Page

#M11117 10-2-12 Turbidity working stds into 20mls pipet from #M11115
A (200 NTU)

6el Std =
4.00 NTU — 2.0 mL into 18 mL D.I. H_2O = 20 NTU
48.9 NTU — 10 mL into 10 mL D.I. H_2O = 100 NTU
525 NTU — 20 mL into 0 mL DI H_2O = 200 NTU
(Exp Aug 2014).

#M11118 10/02/12 LSF — Hg Working Stds: (0.2% HNO3, HCl)
1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11119 10/02/12 LSF — Hg Alt Source Working Std: (0.2% HNO3, HCl)
1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11120 10/02/12 LSF — Hg ICV / LCSW (0.2% HNO3, HCl)
3.0ml of 100ug/L Hg (#M 11119) into 100ml = 3.0ug/L Hg

#M11121 10/02/12 LSF — Hg CCV (0.2% HNO3, HCl)
1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11122 10/02/12 LSF — Hg MRL: (0.2% HNO3, HCl)
0.2ml of 100ug/L Hg (#M11119) into 100ml = 0.2ug/L Hg

#M11123 10/02/12 LSF — Hg Aqua Regia Reagent:
"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO3 (AB: 554)

#M11124 10/02/12 LSF — Stannous Chloride Reagent:
Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M 11045) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11125 10/04/12 LSF — Potassium Persulfate: 50g potassium persulfate (#M10573) dissolve into 1000mL D.I. H_2O.
Exp: 01/04/13

#M11126 10/09/12 LSF — TCLP Extraction Fluid #1: Fill a 20L Carboy w/19L D.I. H_2O. Add 114mL Glacial Acetic Acid (AB 534) and 128.6mL 10N NaOH (#M10910). Dilute to 20L with DI H_2O and mix. pH 4.93 ± 0.05
Exp: 10/09/13

#M11127 10/10/12 LSF — Hg Working Stds: (0.2% HNO3, HCl)
1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11128 10/10/12 LSF — Hg Alt Source Working Std: (0.2% HNO3, HCl)
1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11104 09/24/12 LSF TCLP Extraction Fluid #1: Into a 20L carboy pour [illegible] Glacial Acetic Acid (AB: [illegible]) 128.6mL 10N NaOH (#M10910) [illegible] to 20L with D.I. H_2O [illegible] pH = 4.93 ± 0.05

Exp: 09/24/13

#M11105 09/25/12 LSF NaCl Hydroxylamine Sulfate Reagent: Dissolve 60g NaCl (#[illegible]) and 60g hydroxylamine [illegible] (#M10210) in 500mL [illegible]

Exp: 03/25/13

#M11106 09/26/12 LSF Potassium Permanganate Sol'n: 50g potassium permanganate (#[illegible]) dissolve into 1,000mL of D.I. H_2O

Exp: 03/26/13

#M11107 09/26/12 LSF	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M11108 09/26/12 LSF	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M11109 09/26/12 LSF	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M11108) into 100ml = 3.0ug/L Hg
#M11110 09/26/12 LSF	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M11111 09/26/12 LSF	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M 11108) into 100ml = 0.2ug/L Hg
#M11112 09/26/12 LSF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO_3 (AB: [illegible])
#M11113 09/26/12 LSF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#[illegible]) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water

#M11114 09/28/12 LSF Stannous Chloride (Macron) ~ Lot NO. 0000017703 Exp [illegible]

#M11115 9-28-12 Stabl Cal Standard, 200 NTU Lot A2216 ex Aug 2014

#M11116 09/28/12 LSF TCLP Extraction Fluid #1: Into a 20L carboy pour [illegible] Acetic Acid (AB: 5[illegible]) [illegible] (#M10910). Dilute to 20L with [illegible] mix. pH = 4.93 ± 0.05

Exp: 09/28/13

#M11093 [illegible]

Pb (ex 10/13)

97 AL (ex 11/13),
,000 ug/l std
97 AL (ex 2/13)

M10897 AL (ex 11/13)

#M11094 09/19/12 (3F

Hg CCV
(0.2% HNO3, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11095 09/19/12 (3F

Hg MRL:
(0.2% HNO3, HCl)

0.2ml of 100ug/L Hg (#M 11092) into 100ml = 0.2ug/L Hg

#M11096 09/19/12 (5F

Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO3 (AB: 554)

#M11097 09/19/12 (5F

Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M 11075) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11098 09-21-12 AMA — GFAA LOD/LOQ Soil Working Std: (1% HNO_3) Exp. 11-25-12 — Into a 200mL vol. flask, partially filled with D.I. H_2O, pipet the following and bring up to volume with D.I. H_2O.
1.2 mL Sb 1000 mg/L (#M10280) = 6,000 µg/L Sb
3.2 mL As 1000 mg/L (#M10281) = 16,000 µg/L As
3.2 mL Se 1000 mg/L (#M10277) = 16,000 µg/L Se
0.08 mL Pb 10,000 mg/L (#M10839) = 4,000 µg/L Pb
1.0 mL TL 1000 mg/L (#M10566) = 5,000 µg/L TL

#M11099 09-21-12 AMA — GFAA LOD/LOQ Soil Spiking Soln: (1% HNO_3) Exp. 11-25-12 — Into a 1L vol. flask, pipet 10mL of #M11098 and bring up to volume with D.I. H_2O.

#M11100 09-21-12 AMA — GFAA LOD/LOQ Soil Ag Working Std: (1% HNO_3) Exp. 12-8-12 — Into a 200mL vol. flask, partially filled with D.I. H_2O, pipet the following and bring up to volume with D.I. H_2O.
0.12mL Ag 1000 mg/L (#M10310) = 600 µg/L Ag

#M11101 09-21-12 AMA — GFAA LOD/LOQ Soil Ag Spiking Soln: (1% HNO_3) Exp. 12-8-12 — Into a 1L vol. flask, pipet 10mL of #M11100 and bring up to volume with D.I. H_2O.

#M11102 09-21-12 AMA — GFAA LOD/LOQ Water Working Std: (1% HNO_3) Exp. 11-25-12 — Into a 100mL vol. flask, partially filled with D.I. H_2O, pipet the following and bring up to volume with D.I. H_2O.
1.5mL Sb 1000 mg/L (#M10280) = 15,000 µg/L Sb
1.0mL As 1000 mg/L (#M10281) = 10,000 µg/L As
2.0mL Se 1000 mg/L (#M10277) = 20,000 µg/L Se
0.045 mL Pb 10,000 mg/L (#M10839) = 4500 µg/L Pb
0.4mL TL 1000 mg/L (#M10566) = 4000 µg/L TL
0.1mL Ag 1000 mg/L (#M10310) = 1000 µg/L Ag

#M11103 09-21-12 AMA — GFAA LOD/LOQ Water Spiking Soln: (1% HNO_3) Exp. 11-25-12 — Into a 1L vol. flask, pipet 10mL of #M11102 and bring up to volume with D.I. H_2O.

ls. #M10868 &
do mark with DI.

Glacial Acetic Acid
(#M10910). Dilute to
H = 4.93 ± 0.05

pipet 114 ml of
H (#M10910).
= 4.93 ± .05.

ml=10mg/L Hg
lg
lg
lg
lg
lg
l
- Hg

l = 10mg/L Hg

ml = 3.0ug/L Hg

#M11086 cont...

100k	10 mls of #M11051 Cu (ex 2/14) , 10 mls of #M11054 Mn (ex 2/14) , 10 mls of #M11053 Cr (ex 2/14), 10 mls #M10839 Pb (ex 10/13) 10 mls #M10284 Zn (ex 11/12) = 100,000 ug/L
100,000	10 mls of #M10899 Mg (ex 06/13) , 10 mls of #M10896 Fe (ex 11/13) ,10 mls of #M10898 Ca (ex 11/13),10 mls #M10897 AL (ex 11/13) 10 mls #M10570 Na (ex 4/13),10 mls #m10570 Na (ex 3/13), 10 mls #m10667 K (ex 6/13) into 1000 ml vol flask = 100,000 ug/l std
500,000	50 mls of #M10899 Mg (ex 11/13) , 50 mls of #M10896 Fe (ex 11/13) ,50 mls of #M10898 Ca (ex 11/13), 50 mls #M10897 AL (ex 2/13) into 1000 ml vol flask = 500,000 ug/l std
1000k	100 mls of #M10899 Mg (ex 06/13) , 100 mls of #M10896 Fe (ex 11/13) ,100 mls of #M10898 Ca (ex 11/13),100 mls #M10897 AL (ex into 1000 ml vol flask = 1,000,000 ug/l std

Bring the 1000 ml volumetric up to mark with DI H2O

#M11087
9-17-12 ZA
5% HCL
5% HNO3

Continuing Calibration Standard 1(CCV1)

Into a one liter volmetric flask pipet 50mls of # M11031 (ex 8/13) and 5 ml of #M11085 (ex 09/13).
ex.nov 8/13
Bring up to mark with DI H2O

Continuing Calibration Standard 2(CCV2)

Into a one liter volmetric flask pipet 5 mls of # M11031 (ex 8/13) and 0.5 ml of #M11085 (ex 09-13).
ex.nov 8/13
Bring up to mark with DI H2O

#M11088 JCSAB into 500 ml vol flask pipet 50mls #M10868
9-17-12 ZA 2.5mls #M11031 & #M11085. Bring up to mark with
H_2O ex 4/13.

#M11089 09/17/12 SF TCLP Extraction Fluid #1: Into a 20L carboy pipet 114mL Glacial Acetic
(AB.534) and 128.6mL 10N NaOH (#M10910) Dilute
Exp: 09/17/13 20L with DI H_2O and mix pH = 4.93 ± 0.05

#M11090 9-18-12 ZA TCLP Extraction fluid #1 into 20L carboy pipet 114mL
Glacial Acetic Acid (AB.534) & 128.6 mL 10N NaOH (#M10910)
ex 9/18/13 Dilute to 20L with DI H_2O and mix pH = 4.93 ± .05

#M11091 09/19/12 SF

Hg Working Stds:
(0.2% HNO3, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11092 09/19/12 SF

Hg Alt Source Working Std:
(0.2% HNO3, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11093 09/19/12 SF

Hg ICV / LCSW
(0.2% HNO3, HCl)

3.0ml of 100ug/L Hg (#M1092) into 100ml = 3.0ug/L Hg

#M11076 09/11/12 LSF	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M11077 09/11/12 LSF	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M11078 09/11/12 LSF	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M11077) into 100ml = 3.0ug/L Hg
#M11079 09/11/12 LSF	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M11080 09/11/12 LSF	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M11077) into 100ml = 0.2ug/L Hg
#M11081 09/11/12 LSF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO3 (AB: 554)
#M11082 09/11/12 LSF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11065) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11083 09/11/12 LSF NaCl Hydroxylamine sulfate Reagent: Dissolve 60g NaCl (#9574) and 60g hydroxylamine sulfate (#M10210) in 500mL milli-Q H2O.
Exp: 03/11/13

#M11084 09/17/12 LSF Potassium Permanganate Soln: 50g Potassium permanganate (#M9903) dissolve into 1,000mL of D.I. H2O.
Exp: 03/17/13

#M11085 9-17-12 Custom Assurance std Spex Certiprep lot # ~~XC7319172~~
15-182CR ex 9-15-13 :
#M11086 9-17-12

ICAP Working Standards

5% HNO3 5%HCL

Standard name	Pipet the following respectively:
0.25	0.25 mls of standard 100 ug/L into 1000 ml volumetric flask = 0.25 ug/L std
0.5	0.50 mls of standard 100 ug/L into 1000ml volumentric flask= 0.50 ug/L std
1	1.0 mls of standard 100ug/L into 1000 ml volumentrc flask =1.00 ug/L std
5	5.0 mls of standard 100ug/L into 1000 ml volumentrc flask =5.00 ug/L std
10	10.0 mls of standard 100ug/L into 1000 ml volumentrc flask =10.0 ug/L std
20	20.0 mls of standard 100ug/L into 1000 ml volumentrc flask =20.0 ug/L std
50	50.0 mls of standard 100ug/L into 1000 ml volumentrc flask =50.0 ug/L std
100	1.0 mls of #M10837(ex 3/13) and 1.0 mls of #M11085 (ex 09/13) into 1000 ml volumectric flask= 100 ug/L std
1000	10.0 mls of #M10837(ex 4/13) and #M11085 (ex 9/13) and 1 mL of #M10564 Si into 1000 ml volumetric flask= 1000 ug/L std
10,000	100 mls #M10837 (ex 4/13),10 mls #M10568 Be (ex 4/13),10 mls #M10278 Cd (ex 11/12)

mL Glacial
8.6mL 10N NaOH
D.I. H2O and

#M11086 Cont....

