TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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ANALYTICAL REPORT

CHECKED FOR COMPLETENESS OF PARAMETERS ORDERED BY: Troy Cunningham 2-16-11

Job Number: 360-24665-3

SDG Number: OCRI-17B

Job Description: Olin Chemical Superfund Site

For:
Olin Corporation
3855 North Ocoee Street
Suite 200
Cleveland, TN 37312-4441

Attention: Mr. Steven Morrow

Joseph A. Chimi

Approved for release.
Joe Chimi
Report Production Representative
12/29/09 1:52 PM

Designee for
Becky C Mason
Project Manager II
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12/29/2009

Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all NELAC requirements for accredited parameters, exceptions are noted in this report. Pursuant to NELAC, this report may not be reproduced except in full, and with written approval from the laboratory. TestAmerica Westfield Certifications and Approvals: MADEP MA014, RIDOH57, CTDPH 0494, VT DECWSD, NH DES 2539, NELAP FL E87912 TOX, NELAP NJ MA008 TOX, NELAP NY 10843, NY ELAP 10843, North Carolina 647, NELAP PA 68-04386. Field sampling is performed under SOPs WE-FLD-001 and WE-FLD-002.

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ACCREDITED IN ACCORDANCE WITH nelac

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CASE NARRATIVE

Client: Olin Corporation

Project: Olin Chemical Superfund Site

Report Number: 360-24665-3

Samples were analyzed in accordance with analytical methods, SOPs, and QA/QC goals described in the Olin Chemical Superfund Site Remedial Investigation /Feasibility Study Work Plan Volume III-B Quality Assurance Project Plan (QAPP) August 14, 2009. Analytical methods include USEPA published methods for the majority of analytes. Custom laboratory methods that were developed by Test America are also used for a subset of analytes as described in the QAPP. Analytical QA/QC goals from the Massachusetts Contingency Plan (MCP) Compendium of MCP Methods published by the Massachusetts Department of Environmental Protection (MassDEP) have been identified as project goals in the QAPP for those methods addressed in the Compendium. Analytical methods are run in accordance with both USEPA methodologies and MassDEP analytical guidelines. Analytical methods meet requirements of USEPA methods and MassDEP Presumptive Certainty goals unless discussed in this narrative.

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

For those methods contained in the MassDEP Compendium, a separate MCP Analytical Method Report Certification Form is included for each method requested.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may be greater than project QLs identified in the QAPP. Such increases in the RLs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes which exceed the calibration range.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 09/17/2009; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.2 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2 C of the required temperature or method specified range. For samples with a specified temperature of 4 C, samples with a temperature ranging from just above freezing temperature of water to 6 C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

TOTAL MERCURY

Sample 360-24665-13 was analyzed for total mercury in accordance with EPA SW-846 Method 7471A. The sample was prepared on 09/22/2009 and analyzed on 09/23/2009.

All QC performance standards and recommendations, which may affect Data Usability for this specific method, were achieved.

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: Olin Corporation

Job Number: 360-24665-3
Sdg Number: OCRI-17B

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
360-24665-13	OC-SB-406-0.0/1.0-XXX	Solid	09/17/2009 1125	09/17/2009 1630

EXECUTIVE SUMMARY - Detections

Client: Olin Corporation

Job Number: 360-24665-3
Sdg Number: OCRI-17B

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
360-24665-13	**OC-SB-406-0.0/1.0-XXX**					
Mercury		0.081	J	0.41	mg/Kg	7471A

METHOD SUMMARY

Client: Olin Corporation

Job Number: 360-24665-3
Sdg Number: OCRI-17B

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Mercury (CVAA)	TAL WFD	SW846 7471A	
Preparation, Mercury	TAL WFD		SW846 7471A

Lab References:

TAL WFD = TestAmerica Westfield

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Olin Corporation

Job Number: 360-24665-3
Sdg Number: OCRI-17B

Method	Analyst	Analyst ID
SW846 7471A	Nasiatka, Ellen M	EMN

Client: Olin Corporation

Job Number: 360-24665-3
Sdg Number: OCRI-17B

Client Sample ID: **OC-SB-406-0.0/1.0-XXX**

Lab Sample ID: 360-24665-13
Client Matrix: Solid
% Moisture: 56.8

Date Sampled: 09/17/2009 1125
Date Received: 09/17/2009 1630

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 360-49362		Instrument ID:	Hg Analyzer
Preparation:	7471A	Prep Batch: 360-49277		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.21 g
Date Analyzed:	09/23/2009 0951			Final Weight/Volume:	50 mL
Date Prepared:	09/22/2009 0905				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.081	J	0.075	0.41

Client: Olin Corporation

Job Number: 360-24665-3
Sdg Number: OCRI-17B

Method Blank - Batch: 360-49277

Method: 7471A
Preparation: 7471A

Lab Sample ID: MB 360-49277/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 09/23/2009 0912
Date Prepared: 09/22/2009 0905

Analysis Batch: 360-49362
Prep Batch: 360-49277
Units: mg/Kg

Instrument ID: Leeman Labs Automated
Lab File ID: N/A
Initial Weight/Volume: 0.2 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.034	0.19

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-49277

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID: LCS 360-49277/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 09/23/2009 0914
Date Prepared: 09/22/2009 0905

Analysis Batch: 360-49362
Prep Batch: 360-49277
Units: mg/Kg

Instrument ID: Leeman Labs Automated
Lab File ID: N/A
Initial Weight/Volume: 0.2 g
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 360-49277/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 09/23/2009 0915
Date Prepared: 09/22/2009 0905

Analysis Batch: 360-49362
Prep Batch: 360-49277
Units: mg/Kg

Instrument ID: Leeman Labs Automated
Lab File ID: N/A
Initial Weight/Volume: 0.2 g
Final Weight/Volume: 50 mL

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Mercury	103	104	80 - 120	1	30		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Olin Corporation

Job Number: 360-24665-3
Sdg Number: OCRI-17B

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 360-49277

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID:	LCS 360-49277/2-A	Units:	mg/Kg	LCSD Lab Sample ID:	LCSD 360-49277/3-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Date Analyzed:	09/23/2009 0914			Date Analyzed:	09/23/2009 0915
Date Prepared:	09/22/2009 0905			Date Prepared:	09/22/2009 0905

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Mercury	1.25	1.25	1.29	1.30

Calculations are performed before rounding to avoid round-off errors in calculated results.

DATA REPORTING QUALIFIERS

Client: Olin Corporation

Job Number: 360-24665-3
Sdg Number: OCRI-17B

Lab Section	Qualifier	Description
Metals		
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Client: Olin Corporation

Job Number: 360-24665-3
Sdg Number: OCRI-17B

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 360-49277					
LCS 360-49277/2-A	Lab Control Sample	T	Solid	7471A	
LCSD 360-49277/3-A	Lab Control Sample Duplicate	T	Solid	7471A	
MB 360-49277/1-A	Method Blank	T	Solid	7471A	
360-24665-13	OC-SB-406-0.0/1.0-XXX	T	Solid	7471A	
Analysis Batch:360-49362					
LCS 360-49277/2-A	Lab Control Sample	T	Solid	7471A	360-49277
LCSD 360-49277/3-A	Lab Control Sample Duplicate	T	Solid	7471A	360-49277
MB 360-49277/1-A	Method Blank	T	Solid	7471A	360-49277
360-24665-13	OC-SB-406-0.0/1.0-XXX	T	Solid	7471A	360-49277

Report Basis
T = Total

Client: Olin Corporation

Job Number: 360-24665-3
SDG: OCRI-17B

Laboratory Chronicle

Lab ID: **360-24665-13** **Client ID:** **OC-SB-406-0.0/1.0-XXX**

Sample Date/Time: 09/17/2009 11:25 Received Date/Time: 09/17/2009 16:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:7471A	360-24665-A-13-A		360-49362	360-49277	09/22/2009 09:05	1	TAL WFD	TFB
A:7471A	360-24665-A-13-A		360-49362	360-49277	09/23/2009 09:51	1	TAL WFD	EMN

