

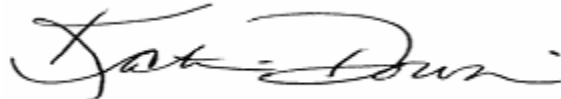
## ANALYTICAL REPORT

Job Number: 580-5385-2

Job Description: Old Douglas Harbor

For:  
PND Engineers, Inc.  
1506 West 36th Ave.  
Anchorage, AK 99503

Attention: Ms. Jennifer Lundberg



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Katie Downie  
Project Manager II  
kdownie@stl-inc.com  
05/31/2007

Project Manager: Katie Downie

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## Case Narrative for job: 580-5385-2

Client: PND Engineers

Date: 05/31/2007

The additional mercury analyses were requested on May 22, 2007. This was outside of the standard 28 day hold time for mercury in environmental samples, and the results have been flagged "H".

### **MERCURY**

Samples 580-5385-3 through 580-5385-6, 580-5385-8 and 580-5385-9 were analyzed for mercury in accordance with EPA SW-846 Method 7471A. The samples were prepared on 05-24-2007 and analyzed on 05/25/2007, which was within outside method required holding times.

Samples 580-5385-3 through 580-5385-6, 580-5385-8 and 580-5385-9 required dilution prior to analysis.

The amount of mercury in sample 580-5385-3 was more than four times the matrix spike amount, and the normal control limits do not apply. The recoveries of mercury in the LCS and LCSD were acceptable.

No other difficulties were encountered during the mercury analyses.

All other quality control parameters were within the acceptance limits.

### **PERCENT SOLIDS**

Samples 580-5385-3 through 580-5385-12 were analyzed for percent solids in accordance with EPA Method 160.3 Modified. The samples were analyzed on 03/30/2007 and 04/03/2007, which was within the required method holding time.

No difficulties were encountered during the percent solids analyses.

All quality control parameters were within the acceptance limits.

## METHOD SUMMARY

Client: PND Engineers, Inc.

Job Number: 580-5385-2

Description	Lab Location	Method	Preparation Method
<b>Matrix: Solid</b>			
Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	STL SEA	SW846 7471A	
Mercury in Solid or Semi-Solid Waste (Manual	STL SEA		SW846 7471A

### LAB REFERENCES:

STL SEA = STL Seattle

### METHOD REFERENCES:

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

## SAMPLE SUMMARY

Client: PND Engineers, Inc.

Job Number: 580-5385-2

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Client Matrix</b>	<b>Date/Time Sampled</b>	<b>Date/Time Received</b>
580-5385-3	PND07-5A	Solid	03/22/2007 1044	03/23/2007 1242
580-5385-4	PND07-5C	Solid	03/22/2007 1128	03/23/2007 1242
580-5385-5	PND07-6A	Solid	03/22/2007 1207	03/23/2007 1242
580-5385-6	PND07-6C	Solid	03/22/2007 1215	03/23/2007 1242
580-5385-8	PND07-7A	Solid	03/22/2007 1242	03/23/2007 1242
580-5385-9	PND07-7C	Solid	03/22/2007 1251	03/23/2007 1242

## Analytical Data

Client: PND Engineers, Inc.

Job Number: 580-5385-2

### Client Sample ID: PND07-5A

Lab Sample ID: 580-5385-3

Date Sampled: 03/22/2007 1044

Client Matrix: Solid

% Moisture: 31.5

Date Received: 03/23/2007 1242

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### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-19077

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-18997

Lab File ID: N/A

Dilution: 20

Initial Weight/Volume: 0.5790 g

Date Analyzed: 05/25/2007 1336

Final Weight/Volume: 50 mL

Date Prepared: 05/24/2007 1626

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Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		3.5	H	0.23	0.50

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## Analytical Data

Client: PND Engineers, Inc.

Job Number: 580-5385-2

**Client Sample ID: PND07-5C**

Lab Sample ID: 580-5385-4

Date Sampled: 03/22/2007 1128

Client Matrix: Solid

% Moisture: 34.3

Date Received: 03/23/2007 1242

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### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-19077

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-18997

Lab File ID: N/A

Dilution: 20

Initial Weight/Volume: 0.5494 g

Date Analyzed: 05/25/2007 1401

Final Weight/Volume: 50 mL

Date Prepared: 05/24/2007 1626

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Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		3.9	H	0.25	0.55

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## Analytical Data

Client: PND Engineers, Inc.