#M11071 09/07/12 LSF

5% HNO_3
5% HCL

3010 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Li	10	M10567	1000	0.5
Sn	10	M10562	1000	0.5
Sr	2	M10569	1000	0.1
Ti	8	M10709	1000	0.4
W	36	M10559	1000	1.8

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 04/20/13

#M11072 09/07/12 LSF

5% HNO_3
5% HCL

3010 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
K	500	M10667	10000	2.5
Na	600	M10570	10000	3

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 04/20/13

#M11073 09/07/12 LSF

5% HNO_3
5% HCL

3010 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
B	16	M10275	1000	0.8
Si	200	M10360	1000	10

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 11/25/12

#M11074 09/10/12 LSF TCLP Extraction Fluid #1: Into a 20L carboy pipet 114 mL Glacial Acetic Acid (AB534) and [illegible] (#M10910). Dilute to 20L with [illegible] mix. pH = 4.93 ± 0.05

Exp: 09/10/13

#M11075 09/10/12 LSF Stannous Chloride (JT Baker) - Lot No. 0000005796
Exp: 03/29/17

ous Chloride (#M1085) in
ater.

ng up to

L) to
1 L

eate a
rking

(mL) to
nto 1 L
72
1
16
48
2

create a
working

#M11067 09/07/12 LSF

5% HNO_3
5% HCl

3050 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
K	2640		10000	13.2
Na	960		10000	4.8

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 04/20/13

#M11068 9-7-12
ICV List 2. Into 1 Liter volumetric flask →
5% HCL pipet 1 ml of #M10709, #M11056, #M10567, #M10562, #M10569
5% HNO_3 Bring up to mark with DI H_2O. = 1000 ug/L List 2 ex. April 20, 2013.

#M11069 09/07/12 LSF

5% HNO_3
5% HCL

3050 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
B	52	M10275	1000	2.6
Si	192	M10860	1000	9.6

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 11/25/12

#M11070 09/07/12 LSF

5% HNO_3
5% HCL

3010 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag	4	M10310	1000	0.2
Al	36	M10670	10000	0.18
As	24	M10781	1000	1.2
Ba	1.8	M11052	1000	0.09
Be	0.6	M10568	1000	0.03
Ca	100	M10669	10000	0.5
Cd	2	M10278	1000	0.1
Co	4	M10561	1000	0.2
Cr	4	M11053	10000	0.02
Cu	7	M11051	10000	0.035
Fe	100	M10896	10000	0.5
Mg	40	M10668	10000	0.2
Mn	4	M11054	10000	0.02
Mo	7	M10560	1000	0.35
Ni	6	M10565	1000	0.3
Pb	4	M10839	10000	0.02
Sb	12	M10280	1000	0.6
Se	13	M10277	1000	0.65
Tl	15	M10566	1000	0.75
V	5	M10285	1000	0.25
Zn	10	M10284	10000	0.05

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 11/25/12

#M11063 09/04/12 LSF

Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11064 09/05/12 AMA $NiNO_3$ Modifier - Into a 100mL vol. flask, pipet 20mLs $NiNO_3$ (M9853) and bring up to volume with Milli-Q H_2O.

#M11065 09/07/12 LSF 3050 LOQ ✓

5% HNO_3
5% HCl

3050 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mls) pipet into flask
Ag	4	M10310	1000	0.2
Al	9.6	M10670	10000	0.048
As	32	M10781	1000	1.6
Ba	2	M11052	1000	0.1
Be	1.6	M10562	1000	0.08
Ca	56	M10669	10000	0.28
Cd	1.6	M10278	1000	0.08
Co	9.6	M10561	1000	0.48
Cr	5.6	M11053	10000	0.028
Cu	16	M11051	10000	0.08
Fe	72	M10671	10000	0.36
Mg	32	M10668	10000	0.16
Mn	6	M11054	10000	0.03
Mo	9.6	M10560	1000	0.48
Ni	4.8	M10565	1000	0.24
Pb	10	M10831	10000	0.05
Sb	32	M10780	1000	1.6
Se	16	M10297	1000	0.8
Tl	19	M10566	1000	0.95
V	3.2	M10285	1000	0.16
Zn	12	M10281	10000	0.06

Of this Base standard, pipet 10 mls into 500 ml volumetric to create working std or 1 ml into 50 ml digestion tube for a digestion working standard.

Expires: 11/25/12

M11066 ~~#M~~ 09/04/12 LSF 09/07/12 LSF 3050 LOQ ✓

5% HNO_3
5% HCl

3050 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mls) pipet into flask
Li	14.4	M10567	1000	0.72
Sn	20	M10562	1000	1
Sr	3.2	M10569	1000	0.16
Ti	9.6	M10709	1000	0.48
W	24	M10559	1000	1.2

Of this Base standard, pipet 10 mls into 500 ml volumetric to create working std or 1 ml into 50 ml digestion tube for a digestion working standard.

Expires: 04/20/13

rtiprep Lot# #M11046 08/24/12 LSF Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO3 (AB: 554)

#M11047 08/24/12 LSF Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M10985) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

. Hg

#M11048 TCLP Soln #1: Into a 20L Carboy pipet 114 mls Glacial Acetic Acid (AB.534) and 128.6 ml 10N NaOH (#M10910). Dilute to 20L with DI H_2O and mix pH = 4.93±.0
8-26-12

. Hg

#M11049 08/27/12 LSF Potassium persulfate soln: 50g potassium persulfate (#M10573) dissolve into 1,000mL D.I. H_2O.
Exp: 02/27/13

L Hg

#M11050 08/27/12 LSF Potassium permanganate soln: 50g potassium permanganate (#M9903) dissolve into 1,000mL of D.I. H_2O.
Exp: 02/27/13

_ Hg

#M11051 08-28-12 CPI Cu 10,000mg/L Lot# 12G118 ex Feb 22, 2014.

L Hg

#M11052 08-28-12 CPI Ba, 1000mg/L Lot # 12G245 ex Feb 22, 2014.

art HNO3 (AB: 554)

#M11053 08-28-12 CPI Cr, 10,000 mg/L Lot # 11K059 ex Feb 22 2014.

ous Chloride (#M 10985) in
ater.

#M11054 8-28-12 CPI Mn 10,000mg/L Lot # 11L109 ex Feb 22, 2

#M11055 8-30-12 Spex Certiprep Custum Assurance Std Lot # 15-153CR ex Aug 30, 2013.

Glacial Acetic
10N NaOH (#M 10910)
O and mix

#M11056 8-30-12 SCP Science Tungsten 1000ug/L ex. 12/13

#M11057 09/04/12 LSF

Hg Working Stds: (0.2% HNO3, HCl)
1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

to 100ml=10mg/L Hg
)ug/L Hg
5ug/L Hg
)ug/L Hg
)ug/L Hg
)ug/L Hg
ug/L Hg
0.0ug/L Hg

#M11058 09/04/12 LSF

Hg Alt Source Working Std: (0.2% HNO3, HCl)
1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

100ml = 10mg/L Hg
/L Hg

#M11059 09/04/12 LSF

Hg ICV / LCSW (0.2% HNO3, HCl)
3.0ml of 100ug/L Hg (#M 11058) into 100ml = 3.0ug/L Hg

o 100ml = 3.0ug/L Hg

#M11060 09/04/12 LSF

Hg CCV (0.2% HNO3, HCl)
1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

to 100ml=10mg/L Hg
)ug/L Hg
)ug/L Hg

#M11061 09/04/12 LSF

Hg MRL: (0.2% HNO3, HCl)
0.2ml of 100ug/L Hg (#M 11058) into 100ml = 0.2ug/L Hg

o 100ml = 0.2ug/L Hg

#M11062 09/04/12 LSF

Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO3 (AB: 554)

#M11031 # 8-17-12 Custom Assurance Std Spex [illegible]
8-122YP - ex Aug 15, 2013

#M11032 08/20/12 15F	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M11033 08/20/12 15F	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M11034 08/20/12 15F	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M 11033) into 100ml = 3.0ug/L Hg
#M11035 08/20/12 15F	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M11036 08/20/12 15F	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M 11033) into 100ml = 0.2ug/L Hg
#M11037 08/20/12 15F	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO3 (AB: [illegible]
#M11038 08/20/12 15F	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11039 08/23/12 13F (Fisher) Hydroxylamine Sulfate Lot #116718 Exp: 08/23/13

#M11040 08/23/12 15F TCLP Extraction Fluid #1: Into a 20L carboy pipet 114mL Glacial Acetic Acid (AB: 534) and [illegible] Dilute to 20L with DI [illegible] pH=4.93 ± 0.05
Exp: 08/23/13

#M11041 08/24/12 15F	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M11042 08/24/12 15F	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M11043 08/24/12 15F	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M 11042) into 100ml = 3.0ug/L Hg
#M11044 08/24/12 15F	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M11045 08/24/12 15F	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M 11042) into 100ml = 0.2ug/L Hg

#M11016 08/06/12. AMA	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M11013) into 100ml = 0.2ug/L Hg
#M11017 08/06/12 AMA	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO3 (AB: 554)
#M11018 08/06/12 AMA	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M 10985) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11019 08/07/12SF TCLP Extraction Fluid #1: Into a 2ol Carboy pipet 114mL Glacial Acetic Acid (AB,534) and 128.6mL 10N NaOH (#M10910), Dilute to 2oL w/D.I. H_2O and mix. pH = 4.93 ± 0.05
Exp: 08/07/13

#M11020 8-8-12 JA Custom Assurance Std, Spex Certiprep Lot # 8-97HP ex Aug 2013

#M11021 08/09/12SF Potassium Permanganate Sol'n: 50g potassium permanganate (#M9903) dissolve into 1,000mL of D.I. H_2O.
Exp: 02/09/13

#M11022 08/09/12 AMA Pd/Mg Modifier - Into a 50mL vol. flask, pipet 15mL #M10726 and 5mL #M10551. Bring up to volume with Milli-Q H_2O. Exp. 10-30-12

#M11023 08/10/12SF NaCl Hydroxylamine Sulfate Reagent: Dissolve 600g NaCl (#M8574) and 600g hydroxylamine sulfate (#M10210) in 500mL Milli-Q H_2O.
Exp: 02/10/13

#M11024 08/13/12SF	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M11025 08/13/12SF	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M11026 08/13/12SF	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M11025) into 100ml = 3.0ug/L Hg
#M11027 08/13/12SF	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M11028 08/13/12SF	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M 11025) into 100ml = 0.2ug/L Hg
#M11029 08/13/12SF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO3 (AB: 554)
#M11030 08/13/12SF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M 10985) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11002 07/23/12SF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)
#M11003 07/23/12SF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M6[illegible]) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.

#M11004 07/26/12SF TCLP Extraction Fluid #1: Into a 20L carboy Pipet 114mL Glacial Acetic Acid (AB 5347) and 128.6mL 10N NaOH (#10910). Dilute to 20L with DI H2O and mix. pH = 4.93 ± 0.05

Exp: 07/26/13

#M11005 07/30/12SF	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M11006 07/30/12SF	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M11007 07/30/12SF	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M11006) into 100ml = 3.0ug/L Hg
#M11008 07/30/12SF	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M11009 07/30/12SF	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M11006) into 100ml = 0.2ug/L Hg
#M11010 07/30/12SF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)
07/30/12SF #M11011 07/30/12SF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M10985) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.
#M11012 08/06/12 AMA	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M11013 08/06/12 AMA	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M11014 08/06/12 AMA	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M11013) into 100ml = 3.0ug/L Hg
#M11015 08/06/12 AMA	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M10987 07/12/12 LSF Potassium Persulfate ~~soln: 50g potas~~ 07/12/12 LSF 07/12/12 LSF Lot NO: 117410 Exp: 07/12/13

#M10988 07/16/12 LSF	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M10989 07/16/12 LSF	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M10990 07/16/12 LSF	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M10989) into 100ml = 3.0ug/L Hg
#M10991 07/16/12 LSF	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M10992 07/16/12 LSF	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M10989) into 100ml = 0.2ug/L Hg
#M10993 07/16/12 LSF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)
#M10994 07/16/12 LSF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M10985) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.

#M10995 07/17/12 LSF TCLP Extraction Fluid #1: Into a 20L carboy pipet 114mL Glacial Acetic Acid (AB.534) and 128.6mL 10N NaOH (#M10910). Dilute to 20L with D.I. H_2O and mix. pH = 4.93 ± 0.05
Exp: 07/17/13

#M10996 07/20/12 LSF Potassium permanganate soln: 50g potassium permanganate (#M9903) dissolve into 1,000mL of D.I. H_2O.
Exp: 01/20/13

#M10997 07/23/12 LSF	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml= 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M10998 07/23/12 LSF	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M10999 07/23/12 LSF	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M10998) into 100ml = 3.0ug/L Hg
#M11000 07/23/12 LSF	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M11001 07/23/12 LSF	Hg MRL:	0.2ml of 100ug/L Hg (#M10999) into 100ml = 0.2ug/L Hg

#M10976 07/09/12 LSF Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)

#M10977 07/09/12 LSF Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M 10883) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.

