

ANALYTICAL REPORT

Job Number: 580-5407-2

Job Description: Old Douglas Harbor

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

Attention: Ms. Jennifer Lundberg

Katie Downie

Project Manager II

kdownie@stl-inc.com 05/31/2007

Project Manager: Katie Downie

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Case Narrative for job: 580-5407-2

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 580-5407-2 through 580-5407-4 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 580-5407-2 through 580-5407-4 required dilution prior to analysis.

The amount of mercury in batch QC 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 580-5407-2 through 580-5407-6 were analyzed for percent solids in accordance with EPA Method 160.3 Modified. The samples were analyzed on 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: 580-5407-2

Matrix: Solid Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique) Mercury in Solid or Semi-Solid Waste (Manual	Lab Location	Method	Preparation Method	
Matrix:	Solid			
,	` '	STL SEA	SW846 7471	A
	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: 580-5407-2

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
580-5407-2	PND07-2A	Solid	03/24/2007 1103	03/26/2007 1300
580-5407-3	PND07-2B	Solid	03/24/2007 1126	03/26/2007 1300
580-5407-4	PND07-2C	Solid	03/24/2007 1140	03/26/2007 1300

Analytical Data

Client: PND Engineers, Inc. Job Number: 580-5407-2

Client Sample ID: PND07-2A

 Lab Sample ID:
 580-5407-2
 Date Sampled:
 03/24/2007
 1103

 Client Matrix:
 Solid
 % Moisture:
 19.4
 Date Received:
 03/26/2007
 1300

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: 0.6620 g
Date Analyzed: 05/25/2007 1435 Final Weight/Volume: 50 mL

Date Analyzed: 05/25/2007 1435 Date Prepared: 05/24/2007 1626

Analyte DryWt Corrected: Y Result (mg/Kg) Qualifier MDL RL

Mercury 0.47 H 0.17 0.37

Analytical Data

Client: PND Engineers, Inc. Job Number: 580-5407-2

Client Sample ID: PND07-2B

 Lab Sample ID:
 580-5407-3
 Date Sampled:
 03/24/2007
 1126

 Client Matrix:
 Solid
 % Moisture:
 18.4
 Date Received:
 03/26/2007
 1300

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: 0.6082 g
Date Analyzed: 05/25/2007 1440 Final Weight/Volume: 50 mL

Date Prepared: 05/24/2007 1626

Analyte DryWt Corrected: Y Result (mg/Kg) Qualifier MDL RL

Mercury 1.0 H 0.18 0.40

Analytical Data

Client: PND Engineers, Inc. Job Number: 580-5407-2

Client Sample ID: PND07-2C

 Lab Sample ID:
 580-5407-4
 Date Sampled:
 03/24/2007
 1140

 Client Matrix:
 Solid
 % Moisture:
 17.5
 Date Received:
 03/26/2007
 1300

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: 0.5678 g
Date Analyzed: 05/25/2007 1445 Final Weight/Volume: 50 mL

Date Analyzed: 05/25/2007 1445
Date Prepared: 05/24/2007 1626

Analyte DryWt Corrected: Y Result (mg/Kg) Qualifier MDL RL

Mercury 1.8 H 0.19 0.43

Client: PND Engineers, Inc. Job Number: 580-5407-2

QC Association Summary

Lab Sample ID C	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					-
Prep Batch: 580-18997					
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-B-3-B DU	Duplicate	T	Solid	7471A	
580-5385-B-3-D MS	Matrix Spike	Т	Solid	7471A	
580-5385-B-3-E MSD	Matrix Spike Duplicate	Т	Solid	7471A	
580-5407-2	PND07-2A	T	Solid	7471A	
580-5407-3	PND07-2B	T	Solid	7471A	
580-5407-4	PND07-2C	Т	Solid	7471A	
Analysis Batch:580-19077					
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	Т	Solid	7471A	580-18997
MB 580-18997/14-AA	Method Blank	T	Solid	7471A	580-18997
580-5385-B-3-B DU	Duplicate	T	Solid	7471A	580-18997
580-5385-B-3-D MS	Matrix Spike	Т	Solid	7471A	580-18997
580-5385-B-3-E MSD	Matrix Spike Duplicate	Т	Solid	7471A	580-18997
580-5407-2	PND07-2A	Т	Solid	7471A	580-18997
580-5407-3	PND07-2B	T	Solid	7471A	580-18997
580-5407-4	PND07-2C	Ť	Solid	7471A	580-18997

Report Basis

T = Total

Job Number: 580-5407-2 Client: PND Engineers, Inc.