Job Number: 580-5385-2

**Client Sample ID: PND07-6A**

Lab Sample ID: 580-5385-5

Date Sampled: 03/22/2007 1207

Client Matrix: Solid

% Moisture: 31.1

Date Received: 03/23/2007 1242

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### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-19077

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-18997

Lab File ID: N/A

Dilution: 20

Initial Weight/Volume: 0.5155 g

Date Analyzed: 05/25/2007 1405

Final Weight/Volume: 50 mL

Date Prepared: 05/24/2007 1626

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Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		2.7	H	0.25	0.56

---

## Analytical Data

Client: PND Engineers, Inc.

Job Number: 580-5385-2

**Client Sample ID: PND07-6C**

Lab Sample ID: 580-5385-6

Date Sampled: 03/22/2007 1215

Client Matrix: Solid

% Moisture: 27.7

Date Received: 03/23/2007 1242

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### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-19077

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-18997

Lab File ID: N/A

Dilution: 20

Initial Weight/Volume: 0.6016 g

Date Analyzed: 05/25/2007 1410

Final Weight/Volume: 50 mL

Date Prepared: 05/24/2007 1626

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		1.9	H	0.21	0.46



## Analytical Data

Client: PND Engineers, Inc.

Job Number: 580-5385-2

### Client Sample ID: PND07-7A

Lab Sample ID: 580-5385-8

Date Sampled: 03/22/2007 1242

Client Matrix: Solid

% Moisture: 33.9

Date Received: 03/23/2007 1242

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### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-19077

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-18997

Lab File ID: N/A

Dilution: 20

Initial Weight/Volume: 0.5692 g

Date Analyzed: 05/25/2007 1415

Final Weight/Volume: 50 mL

Date Prepared: 05/24/2007 1626

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		2.1	H	0.24	0.53

## Analytical Data

Client: PND Engineers, Inc.

Job Number: 580-5385-2

**Client Sample ID: PND07-7C**

Lab Sample ID: 580-5385-9

Date Sampled: 03/22/2007 1251

Client Matrix: Solid

% Moisture: 38.7

Date Received: 03/23/2007 1242

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### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-19077

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-18997

Lab File ID: N/A

Dilution: 20

Initial Weight/Volume: 0.6182 g

Date Analyzed: 05/25/2007 1430

Final Weight/Volume: 50 mL

Date Prepared: 05/24/2007 1626

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		1.7	H	0.24	0.53

## Quality Control Results

Client: PND Engineers, Inc.

Job Number: 580-5385-2

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>Metals</b>					
<b>Prep Batch: 580-18997</b>					
LCS 580-18997/15-AA	Lab Control Spike	T	Solid	7471A	
LCSD 580-18997/16-AA	Lab Control Spike Duplicate	T	Solid	7471A	
LCSSRM 580-18997/17-AA	LCS-Standard Reference Material	T	Solid	7471A	
MB 580-18997/14-AA	Method Blank	T	Solid	7471A	
580-5385-3	PND07-5A	T	Solid	7471A	
580-5385-3DU	Duplicate	T	Solid	7471A	
580-5385-3MS	Matrix Spike	T	Solid	7471A	
580-5385-3MSD	Matrix Spike Duplicate	T	Solid	7471A	
580-5385-4	PND07-5C	T	Solid	7471A	
580-5385-5	PND07-6A	T	Solid	7471A	
580-5385-6	PND07-6C	T	Solid	7471A	
580-5385-8	PND07-7A	T	Solid	7471A	
580-5385-9	PND07-7C	T	Solid	7471A	
<b>Analysis Batch:580-19077</b>					
LCS 580-18997/15-AA	Lab Control Spike	T	Solid	7471A	580-18997
LCSD 580-18997/16-AA	Lab Control Spike Duplicate	T	Solid	7471A	580-18997
LCSSRM 580-18997/17-AA	LCS-Standard Reference Material	T	Solid	7471A	580-18997
MB 580-18997/14-AA	Method Blank	T	Solid	7471A	580-18997
580-5385-3	PND07-5A	T	Solid	7471A	580-18997
580-5385-3DU	Duplicate	T	Solid	7471A	580-18997
580-5385-3MS	Matrix Spike	T	Solid	7471A	580-18997
580-5385-3MSD	Matrix Spike Duplicate	T	Solid	7471A	580-18997
580-5385-4	PND07-5C	T	Solid	7471A	580-18997
580-5385-5	PND07-6A	T	Solid	7471A	580-18997
580-5385-6	PND07-6C	T	Solid	7471A	580-18997
580-5385-8	PND07-7A	T	Solid	7471A	580-18997
580-5385-9	PND07-7C	T	Solid	7471A	580-18997