#M10978 07/09/12 LSF Potassium persulfate sol'n: 50g potassium persulfate (#M10573) dissolve into 1000mL D.I. H_2O.
Exp: 01/09/13

#M10979
7-10-12
ex

ICAP Working Standards List 2

.5% HNO3 .5%HCL

Standard name	Pipet the following respectively:
1	0.01 mls of #M10837 and .001mls #M10559 = 1 ug/L
10	0.10 mls of #M10837 and .01mls #M10559 = 10 ug/L
100	1 mls of #M10334 and 0.1mls #M10559 = 100 ug/L
1000	10 mls of #M10334 and 1.0mls #M10559 = 1000 ug/L
10000	100 mls of #M10334 and 10mls #M10559 = 10000 ug/L

ex3-13

#M10980 7-10-12 ex

Initial Calibration Standard (ICV) List 2

Into 1 liter vol flsk pipet 1 ml of #M10567,M10562,M10569,M10709, and M9930
bring up to mark with DI H2O ex 8/12

#M10981 7-10-12 ex

Continuing Calibration Standard (CCV)

into 1 liter vol flask pipet 10 mls of #M10837 and 1.0mls #M10559 = 1000 ug/L
bring up to mark with DI H20 ex 3-13

#M10982 07-10-12 GFAA LOD/LOQ Soil Working Std: Into a 200mL vol. flask, partially filled with D.I. H_2O, pipet the following and bring up to volume with D.I. H_2O.
AMA (1% HNO_3)
Exp. 11/25/12

1.2mL Sb 1000mg/L (#M10280) = 6,000 µg/L Sb
3.2mL As 1000mg/L (#M10281) = 16,000 µg/L As
3.2mL Se 1000mg/L (#M10277) = 16,000 µg/L Se
0.08mL Pb 10,000mg/L (#M10839) = 4,000 µg/L Pb
1.0mL Tl 1000mg/L (#M10566) = 5,000 µg/L Tl
0.12mL Ag 1000mg/L (#M10310) = 600 µg/L Ag

#M10983 07-10-12 GFAA LOD/LOQ Soil Spiking sol'n: Into a 1L vol. flask, pipet 10mL of #M[illegible] bring up to volume with D.I. H_2O.
AMA (1% HNO_3)
Exp. 11/25/12

#M10984 07/10/12 LSF Elektrolyte - Lot NO.: 1W350A Exp: 12/16/14

#M10985 07/11/12 LSF Stannous Chloride - Lot NO. K475 88 Exp: 07/11/13

#M10986 07/12/12 LSF NaCl Hydroxylamine Sulfate Reagent: Dissolve 60g NaCl (#M[illegible]) [illegible] hydroxylamine sulfate [illegible]

#M10962 06/29/12 LSF Potassium permanganate sol'n: 50g potassium permanganate (#M9903) dissolve into 1,000mL of D.I. H_2O.
Exp: 12/29/12

#M10963 06/29/12 LSF TCLP Extraction Fluid #1: Into a 20L carboy pipet 114mL Glacial Acetic Acid (AB.534) and 128.6mL 10N NaOH (#M10910). Dilute to 20L with D.I. H_2O and mix. pH = 4.93±0.05
Exp: 06/29/13

#M10964 ~~06~~ 07/02/12 LSF	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M10965 07/02/12 LSF	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M10966 07/02/12 LSF	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M10965) into 100ml = 3.0ug/L Hg
#M10967 07/02/12 LSF	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M10968 07/02/12 LSF	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M 10965) into 100ml = 0.2ug/L Hg
#M10969 07/02/12 LSF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)
#M10970 07/02/12 LSF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M 10241) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.
#M10971 07/09/12 LSF	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M10972 07/09/12 LSF	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M10973 07/09/12 LSF	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M 10972) into 100ml = 3.0ug/L Hg
#M10974 07/09/12 LSF	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M10975 07/09/12 LSF	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M 10972) into 100ml = 0.2ug/L Hg

#M10954 06/25/12 SF — Hg MRL: (0.2% HNO3, HCl) — 0.2ml of 100ug/L Hg (#M 10951) into 100ml = 0.2ug/L Hg

#M10955 06/25/12 SF — Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 537) with 1 part HNO3 (AB: 536)

#M10956 06/25/12 SF — Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M10963) in 70 mL HCl (AB: 537). Bring up to volume with DI Water.

#M10957 06/25/12 SF NaCl Hydroxylamine Sulfate Reagent: Dissolve 600g NaCl (#M10954) and hydroxylamine sulfate (#M10961) in 1-2 L H2O. Exp: 12/25/12

#M10958 6-27-12

ICAP Working Standards

5% HNO3 5%HCL

Standard name	Pipet the following respectively:
0.25	0.25 mls of standard 100 ug/L into 1000 ml volumetric flask = 0.25 ug/L std
0.5	0.50 mls of standard 100 ug/L into 1000ml volumentric flask= 0.50 ug/L std
1	1.0 mls of standard 100ug/L into 1000 ml volumentrc flask =1.00 ug/L std
5	5.0 mls of standard 100ug/L into 1000 ml volumentrc flask =5.00 ug/L std
10	10.0 mls of standard 100ug/L into 1000 ml volumentrc flask =10.0 ug/L std
20	20.0 mls of standard 100ug/L into 1000 ml volumentrc flask =20.0 ug/L std
50	50.0 mls of standard 100ug/L into 1000 ml volumentrc flask =50.0 ug/L std
100	1.0 mls of #M10837(ex 3/13) and 1.0 mls of #M10470 (ex 09/12) into 1000 ml volumetric flask= 100 ug/L std
1000	10.0 mls of #M10837(ex 4/13) and 1.0 ml of #M10310 Ag, #M10568 Be,#M10278 Cd and #M10564 Si into 1000 ml volumetric flask = 1000 ug/L std
10,000	100 mls #M10837 (ex 4/13),10 mls #M10568 Be (ex 4/13),10 mls #M10278 Cd (ex 11/12)
100k	10 mls of #M10144 Cu (ex 9/12) , 10 mls of #M10141 Mn (ex 9/12) , 10 mls of #M10139 Cr (ex 9/12), 10 mls #M10889 Fe (ex 9/12)
	10 mls #M10284 Zn (ex 09/12) = 100,000 ug/L
100,000	10 mls of #M10899 Mg (ex 06/13) , 10 mls of #M10896 Fe (ex 11/13) ,10 mls of #M10898 Ca (ex 11/13),10 mls #M10897 Al (ex 11/13)
	10 mls #M10570 Na (ex 4/13),10 mls #m10570 Na (ex 3/13), 10 mls #m10667 K (ex 6/13) into 1000 ml vol flask = 100,000 ug/l std
500,000	50 mls of #M10899 Mg (ex 11/13) , 50 mls of #M10896 Fe (ex 11/13) ,50 mls of #M10898 Ca (ex 11/13), 50 mls #M10897 Al (ex 11/13)
	into 1000 ml vol flask = 500,000 ug/l std
1000k	100 mls of #M10899 Mg (ex 06/13) , 100 mls of #M10896 Fe (ex 11/13) ,100 mls of #M10898 Ca (ex 11/13),100 mls #M10897 Al (ex 11/13)
	into 1000 ml vol flask = 1,000,000 ug/l std
	Bring the 1000 ml volumetric up to mark with DI H2O

#M10959 ICV/LCSW Into 1 Liter vol flask pipet 10mls #M10837, 10mls #M10470 6-27-12 #M10868, 0.5mls #M10560. Bring up to mark with DI H2O.

#M10960 CCV1, CCV2. Into 2 1 Liter Volumetrics
5% HCL 6-27-12
5% HNO3
CCV1 → 50mls #M10837 and 50mls #M10470 bring up with DI H2O
CCV2 → 5mls #M10837 and 0.5mls #M10470 bring up to mark with DI H2O. 9/12

#M10961 CSAB Into 500 ml vol flask pipet 50mls #M10837, 2.5mls #M10868 #M10470 Bring up to mark w/ DI H2O. 9/12
5% HCL 6-27-12
5% HNO3

te HCl (AB.537)
538)

e, dissolve
41) in 70mL HCl
with D.I. H_2O.

#M10940 06/19/12 LSF — Hg Working Stds: (0.2% HNO3, HCl)
1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M10941 06/19/12 LSF — Hg Alt Source Working Std: (0.2% HNO3, HCl)
1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M10942 06/19/12 LSF — Hg ICV / LCSW (0.2% HNO3, HCl)
3.0ml of 100ug/L Hg (#M 10941) into 100ml = 3.0ug/L Hg

#M10943 06/19/12 LSF — Hg CCV (0.2% HNO3, HCl)
1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M10944 06/19/12 LSF — Hg MRL: (0.2% HNO3, HCl)
0.2ml of 100ug/L Hg (#M 10941) into 100ml = 0.2ug/L Hg

#M10945 06/19/12 LSF — Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)

#M10946 06/19/12 LSF — Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M 10941) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.

#M10947 06/19/12 LSF Potassium permanganate sol'n: 50g Potassium permanganate (#M9903) dissolve into 1,000mL of D.I. H_2O.
Exp: 12/19/12

(AB: 538)
ide (# M 10941) in

#M10948 06/19/12 LSF TCLP Extraction Fluid #1: Into a 20L carboy pipet 114ml Glacial Acetic Acid (AB.539) and 128.6mL 10N NaOH (#M10910). Dilute to 20L with D.I. H_2O and mix.
Exp: 06/19/13 pH = 4.93 ± 0.05

#M10949 06/24/12
AMA — Pd/Mg Modifier – Into a 50mL vol. Flask, pipet 15mL #M10726 and 5mL #M10551. Bring up to volume with Milli-Q water. Exp. 10-30-12

#M 10563) into
= 100ug/L Hg
mL = 5.0ug/L Hg
100mL = 10mg/L Hg
ug/L Hg
: 10ug/L Hg

#M10950 06/25/12 LSF — Hg Working Stds: (0.2% HNO3, HCl)
1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

P ex June 15 2013

#M10951 06/25/12 LSF — Hg Alt Source Working Std: (0.2% HNO3, HCl)
1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M10952 06/25/12 LSF — Hg ICV / LCSW (0.2% HNO3, HCl)
3.0ml of 100ug/L Hg (#M 10951) into 100ml = 3.0ug/L Hg

#M10953 06/25/12 LSF — Hg CCV (0.2% HNO3, HCl)
1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M10928 06/04/12 LSF Hg Aqua Regia Reagent: "Carefully in hood mix 3 parts HCl (AB: 537) with one part #NO3 (AB: 538)

#M10929 06/04/12 LSF Stannous Chloride Reagent: Into a 100mL volumetric flask, dissolve 100g Stannous Chloride (#M10241) in 70mL HCl (AB: 537). Bring up to volume with D.I. Water.

#M10930 06/11/12 LSF	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M10931 06/11/12 LSF	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M10932 06/11/12 LSF	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M10931) into 100ml = 3.0ug/L Hg
#M10933 06/11/12 LSF	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M10934 06/11/12 LSF	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M10931) into 100ml = 0.2ug/L Hg
#M10935 06/11/12 LSF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)
#M10936 06/11/12 LSF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M10241) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.

#M10937 06/11/12 LSF Hg LOQ/LOD Spiking sol'n (water) – 1.0mL of 1000mg/L Hg (#M10563) into 100mL = 10mg/L Hg
1.0mL of 10mg/L Hg into 100mL = 100ug/L Hg
5.0mL of 100ug/L Hg into 100mL = 5.0ug/L Hg

#M10938 06/11/12 LSF Hg LOQ/LOD Spiking sol'n (soil) – 1.0mL of 1000mg/L Hg (#M10563) into 100mL = 10mg/L Hg
1.0mL of 10mg/L Hg into 100mL = 100ug/L Hg
10.0mL of 100ug/L Hg into 100mL = 10ug/L Hg

#M10939 6-18-12 Custom Assurance std. Spex CertiPrep lot # 7-1884P

#M10914 05/29/12 LSF	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M 10913) into 100ml = 3.0ug/L Hg
#M10915 05/29/12 LSF	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M10916 05/29/12 LSF	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M 10913) into 100ml = 0.2ug/L Hg
#M10917 05/29/12 LSF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)
05/29/12 LSF #M10918 05/29/12 LSF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M10241) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.

