Snyder	1
06949	Cadmium	SW-846 6010B	1	132755708006	10/12/2013 09:23	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	132755708006	10/12/2013 09:23	Tara L Snyder	1
06953	Copper	SW-846 6010B	1	132755708006	10/12/2013 09:23	Tara L Snyder	1
06955	Lead	SW-846 6010B	1	132755708006	10/12/2013 09:23	Tara L Snyder	1
06961	Nickel	SW-846 6010B	1	132755708006	10/12/2013 09:23	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	132755708006	10/12/2013 09:23	Tara L Snyder	1
06972	Zinc	SW-846 6010B	1	132755708006	10/12/2013 09:23	Tara L Snyder	1
06141	Selenium	SW-846 6020	1	132755708006B	10/11/2013 12:06	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	132755711004	10/04/2013 08:00	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	132755708006	10/03/2013 09:45	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	132755711004	10/03/2013 12:35	Denise K Connors	1
00111	Moisture	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-05-3.25 Soil
REM INV BSS 9/13

LL Sample # SW 7220891
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 10/01/2013 08:50 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-SS05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/kg	ug/kg	ug/kg	
10237	Benzene	71-43-2	0.5 U	0.5	5	0.97
10237	Carbon Tetrachloride	56-23-5	1 U	1	5	0.97
10237	2-Chloro-1,3-butadiene	126-99-8	1 U	1	5	0.97
10237	Chloroform	67-66-3	1 U	1	5	0.97
10237	1,3-Dichlorobutene-2 (total)	926-57-8	1 U	1	5	0.97
10237	Dichlorodifluoromethane	75-71-8	2 U	2	5	0.97
10237	1,1-Dichloroethane	75-34-3	1 U	1	5	0.97
10237	cis-1,2-Dichloroethene	156-59-2	1 U	1	5	0.97
10237	trans-1,2-Dichloroethene	156-60-5	1 U	1	5	0.97
10237	Freon 113	76-13-1	2 U	2	10	0.97
10237	Tetrachloroethene	127-18-4	1 J	1	5	0.97
10237	Tetrahydrofuran	109-99-9	4 U	4	5	0.97
10237	Toluene	108-88-3	1 U	1	5	0.97
10237	1,1,1-Trichloroethane	71-55-6	1 U	1	5	0.97
10237	Trichloroethene	79-01-6	1 U	1	5	0.97
10237	Trichlorofluoromethane	75-69-4	2 U	2	5	0.97
10237	Vinyl Chloride	75-01-4	1 U	1	5	0.97
A targeted library search was performed yielding the following results: chlorodifluoromethane and 1,3-dichlorobutene-2 (total) are non-detect.						
The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken: The sample was re-analyzed and the QC is again outside of the acceptance limits, indicating a matrix effect. The data is reported from the initial trial.						
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
10727	bis(2-Ethylhexyl)phthalate	117-81-7	70 U	70	180	1
10727	N-Nitrosodiphenylamine	86-30-6	17 U	17	35	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
10727	Phenanthrene	85-01-8	3 U	3	18	1
Metals	SW-846 6010B	mg/kg	mg/kg	mg/kg		
06944	Antimony	7440-36-0	0.755 U	0.755	2.04	1
06935	Arsenic	7440-38-2	1.72 J	0.715	2.04	1
06947	Beryllium	7440-41-7	0.100 J	0.0684	0.510	1
06949	Cadmium	7440-43-9	0.0776 U	0.0776	0.510	1
06951	Chromium	7440-47-3	3.44	0.163	1.53	1
06953	Copper	7440-50-8	1.60	0.296	1.02	1
06955	Lead	7439-92-1	1.72	0.510	1.53	1
06961	Nickel	7440-02-0	2.09	0.133	1.02	1
06966	Silver	7440-22-4	0.174 U	0.174	0.510	1
06972	Zinc	7440-66-6	15.7	0.204	2.04	1
	SW-846 6020	mg/kg	mg/kg	mg/kg		
06141	Selenium	7782-49-2	0.128 J	0.102	0.408	2
	SW-846 7471A	mg/kg	mg/kg	mg/kg		

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-05-3.25 Soil
REM INV BSS 9/13

LL Sample # SW 7220891
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 10/01/2013 08:50 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-SS05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
00159	Mercury	SW-846 7471A 7439-97-6	mg/kg 0.0126 J	mg/kg 0.0097	mg/kg 0.0972	1
Wet Chemistry						
00111	Moisture	SM 2540 G-1997 n.a.	% 4.9	% 0.50	% 0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	GC/MS Volatiles	SW-846 8260B	1	X132771AA	10/04/2013 18:49	Chelsea B Stong	0.97
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201327532600	10/02/2013 14:46	Mitchell R Washel	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201327532600	10/02/2013 14:46	Mitchell R Washel	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201327532600	10/02/2013 14:46	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201327532600	10/02/2013 14:45	Mitchell R Washel	n.a.
10727	GC/MS Semivolatiles	SW-846 8270C	1	13278SLG026	10/10/2013 16:48	Joseph M Gambler	1
10809	BNA Soil Microwave	SW-846 3546	1	13278SLG026	10/07/2013 09:10	Anna E Stager	1
06944	Antimony	SW-846 6010B	1	132755708006	10/12/2013 09:27	Tara L Snyder	1
06935	Arsenic	SW-846 6010B	1	132755708006	10/12/2013 09:27	Tara L Snyder	1
06947	Beryllium	SW-846 6010B	1	132755708006	10/12/2013 09:27	Tara L Snyder	1
06949	Cadmium	SW-846 6010B	1	132755708006	10/12/2013 09:27	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	132755708006	10/12/2013 09:27	Tara L Snyder	1
06953	Copper	SW-846 6010B	1	132755708006	10/12/2013 09:27	Tara L Snyder	1
06955	Lead	SW-846 6010B	1	132755708006	10/12/2013 09:27	Tara L Snyder	1
06961	Nickel	SW-846 6010B	1	132755708006	10/12/2013 09:27	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	132755708006	10/12/2013 09:27	Tara L Snyder	1
06972	Zinc	SW-846 6010B	1	132755708006	10/12/2013 09:27	Tara L Snyder	1
06141	Selenium	SW-846 6020	1	132755708006B	10/11/2013 12:08	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	132755711004	10/04/2013 08:02	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	132755708006	10/03/2013 09:45	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	132755711004	10/03/2013 12:35	Denise K Connors	1
00111	Moisture	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-05-D-3.25 Soil
REM INV BSS 9/13

LL Sample # SW 7220892
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 10/01/2013 08:50 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-SS5D

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/kg	ug/kg	ug/kg	
10237	Benzene	71-43-2	0.5 U	0.5	5	0.99
10237	Carbon Tetrachloride	56-23-5	1 U	1	5	0.99
10237	2-Chloro-1,3-butadiene	126-99-8	1 U	1	5	0.99
10237	Chloroform	67-66-3	1 U	1	5	0.99
10237	1,3-Dichlorobutene-2 (total)	926-57-8	1 U	1	5	0.99
10237	Dichlorodifluoromethane	75-71-8	2 U	2	5	0.99
10237	1,1-Dichloroethane	75-34-3	1 U	1	5	0.99
10237	cis-1,2-Dichloroethene	156-59-2	1 U	1	5	0.99
10237	trans-1,2-Dichloroethene	156-60-5	1 U	1	5	0.99
10237	Freon 113	76-13-1	2 U	2	10	0.99
10237	Tetrachloroethene	127-18-4	1 J	1	5	0.99
10237	Tetrahydrofuran	109-99-9	4 U	4	5	0.99
10237	Toluene	108-88-3	1 U	1	5	0.99
10237	1,1,1-Trichloroethane	71-55-6	1 U	1	5	0.99
10237	Trichloroethene	79-01-6	1 U	1	5	0.99
10237	Trichlorofluoromethane	75-69-4	2 U	2	5	0.99
10237	Vinyl Chloride	75-01-4	1 U	1	5	0.99

A targeted library search was performed yielding the following results:
chlorodifluoromethane and 1,3-dichlorobutene-2 (total) are non-detect.

The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken:
The sample was re-analyzed and the QC is again outside of the acceptance limits, indicating a matrix effect. The data is reported from the initial trial.

GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
10727	bis(2-Ethylhexyl)phthalate	117-81-7	70 U	70	180	1
10727	N-Nitrosodiphenylamine	86-30-6	17 U	17	35	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
10727	Phenanthrene	85-01-8	3 U	3	18	1

Metals		SW-846 6010B	mg/kg		mg/kg	mg/kg	
06944	Antimony	7440-36-0	0.778	U	0.778	2.10	1
06935	Arsenic	7440-38-2	1.55	J	0.736	2.10	1
06947	Beryllium	7440-41-7	0.114	J	0.0705	0.526	1
06949	Cadmium	7440-43-9	0.0799	U	0.0799	0.526	1
06951	Chromium	7440-47-3	3.64		0.168	1.58	1
06953	Copper	7440-50-8	1.84		0.305	1.05	1
06955	Lead	7439-92-1	1.97		0.526	1.58	1
06961	Nickel	7440-02-0	2.43		0.137	1.05	1
06966	Silver	7440-22-4	0.179	U	0.179	0.526	1
06972	Zinc	7440-66-6	15.2		0.210	2.10	

		SW-846 6020	mg/kg		mg/kg	mg/kg	
06141	Selenium	7782-49-2	0.107	J	0.105	0.421	2

	SW-846 7471A	mg/kg	mg/kg	mg/kg	
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*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-05-D-3.25 Soil
REM INV BSS 9/13

LL Sample # SW 7220892
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 10/01/2013 08:50 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-SS5D

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
00159	Mercury	SW-846 7471A 7439-97-6	mg/kg 0.0160 J	mg/kg 0.0101	mg/kg 0.101	1
Wet Chemistry						
00111	Moisture	SM 2540 G-1997 n.a.	% 4.9	% 0.50	% 0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	GC/MS Volatiles	SW-846 8260B	1	X132771AA	10/04/2013 19:12	Chelsea B Stong	0.99
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201327532600	10/02/2013 14:49	Mitchell R Washel	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201327532600	10/02/2013 14:49	Mitchell R Washel	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201327532600	10/02/2013 14:50	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201327532600	10/02/2013 14:49	Mitchell R Washel	n.a.
10727	GC/MS Semivolatiles	SW-846 8270C	1	13278SLG026	10/10/2013 17:14	Joseph M Gambler	1
10809	BNA Soil Microwave	SW-846 3546	1	13278SLG026	10/07/2013 09:10	Anna E Stager	1
06944	Antimony	SW-846 6010B	1	132755708006	10/12/2013 09:31	Tara L Snyder	1
06935	Arsenic	SW-846 6010B	1	132755708006	10/12/2013 09:31	Tara L Snyder	1
06947	Beryllium	SW-846 6010B	1	132755708006	10/12/2013 09:31	Tara L Snyder	1
06949	Cadmium	SW-846 6010B	1	132755708006	10/12/2013 09:31	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	132755708006	10/12/2013 09:31	Tara L Snyder	1
06953	Copper	SW-846 6010B	1	132755708006	10/12/2013 09:31	Tara L Snyder	1
06955	Lead	SW-846 6010B	1	132755708006	10/12/2013 09:31	Tara L Snyder	1
06961	Nickel	SW-846 6010B	1	132755708006	10/12/2013 09:31	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	132755708006	10/12/2013 09:31	Tara L Snyder	1
06972	Zinc	SW-846 6010B	1	132755708006	10/12/2013 09:31	Tara L Snyder	1
06141	Selenium	SW-846 6020	1	132755708006B	10/11/2013 12:11	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	132755711004	10/04/2013 08:04	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	132755708006	10/03/2013 09:45	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	132755711004	10/03/2013 12:35	Denise K Connors	1
00111	Moisture	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-06-3 Soil
REM INV BSS 9/13

LL Sample # SW 7220893
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 15:45 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-S-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/kg	ug/kg	ug/kg	
10237	Benzene	71-43-2	1 J	0.6	6	0.96
10237	Carbon Tetrachloride	56-23-5	1 U	1	6	0.96
10237	2-Chloro-1,3-butadiene	126-99-8	1 U	1	6	0.96
10237	Chloroform	67-66-3	1 U	1	6	0.96
10237	1,3-Dichlorobutene-2 (total)	926-57-8	1 U	1	6	0.96
10237	Dichlorodifluoromethane	75-71-8	2 U	2	6	0.96
10237	1,1-Dichloroethane	75-34-3	1 U	1	6	0.96
10237	cis-1,2-Dichloroethene	156-59-2	1 U	1	6	0.96
10237	trans-1,2-Dichloroethene	156-60-5	1 U	1	6	0.96
10237	Freon 113	76-13-1	2 U	2	12	0.96
10237	Tetrachloroethene	127-18-4	6 J	1	6	0.96
10237	Tetrahydrofuran	109-99-9	5 U	5	6	0.96
10237	Toluene	108-88-3	2 J	1	6	0.96
10237	1,1,1-Trichloroethane	71-55-6	1 U	1	6	0.96
10237	Trichloroethene	79-01-6	1 U	1	6	0.96
10237	Trichlorofluoromethane	75-69-4	2 U	2	6	0.96
10237	Vinyl Chloride	75-01-4	1 U	1	6	0.96

A targeted library search was performed yielding the following results:
chlorodifluoromethane and 1,3-dichlorobutene-2 (total) are non-detect.

GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
10727	bis(2-Ethylhexyl)phthalate	117-81-7	82 U	82	210	1
10727	N-Nitrosodiphenylamine	86-30-6	20 U	20	41	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
10727	Phenanthrene	85-01-8	4 U	4	21	1

Metals		SW-846 6010B	mg/kg		mg/kg	mg/kg	
06944	Antimony	7440-36-0	2.02	J	0.894	2.42	1
06935	Arsenic	7440-38-2	6.21		0.845	2.42	1
06947	Beryllium	7440-41-7	0.0882	J	0.0809	0.604	1
06949	Cadmium	7440-43-9	0.0918	U	0.0918	0.604	1
06951	Chromium	7440-47-3	2.98		0.193	1.81	1
06953	Copper	7440-50-8	219		0.350	1.21	1
06955	Lead	7439-92-1	2.57		0.604	1.81	1
06961	Nickel	7440-02-0	3.52		0.157	1.21	1
06966	Silver	7440-22-4	0.205	U	0.205	0.604	1
06972	Zinc	7440-66-6	11.4		0.242	2.42	1

		SW-846 6020	mg/kg	mg/kg	mg/kg	
06141	Selenium	7782-49-2	0.196 J	0.121	0.483	2

		SW-846 7471A	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0120 U	0.0120	0.120	1

Wet Chemistry		SM 2540 G-1997	%	%	%	
00111	Moisture	n.a.	19.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-06-3 Soil
REM INV BSS 9/13

LL Sample # SW 7220893
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 15:45 by HH

CRG-E.I.DuPont de Nemours & Co

Submitted: 10/02/2013 09:40

URS Corporation

Reported: 10/25/2013 09:11

Iron Hill Corporate Center

4051 Ogletown Road, Suite 300

Newark DE 19713

-S-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	SM 2540 G-1997		%	%	%	
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	GC/MS Volatiles	SW-846 8260B	1	X132812AA	10/08/2013 19:54	Chelsea B Stong	0.96
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201327532598	10/02/2013 12:53	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201327532598	10/02/2013 12:53	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201327532598	10/02/2013 12:53	Stephanie A Sanchez	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201327532598	10/02/2013 12:52	Stephanie A Sanchez	n.a.
10727	GC/MS Semivolatiles	SW-846 8270C	1	13278SLG026	10/10/2013 09:48	Joseph M Gambler	1
10809	BNA Soil Microwave	SW-846 3546	1	13278SLG026	10/07/2013 09:10	Anna E Stager	1
06944	Antimony	SW-846 6010B	1	132755708006	10/12/2013 08:39	Tara L Snyder	1
06935	Arsenic	SW-846 6010B	1	132755708006	10/12/2013 08:39	Tara L Snyder	1
06947	Beryllium	SW-846 6010B	1	132755708006	10/12/2013 08:39	Tara L Snyder	1
06949	Cadmium	SW-846 6010B	1	132755708006	10/12/2013 08:39	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	132755708006	10/12/2013 08:39	Tara L Snyder	1
06953	Copper	SW-846 6010B	1	132755708006	10/12/2013 08:39	Tara L Snyder	1
06955	Lead	SW-846 6010B	1	132755708006	10/12/2013 08:39	Tara L Snyder	1
06961	Nickel	SW-846 6010B	1	132755708006	10/12/2013 08:39	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	132755708006	10/12/2013 08:39	Tara L Snyder	1
06972	Zinc	SW-846 6010B	1	132755708006	10/12/2013 08:39	Tara L Snyder	1
06141	Selenium	SW-846 6020	1	132755708006B	10/11/2013 11:40	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	132755711004	10/04/2013 08:06	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	132755708006	10/03/2013 09:45	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	132755711004	10/03/2013 12:35	Denise K Connors	1
00111	Moisture	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-06-3 MS Soil
REM INV BSS 9/13

LL Sample # SW 7220894
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 15:45 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-S-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/kg	ug/kg	ug/kg	
10237	Benzene	71-43-2	22	0.6	6	1.02
10237	Carbon Tetrachloride	56-23-5	33	1	6	1.02
10237	2-Chloro-1,3-butadiene	126-99-8	24	1	6	1.02
10237	Chloroform	67-66-3	29	1	6	1.02
10237	Dichlorodifluoromethane	75-71-8	36	3	6	1.02
10237	1,1-Dichloroethane	75-34-3	25	1	6	1.02
10237	cis-1,2-Dichloroethene	156-59-2	23	1	6	1.02
10237	trans-1,2-Dichloroethene	156-60-5	24	1	6	1.02
10237	Freon 113	76-13-1	28	3	13	1.02
10237	Tetrachloroethene	127-18-4	26	1	6	1.02
10237	Tetrahydrofuran	109-99-9	110	5	6	1.02
10237	Toluene	108-88-3	24	1	6	1.02
10237	1,1,1-Trichloroethane	71-55-6	33	1	6	1.02
10237	Trichloroethene	79-01-6	23	1	6	1.02
10237	Trichlorofluoromethane	75-69-4	39	3	6	1.02
10237	Vinyl Chloride	75-01-4	27	1	6	1.02
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
10727	bis(2-Ethylhexyl)phthalate	117-81-7	2,500	82	210	1
10727	N-Nitrosodiphenylamine	86-30-6	2,300	21	41	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
10727	Phenanthrene	85-01-8	1,900	4	21	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
06944	Antimony	7440-36-0	129	0.902	2.44	1
06935	Arsenic	7440-38-2	174	0.854	2.44	1
06947	Beryllium	7440-41-7	6.14	0.0817	0.610	1
06949	Cadmium	7440-43-9	6.99	0.0927	0.610	1
06951	Chromium	7440-47-3	62.7	0.195	1.83	1
06953	Copper	7440-50-8	3,940	1.77	6.10	5
06955	Lead	7439-92-1	30.3	0.610	1.83	1
06961	Nickel	7440-02-0	115	0.159	1.22	1
06966	Silver	7440-22-4	5.81	0.207	0.610	1
06972	Zinc	7440-66-6	172	0.244	2.44	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06141	Selenium	7782-49-2	2.81	0.122	0.488	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.243	0.0124	0.124	1
Wet Chemistry	SM 2540 G-1997		%	%	%	
00118	Moisture	n.a.	19.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-06-3 MS Soil
REM INV BSS 9/13

LL Sample # SW 7220894
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 15:45 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-S-06

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	GC/MS Volatiles	SW-846 8260B	1	X132812AA	10/08/2013 20:18	Chelsea B Stong	1.02
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201327532598	10/02/2013 12:58	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201327532598	10/02/2013 12:59	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201327532598	10/02/2013 12:59	Stephanie A Sanchez	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201327532598	10/02/2013 12:58	Stephanie A Sanchez	n.a.
10727	GC/MS Semivolatiles	SW-846 8270C	1	13278SLG026	10/10/2013 10:14	Joseph M Gambler	1
10809	BNA Soil Microwave	SW-846 3546	1	13278SLG026	10/07/2013 09:10	Anna E Stager	1
06944	Antimony	SW-846 6010B	1	132755708006	10/12/2013 08:51	Tara L Snyder	1
06935	Arsenic	SW-846 6010B	1	132755708006	10/12/2013 08:51	Tara L Snyder	1
06947	Beryllium	SW-846 6010B	1	132755708006	10/12/2013 08:51	Tara L Snyder	1
06949	Cadmium	SW-846 6010B	1	132755708006	10/12/2013 08:51	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	132755708006	10/12/2013 08:51	Tara L Snyder	1
06953	Copper	SW-846 6010B	1	132755708006	10/12/2013 15:05	Katlin N Cataldi	5
06955	Lead	SW-846 6010B	1	132755708006	10/12/2013 08:51	Tara L Snyder	1
06961	Nickel	SW-846 6010B	1	132755708006	10/12/2013 08:51	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	132755708006	10/12/2013 08:51	Tara L Snyder	1
06972	Zinc	SW-846 6010B	1	132755708006	10/12/2013 08:51	Tara L Snyder	1
06141	Selenium	SW-846 6020	1	132755708006B	10/11/2013 11:47	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	132755711004	10/04/2013 08:16	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	132755708006	10/03/2013 09:45	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	132755711004	10/03/2013 12:35	Denise K Connors	1
00118	Moisture	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-06-3 MSD Soil
REM INV BSS 9/13

LL Sample # SW 7220895
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 15:45 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-S-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/kg	ug/kg	ug/kg	
10237	Benzene	71-43-2	22	0.6	6	0.92
10237	Carbon Tetrachloride	56-23-5	32	1	6	0.92
10237	2-Chloro-1,3-butadiene	126-99-8	25	1	6	0.92
10237	Chloroform	67-66-3	29	1	6	0.92
10237	Dichlorodifluoromethane	75-71-8	44	2	6	0.92
10237	1,1-Dichloroethane	75-34-3	23	1	6	0.92
10237	cis-1,2-Dichloroethene	156-59-2	23	1	6	0.92
10237	trans-1,2-Dichloroethene	156-60-5	23	1	6	0.92
10237	Freon 113	76-13-1	35	2	11	0.92
10237	Tetrachloroethene	127-18-4	24	1	6	0.92
10237	Tetrahydrofuran	109-99-9	100	5	6	0.92
10237	Toluene	108-88-3	32	1	6	0.92
10237	1,1,1-Trichloroethane	71-55-6	33	1	6	0.92
10237	Trichloroethene	79-01-6	23	1	6	0.92
10237	Trichlorofluoromethane	75-69-4	43	2	6	0.92
10237	Vinyl Chloride	75-01-4	33	1	6	0.92
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
10727	bis(2-Ethylhexyl)phthalate	117-81-7	2,300	82	210	1
10727	N-Nitrosodiphenylamine	86-30-6	2,300	21	41	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
10727	Phenanthrene	85-01-8	2,100	4	21	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
06944	Antimony	7440-36-0	143	0.911	2.46	1
06935	Arsenic	7440-38-2	161	0.862	2.46	1
06947	Beryllium	7440-41-7	6.24	0.0825	0.616	1
06949	Cadmium	7440-43-9	6.95	0.0936	0.616	1
06951	Chromium	7440-47-3	57.6	0.197	1.85	1
06953	Copper	7440-50-8	3,410	1.79	6.16	5
06955	Lead	7439-92-1	27.7	0.616	1.85	1
06961	Nickel	7440-02-0	105	0.160	1.23	1
06966	Silver	7440-22-4	5.88	0.209	0.616	1
06972	Zinc	7440-66-6	158	0.246	2.46	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06141	Selenium	7782-49-2	2.83	0.123	0.493	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.243	0.0123	0.123	1
Wet Chemistry	SM 2540 G-1997		%	%	%	
00118	Moisture	n.a.	19.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-06-3 MSD Soil
REM INV BSS 9/13

LL Sample # SW 7220895
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 15:45 by HH

CRG-E.I.DuPont de Nemours & Co

Submitted: 10/02/2013 09:40

URS Corporation

Reported: 10/25/2013 09:11

Iron Hill Corporate Center

4051 Ogletown Road, Suite 300

Newark DE 19713

-S-06

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	GC/MS Volatiles	SW-846 8260B	1	X132812AA	10/08/2013 20:41	Chelsea B Stong	0.92
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201327532598	10/02/2013 12:55	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201327532598	10/02/2013 12:56	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201327532598	10/02/2013 12:56	Stephanie A Sanchez	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201327532598	10/02/2013 12:55	Stephanie A Sanchez	n.a.
10727	GC/MS Semivolatiles	SW-846 8270C	1	13278SLG026	10/10/2013 10:40	Joseph M Gambler	1
10809	BNA Soil Microwave	SW-846 3546	1	13278SLG026	10/07/2013 09:10	Anna E Stager	1
06944	Antimony	SW-846 6010B	1	132755708006	10/12/2013 08:55	Tara L Snyder	1
06935	Arsenic	SW-846 6010B	1	132755708006	10/12/2013 08:55	Tara L Snyder	1
06947	Beryllium	SW-846 6010B	1	132755708006	10/12/2013 08:55	Tara L Snyder	1
06949	Cadmium	SW-846 6010B	1	132755708006	10/12/2013 08:55	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	132755708006	10/12/2013 08:55	Tara L Snyder	1
06953	Copper	SW-846 6010B	1	132755708006	10/12/2013 15:09	Katlin N Cataldi	5
06955	Lead	SW-846 6010B	1	132755708006	10/12/2013 08:55	Tara L Snyder	1
06961	Nickel	SW-846 6010B	1	132755708006	10/12/2013 08:55	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	132755708006	10/12/2013 08:55	Tara L Snyder	1
06972	Zinc	SW-846 6010B	1	132755708006	10/12/2013 08:55	Tara L Snyder	1
06141	Selenium	SW-846 6020	1	132755708006B	10/11/2013 11:50	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	132755711004	10/04/2013 08:18	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	132755708006	10/03/2013 09:45	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	132755711004	10/03/2013 12:35	Denise K Conners	1
00118	Moisture	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-06-3 Dupl Soil
REM INV BSS 9/13