**Report Basis**

T = Total

## Quality Control Results

Client: PND Engineers, Inc.

Job Number: 580-5385-2

**Method Blank - Batch: 580-18997**

**Method: 7471A**  
**Preparation: 7471A**

Lab Sample ID: MB 580-18997/14-AA  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 05/25/2007 1449  
Date Prepared: 05/24/2007 1626

Analysis Batch: 580-19077  
Prep Batch: 580-18997  
Units: mg/Kg

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 0.5 g  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.0090	0.020

**Laboratory Control/  
Laboratory Control Duplicate Recovery Report - Batch: 580-18997**

**Method: 7471A**  
**Preparation: 7471A**

LCS Lab Sample ID: LCS 580-18997/15-AA  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 05/25/2007 1454  
Date Prepared: 05/24/2007 1626

Analysis Batch: 580-19077  
Prep Batch: 580-18997  
Units: mg/Kg

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 0.5 g  
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 05/25/2007 1459  
Date Prepared: 05/24/2007 1626

Analysis Batch: 580-19077  
Prep Batch: 580-18997  
Units: mg/Kg

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 0.5 g  
Final Weight/Volume: 50 mL

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Mercury	99	95	75 - 125	5	25		

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

## Quality Control Results

Client: PND Engineers, Inc.

Job Number: 580-5385-2

**Laboratory Control/  
Laboratory Duplicate Data Report - Batch: 580-18997**

**Method: 7471A  
Preparation: 7471A**

LCS Lab Sample ID: LCS  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 05/25/2007 1454  
Date Prepared: 05/24/2007 1626

Units: mg/Kg

LCSD Lab Sample ID: LCSD  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 05/25/2007 1459  
Date Prepared: 05/24/2007 1626

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Mercury	0.200	0.200	0.198	0.189

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 580-18997**

**Method: 7471A  
Preparation: 7471A**

MS Lab Sample ID: 580-5385-3  
Client Matrix: Solid  
Dilution: 20  
Date Analyzed: 05/25/2007 1351  
Date Prepared: 05/24/2007 1626

Analysis Batch: 580-19077  
Prep Batch: 580-18997

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 0.5253 g  
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 580-5385-3  
Client Matrix: Solid  
Dilution: 20  
Date Analyzed: 05/25/2007 1356  
Date Prepared: 05/24/2007 1626

Analysis Batch: 580-19077  
Prep Batch: 580-18997

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 0.5618 g  
Final Weight/Volume: 50 mL

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Mercury	200	272	75 - 125	4	35	4	4

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

## Quality Control Results

Client: PND Engineers, Inc.

Job Number: 580-5385-2

### Matrix Spike/ Matrix Spike Duplicate Data Report - Batch: 580-18997

Method: 7471A  
Preparation: 7471A

MS Lab Sample ID: 580-5385-3  
Client Matrix: Solid  
Dilution: 20  
Date Analyzed: 05/25/2007 1351  
Date Prepared: 05/24/2007 1626

Units: mg/Kg

MSD Lab Sample ID: 580-5385-3  
Client Matrix: Solid  
Dilution: 20  
Date Analyzed: 05/25/2007 1356  
Date Prepared: 05/24/2007 1626

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Mercury	3.5	0.278	0.260	4.08 4	4.23 4

### Matrix Duplicate - Batch: 580-18997

Method: 7471A  
Preparation: 7471A

Lab Sample ID: 580-5385-3  
Client Matrix: Solid  
Dilution: 20  
Date Analyzed: 05/25/2007 1342  
Date Prepared: 05/24/2007 1626

Analysis Batch: 580-19077  
Prep Batch: 580-18997  
Units: mg/Kg

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 0.5611 g  
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	3.5	3.43	3	35	

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

## DATA REPORTING QUALIFIERS

Client: PND Engineers, Inc.