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

RL Analyte Result Qual MDL Mercury ND 0.0090 0.020

Laboratory Control/ Method: 7471A Laboratory Control Duplicate Recovery Report - Batch: 580-18997 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

% Rec.

RPD Analyte LCS LCSD Limit RPD Limit LCS Qual LCSD Qual 99 95 75 - 125 5 25 Mercury

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

Client: PND Engineers, Inc. Job Number: 580-5407-2

Laboratory Control/ Method: 7471A
Laboratory Duplicate Data Report - Batch: 580-18997 Preparation: 7471A

LCS Lab Sample ID: LCS

Units: mg/Kg

LCSD Lab Sample ID: LCSD

Client Matrix: Solid

Client Matrix: Solid

Client Matrix: Solid Client Matrix: Solid Dilution: 1.0 Dilution: 1.0

 Date Analyzed:
 05/25/2007 1454
 Date Analyzed:
 05/25/2007 1459

 Date Prepared:
 05/24/2007 1626
 Date Prepared:
 05/24/2007 1626

Analyte LCS Spike LCSD Spike LCS Result/Qual Result/Qual

Mercury 0.200 0.200 0.198 0.189

Matrix Spike/ Method: 7471A
Matrix Spike Duplicate Recovery Report - Batch: 580-18997 Preparation: 7471A

MS Lab Sample ID: 580-5385-B-3-D MS Analysis Batch: 580-19077 Instrument ID: SEA029

Client Matrix: Solid Prep Batch: 580-1897 Lab File ID: N/A

Dilution: 20 Initial Weight/Volume: 0.5253 g
Date Analyzed: 05/25/2007 1351 Final Weight/Volume: 50 mL

Date Analyzed: 05/25/2007 1351 Final Weight/Volume: 50 mL

Date Prepared: 05/24/2007 1626

MSD Lab Sample ID: 580-5385-B-3-E MSD

Analysis Batch: 580-19077

Instrument ID: SEA029

Client Matrix: Solid Prep Batch: 580-18097

Lab File ID: N/A

Client Matrix: Solid Prep Batch: 580-18997 Lab File ID: N/A
Dilution: 20 Initial Weight/Volume: 0.5618 g

272

200

Date Analyzed: 05/25/2007 1356 Final Weight/Volume: 50 mL

Date Prepared: 05/24/2007 1626

 ½ Rec.

 Analyte
 MS
 MSD
 Limit
 RPD
 RPD Limit
 MS Qual
 MSD Qual

75 - 125

4

35

4

4

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

Mercury

Job Number: 580-5407-2 Client: PND Engineers, Inc.

Matrix Spike/ Method: 7471A Matrix Spike Duplicate Data Report - Batch: 580-18997 Preparation: 7471A

MS Lab Sample ID: 580-5385-B-3-D MS

Units: mg/Kg

MSD Lab Sample ID: 580-5385-B-3-E MS

Client Matrix: Solid Dilution: 20

Client Matrix: Solid Dilution: 20

Date Analyzed: 05/25/2007 1351 Date Prepared: 05/24/2007 1626

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/0	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-B-3-B DU

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: 580-5407-2

Lab Section	Qualifier	Description
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.
	Н	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.