LL Sample # SW 7220896
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 15:45 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-S-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
06944	Antimony	7440-36-0	1.70 J	0.902	2.44	1
06935	Arsenic	7440-38-2	4.55	0.854	2.44	1
06947	Beryllium	7440-41-7	0.0854 J	0.0817	0.610	1
06949	Cadmium	7440-43-9	0.0927 U	0.0927	0.610	1
06951	Chromium	7440-47-3	3.06	0.195	1.83	1
06953	Copper	7440-50-8	161	0.354	1.22	1
06955	Lead	7439-92-1	3.01	0.610	1.83	1
06961	Nickel	7440-02-0	3.24	0.159	1.22	1
06966	Silver	7440-22-4	0.207 U	0.207	0.610	1
06972	Zinc	7440-66-6	10.9	0.244	2.44	1
		SW-846 6020	mg/kg	mg/kg	mg/kg	
06141	Selenium	7782-49-2	0.122 U	0.122	0.488	2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0118 U	0.0118	0.118	1
Wet Chemistry		SM 2540 G-1997	%	%	%	
00118	Moisture	n.a.	19.6	0.50	0.50	1
00121	Moisture Duplicate	n.a.	20.0	0.50	0.50	1
The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06944	Antimony	SW-846 6010B	1	132755708006	10/12/2013 08:47	Tara L Snyder	1
06935	Arsenic	SW-846 6010B	1	132755708006	10/12/2013 08:47	Tara L Snyder	1
06947	Beryllium	SW-846 6010B	1	132755708006	10/12/2013 08:47	Tara L Snyder	1
06949	Cadmium	SW-846 6010B	1	132755708006	10/12/2013 08:47	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	132755708006	10/12/2013 08:47	Tara L Snyder	1
06953	Copper	SW-846 6010B	1	132755708006	10/12/2013 08:47	Tara L Snyder	1
06955	Lead	SW-846 6010B	1	132755708006	10/12/2013 08:47	Tara L Snyder	1
06961	Nickel	SW-846 6010B	1	132755708006	10/12/2013 08:47	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	132755708006	10/12/2013 08:47	Tara L Snyder	1
06972	Zinc	SW-846 6010B	1	132755708006	10/12/2013 08:47	Tara L Snyder	1
06141	Selenium	SW-846 6020	1	132755708006B	10/11/2013 11:45	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	132755711004	10/04/2013 08:10	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	132755708006	10/03/2013 09:45	Denise K Connors	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-06-3 Dupl Soil
REM INV BSS 9/13

LL Sample # SW 7220896
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 15:45 by HH

CRG-E.I.DuPont de Nemours & Co

Submitted: 10/02/2013 09:40

URS Corporation

Reported: 10/25/2013 09:11

Iron Hill Corporate Center

4051 Ogletown Road, Suite 300

Newark DE 19713

-S-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	132755711004	10/03/2013 12:35	Denise K Conners	1
00118	Moisture	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1
00121	Moisture Duplicate	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-07-2 Soil
REM INV BSS 9/13

LL Sample # SW 7220897
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 14:30 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-SS07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/kg	ug/kg	ug/kg	
10237	Benzene	71-43-2	0.6 U	0.6	6	0.99
10237	Carbon Tetrachloride	56-23-5	1 U	1	6	0.99
10237	2-Chloro-1,3-butadiene	126-99-8	1 U	1	6	0.99
10237	Chloroform	67-66-3	1 U	1	6	0.99
10237	1,3-Dichlorobutene-2 (total)	926-57-8	1 U	1	6	0.99
10237	Dichlorodifluoromethane	75-71-8	2 U	2	6	0.99
10237	1,1-Dichloroethane	75-34-3	1 U	1	6	0.99
10237	cis-1,2-Dichloroethene	156-59-2	1 U	1	6	0.99
10237	trans-1,2-Dichloroethene	156-60-5	1 U	1	6	0.99
10237	Freon 113	76-13-1	2 U	2	12	0.99
10237	Tetrachloroethene	127-18-4	1 U	1	6	0.99
10237	Tetrahydrofuran	109-99-9	5 U	5	6	0.99
10237	Toluene	108-88-3	1 U	1	6	0.99
10237	1,1,1-Trichloroethane	71-55-6	1 U	1	6	0.99
10237	Trichloroethene	79-01-6	1 U	1	6	0.99
10237	Trichlorofluoromethane	75-69-4	2 U	2	6	0.99
10237	Vinyl Chloride	75-01-4	1 U	1	6	0.99
A targeted library search was performed yielding the following results: chlorodifluoromethane and 1,3-dichlorobutene-2 (total) are non-detect.						
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
10727	bis (2-Ethylhexyl) phthalate	117-81-7	80 U	80	200	1
10727	N-Nitrosodiphenylamine	86-30-6	20 U	20	40	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
10727	Phenanthrene	85-01-8	4 U	4	20	1
Metals	SW-846 6010B	mg/kg	mg/kg	mg/kg		
06944	Antimony	7440-36-0	0.879 U	0.879	2.38	1
06935	Arsenic	7440-38-2	1.42 J	0.832	2.38	1
06947	Beryllium	7440-41-7	0.0808 J	0.0796	0.594	1
06949	Cadmium	7440-43-9	0.0903 U	0.0903	0.594	1
06951	Chromium	7440-47-3	2.07	0.190	1.78	1
06953	Copper	7440-50-8	2.41	0.345	1.19	1
06955	Lead	7439-92-1	0.980 J	0.594	1.78	1
06961	Nickel	7440-02-0	1.60	0.154	1.19	1
06966	Silver	7440-22-4	0.202 U	0.202	0.594	1
06972	Zinc	7440-66-6	4.49	0.238	2.38	1
	SW-846 6020	mg/kg	mg/kg	mg/kg		
06141	Selenium	7782-49-2	0.119 U	0.119	0.475	2
	SW-846 7471A	mg/kg	mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0117 U	0.0117	0.117	1
Wet Chemistry	SM 2540 G-1997	%	%	%		
00111	Moisture	n.a.	17.5	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-07-2 Soil
REM INV BSS 9/13

LL Sample # SW 7220897
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 14:30 by HH

CRG-E.I.DuPont de Nemours & Co

Submitted: 10/02/2013 09:40

URS Corporation

Reported: 10/25/2013 09:11

Iron Hill Corporate Center

4051 Ogletown Road, Suite 300

Newark DE 19713

-SS07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	SM 2540 G-1997		%	%	%	
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	GC/MS Volatiles	SW-846 8260B	1	X132771AA	10/04/2013 19:35	Chelsea B Stong	0.99
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201327532598	10/02/2013 13:01	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201327532598	10/02/2013 13:01	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201327532598	10/02/2013 13:02	Stephanie A Sanchez	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201327532598	10/02/2013 13:01	Stephanie A Sanchez	n.a.
10727	GC/MS Semivolatiles	SW-846 8270C	1	13278SLG026	10/10/2013 17:40	Joseph M Gambler	1
10809	BNA Soil Microwave	SW-846 3546	1	13278SLG026	10/07/2013 09:10	Anna E Stager	1
06944	Antimony	SW-846 6010B	1	132755708006	10/12/2013 09:36	Tara L Snyder	1
06935	Arsenic	SW-846 6010B	1	132755708006	10/12/2013 09:36	Tara L Snyder	1
06947	Beryllium	SW-846 6010B	1	132755708006	10/12/2013 09:36	Tara L Snyder	1
06949	Cadmium	SW-846 6010B	1	132755708006	10/12/2013 09:36	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	132755708006	10/12/2013 09:36	Tara L Snyder	1
06953	Copper	SW-846 6010B	1	132755708006	10/12/2013 09:36	Tara L Snyder	1
06955	Lead	SW-846 6010B	1	132755708006	10/12/2013 09:36	Tara L Snyder	1
06961	Nickel	SW-846 6010B	1	132755708006	10/12/2013 09:36	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	132755708006	10/12/2013 09:36	Tara L Snyder	1
06972	Zinc	SW-846 6010B	1	132755708006	10/12/2013 09:36	Tara L Snyder	1
06141	Selenium	SW-846 6020	1	132755708006B	10/11/2013 12:13	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	132755711004	10/04/2013 08:20	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	132755708006	10/03/2013 09:45	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	132755711004	10/03/2013 12:35	Denise K Connors	1
00111	Moisture	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-08-1 Soil
REM INV BSS 9/13

LL Sample # SW 7220898
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 15:10 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-SS08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/kg	ug/kg	ug/kg	
10237	Benzene	71-43-2	0.5 U	0.5	5	1
10237	Carbon Tetrachloride	56-23-5	1 U	1	5	1
10237	2-Chloro-1,3-butadiene	126-99-8	1 U	1	5	1
10237	Chloroform	67-66-3	1 U	1	5	1
10237	1,3-Dichlorobutene-2 (total)	926-57-8	1 U	1	5	1
10237	Dichlorodifluoromethane	75-71-8	2 U	2	5	1
10237	1,1-Dichloroethane	75-34-3	1 U	1	5	1
10237	cis-1,2-Dichloroethene	156-59-2	1 U	1	5	1
10237	trans-1,2-Dichloroethene	156-60-5	1 U	1	5	1
10237	Freon 113	76-13-1	2 U	2	11	1
10237	Tetrachloroethene	127-18-4	1 U	1	5	1
10237	Tetrahydrofuran	109-99-9	4 U	4	5	1
10237	Toluene	108-88-3	1 U	1	5	1
10237	1,1,1-Trichloroethane	71-55-6	1 U	1	5	1
10237	Trichloroethene	79-01-6	1 U	1	5	1
10237	Trichlorofluoromethane	75-69-4	2 U	2	5	1
10237	Vinyl Chloride	75-01-4	1 U	1	5	1
A targeted library search was performed yielding the following results: chlorodifluoromethane and 1,3-dichlorobutene-2 (total) are non-detect.						
The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken: The sample was re-analyzed and the QC is again outside of the acceptance limits, indicating a matrix effect. The data is reported from the initial trial.						
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
10727	bis(2-Ethylhexyl)phthalate	117-81-7	69 U	69	180	1
10727	N-Nitrosodiphenylamine	86-30-6	17 U	17	35	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
10727	Phenanthrene	85-01-8	3 U	3	18	1
Metals	SW-846 6010B	mg/kg	mg/kg	mg/kg		
06944	Antimony	7440-36-0	1.57 J	0.778	2.10	1
06935	Arsenic	7440-38-2	2.46	0.736	2.10	1
06947	Beryllium	7440-41-7	0.0978 J	0.0705	0.526	1
06949	Cadmium	7440-43-9	0.123 J	0.0799	0.526	1
06951	Chromium	7440-47-3	3.15	0.168	1.58	1
06953	Copper	7440-50-8	17.9	0.305	1.05	1
06955	Lead	7439-92-1	4.56	0.526	1.58	1
06961	Nickel	7440-02-0	2.25	0.137	1.05	1
06966	Silver	7440-22-4	0.179 U	0.179	0.526	1
06972	Zinc	7440-66-6	24.9	0.210	2.10	1
	SW-846 6020	mg/kg	mg/kg	mg/kg		
06141	Selenium	7782-49-2	0.152 J	0.105	0.421	2
	SW-846 7471A	mg/kg	mg/kg	mg/kg		

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-08-1 Soil
REM INV BSS 9/13

LL Sample # SW 7220898
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 15:10 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-SS08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
00159	Mercury	SW-846 7471A 7439-97-6	mg/kg 0.0179 J	mg/kg 0.0098	mg/kg 0.0984	1
Wet Chemistry						
00111	Moisture	SM 2540 G-1997 n.a.	% 4.9	% 0.50	% 0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	GC/MS Volatiles	SW-846 8260B	1	X132812AA	10/08/2013 21:05	Chelsea B Stong	1
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201327532598	10/02/2013 13:04	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201327532598	10/02/2013 13:04	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201327532598	10/02/2013 13:04	Stephanie A Sanchez	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201327532598	10/02/2013 13:04	Stephanie A Sanchez	n.a.
10727	GC/MS Semivolatiles	SW-846 8270C	1	13278SLG026	10/10/2013 18:07	Joseph M Gambler	1
10809	BNA Soil Microwave	SW-846 3546	1	13278SLG026	10/07/2013 09:10	Anna E Stager	1
06944	Antimony	SW-846 6010B	1	132755708006	10/12/2013 09:39	Tara L Snyder	1
06935	Arsenic	SW-846 6010B	1	132755708006	10/12/2013 09:39	Tara L Snyder	1
06947	Beryllium	SW-846 6010B	1	132755708006	10/12/2013 09:39	Tara L Snyder	1
06949	Cadmium	SW-846 6010B	1	132755708006	10/12/2013 09:39	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	132755708006	10/12/2013 09:39	Tara L Snyder	1
06953	Copper	SW-846 6010B	1	132755708006	10/12/2013 09:39	Tara L Snyder	1
06955	Lead	SW-846 6010B	1	132755708006	10/12/2013 09:39	Tara L Snyder	1
06961	Nickel	SW-846 6010B	1	132755708006	10/12/2013 09:39	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	132755708006	10/12/2013 09:39	Tara L Snyder	1
06972	Zinc	SW-846 6010B	1	132755708006	10/12/2013 09:39	Tara L Snyder	1
06141	Selenium	SW-846 6020	1	132755708006B	10/11/2013 12:15	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	132755711004	10/04/2013 08:22	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	132755708006	10/03/2013 09:45	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	132755711004	10/03/2013 12:35	Denise K Connors	1
00111	Moisture	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-09-1.5 Soil
REM INV BSS 9/13