Job Number: 580-5385-2

<b>Lab Section</b>	<b>Qualifier</b>	<b>Description</b>
Metals		
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	H	Sample was prepped or analyzed beyond the specified holding time

**Downie, Katie**

**From:** Jennifer Lundberg [jennifer@pnd-anc.com]  
**Sent:** Tuesday, May 22, 2007 4:32 PM  
**To:** Downie, Katie  
**Subject:** Old Douglas Harbor mercury only

Katie,  
Please run the following samples for mercury only. Of course there are 23 to do.

Thanks, Jennifer

PND07-02 A, B, & C
PND07-03 A& C
PND07-04 A& C
PND07-05 A& C
PND07-06 A& C
PND07-07 A& C
PND07-12 A& C
PND07-13 A& C
PND07-14 A& C
PND07-15 A& C
PND07-16 A& C

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## DATA DELIVERABLES PACKAGE

TOTAL MERCURY DATA PACKAGE

Reset

Calc Coeffs

New Cal

Update Coeffs

Spike Coeffs

A: [ ]

B: 1.11036e-5

C: 4.19361e-3

Rho: .999953

Type: [ ]

Calibrated

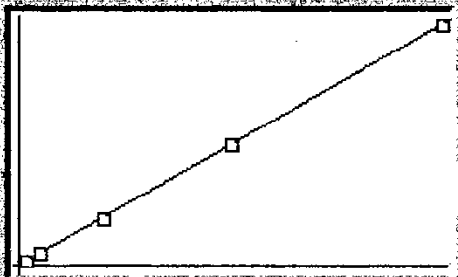
Accepted

Accept

Rel. Abs. 899540

Accepted

New



Include: S1 Rep 1 [x] 2 [x] 3 [x] 4 [ ] 5 [ ]

S	Conc.	Calc	Dev	Mean	SD or 2RSD	Rep 1	Rep 2	Rep 3
01	.0000	.023	.023	.2442	5.77%	4109	3979	7211
02	.2000	.226	.026	20125	2.64%	20501	19750	10958 ?
03	.5000	.530	.030	47364	3.96%	48690	36873 ?	46036
04	2.0000	1.94	-.061	174210	2.79%	176979	169602	177046
05	5.0000	5.03	.034	453019	1.85%	455032	443831	460193
06	10.000	9.99	-.008	899541	1.02%	905143	888949	904529

STDS 5/25/07

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Standard: 1 Rep: 1				Seq: 0		10:39:45	25 May 07	HG
Hg	.000	PPB	-4109					
*** Standard: 1 Rep: 2				Seq: 1		10:44:36	25 May 07	HG
Hg	.000	PPB	3979					
*** Standard: 1 Rep: 3				Seq: 2		10:49:16	25 May 07	HG
Hg	.000	PPB	-7211					
*** Standard: 2 Rep: 1				Seq: 3		10:53:56	25 May 07	HG
Hg	.200	PPB	20501					
*** Standard: 2 Rep: 2				Seq: 4		10:58:59	25 May 07	HG
Hg	.200	PPB	19750					
*** Standard: 2 Rep: 3				Seq: 5		11:03:50	25 May 07	HG
Hg	.200	PPB	10958					
*** Standard: 3 Rep: 1				Seq: 6		11:08:40	25 May 07	HG
Hg	.500	PPB	48690					
*** Standard: 3 Rep: 2				Seq: 7		11:13:20	25 May 07	HG
Hg	.500	PPB	35873					
*** Standard: 3 Rep: 3				Seq: 8		11:18:24	25 May 07	HG
Hg	.500	PPB	46036					
*** Standard: 4 Rep: 1				Seq: 9		11:23:06	25 May 07	HG
Hg	2.00	PPB	176979					
*** Standard: 4 Rep: 2				Seq: 10		11:27:48	25 May 07	HG
Hg	2.00	PPB	168602					
*** Standard: 4 Rep: 3				Seq: 11		11:32:30	25 May 07	HG
Hg	2.00	PPB	177046					
*** Standard: 5 Rep: 1				Seq: 12		11:37:32	25 May 07	HG
Hg	5.00	PPB	455031					
*** Standard: 5 Rep: 2				Seq: 13		11:42:23	25 May 07	HG
Hg	5.00	PPB	443831					
*** Standard: 5 Rep: 3				Seq: 14		11:47:19	25 May 07	HG
Hg	5.00	PPB	460193					