#M10919 05/29/12 LSF Potassium permanganate soln: 50g potassium permanganate (#M9903) dissolve into 1,000mL of D.I. H_2O.
Exp: 11/29/12

#M10920 05/29/12 LSF NaCl Hydroxylamine sulfate Reagent: Dissolve 60g NaCl (#M9574) and 60g hydroxylamine sulfate (#M10210) in 500mL Milli-Q H_2O.
Exp: 11/29/12

#M10921 05/30/12 LSF TCLP Extraction Fluid #1: Into a 20L carboy pipet 114mL Glacial Acetic Acid (AB.534) and 128.6mL 10N NaOH (#M10910). Dilute to 20L with D.I. H_2O and mix. pH = 4.93 ± 0.05
Exp. 05/30/13

#M10922 05/30/12 LSF 10N NaOH: Into a 1L vol. flask add 400g NaOH (#M10571) and bring up to volume with D.I. H_2O.
Exp: 05/30/13

#M10923 06/04/12 LSF Hg working stds: (0.2% HNO_3, HCl)
1.0mL of 1000mg/L Hg (#M10563) into 100mL = 10mg/L Hg
1.0 mL of 10mg/L Hg into 100mL = 100ug/L Hg
0.5mL of 100ug/L Hg into 100mL = 0.5ug/L Hg
1.0mL of 100ug/L Hg into 100mL = 1.0ug/L Hg
2.0mL of 100ug/L Hg into 100mL = 2.0ug/L Hg
4.0mL of 100ug/L Hg into 100mL = 4.0ug/L Hg
5.0 mL of 100ug/L Hg into 100mL = 5.0ug/L Hg
10.0 mL of 100ug/L Hg into 100mL = 10.0ug/L Hg

#M10924 06/04/12 LSF Hg Alt Source working std: (0.2% HNO_3, HCl) 1.0mL of 1000mg/L Hg (#M9063) into 100mL = 10mg/L Hg 1.0mL of 10mg/L into 100mL = 100ug/L Hg

#M10925 06/04/12 LSF Hg ICV / LCSW (0.2% HNO_3, HCl) 3.0mL of 100ug/L Hg (#M10924) into 100mL = 3.0ug/L Hg

#M10926 06/04/12 LSF Hg CCV (0.2% HNO_3, HCl)
1.0mL of 1000mg/L Hg (#M9954) into 100mL = 10mg/L Hg
1.0mL of 10mg/L Hg into 100mL = 100ug/L Hg
3.0mL of 100ug/L Hg into 100mL = 3.0ug/L Hg

#M10927 06/24/12 LSF Hg MRL: (0.2% HNO_3, HCl) 0.2mL of 100ug/L Hg (#M10924) into 100mL = 0.2ug/L Hg

#M10901 05/21/12 LSF	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M10902 05/21/12 LSF	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M10903 05/21/12 LSF	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M10902) into 100ml = 3.0ug/L Hg
#M10904 05/21/12 LSF	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M10905 05/21/12 LSF	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M10902) into 100ml = 0.2ug/L Hg
#M10906 05/21/12 LSF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)
#M10907 05/21/12 LSF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M10[illegible]) 70 mL HCl (AB: 537). Bring up to volume with D.I. Water

#M10908 05/21/12 LSF NaCl Hydroxylamine Sulfate Reagent: Dissolve 60g NaCl (#M9[illegible]) and 60g hydroxylamine Sulfate (#M[illegible]) in 500mL Milli-a H_2O.
Exp: 11/21/12

#M10909 05/22/12 LSF Potassium Persulfate Sol'n: 50g potassium persulfate (#M10[illegible]) dissolve into 1,000mL D.I. H_2O
Exp: 11/22/12

#M10910 05/24/12 LSF 10N NaOH: Into a 1L Vol. flask add 400g NaOH (#M10[illegible]) and bring up to volume with D.I. H_2O.
Exp: 05/24/13

#M10911 05/24/12 LSF TCLP Extraction Fluid #1: Into a 20L carboy pipet 114mL Glacial Acetic Acid (AB.534) and 128.6mL [illegible] (#M10910). Dilute to 20L with D.I. [illegible] and mix. pH = 4.93 ± 0.05
Exp: 05/24/13

#M10912 05/29/12 LSF	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml = 5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M10913 05/29/12 LSF	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg

ermanganate
e into 1,000mL

#M10886 05-09-12 TCLP Extraction Fluid #2 - Into a 20L carboy, pipet 114mL Glacial Acetic Acid (AB:534). Dilute to 20L with D.I. H_2O and mix. pH= 2.88 ± 0.05. Exp. 05-09-13
AMA

#M10887 05/11/12 LSF (05/11/12 LSF)	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M10888 05/11/12 LSF (05/11/12 LSF)	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M10889 05/11/12 LSF (05/11/12 LSF)	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M 10888) into 100ml = 3.0ug/L Hg
#M10890 05/10/12 LSF	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M10891 05/11/12 LSF (05/11/12 LSF)	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M 10888) into 100ml = 0.2ug/L Hg
#M10892 05/11/12 LSF (05/11/12 LSF)	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)
#M10893 05/11/12 LSF (05/11/12 LSF)	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M 10241) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.

3: 538)

(# M 10241) in

acial Acetic
aOH (#M10855).
mix.

#M10894 05/11/12 LSF TCLP Extraction Fluid #1: Into a 20L carboy pipet 114mL Glacial Acetic Acid (AB.534) and 128.6mL 10N NaOH (#M10855). Dilute to 20L with D.I. H_2O and mix. (pH=4.93 ± 0.05)
Exp: 05/11/13

etic Acid (AB534)
2 to 20L with
5)

#M10895 Custom Assurance Std Spex lot# 7-110YP ex. May 15 2013.
5-14-12

82

#M10896 5-14-12 Fe 10,000mg/L CPI lot# 12C111 ex. NOV 2013

#M10897 5-14-12 Al 10,000mg/L CPI lot # 11L100 ex Nov 2013

5 and 5mL
Exp. 10-30-12

#M10898 5-14-12 Ca 10,000mg/L CPI lot # 12D128 ex Nov 2013

8889

#M10899 5-14-12 Mg 10,000 mg/L CPI lot #12C187 ex NOV 2013

#M10900 05/18/12 LSF Potassium Permanganate soln: 50g potassium permanganate (#M9903) dissolve into 1,000mL of D.I. H_2O.
Exp: 11/18/12

#M10873 05/08/12 LSF Potassium Permanganate Solin: 50g Potassium Permanganate (#M9903) dissolve into 1,000ml of D.I. H_2O.
Exp: 11/03/12 LSF

#M10874 05/04/12 LSF

Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M 10875) into 100ml = 3.0ug/L Hg
Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M 10875) into 100ml = 0.2ug/L Hg
Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)
Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M 10241) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.

#M10875 05/04/12 LSF

#M10876 05/04/12 LSF

#M10877 05/04/12 LSF

#M10878 05/04/12 LSF

#M10879 05/04/12 LSF

#M10880 05/04/12 LSF

#M10881 05/04/12 LSF TCLP Extraction Fluid #1: Into a 20L carboy pipet 114mL Glacial Acetic Acid (AB:534) and 128.6mL 10N NaOH (#M10855). Exp: 05/04/13 (pH=4.93±0.05) Dilute to 20L with D.I. H_2O and mix.

#M10882 05/04/12 LSF TCLP Extraction Fluid #1: Into a 20L carboy pipet 114mL Glacial Acetic Acid (AB:534) and 128.6mL 10N NaOH (#M10855). Dilute to 20L with D.I. H_2O and mix. (pH=4.93±0.05)
Exp: 05/04/13 LSF

#M10883 05/07/12 GLE Stannous Chloride Crystal, Macron Chemicals Lot No. K40582

#M10884 05/08/12 GLE Pd/Mg Modifier: Into a 50 mL vol. flask, pipet 15mL #M10726 and 5mL #M10551. Bring up to volume with MilliQ water. Exp. 10-30-12

#M10885 05/08/12 GLE Turbidity Standard 2.0 NTU, GFS Chemicals Lot No. C148889 Expires: 05/13

#M10886 AM

#M10887

#M10888

#M10889

#M10890

#M10891

#M10892

#M10893

#M10894

#M108

#M109

#M108

#M10

#M10

#M10861 04/27/12 LSF	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M10862 04/27/12 LSF	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M10863 04/27/12 LSF	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M 10862) into 100ml = 3.0ug/L Hg
#M10864 04/27/12 LSF	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M10865 04/27/12 LSF	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M 10862) into 100ml = 0.2ug/L Hg
#M10866 04/27/12 LSF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)
#M10867 04/27/12 LSF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M 10241) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.

#M10868 04/30/12 GAE Interferents A Spex CertiPrep Lot No. 7-32XP Exp. 04-30-13

#M10869 04/30/12 GAE TCLP #1 Extraction Fluid : Into a 20L carboy, pipet 114mL Glacial Acetic Acid (AB:534) and 128.6mL 10N NaOH (#M10855). Dilute to 20L with D.I. H_2O and mix. pH = 4.93 ± 0.05
Exp. 04-30-13

#M10870 7A 5-2-12

ICAP Working Standards Boron & Silicon

Standard name	Into 1 liter Pipet the following respectively:
10	0.1 mls of #M10837 and .01mls #M10860 = 10 ug/L
50	0.5 mls of #M10837 and .05mls #M10860 = 50 ug/L
100	1 mls of #M10837 and 0.1mls #M10860 = 100 ug/L
1000	10 mls of #M10837 and 1.0mls #M10860 = 1000 ug/L
10000	100 mls of #M10837 and 10mls #M10860 = 10000 ug/L

ex 3-13

#10871 7A 5-2-12

Initial Calibration Standard (ICV) B, Si

Into 1 liter vol fisk pipet 1 ml of #M10275 & M10564
bring up to mark with DI H2O ex 11/12

#10872 7A 5-2-12

Continuing Calibration Standard (CCV)

Into 1 liter vol flask pipet 10 mls of #M10837 and 1.0mls #M10564 = 1000 ug/L
bring up to mark with DI H20 ex 12-12

202

#M10847 04/19/12 13F	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg	#M10
#M10848 04/19/12 13F	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg	#M108
#M10849 04/19/12 13F	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M 10848) into 100ml = 3.0ug/L Hg	#M108
#M10850 04/19/12 13F	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg	#M10860
#M10851 04/19/12 13F	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M 10848) into 100ml = 0.2ug/L Hg	#M10865
#M10852 04/19/12 13F	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)	#M10866
#M10853 04/19/12 13F	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M10241) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.	#M1086

#M10854 04/19/12 13F Potassium permanganate soln: 50g potassium permanganate (#M9903) dissolve into 1,000mL of D.I. H_2O.
Exp: 10/19/12

#M10855 04/24/12 13F 10N NaOH: Into a 1L vol. flask add 400g NaOH (#M ~~10538~~ 10571) 04/24/12 13F and bring up to volume with D.I. H_2O.
Exp: 04/24/13

#M10856 04/24/12 13F TCLP Extraction Fluid #1: Into 20L Carboy pipet 114mL Glacial Acetic Acid (AB:534) and 128.6mL 10N NaOH (#M10708).
Exp: 04/24/13 (pH=4.93±0.05) Dilute to 20L with D.I. H_2O and mix.

#M10857 04/25/12 SPLP Ext. Fluid Acid Mixture: Into a 200mL vol. flask, add 12g H_2SO_4 (AB:528) and 8g Conc. HNO_3 (AB:551). Bring up to volume with D.I. H_2O.
GVE Exp. 04-25-13

#M10858 04/25/12 SPLP Extraction Fluid #1: Into a 20L carboy, add D.I. H_2O to mark and adjust pH to 4.20±0.05 with #M10857.
GVE

#M10859 04/26/12 15F NaCl Hydroxylamine Sulfate Reagent: Dissolve 60g NaCl (#M9574) and 60g Hydroxylamine Sulfate (#M10210) in 500mL Milli-a H_2O.
Exp: 10/26/12

M10860 4-27-2012 Silicon 1000 mg/L Fisher lot # 116650 ex 12/13

to a
lume
13

#M10833 04/05/12 TCLP Extraction Fluid #1: Into a 20L carboy pipet 114mL Glacial Acetic Acid (AB:534) and 128.6mL 10N NaOH (#M10708). Dilute to 20L with D.I. H_2O and mix. pH=4.93±0.05
LBF
Exp. 04/05/13

a
volume
13.

#M10834 04/09/12 GFAA Base Std (25µg/L) (5% HCL, 2% HNO_3) Pipet 25mL of #M10818 into a 1L vol. flask and bring up to volume with MilliQ H_2O. Exp. 04-01-13
GE

a
volume
13.

#M10835 04/09/12 GFAA CCV Std (10µg/L) (5% HCL, 2% HNO_3) Pipet 10mL of #M10818 into a 1L vol. flask and bring up to volume with MilliQ H_2O. Exp. 04-01-13.
GE

issolve

#M10836 04/09/12 GFAA Alt. Source Std (10µg/L) (5% HCL, 2% HNO_3) Pipet 50mL of #M10819 into a 1L vol. flask and bring up to volume with MilliQ H_2O. Exp. 04-01-13
GE

#M10837. 4-11-2012 Custum Assurance Std 100mg/L Spex Certiprep Lot # 11-189 CR ex 3/13.
A

#M10838 4-11-2012 Custum Assurance Std x spike Spex Certiprep Lot # 11-188Cr ex 3/13
A

#M10839 4-11-12 CPI Pb 10,000 mg/L Lot # 11J007 ex 10/13
A

#M10840 04/12/12 LSF	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M10841 04/12/12 LSF	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M10842 04/12/12 LSF	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M10841) into 100ml = 3.0ug/L Hg
#M10843 04/12/12 LSF	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M10844 04/12/12 LSF	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M10841) into 100ml = 0.2ug/L Hg
#M10845 04/12/12 LSF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)
#M10846 04/12/12 LSF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M10241) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.

) in

hydroxylamine
H_2O.