LL Sample # SW 7220899
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 14:50 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-SS09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/kg	ug/kg	ug/kg	
10237	Benzene	71-43-2	0.5 U	0.5	5	0.96
10237	Carbon Tetrachloride	56-23-5	1 U	1	5	0.96
10237	2-Chloro-1,3-butadiene	126-99-8	1 U	1	5	0.96
10237	Chloroform	67-66-3	1 U	1	5	0.96
10237	1,3-Dichlorobutene-2 (total)	926-57-8	1 U	1	5	0.96
10237	Dichlorodifluoromethane	75-71-8	2 U	2	5	0.96
10237	1,1-Dichloroethane	75-34-3	1 U	1	5	0.96
10237	cis-1,2-Dichloroethene	156-59-2	1 U	1	5	0.96
10237	trans-1,2-Dichloroethene	156-60-5	1 U	1	5	0.96
10237	Freon 113	76-13-1	2 U	2	10	0.96
10237	Tetrachloroethene	127-18-4	1 U	1	5	0.96
10237	Tetrahydrofuran	109-99-9	4 U	4	5	0.96
10237	Toluene	108-88-3	1 U	1	5	0.96
10237	1,1,1-Trichloroethane	71-55-6	1 U	1	5	0.96
10237	Trichloroethene	79-01-6	1 U	1	5	0.96
10237	Trichlorofluoromethane	75-69-4	2 U	2	5	0.96
10237	Vinyl Chloride	75-01-4	1 U	1	5	0.96
A targeted library search was performed yielding the following results: chlorodifluoromethane and 1,3-Dichlorobutene-2 (total) are non-detect.						
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
10727	bis(2-Ethylhexyl)phthalate	117-81-7	71 U	71	180	1
10727	N-Nitrosodiphenylamine	86-30-6	18 U	18	35	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
10727	Phenanthrene	85-01-8	4 U	4	18	1
Metals	SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
06944	Antimony	7440-36-0	0.855 J	0.778	2.10	1
06935	Arsenic	7440-38-2	3.03	0.736	2.10	1
06947	Beryllium	7440-41-7	0.104 J	0.0704	0.525	1
06949	Cadmium	7440-43-9	0.0799 U	0.0799	0.525	1
06951	Chromium	7440-47-3	3.03	0.168	1.58	1
06953	Copper	7440-50-8	26.4	0.305	1.05	1
06955	Lead	7439-92-1	2.89	0.525	1.58	1
06961	Nickel	7440-02-0	2.53	0.137	1.05	1
06966	Silver	7440-22-4	0.179 U	0.179	0.525	1
06972	Zinc	7440-66-6	17.1	0.210	2.10	1
	SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06141	Selenium	7782-49-2	0.105 U	0.105	0.420	2
	SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0103 U	0.0103	0.103	1
Wet Chemistry	SM 2540 G-1997	%	%	%	%	
00111	Moisture	n.a.	6.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-09-1.5 Soil
REM INV BSS 9/13

LL Sample # SW 7220899
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 14:50 by HH

CRG-E.I.DuPont de Nemours & Co

Submitted: 10/02/2013 09:40

URS Corporation

Reported: 10/25/2013 09:11

Iron Hill Corporate Center

4051 Ogletown Road, Suite 300

Newark DE 19713

-SS09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	SM 2540 G-1997		%	%	%	
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	GC/MS Volatiles	SW-846 8260B	1	X132821AA	10/09/2013 15:07	Chelsea B Stong	0.96
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201327532598	10/02/2013 13:06	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201327532598	10/02/2013 13:06	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201327532598	10/02/2013 13:06	Stephanie A Sanchez	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201327532598	10/02/2013 13:06	Stephanie A Sanchez	n.a.
10727	GC/MS Semivolatiles	SW-846 8270C	1	13278SLG026	10/10/2013 18:33	Joseph M Gambler	1
10809	BNA Soil Microwave	SW-846 3546	1	13278SLG026	10/07/2013 09:10	Anna E Stager	1
06944	Antimony	SW-846 6010B	1	132755708006	10/12/2013 09:43	Tara L Snyder	1
06935	Arsenic	SW-846 6010B	1	132755708006	10/12/2013 09:43	Tara L Snyder	1
06947	Beryllium	SW-846 6010B	1	132755708006	10/12/2013 09:43	Tara L Snyder	1
06949	Cadmium	SW-846 6010B	1	132755708006	10/12/2013 09:43	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	132755708006	10/12/2013 09:43	Tara L Snyder	1
06953	Copper	SW-846 6010B	1	132755708006	10/12/2013 09:43	Tara L Snyder	1
06955	Lead	SW-846 6010B	1	132755708006	10/12/2013 09:43	Tara L Snyder	1
06961	Nickel	SW-846 6010B	1	132755708006	10/12/2013 09:43	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	132755708006	10/12/2013 09:43	Tara L Snyder	1
06972	Zinc	SW-846 6010B	1	132755708006	10/12/2013 09:43	Tara L Snyder	1
06141	Selenium	SW-846 6020	1	132755708006B	10/11/2013 12:18	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	132755711004	10/04/2013 08:24	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	132755708006	10/03/2013 09:45	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	132755711004	10/03/2013 12:35	Denise K Connors	1
00111	Moisture	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-093013-BSS-1 Blank Water
REM INV BSS 9/13

LL Sample # WW 7220900
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 17:45 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-SEB1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	
10335	Benzene	71-43-2	0.5 U	0.5	5	1
10335	Carbon Tetrachloride	56-23-5	1 U	1	5	1
10335	2-Chloro-1,3-butadiene	126-99-8	1 U	1	5	1
10335	Chloroform	67-66-3	0.8 U	0.8	5	1
10335	1,3-Dichlorobutene-2 (total)	926-57-8	1 U	1	5	1
10335	Dichlorodifluoromethane	75-71-8	2 U	2	5	1
10335	1,1-Dichloroethane	75-34-3	1 U	1	5	1
10335	cis-1,2-Dichloroethene	156-59-2	0.8 U	0.8	5	1
10335	trans-1,2-Dichloroethene	156-60-5	0.8 U	0.8	5	1
10335	Dichlorofluoromethane	75-43-4	2 U	2	5	1
10335	Freon 113	76-13-1	2 U	2	10	1
10335	Tetrachloroethene	127-18-4	0.8 U	0.8	5	1
10335	Tetrahydrofuran	109-99-9	4 U	4	10	1
10335	Toluene	108-88-3	0.7 U	0.7	5	1
10335	1,1,1-Trichloroethane	71-55-6	0.8 U	0.8	5	1
10335	Trichloroethene	79-01-6	1 U	1	5	1
10335	Trichlorofluoromethane	75-69-4	2 U	2	5	1
10335	Vinyl Chloride	75-01-4	1 U	1	5	1

A targeted library search was performed yielding the following results:
chlorodifluoromethane and 1,3-dichlorobutene-2 (total) are non-detect.

00880 Targeted Library Search (VOC)

The results from the volatile library search are listed on the attached FORM 1 - VOA-TIC. The qualifiers appearing in the "Q" column are defined on the back of this form.

GC/MS	Semivolatiles	SW-846 8270C	ug/l	ug/l	ug/l	
04678	bis(2-Ethylhexyl)phthalate	117-81-7	2 U	2	5	1
04678	N-Nitrosodiphenylamine	86-30-6	0.5 U	0.5	1	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04678	Phenanthrene	85-01-8	0.1 U	0.1	0.5	1

Metals		SW-846 6010B	mg/l	mg/l	mg/l	
07044	Antimony	7440-36-0	0.0053 U	0.0053	0.0200	1
07035	Arsenic	7440-38-2	0.0068 U	0.0068	0.0200	1
07047	Beryllium	7440-41-7	0.00067 U	0.00067	0.0050	1
07049	Cadmium	7440-43-9	0.00076 U	0.00076	0.0050	1
07051	Chromium	7440-47-3	0.0016 U	0.0016	0.0150	1
07053	Copper	7440-50-8	0.0027 U	0.0027	0.0100	1
07055	Lead	7439-92-1	0.0047 U	0.0047	0.0150	1
07061	Nickel	7440-02-0	0.0015 U	0.0015	0.0100	1
07066	Silver	7440-22-4	0.0021 U	0.0021	0.0050	1
07072	Zinc	7440-66-6	0.0020 U	0.0020	0.0200	1

		SW-846 6020	mg/l	mg/l	mg/l	
06041	Selenium	7782-49-2	0.00050 U	0.00050	0.0020	1

	SW-846 7470A	mg/l	mg/l	mg/l	
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*=This limit was used in the evaluation of the final result

Sample Description: EB-093013-BSS-1 Blank Water
REM INV BSS 9/13

LL Sample # WW 7220900
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 17:45 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-SEB1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
00259	Mercury	SW-846 7470A 7439-97-6	mg/l 0.000060 U	mg/l 0.000060	mg/l 0.00020	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	GC/MS Volatiles	SW-846 8260B	1	T132851AA	10/12/2013 06:07	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T132851AA	10/12/2013 06:07	Anita M Dale	1
04678	GC/MS Semivolatiles	SW-846 8270C	1	132777WAH026	10/10/2013 08:12	Catherine E Bachman	1
00813	BNA Water Extraction	SW-846 3510C	1	132777WAH026	10/05/2013 08:30	Katheryne V Sponheimer	1
07044	Antimony	SW-846 6010B	1	132745705004	10/10/2013 08:13	Tara L Snyder	1
07035	Arsenic	SW-846 6010B	1	132745705004	10/10/2013 08:13	Tara L Snyder	1
07047	Beryllium	SW-846 6010B	1	132745705004	10/10/2013 08:13	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132745705004	10/10/2013 08:13	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132745705004	10/10/2013 08:13	Tara L Snyder	1
07053	Copper	SW-846 6010B	1	132745705004	10/10/2013 08:13	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132745705004	10/10/2013 08:13	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132745705004	10/10/2013 08:13	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132745705004	10/10/2013 08:13	Tara L Snyder	1
07072	Zinc	SW-846 6010B	1	132745705004	10/10/2013 08:13	Tara L Snyder	1
06041	Selenium	SW-846 6020	1	132776050001B	10/05/2013 23:49	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	132755713005	10/04/2013 10:53	Damary Valentin	1
05705	WW/TL SW 846 ICP Digest (tot)	SW-846 3010A	1	132745705004	10/03/2013 09:06	James L Mertz	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132776050001	10/05/2013 07:33	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132755713005	10/03/2013 15:20	Nelli S Markaryan	1

*=This limit was used in the evaluation of the final result

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TARGETED LIBRARY SEARCH

EPA SAMPLE NO.

Lab Name: Lancaster Laboratories	Contract: _____	_____
Lab Code: LANCAS	Case No.: _____	SAS No.: _____
Matrix: (soil/water) WATER	Lab Sample ID: 7220900	SDG No.: _____
Sample wt/vol: 5.0 (g/mL)mL	Lab File ID: SH08363.i/13oct12a.b/tc12s02.d	
Level: (low/med) LOW	Date Received: 10/02/13	
% Moisture: not dec.	Date Analyzed: 10/12/13	
Column: (pack/cap) CAP	Dilution Factor: 1.0	
	CONCENTRATION UNITS:	
	(ug/L or ug/Kg) ug/L	

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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page 1 of 1

FORM I VOA-TIC

Sample Description: TB-093013-BSS-1 Blank Water
REM INV BSS 9/13

LL Sample # WW 7220901
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 17:40 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-STB1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	
10335	Benzene	71-43-2	0.5 U	0.5	5	1
10335	Carbon Tetrachloride	56-23-5	1 U	1	5	1
10335	2-Chloro-1,3-butadiene	126-99-8	1 U	1	5	1
10335	Chloroform	67-66-3	0.8 U	0.8	5	1
10335	1,3-Dichlorobutene-2 (total)	926-57-8	1 U	1	5	1
10335	Dichlorodifluoromethane	75-71-8	2 U	2	5	1
10335	1,1-Dichloroethane	75-34-3	1 U	1	5	1
10335	cis-1,2-Dichloroethene	156-59-2	0.8 U	0.8	5	1
10335	trans-1,2-Dichloroethene	156-60-5	0.8 U	0.8	5	1
10335	Dichlorofluoromethane	75-43-4	2 U	2	5	1
10335	Freon 113	76-13-1	2 U	2	10	1
10335	Tetrachloroethene	127-18-4	0.8 U	0.8	5	1
10335	Tetrahydrofuran	109-99-9	4 U	4	10	1
10335	Toluene	108-88-3	0.7 U	0.7	5	1
10335	1,1,1-Trichloroethane	71-55-6	0.8 U	0.8	5	1
10335	Trichloroethene	79-01-6	1 U	1	5	1
10335	Trichlorofluoromethane	75-69-4	2 U	2	5	1
10335	Vinyl Chloride	75-01-4	1 U	1	5	1

A targeted library search was performed yielding the following results:
chlorodifluoromethane and 1,3-dichlorobutene-2 (total) are non-detect.

00880 Targeted Library Search (VOC)

The results from the volatile library search are listed on the attached FORM 1 - VOA-TIC. The qualifiers appearing in the "Q" column are defined on the back of this form.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	GC/MS Volatiles	SW-846 8260B	1	T132851AA	10/12/2013 06:35	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T132851AA	10/12/2013 06:35	Anita M Dale	1

*=This limit was used in the evaluation of the final result

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TARGETED LIBRARY SEARCH

EPA SAMPLE NO.

Lab Name: Lancaster Laboratories	Contract: _____	_____
Lab Code: LANCAS	Case No.: _____	SAS No.: _____
Matrix: (soil/water) WATER	Lab Sample ID: 7220901	SDG No.: _____
Sample wt/vol: 5.0 (g/mL)mL	Lab File ID: SH08363.i/13oct12a.b/tc12s03.d	
Level: (low/med) LOW	Date Received: 10/02/13	
% Moisture: not dec.	Date Analyzed: 10/12/13	
Column: (pack/cap) CAP	Dilution Factor: 1.0	
	CONCENTRATION UNITS:	
	(ug/L or ug/Kg) ug/L	

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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page 1 of 1

FORM I VOA-TIC

Sample Description: EB-100113-BSS-2 Blank Water
REM INV BSS 9/13

LL Sample # WW 7220902
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 10/01/2013 09:45 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-SEB2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	
10335	Benzene	71-43-2	0.5 U	0.5	5	1
10335	Carbon Tetrachloride	56-23-5	1 U	1	5	1
10335	2-Chloro-1,3-butadiene	126-99-8	1 U	1	5	1
10335	Chloroform	67-66-3	0.8 U	0.8	5	1
10335	1,3-Dichlorobutene-2 (total)	926-57-8	1 U	1	5	1
10335	Dichlorodifluoromethane	75-71-8	2 U	2	5	1
10335	1,1-Dichloroethane	75-34-3	1 U	1	5	1
10335	cis-1,2-Dichloroethene	156-59-2	0.8 U	0.8	5	1
10335	trans-1,2-Dichloroethene	156-60-5	0.8 U	0.8	5	1
10335	Dichlorofluoromethane	75-43-4	2 U	2	5	1
10335	Freon 113	76-13-1	2 U	2	10	1
10335	Tetrachloroethene	127-18-4	0.8 U	0.8	5	1
10335	Tetrahydrofuran	109-99-9	4 U	4	10	1
10335	Toluene	108-88-3	0.7 U	0.7	5	1
10335	1,1,1-Trichloroethane	71-55-6	0.8 U	0.8	5	1
10335	Trichloroethene	79-01-6	1 U	1	5	1
10335	Trichlorofluoromethane	75-69-4	2 U	2	5	1
10335	Vinyl Chloride	75-01-4	1 U	1	5	1

A targeted library search was performed yielding the following results:
chlorodifluoromethane and 1,3-dichlorobutene-2 (total) are non-detect.