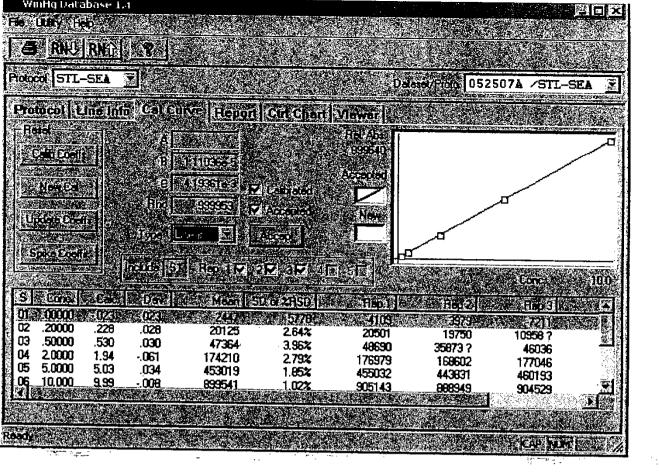
Thanks, Jennifer

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	
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 PND07-15 A& C	
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 PND07-15 A& C	A, B, & C
PND07-04	PND07-03
A& C PND07-05 A& C PND07-06 A& C PND07-07 A& C PND07-12 A& C PND07-13 A& C PND07-13 A& C PND07-14 A& C PND07-15 A& C	
PND07-05	PND07-04
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 PND07-15	
PND07-06	PND07-05
A& C PND07-07 A& C PND07-12 A& C PND07-13 A& C PND07-14 A& C PND07-15 A& C PND07-15	
PND07-07 A& C PND07-12 A& C PND07-13 A& C PND07-14 A& C PND07-15 A& C PND07-15	PND07-06
A& C PND07-12 A& C PND07-13 A& C PND07-14 A& C PND07-15 A& C PND07-15	
PND07-12 A& C PND07-13 A& C PND07-14 A& C PND07-15 A& C PND07-16	PND07-07
A& C PND07-13 A& C PND07-14 A& C PND07-15 A& C PND07-15	
PND07-13 A& C PND07-14 A& C PND07-15 A& C PND07-16	PND07-12
A& C PND07-14 A& C PND07-15 A& C PND07-16	A& C
PND07-14 A& C PND07-15 A& C PND07-16	PND07-13
A& C PND07-15 A& C PND07-16	A& C
PND07-15 A& C PND07-16	PND07-14
A& C PND07-16	
PND07-16	PND07-15
A& C	PND07-16
11CC C	A& C
	na c

Jennifer Lundberg, CEP, MES | Senior Environmental Scientist P|N|D Engineers Inc., Consulting Engineers 1506 W 36th Avenue, Anchorage, AK 99503 p. 907.561.1011 f. 907.563.4220 c. 907.301.2738 jennifer@pnd-anc.com | www.pndengineers.com

DATA DELIVERABLES PACKAGE

TOTAL MERCURY DATA PACKAGE



Gros spiso

1

Folder: 052507A Protocol: STL-SEA ***POST-RUN REPORT***

Lir	ne Conc.	Units	SD/RSD	OST-RUI 1	N REPORT 2		4	- 5	
***	* Standard	: 1 Rep:	1	Seq:	0	10:39:45	25 May	07	HG
			4100						
***	Standard:	: 1 Rep:	2 .	Seq:	1	10:44:36	25 Mav	07	НG
	.000		•				-		
***	Standard:	: 1 Rep:	3	Seq:	2	10:49:16	25 May	07	HG
Нg	.000	PPB				•	-		
***	Standard:	2 Rep:	1	Seq:	3	10:53:56	25 May	07	HG
	.200						-		
***	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 .
Нg	.200	PPB	10958						
. * * *	Standard:	3 Rep:	1	Seq:	6	11:08:40	25 May	07	НG
	.500		•			,			•
***	Standard:	3 Rep:	2	Seq:	7	11:13:20	25 May	07	НG
Нg	.500	PPB	35873						
***	Standard:	3 Rep:	3	Seq:	8	11:18:24	25 May	07	HG
Нg	.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
Нg	2.00	PPB	168602		-				·
***	Standard:	4 Rep: 3	3	Seq:	11	11:32:30	25 May	07.	HG
Нg	2.00	PPB	177046						
***	Standard:	5 Rep: 3	Į ·	Seq:	12	11:37:32	25 May	07	НG
Нg	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 2	25 May	07	HG
Hg	5.00	PPB	460193						