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Standard: 6 Rep: 1								
Hg	10.0	PPB	905143	Seq: 15		11:52:00	25 May 07	HG
*** Standard: 6 Rep: 2								
Hg	10.0	PPB	888949	Seq: 16		11:56:45	25 May 07	HG
*** Standard: 6 Rep: 3								
Hg	10.0	PPB	904529	Seq: 17		12:01:26	25 May 07	HG
*** Sample ID: RINSE								
Hg	-0.054	PPB	.000	Seq: 18	FCW Hg#1	12:10:49	25 May 07	HG
*** Check Standard: 3 Ck32 PPB								
Line	Flag	%Rcv.	Found	True	Units	SD/RSD		
Hg		91.9	1.84	2.00	PPB	.000	12:15:29	25 May 07 HG
*** Check Standard: 4 Ck45 PPB								
Line	Flag	%Rcv.	Found	True	Units	SD/RSD		
Hg		98.8	4.94	5.00	PPB	.000	12:20:30	25 May 07 HG
*** Check Standard: 1 Ck1BLANK ...								
Line	Flag	Found	Range(+/-)	Units	SD/RSD			
Hg		-.040	.200	PPB	.000		12:25:09	25 May 07 HG
*** Check Standard: 4 Ck45 PPB								
Line	Flag	%Rcv.	Found	True	Units	SD/RSD		
Hg		97.0	4.85	5.00	PPB	.000	13:24:53	25 May 07 HG
*** Check Standard: 1 Ck1BLANK								
Line	Flag	Found	Range(+/-)	Units	SD/RSD			
Hg		-.091	.200	PPB	.000		13:29:42	25 May 07 HG
*** Sample ID: 580-157040								
Hg	1.40	PPB	.000	Seq: 32	FCW Hg#1(18997)20X	13:36:58	25 May 07	HG
*** Sample ID: 580-157041								
Hg	1.32	PPB	.000	Seq: 33	FCW Hg#1(18997)20X	13:42:19	25 May 07	HG
*** Sample ID: 580-157043								
Hg	1.47	PPB	.000	Seq: 35	FCW Hg#1(18997)20X	13:51:44	25 May 07	HG
*** Sample ID: 580-157044								
Hg	1.63	PPB	.000	Seq: 36	FCW Hg#1(18997)20X	13:56:23	25 May 07	HG
*** Sample ID: 580-157045								
Hg	1.42	PPB	.000	Seq: 37	FCW Hg#1(18997)20X	14:01:05	25 May 07	HG