00880 Targeted Library Search (VOC)

The results from the volatile library search are listed on the attached FORM 1 - VOA-TIC. The qualifiers appearing in the "Q" column are defined on the back of this form.

GC/MS	Semivolatiles	SW-846 8270C	ug/l	ug/l	ug/l	
04678	bis(2-Ethylhexyl)phthalate	117-81-7	2 U	2	5	1
04678	N-Nitrosodiphenylamine	86-30-6	0.5 U	0.5	1	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04678	Phenanthrene	85-01-8	0.1 U	0.1	0.5	1

Metals		SW-846 6010B	mg/l	mg/l	mg/l	
07044	Antimony	7440-36-0	0.0053 U	0.0053	0.0200	1
07035	Arsenic	7440-38-2	0.0068 U	0.0068	0.0200	1
07047	Beryllium	7440-41-7	0.00067 U	0.00067	0.0050	1
07049	Cadmium	7440-43-9	0.00076 U	0.00076	0.0050	1
07051	Chromium	7440-47-3	0.0016 U	0.0016	0.0150	1
07053	Copper	7440-50-8	0.0027 U	0.0027	0.0100	1
07055	Lead	7439-92-1	0.0047 U	0.0047	0.0150	1
07061	Nickel	7440-02-0	0.0015 U	0.0015	0.0100	1
07066	Silver	7440-22-4	0.0021 U	0.0021	0.0050	1
07072	Zinc	7440-66-6	0.0020 U	0.0020	0.0200	1

		SW-846 6020	mg/l	mg/l	mg/l	
06041	Selenium	7782-49-2	0.00050 U	0.00050	0.0020	1

	SW-846 7470A	mg/l	mg/l	mg/l	
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*=This limit was used in the evaluation of the final result

Sample Description: EB-100113-BSS-2 Blank Water
REM INV BSS 9/13

LL Sample # WW 7220902
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 10/01/2013 09:45 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-SEB2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
00259	Mercury	SW-846 7470A 7439-97-6	mg/l 0.000060 U	mg/l 0.000060	mg/l 0.00020	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	GC/MS Volatiles	SW-846 8260B	1	T132851AA	10/12/2013 06:59	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T132851AA	10/12/2013 06:59	Anita M Dale	1
04678	GC/MS Semivolatiles	SW-846 8270C	1	132777WAH026	10/11/2013 01:25	Catherine E Bachman	1
00813	BNA Water Extraction	SW-846 3510C	1	132777WAH026	10/05/2013 08:30	Katheryne V Sponheimer	1
07044	Antimony	SW-846 6010B	1	132745705004	10/10/2013 08:17	Tara L Snyder	1
07035	Arsenic	SW-846 6010B	1	132745705004	10/10/2013 08:17	Tara L Snyder	1
07047	Beryllium	SW-846 6010B	1	132745705004	10/10/2013 08:17	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132745705004	10/10/2013 08:17	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132745705004	10/10/2013 08:17	Tara L Snyder	1
07053	Copper	SW-846 6010B	1	132745705004	10/10/2013 08:17	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132745705004	10/10/2013 08:17	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132745705004	10/10/2013 08:17	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132745705004	10/10/2013 08:17	Tara L Snyder	1
07072	Zinc	SW-846 6010B	1	132745705004	10/10/2013 08:17	Tara L Snyder	1
06041	Selenium	SW-846 6020	1	132776050001B	10/05/2013 23:52	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	132765713003	10/07/2013 11:18	Damary Valentin	1
05705	WW/TL SW 846 ICP Digest (tot)	SW-846 3010A	1	132745705004	10/03/2013 09:06	James L Mertz	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132776050001	10/05/2013 07:33	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132765713003	10/04/2013 18:10	Nelli S Markaryan	1

*=This limit was used in the evaluation of the final result

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TARGETED LIBRARY SEARCH

EPA SAMPLE NO.

Lab Name: Lancaster Laboratories	Contract: _____	_____
Lab Code: LANCAS	Case No.: _____	SAS No.: _____
Matrix: (soil/water) WATER	Lab Sample ID: 7220902	SDG No.: _____
Sample wt/vol: 5.0 (g/mL)mL	Lab File ID: SH08363.i/13oct12a.b/tc12s04.d	
Level: (low/med) LOW	Date Received: 10/02/13	
% Moisture: not dec.	Date Analyzed: 10/12/13	
Column: (pack/cap) CAP	Dilution Factor: 1.0	
	CONCENTRATION UNITS:	
	(ug/L or ug/Kg) ug/L	

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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page 1 of 1

FORM I VOA-TIC

Sample Description: TB-100113-BSS-2 Blank Water
REM INV BSS 9/13

LL Sample # WW 7220903
LL Group # 1423141
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 10/01/2013 09:55 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/02/2013 09:40

Reported: 10/25/2013 09:11

-STB2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	
10335	Benzene	71-43-2	0.5 U	0.5	5	1
10335	Carbon Tetrachloride	56-23-5	1 U	1	5	1
10335	2-Chloro-1,3-butadiene	126-99-8	1 U	1	5	1
10335	Chloroform	67-66-3	0.8 U	0.8	5	1
10335	1,3-Dichlorobutene-2 (total)	926-57-8	1 U	1	5	1
10335	Dichlorodifluoromethane	75-71-8	2 U	2	5	1
10335	1,1-Dichloroethane	75-34-3	1 U	1	5	1
10335	cis-1,2-Dichloroethene	156-59-2	0.8 U	0.8	5	1
10335	trans-1,2-Dichloroethene	156-60-5	0.8 U	0.8	5	1
10335	Dichlorofluoromethane	75-43-4	2 U	2	5	1
10335	Freon 113	76-13-1	2 U	2	10	1
10335	Tetrachloroethene	127-18-4	0.8 U	0.8	5	1
10335	Tetrahydrofuran	109-99-9	4 U	4	10	1
10335	Toluene	108-88-3	0.7 U	0.7	5	1
10335	1,1,1-Trichloroethane	71-55-6	0.8 U	0.8	5	1
10335	Trichloroethene	79-01-6	1 U	1	5	1
10335	Trichlorofluoromethane	75-69-4	2 U	2	5	1
10335	Vinyl Chloride	75-01-4	1 U	1	5	1

A targeted library search was performed yielding the following results:
chlorodifluoromethane and 1,3-dichlorobutene-2 (total) are non-detect.

00880 Targeted Library Search (VOC)

The results from the volatile library search are listed on the attached FORM 1 - VOA-TIC. The qualifiers appearing in the "Q" column are defined on the back of this form.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	GC/MS Volatiles	SW-846 8260B	1	T132851AA	10/12/2013 07:23	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T132851AA	10/12/2013 07:23	Anita M Dale	1

*=This limit was used in the evaluation of the final result

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TARGETED LIBRARY SEARCH

EPA SAMPLE NO.

! _____!
! -STB2!
! _____!

Lab Name: Lancaster Laboratories Contract: _____
Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: 7220903
Sample wt/vol: 5.0 (g/mL)mL Lab File ID: SH08363.i/13oct12a.b/tc12s05.d
Level: (low/med) LOW Date Received: 10/02/13
% Moisture: not dec. Date Analyzed: 10/12/13
Column: (pack/cap) CAP Dilution Factor: 1.0
CONCENTRATION UNITS:
Number TICs found: 0 (ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co
Reported: 10/25/13 at 09:11 AM

Group Number: 1423141

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: T132851AA Sample number(s): 7220900-7220903									
Benzene	0.5 U	0.5	5	ug/l	113		78-120		
Carbon Tetrachloride	1 U	1.	5	ug/l	107		74-130		
2-Chloro-1,3-butadiene	1 U	1.	5	ug/l	112		73-125		
Chloroform	0.8 U	0.8	5	ug/l	112		77-122		
1,3-Dichlorobutene-2 (total)	1 U	1.	5	ug/l					
Dichlorodifluoromethane	2 U	2.	5	ug/l	68		35-122		
1,1-Dichloroethane	1 U	1.	5	ug/l	110		80-120		
cis-1,2-Dichloroethene	0.8 U	0.8	5	ug/l	101		80-120		
trans-1,2-Dichloroethene	0.8 U	0.8	5	ug/l	106		80-120		
Dichlorofluoromethane	2 U	2.	5	ug/l	112		62-125		
Freon 113	2 U	2.	10	ug/l	82		63-133		
Tetrachloroethene	0.8 U	0.8	5	ug/l	102		80-120		
Tetrahydrofuran	4 U	4.	10	ug/l	86		58-142		
Toluene	0.7 U	0.7	5	ug/l	102		80-120		
1,1,1-Trichloroethane	0.8 U	0.8	5	ug/l	105		66-126		
Trichloroethene	1 U	1.	5	ug/l	102		80-120		
Trichlorofluoromethane	2 U	2.	5	ug/l	88		65-130		
Vinyl Chloride	1 U	1.	5	ug/l	95		63-120		
Batch number: X132771AA Sample number(s): 7220887-7220892, 7220897									
Benzene	0.5 U	0.5	5	ug/kg	93		80-120		
Carbon Tetrachloride	1 U	1.	5	ug/kg	114		69-122		
2-Chloro-1,3-butadiene	1 U	1.	5	ug/kg	94		72-126		
Chloroform	1 U	1.	5	ug/kg	105		80-120		
1,3-Dichlorobutene-2 (total)	1 U	1.	5	ug/kg					
Dichlorodifluoromethane	2 U	2.	5	ug/kg	96		32-120		
1,1-Dichloroethane	1 U	1.	5	ug/kg	95		80-120		
cis-1,2-Dichloroethene	1 U	1.	5	ug/kg	96		80-120		
trans-1,2-Dichloroethene	1 U	1.	5	ug/kg	95		79-120		
Freon 113	2 U	2.	10	ug/kg	96		64-137		
Tetrachloroethene	1 U	1.	5	ug/kg	101		78-126		
Tetrahydrofuran	4 U	4.	5	ug/kg	94		64-140		
Toluene	1 U	1.	5	ug/kg	92		80-120		
1,1,1-Trichloroethane	1 U	1.	5	ug/kg	101		71-125		
Trichloroethene	1 U	1.	5	ug/kg	99		80-120		
Trichlorofluoromethane	2 U	2.	5	ug/kg	113		58-133		
Vinyl Chloride	1 U	1.	5	ug/kg	91		53-120		
Batch number: X132812AA Sample number(s): 7220893-7220895, 7220898									
Benzene	0.5 U	0.5	5	ug/kg	84		80-120		
Carbon Tetrachloride	1 U	1.	5	ug/kg	122		69-122		
2-Chloro-1,3-butadiene	1 U	1.	5	ug/kg	88		72-126		
Chloroform	1 U	1.	5	ug/kg	107		80-120		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control SummaryClient Name: CRG-E.I.DuPont de Nemours & Co
Reported: 10/25/13 at 09:11 AM

Group Number: 1423141

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
1,3-Dichlorobutene-2 (total)	1 U	1.	5	ug/kg					
Dichlorodifluoromethane	2 U	2.	5	ug/kg	105		32-120		
1,1-Dichloroethane	1 U	1.	5	ug/kg	89		80-120		
cis-1,2-Dichloroethene	1 U	1.	5	ug/kg	90		80-120		
trans-1,2-Dichloroethene	1 U	1.	5	ug/kg	87		79-120		
Freon 113	2 U	2.	10	ug/kg	91		64-137		
Tetrachloroethene	1 U	1.	5	ug/kg	99		78-126		
Tetrahydrofuran	4 U	4.	5	ug/kg	93		64-140		
Toluene	1 U	1.	5	ug/kg	84		80-120		
1,1,1-Trichloroethane	1 U	1.	5	ug/kg	115		71-125		
Trichloroethene	1 U	1.	5	ug/kg	96		80-120		
Trichlorofluoromethane	2 U	2.	5	ug/kg	129		58-133		
Vinyl Chloride	1 U	1.	5	ug/kg	84		53-120		

Batch number: X132821AA	Sample number(s): 7220899								
Benzene	0.5 U	0.5	5	ug/kg	89	91	80-120	2	30
Carbon Tetrachloride	1 U	1.	5	ug/kg	130*	128*	69-122	1	30
2-Chloro-1,3-butadiene	1 U	1.	5	ug/kg	99	101	72-126	2	30
Chloroform	1 U	1.	5	ug/kg	111	109	80-120	1	30
1,3-Dichlorobutene-2 (total)	1 U	1.	5	ug/kg					
Dichlorodifluoromethane	2 U	2.	5	ug/kg	113	116	32-120	3	30
1,1-Dichloroethane	1 U	1.	5	ug/kg	96	98	80-120	1	30
cis-1,2-Dichloroethene	1 U	1.	5	ug/kg	93	96	80-120	3	30
trans-1,2-Dichloroethene	1 U	1.	5	ug/kg	96	98	79-120	1	30
Freon 113	2 U	2.	10	ug/kg	103	105	64-137	1	30
Tetrachloroethene	1 U	1.	5	ug/kg	103	104	78-126	1	30
Tetrahydrofuran	4 U	4.	5	ug/kg	90	92	64-140	2	30
Toluene	1 U	1.	5	ug/kg	87	89	80-120	2	30
1,1,1-Trichloroethane	1 U	1.	5	ug/kg	120	121	71-125	1	30
Trichloroethene	1 U	1.	5	ug/kg	100	102	80-120	3	30
Trichlorofluoromethane	2 U	2.	5	ug/kg	132	134*	58-133	2	30
Vinyl Chloride	1 U	1.	5	ug/kg	90	94	53-120	5	30