Protocol: STL-SEA
POST-RUN REPORT

•						*	***P	OST-R	JN REI	POR!	r***						
Lin	e Con	ic.	Units		SD/E	RSD		1	:	2	3	3	4	ļ	5	j	
***	Standa	ırd:	6 Rep	: 1		-		Seq.	: 15		11:	52:00) 25	мау	07	HG	
	10.0																
	Standa							Seq	: 16		11:	56:45	5 25	і Мау	.07	НG	
Нg	10.0)	PPB		88894	19											
***	Standa	rd:	6 Rep	: 3				Seq	: 17		12:	01:26	5 25	May	07	HG	
Нg	10.0	1	PPB		90452	29						•	,				
***	Sample	ID:	RINSE	Ē	F	CW	Hg#:	Sec 1	q: 18	3	12:	10:49	25	May	07	HG	
нg	054		PPB		.000)	-	.054	•								
*** Line Hg	Check e Flag	Stan %R 91	dard: .9	3 (Four 1.8	Ck32 nd 84	PPB Tr 2.	ue 00	Seq: Units PPB	19	SE.	12: /RSD 000	15:29	25	May	07	HG	
***	Check e Flag	Stan	dard:	4 (Ck45	PPR		Sea:	20		12.						
Line	Gheck Flag	ĽО	und Ra	.nge	(+/-)	Un.	its		SD/RS	D	12:	25:09	25	May:	-07	HG	
TING	Check :	₹R	CA.	Four	nd	Tr	ue	Units		SD	/RSD	24:53	25	May	07	HG	
*** Line Hg	Check S Flag	Stan For	dard: und Ra 91	1 0 nge(Ck1BL (+/-) 00	ANK Un: Pl	its PB	Seq:	31 SD/RS .000	D	13:	29:42	25	May	07	НG	
*** Hg	Sample		580-1 PPB	5704	10 F0	CW 1	ng#1	Seq . (1899 . • 40	: 32 7)20x		13:	36:58	25	May	·07	НG	
9	2.10	•			.000		7	40									
	Sample				F	CW H	 ig#1	Seq (1899)			13:	42;19	25	May	07	HG	====
Hg	1.32		PPB		.000		. 1	.32									
***	Sample	ID:	580-1	5704		~	7 - K 1		: 35		13:5	51:44	25	May	07	НG	
Hg	1.47	I	PPB		.000	-W [(1899 ² .47	/)20X					•	-		, Bot
***	Sample	ID:	580-1	5704			=== =	Seq:	: 36		13:5	6:23	25	Mav	07	HG	
Нg	1.63	F	PB		.000	CW H		(1899 ⁷ .63	7)20X	÷		-	-	.4		-	
***	Sample	ID:	580-15	5704	===== 5			Sec.	37		1/-0	11 • 0 =		Mar-		uc	
Нg	1.42		PB				lg#1	seq: (18997 .42			14:0	1:05	23	may	U I	HG	
																	-13

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#older: 052507A
Protocol: STL-SEA
POST-RUN REPORT

						P	OST-RUN	REP	ORT				
Lin	ne Co:	nc.	Units	SI)/RSD)	1	2	3	4	ļ	5	•
*** Hg	* Sample	e ID:	580-1 PPB	.57046 .0	FCW	Hg#:	Seq: 1 (18997 . 945	38) 20X	14:05:4	18 25	May	07	HG
*** Hg	* Sample	e ID:	580-1 PPB	.0	•	Hg#1	Some	39 20x	14:10:2	8 25	May	07	НG
*** Hg	Sample	= ID:	580-1	57048			Seq: (18997) 780	40	14.15.3	7 25	May	07	HG
*** Lin Hg	'Check ne Flag	Stan RR 10	dard: cv. 3.	4 Ck4 Found 5.17	5 PP: T: 5	B rue .00	Seq: Units PPB	41	14:20:3 SD/RSD .000	7 25	May	07	HG
Hg	.c rady	00)2	.200	-) UI	PPB	SI.	7 RSE .000					
*** Hg.	Sample	ID:	580-1: PPB	57049 .00	FCW 00	Hg#1	Seq: (18997) 636	43 20X	14:30:1	2 25	May	07	HG
	Sample		•		FCW	Hor#1	Seq:	44 20X	14.35.1	5 25	May	07	HG
	Sample				EC. CHAT	U~47	/10000	45 20X	14:40:28	3 25	May	07	HG
*** Hg	Sample		580-15 PB		FCW		Seq: (18997). 343		14:45:18	1 25	May	07	HG
*** Hg	Sample		580-15 PB				Seq: (18997))58	47	14:49:59	25	May ()7	HG
*** Hg	Sample		580-15 PB				Seq: (18997) (98	48	14:54:51	25	May ()7	НG
*** Hg	Sample		580-15 PB	7055	FCW F		Seq: 18997) 89	49	14:59:33	25	May ()7	НG
*** Hg	Sample 7.19	ID: 5		7056	FCW F		18997)	50	15:04:35	25 1	May 0	7	HG