Lab ID: **MB** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:7471A	MB 360-49277/1-A		360-49362	360-49277	09/22/2009 09:05	1	TAL WFD	TFB
A:7471A	MB 360-49277/1-A		360-49362	360-49277	09/23/2009 09:12	1	TAL WFD	EMN

Lab ID: **LCS** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:7471A	LCS 360-49277/2-A		360-49362	360-49277	09/22/2009 09:05	1	TAL WFD	TFB
A:7471A	LCS 360-49277/2-A		360-49362	360-49277	09/23/2009 09:14	1	TAL WFD	EMN

Lab ID: **LCSD** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:7471A	LCSD 360-49277/3-A		360-49362	360-49277	09/22/2009 09:05	1	TAL WFD	TFB
A:7471A	LCSD 360-49277/3-A		360-49362	360-49277	09/23/2009 09:15	1	TAL WFD	EMN

Lab References:
TAL WFD = TestAmerica Westfield

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Westfield Job Number: 360-24665-3

SDG No.: OCRI-17B

Project: Olin Chemical Superfund Site

Client Sample ID	Lab Sample ID
OC-SB-406-0.0/1.0-XXX	360-24665-13

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: OC-SB-406-0.0/1.0-XXX

Lab Sample ID: 360-24665-13

Lab Name: TestAmerica Westfield

Job No.: 360-24665-3

SDG ID.: OCRI-17B

Matrix: Solid

Date Sampled: 09/17/2009 11:25

Reporting Basis: DRY

Date Received: 09/17/2009 16:30

% Solids: 43.2

CAS No.	Analyte	Conc.	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.081	0.41	0.075	mg/Kg	J		1	7471A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Westfield Job No.: 360-24665-3

SDG No.: OCRI-17B

ICV Source: METHG1mg/L_00517 Concentration Units: ug/L

CCV Source: METHG1mg/L_00517

Analyte	ICV 360-49362/17 09/23/2009 08:37				CCV 360-49362/30 09/23/2009 09:31				CCV 360-49362/42 09/23/2009 09:58			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Hg	5.15		5.00	103	4.98		5.00	100	5.18		5.00	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Westfield Job No.: 360-24665-3

SDG No.: OCRI-17B

Concentration Units: ug/L

Analyte	RL	ICB 360-49362/19 09/23/2009 08:42		CCB 360-49362/31 09/23/2009 09:35		CCB 360-49362/43 09/23/2009 10:00			
		Found	C	Found	C	Found	C	Found	C
Hg	0.20	ND		ND		ND			

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Westfield Job No.: 360-24665-3

SDG No.: OCRI-17B

Concentration Units: mg/Kg Lab Sample ID: MB 360-49277/1-A

Instrument Code: Hg Analyzer Batch No.: 49362

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	ND			7471A

FORM III-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 360-49277/2-A

Lab Name: TestAmerica Westfield Job No.: 360-24665-3

Sample Matrix: Solid LCS Source: METHG1mg/L_00517

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	1.25	1.29		103	80	120		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 360-49277/3-A

Lab Name: TestAmerica Westfield Job No.: 360-24665-3

Sample Matrix: Solid LCS Source: METHG1mg/L_00517

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	1.30		1.25	104	80-120	1	30		7471A

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Westfield Job Number: 360-24665-3

SDG Number: OCRI-17B

Matrix: Solid Instrument ID: Hg Analyzer

Analysis Method: 7471A MDL Date: 05/20/2009 14:47

Prep Method: 7471A

Leach Method:

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Mercury		0.1	0.034

FORM IX - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Westfield Job No.: 360-24665-3

SDG No.: OCRI-17B

Preparation Method: 7471A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 360-49277/1-A	09/22/2009 09:05	49277	0.2		50
LCS 360-49277/2-A	09/22/2009 09:05	49277	0.2		50
LCSD 360-49277/3-A	09/22/2009 09:05	49277	0.2		50
360-24665-13	09/22/2009 09:05	49277	0.21		50

FORM XII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Westfield Job No.: 360-24665-3

SDG No.: OCRI-17B

Instrument ID: Hg Analyzer Method: 7471A

Start Date: 09/23/2009 08:04 End Date: 09/23/2009 13:42

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
STD01REP1 360-49362/1 IC			08:04	X																			
STD01REP2 360-49362/2 IC			08:06	X																			
STD02REP1 360-49362/3 IC			08:08	X																			
STD02REP2 360-49362/4 IC			08:10	X																			
STD03REP1 360-49362/5 IC			08:13	X																			
STD03REP2 360-49362/6 IC			08:15	X																			
STD04REP1 360-49362/7 IC			08:17	X																			
STD04REP2 360-49362/8 IC			08:19	X																			
STD05REP1 360-49362/9 IC			08:21	X																			
STD05REP2 360-49362/10 IC			08:23	X																			
STD06REP1 360-49362/11 IC			08:24	X																			
STD06REP2 360-49362/12 IC			08:26	X																			
STD01REP1 360-49362/13 IC			08:28	X																			
STD01REP2 360-49362/14 IC			08:31	X																			
STD02REP1 360-49362/15 IC			08:33	X																			
STD02REP2 360-49362/16 IC			08:35	X																			
ICV 360-49362/17	1		08:37	X																			
ZZZZZZ			08:40																				
ICB 360-49362/19	1		08:42	X																			
MB 360-49277/1-A	1	T	09:12	X																			
LCS 360-49277/2-A	1	T	09:14	X																			
LCSD 360-49277/3-A	1	T	09:15	X																			
ZZZZZZ			09:17																				
ZZZZZZ			09:19																				
ZZZZZZ			09:20																				
ZZZZZZ			09:23																				
ZZZZZZ			09:25																				
ZZZZZZ			09:27																				
ZZZZZZ			09:29																				
CCV 360-49362/30	1		09:31	X																			
CCB 360-49362/31	1		09:35	X																			
ZZZZZZ			09:37																				
ZZZZZZ			09:38																				
ZZZZZZ			09:40																				
ZZZZZZ			09:42																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Westfield Job No.: 360-24665-3

SDG No.: OCRI-17B

Instrument ID: Hg Analyzer Method: 7471A

Start Date: 09/23/2009 08:04 End Date: 09/23/2009 13:42

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			09:44																				
ZZZZZZ			09:46																				
ZZZZZZ			09:48																				
360-24665-13	1	T	09:51	X																			
ZZZZZZ			09:54																				
ZZZZZZ			09:55																				
CCV 360-49362/42	1		09:58	X																			
CCB 360-49362/43	1		10:00	X																			
ZZZZZZ			10:02																				
ZZZZZZ			10:04																				
ZZZZZZ			10:06																				
ZZZZZZ			10:08																				
ZZZZZZ			10:10																				
ZZZZZZ			10:12																				
ZZZZZZ			10:14																				
ZZZZZZ			10:16																				
ZZZZZZ			10:17																				
ZZZZZZ			10:19																				
CCV 360-49362/54			10:21																				
CCB 360-49362/55			10:23																				
ZZZZZZ			10:25																				
ZZZZZZ			10:27																				
ZZZZZZ			10:29																				
ZZZZZZ			10:31																				
ZZZZZZ			10:33																				
ZZZZZZ			10:35																				
ZZZZZZ			10:37																				
ZZZZZZ			10:40																				
ZZZZZZ			10:42																				
CCV 360-49362/65			10:44																				
CCB 360-49362/66			10:46																				
CCV 360-49362/67			12:57																				
CCB 360-49362/68			12:59																				
ZZZZZZ			13:00																				
ZZZZZZ			13:02																				
ZZZZZZ			13:04																				
ZZZZZZ			13:05																				
ZZZZZZ			13:07																				
ZZZZZZ			13:10																				
ZZZZZZ			13:12																				
ZZZZZZ			13:14																				
ZZZZZZ			13:16																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Westfield Job No.: 360-24665-3