7821
3

#M10820 04/02/12 GFAA Alt Source Std (10µg/L) (1% HNO_3) Pipet 50mL of #M10817 [illegible] 1L vol. flask and bring up to [illegible] with Milli.Q H_2O. [illegible]
GVE

#M10821 04/02/12 GFAA CCV Std (10µg/L) (1% HNO_3) Pipet 10mL of #M10818 into [illegible] 1L vol. flask and bring up to [illegible] with Milli.Q H_2O. [illegible]
GVE

#M10822 04/02/12 GFAA Base Std (25µg/L) (1% HNO_3) Pipet 25mL of #M10818 into [illegible] 1L vol. flask and bring up to [illegible] with Milli.Q H_2O. [illegible]
GVE

#M10823 04/03/12 potassium persulfate soln: 50g potassium ~~permanganate~~ persulfate (#M9814) [illegible] into 1,000mL D.I. H_2O.
Exp: 10/03/12 04/03/12 LSF 04/03/12 LSF

#M10824 04/03/12 LSF	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M10825 04/03/12 LSF	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M10826 04/03/12 LSF	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M 10825) into 100ml = 3.0ug/L Hg
#M10827 04/03/12 LSF	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M10828 04/03/12 LSF	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M 10825) into 100ml = 0.2ug/L Hg
#M10829 04/03/12 LSF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)
#M10830 04/03/12 LSF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride [illegible] 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.

#M10831 04/03/12 LSF NaCl Hydroxylamine Sulfate Reagent: Dissolve 60g NaCl (#M9574) and [illegible] Sulfate (#M10210) in 500mL [illegible]
Exp: 10/03/12

#M10832 4-4-2012 Yttrium 10,000 Environmental Express Lot # [illegible] ex Sept [illegible]
JH

#M10809 03/22/12 Hg AH Source working std: 1.0mL of 1000mg/L Hg (#M9063) into 100mL = 10 mg/L Hg
(0.2%) HNO_3, HCl) 1.0mL of 10mg/L into 100mL = 100ug/L Hg

#M10810 03/22/12 Hg ICV/LCSW 3.0mL of 100ug/L Hg (#M10809) into 100mL = 3.0ug/L Hg
(0.2%) HNO_3, HCl)

#M10811 03/22/12 Hg CCV 1.0mL of 100mg/L Hg (#M9934) into 100mL = 10mg/L Hg
(0.2%) HNO_3, HCl) 1.0mL of 10mg/L Hg into 100mL = 100ug/L Hg
3.0mL of 100ug/L Hg into 100mL = 3.0ug/L Hg

#M10812 03/22/12 Hg MRL: 0.2mL of 100ug/L (#M10809) into 100mL = 0.2ug/L Hg
(0.2% HNO_3, HCl)

#M10813 03/22/12 Hg Aqua Regia Reagent: Carefully in hood, mix 3 parts HCl (AB.537) with 1 part HNO_3 (AB.547)

#M10814 03/22/12 Stannous Chloride Reagent: Into a 100mL volumetric flask, dissolve 10g Stannous Chloride (#M10572) in 70mL HCl (AB.537). Bring up to volume w/ D.I. H_2O.

#M10815 03/23/12 3050 LOQ V
10mL HCl
10mL HNO_3

LOQ

3050[redacted] Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	MDL (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Li	14.4		1000	0.72
Sn	20		1000	1
Sr	3.2		1000	0.16
Tl	9.6		1000	0.48
W	24		1000	1.2

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

EXPIRES 08/[illegible]/2012

#M10816 03/29/12 GVE Inorganic Ventures CTI-SPK-1 Lot no. F2-MEB417037
Exp. 04-01-2013

#M10817 03/29/12 GVE Inorganic Ventures CTI-GFCAL-1 Lot no. F2-MEB417036
Exp. 04-01-2013

#M10818 04/02/12 GVE GFAA Working Base Std. (1000µg/L): Pipet 10mL of #M10816 into a 1 L vol. flask & bring up to volume with MilliQ water. Exp. 04-01-13
(1% HNO_3)

#M10819 04/02/12 GVE GFAA AH Source Working Std (200µg/L): Pipet 20mL of #M10817 into a 1L vol flask and bring up to volume with MilliQ H_2O. Exp. 04-01-13.
(1% HNO_3)

#M10801 03/12/12 GFAA Stability Check Working Standard: Into a 250 mL vol. flask, pipet [illegible] and bring up to volume with D.I. H_2O — #M10809 03/2[illegible]
GLE 1% HNO_3, Exp. 09-09-12
0.6 mL of 1,000 mg/L As (#M10281) — 03/22/1[illegible]
0.04 mL of 10,000 mg/L Pb (#M10142) — #M10810 03/22
1.7 mL of 1,000 mg/L Se (#M10277)
0.9 mL of 1,000 mg/L Sb (#M10280) — #M10811 03/22/12
0.4 mL of 1,000 mg/L Tl (#M10566)
0.07 mL of 1,000 mg/L Ag (#M10310)

#M10802 03/12/12 GFAA Stability Check Standard: Pipet 5 mL of #M10801 03/12/12 GLE into a 1 L vol. flask and bring up to volume with D.I. H_2O — #M10812 03/22/1[illegible]
GLE 1% HNO_3, Exp. 09-09-12
#M10813 03/22/12

#M10803 03/13/12 3F TCLP Extraction Fluid #1: Into a 20 L carboy pipet 114 mL Glacial Acetic Acid (AB.534) and 128.6 mL 10N NaOH (#M10708) Dilute to 20 L with D.I. H_2O and mix. — #M10814 03/22/12
(pH=4.93±0.05) Exp: 03/13/13

#M10804 03/13/12 1N HCL for TCLP: Into a 1 L vol. flask, partially filled with MilliQ H_2O, add 83 mL of conc. HCL (AB.543) and bring up to volume with MilliQ water. — #M10815 03/2[illegible]
GLE Exp. 03/13/13

#M10805 3-20-2012 LOD, LOQ check 5 H_2O (3010). Into 1 Liter volumetric flask pipet 1 ml M10762 bring up to mark with DI H_2O X50 Dilution - use 1 ml into 50 or 10 into 500 ml for = 200 ug/L.

#M10806 3-20-2012 LOD, LOQ Check (3050) Into 1 Liter Volumetric flask pipet 1 ml M10762. Bring up to mark with DI H_2O X50 Dilution - use 1 ml into 50 or 10 into 500 ml for = 240 ug/L or 6 mg/kg.

#M10807 03/22/12 3F Potassium permanganate soln: 50 g potassium permanganate (#M10[illegible]) dissolve into 1,000 mL of D.I. H_2O.
Exp: 09/22/12 3F

#M10808 03/22/12 3F Hg working stds: (0.2% HNO_3, HCl)
1.0 mL of 1000 mg/L Hg (#M10563) into 100 mL = 10 mg/L Hg
1.0 mL of 10 mg/L Hg into 100 mL = 100 ug/L Hg
0.5 mL of 10 mg/L Hg into 100 mL = 0.5 ug/L Hg
1.0 mL of 10 mg/L Hg into 100 mL = 1.0 ug/L Hg
2.0 mL of 10 mg/L Hg into 100 mL = 2.0 ug/L Hg
4.0 mL of 10 mg/L Hg into 100 mL = 4.0 ug/L Hg
5.0 mL of 10 mg/L Hg into 100 mL = 5.0 ug/L Hg
10.0 mL of 10 mg/L Hg into 100 mL = 10.0 ug/L Hg

#M10790 03/06/12 LSF	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M 10789) into 100ml = 3.0ug/L Hg
#M10791 03/06/12 LSF	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M10792 03/06/12 LSF	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M 10789) into 100ml = 0.2ug/L Hg
#M10793 03/06/12 LSF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)
	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M 10572) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.
#M10794 03/09/12 LSF	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M10795 03/09/12 LSF	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M10796 03/09/12 LSF	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M 10795) into 100ml = 3.0ug/L Hg
#M10797 03/09/12 LSF	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M10798 03/09/12 LSF	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M 10795) into 100ml = 0.2ug/L Hg
#M10799 03/09/12 LSF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)
#M10800 03/09/12 LSF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M10572) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.

3-12-12

#M10777 02/28/12 SF — Hg Alt Source Working Std: (0.2% HNO3, HCl)
1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M10778 02/28/12 SF — Hg ICV / LCSW (0.2% HNO3, HCl)
3.0ml of 100ug/L Hg (#M10777) into 100ml = 3.0ug/L Hg

#M10779 02/28/12 SF — Hg CCV (0.2% HNO3, HCl)
1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M10780 02/28/12 SF — Hg MRL: (0.2% HNO3, HCl)
0.2ml of 100ug/L Hg (#M10777) into 100ml = 0.2ug/L Hg

#M10781 02/28/12 SF — Hg Aqua Regia Reagent:
"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)

#M10782 02/28/12 SF — Stannous Chloride Reagent:
Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M10572) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.

#M10783 03/02/12 GE — TCLP Extraction Fluid #1: (pH = 4.93 ± 0.05)
Into a 20L carboy, pipet 114mL Glacial Acetic Acid (AB-534) and 128.6 mL 10N NaOH (#M10708). Dilute to 20L with DI. H2O and mix. Exp. 03/02/13

#M10784 3-2-2012 DI — Sulfur Working Stds ICAP & CCV
Into 4 100 ml vol flasks pipet respectfully from #M10773 10,000 mg/L Sulfur Std.
also CCV ← 1000 std = .01 mls of #M10773 = 1000 ug/L
10,000 std = .1 mls of #M10773 10,000 ug/L
100,000 std = 1.0 mls of #M10773 100,000 ug/L
1000K std = 10 mls of #M10773 1000K ug/L
Bring up to mark with DI H_2O. ex 10/13

#M10785 3-2-2012 D — Sulfur ICV
Into 100 ml Vol flask pipet .01 mls #M10767 10,000 mg/L Sulfur = 1000 ug/L S.

#M10786 03/05/12 GE — Pd/Mg Modifier: Into a 50 ml vol. flask, pipet 15mL #M10726 and 5mL #M10551, Bring up to volume with MilliQ water. Exp. 10-30-12

#M10787 03/05/12 GE — TCLP Extraction Fluid #2: Into a 20L carboy, pipet 114mL Glacial Acetic Acid (AB-534). Dilute to 20L with DI. H_2O. and mix. pH = 2.88 ± 0.05. Exp. 03-05-13

#M10788 03/06/12 SF — Hg Working Stds: (0.2% HNO3, HCl)
1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
3/12/12

#M10789 03/06/12 SF — Hg Alt Source Working Std: (0.2% HNO3, HCl)
1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M10790

#M10791 03/

#M10792

#M10793

#M10794

#M10795

#M10796

#M10797

#M10798

#M10799

#M10800

#M10764 02/17/12 13F NaCl Hydroxylamine sulfate Reagent: Dissolve 60g NaCl (#M9574) and 60g Hydroxylamine sulfate (#M10210) in 500 mL milli-Q H_2O.
Exp: 08/17/12 13F 02/17/13F

#M10765 02/21/12 13F	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M10766 02/21/12 13F	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M10767 02/21/12 13F	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M10766) into 100ml = 3.0ug/L Hg
#M10768 02/21/12 13F	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M10769 02/21/12 13F	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M 10766) into 100ml = 0.2ug/L Hg
#M10770 02/21/12 13F	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)
#M10771 02/21/12 13F	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M 10572) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.