Folder: 052507A Protocol: STL-SEA ***POST-RUN REPORT***

Line	e Con	c. Unit	s SD	/RSD	POST-RU 1		PORT***	4	,	5
	Check Flag	OTICA.	i: 4 Ck4 Found 5.21	True	e Units		15:09:3 SD/RSD .000	 5 25 M	fay 07	HG
		round	l: 1 Ck1 Range(+/	-) Unit	.8	52 SD/RS .000	15:14:2 SD	7 25 M	fay 07	HG
*** Ig	Sample 2.19	ID: 580	-157063	FCW Ho	Seq #1(1899 2.19	: 53 8)20X	15:19:19	9 25 M	iay 07	НG
		ID: 580	-157064	FYCW Ho	Seq (41 (1899)	. 54	15:24:09	9 25 M	ay 07	HG
** (Sample	ID: 580	-157066 .00	FCW Hg	Seq: #1(18998 1.94	: 56 3)20X	15:33:37	7 25 M	ay 07	HG
		ID: 580	-157067		#1(18996	57	15:38:50	1 25 Ma	ay 07	HG
			-157068 .00			58 3) 20X	15:43:29	25 Ma	ау 07	HG
3	.769	PPB	-157069	DOM: N-1	Seq: #1(18998 .769	59	15.48.19	25 M a	ay 07	HG
	ample	ID: 580-			Seq: 1(18998 1.35	60) 20X	15:53:28	25 Ma	ay 07	HG
** S	ample	ID: 580-			Seq: 1(18998 .647		15:58:37	25 M a	у 07	HG
* S	ample	ID: 580- PPB		FCW Hg#	Seq: 1(18998) .778	62) 20X	16:03:16	25 Ma	у 07	HG
* Cl .ne	heck S Flag.	tandard: %Rcv. 101.	4 Ck45 Found 5.04		Seq: Units PPB		16:08:00 SD/RSD .000	25 Ma	y 07	ĦG
* Cl ne I	Flag	tandard: Found R 031	1 Ck1BI ange(+/-) .200	LANK Units PPB		64 D/RSD .000	16:12:42	25 Mag	y 07	HG

Folder: 052507A Protocol: STL-SEA

							OLOCOT					1					
Line	Con	c.	Units	3	SD/RS	D	POST-R	KUN	REP 2		**		4			5 .	
*** Hg	Sample					₩ Hg	Se #1(189 2.02	98:	65 20X		16:1	7:22	2 25	May	- -	НG	
*** ;	Sample				FC	W Hg	Se #1(189 1.78	q: 98)	66 20x		16:2	2:16	5 25	Мау	7 07	HG	
*** 5	Sample				'5	W Ha:	#1/189	q:	67		16:2	6:56	25	May	• 07	HG	
*** S	Sample		580-		6 FC .000	W Hg	Se #1(189 .087	98)	20X	هد خذ کرد	16:3	1:38	25	May	07	HG	
Ħg	Sample 1.34	I	PB	15707	7 FCI .000	W Hq	1.34	q: 98)	69 20X					_		НG	
r** S	ample	ID:	580-: PB	15707	8 FC .000	∛ Hgŧ	Sec 1(1899 .394	q:	70		16:41						 iu ;
	ample	ID:	580-	15707	FCV	l Ha#	Sec 1(1899	7: 98)	71 20X		16:46	:49	25	Мау	07	НG	
	ample	•				Hg#	Sec 1(1899 .755		72 20 X		16:51	:29	25	May	07	HG	
** C ine g	heck S Flag	*KC	ard: v. 1	Found	i I	rue	Seq: Units PPB	3		SD/R	SD	:11	25	May	07	НG	
** Cl ine g	heck S Flag	tand Fou	ard: nd Ra 3	1 Ck inge(+ .200	:1BLAN -/-) U)	K nits PPB	Seq:	SD.	74 /RSD 000	:	17:00	:50	25	May	07	НG	
g :	ample :	P.	PB	•	FCW 000	-	1(1899 .047	9)			17:05	:32	25	May	07	HG	
** Sa ġ	ample 1	D: ·!	580-1 PB	57082 •	FCW 000	Hg#	Seq 1(1899 1.79	: 8)	76	:	17:10						
** Sa	ample I	D: 5	580-1 PB	57083		Hg#:	Seq L (1899) L . 74	:			17:15						

- - - · · · · ·

Folder: Protocol: STL-SEA ***POST-RUN REPORT*** Line Conc. Units SD/RSD 1 2 3 *** Sample ID: 580-157084 Seq: 78 17:20:03 25 May 07 FCW Hg#1(18998) 7.61. PPB .000 7.61 *** Check Standard: 4 Ck45 PPB Seg: 79 17:24:57 25 May 07 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