SDG No.: OCRI-17B

Instrument ID: Hg Analyzer Method: 7471A

Start Date: 09/23/2009 08:04 End Date: 09/23/2009 13:42

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			13:18																				
CCV 360-49362/79			13:19																				
CCB 360-49362/80			13:22																				
ZZZZZZ			13:24																				
ZZZZZZ			13:26																				
ZZZZZZ			13:27																				
ZZZZZZ			13:29																				
ZZZZZZ			13:31																				
ZZZZZZ			13:33																				
ZZZZZZ			13:34																				
ZZZZZZ			13:36																				
ZZZZZZ			13:38																				
CCV 360-49362/90			13:40																				
CCB 360-49362/91			13:42																				

Prep Types

T = Total/NA

WinHg Database 1.4

File Utility Help

Protocol mercury

Dataset/Proto 09-23-09/mercury

Protocol | Line info | Cal Curve | Report | Ctrl Chart | Viewer

Reset

Calib Coeffs

New Cal

Update Coeffs

Spike Coeffs

A

B 1.73017e-5

C -3.15353e-2

Rho .999949

Type Linear

Calibrated

Accepted

Accept

Rel. Abs.
577608

Accepted

New

Include S1 Rep 1 ☑ 2 ☑ 3 ☐ 4 ☐ 5 ☐

Conc. 10.0

S	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3
01	.00000	-.036	-.036	-234	712	270	-738	-142 ?
02	.20000	.190	-.010	12798	2.03%	12981	12614	
03	.50000	.503	.003	30871	5.55%	29660	32082	
04	1.0000	1.01	.008	60103	8.77%	63831	56373	
05	5.0000	5.07	.073	295018	0.58%	296229	293806	
06	10.000	9.96	-.038	577608	0.33%	578972	576246	