Batch number: 13277WAH026	Sample number(s): 7220900, 7220902								
bis(2-Ethylhexyl)phthalate	2 U	2.	5	ug/l	108		78-117		
N-Nitrosodiphenylamine	0.5 U	0.5	1	ug/l	100		80-115		
Phenanthrene	0.1 U	0.1	0.5	ug/l	97		68-127		

Batch number: 13278SLG026	Sample number(s): 7220887-7220895, 7220897-7220899								
bis(2-Ethylhexyl)phthalate	67 U	67.	170	ug/kg	103		81-121		
N-Nitrosodiphenylamine	17 U	17.	33	ug/kg	92		83-118		
Phenanthrene	3 U	3.	17	ug/kg	98		85-116		

Batch number: 132745705004	Sample number(s): 7220900, 7220902								
Antimony	0.0053 U	0.0053	0.0200	mg/l	104		88-111		
Arsenic	0.0068 U	0.0068	0.0200	mg/l	106		90-113		
Beryllium	0.00067 U	0.00067	0.0050	mg/l	107		90-111		
Cadmium	0.00076 U	0.00076	0.0050	mg/l	106		90-112		
Chromium	0.0016 U	0.0016	0.0150	mg/l	103		90-110		
Copper	0.0027 U	0.0027	0.0100	mg/l	109		90-112		
Lead	0.0047 U	0.0047	0.0150	mg/l	107		88-110		
Nickel	0.0015 U	0.0015	0.0100	mg/l	108		90-111		
Silver	0.0021 U	0.0021	0.0050	mg/l	120		80-120		
Zinc	0.0020 U	0.0020	0.0200	mg/l	106		90-110		

Batch number: 132755708006 Sample number(s): 7220887-7220899

*- Outside of specification

**-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co
Reported: 10/25/13 at 09:11 AM

Group Number: 1423141

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Antimony	0.740 U	0.740	2.00	mg/kg	109		80-120		
Arsenic	0.700 U	0.700	2.00	mg/kg	104		80-120		
Beryllium	0.0670 U	0.0670	0.500	mg/kg	102		80-120		
Cadmium	0.0760 U	0.0760	0.500	mg/kg	105		80-120		
Chromium	0.160 U	0.160	1.50	mg/kg	105		80-120		
Copper	0.290 U	0.290	1.00	mg/kg	106		80-120		
Lead	0.500 U	0.500	1.50	mg/kg	109		80-120		
Nickel	0.130 U	0.130	1.00	mg/kg	107		80-120		
Silver	0.170 U	0.170	0.500	mg/kg	94		80-120		
Zinc	0.533 J	0.200	2.00	mg/kg	105		80-120		
Batch number: 132755708006B	Sample number(s): 7220887-7220899								
Selenium	0.100 U	0.100	0.400	mg/kg	111		80-120		
Batch number: 132755711004	Sample number(s): 7220887-7220899								
Mercury	0.0100 U	0.0100	0.100	mg/kg	97		80-120		
Batch number: 132755713005	Sample number(s): 7220900								
Mercury	0.000060 U	0.00006	0.00020	mg/l	99		80-120		
Batch number: 132765713003	Sample number(s): 7220902								
Mercury	0.000060 U	0.00006	0.00020	mg/l	100		80-120		
Batch number: 132776050001B	Sample number(s): 7220900,7220902								
Selenium	0.00050 U	0.00050	0.0020	mg/l	103		90-120		
Batch number: 13281820006A	Sample number(s): 7220887-7220899								
Moisture					100		99-101		
Moisture					100		99-101		
Moisture Duplicate					100		99-101		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: T132851AA	Sample number(s): 7220900-7220903 UNSPK: P222208								
Benzene	116	117	72-134	1	30				
Carbon Tetrachloride	121	121	72-135	0	30				
2-Chloro-1,3-butadiene	123	122	75-146	1	30				
Chloroform	115	114	81-134	0	30				
Dichlorodifluoromethane	95	96	52-129	1	30				
1,1-Dichloroethane	92 (2)	102 (2)	84-129	1	30				
cis-1,2-Dichloroethene	98 (2)	113 (2)	80-141	2	30				
trans-1,2-Dichloroethene	108	109	81-142	1	30				
Dichlorofluoromethane	115	114	62-138	2	30				
Freon 113	118	115	89-148	2	30				
Tetrachloroethene	109	112	80-128	2	30				
Tetrahydrofuran	79	77	47-150	2	30				

*- Outside of specification

**.-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co

Group Number: 1423141

Reported: 10/25/13 at 09:11 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Toluene	105	107	80-125	2	30				
1,1,1-Trichloroethane	71 (2)	90 (2)	69-140	1	30				
Trichloroethene	106	106	88-133	0	30				
Trichlorofluoromethane	108	105	64-146	3	30				
Vinyl Chloride	97	97	66-133	0	30				
Batch number: X132771AA Sample number(s): 7220887-7220892,7220897 UNSPK: P220826									
Benzene	98	95	55-143	0	30				
Carbon Tetrachloride	131	123	45-153	3	30				
2-Chloro-1,3-butadiene	104	99	51-152	2	30				
Chloroform	114	109	61-142	2	30				
Dichlorodifluoromethane	125	113	26-151	7	30				
1,1-Dichloroethane	103	97	63-142	3	30				
cis-1,2-Dichloroethene	102	98	53-146	1	30				
trans-1,2-Dichloroethene	102	99	51-153	1	30				
Freon 113	112	105	56-156	3	30				
Tetrachloroethene	109	106	42-149	0	30				
Tetrahydrofuran	98	102	53-163	7	30				
Toluene	98	97	50-146	2	30				
1,1,1-Trichloroethane	115	107	52-146	4	30				
Trichloroethene	106	103	53-144	0	30				
Trichlorofluoromethane	140	125	47-163	9	30				
Vinyl Chloride	114	101	50-154	9	30				
Batch number: X132812AA Sample number(s): 7220893-7220895,7220898 UNSPK: 7220893									
Benzene	80	92	55-143	2	30				
Carbon Tetrachloride	129	139	45-153	4	30				
2-Chloro-1,3-butadiene	93	111	51-152	7	30				
Chloroform	114	129	61-142	1	30				
Dichlorodifluoromethane	142	192*	26-151	19	30				
1,1-Dichloroethane	96	100	63-142	7	30				
cis-1,2-Dichloroethene	90	101	53-146	0	30				
trans-1,2-Dichloroethene	94	101	51-153	3	30				
Freon 113	111	155	56-156	22	30				
Tetrachloroethene	81	81	42-149	8	30				
Tetrahydrofuran	84	88	53-163	7	30				
Toluene	83	132	50-146	31*	30				
1,1,1-Trichloroethane	128	144	52-146	1	30				
Trichloroethene	91	103	53-144	1	30				
Trichlorofluoromethane	153	187*	47-163	9	30				
Vinyl Chloride	107	143	50-154	18	30				
Batch number: X132821AA Sample number(s): 7220899 UNSPK: P227831 BKG: P227832									
Benzene	103		55-143			0.4	U	0.4	U 0 (1) 30
Carbon Tetrachloride	163*		45-153			0.9	U	0.8	U 0 (1) 30
2-Chloro-1,3-butadiene	121		51-152			0.9	U	0.8	U 0 (1) 30
Chloroform	129		61-142			0.9	U	0.8	U 0 (1) 30
Dichlorodifluoromethane	134		26-151			2	U	2	U 0 (1) 30
1,1-Dichloroethane	112		63-142			0.9	U	0.8	U 0 (1) 30
cis-1,2-Dichloroethene	109		53-146			0.9	U	0.8	U 0 (1) 30
trans-1,2-Dichloroethene	116		51-153			0.9	U	0.8	U 0 (1) 30
Freon 113	131		56-156						

*- Outside of specification

**.-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co

Group Number: 1423141

Reported: 10/25/13 at 09:11 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>Max</u>	<u>RPD</u>
Tetrachloroethene	123		42-149			0.9	U	0.8	U	0 (1)
Tetrahydrofuran	96		53-163							30
Toluene	101		50-146			0.9	U	0.8	U	0 (1)
1,1,1-Trichloroethane	144		52-146			0.9	U	0.8	U	0 (1)
Trichloroethene	120		53-144			0.9	U	0.8	U	0 (1)
Trichlorofluoromethane	167*		47-163			2	U	2	U	0 (1)
Vinyl Chloride	107		50-154			0.9	U	0.8	U	0 (1)
Batch number: 13277WAH026 Sample number(s): 7220900,7220902 UNSPK: P77WHUS										
bis(2-Ethylhexyl)phthalate	105	107	73-129	3	30					
N-Nitrosodiphenylamine	103	103	60-136	1	30					
Phenanthrene	96	97	76-112	3	30					
Batch number: 13278SLG026 Sample number(s): 7220887-7220895,7220897-7220899 UNSPK: 7220893										
bis(2-Ethylhexyl)phthalate	123	111	60-134	11	30					
N-Nitrosodiphenylamine	112	111	59-135	1	30					
Phenanthrene	93	102	34-147	9	30					
Batch number: 132745705004 Sample number(s): 7220900,7220902 UNSPK: P219306 BKG: P219306										
Antimony	106	106	76-122	1	20	0.0053	U	0.0053	U	0 (1)
Arsenic	109	109	81-123	0	20	0.0318		0.0322		1 (1)
Beryllium	110	109	87-114	1	20	0.00067	U	0.00067	U	0 (1)
Cadmium	105	105	83-116	0	20	0.00076	U	0.00076	U	0 (1)
Chromium	107	106	76-120	1	20	0.0530		0.0518		2 (1)
Copper	108	108	86-122	0	20	0.0028	J	0.0027	U	200* (1)
Lead	106	105	75-125	1	20	0.0047	U	0.0047	U	0 (1)
Nickel	105	104	86-115	1	20	0.0193		0.0190		1 (1)
Silver	122	122	75-125	0	20	0.0021	U	0.0021	U	0 (1)
Zinc	107	107	85-117	0	20	0.0032	J	0.0040	J	23* (1)
Batch number: 132755708006 Sample number(s): 7220887-7220899 UNSPK: 7220893 BKG: 7220893										
Antimony	208*	230*	75-125	11	20	1.63	J	1.36	J	17 (1)
Arsenic	916*	839*	75-125	7	20	5.00		3.66		31* (1)
Beryllium	99	100	83-119	2	20	0.0709	J	0.0686	J	3 (1)
Cadmium	115	113	75-125	1	20	0.0738	U	0.0745	U	0 (1)
Chromium	245*	222*	75-125	9	20	2.40		2.46		3 (1)
Copper	12192	10366	75-125	14	20	176		130		31*
	(2)	(2)								
Lead	151*	136*	75-125	9	20	2.07		2.42		16 (1)
Nickel	183*	165*	75-125	9	20	2.83		2.61		8 (1)
Silver	95	96	75-125	1	20	0.165	U	0.167	U	0 (1)
Zinc	264*	238*	75-125	9	20	9.13		8.79		4 (1)
Batch number: 132755708006B Sample number(s): 7220887-7220899 UNSPK: 7220893 BKG: 7220893										
Selenium	107	107	75-125	1	20	0.158	J	0.0980	U	200* (1)
Batch number: 132755711004 Sample number(s): 7220887-7220899 UNSPK: 7220893 BKG: 7220893										
Mercury	118	118	80-120	0	20	0.0096	U	0.0095	U	0 (1)
Batch number: 132755713005 Sample number(s): 7220900 UNSPK: P221105 BKG: P221105										
Mercury	96	96	80-120	0	20	0.000060	U	0.000060	U	0 (1)

*- Outside of specification

**-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co

Group Number: 1423141

Reported: 10/25/13 at 09:11 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 132765713003	Sample number(s): 7220902 UNSPK: P222137 BKG: P222137								
Mercury	103	102	80-120	0	20	0.000060 U	0.000060 U	0 (1)	20
Batch number: 132776050001B	Sample number(s): 7220900, 7220902 UNSPK: P221105 BKG: P221105								
Selenium	99	100	75-125	2	20	0.00050 U	0.00050 U	0 (1)	20
Batch number: 13281820006A	Sample number(s): 7220887-7220899 BKG: 7220893								
Moisture						19.6	20.0	2	5
Moisture						19.6	20.0	2	5
Moisture Duplicate						19.6	20.0	2	5

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: GC/MS Volatiles

Batch number: T132851AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7220900	100	103	95	95
7220901	100	102	95	95
7220902	99	104	96	94
7220903	100	100	97	96
Blank	101	102	93	93
LCS	100	105	95	95
MS	101	100	95	96
MSD	102	100	97	98
Limits:	80-116	77-113	80-113	78-113

Analysis Name: TCL Volatiles

Batch number: X132771AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7220887	110	99	105	86
7220888	116	100	118	75
7220889	109	100	100	94
7220890	114	102	98	95
7220891	109	101	102	91
7220892	114	105	100	90
7220897	113	102	98	95
Blank	109	98	97	100
LCS	107	99	99	102
MS	109	100	101	102
MSD	107	100	100	102
Limits:	50-141	54-135	52-141	50-131