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 580-157046 Seq: 38 14:05:48 25 May 07 HG								
FCW Hg#1(18997)20X								
Hg	.945	PPB	.000	.945				
*** Sample ID: 580-157047 Seq: 39 14:10:28 25 May 07 HG								
FCW Hg#1(18997)20X								
Hg	.841	PPB	.000	.841				
*** Sample ID: 580-157048 Seq: 40 14:15:37 25 May 07 HG								
FCW Hg#1(18997)20X								
Hg	.780	PPB	.000	.780				
*** Check Standard: 4 Ck45 PPB Seq: 41 14:20:37 25 May 07 HG								
Line	Flag	%Rcv.	Found	True	Units	SD/RSD		
Hg		103.	5.17	5.00	PPB	.000		
*** Check Standard: 1 Ck1BLANK Seq: 42 14:25:19 25 May 07 HG								
Line	Flag	Found	Range(+/-)	Units	SD/RSD			
Hg		-.002	.200	PPB	.000			
*** Sample ID: 580-157049 Seq: 43 14:30:12 25 May 07 HG								
FCW Hg#1(18997)20X								
Hg	.636	PPB	.000	.636				
*** Sample ID: 580-157050 Seq: 44 14:35:15 25 May 07 HG								
FCW Hg#1(18997)20X								
Hg	.249	PPB	.000	.249				
*** Sample ID: 580-157051 Seq: 45 14:40:28 25 May 07 HG								
FCW Hg#1(18997)20X								
Hg	.496	PPB	.000	.496				
*** Sample ID: 580-157052 Seq: 46 14:45:18 25 May 07 HG								
FCW Hg#1(18997)20X								
Hg	.843	PPB	.000	.843				
*** Sample ID: 580-157053 Seq: 47 14:49:59 25 May 07 HG								
FCW Hg#1(18997)								
Hg	.058	PPB	.000	.058				
*** Sample ID: 580-157054 Seq: 48 14:54:51 25 May 07 HG								
FCW Hg#1(18997)								
Hg	1.98	PPB	.000	1.98				
*** Sample ID: 580-157055 Seq: 49 14:59:33 25 May 07 HG								
FCW Hg#1(18997)								
Hg	1.89	PPB	.000	1.89				
*** Sample ID: 580-157056 Seq: 50 15:04:35 25 May 07 HG								
FCW Hg#1(18997)								
Hg	7.19	PPB	.000	7.19				

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Check Standard: 4 Ck45 PPB Seq: 51 15:09:35 25 May 07 HG								
Line	Flag	%Rcv.	Found	True	Units	SD/RSD		
Hg		104.	5.21	5.00	PPB	.000		
*** Check Standard: 1 Ck1BLANK Seq: 52 15:14:27 25 May 07 HG								
Line	Flag	Found	Range(+/-)	Units	SD/RSD			
Hg		.069	.200	PPB	.000			
*** Sample ID: 580-157063 Seq: 53 15:19:19 25 May 07 HG								
					FCW Hg#1(18998)20X			
Hg	2.19	PPB	.000	2.19				
*** Sample ID: 580-157064 Seq: 54 15:24:09 25 May 07 HG								
					FCW Hg#1(18998)20X			
Hg	2.02	PPB	.000	2.02				
*** Sample ID: 580-157066 Seq: 56 15:33:37 25 May 07 HG								
					FCW Hg#1(18998)20X			
Hg	1.94	PPB	.000	1.94				
*** Sample ID: 580-157067 Seq: 57 15:38:50 25 May 07 HG								
					FCW Hg#1(18998)20X			
Hg	2.13	PPB	.000	2.13				
*** Sample ID: 580-157068 Seq: 58 15:43:29 25 May 07 HG								
					FCW Hg#1(18998)20X			
Hg	1.08	PPB	.000	1.08				
*** Sample ID: 580-157069 Seq: 59 15:48:19 25 May 07 HG								
					FCW Hg#1(18998)20X			
Hg	.769	PPB	.000	.769				
*** Sample ID: 580-157070 Seq: 60 15:53:28 25 May 07 HG								
					FCW Hg#1(18998)20X			
Hg	1.35	PPB	.000	1.35				
*** Sample ID: 580-157071 Seq: 61 15:58:37 25 May 07 HG								
					FCW Hg#1(18998)20X			
Hg	.647	PPB	.000	.647				
*** Sample ID: 580-157072 Seq: 62 16:03:16 25 May 07 HG								
					FCW Hg#1(18998)20X			
Hg	.778	PPB	.000	.778				
*** Check Standard: 4 Ck45 PPB Seq: 63 16:08:00 25 May 07 HG								
Line	Flag	%Rcv.	Found	True	Units	SD/RSD		
Hg		101.	5.04	5.00	PPB	.000		
*** Check Standard: 1 Ck1BLANK Seq: 64 16:12:42 25 May 07 HG								
Line	Flag	Found	Range(+/-)	Units	SD/RSD			
Hg		-.031	.200	PPB	.000			