#M10772 02/21/12 13F Potassium permanganate: 50g potassium permanganate (#M9903) dissolve into 1000mL D.I H_2O.
Exp: 08/21/12

#M10773 2-21-2012 Sulfur 10,000mg/ml SCP Science Lot #5120116017 ex 10/13

#M10774 02/26/12 13F TCLP Extraction Fluid #1: Into a 20L Carboy pipet 114mL Glacial Acetic Acid (AB534) and 128.6mL 10N NaOH (#M10708) Dilute to 20L with D.I. H_2O and mix. pH = 4.93±0.05
Exp: 02/26/13

#M10775 02/27/12 GLE TCLP Extraction Fluid #1: Into a 20L Carboy, pipet 114mL Glacial Acetic Acid (AB534) and 128.6mL 10N NaOH (#M10708). Dilute to 20L with D.I. H_2O and mix. pH = 4.93±0.05
Exp: 02/27/13 02/27/13GLE

#M10776 02/28/12 13F	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M10748 02/07/12/5F	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg	#M107
#M10749 02/07/12/5F	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M 10748) into 100ml = 3.0ug/L Hg	
#M10750 02/07/12/5F	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg	#M107650
#M10751 02/07/12/5F	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M 10748) into 100ml = 0.2ug/L Hg	
#M10752 02/07/12/5F	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)	
#M10753 02/07/12/5F	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M6572) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.	#M107661
#M10754 02/14/12/5F	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg	#M107667 #M107668 #M107669
#M10755 02/14/12/5F	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg	#M1077c
#M10756 02/14/12/5F	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M 10755) into 100ml = 3.0ug/L Hg	#M107
#M10757 02/14/12/5F	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg	#M1077
#M10758 02/14/12/5F	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M 10755) into 100ml = 0.2ug/L Hg	#M107
#M10759 02/14/12/5F	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)	#M107
#M10760 02/14/12/5F	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M6572) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.	13F
#M10761 2-15-12	Phosphorus 10,000 mg/L	Spex Certiprep Lot # AC12-161P	#M1077 GE
#M10762 2-15-12	Sulfur 10,000 mg/L	Spex Certiprep Lot # AC12-1835 Exp 2-15-12	
#M10763 02/16/12/5F Exp: 02/16/13	TCLP Extraction Fluid #1:	Into a 20L carboy Pipet 114mL Glacial Acetic Acid (AB.534) and 128.6mL 10N NaOH (#M10538) Dilute to 20L with D.I. H2O and mix. pH = 4.93 ± 0.05	#M1077

#M10734 01-23-12 GE	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#~~M9954~~ 10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg	01-23-12 GE
#M10735 01-23-12 GE	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M10732) into 100ml = 0.2ug/L Hg	
#M10736 01-23-12 GE	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)	
#M10737 01-23-12 GE	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M10572) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.	
#M10738 01-23-12 GE	Potassium Permanganate:	50g Potassium Permanganate (#M9903) dissolved into 1,000 mL D.I. H2O. Exp. 07-23-12	
#M10739 01/26/12 LSF	TCLP Extraction Fluid #1:	Into a 20L carboy pipet 114mL Glacial Acetic Acid (AB.539) and 128.6mL 10N NaOH (#M10708). Dilute to 20L with D.I. H2O and mix. pH = 4.93 ± 0.05	
	Exp: 01/26/13		
#M10740 01/27/12 LSF	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg	
#M10741 01/27/12 LSF	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg	
#M10742 01/27/12 LSF	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M10741) into 100ml = 3.0ug/L Hg	
#M10743 01/27/12 LSF	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg	
#M10744 01/27/12 LSF	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M10741) into 100ml = 0.2ug/L Hg	
#M10745 01/27/12 LSF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 538)	
#M10746 01/27/12 LSF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M10572) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.	
#10747 02/07/12 LSF	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg	

#M10720 01/17/12 GE

Hg ICV / LCSW (0.2% HNO3, HCl): 3.0ml of 100ug/L Hg (#M 10719) into 100ml = 3.0ug/L Hg

#M10721 01/17/12 GE

Hg CCV (0.2% HNO3, HCl):
1.0ml of 1000mg/L Hg (#M~~9954~~ 10563 01-23-12 GE) into 100ml=10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M10722 01/17/12 GE

Hg MRL: (0.2% HNO3, HCl): 0.2ml of 100ug/L Hg (#M 10719) into 100ml = 0.2ug/L Hg

#M10723 01/17/12 GE

Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 536)

#M10724 01/17/12 GE

Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M10326 (a)) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.

#M10725 1-17-12 GE Spex Certiprep Custom Assurance Std lot # 10-170CR ex 1/15/2013.

#M10726 01-17-12 GE Matrix Modifier 1% Pd in 8% (wt/wt) HNO_3 + Tr HCL Env. Exp. Lot No. 1101221 Exp. 01-12-13

#M10727 01-17-12 GE Pd/Mg Matrix Modifier: Into a 50mL vol flask, pipet 15mL #M10726 and 5mL #M10551. Bring up to volume with MilliQ water. Exp. 10-30-12

#M10728 01/20/12 GE GFAA Base Std (50 ug/L) (1% HNO_3) Pipet 12.5mL of #M10184 into a 250 mL vol. flask. Bring up to volume with MilliQ H_2O. Exp. 04-01-12.

#M10729 01-20-12 GE GFAA Alt. Source Std (25ug/L) (1% HNO_3) Pipet 31.25mL of #M10185 into a 250mL vol. flask. Bring up to volume with MilliQ H_2O. Exp. 04-01-12.

#M10730 01-20-12 GE GFAA CCV Std (25ug/L) (1% HNO_3) Pipet 50mL of #M10728 into a 100mL vol. flask. Bring up to volume with MilliQ H_2O. Exp. 04-01-12.

#M10731 01-23-12 GE

Hg Working Stds: (0.2% HNO3, HCl)
1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M10732 01-23-12 GE

Hg Alt Source Working Std: (0.2% HNO3, HCl)
1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M10733 01-23-12 GE

Hg ICV / LCSW (0.2% HNO3, HCl): 3.0ml of 100ug/L Hg (#M 10732) into 100ml = 3.0ug/L Hg

#M 10707 01/06/12 TCLP extraction Fluid #1: Into a 20L carboy pipet 114mL glacial Acetic Acid (AB: 534) and 128.6mL 10N NaOH (#M10538). Dilute to 20L with D.I. H_2O and mix. pH = 4.93 ± 0.05
LSF
Exp: 01/06/13

#M10708 01/06/12 10N NaOH: Into a 1L vol. flask add 400g NaOH (~~#9477~~ M10571 01/06/12 LSF) and bring up to volume with D.I. H_2O
LSF
Exp: 01/06/13

#M10709 01/09/12 Titanium 1000 µg/mL CPI Lot No. 11E121 Exp. 04-20-13
GLE Rec'd 10-25-11

#M10710 01/10/12 LSF	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M10711 01/10/12 LSF	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M10712 01/10/12 LSF	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M 10711) into 100ml = 3.0ug/L Hg
#M10713 01/10/12 LSF	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M~~9954~~ 10563 01-23-12 GLE) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M10714 01/10/12 LSF	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M 10711) into 100ml = 0.2ug/L Hg
#M10715 01/10/12 LSF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 536)
#M10716 01/10/12 LSF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M10326 (a)) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.

#M10717 01/16/12 Custom Assurance Standard 100mg/L As, Ag, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn. Spex CertiPrep Lot No. ~~*CFW1-5-500~~ 01-16-12 GLE 5-157YP
GLE
Exp. 01-15-13

#M10718 01/13/12 LSF	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M10719 01/13/12 LSF	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M10703 1-4-12 MDL Spiking Soln' all. 50X
D into 1 Liter vol flask Pipet the following :

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag	5	M10310	1000	0.25
Al	10	M10870	10000	0.05
As	20	M10281	1000	1
Ba	2	M10143	1000	0.1
Be	0.5	M10568	1000	0.025
Ca	50	M10669	10000	0.25
Cd	0.5	M10278	1000	0.025
Co	2.5	M10561	1000	0.125
Cr	5	M10139	10000	0.025
Cu	10	M10144	10000	0.05
Fe	20	M10671	10000	0.1
Mg	25	M10668	10000	0.125
Mn	5	M10141	10000	0.025
Mo	2.5	M10560	1000	0.125
Ni	5	M10565	1000	0.25
Pb	10	M10142	10000	0.05
Sb	20	M10280	1000	1
Se	20	M10277	1000	1
Tl	20	M10566	1000	1
V	5	M10285	1000	0.25
Zn	5	M10284	10000	0.025

ex. 9-9-12

Bring up to mark with DI H_2O. use 1ml into 50mls or 10.0mls into 500.

#M10704 1-4-12 MDL Spiking Soln' Na, K. Into One Liter Vol
D flask pipet the following ⇒

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
K	500	M10667	10000	
Na	500	M10570	10000	

Bring up to mark with DI H_2O. use 1ml into 50mls or 10.0mls into 500. ex. 4-2-2013

#M10705 1-4-12 MDL Spiking Soln B, Si. Into 1 Liter vol flask pipet
D following.

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
B	20	M10225	1000	1
Si	100	M10584	1000	5

Bring up to mark with DI H_2O. Use 1ml into 50mls or 10.0 into 500. ex. NOV 25, 2012

#107006 1-4-12 MDL Spiking Soln. List 2 Into 1 Liter vol flask
D pipet the following.

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Li	5	M10567	1000	0.25
Sn	5	M10562	1000	0.25
Sr	5	M10569	1000	0.25
Tl	5	M10566	1000	0.25
W	10	M10559	1000	0.5

Bring up to mark with DI H_2O. Use 1ml into 50 or 10.0 mls into 500. ex. 4-20-2013

#M10677 12/19/11 GE	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M 10676) into 100ml = 3.0ug/L Hg
#M10678 12/19/11 GE	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (~~#M9954~~ 10563 01-23-12 GE) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M10679 12/19/11 GE	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M 10676) into 100ml = 0.2ug/L Hg
#M10680 12/19/11 GE	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 536)
#M10681 12/19/11 GE	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M10326 (a)) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.
#M10682 12/20/11 GE	GFAA LOD/LOQ Soil Working Std (1% HNO_3) Expires: 09/09/12	Into a 200 mL vol. flask, partially filled with D.I. H_2O, pipet the following and bring up to volume with D.I. H_2O. 1.2mL Sb 1000 mg/L (#M10280) = 6,000 µg/L Sb 3.2mL As 1000 mg/L (#M10281) = 16,000 µg/L As 3.2mL Se 1000 mg/L (#M10277) = 16,000 µg/L Se 0.08mL Pb 10,000 mg/L (#M10142) = 4,000 µg/L Pb 1.0mL Tl 1000 mg/L (#M10566) = 5,000 µg/L Tl 0.12mL Ag 1000 mg/L (#M10310) = 600 µg/L Ag
#M10683 12/20/11 GE	GFAA LOD/LOQ Soil Spiking Solution (1% HNO_3) Expires: 09/09/12	Into a 1L vol. flask, pipet 10mL of #M10682 and bring up to volume with D.I. H_2O.
#M10684 12/23/11 15F	Potassium Permanganate: Exp: 06/23/12	50g Potassium permanganate (#M9708) dissolved into 1,000mL D.I. H_2O.
#M10685 12/23/11 15F	Hg Working Stds: (0.2% HNO3, HCl)	~~1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg~~ ~~1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg~~ 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M10686 12/23/11 15F	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M10687 12/23/11 15F	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M10686) into 100ml = 3.0ug/L Hg
#M10688 12/23/11 15F	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (~~#M9954~~ 10563 01-23-12 GE) into ~~100ml=10mg/L Hg~~ ~~1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg~~ ~~3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg~~

#M10672 12/16/11 13F 3010 LOQ ✓

5% HNO3
5% HCl

3010 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Li	10	M10567	1000	0.5
Sn	10	M10140	1000	0.5
Sr	2	M10369	1000	0.1
Tl	8	M10709	1000	0.4
W	36	M10559	1000	1.8

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 09/09/12

#M10673 12/16/11 13F 3010 LOQ ✓

5% HNO3
5% HCl

3010 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
K	500	M10387	10000	2.5
Na	600	M10570	10000	3

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: [illegible]

#M10674 12/16/11 13F 3010 LOQ ✓

5% HNO3
5% HCl

3010 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
B	16	M10735	1000	0.8
Si	200	M9545	1000	10

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 04/12

#10675 12/19/11 GG — Hg Working Stds: (0.2% HNO3, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml=10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#10676 12/19/11 GG — Hg Alt Source Working Std: (0.2% HNO3, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M10666 12/15/11 GE 3010200 ✓

5% HNO_3
5% HCl

3010 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag	4	M10210	1000	0.2
Al	36	M10416	10000	0.18
As	24	M10281	1000	1.2
Ba	1.8	M10143	1000	0.09
Be	0.6	M10568	1000	0.03
Ca	100	M10415	10000	0.5
Cd	2	M10278	1000	0.1
Co	4	M10561	1000	0.2
Cr	4	M10239	10000	0.02
Cu	7	M10144	10000	0.035
Fe	100	M10417	10000	0.5
Mg	40	M10418	10000	0.2
Mn	4	M10141	10000	0.02
Mo	7	M10560	1000	0.35
Ni	6	M10565	1000	0.3
Pb	4	M10142	10000	0.02
Sb	12	M10280	1000	0.6
Se	13	M10277	1000	0.65
Tl	15	M10566	1000	0.75
V	5	M10285	1000	0.25
Zn	10	M10284	10000	0.05

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 09/09/12

#M10667 12/15/11 GE Potassium 10,000 ± 30 µg/mL CPI Lot No. 11J155 Expires: 06-09-13

#M10668 12/15/11 GE Magnesium 10,000 ± 30 µg/mL CPI Lot No. 11K178 Expires: 06-09-13

#M10669 12/15/11 GE Calcium 10,000 ± 30 µg/mL CPI Lot No. 11K228 Expires: 06-09-13

#M10670 12/15/11 GE Aluminum 10,000 ± 30 µg/mL CPI Lot No. 11J015 Expires: 06-09-13

#M10671 12/15/11 GE Iron 10,000 ± 30 µg/mL CPI Lot No. 11L009 Expires: 06-09-13

#M106663 12/15/11 SF 3050 LOQ ✓

5% HNO_3
5% HCl

3050 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Li	14.4	M10542	1000	0.72
Sn	20	M10440	1000	1
Sr	3.2	M10544	1000	0.16
Tl	9.6	M10709	1000	0.48
W	24	M10454	1000	1.2

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 08/12

#M10664 12/15/11 SF 3050 LOQ ✓

5% HNO_3
5% HCl

3050 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
K	2640	M10384	10000	13.2
Na	960	M10570	10000	4.8

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 01/22/13

#M106665 12/15/11 SF 3050 LOQ ✓

5% HNO_3
5% HCl

3050 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
B	52	M10239	1000	2.6
Si	192	M9545	1000	9.6

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 04/12

#M10626 11-21-11 GAE — Hg CCV (0.2% HNO3, HCl): 1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg; 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg; 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

~~#M10627 11-21-11 GAE~~ — Hg MRL: (0.2% HNO3, HCl): 0.2ml of 100ug/L Hg (#M10624) into 100ml = 0.2ug/L Hg

~~#M10628 11-21-11 GAE~~ — Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 536)

~~#M10629 11-21-11 GAE~~ — Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M10326 (a)) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.