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co

Group Number: 1423141

Reported: 10/25/13 at 09:11 AM

Surrogate Quality Control

Analysis Name: TCL Volatiles

Batch number: X132812AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7220893	121	103	99	90
7220894	120	106	110	93
7220895	118	106	109	92
7220898	119	103	105	86
Blank	119	101	97	100
LCS	116	97	98	105
MS	120	106	110	93
MSD	118	106	109	92
Limits:	50-141	54-135	52-141	50-131

Analysis Name: TCL Volatiles

Batch number: X132821AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7220899	117	106	97	96
Blank	115	100	96	98
DUP	118	109	95	102
LCS	115	100	98	105
LCSD	115	101	98	104
MS	117	101	99	107
Limits:	50-141	54-135	52-141	50-131

Analysis Name: GC/MS Semivolatiles

Batch number: 13277WAH026

	2-Fluorophenol	Phenol-d6	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
7220900	57	38	87	87	92	98
7220902	58	39	85	89	86	95
Blank	68	47	96	92	94	107
LCS	73	53	98	93	95	104
MS	70	50	95	91	93	100
MSD	67	49	98	94	95	98
Limits:	10-107	10-83	22-150	60-123	63-121	47-146

Analysis Name: TCL Semivolatiles

Batch number: 13278SLG026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
7220887				88	95	101
7220888				86	89	100
7220889				86	93	97
7220890				80	89	99
7220891				87	92	99
7220892				87	91	101
7220893	94	94	85	85	90	97
7220894	85	77	59	86	90	102
7220895	98	87	75	88	92	103
7220897				83	88	99
7220898				84	92	96

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co

Group Number: 1423141

Reported: 10/25/13 at 09:11 AM

Surrogate Quality Control

7220899				83	88	99
Blank	90	96	97	90	94	106
LCS	95	98	90	86	88	100
MS	85	77	59	86	90	102
MSD	98	87	75	88	92	103
Limits:	61-120	63-126	42-134	60-120	69-120	66-137

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Analysis Request / Environmental Services Chain of Custody

For Lancaster Laboratories Use Only

Group No.: 1423141 Sample Nos.: 7220887-903

Acc't: 07032

SF: 186263

SCR No.: 145379

Cooler No.:

Cooler Temperature upon receipt:

Container No.:

26656

[illegible]

For Lancaster Laboratories Use Only

Group No.: 1423141 Sample Nos.: 7220881-903
 Acc't: 07032 SF: 186263 SCR No.: 143349 Cooler No.: 23464 **26270**
 Cooler Temperature upon receipt: 2.0-4.6 °C Container No.: 102

Acc't: 07032

SF: 186263

SCR No.: 143349

Cooler No.

26270

Cooler Temperature upon receipt:

—

Container No.: 12

[illegible]

Analysis Request / Environmental Services Chain of Custody

For Lancaster Laboratories Use Only

Group No.: 1423141 Sample Nos.: 7220887-90

Acc't: 07032

SF: 186263

SCR No.: 145379

Cooler No.:

Cooler Temperature upon receipt: 2.0-4.6 °C

Container No.:

26656

[illegible]



2 of 2

Group No.: 1423141

Sample Nos. _____

Pos.: 7220887-903 03
No: 145379 Cooler No:

Acc't: 07032

SF: 186263

SCR No.: 145379

Cooler No.:

Cooler Temperature upon receipt:

 $^{\circ}\text{C}$

Container No.:

26656

Eurofins Lancaster Laboratories Environmental • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

For Lancaster Laboratories Use Only

Group No.: 1423141 Sample Nos.: 7220887-903
 Acc't: 07032 SF. 186263 SCR No.: 143349 Cooler No.: 23464 **26271**
 Cooler Temperature upon receipt: 20.46 °C Container No.: 122

Acc't: 07032

SF. 186263

SCR No.: 143349

Cooler No.

Cooler Temperature upon receipt:

00

Container No.

[illegible]

Analysis Request / Environmental Services Chain of Custody

For Lancaster Laboratories Use Only

Group No.: 1423141

Sample Nos.: 7720881-903

Acc't: 07032

SF: 186263

SCR No.: 145379.

Cooler No.:

Cooler Temperature upon receipt:

Container No.:

26654

[illegible]



3 of 3

Group No.: 1423141 Sample Nos.: 7220887-903

Acc't: 07032

SF: 186263

SCR No.: 145379

Cooler No.:

Cooler Temperature upon receipt:

Container No.:

26656

[illegible]

Analysis Request / Environmental Services Chain of Custody

For Lancaster Laboratories Use Only

Group No.: 142341 Sample Nos.: 7220887-903

Acc't: 07032 SF: 186263 SCR No.: 145379

Cooler No.: 105

26655

Cooler Temperature upon receipt: 2.0-4.6 °C

Container No.: 122

[illegible]

G-1423141

Environmental Sample Administration
Receipt Documentation LogClient/Project: DupontShipping Container Sealed: YES NODate of Receipt: 10.2.13Custody Seal Present * : YES NOTime of Receipt: 940

* Custody seal was intact unless otherwise noted in the discrepancy section

Source Code: 50.1Package: Chilled Not Chilled

Temperature of Shipping Containers

Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DH46	2.0	TB	WI	X	B	
2	↓	4.6	↓	↓	↓	↓	
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

BSS08 1-3 Time = 1515 on EncoresEB1001 13 BSS-2 vial Times = 950EIS-093013-BSS1 1 metals Time = 1950Unpacker Signature/Emp#: Burns 2299 Date/Time: 10.2.13 1024

Issued by Dept. 6042 Management

2174.06

Bus
2299
③
10.2.13

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

October 24, 2013

Project: MTG - REM INV BSS

Submittal Date: 10/14/2013

Group Number: 1426040

PO Number: LBIO-66380

State of Sample Origin: MI

Client Sample DescriptionRI0913-2013BSS-01-7 Soil
RI0913-2013BSS-02-6 Soil
RI0913-2013BSS-03-3.5 Soil
RI0913-2013BSS-04-2 Soil
RI0913-2013BSS-05-3.25 Soil
RI0913-2013BSS-05-3.25-D Soil
RI0913-2013BSS-06-3 Soil
RI0913-2013BSS-06-3 MS Soil
RI0913-2013BSS-06-3 MSD Soil
RI0913-2013BSS-07-2 Soil
RI0913-2013BSS-08-1 Soil
RI0913-2013BSS-09-1.5 SoilLancaster Labs (LL) #7235206
7235207
7235208
7235209
7235210
7235211
7235212
7235213
7235214
7235215
7235216
7235217

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Respectfully Submitted,



Nancy Jean Bornholm
Principal Specialist

(717) 556-7250

Sample Description: RI0913-2013BSS-01-7 Soil
REM INV BSS 9/13

LL Sample # SW 7235206
LL Group # 1426040
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 10/01/2013 08:20 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/14/2013 08:25

Reported: 10/24/2013 13:42

SS017

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles						
10237	Chlorodifluoromethane	75-45-6	2 U	2 ug/kg	11 ug/kg	0.87
Wet Chemistry						
07801	Moisture (Re-Entry)	n.a.	17.8 %	0.50 %	0.50 %	1

General Sample Comments

This sample was originally submitted to the laboratory on 10/02/13 at 09:40. We received authorization for further testing on 10/14/13.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	8260 Ext. Soil Master w/GRO	SW-846 8260B	1	X132871AA	10/14/2013 18:09	Chelsea B Stong	0.87
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201328732749	10/02/2013 14:40	Mitchell R Washel	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201328732749	10/02/2013 14:40	Mitchell R Washel	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201328732749	10/02/2013 14:40	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201328732745	10/02/2013 14:39	Mitchell R Washel	n.a.
07801	Moisture (Re-Entry)	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-02-6 Soil
REM INV BSS 9/13

LL Sample # SW 7235207
LL Group # 1426040
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 17:15 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/14/2013 08:25

Reported: 10/24/2013 13:42

SS026

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles						
10237	Chlorodifluoromethane	75-45-6	2 U	2 ug/kg	11 ug/kg	0.94
Wet Chemistry						
07801	Moisture (Re-Entry)	n.a.	12.3 %	0.50 %	0.50 %	1

General Sample Comments

This sample was originally submitted to the laboratory on 10/02/13 at 09:40. We received authorization for further testing on 10/14/13.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	8260 Ext. Soil Master w/GRO	SW-846 8260B	1	X132871AA	10/14/2013 18:32	Chelsea B Stong	0.94
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201328732749	10/02/2013 14:12	Mitchell R Washel	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201328732749	10/02/2013 14:12	Mitchell R Washel	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201328732749	10/02/2013 14:13	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201328732749	10/02/2013 14:12	Mitchell R Washel	n.a.
07801	Moisture (Re-Entry)	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-03-3.5 Soil
REM INV BSS 9/13

LL Sample # SW 7235208
LL Group # 1426040
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 10/01/2013 09:20 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/14/2013 08:25

Reported: 10/24/2013 13:42

SS033

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles						
10237	Chlorodifluoromethane	75-45-6	2 U	2 ug/kg	10 ug/kg	0.9
Wet Chemistry						
07801	Moisture (Re-Entry)	n.a.	9.3 %	0.50 %	0.50 %	1

General Sample Comments

This sample was originally submitted to the laboratory on 10/02/13 at 09:40. We received authorization for further testing on 10/14/13.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	8260 Ext. Soil Master w/GRO	SW-846 8260B	1	X132871AA	10/14/2013 18:55	Chelsea B Stong	0.9
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201328732749	10/02/2013 14:42	Mitchell R Washel	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201328732749	10/02/2013 14:43	Mitchell R Washel	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201328732749	10/02/2013 14:43	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201328732749	10/02/2013 14:42	Mitchell R Washel	n.a.
07801	Moisture (Re-Entry)	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-04-2 Soil
REM INV BSS 9/13

LL Sample # SW 7235209
LL Group # 1426040
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 16:45 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/14/2013 08:25

Reported: 10/24/2013 13:42

SS042

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles						
10237	Chlorodifluoromethane	75-45-6	2 U	2 ug/kg	11 ug/kg	1.06
Wet Chemistry						
07801	Moisture (Re-Entry)	n.a.	1.7 %	0.50 %	0.50 %	1

General Sample Comments

This sample was originally submitted to the laboratory on 10/02/13 at 09:40. We received authorization for further testing on 10/14/13.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	8260 Ext. Soil Master w/GRO	SW-846 8260B	1	X132871AA	10/14/2013 19:18	Chelsea B Stong	1.06
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201328732749	10/02/2013 12:50	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201328732749	10/02/2013 12:50	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201328732749	10/02/2013 12:51	Stephanie A Sanchez	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201328732749	10/02/2013 12:50	Stephanie A Sanchez	n.a.
07801	Moisture (Re-Entry)	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-05-3.25 Soil
REM INV BSS 9/13

LL Sample # SW 7235210
LL Group # 1426040
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 10/01/2013 08:50 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/14/2013 08:25

Reported: 10/24/2013 13:42

SS053

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles						
10237	Chlorodifluoromethane	SW-846 8260B 75-45-6	ug/kg 2 U	ug/kg 2	ug/kg 10	0.91
Wet Chemistry						
07801	Moisture (Re-Entry)	SM 2540 G-1997 n.a.	% 4.9	% 0.50	% 0.50	1

General Sample Comments

This sample was originally submitted to the laboratory on 10/02/13 at 09:40. We received authorization for further testing on 10/14/13.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	8260 Ext. Soil Master w/GRO	SW-846 8260B	1	X132871AA	10/14/2013 19:40	Chelsea B Stong	0.91
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201328732749	10/02/2013 14:46	Mitchell R Washel	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201328732749	10/02/2013 14:46	Mitchell R Washel	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201328732749	10/02/2013 14:46	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201328732749	10/02/2013 14:45	Mitchell R Washel	n.a.
07801	Moisture (Re-Entry)	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-05-3.25-D Soil
REM INV BSS 9/13

LL Sample # SW 7235211
LL Group # 1426040
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 10/01/2013 08:50 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/14/2013 08:25

Reported: 10/24/2013 13:42

SS05D

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles						
10237	Chlorodifluoromethane	75-45-6	2 U	2 ug/kg	10 ug/kg	0.98
Wet Chemistry						
07801	Moisture (Re-Entry)	n.a.	4.9 %	0.50 %	0.50 %	1

General Sample Comments

This sample was originally submitted to the laboratory on 10/02/13 at 09:40. We received authorization for further testing on 10/14/13.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	8260 Ext. Soil Master w/GRO	SW-846 8260B	1	X132871AA	10/14/2013 20:03	Chelsea B Stong	0.98
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201328732749	10/02/2013 14:49	Mitchell R Washel	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201328732749	10/02/2013 14:49	Mitchell R Washel	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201328732749	10/02/2013 14:50	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201328732749	10/02/2013 14:49	Mitchell R Washel	n.a.
07801	Moisture (Re-Entry)	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-06-3 Soil
REM INV BSS 9/13

LL Sample # SW 7235212
LL Group # 1426040
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 15:45 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/14/2013 08:25

Reported: 10/24/2013 13:42

SS063

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles						
10237	Chlorodifluoromethane	SW-846 8260B 75-45-6	ug/kg 2 U	ug/kg 2	ug/kg 11	0.92
Wet Chemistry						
07801	Moisture (Re-Entry)	SM 2540 G-1997 n.a.	% 19.6	% 0.50	% 0.50	1

General Sample Comments

This sample was originally submitted to the laboratory on 10/02/13 at 09:40. We received authorization for further testing on 10/14/13.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	8260 Ext. Soil Master w/GRO	SW-846 8260B	1	X132871AA	10/14/2013 20:26	Chelsea B Stong	0.92
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201328732749	10/02/2013 12:53	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201328732749	10/02/2013 12:53	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201328732749	10/02/2013 12:53	Stephanie A Sanchez	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201328732749	10/02/2013 12:52	Stephanie A Sanchez	n.a.
07801	Moisture (Re-Entry)	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-06-3 MS Soil
REM INV BSS 9/13