Ready CAP NUM

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Standard: 1 Rep: 1 Seq: 0 08:04:15 23 Sep 09 HG
Hg .000 ppb 5275
*** Standard: 1 Rep: 2 Seq: 1 08:06:27 23 Sep 09 HG
Hg .000 ppb -1392
*** Standard: 2 Rep: 1 Seq: 2 08:08:23 23 Sep 09 HG
Hg .200 ppb 14680
*** Standard: 2 Rep: 2 Seq: 3 08:10:46 23 Sep 09 HG
Hg .200 ppb 20199
*** Standard: 3 Rep: 1 Seq: 4 08:13:10 23 Sep 09 HG
Hg .500 ppb 29659
*** Standard: 3 Rep: 2 Seq: 5 08:15:32 23 Sep 09 HG
Hg .500 ppb 32082
*** Standard: 4 Rep: 1 Seq: 6 08:17:30 23 Sep 09 HG
Hg 1.00 ppb 63831
*** Standard: 4 Rep: 2 Seq: 7 08:19:13 23 Sep 09 HG
Hg 1.00 ppb 56373
*** Standard: 5 Rep: 1 Seq: 8 08:21:18 23 Sep 09 HG
Hg 5.00 ppb 296228
*** Standard: 5 Rep: 2 Seq: 9 08:23:00 23 Sep 09 HG
Hg 5.00 ppb 293806
*** Standard: 6 Rep: 1 Seq: 10 08:24:48 23 Sep 09 HG
Hg 10.0 ppb 578971
*** Standard: 6 Rep: 2 Seq: 11 08:26:40 23 Sep 09 HG
Hg 10.0 ppb 576246
*** Standard: 1 Rep: 1 Seq: 12 08:28:51 23 Sep 09 HG
Hg .000 ppb 270
*** Standard: 1 Rep: 2 Seq: 13 08:31:57 23 Sep 09 HG
Hg .000 ppb -738

```
Line   Conc.  Units     SD/RSD      1       2       3       4       5
--------------------------------------------------------------------------------

*** Standard: 2 Rep: 1              Seq:  14      08:33:51 23 Sep 09   HG

Hg    .200    ppb      12981

*** Standard: 2 Rep: 2              Seq:  15      08:35:35 23 Sep 09   HG

Hg    .200    ppb      12614

*** Check Standard: 2  Ck2ICV       Seq:  16      08:37:49 23 Sep 09   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          103.     5.15    5.00   ppb        .000

*** Check Standard: 3  Ck3IPC       Seq:  17      08:40:05 23 Sep 09   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          104.     5.20    5.00   ppb        .000

*** Check Standard: 5  Ck5ICB       Seq:  18      08:42:36 23 Sep 09   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg         -58.6    -.059    .100   ppb        .000

*** Sample ID: MB                    Seq:  19      09:12:24 23 Sep 09   HG
                          49277
Hg   -.135    ppb       .000     -.135

================================================================================
*** Sample ID: LCS                   Seq:  20      09:14:07 23 Sep 09   HG

Hg    5.16    ppb       .000      5.16
                                                                              =
================================================================================
*** Sample ID: LCSD                  Seq:  21      09:15:48 23 Sep 09   HG

Hg    5.20    ppb       .000      5.20
                                                                              =
================================================================================
*** Sample ID: 24665A1A              Seq:  22      09:17:28 23 Sep 09   HG

Hg    .270    ppb       .000      .270
                                                                              =
================================================================================
*** Sample ID: 24665A1B              Seq:  23      09:19:14 23 Sep 09   HG
                           DU
Hg    .253    ppb       .000      .253
                                                                              =
================================================================================
*** Sample ID: 24665A1C              Seq:  24      09:20:58 23 Sep 09   HG
                           MS
Hg    5.33    ppb       .000      5.33
                                                                              =
================================================================================
*** Sample ID: 24665A2A              Seq:  25      09:23:31 23 Sep 09   HG

Hg    .409    ppb       .000      .409
                                                                              =
================================================================================
```

```
Line   Conc.  Units     SD/RSD      1       2       3       4       5
--------------------------------------------------------------------------------

*** Sample ID: 24665A3A              Seq:  26     09:25:33 23 Sep 09   HG

Hg    .093    ppb       .000      .093
                                                                                =
================================================================================
*** Sample ID: 24665A4A              Seq:  27     09:27:17 23 Sep 09   HG

Hg    .062    ppb       .000      .062
                                                                                =
================================================================================
*** Sample ID: 24665A5A              Seq:  28     09:29:12 23 Sep 09   HG

Hg    .119    ppb       .000      .119
                                                                                =
*** Check Standard: 4  Ck4CCV       Seq:  29      09:31:25 23 Sep 09   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          99.5     4.98    5.00   ppb        .000
                                                                                =
*** Check Standard: 1  Ck1CCB       Seq:  30      09:35:02 23 Sep 09   HG
Line  Flag  Found Range(+/-) Units      SD/RSD
Hg         -.041     .100     ppb        .000
                                                                                =
*** Sample ID: 24665A6A              Seq:  31     09:37:13 23 Sep 09   HG

Hg    .143    ppb       .000      .143
                                                                                =
================================================================================
*** Sample ID: 24665A7A              Seq:  32     09:38:56 23 Sep 09   HG

Hg    .107    ppb       .000      .107
                                                                                =
================================================================================
*** Sample ID: 24665A8A              Seq:  33     09:40:52 23 Sep 09   HG

Hg    .145    ppb       .000      .145
                                                                                =
================================================================================
*** Sample ID: 24665A9A              Seq:  34     09:42:56 23 Sep 09   HG

Hg    .220    ppb       .000      .220
                                                                                =
================================================================================
*** Sample ID: 24665A10A             Seq:  35     09:44:37 23 Sep 09   HG

Hg    .256    ppb       .000      .256
                                                                                =
================================================================================
*** Sample ID: 24665A11A             Seq:  36     09:46:23 23 Sep 09   HG

Hg    .164    ppb       .000      .164
                                                                                =
================================================================================
*** Sample ID: 24665A12A             Seq:  37     09:48:54 23 Sep 09   HG

Hg    .106    ppb       .000      .106
                                                                                =
================================================================================
 STL-WESTFIELD                 Folder:   09-23-09                     Page  530
                             Protocol: mercury
                            ***POST-RUN REPORT***
                                     Page 3
```

```
Line   Conc.  Units     SD/RSD      1       2       3       4       5
--------------------------------------------------------------------------------

*** Sample ID: 24665A13A             Seq:  38     09:51:14 23 Sep 09   HG

Hg    .147    ppb       .000      .147
                                                                                =
================================================================================
*** Sample ID: 24665A15A             Seq:  39     09:54:01 23 Sep 09   HG

Hg   -.011    ppb       .000     -.011
                                                                                =
================================================================================
*** Sample ID: 24665A16A             Seq:  40     09:55:46 23 Sep 09   HG

Hg    .112    ppb       .000      .112
                                                                                =
*** Check Standard: 4  Ck4CCV       Seq:  41      09:58:21 23 Sep 09   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          104.     5.18    5.00   ppb        .000
                                                                                =
*** Check Standard: 1  Ck1CCB       Seq:  42      10:00:13 23 Sep 09   HG
Line  Flag  Found Range(+/-) Units      SD/RSD
Hg      L  -.197     .100     ppb        .000
                                                                                =
*** Sample ID: 24665A17A             Seq:  43     10:02:24 23 Sep 09   HG

Hg   -.005    ppb       .000     -.005
                                                                                =
================================================================================
*** Sample ID: 24578A2G              Seq:  44     10:04:39 23 Sep 09   HG

Hg   -.108    ppb       .000     -.108
                                                                                =
================================================================================
*** Sample ID: 24678A1C              Seq:  45     10:06:42 23 Sep 09   HG

Hg    .187    ppb       .000      .187
                                                                                =
================================================================================
*** Sample ID: 24678A2C              Seq:  46     10:08:45 23 Sep 09   HG

Hg    .102    ppb       .000      .102
                                                                                =
================================================================================
*** Sample ID: 24678A3C              Seq:  47     10:10:25 23 Sep 09   HG

Hg    .080    ppb       .000      .080
                                                                                =
================================================================================
*** Sample ID: MB                    Seq:  48     10:12:11 23 Sep 09   HG
                            49278
Hg    .001    ppb       .000      .001
                                                                                =
================================================================================
*** Sample ID: LCS                   Seq:  49     10:14:05 23 Sep 09   HG

Hg    5.08    ppb       .000      5.08
                                                                                =
================================================================================
 STL-WESTFIELD                 Folder:   09-23-09                     Page  531
                             Protocol: mercury
                            ***POST-RUN REPORT***
                                     Page 4
```

```
Line   Conc.  Units     SD/RSD      1       2       3       4       5
--------------------------------------------------------------------------------

*** Sample ID: LCSD                  Seq:  50     10:16:10 23 Sep 09   HG

Hg    5.21    ppb       .000      5.21
                                                                                =
================================================================================
*** Sample ID: 24642A1B              Seq:  51     10:17:56 23 Sep 09   HG

Hg    1.31    ppb       .000      1.31
                                                                                =
================================================================================
*** Sample ID: 24642A1C              Seq:  52     10:19:41 23 Sep 09   HG
                              DU
Hg    1.61    ppb       .000      1.61
                                                                                =
*** Check Standard: 4  Ck4CCV       Seq:  53     10:21:24 23 Sep 09   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          106.     5.28    5.00   ppb        .000
                                                                                =
*** Check Standard: 1  Ck1CCB       Seq:  54     10:23:59 23 Sep 09   HG
Line  Flag  Found Range(+/-) Units      SD/RSD
Hg      L  -.115     .100     ppb        .000
                                                                                =
*** Sample ID: 24642A1D              Seq:  55     10:25:54 23 Sep 09   HG
                              MS
Hg    6.94    ppb       .000      6.94
                                                                                =
================================================================================
*** Sample ID: 24642A2B              Seq:  56     10:27:51 23 Sep 09   HG

Hg    .329    ppb       .000      .329
                                                                                =
================================================================================
*** Sample ID: 24642A3B              Seq:  57     10:29:49 23 Sep 09   HG

Hg    1.01    ppb       .000      1.01
                                                                                =
================================================================================
*** Sample ID: 24642A4B              Seq:  58     10:31:50 23 Sep 09   HG

Hg    1.77    ppb       .000      1.77
                                                                                =
================================================================================
*** Sample ID: 24642A5B              Seq:  59     10:33:35 23 Sep 09   HG

Hg    .258    ppb       .000      .258
                                                                                =
================================================================================
*** Sample ID: 24642A6B              Seq:  60     10:35:28 23 Sep 09   HG

Hg    2.08    ppb       .000      2.08
                                                                                =
================================================================================
*** Sample ID: 24525E2D              Seq:  61     10:37:13 23 Sep 09   HG

Hg    .005    ppb       .000      .005
                                                                                =
================================================================================
 STL-WESTFIELD                 Folder:   09-23-09                     Page  532
                             Protocol: mercury
                            ***POST-RUN REPORT***
                                     Page 5
```

```
Line   Conc.  Units     SD/RSD      1       2       3       4       5
--------------------------------------------------------------------------------

*** Sample ID: 24525A8F              Seq:  62     10:40:24 23 Sep 09   HG

Hg    .002    ppb       .000      .002
                                                                                =
================================================================================
*** Sample ID: 24365A6E              Seq:  63     10:42:45 23 Sep 09   HG

Hg    .128    ppb       .000      .128
                                                                                =
*** Check Standard: 4  Ck4CCV       Seq:  64      10:44:38 23 Sep 09   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          105.     5.23    5.00   ppb        .000
                                                                                =
*** Check Standard: 1  Ck1CCB       Seq:  65      10:46:24 23 Sep 09   HG
Line  Flag  Found Range(+/-) Units      SD/RSD
Hg         -.015     .100     ppb        .000
                                                                                =
*** Check Standard: 4  Ck4CCV       Seq:  66      12:57:02 23 Sep 09   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          95.8     4.79    5.00   ppb        .000
                                                                                =
*** Check Standard: 1  Ck1CCB       Seq:  67      12:59:04 23 Sep 09   HG
Line  Flag  Found Range(+/-) Units      SD/RSD
Hg         -.057     .100     ppb        .000
                                                                                =
*** Sample ID: MB                    Seq:  68     13:00:47 23 Sep 09   HG
                            49343
Hg    .134    ppb       .000      .134
                                                                                =
================================================================================
*** Sample ID: LSC                   Seq:  69     13:02:31 23 Sep 09   HG

Hg    5.24    ppb       .000      5.24
                                                                                =
================================================================================
*** Sample ID: LCSD                  Seq:  70     13:04:16 23 Sep 09   HG

Hg    5.31    ppb       .000      5.31
                                                                                =
================================================================================
*** Sample ID: 24715A5B              Seq:  71     13:05:57 23 Sep 09   HG

Hg    .495    ppb       .000      .495
                                                                                =
================================================================================
*** Sample ID: 24715A5C              Seq:  72     13:07:45 23 Sep 09   HG
                            DU
Hg    .338    ppb       .000      .338
                                                                                =
================================================================================
*** Sample ID: 24715A5D              Seq:  73     13:10:17 23 Sep 09   HG
                            MS
Hg    5.63    ppb       .000      5.63
                                                                                =
================================================================================
 STL-WESTFIELD                 Folder:   09-23-09                      Page  533
                             Protocol: mercury
                            ***POST-RUN REPORT***
Line   Conc.  Units     SD/RSD      1       2       3       4       5
--------------------------------------------------------------------------------
```

```
*** Sample ID: 24730A1B              Seq:  74     13:12:08 23 Sep 09   HG

Hg    .103    ppb       .000      .103
                                                                                =
================================================================================
*** Sample ID: 24686A3A              Seq:  75     13:14:43 23 Sep 09   HG

Hg   -.127    ppb       .000     -.127
                                                                                =
================================================================================
*** Sample ID: 24686A4A              Seq:  76     13:16:28 23 Sep 09   HG

Hg   -.026    ppb       .000     -.026
                                                                                =
================================================================================
*** Sample ID: 24686A5A              Seq:  77     13:18:12 23 Sep 09   HG

Hg    .085    ppb       .000      .085
                                                                                =
*** Check Standard: 4  Ck4CCV       Seq:  78      13:19:59 23 Sep 09   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          98.1     4.90    5.00   ppb        .000
                                                                                =
*** Check Standard: 1  Ck1CCB       Seq:  79      13:22:25 23 Sep 09   HG
Line  Flag  Found Range(+/-) Units      SD/RSD
Hg         -.086     .100     ppb        .000
                                                                                =
*** Sample ID: 24686A6A              Seq:  80     13:24:08 23 Sep 09   HG

Hg   -.125    ppb       .000     -.125
                                                                                =
================================================================================
*** Sample ID: 24686A7A              Seq:  81     13:26:03 23 Sep 09   HG

Hg   -.028    ppb       .000     -.028
                                                                                =
================================================================================
*** Sample ID: 24686A9A              Seq:  82     13:27:45 23 Sep 09   HG

Hg    .038    ppb       .000      .038
                                                                                =
================================================================================
*** Sample ID: 24686A10B             Seq:  83     13:29:37 23 Sep 09   HG

Hg    .239    ppb       .000      .239
                                                                                =
================================================================================
*** Sample ID: 24686A11B             Seq:  84     13:31:23 23 Sep 09   HG

Hg    .082    ppb       .000      .082
                                                                                =
================================================================================
*** Sample ID: 24686A13A             Seq:  85     13:33:17 23 Sep 09   HG

Hg    .020    ppb       .000      .020
                                                                                =
================================================================================
 STL-WESTFIELD                 Folder:   09-23-09                      Page  534
                             Protocol: mercury
                            ***POST-RUN REPORT***
Line   Conc.  Units     SD/RSD      1       2       3       4       5
--------------------------------------------------------------------------------
```

```
*** Sample ID: 24686A14A             Seq:  86     13:34:59 23 Sep 09   HG

Hg    .246    ppb       .000      .246
                                                                                =
================================================================================
*** Sample ID: 24686A15A             Seq:  87     13:36:42 23 Sep 09   HG

Hg    .574    ppb       .000      .574
                                                                                =
================================================================================
*** Sample ID: 24686A16A             Seq:  88     13:38:52 23 Sep 09   HG

Hg    .159    ppb       .000      .159
                                                                                =
*** Check Standard: 4  Ck4CCV       Seq:  89      13:40:35 23 Sep 09   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          102.     5.10    5.00   ppb        .000
                                                                                =
*** Check Standard: 1  Ck1CCB       Seq:  90      13:42:36 23 Sep 09   HG
Line  Flag  Found Range(+/-) Units      SD/RSD
Hg      L  -.142     .100     ppb        .000
                                                                                =
```