#M10630 11-28-11 GAE — GFAA LOD/LOQ Water Spike Working Standard (1% HNO_3): Into a 100mL vol. flask, partially filled with D.I. H_2O, pipet the following and bring up to volume with D.I. H_2O.
Exp. 09-09-12

- 1.5mL Sb (1,000 mg/L) #M10280 = 15,000 µg/L Sb
- 1.0mL As (1,000 mg/L) #M10281 = 10,000 µg/L As
- 2.0mL Se (1,000 mg/L) #M10277 = 20,000 µg/L Se
- 0.045mL Pb (10,000 mg/L) #M10142 = 4500 µg/L Pb
- 0.4mL Tl (1,000 mg/L) #M10566 = 4000 µg/L Tl
- ~~1.0mL Ag (1,000 mg/L) #M = 10,000 µg/L Ag~~
- 0.1mL Ag (1,000 mg/L) #M10310 = 1,000 µg/L Ag

#M10631 11-28-11 GAE — GFAA LOD/LOQ Water Spiking Solution (1% HNO_3): Into a 1L vol. flask, pipet 10mL of #M10630 and bring up to volume with D.I. H_2O.
Exp. 09-09-12

#M10632 11/29/11 SF — Hg Working Stds: (0.2% HNO3, HCl)
- 1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg
- 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
- 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
- 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
- 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
- 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
- 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg
- 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M10633 11/29/11 SF — Hg Alt Source Working Std: (0.2% HNO3, HCl)
- 1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
- 1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M10634 11/29/11 SF — Hg ICV / LCSW (0.2% HNO3, HCl): 3.0ml of 100ug/L Hg (#M10633) into 100ml = 3.0ug/L Hg

#M10635 11/29/11 SF — Hg CCV (0.2% HNO3, HCl)
- 1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg
- 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
- 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M10636 11/29/11 SF — Hg MRL: (0.2% HNO3, HCl): 0.2ml of 100ug/L Hg (#M10633) into 100ml = 0.2ug/L Hg

#M10637 11/29/11 SF — Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 536)

#M10638 11/29/11 SF — Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M10326 (a)) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.

#M10617
ICSAB, NAK. Into 500 ml vol flask pipet 50 mls #M10550
11-16-11 15 mls #M10417, 5 mls #M10570 + 5 mls. #M10387.
.5% HCL+HNO3 Bring up to mark with DI H2O. ex 10/12

#M10618 Working Standards for Sodium and Potassium; into seven, 200 ml volumetric flasks pipette from #M10315 and #M10313.
11-16-11
.5% HCL+HNO3

For the 0.5 mg/L std– 0.1 mls of each
1.0 mg/L std – 0.2 mls of each
5.0 mg/L std – 1.0 mls of each
10.0 mg/L std – 2.0 mls of each
50.0 mg/L std - 10.0 mls of each
100 mg/L std -20.0 mls each also used for Continuing Calibration Standard (CCV)
200 mg/L std -40.0 mls of each
Bring up to mark with DI H2O. expires December 2012.

#M10619 Initial Calibration Standard (ICV) Into 500 ml volumetric pipette 5 mls of #M10570 and #M10387 and bring up to mark with DI H2O. expires January 2013.
11-16-11
.5% mls HNO3+HCL
11-16-11

#M10620 ICSAB. List 2. Into 500 ml Vol flask pipet 50 mls
11-16-11 #M10550 15 mls M10417 0.2 mls of #M10566,
5 mls HNO3 + HCL #M10562 #M10567 #M10559 #M10569 Bring up to Mark with DI H2O.

#M10621 GOE Pd/Mg Matrix Modifier: Into a 50 mL vol. flask, pipet 15 mL #M10032 and 5 mL #M10551. Bring up to volume with MilliQ H2O. Exp. 01-06-12
11-17-11

#M10622 Spex Custom Assurance Std Spex CertiPrep lot # 16-19CR.
11-18-11

#M10623 GOE 11-21-11	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M10624 GOE 11-21-11	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M10625 GOE	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M10624) into 100ml = 3.0ug/L Hg

#M10608 MRL Working std.
11-16-11 — pipet from #10607 10 mls into 500ml
.5% HNO3+HCL Vol flask. Bring up to mark with DI H2O

#M10609
11-16-11
.5% HNO3+HCL

ICAP Working Standards List 2

.5% HNO3 .5%HCL

Standard name — Pipet the following respectively: Into 1 Liter.

1	0.01 mls of #M10334 and .001mls #M10559 = 1 ug/L
10	0.10 mls of #M10334 and .01mls #M10559 = 10 ug/L
100	1 mls of #M10334 and 0.1mls #M10559 = 100 ug/L
1000	10 mls of #M10334 and 1.0mls #M10559 = 1000 ug/L
10000	100 mls of #M10334 and 10mls #M10559 = 10000 ug/L ex 6/12

#M10610
11-16-11

Initial Calibration Standard (ICV) List 2
Into 1 liter vol flsk pipet 1 ml of #M10569,M10562,M10567,M10566, and M9930
bring up to mark with DI H2O ex 6/12

#M10611
11-16-11

Continuing Calibration Standard (CCV)
into 1 liter vol flask pipet 10 mls of #M10334 and 1.0mls #M10559 = 1000 ug/L
bring up to mark with DI H20 ex 6-12

#M10612
11-16-11

ICAP Working Standards Boron & Silicon

Standard name — Into 1 liter Pipet the following respectively:

10	0.1 mls of #M10334 and .01mls #M99150 = 10 ug/L
50	0.5 mls of #M10334 and .05mls #M99150 = 50 ug/L
100	1 mls of #M10334 and 0.1mls #M99150 = 100 ug/L
1000	10 mls of #M10334 and 1.0mls #M99150 = 1000 ug/L
10000	100 mls of #M10334 and 10mls #M99150 = 10000 ug/L ex 6/12

#M10613
11-16-11

Initial Calibration Standard (ICV) B, Si
Into 1 liter vol flsk pipet 1 ml of #M10564 & M10575
bring up to mark with DI H2O ex ~~6/12~~ 11-16-11

#M10614
11-16-11

Continuing Calibration Standard (CCV)
into 1 liter vol flask pipet 10 mls of #M10334 and 1.0mls #M99150 = 1000 ug/L
bring up to mark with DI H20 ex 6-12

#M10615 ICSA Into 500 ml vol flask pipet 50mls
11-16-11 #M10550 and 15mls #M10477 Bring up to mark
5% HNO3+HCL DI H2O. ex 10/12. ~~+0.5mls M99150.~~

#M10616 ICSAB. Into 500ml vol flask pipet 50mls #M10550 & 15mls
11-16-11 2.5mls #M10334 & 2.5mls M10470. Bring up to mark
.5% HNO3+HCL H2O ex 6/12 0.5mls #M99150

110604
11-16-11
7A

Continuing Calibration Standard 1(CCV1) .5% HNO3, .5% HCL

Into a one liter volmetric flask pipet 50mls of # M10334 (ex 6/12)
and 5 ml of #M10310 Ag (ex 12/12), #M10568 Be 4/13) and #M10278 Cd (ex 11/12).
ex.nov 6/12
Bring up to mark with DI H2O

110605
11-16-11
7A

Continuing Calibration Standard 2(CCV2) 5% HNO3 + HCL

Into a one liter volmetric flask pipet 5 mls of # M10334 (ex 6/12)
and 0.5 ml of #M10310 Ag (ex 12/12), #M10568 Be 4/13) and #M10278 Cd (ex 11/12).
ex.nov 6/12
Bring up to mark with DI H2O

#M 106006
11-16-11
7A

Initial Calibration Standard (ICV)
Into one liter volumetric flask pipet 10 mls of M10503 (ex 9/12)
2.0 mls of #m10550 (ex 10/12) and 0.5 mls #M10560 Mo (ex 4/13) and 0.5 mls
of #M10275 B (ex 11/12) bring up to mark with DI H2O ex 4/12

3: 536)

(# M10326 (a)) in

#M106007
11-16-11
7A

MRL Std
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

pet 114ml
#M10538
Mix

5% HNO3
&
HCL

Analyte	MRL (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	10	M10310	1000	0.5	12/08/12
Al	400	M10416	**10000**	2	02/10/13
Ba	10	M10143	1000	0.5	09/09/12
Be	4	M10568	1000	0.2	04/20/13
Cd	5	M10278	1000	0.25	11/25/12
Co	10	M10561	1000	0.5	04/20/13
Cr	10	M10139	**10000**	0.05	09/09/12
Cu	10	M10144	**10000**	0.05	09/09/12
Mg	500	M10418	**10000**	2.5	02/10/13
Mn	10	M10141	**10000**	0.05	09/09/12
Mo	10	M10560	1000	0.5	04/20/13
Ni	10	M10565	1000	0.5	04/20/13
Pb	10	M10142	**10000**	0.05	09/09/12
Sb	20	M10280	1000	1	11/25/12
V	10	M10285	1000	0.5	11/25/12
Zn	10	M10284	**10000**	0.05	11/25/12
K	5000	M10387	**10000**	25	01/22/13
Na	1000	M10570	**10000**	5	04/20/13
As	10	M10281	1000	0.5	11/25/12
Ca	500	M10415	**10000**	2.5	02/10/13
Fe	300	M10417	**10000**	1.5	02/10/13
Se	10	M10277	1000	0.5	11/25/12
Tl	20	M10566	1000	1	04/20/13
Sr	10	M10569	1000	0.5	04/20/13
Ti	10	M10566	1000	0.5	04/20/13
Li	20	M10567	1000	1	04/20/13
Sn	10	M10562	1000	0.5	04/20/13
B	10	M10275	1000	0.5	11/25/12
Si	30	M10564	1000	1.5	04/20/13
W	50	M10559	1000	2.5	04/20/13

= 1000 ug/L std

),

2/13)

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard

Bring up to mark w/ DI H2O

#M10595 11/11/11 LSF	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg	#M10604 11-16-11 [illegible]
#M10596 11/11/11 LSF	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg	#M10605 11-16-11 [illegible]
#M10597 11/11/11 LSF	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M 10596) into 100ml = 3.0ug/L Hg	
#M10598 11/11/11 LSF	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg	#M10606 11-16-11 [illegible]
#M10599 11/11/11 LSF	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M 10596) into 100ml = 0.2ug/L Hg	
#M10600 11/11/11 LSF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 536)	#M10607
#M10601 11/11/11 LSF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M10326 [illegible]) 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.	11-16-11 [illegible]

#M10602 11/14/11: TCLP Extration Fluid #1 into 20 L Carboy pipet [illegible] [illegible] Glacial Acetic Acid #AB.534, + 128.6 mls (#M10538) [illegible] HNO3 + HCL
ex 11-14-12 10N NaOH Dilute to 20L with DI H2O and mix
pH = 4.93 ± .05.