LL Sample # SW 7235213
LL Group # 1426040
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 15:45 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/14/2013 08:25

Reported: 10/24/2013 13:42

SS063

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles						
10237	Chlorodifluoromethane	SW-846 8260B 75-45-6	ug/kg 42	ug/kg 3	ug/kg 15	1.21
Wet Chemistry						
07801	Moisture (Re-Entry)	SM 2540 G-1997 n.a.	% 19.6	% 0.50	% 0.50	1

General Sample Comments

This sample was originally submitted to the laboratory on 10/02/13 at 09:40. We received authorization for further testing on 10/14/13.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	8260 Ext. Soil Master w/GRO	SW-846 8260B	1	X132871AA	10/14/2013 20:49	Chelsea B Stong	1.21
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201328732749	10/02/2013 12:58	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201328732749	10/02/2013 12:59	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201328732749	10/02/2013 12:59	Stephanie A Sanchez	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201328732749	10/02/2013 12:58	Stephanie A Sanchez	n.a.
07801	Moisture (Re-Entry)	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-06-3 MSD Soil
REM INV BSS 9/13

LL Sample # SW 7235214
LL Group # 1426040
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 15:45 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/14/2013 08:25

Reported: 10/24/2013 13:42

SS063

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles						
10237	Chlorodifluoromethane	SW-846 8260B 75-45-6	ug/kg 26	ug/kg 2	ug/kg 11	0.89
Wet Chemistry						
07801	Moisture (Re-Entry)	SM 2540 G-1997 n.a.	% 19.6	% 0.50	% 0.50	1

General Sample Comments

This sample was originally submitted to the laboratory on 10/02/13 at 09:40. We received authorization for further testing on 10/14/13.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	8260 Ext. Soil Master w/GRO	SW-846 8260B	1	X132871AA	10/14/2013 21:12	Chelsea B Stong	0.89
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201328732749	10/02/2013 12:55	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201328732749	10/02/2013 12:56	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201328732749	10/02/2013 12:56	Stephanie A Sanchez	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201328732749	10/02/2013 12:55	Stephanie A Sanchez	n.a.
07801	Moisture (Re-Entry)	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-07-2 Soil
REM INV BSS 9/13

LL Sample # SW 7235215
LL Group # 1426040
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 14:30 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/14/2013 08:25

Reported: 10/24/2013 13:42

SS072

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles						
10237	Chlorodifluoromethane	75-45-6	2 U	2 ug/kg	12 ug/kg	1.02
Wet Chemistry						
07801	Moisture (Re-Entry)	n.a.	17.5 %	0.50 %	0.50 %	1

General Sample Comments

This sample was originally submitted to the laboratory on 10/02/13 at 09:40. We received authorization for further testing on 10/14/13.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	8260 Ext. Soil Master w/GRO	SW-846 8260B	1	X132871AA	10/14/2013 21:35	Chelsea B Stong	1.02
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201328732749	10/02/2013 13:01	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201328732749	10/02/2013 13:01	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201328732749	10/02/2013 13:02	Stephanie A Sanchez	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201328732749	10/02/2013 13:01	Stephanie A Sanchez	n.a.
07801	Moisture (Re-Entry)	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-08-1 Soil
REM INV BSS 9/13

LL Sample # SW 7235216
LL Group # 1426040
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 15:10 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/14/2013 08:25

Reported: 10/24/2013 13:42

SS081

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles						
	SW-846 8260B		ug/kg	ug/kg	ug/kg	
10237	Chlorodifluoromethane	75-45-6	3 U	3	13	1.28
The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken: The sample was re-analyzed and the QC is again outside of the acceptance limits, indicating a matrix effect. The data is reported from the initial trial.						
Wet Chemistry						
	SM 2540 G-1997		%	%	%	
07801	Moisture (Re-Entry)	n.a.	4.9	0.50	0.50	1

General Sample Comments

This sample was originally submitted to the laboratory on 10/02/13 at 09:40. We received authorization for further testing on 10/14/13.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	8260 Ext. Soil Master w/GRO	SW-846 8260B	1	X132871AA	10/14/2013 21:58	Chelsea B Stong	1.28
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201328732749	10/02/2013 13:04	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201328732749	10/02/2013 13:04	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201328732749	10/02/2013 13:04	Stephanie A Sanchez	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201328732749	10/02/2013 13:04	Stephanie A Sanchez	n.a.
07801	Moisture (Re-Entry)	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: RI0913-2013BSS-09-1.5 Soil
REM INV BSS 9/13

LL Sample # SW 7235217
LL Group # 1426040
Account # 07032

Project Name: MTG - REM INV BSS

Collected: 09/30/2013 14:50 by HH

CRG-E.I.DuPont de Nemours & Co
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark DE 19713

Submitted: 10/14/2013 08:25

Reported: 10/24/2013 13:42

SS091

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles						
10237	Chlorodifluoromethane	75-45-6	2 U	2 ug/kg	10 ug/kg	0.96
Wet Chemistry						
07801	Moisture (Re-Entry)	n.a.	6.7 %	0.50 %	0.50 %	1

General Sample Comments

This sample was originally submitted to the laboratory on 10/02/13 at 09:40. We received authorization for further testing on 10/14/13.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	8260 Ext. Soil Master w/GRO	SW-846 8260B	1	X132871AA	10/14/2013 22:20	Chelsea B Stong	0.96
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201328732749	10/02/2013 13:06	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201328732749	10/02/2013 13:06	Stephanie A Sanchez	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201328732749	10/02/2013 13:06	Stephanie A Sanchez	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201328732749	10/02/2013 13:06	Stephanie A Sanchez	n.a.
07801	Moisture (Re-Entry)	SM 2540 G-1997	1	13281820006A	10/08/2013 23:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control SummaryClient Name: CRG-E.I.DuPont de Nemours & Co
Reported: 10/24/13 at 01:42 PM

Group Number: 1426040

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: X132871AA Chlorodifluoromethane	Sample number(s): 7235206-7235217 2 U 2. 10			ug/kg	88		70-130		
Batch number: 13281820006A Moisture (Re-Entry)	Sample number(s): 7235206-7235217				100		99-101		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: X132871AA Chlorodifluoromethane	Sample number(s): 7235206-7235217 UNSPK: 7235212 139* 119 70-130 46* 30								
Batch number: 13281820006A Moisture (Re-Entry)	Sample number(s): 7235206-7235217 BKG: P220893 19.6 20.0 2 15								

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: TCL Volatiles
Batch number: X132871AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7235206	116	100	100	88
7235207	115	103	107	81
7235208	117	103	98	93
7235209	117	102	96	96
7235210	114	101	99	95
7235211	122	103	100	91
7235212	118	101	97	91
7235213	128	114	112	71
7235214	113	99	98	93
7235215	117	101	96	98

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co

Group Number: 1426040

Reported: 10/24/13 at 01:42 PM

Surrogate Quality Control

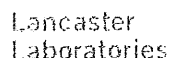
7235216	135	117	112	71
7235217	112	100	102	92
Blank	118	101	96	99
LCS	117	101	96	99
MS	128	114	112	71
MSD	113	99	98	93
Limits:	50-141	54-135	52-141	50-131

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

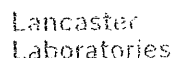


1 of 2

Container No.: 26

26656

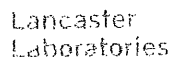
[illegible]



2 of 2

For Lancaster Laboratories Use Only
Group No.: 1423141 Sample Nos.: 7220887-923
Acc't: 07032 SF: 186263 SCR No.: 145379 Cooler No.: 1031
Cooler Temperature upon receipt: 2.0-4.6 °C Container No.: 122 **26656**

[illegible]



2 of 3

1426040
For Lancaster Laboratories Use Only

For Lancaster Laboratories Use Only
Group No.: 1423141 ^{AKU} _{SA}

Sample Nos.: 7220887-90

Acc't: 07032

SF: 186263

SCR No.: 145379

Cooler No.:

Cooler Temperature upon receipt:

Container No.: _____

26656

[illegible]

Environmental Sample Administration
Receipt Documentation Log

Client/Project: Dupont

Shipping Container Sealed: YES NO

Date of Receipt: 10.2.13

Custody Seal Present *: YES NO

Time of Receipt: 940

* Custody seal was intact unless otherwise noted in the discrepancy section

Source Code: 50.1

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DH46	2.0	TB	WI	X	B	
2	↓	4.6	↓	↓	↓	↓	
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

BSS08 1-3 Time = 1515 ON ENCORES
EB1001 13 BSS-2 vial Times = 950
EB-093013-BSS1 1 metals Time = 1250

Unpacker Signature/Emp#: Burmy 2299 Date/Time: 10.2.13 1024

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Appendix H

ProUCL Output

Former Basin Sludge Storage Area
Arsenic, ProUCL Output

UCL Statistics for Uncensored Full Data Sets				
User Selected Options				
Date/Time of Computation	2/20/2014 10:32:11 PM			
From File	WorkSheet.xls			
Full Precision	OFF			
Confidence Coefficient	95%			
Number of Bootstrap Operations	2000			
Arsenic				
General Statistics				
Total Number of Observations	12	Number of Distinct Observations	12	
		Number of Missing Observations	0	
Minimum	1.26	Mean	2.275	
Maximum	6.21	Median	1.845	
SD	1.336	Std. Error of Mean	0.386	
Coefficient of Variation	0.587	Skewness	2.675	
Normal GOF Test				
Shapiro Wilk Test Statistic	0.669	Shapiro Wilk GOF Test		
5% Shapiro Wilk Critical Value	0.859	Data Not Normal at 5% Significance Level		
Lilliefors Test Statistic	0.278	Lilliefors GOF Test		
5% Lilliefors Critical Value	0.256	Data Not Normal at 5% Significance Level		
Data Not Normal at 5% Significance Level				
Assuming Normal Distribution				
95% Normal UCL		95% UCLs (Adjusted for Skewness)		
95% Student's-t UCL	2.968	95% Adjusted-CLT UCL (Chen-1995)	3.228	
		95% Modified-t UCL (Johnson-1978)	3.017	
Gamma GOF Test				
A-D Test Statistic	0.852	Anderson-Darling Gamma GOF Test		
5% A-D Critical Value	0.732	Data Not Gamma Distributed at 5% Significance Level		
K-S Test Statistic	0.206	Kolmogrov-Smirnoff Gamma GOF Test		
5% K-S Critical Value	0.246	Detected data appear Gamma Distributed at 5% Significance Level		
Detected data follow Appr. Gamma Distribution at 5% Significance Level				
Gamma Statistics				
k hat (MLE)	5.031	k star (bias corrected MLE)	3.829	
Theta hat (MLE)	0.452	Theta star (bias corrected MLE)	0.594	
nu hat (MLE)	120.7	nu star (bias corrected)	91.9	
MLE Mean (bias corrected)	2.275	MLE Sd (bias corrected)	1.163	
		Approximate Chi Square Value (0.05)	70.79	
Adjusted Level of Significance	0.029	Adjusted Chi Square Value	67.97	
Assuming Gamma Distribution				
95% Approximate Gamma UCL (use when n>=50)	2.953	95% Adjusted Gamma UCL (use when n<50)	3.076	

Arsenic, ProUCL Output

Lognormal GOF Test					
Shapiro Wilk Test Statistic		0.864	Shapiro Wilk Lognormal GOF Test		
5% Shapiro Wilk Critical Value		0.859	Data appear Lognormal at 5% Significance Level		
Lilliefors Test Statistic		0.17	Lilliefors Lognormal GOF Test		
5% Lilliefors Critical Value		0.256	Data appear Lognormal at 5% Significance Level		
Data appear Lognormal at 5% Significance Level					
Lognormal Statistics					
Minimum of Logged Data		0.231	Mean of logged Data		0.719
Maximum of Logged Data		1.826	SD of logged Data		0.43
Assuming Lognormal Distribution					
95% H-UCL		2.94	90% Chebyshev (MVUE) UCL		3.079
95% Chebyshev (MVUE) UCL		3.462	97.5% Chebyshev (MVUE) UCL		3.994
99% Chebyshev (MVUE) UCL		5.039			
Nonparametric Distribution Free UCL Statistics					
Data appear to follow a Discernible Distribution at 5% Significance Level					
Nonparametric Distribution Free UCLs					
95% CLT UCL		2.91	95% Jackknife UCL		2.968
95% Standard Bootstrap UCL		2.876	95% Bootstrap-t UCL		4.045
95% Hall's Bootstrap UCL		5.637	95% Percentile Bootstrap UCL		2.91
95% BCA Bootstrap UCL		3.341			
90% Chebyshev(Mean, Sd) UCL		3.432	95% Chebyshev(Mean, Sd) UCL		3.957
97.5% Chebyshev(Mean, Sd) UCL		4.684	99% Chebyshev(Mean, Sd) UCL		6.113
Suggested UCL to Use					
95% Adjusted Gamma UCL		3.076			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.					
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)					
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.					
For additional insight the user may want to consult a statistician.					
Data Set					
Location	Result (mg/kg)				
11BSSS-01	1.26 J				
11BSSS-02	2.29 J				
11BSSS-03	2.10 J				
2013BSS-01	1.75 J				
2013BSS-02	1.94 J				
2013BSS-03	1.71 J				
2013BSS-04	1.41 J				
2013BSS-05	1.72 J				
2013BSS-06	6.21 J				
2013BSS-07	1.42 J				
2013BSS-08	2.46 J				
2013BSS-09	3.03 J				