FCW Hg#1 .000 .443

Ha

.443

17:39:51 25 May 07

HG

052507A

LABORATORY WORKSHEETS

Metals/Inorganics Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 580-18997

Method Code: 580-7471A_Prep-580

Analyst: Boardway, Peter A

eter A

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

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
-	580-5385-B-3 (7471A)	ΝΑ	Solid	0.5790 g	50 mL	5/30/07	4_Days - R	4		
7	580-5385-B-3~DU (7471A)	ΝΑ	Solid	0.5611 g	50 mL	5/30/07	4_Days - R	4		
6	580-5385-B-3~DU (7471A)	N/A	Solid	0.5375 g	50 mL	5/30/07	4_Days - R	4		
4 <u>F</u> 0	580-5385-B-3-MS T (7471A)	N/A	Solid	0.5253 g	50 mL	5/30/07	4_Days - R	4		
ro F	8	ΝΆ	Solid	0.5618 g	50 mL	5/30/07	4_Days - R	4		
ю	580-5385-B-4 (7471A)	ΝΑ	Solid	0.5494 g	50 mL	2/30/07	4_Days - R	4		
<u> </u>	580-5385-B-5 8 (7471A)	N/A	Solid	0.5155 g	50 mL	2/30/07	4_Days - R	4		
∞ ———	580-5385-B-6 (7471A)	NA	Solid	0.6016 g	50 mL	5/30/07	4_Days - R	4		
<u></u>	580-5385-B-8 (7471A)	ΝΆ	Solid	0.5692 g	50 mL	5/30/07	4_Days - R	4		
무	580-5385-B-9 (7471A)	NA	Solid	0.6182 g	50 mL	5/30/07	4_Days - R	4		
 -	580-5407-C-2 (7471A)	N/A	Solid	0.6620 g	50 mL	5/30/07	4_Days - R	4		
5 	580-5407-C-3 (7471A)	N/A	Solid	0.6082 g	50 mL	5/30/07	4_Days - R	4		
<u>ნ</u>	580-5407-C-4 (7471A)	N/A	Solid	0.5678g	50 mL	5/30/07	4_Days - R	4		
4	MB~580-18997/14 N/A	N/A		0.5 g	50 mL	NA	N/A	N/A		
	LCS~580-18997/15 N/A	N/A		0.5 g	50 mL	NA	N/A	N/A		
J										

Page 2 of 5

Metals/Inorganics Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 580-18997

Method Code: 580-7471A_Prep-580

LCSD~580-18997/16 ¥

16

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LCSSRM-580-18997/17

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Analyst: Boardway Peter A

¥	Analyst: Boal	ardway, Peter A	ter A		Batch Open: 5/24/2007 4:26:47PM
		-			Batch End:
0.5 g	50 mL	¥ X	N/A	¥/N	
0.1172 g	50 mL	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	ver 056527	to.	ant		ID SEA204	ent	Ær	Per	sid 4106110	sid 1106122	ler 6	er 226752	er 60384	ot 045936 er	# 30198		2	X	er 060944	er
	Hydroxylamine Sulfate Lot Number 056527	Hydroxylamine Hydrochloride Lot	Acid used for pH adjustment	Aqua Regia Lot Number		•	Blank Soil Lot Number	Sulfuric Acid Lot Number	Lot # of hydrochloric acid 4106110	Example 20 Lot # of Nitric Acid 1106122	Hood ID or number 6	Hot Block ID number 226752	Potassium Persulfate Lot Number 60384	Potassium Permanganate Lot	NaCL Lot #	Oven, Bath or Block Temperature 1	Oven, Bath or Block Temperature 2	Repittetor Volume Check	Stannous chloride Lot Number 060944	SOP Number

Printed: 5/25/2007

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Metals/Inorganics Analysis Sheet

(To Accompany Samples to Instruments)

Method Code: 580-7471A_Prep-580 Batch Number: 580-18997

ID number of the thermometer 15-041-1A

DigestionTubes

Analyst: Boardway, Peter A

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

Batch End:

Comments

STL Seattle

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:

Reagent Additions Worksheet

- -					
Cau ID	Reagent Code	Amount Added	mount 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		

	15 15 16 16 16 16 16 16	Lot#:			
	Other Reagents:	Amount/Units			
Pa	uge	Reagent	f 28		