\*\*\*POST-RUN REPORT\*\*\*

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 580-157073 Seq: 65 16:17:22 25 May 07 HG								
FCW Hg#1(18998)20X								
Hg	2.02	PPB	.000	2.02				
*** Sample ID: 580-157074 Seq: 66 16:22:16 25 May 07 HG								
FCW Hg#1(18998)20X								
Hg	1.78	PPB	.000	1.78				
*** Sample ID: 580-157075 Seq: 67 16:26:56 25 May 07 HG								
FCW Hg#1(18998)20X								
Hg	1.53	PPB	.000	1.53				
*** Sample ID: 580-157076 Seq: 68 16:31:38 25 May 07 HG								
FCW Hg#1(18998)20X								
Hg	.087	PPB	.000	.087				
*** Sample ID: 580-157077 Seq: 69 16:37:03 25 May 07 HG								
FCW Hg#1(18998)20X								
Hg	1.34	PPB	.000	1.34				
*** Sample ID: 580-157078 Seq: 70 16:41:58 25 May 07 HG								
FCW Hg#1(18998)20X								
Hg	.394	PPB	.000	.394				
*** Sample ID: 580-157079 Seq: 71 16:46:49 25 May 07 HG								
FCW Hg#1(18998)20X								
Hg	1.22	PPB	.000	1.22				
*** Sample ID: 580-157080 Seq: 72 16:51:29 25 May 07 HG								
FCW Hg#1(18998)20X								
Hg	.755	PPB	.000	.755				
*** Check Standard: 4 Ck45 PPB Seq: 73 16:56:11 25 May 07 HG								
Line	Flag	%Rcv.	Found	True	Units	SD/RSD		
Hg		99.1	4.95	5.00	PPB	.000		
*** Check Standard: 1 Ck1BLANK Seq: 74 17:00:50 25 May 07 HG								
Line	Flag	Found	Range(+/-)	Units	SD/RSD			
Hg		-.033	.200	PPB	.000			
*** Sample ID: 580-157081 Seq: 75 17:05:32 25 May 07 HG								
FCW Hg#1(18998)								
Hg	-.047	PPB	.000	-.047				
*** Sample ID: 580-157082 Seq: 76 17:10:16 25 May 07 HG								
FCW Hg#1(18998)								
Hg	1.79	PPB	.000	1.79				
*** Sample ID: 580-157083 Seq: 77 17:15:17 25 May 07 HG								
FCW Hg#1(18998)								
Hg	1.74	PPB	.000	1.74				



Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Sample ID: 580-157084									
					Seq: 78	17:20:03	25 May 07	HG	
					FCW Hg#1(18998)				
Hg	7.61	PPB	.000		7.61				
*** Check Standard: 4 Ck45 PPB									
					Seq: 79	17:24:57	25 May 07	HG	
Line	Flag	%Rcv.	Found	True	Units	SD/RSD			
Hg		97.5	4.88	5.00	PPB	.000			
*** Check Standard: 1 Ck1BLANK									
					Seq: 80	17:29:40	25 May 07	HG	
Line	Flag	Found	Range(+/-)	Units	SD/RSD				
Hg		-.059	.200	PPB	.000				
*** Sample ID: 0.5 PPB									
					Seq: 82	17:39:51	25 May 07	HG	
					FCW Hg#1				
Hg	.443	PPB	.000		.443				

## LABORATORY WORKSHEETS

# Metals/Inorganics Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 580-18997

Analyst: Boardway, Peter A

Batch Open: 5/24/2007 4:26:47PM

Method Code: 580-7471A\_Prep-580

Batch End:

## Mercury in Solid or Semi-Solid Waste (Manual Cold Vapor Technique)/Preparation



Input Sample Lab ID (Analytical Method)	SDG	Matrix	Initial Amount	Final Amount	Due Date	Analytical TAT	Div Rank	Comments	Output Sample Lab ID
1 580-5385-B-3 (7471A)	N/A	Solid	0.5790 g	50 mL	5/30/07	4_Days - R	4		580-5385-B-3-1
2 580-5385-B-3-DU (7471A)	N/A	Solid	0.5611 g	50 mL	5/30/07	4_Days - R	4		580-5385-B-3-2
3 580-5385-B-3-DU (7471A)	N/A	Solid	0.5375 g	50 mL	5/30/07	4_Days - R	4		580-5385-B-3-3
4 580-5385-B-3-MS (7471A)	N/A	Solid	0.5253 g	50 mL	5/30/07	4_Days - R	4		580-5385-B-3-4
5 580-5385-B-3-MSD (7471A)	N/A	Solid	0.5618 g	50 mL	5/30/07	4_Days - R	4		580-5385-B-3-5
6 580-5385-B-4 (7471A)	N/A	Solid	0.5494 g	50 mL	5/30/07	4_Days - R	4		580-5385-B-4-1
7 580-5385-B-5 (7471A)	N/A	Solid	0.5155 g	50 mL	5/30/07	4_Days - R	4		580-5385-B-5-1
8 580-5385-B-6 (7471A)	N/A	Solid	0.6016 g	50 mL	5/30/07	4_Days - R	4		580-5385-B-6-1
9 580-5385-B-8 (7471A)	N/A	Solid	0.5692 g	50 mL	5/30/07	4_Days - R	4		580-5385-B-8-1
10 580-5385-B-9 (7471A)	N/A	Solid	0.6182 g	50 mL	5/30/07	4_Days - R	4		580-5385-B-9-1
11 580-5407-C-2 (7471A)	N/A	Solid	0.6620 g	50 mL	5/30/07	4_Days - R	4		580-5407-C-2-1
12 580-5407-C-3 (7471A)	N/A	Solid	0.6082 g	50 mL	5/30/07	4_Days - R	4		580-5407-C-3-1
13 580-5407-C-4 (7471A)	N/A	Solid	0.5678 g	50 mL	5/30/07	4_Days - R	4		580-5407-C-4-1
14 MB-580-18997/14 N/A	N/A		0.5 g	50 mL	N/A	N/A	N/A		580-18997-14-1
15 LCS-580-18997/15 N/A	N/A		0.5 g	50 mL	N/A	N/A	N/A		580-18997-15-1

# Metals/Inorganics Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 580-18997      Analyst: Boardway, Peter A      Batch Open: 5/24/2007 4:26:47PM

Method Code: 580-7471A\_Prep-580      Batch End:

16	LCSD-580-18997/16 N/A	N/A	0.5 g	50 mL	N/A	N/A	N/A	N/A	
17	LCSSRM-580-18997/17 N/A	N/A	0.1172 g	50 mL	N/A	N/A	N/A	N/A	

# Metals/Inorganics Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 580-18997  
Method Code: 580-7471A\_Prep-580

Analyst: Boardway, Peter A

Batch Open: 5/24/2007 4:26:47PM  
Batch End:

## Batch Notes

Hydroxylamine Sulfate Lot Number 056527

Hydroxylamine Hydrochloride Lot

Acid used for pH adjustment

Aqua Regia Lot Number

Balance ID SEA204

Batch Comment

Blank Soil Lot Number

Sulfuric Acid Lot Number

Lot # of hydrochloric acid 4106110

Lot # of Nitric Acid 1106122

Hood ID or number 6

Hot Block ID number 226752

Potassium Persulfate Lot Number 60384

Potassium Permanganate Lot  
Number 045936

NaCL Lot # 30198

Oven, Bath or Block Temperature 1

Oven, Bath or Block Temperature 2

Repitettor Volume Check

Stannous chloride Lot Number 060944

SOP Number

# Metals/Inorganics Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 580-18997

Analyst: Boardway, Peter A

Batch Open: 5/24/2007 4:26:47PM

Method Code: 580-7471A\_Prep-580

Batch End:

ID number of the thermometer 15-041-1A

Digestion Tubes

## Comments

# Metals/Inorganics Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 580-18997

Analyst: Boardway, Peter A

Batch Open: 5/24/2007 4:26:47PM

Method Code: 580-7471A\_Prep-580

Batch End:

## Reagent Additions Worksheet

Lab ID	Reagent Code	Amount Added	Final Amount	By	Witness
580-5385-B-3 MS	HgSPK_00010	1 mL	50 mL		
580-5385-B-3 MSD	HgSPK_00010	1 mL	50 mL		
LCS 580-18997/15	HgSPK_00010	1 mL	50 mL		
LCSD 580-18997/16	HgSPK_00010	1 mL	50 mL		

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<b>Other Reagents:</b>	<b>Lot#:</b>