Metals Worksheet

Batch Number: 360-49277
Method: 7471A
Analyst: Burton, Teresa F

Date Open: Sep 22 2009 9:05AM
Batch End: Sep 22 2009 11:30AM

Lab ID	Client ID	Method Chain	Basis	Initial weight/volume of sample	Final weight/volume of sample	METHG1mg/L_00517
MB~360-49277/1		7471A, 7471A		0.2 g	50 mL	
LCS~360-49277/2		7471A, 7471A		0.2 g	50 mL	250 uL
LCSD~360-49277/3		7471A, 7471A		0.2 g	50 mL	250 uL
360-24665-A-1	OC-SS-434-0.0/1.0-XXX		T	0.22 g	50 mL	
360-24665-A-1~DU			T	0.22 g	50 mL	
360-24665-A-1~MS			T	0.21 g	50 mL	250 uL
360-24665-A-2	OC-SS-435-0.0/1.0-XXX		T	0.22 g	50 mL	
360-24665-A-3	OC-SS-436-0.0/1.0-XXX		T	0.28 g	50 mL	
360-24665-A-4	OC-SS-437-0.0/1.0-XXX		T	0.25 g	50 mL	
360-24665-A-5	OC-SS-440-0.0/1.0-XXX		T	0.21 g	50 mL	
360-24665-A-6	OC-SS-442-0.0/1.0-XXX		T	0.20 g	50 mL	
360-24665-A-7	OC-SS-449-0.0/1.0-XXX		T	0.25 g	50 mL	
360-24665-A-8	OC-SS-450-0.0/1.0-XXX		T	0.23 g	50 mL	
360-24665-A-9	OC-SS-451-0.0/1.0-XXX		T	0.26 g	50 mL	
360-24665-A-10	OC-SS-454-0.0/1.0-XXX		T	0.23 g	50 mL	
360-24665-A-11	OC-SS-455-0.0/1.0-XXX		T	0.20 g	50 mL	
360-24665-A-12	OC-SS-460-0.0/1.0-XXX		T	0.21 g	50 mL	
360-24665-A-13	OC-SB-406-0.0/1.0-XXX	7471A, 7471A	T	0.21 g	50 mL	
360-24665-A-15	OC-SB-406-8.0/10-XXX		T	0.28 g	50 mL	
360-24665-A-16	OC-SB-413-0.0/1.0-XXX		T	0.25 g	50 mL	
360-24665-A-17	OC-SB-413-1.0/5.0-XXX		T	0.27 g	50 mL	
360-24578-A-2	Composite / soil		T	0.27 g	50 mL	
360-24678-A-1	WC_PT-1		T	0.21 g	50 mL	
360-24678-A-2	WC_PT-2		T	0.20 g	50 mL	
360-24678-A-3	WC_PT-3		T	0.27 g	50 mL	