#M10603 [illegible] 11-16-11 DoD Cal Stds

ICAP Working Standards

.5% HNO3 .5%HCL

ex 6/12

Standard name	Pipet the following respectively:
0.25	0.25 mls of standard 100 ug/L into 1000 ml volumetric flask = 0.25 ug/L std
0.5	0.50 mls of standard 100 ug/L into 1000ml volumentric flask= 0.50 ug/L std
1	1.0 mls of standard 100ug/L into 1000 ml volumentrc flask =1.00 ug/L std
5	5.0 mls of standard 100ug/L into 1000 ml volumentrc flask =5.00 ug/L std
10	10.0 mls of standard 100ug/L into 1000 ml volumentrc flask =10.0 ug/L std
20	20.0 mls of standard 100ug/L into 1000 ml volumentrc flask =20.0 ug/L std
50	50.0 mls of standard 100ug/L into 1000 ml volumentrc flask =50.0 ug/L std
100	1.0 mls of #M10334(ex 6/12) and 1.0 mls of #M10470 (ex 09/12) into 1000 ml volumectric flask= 100 ug/L std
1000	10.0 mls of #M10334(ex 6/12) and 1.0 ml of #M10310 Ag, #M10568 Be,#M10278 Cd and #M10564 Si into 1000 ml volumetric flask= 1000 ug/L std
10,000	100 mls #M10334 (ex 6/12),10 mls #M10568 Be (ex 4/13),10 mls #M10278 Cd (ex 11/12)
100k	10 mls of #M10144 Cu (ex 9/12) , 10 mls of #M10141 Mn (ex 9/12) , 10 mls of #M10139 Cr (ex 9/12), 10 mls #M10142 Pb (ex 9/12) 10 mls #M10284 Zn (ex 11/12) = 100,000 ug/L
100,000	10 mls of #M10418 Mg (ex 02/13) , 10 mls of #M10417 Fe (ex 02/13) ,10 mls of #M10415 Ca (ex 2/13),10 mls #M10416 AL (ex 2/13) 10 mls #M10570 Na (ex 4/13) into 1000 ml vol flask = 100,000 ug/l std
500,000	50 mls of #M10418 Mg (ex 4/13) , 50 mls of #M10417 Fe (ex 02/13) ,50 mls of #M10415 Ca (ex 2/13), 50 mls #M10416 AL (ex 2/13) into 1000 ml vol flask = 500,000 ug/l std
1000k	100 mls of #M10418 Mg (ex 02/13) , 100 mls of #M10417 Fe (ex 2/13) ,100 mls of #M10415 Ca (ex 2/13),100 mls #M10416 AL (ex 2/13) into 1000 ml vol flask = 1,000,000 ug/l std Bring the 1000 ml volumetric up to mark with DI H2O

#M10565 10-28-11 Nickel 1000mg/L CPI Lot # HG015 ex 4/13
ZA

#M10566 10-28-11 Thallium 1000mg/L CPI lot # 11F194 ex 4/13
ZA

#M10567 10-28-11 Lithium 1000mg/L CPI lot # 11E088 ex 4/13
ZA

#M10568 10-28-11 Beryllium 1000 mg/L CPI lot # 11F239 ex 4/13
ZA

#M10569 10-28-11 Strontium 1000 mg/L CPI Lot # 11D191 4/13
ZA

#M10570 10-28-11 Na 10,000 mg/L CPI Lot # 11103204/13
ZA

#M10571 10-28-11 NaOH Fisher Lot # 112665 ex 10-28-12
ZA

#M10572 Stannous Chloride fisher lot # 113509 ex 10-28-12
ZA 10-28-11

#M10573 10-28-11 Potassium Persulfate Lot # 111346 ex 10-28-12
ZA

#M10574 11/01/11 ZF Potassium permanganate: 50g Potassium permanganate (#M9903) dissolved into 1000mL D.I. H2O. Exp: 05/01/12

#M10575 11/01/11 ZF	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M10576 11/01/11 ZF	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M10577 11/01/11 ZF	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M 10576) into 100ml = 3.0ug/L Hg
#M10578 11/01/11 ZF	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M10579 11/01/11 ZF	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M 10576) into 100ml = 0.2ug/L Hg
#M10580 11/07/11 ZF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 536)
#M10591 11/01/11 ZF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M10326) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.

#M10549 TCLP Extraction fluid #1 Into 20 Liter Carboy, pipet 114 ml
Glacial Acetic Acid (AB: 534) and 128.6 mls 10N. NaOH #M10538
10-26-11 Dilute to 20L with DI H_2O + mix PH = 4.93 ± 0.05

#M10550 - Int-A . Spex Certiprep Lot# ~~1-169MG2~~ 43-2AS ex Oct 3, 2012
10-26-11 10-26-11

#M10551 Magnesium Nitrat Matrix Modifier Soln. 20,000 mg/L Mg
10-26-11 Spex Certiprep Lot # 1-169MG2

#M10552 10/26/11 GE	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M10553 10/26/11 GE	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M10554 10/26/11 GE	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M10553) into 100ml = 3.0ug/L Hg
#M10555 10/26/11 GE	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M10556 10/26/11 GE	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M10553) into 100ml = 0.2ug/L Hg
#M10557 10/26/11 GE	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 536)
#M10558 10/26/11 GE	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M10326 (a)) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.

#M10559 10-28-11 Tungsten 1000 mg/L CPI Lot# 11E122 ex 4/13

#M10560 10-28-11 Molybdenum 1000 mg/L CPI Lot # 10L090 ex 4/13

#M10561 10-28-11 Cobalt 1000 mg/L CPI Lot # 11H211 ex 4/13

#M10562 10-28-11 Tin 1000 mg/L CPI Lot# 11E120 ex 4/13

#M10563 10-28-11 Hg 1000 mg/L CPI Lot# 11J054 ex 4/13

#M10564 10-28-11 Si 1000 mg/L CPI Lot# 11F032 ex 4/13

#M10493 09/23/11 13F	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
4mL L 2.7 H_2O #M10494 09/23/11 13F	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
up to #M10495 09/23/11 13F	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M 10494) into 100ml = 3.0ug/L Hg
09/23/11 13F 6 #M10498 09/23/11 13F	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
09/23/11 13F 7 #M10496 09/23/11 13F	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M 10494) into 100ml = 0.2ug/L Hg
09/23/11 13F 8 #M10497 09/23/11 13F	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 536)
09/23/11 13F 9 #M10498 09/23/11 13F	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M10326 (a)) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.

#M10500 09/23/11 GE Turbidity Working Standards: Into 20 mLs pipet from #M10200 (200 NTU)
Gel Ex Stds. 2.0 ~~20.0~~ 09/23/11 GE mL into 18 mL D.I. H_2O = 20 NTU
3.88 10 mL into 10 mL D.I. H_2O = 100 NTU
50.7 20 mL into 0 mL D.I. H_2O = 200 NTU
521 (Exp. Sep-12)

#M10501 09/26/11 GE NaCl Hydroxylamine Sulfate Reagent: Dissolve 60g NaCl (#M9574(E)) and 60g Hydroxylamine Sulfate (#M10210) in 500mL Mill.Q H_2O. Exp. 03-26-12

#M10502 09/28/11 AMA Potassium Permanganate - 50g Potassium Permanganate (#M9903) dissolved into 1000mL of D.I. H_2O. Exp. 03/28/12

#M10503 9-30-11 Custumer Assurance Std SPex Ceritiprep lot #9-84CR ex Sept 30 2012.

#M10504 9-30-11 (Fisher) Hydroxylamine Sulfate lot # 111789 ex 9-30-12.

#M10505 10/03/11 AMA TCLP Extraction Fluid #1 - Fill a 20L carboy with 19L D.I. H_2O. Add 114mL Glacial Acetic Acid (AB-534) and 128.6mL 10N NaOH (#M10296). Dilute to 20L with D.I. H_2O and mix. The pH = 4.93 ± 0.05. Exp. 10/03/12

#M10469 09/07/11 XSPIKE-1-250 Spex CertiPrep Lot No. 4-42YP Exp. 09-15-2012
GLE

#M10470 09/07/11 XCTW1-4-500 Spex CertiPrep Lot No. 4-41YP Exp. 09-15-2012
GLE

#M10471 09/08/11 GFAA LOD/LOQ Water Spiking Sol'n: Into a 1 L vol. flask, pipet 10mL of
GLE (1% HNO_3) #M10286 and 1mL #M10472
Expires 11-15-11

#M10472 09/08/11 GFAA Ag Working Std. Into a 100 mL vol. flask, partially filled with D.I.
GLE (1% HNO_3) H_2O, pipet the following and bring up to volume
Exp. 12-08-12 with D.I. H_2O.
1.0 mL Ag (1000 mg/L) #M10310 = 10,000 µg/L Ag

#M10473 09/08/11 GFAA LOD/LOQ Soil Spiking Sol'n: Into a 1 L vol. flask, pipet 10 mL of
GLE Exp. 11-15-11 #M10289 and 0.6 mL #M10472. Bring
(1% HNO_3) up to volume with D.I. H_2O.

#M10474 09/12/11 AMA	Hg Working Stds: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg ino 100ml =5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M10475 09/12/11 AMA	Hg Alt Source Working Std: (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M10476 09/12/11 AMA	Hg ICV / LCSW (0.2% HNO3, HCl)	3.0ml of 100ug/L Hg (#M10475) into 100ml = 3.0ug/L Hg
#M10477 09/12/11 AMA	Hg CCV (0.2% HNO3, HCl)	1.0ml of 1000mg/L Hg (#M9954) into 100ml=10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M10478 09/12/11 AMA	Hg MRL: (0.2% HNO3, HCl)	0.2ml of 100ug/L Hg (#M10475) into 100ml = 0.2ug/L Hg
#M10479 09/12/11 AMA	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 537) with 1part HNO3 (AB: 536)
#M10480 09/12/11 AMA	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (# M10326 (a)) in 70 mL HCl (AB: 537). Bring up to volume with D.I. Water.

#M10481 09/12/11 Hg LOQ/LOD Spiking Soln (water) - 1.0 mL of 1000mg/L Hg (#M9954) into 100mL = 10mg/L Hg
AMA 1.0 mL of 10mg/L Hg into 100mL = 100µg/L Hg
5.0 mL of 100µg/L Hg into 100mL = 5.0µg/L Hg

#M10461
9-6-11 JA

ICAP Working Standards

5% HNO3 5%HCL

Standard name	Pipet the following respectively:
0.25	0.25 mls of standard 100 ug/L into 1000 ml volumetric flask = 0.25 ug/L std
0.5	0.50 mls of standard 100 ug/L into 1000ml volumentric flask= 0.50 ug/L std
1	1.0 mls of standard 100ug/L into 1000 ml volumentrc flask =1.00 ug/L std
5	5.0 mls of standard 100ug/L into 1000 ml volumentrc flask =5.00 ug/L std
10	10.0 mls of standard 100ug/L into 1000 ml volumentrc flask =10.0 ug/L std
20	20.0 mls of standard 100ug/L into 1000 ml volumentrc flask =20.0 ug/L std
50	50.0 mls of standard 100ug/L into 1000 ml volumentrc flask =50.0 ug/L std
100	1.0 mls of #M10334(ex 6/12) and 1.0 mls of #M9816 (ex 8/11) into 1000 ml volumectric flask= 100 ug/L std
~~500~~	~~5.0 mls of #M10334(ex 6/12) and 5.0 mls of #M9940 (ex 8/11) into 1000 ml volumetric flask= 500 ug/L std~~ JA 9-6-11
1000	10.0 mls of #M10334(ex 6/12) and 1.0 ml of #M10310 Ag,#M9930 Be,#10278 Cd and #M9915 Si into 1000 ml volumetric flask= 1000 ug/L std
10,000	100 mls #M10334 (ex 6/12),10 mls #M9930 Be ex (11/15/11),10 mls #M10278 Cd ex 11/25/11
100k	10 mls of #M10144 (Cu) (ex 9/12) , 10 mls of #M10141 (Mn)(ex 9/12) , 10 mls of #M10139 (Cr)(ex 9/12), 10 mls #M10142 (Pb)(ex 9/12) 10 mls #M10284 (Zn)(ex 11/12) = 100,000 ug/L
100,000	10 mls of #M10312 (Mg) (ex 12/12) , 10 mls of #M10417 (Fe) (ex 02/13) ,10 mls of #M10415 (Ca)(ex 2/13),10 mls #M10416 (AL)(ex 2/13) 10 mls #M9932 Na ex 11/15/11 into 1000 ml vol flask = 100,000 ug/l std
500,000	50 mls of #M10312 (Mg) (ex 12/12) , 50 mls of #M10417 (Fe) (ex 02/13) ,50 mls of #M10415 (Ca)(ex 2/13),50 mls #M10416 (AL)(ex 2/13) into 1000 ml vol flask = 500,000 ug/l std
1000k	100 mls of #M10312 (Mg) (ex 12/12) , 100 mls of #M10417 (Fe) (ex 2/13) ,100 mls of #M10415 (Ca)(ex 2/13),100 mls #M10416 (AL)(ex 2/13) into 1000 ml vol flask = 1,000,000 ug/l std

Bring the 1000 ml volumetric up to mark with DI H2O

#M10462 09/06/11 GE — NaCl Hydroxylamine Sulfate Reagent: Dissolve 60g NaCl (#M9574) and 60g Hydroxylamine Sulfate (#M10210) in 500ml [illegible]
Exp: 03/06/12

#M10463 09/06/11 GE — Potassium Persulfate: 50g Potassium Persulfate (#M9814) dissolve into 1000ml D.I. H_2O.
Exp: 03/06/12

#M10465 09/07/11 GE — GFAA Base Std (25µg/L) 18% HNO_3 6% HCL — Pipet 5.0mL of 1000µg/L Sb (#M10184) into a 200mL vol. flask and bring up to volume with Milli-Q H_2O. Exp. 04-01-12

#M10466 09/07/11 GE — GFAA Alt. Source (10µg/L) 18% HNO_3 6% HCL — Pipet 10mL of 200µg/L Sb (#M10185) into a 200mL vol. flask and bring up to volume with Milli-Q H_2O. Exp. 04-01-12.

#M10467 09/07/11 GE — GFAA CCV Std. (10µg/L) 18% HNO_3 6% HCL — Pipet 2mL of 1000µg/L Sb (#M10184) into a 200mL vol. flask and bring up to volume with Milli-Q H_2O. Exp. 04-01-12

#M10468 09/07/11 GE — GFAA Sb MDL ✓ 18% HNO_3 6% HCL — Pipet 4mL of 10µg/L Sb (#M10467) into a 50mL vol. flask and bring up to volume with Milli-Q H_2O. Exp. 04-01-12

#M10469 09 GE

#M10470 0 GE

#M10471 0 GE

#M10472 GE

#M10473 GE