Hood ID or number: 1
Balance ID: 37037

Lot # of Nitric Acid: 432376
Lot # of hydrochloric acid: 432372

Metals Worksheet

Batch Number: 360-49277

Method: 7471A

Analyst: Burton, Teresa F

Potassium Permanganate Lot Number: 425795

Oven, Bath or Block Temperature 1: 95

Date Open: Sep 22 2009 9:05AM

Batch End: Sep 22 2009 11:30AM

Shipping and Receiving Documents

State Accreditation Matrix

Method Name	Description	State where Primary Accreditation is Carried				
		New York (NELAC)	Mass	Conn	Florida (NELAC)	North Carolina
821-R-02-012	Toxicity, Acute (48-Hour)(list upon request)				NP	
SM 4500 Cl F	Chlorine, Residual		NP			
SM 9215B	Heterotrophic Plate Count (Pour Plate Method)		P			
SM 9215E	Heterotrophic Plate Count (SimPlate)		P			
SM 9221F	E.Coli (Multiple-Tube Fermentation; EC-MUG)		P			
SM 9222B	Coliforms, Total (Membrane Filter)		P			
SM 9222D	Coliforms, Fecal (Membrane Filter)		P/NP			
SM 9223	Coliforms, Total, and E.Coli (Colilert-P/A)		P			
200.8	Metals (ICP/MS) (list upon request)	NP/P	NP/P	NP/P		
200.7 Rev 4.4	Metals (ICP)(list upon request)	NP/P	NP/P	NP/P		
6010B	Metals (ICP)(list upon request)	NP/SW		NP/SW		
245.1	Mercury (CVAA)	NP/P	NP	NP/P		
7470A	Mercury (CVAA)	NP		NP		
7471A	Mercury (CVAA)	SW		SW		
SM 2340B	Total Hardness (as CaCO3) by calculation	NP/P	NP	NP/P		
3005A	Preparation, Total Recoverable or Dissolved Metals	NP/P		NP/P		
3010A	Preparation, Total Metals	NP/P		NP/P		
3020A	Preparation, Total Metals	NP/P/SW		NP/P/SW		
3050B	Preparation, Metals	SW		SW		
504.1	EDB, DBCP and 1,2,3-TCP (GC)		P	P		
608	Organochlorine Pest/PCBs (list upon request)	NP	NP	NP		
625	Semivolatile Org Comp (GC/MS)(list upon request)	NP		NP		
3546	Microwave Extraction	SW				
3510C	Liquid-Liquid Extraction (Separatory Funnel)	NP		NP		
3540C	Soxhlet Extraction					
3550B	Ultrasonic Extraction	SW		SW		
600/4-81-045	Polychlorinated Biphenyls (PCBs) (GC)		NP	NP		
8081A	Organochlorine Pesticides (GC)(list upon request)	NP/SW		NP/SW		
8082A	PCBs by Gas Chromatography(list upon request)	NP/SW		NP/SW		
8270C	Semivolatile Comp.(GC/MS)(list upon request)	NP/SW		NP/SW		
CT ETPH	Conn - Ext. Total petroleum Hydrocarbons (GC)			NP/SW		
MA-EPH	Mass - Extractable Petroleum Hydrocarbons (GC)			NP/SW		NP/SW
524.2	Volatile Org Comp (GC/MS)(list upon request)	P	P	P		
524.2	Trihalomethanes		P	P		
624	Volatile Org Comp (GC/MS)(list upon request)	NP	NP	NP		
5035	Closed System Purge and Trap	SW		SW		
5030B	Purge and Trap	NP		NP		
8260B	Volatile Org Comp. (GC/MS)(list upon request)	NP/SW		NP/SW		
MAVPH	Mass - Volatile Petroleum Hydrocarbons (GC)			NP/SW		NP/SW
180.1	Turbidity, Nephelometric		P	P		
300	Anions, Ion Chromatography	NP/P	NP/P	NP/P		
410.4	COD	NP	NP	NP		
1010	Ignitability, Pensky-Martens Closed-Cup Method	SW		SW		
10-107-06-2	Nitrogen, Total Kjeldahl	NP	NP	NP		
7196A	Chromium, Hexavalent	NP/SW		NP/SW		
9012A	Cyanide, Total and/or Amenable	NP/SW		NP/SW		
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	NP		NP		
9040B	pH	NP		NP		
9045C	pH	SW		SW		
L107041C	Nitrogen, Nitrate	NP	P	NP/P		
L107-06-1B	Nitrogen Ammonia	NP	NP	NP/P		
L204001A CN	Cyanide, Total		NP/P	NP/P		
L210-001A	Phenolics, Total Recoverable	NP	NP	NP		
SM 2320B	Alkalinity	NP/P	NP/P	NP/P		
SM 2510B	Conductivity, Specific Conductance	NP/P	NP/P	NP/P		
SM 2540C	Solids, Total Dissolved (TDS)	NP/P	NP/P	NP/P		
SM 2540D	Solids, Total Suspended (TSS)	NP	NP	NP		
SM 3500 CR D	Chromium, Hexavalent	NP		NP		
SM 4500 H+ B	pH	NP/P	NP/P	NP/P		
SM 4500 NO2 B	Nitrogen, Nitrite	NP	P	NP/P		
SM 4500 P E	Phosphorus, Orthophosphate	NP/P	NP	NP/P		
SM 4500 P E	Phosphorus, Total	NP	NP	NP		
SM 4500 S2 D	Sulfide, Total	NP		NP		
SM 5210B	BOD, 5-Day	NP	NP	NP		
SM 5310B	Organic Carbon, Total (TOC)	NP	NP	NP/P		

Not all organic compounds are accreditied under NELAC
For methods with multiple compounds all compounds may not meet NELAC criteria, listing should be obtained from the laboratory
The lab carries additional accreditations with several states. This is listing is subject to change based on the laboratories current certification standing.

Login Sample Receipt Check List

Client: Olin Corporation

Job Number: 360-24665-3
SDG Number: OCRI-17B

Login Number: 24665
List Source: TestAmerica Westfield
Creator: Rinard, Kimberley A
List Number: 1

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	0.2 C
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TAL-Soil

360-24665

Client:	Olin Corporation	Client Project #:	6107090016
Address:	3855 North Ocoee St. Suite 200	Work Site ID:	Wilmington, MA
	Cleveland, TN 37312	Reports Sent To:	Steve Morrow
Phone:	423-336-4511	Fax: 423-336-1466	Email SGMorrow@olin.com Email Rpt:____

Requested Turnaround Time (SPECIFY): Standard_____ Rush_____ (Lab Approval Required)

Regulatory Programs: MADEP MCP____ Superfund _____

Report Requirements Level IV Package ____ Level II Package _____

EDD Requirements: MACTEC EQUIS EZ EDD _____

INVOICE INFO — Shaded Areas for office use only

Company Name: Olin Corp

Company Contact: ERG Accounts Payable

Address: Same as Client

Phone: Email

Job # _____ Quote # _____

Lab SDG #_____ PO #_____

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	VOA and TICs (5035A/8260B)* (ME V)	SVOA and TICs (8270C) (G)	NDMA (Modified 8270C) (G)	Diphenylamine (8270C)** (G)	EPH (MADEP-EPH-04-1.1) (G)	VPH (MADEP-VPH-04-1.1) (ME V)	TAL Metals (6010B / 7471A) (G)	PCBs (8082) (G)	Anions (EPA 300)*** (G)	Amonnia (LACHAT) (G)	TOC (Lloyd Kahn) (G)	Phathalic Anhydride (Mod 8000 HPLC) (G)							Formaldehyde/Acetaldehyde (SW-846 8315A)* (G)	Phthalic Anhydride (acid) (Method 8000 - LC)* (G)			<--Preservative Type (4) <--Bottle Type (5) Comments (Special Instructions)
OC-SS-434-0.0/1.0-XXX	9/16/2009 4:15:00 PM	T	FS	SO	G	9	X	X	X	X			X		X	X	X								X	X			Category 1
OC-SS-435-0.0/1.0-XXX	9/16/2009 3:40:00 PM	T	FS	SO	G	4	X	X					X		X	X													Category 1

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass

* = Formaldehyde /Acetaldehyde analyzed at TAL-Tallahassee Florida

* = Phthalic Anhydride (acid) analyzed at TAL-Tallahassee Florida

** = Using Method 3620B

*** = Sulfate, Chloride

Cooler ? (Y) N — MADEP Requirement Samples Iced? Y / N

Temp @ receipt: 0.2°C Deg C

Preservation / pH checked? Y (N)

By: KAW Date: 9/17/09

Relinquished: [signature] **Date:** 9/17/09 **Time:** 1415 **Received:** [signature] **Date:** 9/17/09 **Time:** 1415

Relinquished: [signature] **Date:** 9/17/09 **Time:** 1630 **Received:** [signature] **Date:** 9/17/2009 **Time:** 1630

TAL-Soil

360 24665

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	VOA and TICs (5035A/8260B)* (ME V)	SVOA and TICs (8270C) (G)	NDMA (Modified 8270C) (G)	Diphenylamine (8270C)** (G)	EPH (MADEP-EPH-04-1.1) (G)	VPH (MADEP-VPH-04-1.1) (ME V)	TAL Metals (6010B / 7471A) (G)	PCBs (8082) (G)	Anions (EPA 300)*** (G)	Amonia (LACHAT) (G)	TOC (Lloyd Kahn) (G)	Phathalic Anhydride (Mod 8000 HPLC) (G)							Formaldehyde/Acetaldehyde (SW-846 8315A)* (G)	Phthalic Anhydride (acid) (Method 8000 - LC)* (G)			<--Preservative Type (4) <--Bottle Type (5) Comments (Special Instructions)
OC-SS-436-0.0/1.0-XXX	9/16/2009 2:30:00 PM	T	FS	SO	G	4	X	X					X		X	X													Category 1
OC-SS-437-0.0/1.0-XXX	9/16/2009 2:10:00 PM	T	FS	SO	G	4	X	X					X		X	X													Category 1
OC-SS-440-0.0/1.0-XXX	9/16/2009 1:45:00 PM	T	FS	SO	G	8	X	X	X	X			X		X	X									X	X			Category 1
OC-SS-442-0.0/1.0-XXX	9/16/2009 1:25:00 PM	T	FS	SO	G	4	X	X					X		X	X													Category 1
OC-SS-449-0.0/1.0-XXX	9/16/2009 4:40:00 PM	T	FS	SO	G	4	X	X					X		X	X													Category 1
OC-SS-450-0.0/1.0-XXX	9/16/2009 3:55:00 PM	T	FS	SO	G	8	X	X	X	X			X		X	X									X	X			Category 1
OC-SS-451-0.0/1.0-XXX	9/16/2009 3:20:00 PM	T	FS	SO	G	4	X	X					X		X	X													Category 1
OC-SS-454-0.0/1.0-XXX	9/17/2009 7:55:00 AM	T	FS	SO	G	4	X	X					X		X	X													Category 1

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass

* = Formaldehyde /Acetaldehyde analyzed at TAL-Tallahassee Florida
* = Phthalic Anhydride (acid) analyzed at TAL-Tallahassee Florida
** = Using Method 3620B
*** = Sulfate, Chloride

Relinquished: [signature] Date: 9/17/09 Time: 1415 Received: [signature] Date: 9/17/09 Time: 1415

Relinquished: [signature] Date: 9/17/09 Time: 1630 Received: [signature] Date: 9/17/2009 Time: @ 1630

Cooler? Y / N
MADEP Requirement
Samples Iced? Y / N
Temp @ receipt: 0.2°C Deg C
Preservation / pH checked? Y / N
By: [initials] Date: 9/17/09

TAL - Soil

Page 3 of 9

360-24665

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	VOA and TICs (5035A/8260B)*	SVOA and TICs (8270C)	NDMA (Modified 8270C)	Diphenylamine (8270C)**	EPH (MADEP-EPH-04-1.1)	VPH (MADEP-VPH-04-1.1)	TAL Metals (6010B / 7471A)	PCBs (8082)	Anions (EPA 300)***	Amonnia (LACHAT)	TOC (Lloyd Kahn)	Phathalic Anhydride (Mod 8000 HPLC)							Formaldehyde/Acetaldehyde (SW-846 8315A)*	Phthalic Anhydride (acid) (Method 8000 - LC)*			Comments (Special Instructions)
							ME V	- G	- G	- G	- G	ME V	- G	- G	- G	- G	- G	- G	-	-	-	-	-	-	- G	- G	-	-	<--Preservative Type (4) <--Bottle Type (5)
OC-SS-455-0.0/1.0-XXX	9/16/2009 5:50:00 PM	T	FS	SO	G	9	X	X	X	X			X		X	X	X								X	X			Category 1
OC-SS-460-0.0/1.0-XXX	9/16/2009 5:30:00 PM	T	FS	SO	G	8	X	X	X	X			X		X	X									X	X			Category 1

Special Instructions For Lab

Notes:

1) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass

* = Formaldehyde /Acetaldehyde analyzed at TAL-Tallahassee Florida ** = Using Method 3620B

* = Phthalic Anhydride (acid) analyzed at TAL-Tallahassee Florida *** = Sulfate, Chloride

Cooler? Y / N MADEP Requirement Samples Iced? Y / N

Temp @ receipt: 0.2°C Deg C

Preservation / pH checked? Y / N

By: [illegible] Date: 9/17/09

Relinquished: [signature] **Date:** 9/17/09 **Time:** 1415 **Received:** [signature] **Date:** 9/17/09 **Time:** 1415

Relinquished: [signature] **Date:** 9/17/09 **Time:** 1630 **Received:** [signature] **Date:** 9/17/2009 **Time:** @ 1630

TAL-Soil

360-24665

Client:	Olin Corporation	Client Project #:	6107090016
Address:	3855 North Ocoee St. Suite 200	Work Site ID:	Wilmington, MA
	Cleveland, TN 37312	Reports Sent To:	Steve Morrow
Phone:	423-336-4511	Fax: 423-336-1466	Email SGMorrow@olin.com Email Rpt:____

Requested Turnaround Time (SPECIFY)	Regulatory Programs: MADEP MCP____ Superfund _____
Standard_____ Rush_____ (Lab Approval Required)	Report Requirements Level IV Package ____ Level II Package _____
	EDD Requirements: MACTEC EQUIS EZ EDD _____

INVOICE INFO	Shaded Areas for office use only
Company Name: Olin Corp	
Company Contact: ERG Accounts Payable	
Address: Same as Client	
Phone: Email	
Job # _____	Quote # _____
Lab SDG #_____	PO #_____

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	VOA and TICs (5035A/8260B)* (ME V)	SVOA and TICs (8270C) (G)	NDMA (Modified 8270C) (G)	Diphenylamine (8270C)** (G)	EPH (MADEP-EPH-04-1.1) (G)	VPH (MADEP-VPH-04-1.1) (ME V)	TAL Metals (6010B / 7471A) (G)	PCBs (8082) (G)	Anions (EPA 300)*** (G)	Amonnia (LACHAT) (G)	TOC (Lloyd Kahn) (G)	Phathalic Anhydride (Mod 8000 HPLC) (G)	Formaldehyde/Acetaldehyde (SW-846 8315A)* (G)	Phthalic Anhydride (acid) (Method 8000 - LC)* (G)	Comments (Special Instructions)
																					<--Preservative Type (4)
																					<--Bottle Type (5)
OC-SB-406-0.0/1.0-XXX	9/17/2009 11:25:00	T	FS	SO	G	4	X	X					X		X	X					Category 1
OC-SB-406-13/15-XXX	9/17/2009 12:00:00	T	FS	SO	G	4	X	X					X		X	X					Category 3

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass

* = Formaldehyde /Acetaldehyde analyzed at TAL-Tallahassee Florida ** = Using Method 3620B

* = Phthalic Anhydride (acid) analyzed at TAL-Tallahassee Florida *** = Sulfate, Chloride

Relinquished:	Date: 09/17/09	Time: 1415	Received:	Date: 9/17/09	Time: 1415	Cooler (Y) N	MADEP Requirement
Relinquished:	Date: 9/17/09	Time: 1630	Received:	Date: 9/17/2009 @1630	Time:	Samples Iced (Y) / N	
						Temp @ receipt: 0.2°C Deg C	
						Preservation / pH checked? Y / (N)	
						By: Ken	Date: 9/17/09

TAL-Soil

360 24665

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	VOA and TICs (5035A/8260B)*	SVOA and TICs (8270C)	NDMA (Modified 8270C)	Diphenylamine (8270C)**	EPH (MADEP-EPH-04-1.1)	VPH (MADEP-VPH-04-1.1)	TAL Metals (6010B / 7471A)	PCBs (8082)	Anions (EPA 300)***	Amonnia (LACHAT)	TOC (Lloyd Kahn)	Phathalic Anhydride (Mod 8000 HPLC)							Formaldehyde/Acetaldehyde (SW-846 8315A)*	Phthalic Anhydride (acid) (Method 8000 - LC)*			Comments (Special Instructions)
							ME	-	-	-	-	ME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<--Preservative Type (4)
							V	G	G	G	G	V	G	G	G	G	G	G							G	G			<--Bottle Type (5)
OC-SB-406-8.0/10-XXX	9/17/2009 11:45:00	T	FS	SO	G	4	X	X					X		X	X													Category 2
OC-SB-413-0.0/1.0-XXX	9/17/2009 11:10:00	T	FS	SO	G	8	X	X	X	X			X		X	X									X	X			Category 1
OC-SB-413-1.0/5.0-XXX	9/17/2009 10:20:00	T	FS	SO	G	8	X	X	X	X			X		X	X									X	X			Category 2
OC-SB-413-10/12-XXX	9/17/2009 10:50:00	T	FS	SO	G	8	X	X	X	X			X		X	X									X	X			Category 3

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass

* = Formaldehyde /Acetaldehyde analyzed at TAL-Tallahassee Florida ** = Using Method 3620B

* = Phthalic Anhydride (acid) analyzed at TAL-Tallahassee Florida *** = Sulfate, Chloride

Cooler? Y / N MADEP Requirement Samples Iced? Y / N

Temp @ receipt: 0.2°c Deg C

Preservation / pH checked? Y, N

By: [illegible] Date: 9/17/09

Relinquished: [signature] **Date:** 09/17/09 **Time:** 1415 **Received:** [signature] **Date:** 9/17/09 **Time:** 1415

Relinquished: [signature] **Date:** 9/17/09 **Time:** 1630 **Received:** [signature] **Date:** 9/17/2009 **Time:** @ 1630

TAL-Soil

360-24665

Page 6 of 9

Client: Olin Corporation	Client Project #: 6107090016	INVOICE INFO	Shaded Areas for office use only
Address: 3855 North Ocoee St. Suite 200	Work Site ID: Wilmington, MA	Company Name: Olin Corp	
Cleveland, TN 37312	Reports Sent To: Steve Morrow	Company Contact: ERG Accounts Payable	
Phone: 423-336-4511 Fax: 423-336-1466	Email SGMorrow@olin.com Email Rpt:____	Address: Same as Client	
Requested Turnaround Time (SPECIFY)	Regulatory Programs: MADEP MCP____ Superfund _____	Phone: Email	
Standard_____ Rush_____ (Lab Approval Required)	Report Requirements Level IV Package ____ Level II Package _____		
	EDD Requirements: MACTEC EQUIS EZ EDD _____	Job # _____	Quote # _____
		Lab SDG #_____	PO #_____

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	VOA and TICs (5035A/8260B)*	SVOA and TICs (8270C)	NDMA (Modified 8270C)	Diphenylamine (8270C)**	EPH (MADEP-EPH-04-1.1)	VPH (MADEP-VPH-04-1.1)	TAL Metals (6010B / 7471A)	PCBs (8082)	Anions (EPA 300)***	Amonnia (LACHAT)	TOC (Lloyd Kahn)	Phathalic Anhydride (Mod 8000 HPLC)	Formaldehyde/Acetaldehyde (SW-846 8315A)*	Phthalic Anhydride (acid) (Method 8000 - LC)*	Comments (Special Instructions)
							ME V	G	G	G	G	ME V	G	G	G	G	G	G	G	G	<--Preservative Type (4)
																					<--Bottle Type (5)
OC-TBK-021	9/17/2009 1:15:00 PM	T	TB	SO	G	3	X														Category 1

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass

* = Formaldehyde /Acetaldehyde analyzed at TAL-Tallahassee Florida ** = Using Method 3620B

* = Phthalic Anhydride (acid) analyzed at TAL-Tallahassee Florida *** = Sulfate, Chloride

Relinquished: [signature] Date: 09/17/09 Time: 1415 Received: [signature] Date: 9/17/09 Time: 1415

Relinquished: [signature] Date: 9/17/09 Time: 1630 Received: [signature] Date: 9/17/2009 Time: @1630

Cooler (Y) N MADEP Requirement

Samples Iced (Y) N

Temp @ receipt: 0.2°C Deg C

Preservation / pH checked? Y / (N)

By: [signature] Date: 9/17/09

TAL- Edison NJ 360-24665 Page 7 of 9

Client:	Olin Corporation	Client Project #:	6107090016
Address:	3855 North Ocoee St. Suite 200	Work Site ID:	Wilmington, MA
	Cleveland, TN 37312	Reports Sent To:	Steve Morrow
Phone:	423-336-4511	Fax: 423-336-1466	Email SGMorrow@olin.com Email Rpt:____

Requested Turnaround Time (SPECIFY): Standard_____ Rush_____ (Lab Approval Required)

Regulatory Programs: MADEP MCP____ Superfund _____

Report Requirements Level IV Package ____ Level II Package _____

EDD Requirements: MACTEC EQUIS EZ EDD _____

INVOICE INFO — Shaded Areas for office use only

Company Name: Olin Corp

Company Contact: ERG Accounts Payable

Address: Same as Client

Phone: Email

Job # _____ Quote # _____

Lab SDG #_____ PO #_____

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	Cr+6 (3060A / 7199) G	Cr+6 (7199) P	DMF (Mod 8033 - GC/NPD) G	DMF (Mod 8033 - GC/NPD) V	Opex / Kempore (8000B - HPLC) V	Perchlorate (6850) V	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS) AG	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS) AV	Comments (Special Instructions)
															<--Preservative Type (4)
															<--Bottle Type (5)
OC-SS-436-0.0/1.0-XXX	9/16/2009 2:30:00 PM	T	FS	SO	G	1	X								Category 1

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass, AV = 40mL VOA Amber Glass Vial,

Relinquished: [signature] Date: 09/17/09 Time: 1415 Received: [signature] Date: 9/17/09 Time: 1415

Relinquished: [signature] Date: 9/17/09 Time: 1630 Received: [signature] Date: 9/17/2009 Time: @1630

Cooler (Y) N MADEP Requirement Samples Iced? Y / N

Temp @ receipt: 0.2° Deg C

Preservation / pH checked? Y / N

By: [signature] Date: 9/17/09

TAL- Edison NJ

Page 8 of 9

360-24665

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	Cr+6 (3060A / 7199)	Cr+6 (7199)	DMF (Mod 8033 - GC/NPD)	DMF (Mod 8033 - GC/NPD)	Opex / Kempore (8000B - HPLC)	Perchlorate (6850)												Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)			Comments (Special Instructions)
							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Zn	-	-	<--Preservative Type (4)
							G	P	G	V	V	V												AG	AV			<--Bottle Type (5)
OC-SS-437-0.0/1.0-XXX	9/16/2009 2:10:00 PM	T	FS	SO	G	1	X																					Category 1

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Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass, AV = 40mL VOA Amber Glass Vial,

Relinquished: [signature] **Date:** 09/17/09 **Time:** 1415 **Received:** [signature] **Date:** 9/17/09 **Time:** 1415

Relinquished: [signature] **Date:** 9/17/09 **Time:** 1630 **Received:** [signature] **Date:** 9/17/2009 **Time:** @1630

Cooler (Y) N | MADEP Requirement Samples Iced (Y) N

Temp @ receipt: 0.2°C Deg C

Preservation / pH checked? Y (N)

By: [signature] Date: 9/17/09

Olin Wilmington OU1 Soil Sampling Categories

There will be three categories of samples submitted to the laboratories during the soil sampling program based primarily on the depth of soil locations. These categories will be indentified in notes provided with the chain of custody submitted with samples. The following categories are included:

Category 1

Soil boring samples 0'-1': request that all samples are analyzed and reported in the normal project turnaround time (TAT).

Category 2

Soil boring samples from the 1'-10' interval: All samples are analyzed. Rush TAT is requested on a subset of analyses as indicated below:

VOCs: rush 7-day TAT
SVOCs: NDMA, and phthalic anhydride: normal 30-day TAT
DMF: normal 21-day TAT
Hydrazine: rush 7 day TAT
Metals: normal 30-day TAT (except mercury)
Mercury: 10 day TAT
Hexavalent Chromium: 10 day TAT
Formaldehyde/acetaldehyde: normal TAT
Anions: normal TAT
Ammonia: normal TAT

Category 3

Soil boring samples from >10 ft: Sample are held with analysis pending. For a subset of analyses the samples will be extracted and held by the lab pending instructions from MACTEC-Olin.

VOCs: hold pending results of Category 2
SVOCs: extract and hold pending results of Category 2
NDMA: extract and hold pending results of Category 2
DMF: extract and hold pending results of Category 2
Hydrazine: hold pending results of Category 2
Metals: hold pending results of Category 2
Mercury: hold pending results of Category 2
Hexavalent Chromium: hold pending results of Category 2
Phthalic anhydride: extract and hold pending results of Category 2
Formaldehyde/acetaldehyde: run normal TAT
Anions: run normal TAT
Ammonia: run normal TAT

For rush TAT samples the laboratory will provide preliminary results with a narrative and sample results summary report. The lab will also provide data on a preliminary data EDD. Final result and supporting data packages will be provided in the normal TAT for the project.

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